

SALMON RIVER RESTORATION COUNCIL

PLANS FOR CONSTRUCTION OF

RED BANK OFF-CHANNEL FISHERIES AND RIPARIAN HABITAT DESIGN

MAY, 2017

90% Design

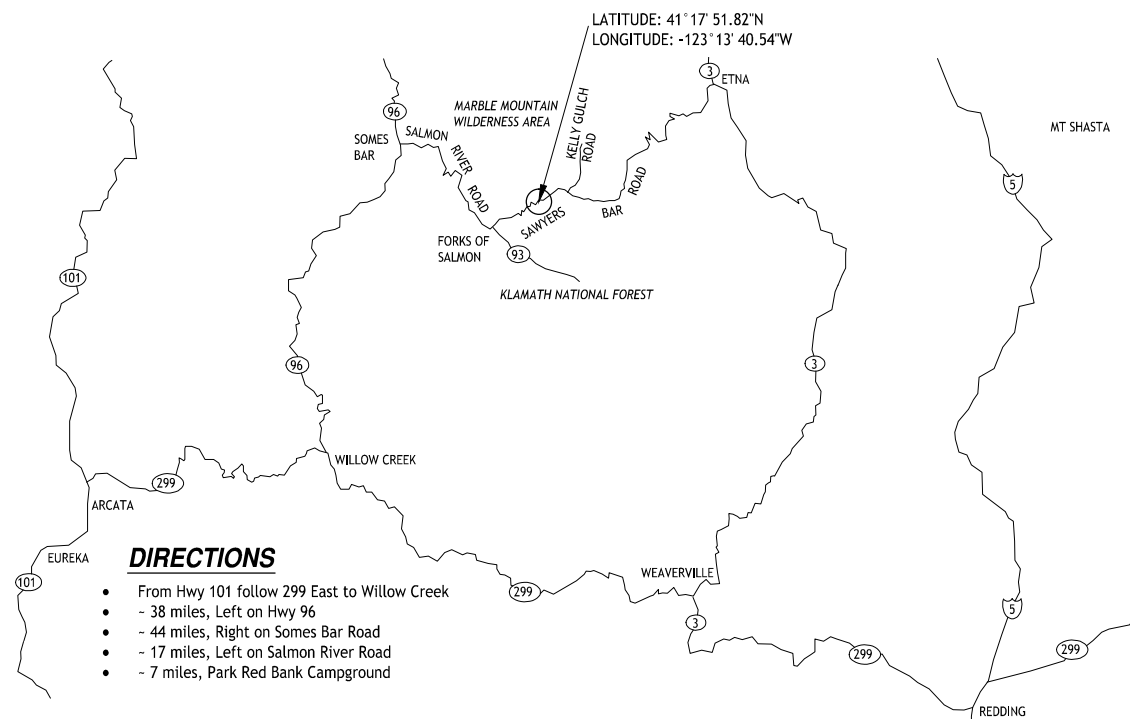
Prepared For:

- SALMON RIVER RESTORATION COUNCIL
- CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE,
FISHERIES RESTORATION GRANTS PROGRAM (AGREEMENT No. P1310303)
- KLAMATH NATIONAL FOREST



VICINITY MAP
NOT TO SCALE

PROJECT LOCATION
APPROX 116 MILES FROM EUREKA, CA



DIRECTIONS

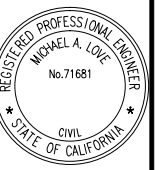
- From Hwy 101 follow 299 East to Willow Creek
- - 38 miles, Left on Hwy 96
- - 44 miles, Right on Somes Bar Road
- - 17 miles, Left on Salmon River Road
- - 7 miles, Park Red Bank Campground

LOCATION MAP
NOT TO SCALE

SHEET LIST TABLE	
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13	BACKWATER PROFILES AND SECTIONS

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Salmon River Restoration Council
**RED BANK OFF-CHANNEL
FISHERIES AND RIPARIAN HABITAT DESIGN**



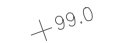




TITLE

DATE: MAY 2017
SUBMITTAL: 90% Design
DESIGN: RS / ML
DRAWN: RS / NN
SHEET: 1 of 13


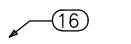
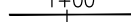
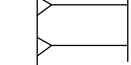




PRELIMINARY
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LEGEND AND SYMBOLS

EXISTING

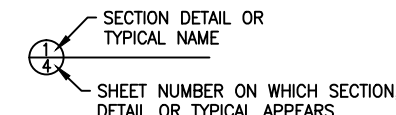
-  FENCE LINE
-  EXISTING CONTOUR AND ELEVATION
-  SPOT ELEVATION
-  CHANNEL THALWEG OR DRAINAGE
-  CONTROL POINT/TEMPORARY BENCH MARK
-  FLOW DIRECTION
-  BEDROCK

NEW

-  SURVEY CONTROL POINT
-  SPOT ELEVATION
-  STATIONING ALONG ALIGNMENT (FEET)
-  SLOPE LINE
-  LOG/LARGE WOOD STRUCTURE
-  WATER SURFACE
-  SPOIL PLACEMENT AREAS
-  BRUSH BAFFLES

ABBREVIATIONS

APPROX, ~	APPROXIMATELY	NFSR	NORTH FORK SALMON RIVER
CA	CALIFORNIA	NTS	NOT TO SCALE
CL	CENTERLINE	OZ	OUNCE
CP	SURVEY CONTROL POINT	O.C.	ON CENTER
CFS	CUBIC FEET PER SECOND	RD	ROAD
DIA	DIAMETER	R.C	RELATIVE COMPACTION
EG	EXISTING GROUND	STA	STATION
EL	ELEVATION	SY	SQUARE YARDS
(E)	EXISTING	TBM	TEMPORARY BENCHMARK
EP	AVERAGE DAILY EXCEEDANCE PROBABILITY	TYP	TYPICAL
FG	FINISHED GROUND	W/	WITH
FT, '	FOOT OR FEET	WSE	WATER SURFACE ELEVATION
LOD	LIMIT OF DISTURBANCE	YR	YEAR
MAX/MIN	MAXIMUM/MINIMUM	(1.5:1)	(HORIZONTAL:VERTICAL) SLOPE
(N)	NEW	%	PERCENT



GENERAL NOTES

- The term "Contract Owner (CO)" is defined as Salmon River Restoration Council (SRRC). The term Contract Owners Representative (COR) is defined as authorized qualified professional(s) designated by SRCC. All improvements shall be accomplished under the approval, inspection and to the satisfaction of the COR. The landowner is the U.S. Forest Service.
- In the event cultural resources (i.e., historical, archaeological, paleontological, and human remains) are discovered during grading or other construction activities, work shall be halted within a 100 foot radius of the find. The U.S. Forest Service shall be consulted for an on-site evaluation. If human burials or human remains are encountered, the Contractor shall also notify the county coroner.
- If hazardous materials or what appear to be hazardous materials are encountered, stop work in the affected area immediately and contact 911 or the appropriate agency for further instruction.
- Contractor is responsible for complying with all project permits. Copies of all permits shall be maintained on site by the contractor.
- A set of signed working drawings shall be kept on site at all times.
- Contractor agrees to assume sole and complete responsibility for the work area during the course of construction, including safety of all persons and property. This requirement shall apply continuously and shall not be limited to normal working hours.
- Contractor shall defend, indemnify and hold CO and its representatives, and the U.S. Forest Service harmless from any liability, real and or alleged, in conjunction with the performance of this project.
- Placed materials not conforming to specifications shall be removed and replaced as directed by the COR at no additional cost to the CO.
- Traffic control shall conform to California Manual of Uniform Traffic Control Devices (2012).
- Contractor shall be responsible for providing their own water and power for operations, irrigation and dust control. Water shall not be pumped from the creek/river for these uses.
- Noted dimensions take precedence over scale.

SURVEY AND STAKEOUT NOTES

- Channel topography was surveyed by Michael Love & Associates in October 2015. Overbank topography derived from LIDAR surveys.
- Horizontal Datum: North American Datum 1983 (NAD83), California State Plane Zone 1, in feet.
Vertical Datum: North American Vertical Datum 1988 (NAVD88), in vertical feet.
- Construction stakeout will be provided by the CO. Stakeout will consist of the following:
 - Establishment of temporary monuments for elevation control (minimum of 2 per project area).
 - Offset stakes of the Backwater centerlines at 10 to 25-foot-foot intervals.
 - Reference stations of log structures.
- It shall be the responsibility of the Contractor to maintain temporary monuments

for elevation control and staking and to provide any additional staking necessary to perform the specified work.

- It shall be the responsibility of the Contractor to construct the project to the lines and grades specified in the construction documents.

CONSTRUCTION ACCESS AND PROJECT AREA RESTORATION NOTES

- Contractor shall submit a plan for construction access, indicating locations of access areas and temporary river and stream crossings, for approval by COR prior to mobilization.
- There shall be no clearing beyond approved construction access areas and the Limit of Grading shown on the plans.
- Upon completion of all construction activities, construction access areas are to be restored to a condition equal to or better than found prior to undertaking the work and to the satisfaction of the COR. Construction access areas shall be ripped to a minimum depth of 6" inches and stabilized as specified.

CLEARING, GRUBBING, AND WOODY MATERIAL SALVAGE NOTES

- The extent of clearing shall be minimized to the extent possible within construction access areas to allow maneuverability of equipment.
- Grubbing shall be minimized except where it conflicts with finished grade.
- Vegetation trimming along the edges of construction access areas, using standard arborist equipment, can be performed with the permission of the COR.
- Small woody material removed within approved construction access areas and the Limit of Grading shall be retained in as large pieces as feasible (15 to 20' foot lengths), including the root wad and brush, and stockpiled for incorporation into log structures as brush. Brush consists of small trees, shrubs, and branches. Woody material remaining after construction shall be chipped and/or dispersed at the direction of the COR.

EXCAVATION NOTES

- The geologic report prepared by Pacific Watershed Associates is available upon request. No side slopes shall be graded steeper than 3:1 unless directed by COR.
- Excavated materials shall be segregated and stockpiled in 3 stockpile areas, including (1) Cobble materials from the surface, (2) Sandy materials, (3) Mixed Sand/Cobbles from the subgrade. Segregation will be directed by COR. No screening of materials will be required.
- Backfill shall consist of materials, as specified, from the segregated stockpile areas. All Backfill shall be placed in 6-inch lifts and track or bucket-compacted to 80% R.C. or to the satisfaction of the COR.
- Excavation shall include excavation and handling of saturated soils. Contractor shall be prepared to dewater and /or transport saturated soil in a manner that prevents excess discharge or spillage of soils or water within the construction access area or on adjacent properties or roadways. Should any discharge occur, the Contractor shall be responsible for immediate and complete cleanup. Multiple handling of material may be necessary.
- Unsuitable material shall become the property of the Contractor and shall be removed from the site by the Contractor for disposal in an approved location.

Unsuitable material includes concrete, grouted riprap, pipes, and other manmade materials within work areas.

- All typical sections are looking up station (upstream).
- Grading shall be at the direction of COR and may change to fit with existing natural features and vegetation. Unless otherwise specified, tolerance for finished grade shall be a rough surface within ± 0.3 feet of finished grade. The tolerance for horizontal locations shall be ± 1.0 feet unless otherwise directed by COR.
- Excess excavated material shall be transported to the designed Spoil Placement Areas and placed as specified. Material shall be sloped to create positive drainage, and have a finished surface of ± 0.2 feet to prevent localized ponding. Spoil shall be placed at direction of COR to avoid trees.
- Shoring and Trench Safety: Attention is directed to Labor Code Section 6705 of the State of California relating to lateral and subjacent support, and the Contractor shall comply with this law.

UTILITY NOTES

- All utilities shown (if any) were located from above ground visual structures. No utility research was conducted for the site. Notify Underground Service Alert (DigAlert) at least two days prior to any grading or excavation within the site by calling 811 or 1-800-227-2600.
- Contractor is responsible for any damage to utilities, features and structures located in the project area and construction access routes. Contractor shall avoid disruption of any utilities unless previously arranged with the CO.
- Construction may take place in the vicinity of overhead utility lines. It is the Contractor's responsibility to be aware of and observe the minimum clearances for workers and equipment operating near high voltage, and comply with the Safety Orders of the California Division of Industrial Safety as well as other applicable safety regulations.

SEQUENCE OF CONSTRUCTION

Work phasing shall occur as follows, unless otherwise approved by Owner in writing. All fish removals will be conducted by CO.

- Mobilization.
- Installation of temporary Erosion and Sediment Control measures, as necessary.
- Clearing for access to the temporary Low Water Crossing at River.
- Installation of temporary Exclusion measures and fish removal.
- Installation of temporary Low Water Crossing across River.
- Clearing for access.
- Excavate alcoves and backwaters, install log structures and brush baffles.
- Restore construction access areas and install stabilization measures.
- Removal of temporary Waterway Crossing and Fish Exclusion measures.
- Demobilization.

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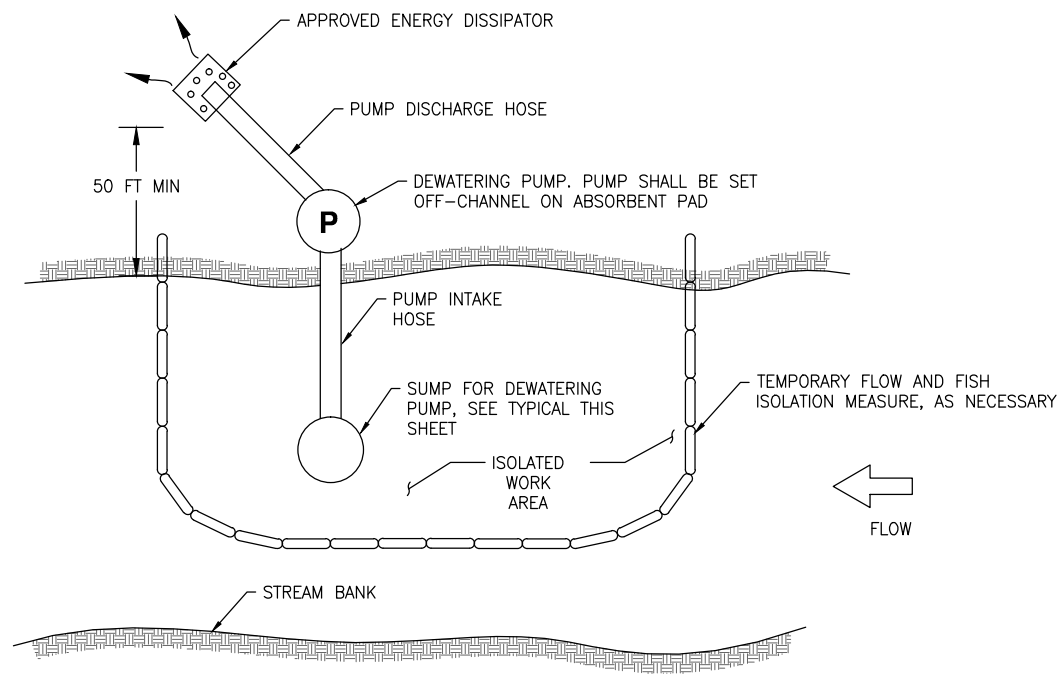


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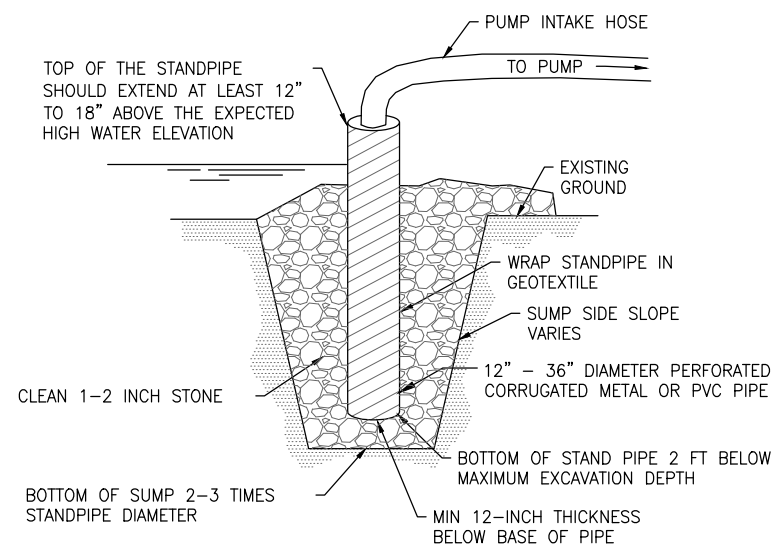
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**RED BANK OFF-CHANNEL
 FISHERIES AND RIPARIAN HABITAT DESIGN**
LEGEND ABBREVIATIONS AND NOTES

DATE	MAY 2017
SUBMITTAL	90% Design
DESIGN	RS / ML
DRAWN	RS / NN
SHEET	2 of 13

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TEMPORARY WORK AREA ISOLATION AND DEWATERING MEASURES
PLAN (NTS)



SUMP PIT
SECTION (NTS)

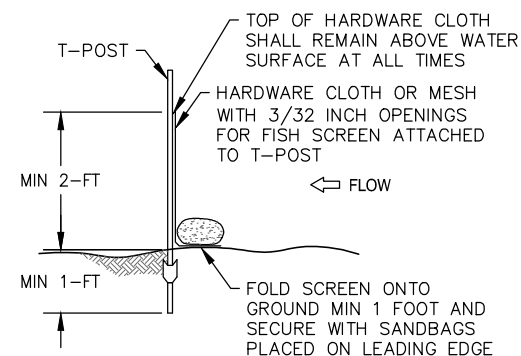
WATER POLLUTION CONTROL SPECIFICATIONS

- At minimum the Contractor shall employ the following Best Management Practices (BMPs) as applicable, as described in the current California Stormwater BMP Handbook for Construction (BMP Handbook) (www.casqa.org) including:

EC-1 Scheduling	NS-4 Temporary Stream Crossing
EC-2 Preservation of Existing Vegetation	NS-5 Clear Water Diversion
EC-6 Straw Mulch	NS-9 Vehicle Equipment and Fueling
EC-8 Wood Mulching	NS-10 Vehicle and Equipment Maintenance
EC-10 Velocity Dissipation Devices	SE-7 Street Sweeping and Vacuuming
WE-1 Wind Erosion Control	WM-2 Material Use
WM-3 Stockpile Management	WM-4 Spill Prevention and Control
WM-5 Solid Waste Management	WM-9 Sanitary/Septic Waste Management
- Not all necessary erosion and sediment control BMP's are designated in the contract documents. The Contractor, as necessary, shall implement other BMP's as specified in the BMP Handbook dictated by site conditions or as directed by the COR. Contractor shall be responsible for all fines and cleanup resulting from a stormwater pollution violation.
- It is the responsibility of the Contractor to minimize erosion and prevent the transport of sediment to sensitive areas.
- All erosion and sediment control measures shall be maintained in accordance to their respective BMP Fact Sheet until disturbed areas are stabilized.
- Sufficient Erosion Control Supplies shall be available on-site at all times to deal with areas susceptible to erosion during rain events. Contractor must ensure that the construction site is prepared prior to the onset of any storm.
- Contractor shall keep project areas generating dust well-watered during the term of the contract in accordance with WE-1.
- The Contractor shall have spill containment materials located at the site with operators trained in spill control procedures.
- The Contractor shall provide bear-proof receptacles for common solid waste at convenient locations on the job site and provide regular collection of wastes.
- Covered and secured storage areas for potentially toxic materials shall be provided. All hazardous material containers shall be placed in secondary containment.
- Vehicle and equipment maintenance shall be performed off-site whenever practical.
- All sediment deposits on paved surfaces shall be swept at the end of each working day, as necessary or as directed by the COR. A stabilized construction entrance may be required to prevent sediment from being deposited on paved roads.
- It will be at the responsibility of the Contractor to fix any deficiencies indicated by the COR to prevent erosion and control sediment.

WATER MANAGEMENT NOTES

- Contractor shall submit a Water Management Plan for approval by the CO prior to construction. The Plan shall include materials, methods, and approximate locations of water management devices, as well as a contingency plan for addressing unforeseen water management issues, such as storm events, groundwater etc.
- Water Management shall be performed in accordance with Water Pollution Control Specifications and as specified in the contract documents.
- The need for a clearwater diversion is not anticipated, though isolation and dewatering of the work areas may be necessary.
- Approximate locations of temporary Fish Exclusion measures are shown on the plans.
- CO will provide a qualified Biologist for fish removal.
- Contractor shall be prepared to implement isolation, and dewatering operations such that they occur in a timely manner and do not impact the work schedule.
- Contractor shall be responsible for providing pumps and pipes with adequate capacity to maintain suitable dewatered working conditions within the work area.
- Any gas powered pumps used on-site shall be placed on absorbent pads out of the stream channel.
- Dikes, cofferdams, or other suitable measures shall be used to isolate areas requiring dewatering. Additional control measures in isolated areas where dewatering is not required shall include turbidity curtains, filter fabric isolation, or other suitable methods.
- The outlet of the dewatering pump shall be directed onto a flat area able to receive water and allow it to percolate into the soils such that it does not return to work area. An approved Energy Dissipater Device shall be used to prevent surface erosion.



FISH EXCLUSION MEASURE
TYPICAL SECTION (NTS)

A WATER MANAGEMENT
TYPICAL

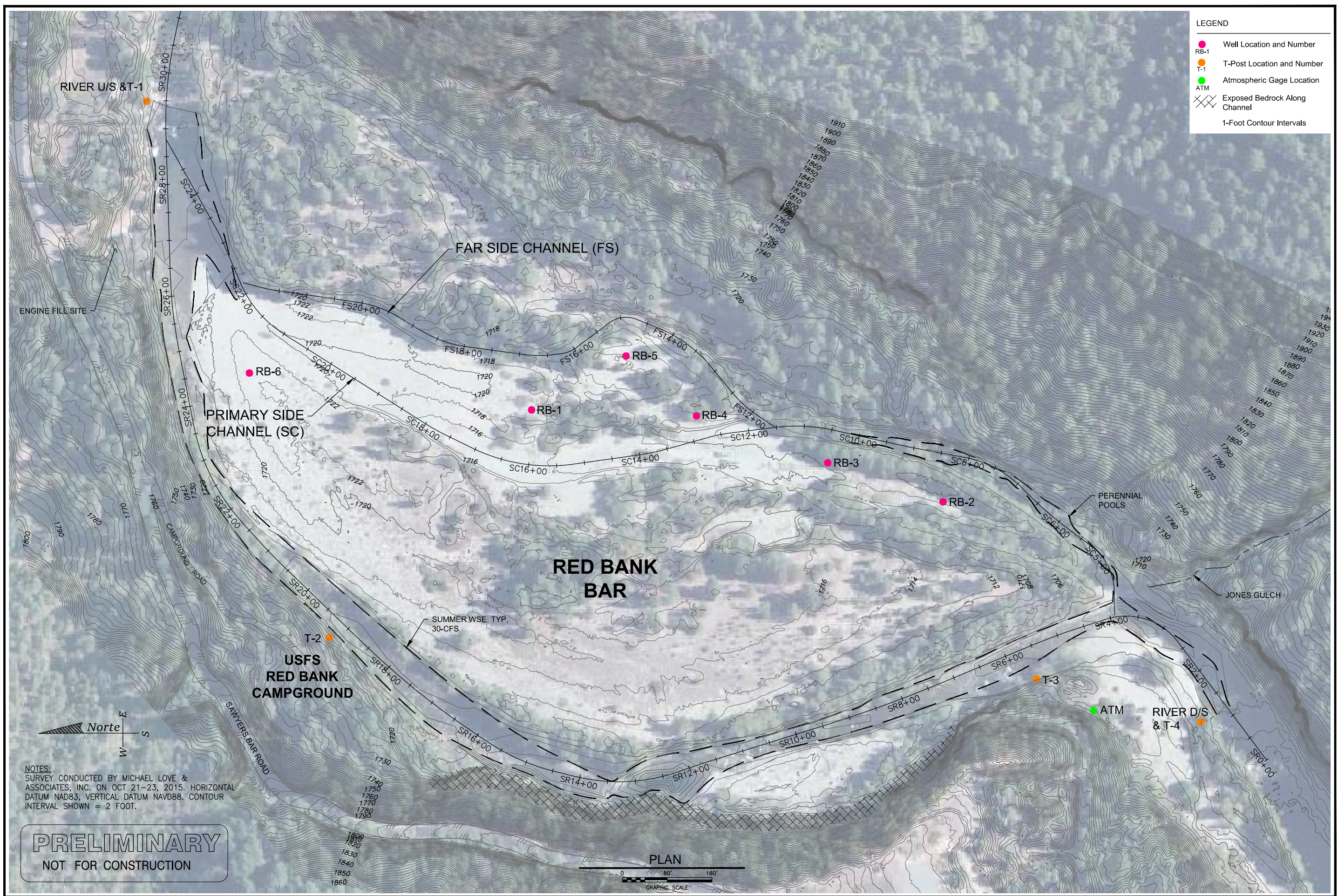
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**RED BANK OFF-CHANNEL
 FISHERIES AND RIPARIAN HABITAT DESIGN**
WATER MANAGEMENT

DATE
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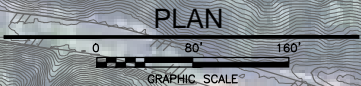


LEGEND

- Well Location and Number
- T-Post Location and Number
- Atmospheric Gage Location
- ATM
- Exposed Bedrock Along Channel
- 1-Foot Contour Intervals

NOTES:
 SURVEY CONDUCTED BY MICHAEL LOVE & ASSOCIATES, INC. ON OCT 21-23, 2015. HORIZONTAL DATUM NAD83, VERTICAL DATUM NAVD88. CONTOUR INTERVAL SHOWN = 2 FOOT.

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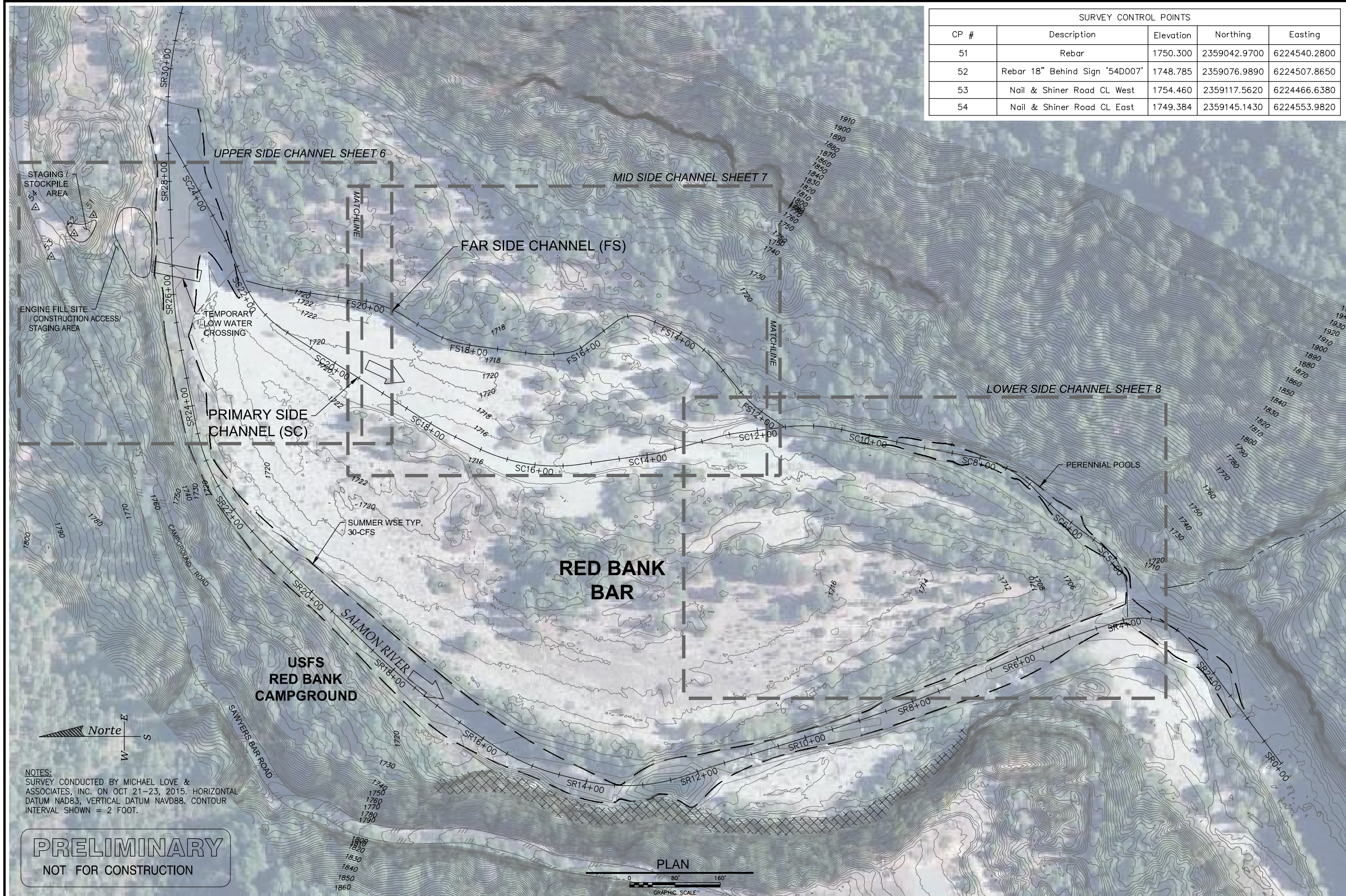
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**RED BANK OFF-CHANNEL
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EXISTING CONDITIONS

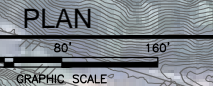
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DRAWN	RS / NN
SHEET	4 of 13

SURVEY CONTROL POINTS				
CP #	Description	Elevation	Northing	Easting
51	Rebar	1750.300	2359042.9700	6224540.2800
52	Rebar 18" Behind Sign '54D007'	1748.785	2359076.9890	6224507.8650
53	Nail & Shiner Road CL West	1754.460	2359117.5620	6224466.6380
54	Nail & Shiner Road CL East	1749.384	2359145.1430	6224553.9820



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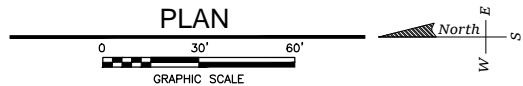
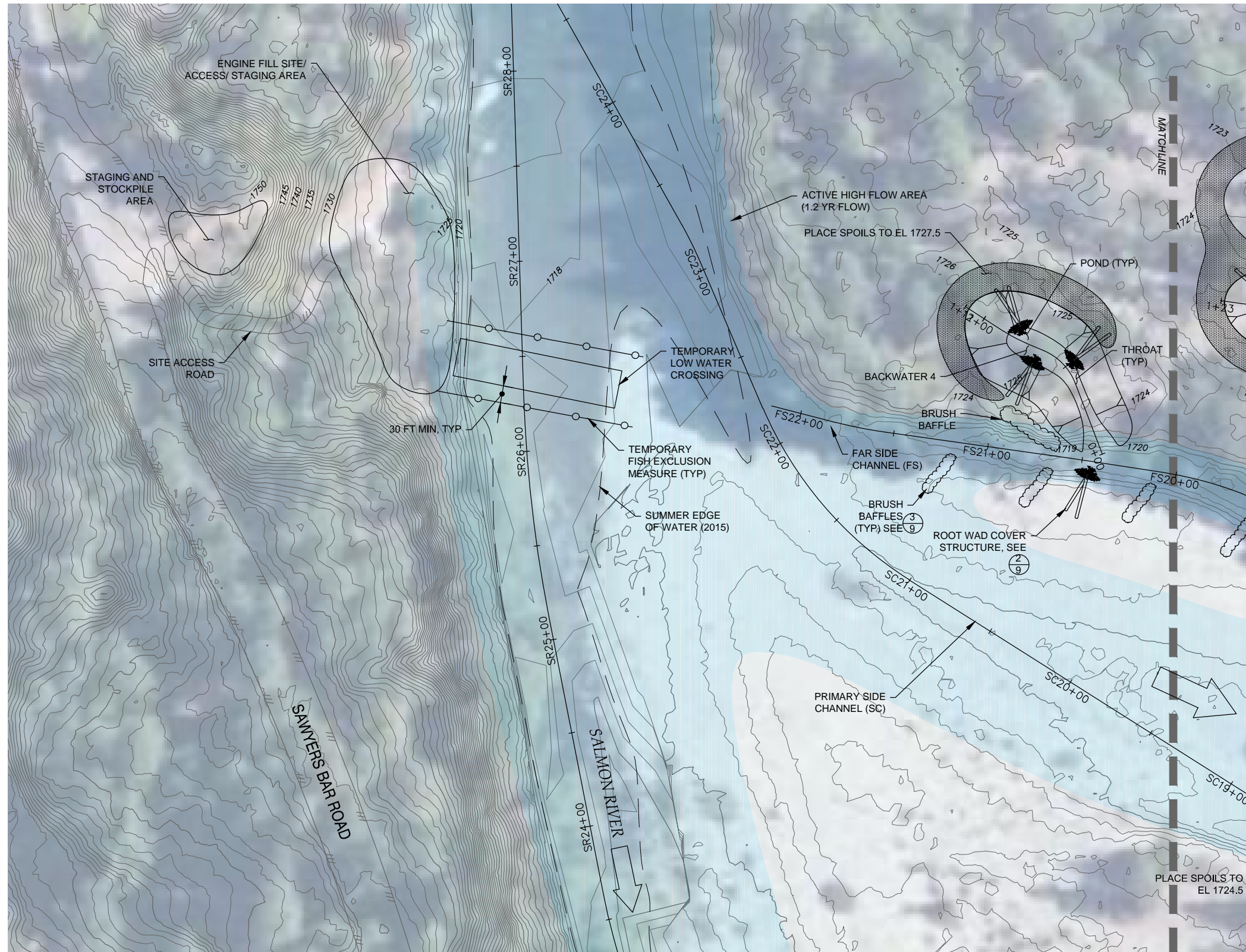
REGISTERED PROFESSIONAL ENGINEER
 MICHAEL A. LOVE
 No. 71681
 CIVIL
 STATE OF CALIFORNIA

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**RED BANK OFF-CHANNEL
 FISHERIES AND RIPARIAN HABITAT DESIGN**
LAYOUT AND CONSTRUCTION ACCESS

DATE
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 DESIGN
 RS / ML
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 SHEET

5 of 13



- NOTES:**
1. LOCATIONS OF HABITAT IMPROVEMENT FEATURES APPROXIMATE. FINAL LOCATIONS TO BE DETERMINED BY COR IN FIELD.
 2. FOR BACKWATERS, SEE SECTION AND PROFILES SHEET 13.

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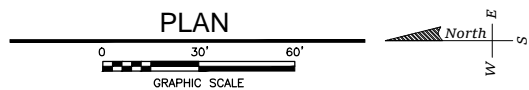
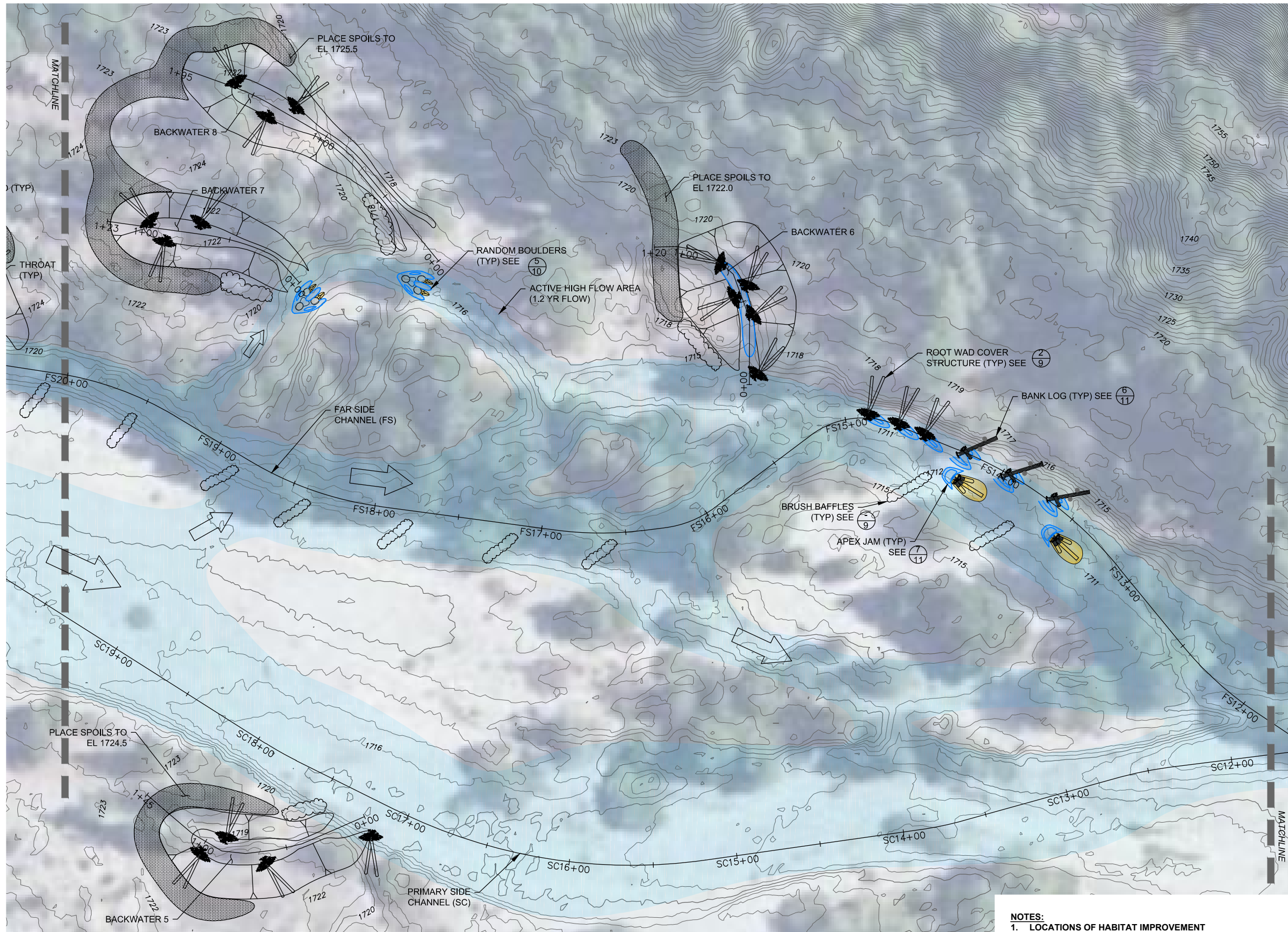
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**RED BANK OFF-CHANNEL
FISHERIES AND RIPARIAN HABITAT DESIGN
UPPER SIDE CHANNEL AND FAR
SIDE CHANNEL PLAN**

DATE	MAY 2017
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DESIGN	RS / ML
DRAWN	RS / NN
SHEET	6 of 13



- NOTES:**
1. LOCATIONS OF HABITAT IMPROVEMENT FEATURES APPROXIMATE. FINAL LOCATIONS TO BE DETERMINED BY COR IN FIELD.
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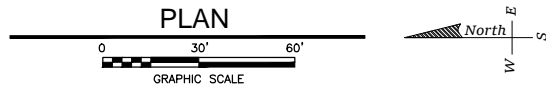
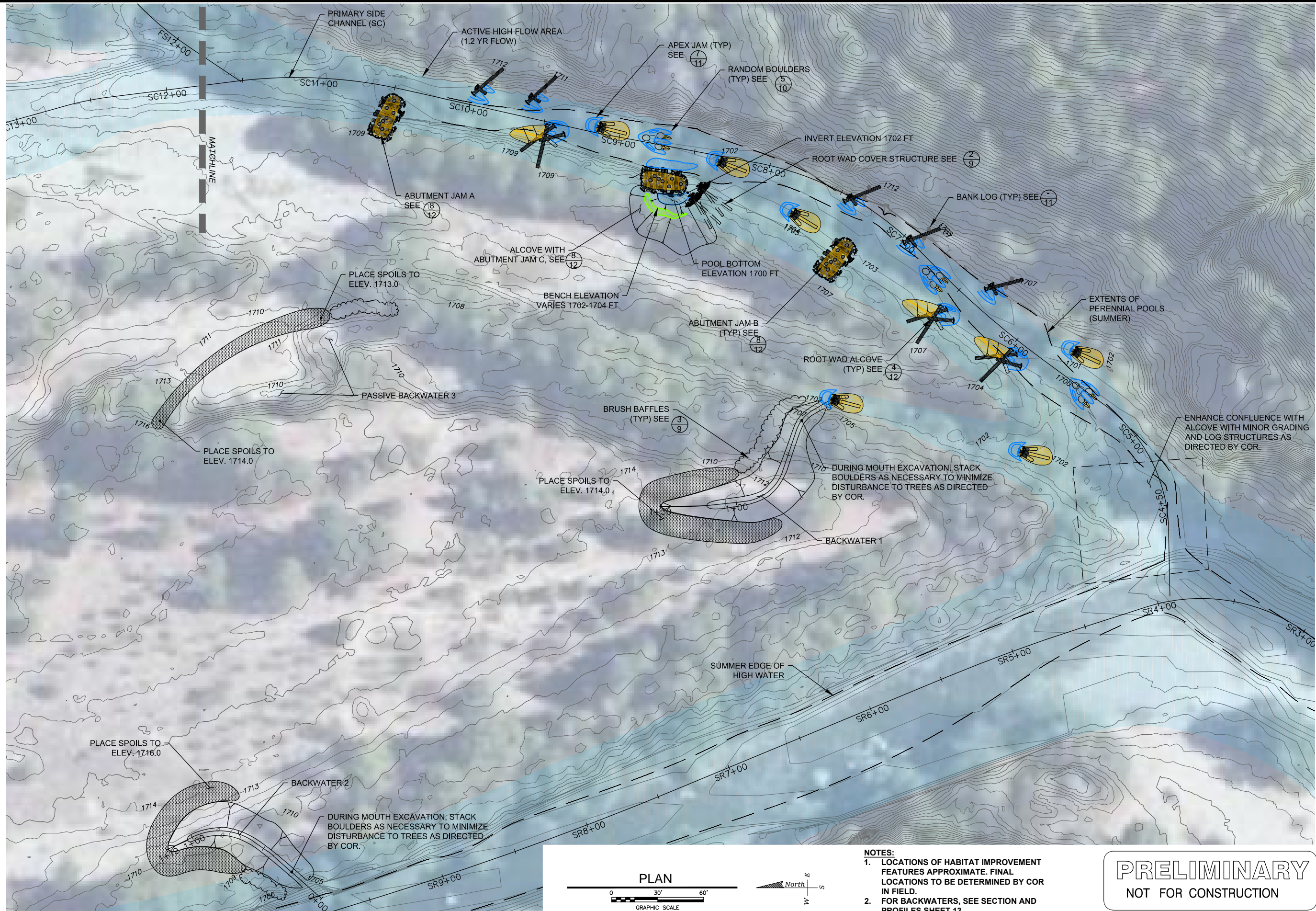
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Salmon River Restoration Council
**RED BANK OFF-CHANNEL
FISHERIES AND RIPARIAN HABITAT DESIGN**
MID SIDE CHANNEL PLAN

DATE	MAY 2017
SUBMITTAL	90% Design
DESIGN	RS / ML
DRAWN	RS / NN
SHEET	7 of 13



- NOTES:**
1. LOCATIONS OF HABITAT IMPROVEMENT FEATURES APPROXIMATE. FINAL LOCATIONS TO BE DETERMINED BY COR IN FIELD.
 2. FOR BACKWATERS, SEE SECTION AND PROFILES SHEET 13.

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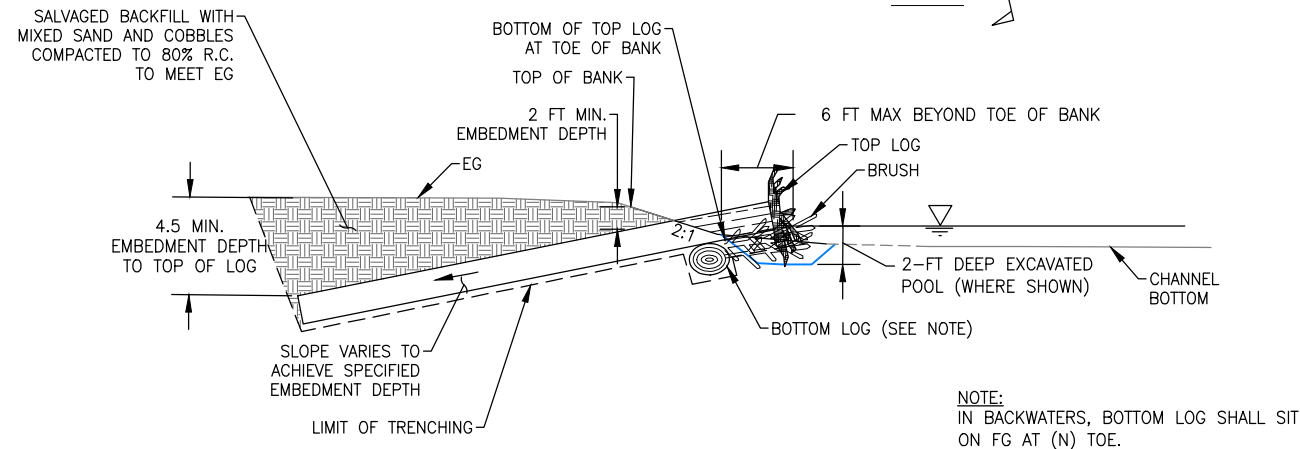
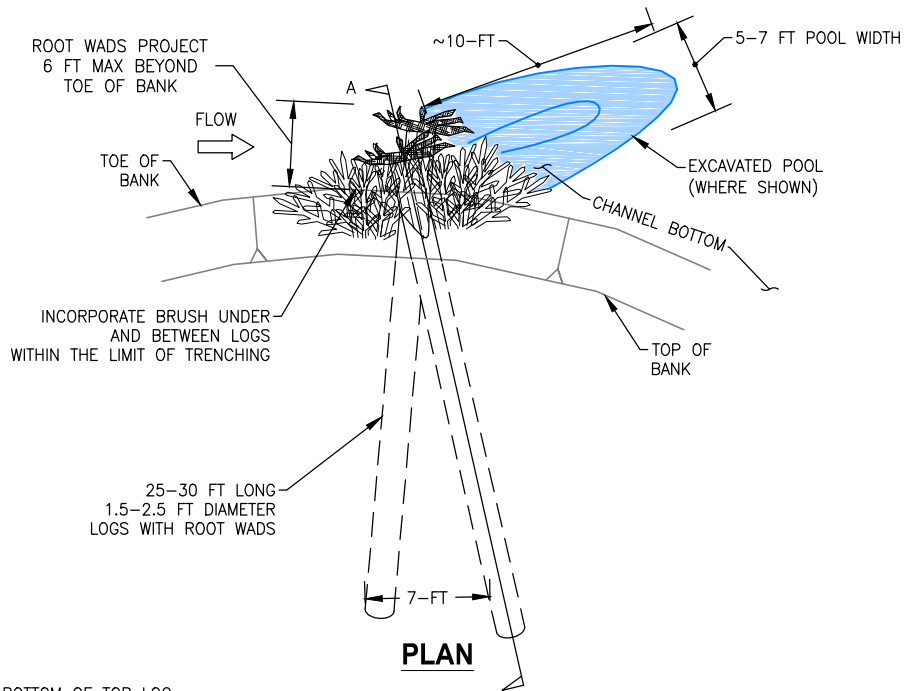
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**RED BANK OFF-CHANNEL
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LOWER SIDE CHANNEL PLAN

DATE: MAY 2017
SUBMITTAL: 90% Design
DESIGN: RS / ML
DRAWN: RS / NN
SHEET: 8 of 13



2 ROOT WAD COVER STRUCTURE
TYPICALS NTS

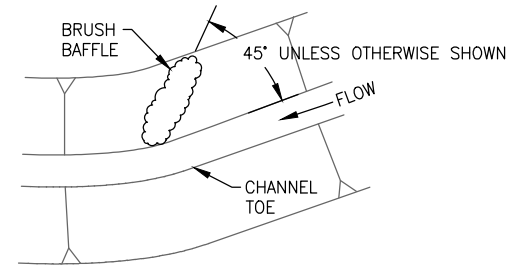
SPECIFICATIONS FOR LOG STRUCTURES (INCLUDING BRUSH)

Materials

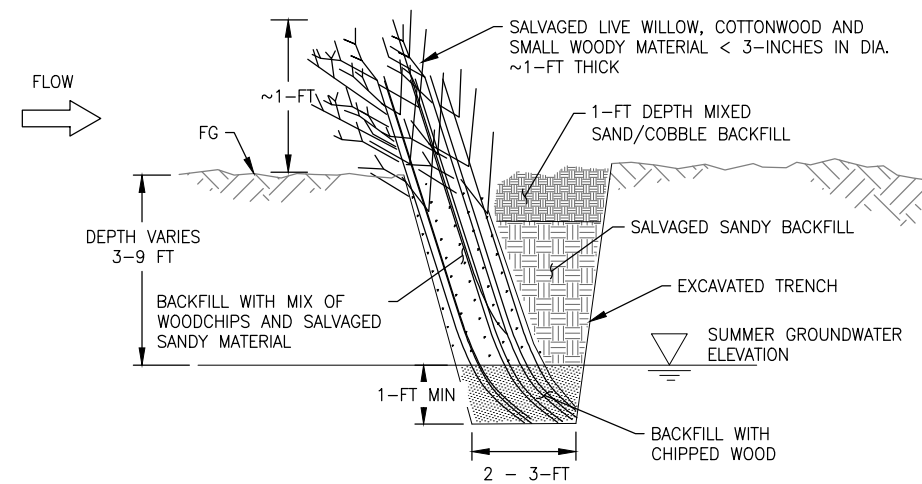
1. CO will provide all logs. Cutting of logs shall not be performed without permission of COR.
2. Logs shall meet the dimensions shown on the contract documents. Log diameter shall be the average (midpoint) diameter of the specified length log. Pile Logs shall have bark removed.
3. Log lengths shall not be accomplished by joining multiple logs, unless approved by owner.
4. Backfill material and rock shall be as specified on the design plans.
5. Salvaged brush shall be material stockpiled during Clearing and Grubbing Operations or provided by the CO.

Execution

1. Log structures shall be installed as specified on the Contract Documents and at the direction of the COR.
2. Excavate trench to the minimum depth for the entire structure.
3. Install logs to the line and grade specified. Tolerance for finished grade shall be ± 0.3 feet vertically and ± 1.0 feet horizontally
4. Pile logs shall be driven or installed via excavation. If necessary, cut point on pile tip to facilitate installation. An augured pilot hole may be used to facilitate driving of Pile Logs. Pilot hole shall be at least 8 inches smaller than the Pile Log diameter to ensure adequate skin friction is obtained. After installation, cut top of pile to specified height.
5. Backfill and compact trench.



PLAN



SECTION

3 BRUSH BAFFLES
TYPICALS NTS

SPECIFICATIONS FOR BRUSH BAFFLES AND WILLOW STAKES

Materials

1. Live willow and cottonwood shall be salvaged from site or provided by the CO.
2. Material shall be relatively straight, a minimum of 1/2-inch in diameter, and the specified length.
3. Material shall be live and freshly cut. Materials not installed within 2 hours of cutting shall be covered and thoroughly sprayed with water once per hour until installation. Material shall not be stored more than 48 hours before installation.
4. Small woody material shall consist of salvaged woody material or material provided by CO. Material shall be less than 3-inches in diameter and of similar length as the live plant material.
5. Chipped wood shall be from salvaged wood on-site. Wood pieces a minimum of 6-inches in diameter and 1-foot long are acceptable substitutes for chipped wood.
6. Backfill shall be as specified.

Execution

1. Materials shall be installed to the summer groundwater elevation, see planting plan under separate cover.
2. Create pilot holes or trenches the entire depth of the material installation.
3. Install material with leaf buds facing up using methods that minimize crushing or splitting.
4. Trim plant material such that material extends approximately 1-foot above ground level.

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PRELIMINARY
NOT FOR CONSTRUCTION

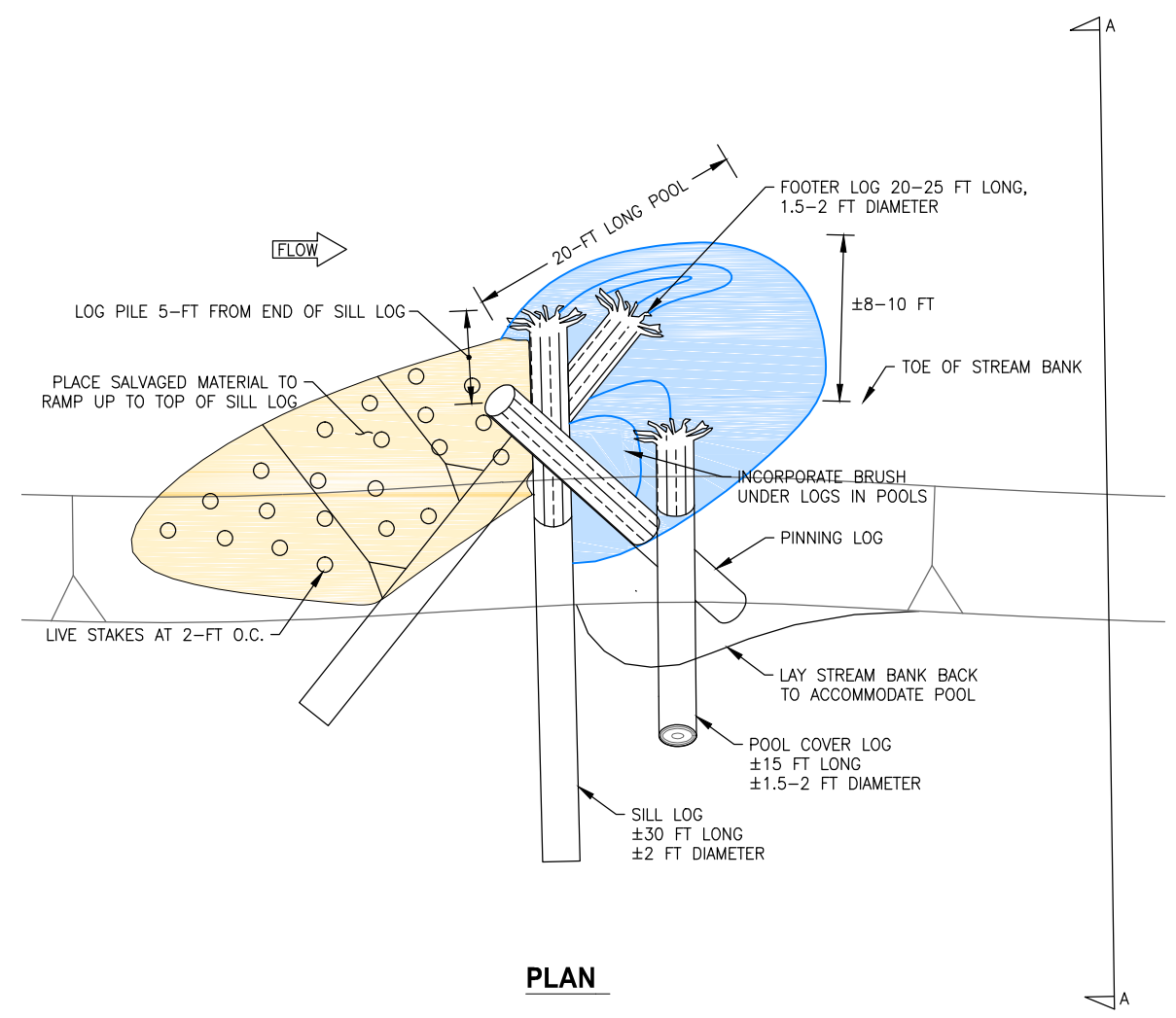
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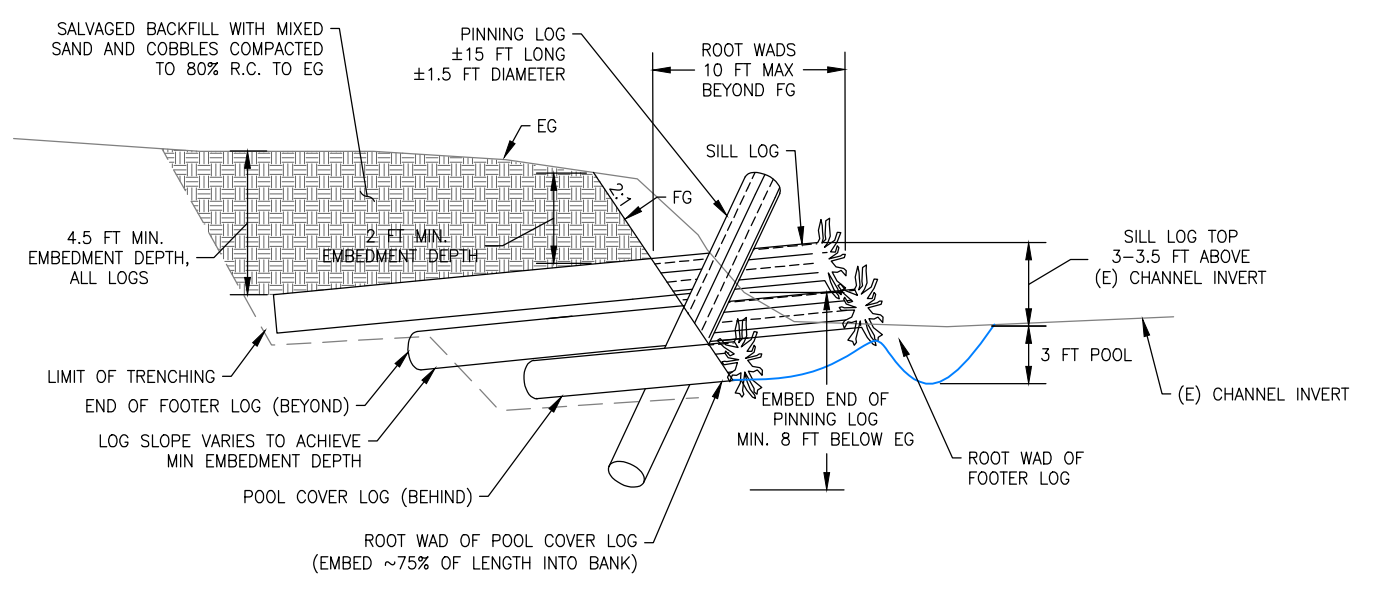
REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. LOVE
No. 71681
CIVIL
STATE OF CALIFORNIA

Salmon River Restoration Council
**RED BANK OFF-CHANNEL
FISHERIES AND RIPARIAN HABITAT DESIGN**
DETAIL SHEET 2

DATE: MAY 2017
SUBMITTAL: 90% Design
DESIGN: RS / ML
DRAWN: RS / NN
SHEET: 10 of 13

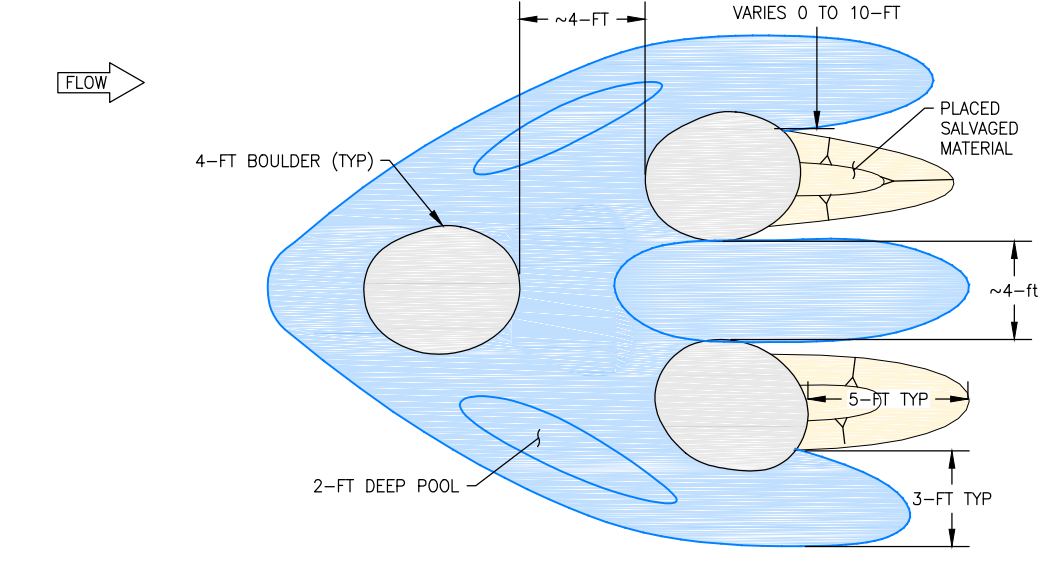
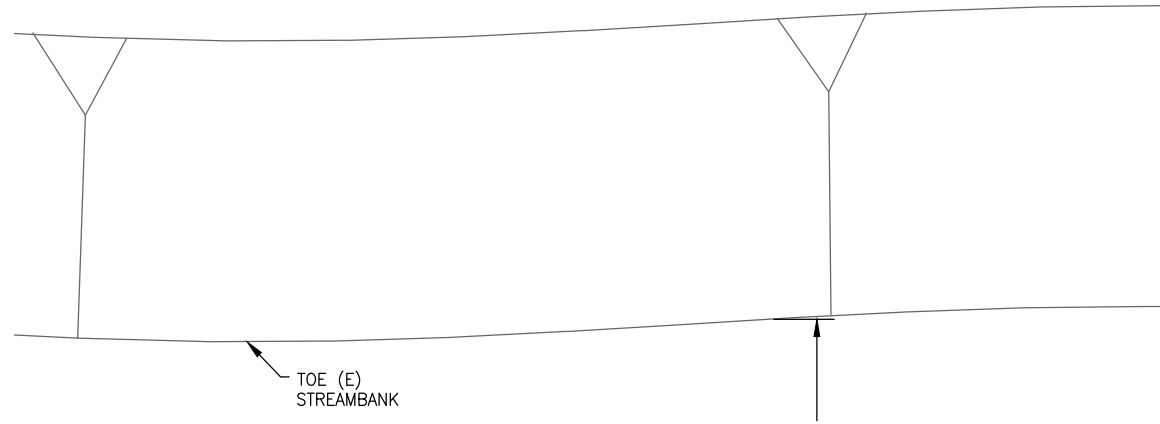


PLAN

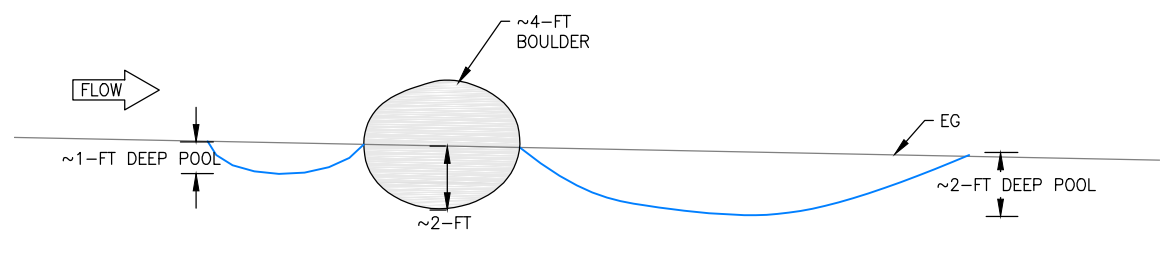


ELEVATION A-A

ROOT WAD ALCOVE
TYPICALS NTS



PLAN



PROFILE

RANDOM BOULDERS
TYPICALS NTS

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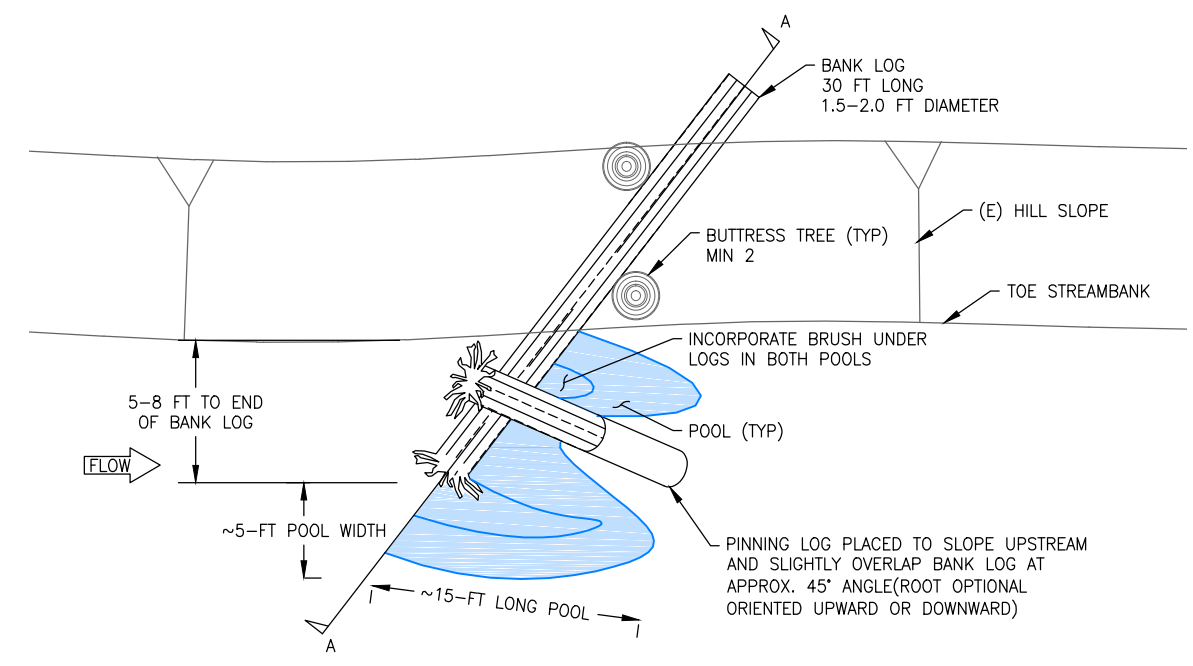


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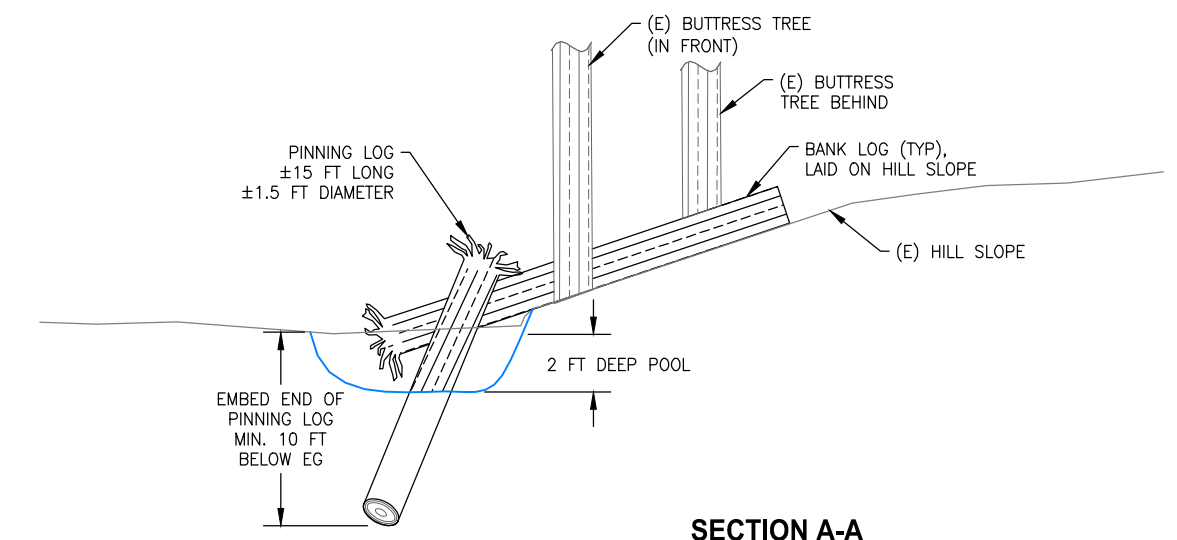
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DETAIL SHEET 3

DATE
MAY 2017
SUBMITTAL
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11 of 13

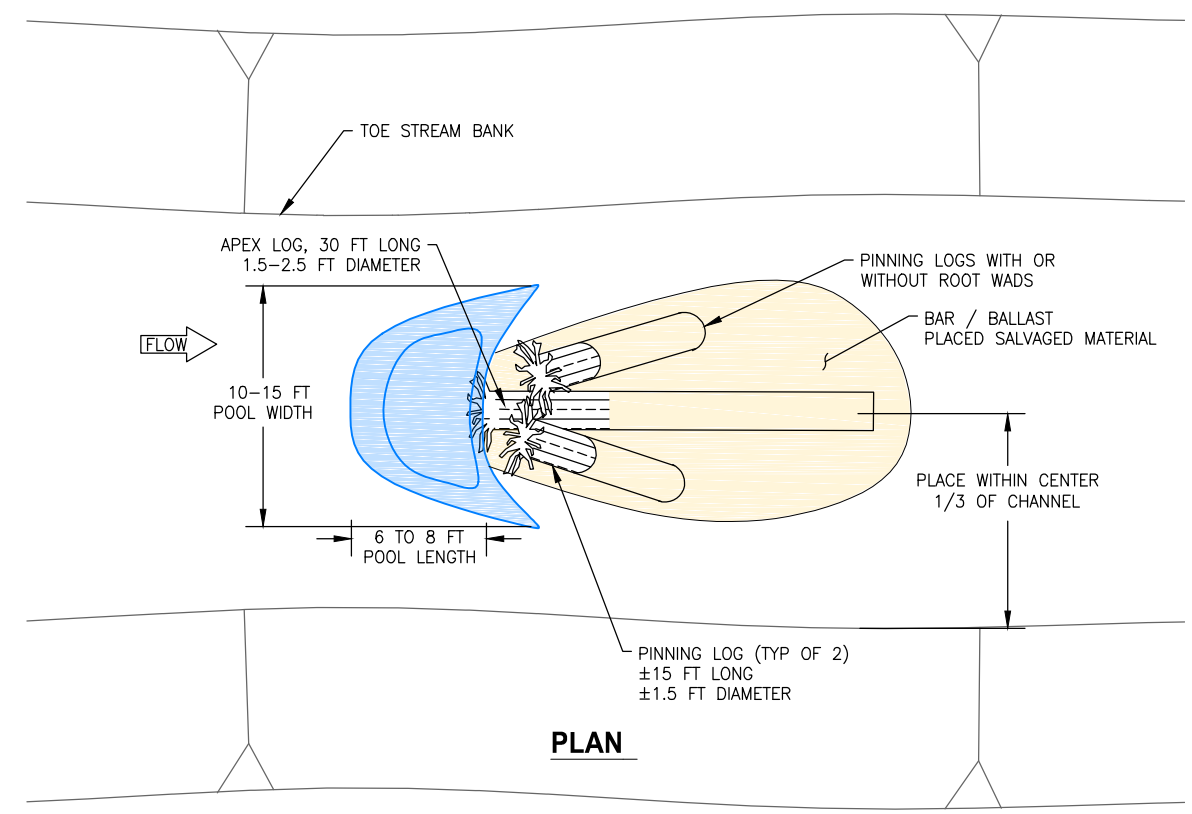


PLAN

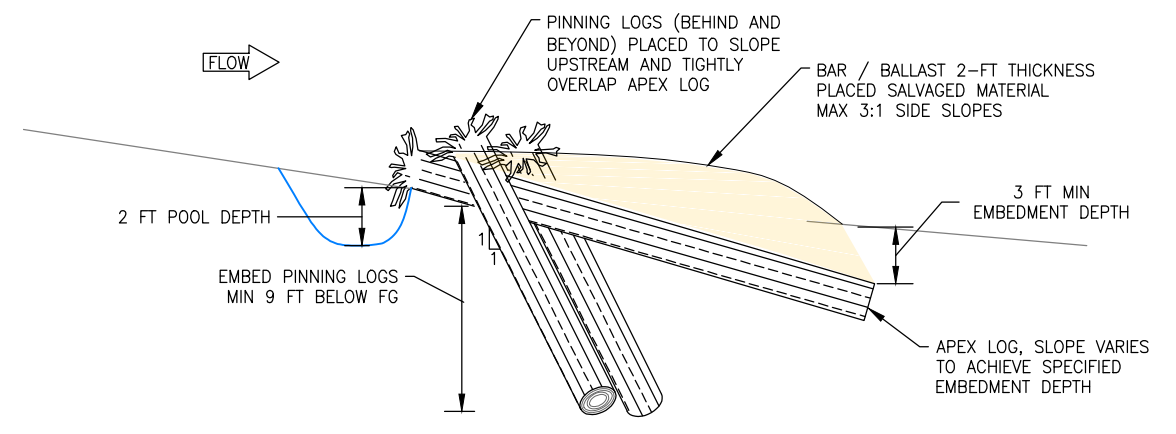


SECTION A-A

6 BANK LOG
TYPICALS NTS

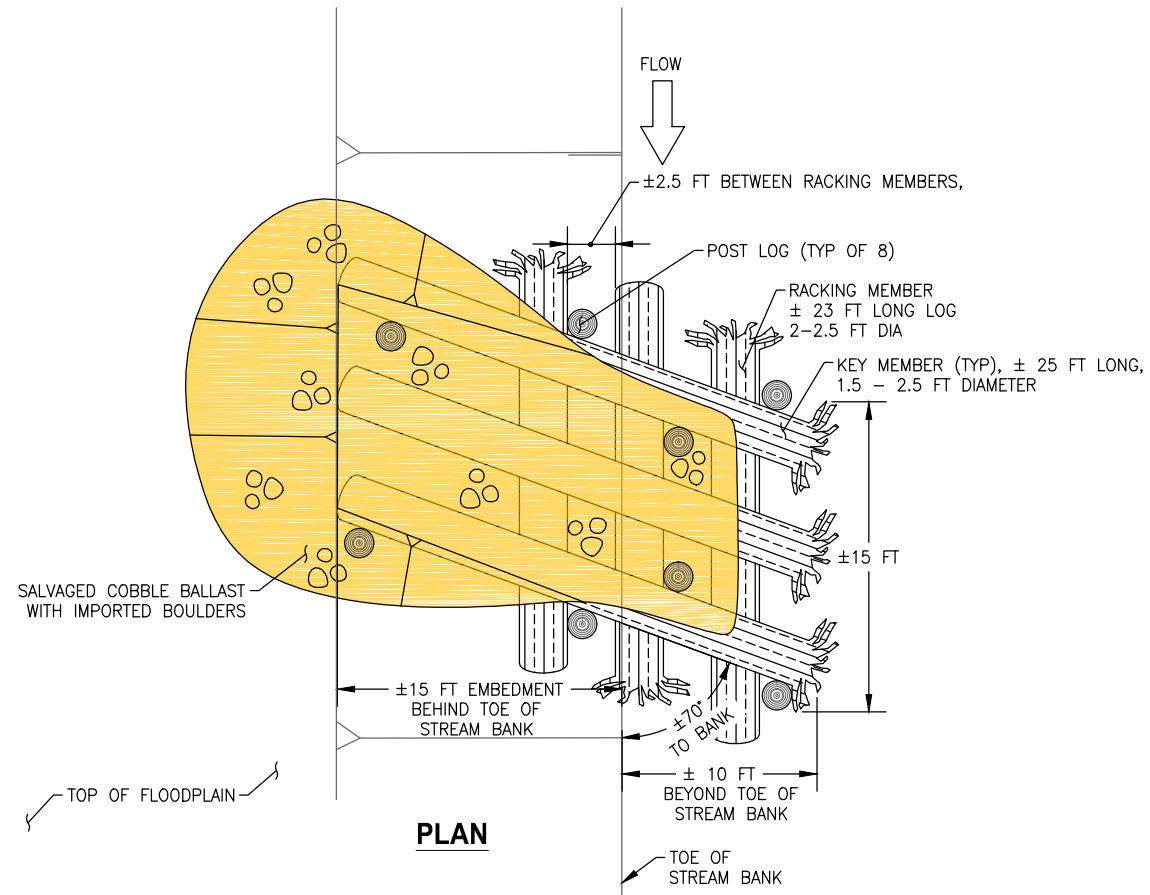


PLAN

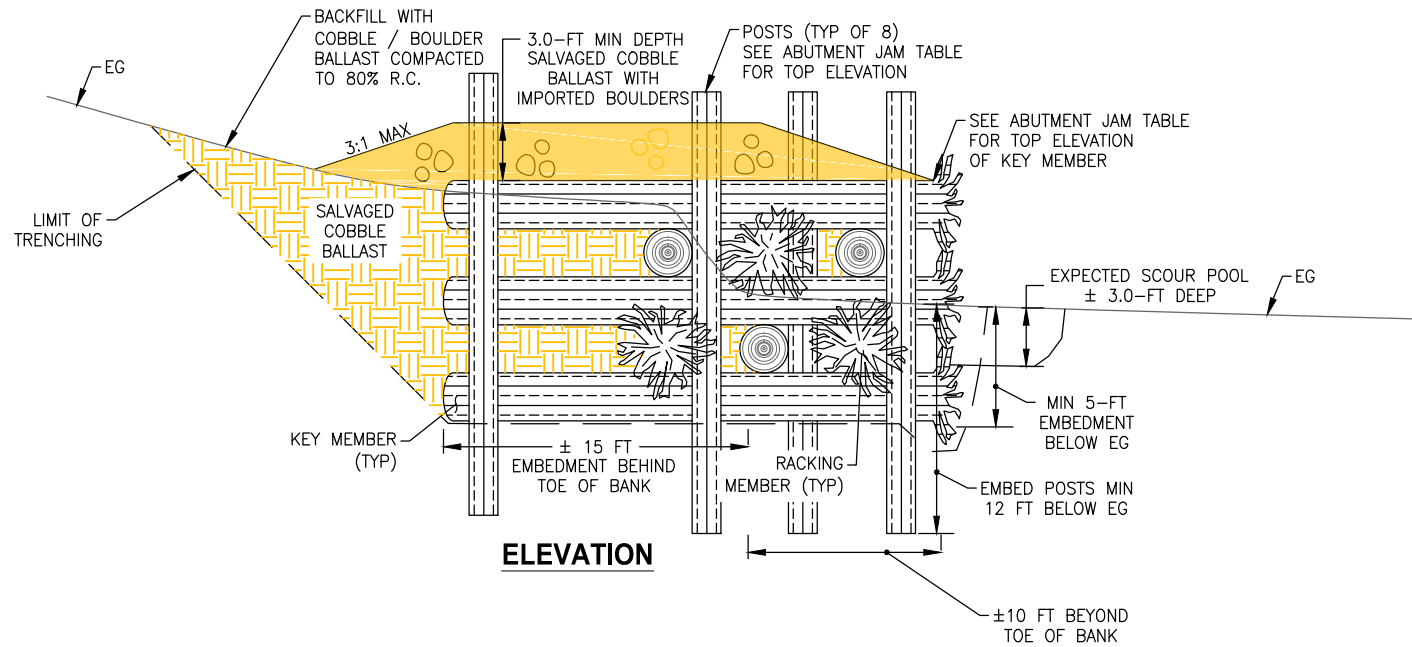


PROFILE

7 APEX JAM
TYPICALS NTS



PLAN



ELEVATION

ABUTMENT JAM TABLE					
JAM	STATION	APPROX EG INVERT ELEVATION	ELEVATION TOP OF KEY MEMBER	ELEV TOP OF POST	LENGTH OF JAM (PERPENDICULAR TO FLOW)
A	± 10+50	± 1702.5	± 1711.5	1714.0	20 Ft
B	± 8+50	± 1706.0	± 1711.0	1712.0	20 Ft
C	± 7+25	± 1702.0	± 1711.0	1713.0	15 Ft

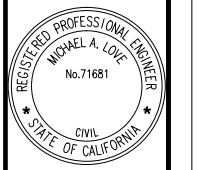
NOTES:

1. SPECIFIC NUMBER OF KEY AND RACKING MEMBER LAYERS WILL VARY WITH LOG SIZE AND TOP RACKING ELEVATION.
2. TOP TIER OF LOGS SHALL BE KEY MEMBERS.
3. PLACE 0.5 FT OF DENSELY CRISS-CROSSED BRUSH ON TOP OF EACH KEY AND RACKING LAYER TO RETAIN BALLAST.
4. INCORPORATE LIVE STAKES INTO BRUSH LAYERS FOR LAYERS WITHIN 3 FT OF THE CHANNEL INVERT. INSTALL A MINIMUM OF 3 LIVE STAKES ADJACENT TO EACH POST SUCH THAT THE BOTTOM OF EACH STAKE IS EQUAL TO OR LOWER THAN THE CHANNEL INVERT.
5. EACH STRUCTURE SHALL CONTAIN A TOTAL OF ± 100 CY SALVAGED COBBLE BALLAST WITH MIN 6.5 TONS IMPORTED 2-3 FT DIAMETER BOULDERS ON TOP OF STRUCTURE.

8 ABUTMENT JAM TYPICALS NTS

PRELIMINARY
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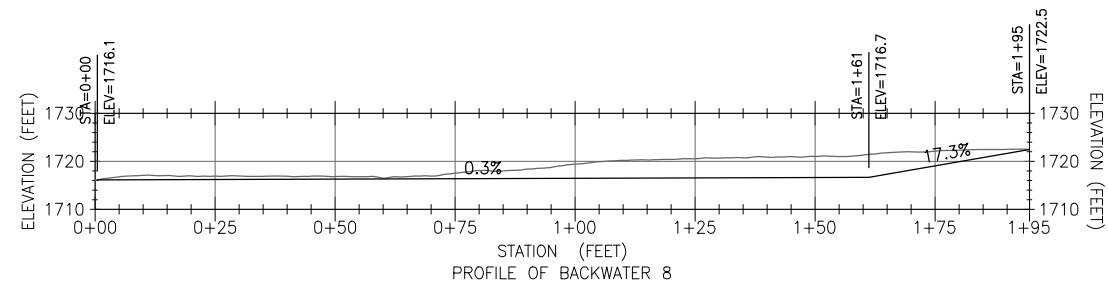
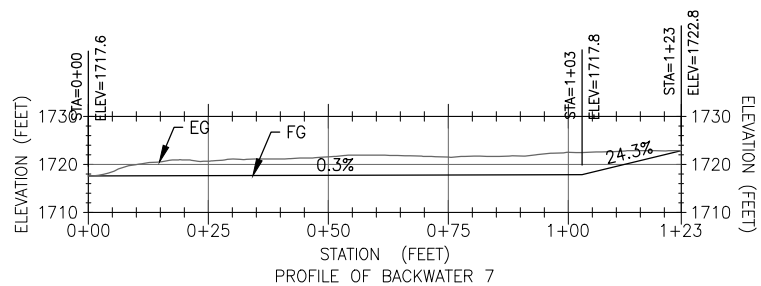
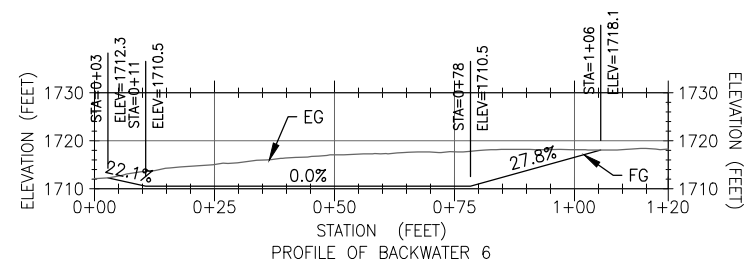
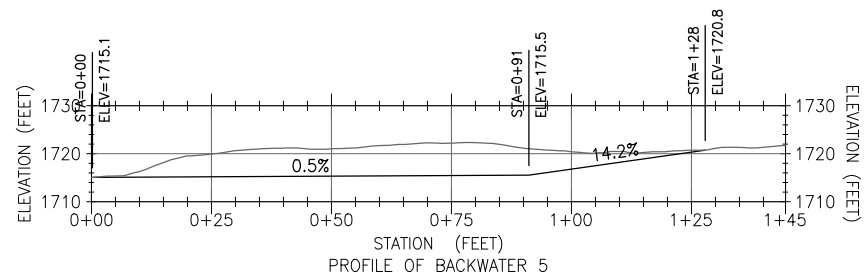
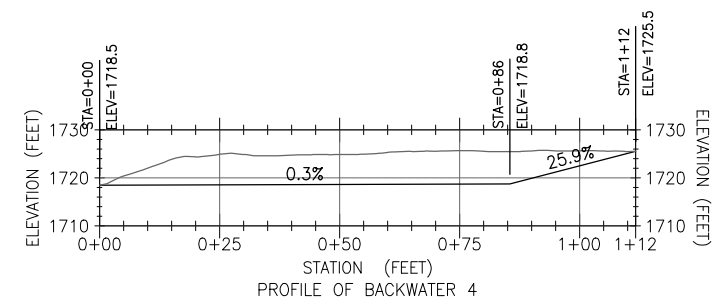
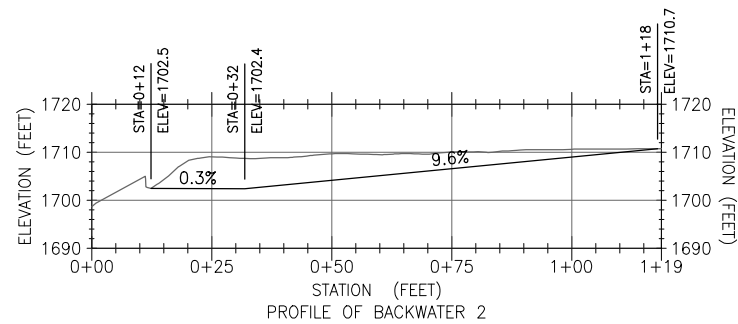
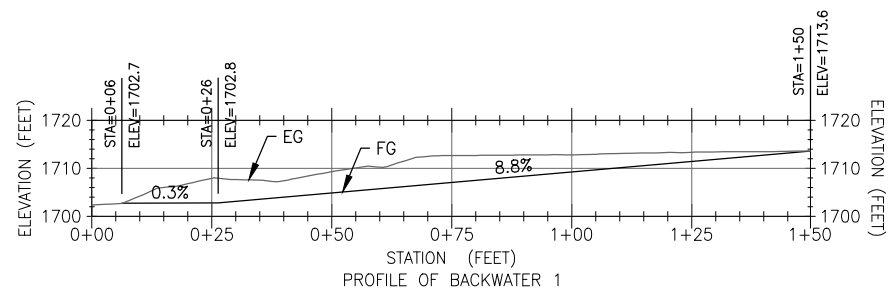
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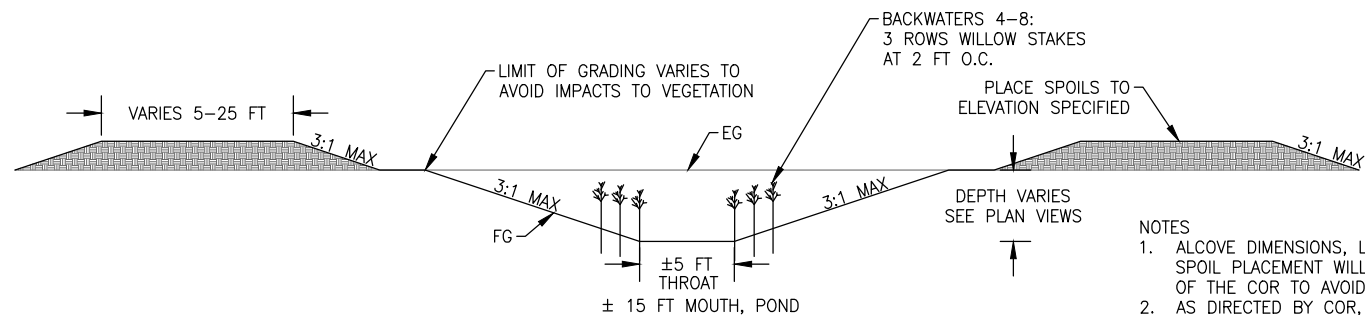
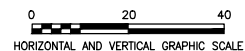
VERIFY SCALE
THIS BAR IS ONE INCH LONG AT FULL SCALE

Salmon River Restoration Council
RED BANK OFF-CHANNEL FISHERIES AND RIPARIAN HABITAT DESIGN
DETAIL SHEET 4

DATE: MAY 2017
SUBMITTAL: 90% Design
DESIGN: RS / ML
DRAWN: RS / NN
SHEET: 12 of 13



BACKWATER PONDS PROFILES



- NOTES**
1. ALCOVE DIMENSIONS, LIMIT OF GRADING, AND SPOIL PLACEMENT WILL BE AT THE DIRECTION OF THE COR TO AVOID IMPACTS TO TREES.
 2. AS DIRECTED BY COR, BACKWATER SIDE SLOPES STEEPER THAN 3:1 CAN BE CREATED BY STACKING BOULDERS OR INSTALLING LARGE WOOD.

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Salmon River Restoration Council
**RED BANK OFF-CHANNEL
 FISHERIES AND RIPARIAN HABITAT DESIGN**
BACKWATER PROFILES AND SECTIONS

DATE	MAY 2017
SUBMITTAL	90% Design
DESIGN	RS / ML
DRAWN	RS / NN
SHEET	13 of 13