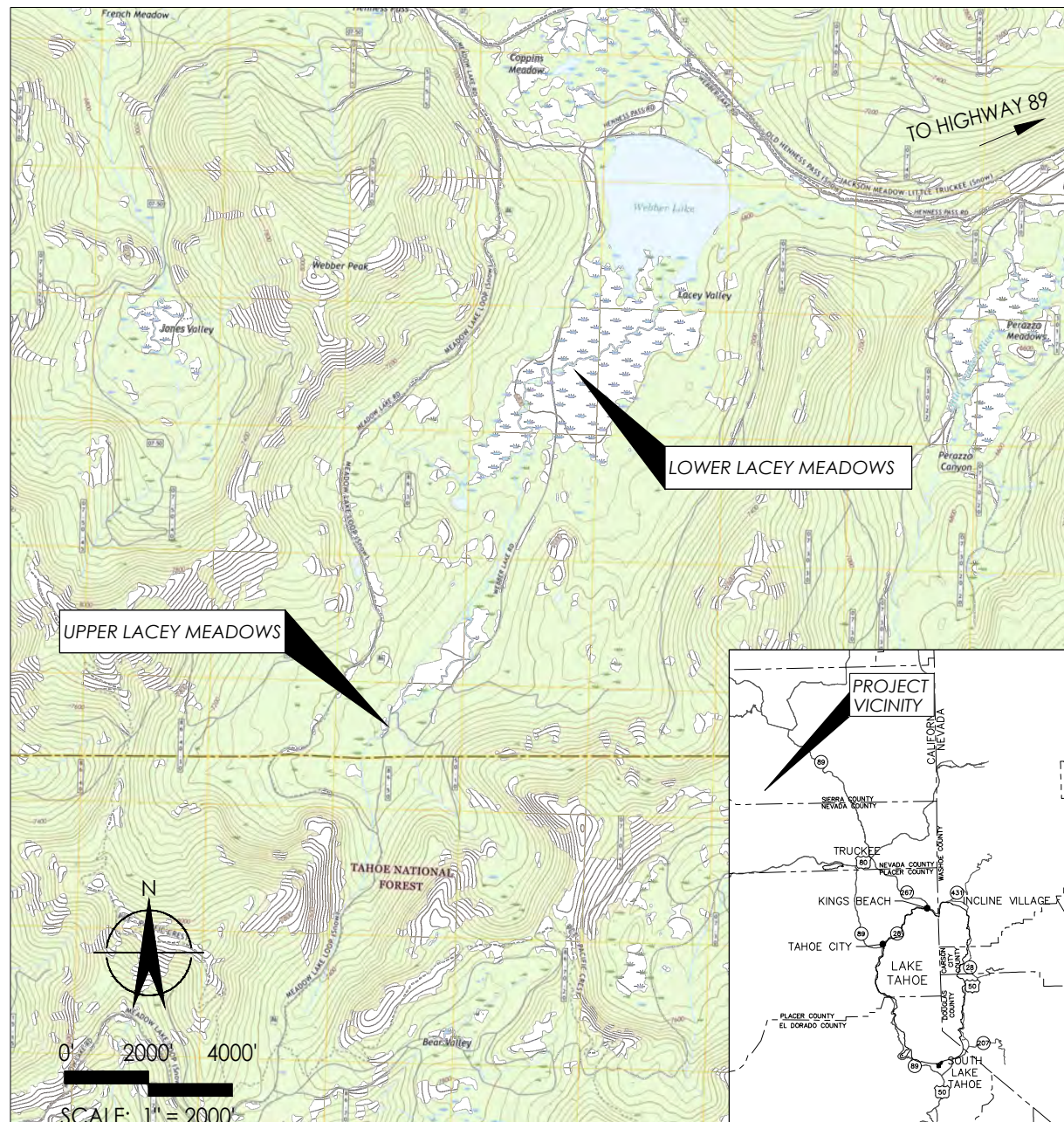


LACEY MEADOWS RESTORATION DESIGN

SIERRA AND NEVADA COUNTIES, CALIFORNIA

UPPER LACEY SHEETS ONLY

LOCATION MAP



PROJECT TEAM

GEOMORPHOLOGIST/ SITE CIVIL ENGINEER

BALANCE HYDROLOGICS
 BRIAN HASTINGS, P.G. (x217)
 PETER KULCHAWIK, P.E. (x218)
 12020 DONNER PASS ROAD, SUITE B1
 TRUCKEE, CALIFORNIA 96161
 TEL. (530) 550-9776

REVEGETATION SPECIALIST

H.T. HARVEY & ASSOCIATES
 MATT WACKER
 1331 GARDEN HIGHWAY, SUITE 300
 SACRAMENTO, CALIFORNIA 95833
 TEL. (916) 779-7350

PREPARED FOR

TRUCKEE RIVER WATERSHED COUNCIL
 BETH CHRISTMAN
 PO BOX 8568
 TRUCKEE, CALIFORNIA 96162
 TEL. (530) 550-8760 x1

LANDOWNERS

TRUCKEE DONNER LAND TRUST
 JOHN SVAHN/KEVIN STARR
 PO BOX 8816
 TRUCKEE, CALIFORNIA 96162

TAHOE NATIONAL FOREST

RACHEL HUTCHINSON
 317 S. LINCOLN ST/PO BOX 95
 SIERRAVILLE, CALIFORNIA 96126

SHEET INDEX

SHEET NO.	DESCRIPTION
1.0	COVER SHEET
2.0	LEGEND, GENERAL NOTES, AND DIVERSION PLAN
3.0	OVERVIEW & SHEET INDEX
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3.2	UPPER LACEY MEADOWS REACH H
3.3	UPPER LACEY MEADOWS REACHES G(a) & G(b)
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DESIGNED BY	DATE	BY	DATE	REVISIONS
BKH	11/15/19	BKH	11/15/19	30% DESIGN
PR	7/15/20	BKH	7/15/20	65% DESIGN
EB				
PK				

NOT FOR CONSTRUCTION

COVER SHEET
 LACEY MEADOWS RESTORATION DESIGN
 SIERRA AND NEVADA COUNTIES, CALIFORNIA

PROJECT NUMBER
218199
SCALE (AT 22" X 34")

SHEET
1.0

LEGEND:

	6045	EXISTING MAJOR CONTOUR
		EXISTING MINOR CONTOUR
		COUNTY BOUNDARY
		PROPERTY BOUNDARY
		IMPROVED ROADWAY
		UNIMPROVED ROADWAY
		TEMPORARY CONSTRUCTION ACCESS ROUTE
		TEMPORARY CREEK DIVERSION PIPE
		PROPOSED GRADING LIMIT
		PROPOSED MAJOR CONTOUR
		PROPOSED MINOR CONTOUR
		LOG WITH ROOTWAD
		LOG
		ANTICIPATED BREAKOUT FLOW DIRECTION
		PROPOSED FILL PLACEMENT
		PROPOSED EXCAVATION
		PROPOSED CONSTRUCTION STAGING AREA

ABBREVIATIONS:

'	FEET
"	INCH
APPROX	APPROXIMATE
DIA, Ø	DIAMETER
E	EASTING
EG	EXISTING GRADE
ELEV	ELEVATION
EX	EXISTING
FG	FINISH GRADE
FT	FEET
H	HORIZONTAL
IN	INCH
LF	LINEAR FEET
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
PROP	PROPOSED
STA	STATION
TDLT	TRUCKEE DONNER LAND TRUST
THP	TIMBER HARVEST PLAN
TYP	TYPICAL
USFS	U.S. FOREST SERVICE
V	VERTICAL
WSE	WATER SURFACE ELEVATION

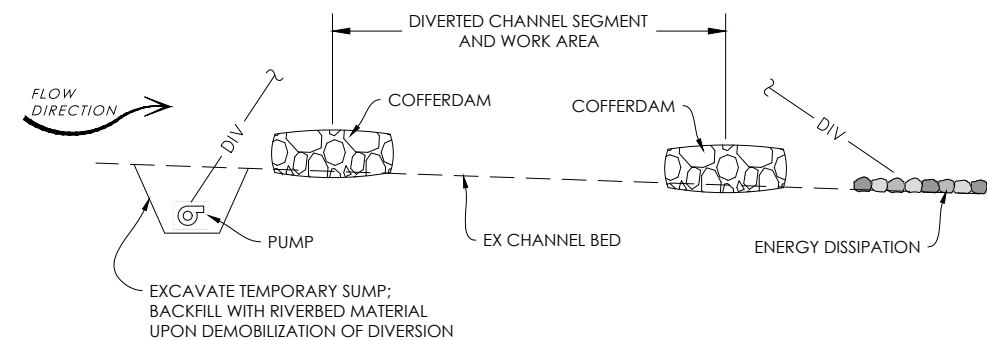
GENERAL NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE PROJECT SITE TO VERIFY SITE CONDITIONS AND FOR COMPLETELY UNDERSTANDING THE REQUIRED SCOPE OF WORK SHOWN ON THESE DRAWINGS AND CONTAINED IN THE PROJECT SPECIFICATIONS.
- ALL PARTS OF THIS PROJECT - INCLUDING SOIL PREPARATION, EARTHWORK, AND PLANTING - ARE SUBJECT TO FIELD DESIGN BY THE ENGINEER'S REPRESENTATIVE. AT ANY TIME, THE CONTRACTOR'S OPERATIONS AND CONSTRUCTION MAY BE SUBJECT TO OBSERVATION BY THE ENGINEER'S REPRESENTATIVE. WHEN REQUESTING THE PRESENCE OF THE ENGINEER'S REPRESENTATIVE AT THE PROJECT SITE FOR DESIGN CLARIFICATION, STAGE ACCEPTANCE, OR OTHER APPROVALS, THE CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCE NOTICE DIRECTLY TO THE ENGINEER'S REPRESENTATIVE.
- THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL LABOR AND MATERIALS TO COMPLETE THE WORK DEPICTED HEREIN.
- NO UTILITIES ARE KNOWN TO EXIST WITHIN THE PROJECT SITE, HOWEVER, THE CONTRACTOR SHALL CONFIRM THE ABSENCE OF UNDERGROUND UTILITIES BEFORE THE START OF ANY CONSTRUCTION OPERATIONS, INCLUDING AND NOT LIMITED TO EXCAVATION OR TRENCHING. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA) AT 811/1-800-227-2600. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS ADVANCE NOTICE FOR LOCATING UTILITIES.
- THE GRADING LIMITS SHALL BE APPROVED BY THE ENGINEER'S REPRESENTATIVE PRIOR TO ANY GROUND DISTURBANCE.
- THE CONTRACTOR SHALL CONTACT THE ENGINEER'S REPRESENTATIVE IMMEDIATELY UPON FINDING ANY FIELD CONDITIONS THAT WOULD CONFLICT WITH THE INFORMATION INDICATED ON THESE DRAWINGS OR THE PROJECT SPECIFICATIONS. ALL FIELD ADJUSTMENTS MUST BE APPROVED BY THE ENGINEER'S REPRESENTATIVE BEFORE CONSTRUCTION OF SAID ADJUSTMENTS; FAILURE TO DO SO SHALL RESULT IN THE CONTRACTOR ASSUMING FULL RESPONSIBILITY FOR ANY REQUIRED REVISIONS OR FIELD MODIFICATIONS, AS DIRECTED BY THE ENGINEER'S REPRESENTATIVE, AT NO ADDITIONAL COST.
- CONFORM TO EXISTING GRADES AND CONDITIONS WHENEVER POSSIBLE. ANY ADJACENT OR OFFSET AREAS DISTURBED BY THE CONTRACTOR'S OPERATION MUST BE RESTORED BY THE CONTRACTOR TO THE PRE-DISTURBANCE CONDITIONS TO THE SATISFACTION OF THE ENGINEER'S REPRESENTATIVE.
- ALL LUBRICATION, REFUELING, OR MAINTENANCE OF CONSTRUCTION VEHICLES SHALL BE CONDUCTED WITHIN APPROVED CONSTRUCTION STAGING AREAS.
- PROPERTY LINES SHOWN HEREIN ARE APPROXIMATE.
- STAGING AREAS MUST BE CONTAINED BY MEANS DESCRIBED IN THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP) TO CONFINE THE AREA AND PREVENT CONTAMINANTS FROM ENTERING NEARBY CHANNELS AND WATER BODIES.
- ELEVATIONS ARE RELATIVE TO THE NAVD 88 DATUM, AND ARE BASED ON LIDAR DATA COLLECTED BY THE USFS IN 2013. SUPPLEMENTAL SURVEY DATA MAY BE REQUIRED.
- PRESERVE TREES AND VEGETATION OUTSIDE OF THE LIMITS OF WORK. ANY TREES OR VEGETATION DISTURBED OUTSIDE OF THE LIMITS OF WORK SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ANY TREES GREATER THAN 6" DBH THAT ARE OUTSIDE OF THE GRADING LIMITS AND INTERFERE WITH THE WORK MAY ONLY BE REMOVED WITH APPROVAL FROM THE ENGINEER'S REPRESENTATIVE.
- SCALE SIZES INDICATED HEREIN ARE INTENDED FOR PLOTTING ON ANSI SIZE D SHEETS (22" BY 34")

TEMPORARY CREEK DIVERSION AND DEWATERING NOTES:

- GENERAL
 - THESE DIVERSION AND DEWATERING NOTES HAVE BEEN PREPARED TO HELP THE CONTRACTOR UNDERSTAND THE SCOPE OF THE DIVERSION AND DEWATERING WORK. THE CONTRACTOR SHALL SUBMIT A DIVERSION AND DEWATERING PLAN FOR APPROVAL BY THE ENGINEER'S REPRESENTATIVE NO LATER THAN 10 DAYS BEFORE MOBILIZATION. THE PLAN MAY INCLUDE ALTERNATE DEWATERING AND DIVERSION METHODS IF, IN THE OPINION OF THE CONTRACTOR, THE WORK WOULD BE BETTER COMPLETED BY OTHER MEANS. ANY ALTERNATE PLAN MUST BE APPROVED BY THE ENGINEER'S REPRESENTATIVE. ULTIMATELY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXECUTE A DIVERSION AND DEWATERING PLAN THAT REASONABLY PREPARES THE SITE TO COMPLETE THE WORK DEPICTED IN THESE DRAWINGS AND IS CONSISTENT WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
 - A TEMPORARY CREEK DIVERSION WILL BE REQUIRED FOR DESIGN ELEMENTS THAT INVOLVE PLACEMENT OF FILL WITHIN AN ACTIVE CHANNEL. ONLY LACEY CREEK IS ANTICIPATED TO BE ACTIVE DURING CONSTRUCTION AS SMALLER TRIBUTARY CHANNELS TYPICALLY ARE DRY BY MID-SUMMER.
 - UNLESS NOTED OTHERWISE, DEBRIS JAMS PROPOSED WITHIN LACEY CREEK DO NOT REQUIRE A TEMPORARY CREEK DIVERSION AND CAN BE CONSTRUCTED "IN THE WET", HOWEVER, THE CONTRACTOR MUST TAKE CARE TO MINIMIZE DISTURBANCE OF THE CREEK BED. THE ENGINEER'S REPRESENTATIVE MAY REQUIRE THE CONTRACTOR TO INSTALL A TEMPORARY DIVERSION FOR DEBRIS JAMS WITHIN LACEY CREEK IF AT ANY TIME THE CONTRACTOR'S OPERATIONS RESULT IN A MORE THAN 50 NTU INCREASE IN TURBIDITY (MEASURED JUST UPSTREAM AND DOWNSTREAM OF THE DEBRIS JAM UNDER CONSTRUCTION).
 - THE NEED FOR TEMPORARY CREEK DIVERSION SYSTEMS CAN BE AVOIDED IN SOME CASES WITH CAREFULLY PLANNED PHASING OF DESIGN ELEMENTS. FOR EXAMPLE, SEE NOTES ON SHEET 3.3 REGARDING THE USE OF PILOT CHANNELS FOR DIVERSION.
 - LOCATIONS OF TEMPORARY CREEK DIVERSION PIPE ALIGNMENTS SHOWN HEREIN ARE APPROXIMATE AND SHOULD NOT BE CONSIDERED PRESCRIPTIVE. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER'S REPRESENTATIVE PRIOR TO MOBILIZATION TO AGREE ON A FINAL CONFIGURATION FOR THE DIVERSION SYSTEMS BASED ON FIELD CONDITIONS.

- THE DIVERSION SYSTEM SHALL BE DESIGNED TO DIVERT UP TO 2 CFS (900 GPM). PRIOR TO INSTALLATION OF THE DIVERSION SYSTEM, THE ENGINEER'S REPRESENTATIVE SHALL CONFIRM THAT STREAMFLOW LEVELS ARE WITHIN THE ANTICIPATED RANGE.
 - COFFERDAMS SHALL BE CONSTRUCTED AT THE UPSTREAM AND DOWNSTREAM ENDS OF THE DIVERTED CHANNEL SEGMENT. COFFERDAMS SHALL BE CONSTRUCTED TO MINIMIZE SEEPAGE.
 - THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND SERVICES AS REQUIRED TO INSTALL, OPERATE, AND REMOVE THE TEMPORARY CREEK DIVERSION SYSTEMS, INCLUDING BACK-UP EQUIPMENT AS NECESSARY FOR REPLACEMENT AND FOR UNANTICIPATED EMERGENCIES.
- MATERIALS
 - COFFERDAMS: THE CONTRACTOR SHALL SUBMIT A DRAWING AND/OR PRODUCT SHEET TO THE ENGINEER'S REPRESENTATIVE FOR THE PROPOSED COFFERDAM. IF USED, GRAVEL BAG FILL MATERIAL SHALL BE CLEAN AND FREE FROM CLAY BALLS, ORGANIC MATTER, WEEDS, AND OTHER DELETERIOUS MATERIALS. THE OPENING OF GRAVEL-FILLED BAGS SHALL BE SECURED SUCH THAT GRAVEL DOES NOT ESCAPE.
 - PUMPS: THE PUMPS AND PUMPING APPARATUS USED FOR THE DIVERSION SHALL BE OF THE SUBMERSIBLE TYPE WITH SUFFICIENT CAPACITY TO CONTROL SUMP WATER LEVELS AS DESCRIBED HEREIN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE POWER TO OPERATE THE DIVERSION SYSTEMS, INCLUDING THE PUMPING EQUIPMENT, AS NEEDED TO ASSURE THAT DEWATERING IS EFFECTIVE DURING ALL WORK WITHIN THE BANKS OF THE CREEK. THE CONTRACTOR SHALL PROVIDE BACK-UP POWER AS NEEDED TO ASSURE THAT POWER INTERRUPTIONS DO NOT LEAD TO DAMAGE TO FINISHED OR IN-PROCESS WORK OR DELAYS IN COMPLETING THE WORK. ALL EQUIPMENT, INCLUDING ANY GENERATORS USED FOR PRIMARY OR BACK-UP POWER SUPPLY, SHALL BE OPERATED IN COMPLIANCE WITH ALL PERTINENT NOISE AND AIR POLLUTION REDUCTION REQUIREMENTS.
 - DIVERSION PIPE: DIVERSION PIPE AND COUPLINGS SHALL BE POLYVINYL CHLORIDE (PVC) OR SDR-35 OR APPROVED EQUIVALENT. THE MATERIAL SHALL BE SELECTED FOR FLEXIBILITY AND DURABILITY TO ALLOW FOR THE OCCASIONAL RELOCATION OF THE DIVERSION PIPING DURING CONSTRUCTION ACTIVITIES. THE SIZE OF DIVERSION PIPE SHALL BE DETERMINED BY THE CONTRACTOR BASED ON THE ANTICIPATED FLOW RATES DESCRIBED HEREIN AND THE PERFORMANCE CHARACTERISTICS OF THE PROPOSED PUMPS.
 - ENERGY DISSIPATION: THE CONTRACTOR SHALL SUBMIT A PLAN FOR AN ENERGY DISSIPATION FEATURE TO BE INSTALLED AT THE OUTLET END OF EACH CREEK DIVERSION. THE ENERGY DISSIPATION FEATURE SHALL BE CAPABLE OF RETURNING FLOW FROM THE DIVERSION PIPE TO THE NATURAL CHANNEL WITHOUT CAUSING EROSION.
 - EXECUTION
 - THE CONTRACTOR SHALL COORDINATE WITH PROJECT BIOLOGISTS ON FISH RELOCATION PRIOR TO INSTALLING EACH CREEK DIVERSION SYSTEM.
 - THE COFFERDAMS SHALL BE CONSTRUCTED IN THE LOCATIONS AND TO THE MINIMUM ELEVATIONS SHOWN ON THE PLANS. PROVIDE WATER TIGHT SEALS IF THE DIVERSION PIPE PENETRATES PLASTIC SHEETING.
 - GRADE A SUMP IN THE CHANNEL UPSTREAM OF THE COFFERDAM TO COLLECT STREAMFLOW FOR PUMPING.
 - INSTALL THE DIVERSION PIPE TO AVOID DAMAGE TO EXISTING VEGETATION AND STREAM BANKS.
 - INSPECT THE DIVERSION PIPE AND COFFERDAMS DAILY DURING THE CONSTRUCTION PERIOD TO ENSURE THEY ARE EFFECTIVELY CONVEYING STREAMFLOW. PERFORM CORRECTIVE MAINTENANCE AS NEEDED.
 - PUMP INCIDENTAL GROUNDWATER ENCOUNTERED DURING EXCAVATION AS NEEDED TO FACILITATE COMPLETION OF THE WORK.
 - WATER PUMPED FROM WITHIN EXCAVATION AREAS OR THE PORTION OF THE CHANNEL ENCLOSED BY THE COFFERDAMS SHALL BE DISCHARGED ONTO MEADOW SURFACES OR OTHER FEATURES AS NECESSARY TO MEET TURBIDITY REQUIREMENTS. MONITOR PUMPED WATER TO ENSURE IT DOES NOT CAUSE EROSION.
 - WHEN ALL WORK HAS BEEN COMPLETED, REMOVE THE DIVERSION SYSTEM AND RESTORE ANY EXISTING FEATURES THAT WERE ADVERSELY AFFECTED TO PRE-PROJECT CONDITIONS. BACKFILL THE SUMP WITH RIVERBED MATERIAL.



TYPICAL PROFILE VIEW

1 CREEK DIVERSION SCALE: NTS

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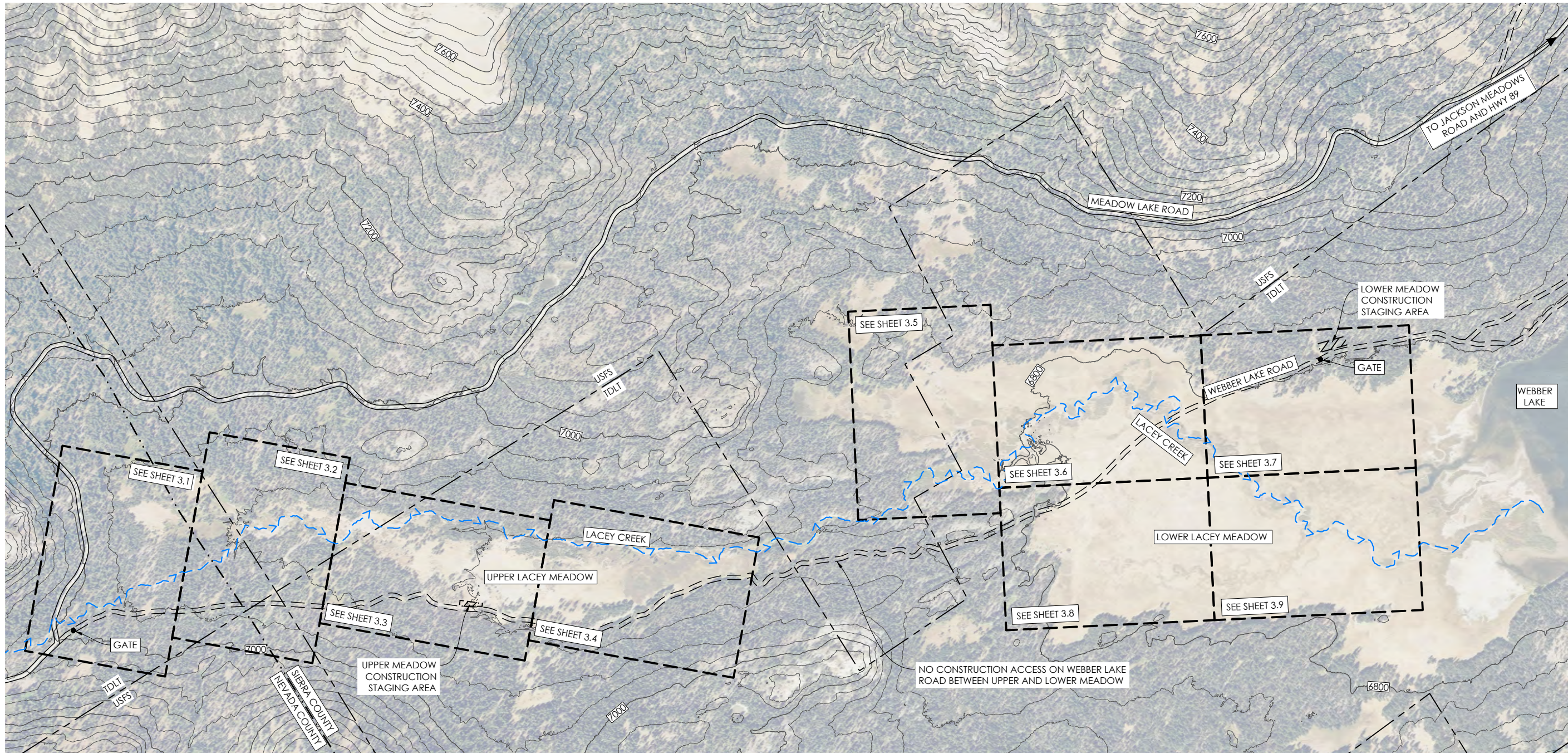
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PR	7/15/20	BKH	7/15/20	65% DESIGN
EB				
PK				
DATE	7/15/20			

NOT FOR CONSTRUCTION

LEGEND, GENERAL NOTES, AND DIVERSION PLAN
 LACEY MEADOWS RESTORATION DESIGN
 SIERRA AND NEVADA COUNTIES, CALIFORNIA

PROJECT NUMBER 218199
 SCALE (AT 22" X 34")

SHEET
2.0



SITE PREPARATION GENERAL NOTES:

1. THE SITE IS ACCESSED VIA GATED ROADS OWNED BY TDLT. THE CONTRACTOR SHALL COORDINATE WITH TDLT PRIOR TO MOBILIZATION TO GAIN ACCESS THROUGH THE LOCKED GATES AND OTHER OPERATIONAL PROVISIONS.
2. PRESERVE TREES AND VEGETATION OUTSIDE OF THE LIMITS OF WORK. LIMITS OF WORK SHALL BE THE AREA WITHIN THE GRADING LIMITS, CONSTRUCTION ACCESS ROUTES, AND STAGING AREAS. ANY TREES GREATER THAN 6" DBH THAT ARE OUTSIDE OF THE LIMITS OF WORK AND INTERFERE WITH THE WORK MAY ONLY BE REMOVED WITH APPROVAL FROM THE ENGINEER'S REPRESENTATIVE.
3. THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN TO MITIGATE FOR ANY ANTICIPATED IMPACTS TO BICYCLE AND PEDESTRIAN TRAFFIC, AND TO PROVIDE ALL SIGNAGE FOR BICYCLE AND PEDESTRIAN SAFETY. THE CONTRACTOR SHALL SUBMIT THE TRAFFIC CONTROL PLAN TO THE ENGINEER'S REPRESENTATIVE NO LATER THAN 48 HOURS PRIOR TO MOBILIZATION.

STAGING AND ACCESS NOTES:

1. THE CONTRACTOR SHALL FLAG THE LOCATIONS OF THE CONSTRUCTION ACCESS ROUTES AND STAGING AREAS FOR APPROVAL BY THE ENGINEER'S REPRESENTATIVE BEFORE THE ROUTES ARE UTILIZED.
2. CONSTRUCTION ACCESS ROUTES SHALL BE ESTABLISHED BY DRIVING ALONG THE ALIGNMENTS SHOWN HEREIN TO MINIMIZE GROUND DISTURBANCE. NO SCRAPING, BLADING, OR OTHER GRADING OPERATIONS ARE ALLOWED WITHOUT THE APPROVAL OF THE ENGINEER'S REPRESENTATIVE. REMOVAL OF ABOVE-GROUND VEGETATION LESS THAN 6 INCHES DBH, SHRUBS, AND OTHER VEGETATION IS ALLOWED.
3. TEMPORARY REMOVAL OF BOULDERS AND TREES (BOTH ALIVE AND FALLEN DEAD TREES) WILL BE REQUIRED TO ESTABLISH CONSTRUCTION ACCESS ROUTES. MOVE BOULDERS AND SAW FALLEN TREES AS NEEDED; SET ASIDE BOULDERS AND TREE PIECES FOR DECOMMISSIONING. REMOVE LIVE TREES GREATER THAN 6" DBH ONLY IF APPROVED BY THE ENGINEER'S REPRESENTATIVE.

4. PERFORM CORRECTIVE MAINTENANCE TO ACCESS ROUTES THROUGHOUT THE CONSTRUCTION PERIOD TO ADDRESS EROSION AND POTENTIAL SOURCES OF FINE SEDIMENT. ANY RUTS EXCEEDING 3 INCHES IN DEPTH OR 25 FEET IN LENGTH SHALL BE CORRECTED IMMEDIATELY.
5. WITH THE EXCEPTION OF WEBBER LAKE ROAD, ONLY LOW GROUND PRESSURE CONSTRUCTION EQUIPMENT SHOULD BE USED ON ACCESS ROUTES TO THE EXTENT PRACTICABLE. LOW GROUND PRESSURE EQUIPMENT SHALL MEAN RUBBERIZED TRACK EQUIPMENT APPLYING NO MORE THAN 5 PSI GROUND PRESSURE.
6. ACCESS ROUTES THROUGH WET MEADOW AREAS MAY REQUIRE PROTECTIVE MEADOW MATS TO PREVENT SOIL COMPACTION. THE EXTENT OF MEADOW MATS WILL BE DETERMINED AT A FUTURE DESIGN PHASE.
7. ACCESS ROUTES SHALL BE DECOMMISSIONED BY APPLYING SEED (EXCEPT FOR ROUTES THAT FOLLOW EXISTING WEBBER LAKE ROAD) AS REQUIRED TO REVEGETATE AREAS THAT HAVE BEEN DAMAGED BY CONSTRUCTION OPERATIONS. THE TYPE OF SEED MIX USED TO REVEGETATE ACCESS ROUTES SHALL VARY DEPENDING ON THE PREVAILING HYDROGEOGRAPHIC ZONE. CONSULT THE PROJECT REVEGETATION SPECIALIST FOR GUIDANCE. DECOMPACTION MEASURES DESCRIBED ON SHEET 5.0 SHALL BE COMPLETED FOR ACCESS ROUTES WHERE SEEDING IS REQUIRED.
8. AT LEAST 30 DAYS PRIOR TO MOBILIZATION, THE CONTRACTOR SHALL SUBMIT A STAGING AND ACCESS PLAN THAT, AT MINIMUM, INCLUDES THE FOLLOWING INFORMATION:
 - 8.1. PROPOSED DEVIATIONS FROM THE ACCESS ROUTE ALIGNMENTS AND STAGING AREA CONFIGURATIONS THAT ARE SHOWN HEREIN;
 - 8.2. FUELS/CHEMICAL STORAGE AREAS;
 - 8.3. MATERIALS/EQUIPMENT STAGING AREAS; AND
 - 8.4. EMPLOYEE PARKING AREAS.
9. CONTRACTOR SHALL SUBMIT A PLAN TO BE USED FOR ALL TEMPORARY STREAM CROSSINGS TO THE ENGINEER'S REPRESENTATIVE FOR APPROVAL.



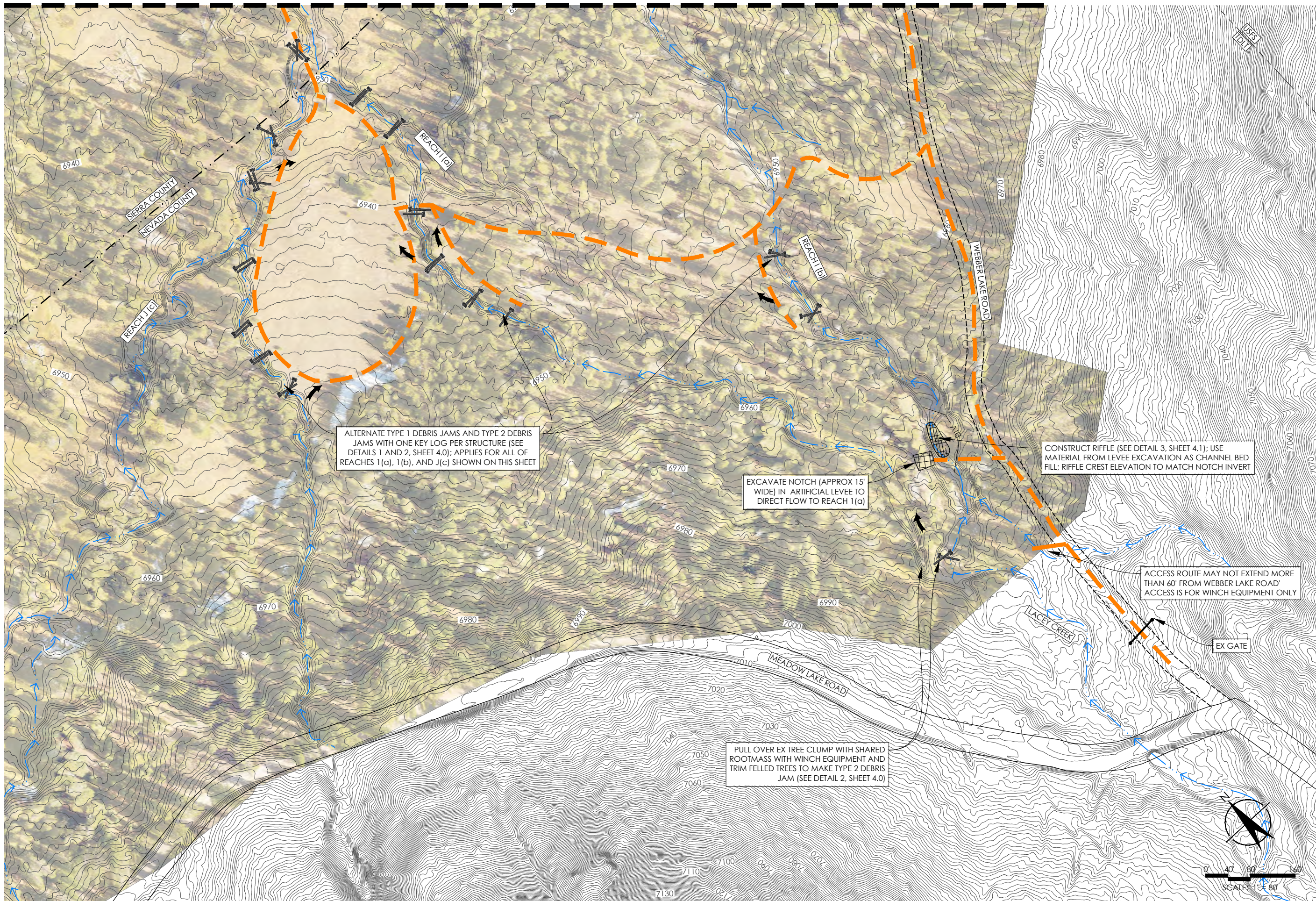
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PR	7/15/20	BKH	65% DESIGN
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PK			
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OVERVIEW & SHEET INDEX
LACEY MEADOWS RESTORATION DESIGN
 SIERRA AND NEVADA COUNTIES, CALIFORNIA

PROJECT NUMBER	218199
SCALE (AT 22' X 34')	1" = 600'
SHEET	3.0

MATCHLINE SEE SHEET 3.2



ALTERNATE TYPE 1 DEBRIS JAMS AND TYPE 2 DEBRIS JAMS WITH ONE KEY LOG PER STRUCTURE (SEE DETAILS 1 AND 2, SHEET 4.0); APPLIES FOR ALL OF REACHES 1(a), 1(b), AND 1(c) SHOWN ON THIS SHEET

EXCAVATE NOTCH (APPROX 15' WIDE) IN ARTIFICIAL LEVEE TO DIRECT FLOW TO REACH 1(a)

CONSTRUCT RIFFLE (SEE DETAIL 3, SHEET 4.1); USE MATERIAL FROM LEVEE EXCAVATION AS CHANNEL BED FILL; RIFFLE CREST ELEVATION TO MATCH NOTCH INVERT

ACCESS ROUTE MAY NOT EXTEND MORE THAN 60' FROM WEBBER LAKE ROAD; ACCESS IS FOR WINCH EQUIPMENT ONLY

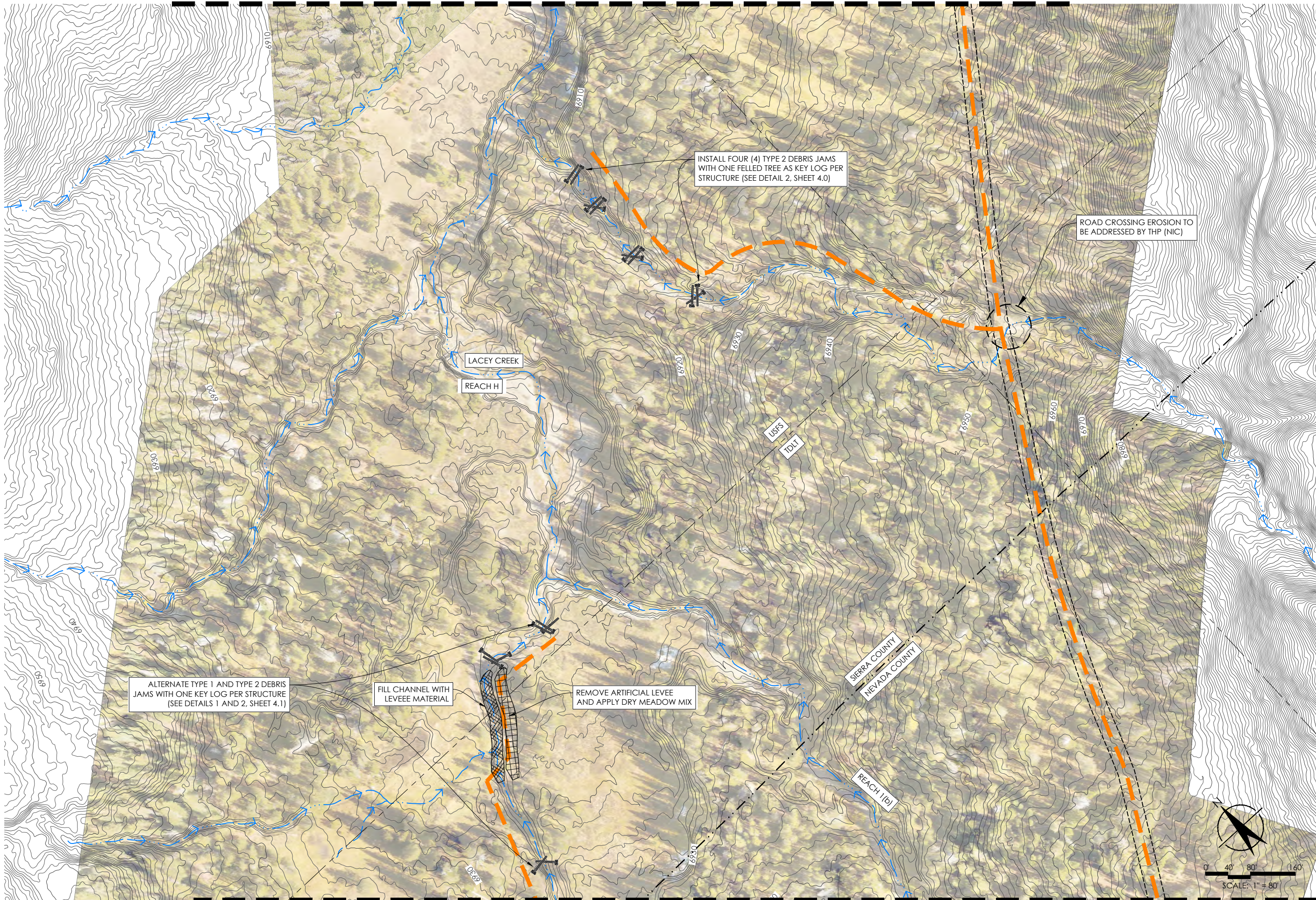
PULL OVER EX TREE CLUMP WITH SHARED ROOTMASS WITH WINCH EQUIPMENT AND TRIM FELLEED TREES TO MAKE TYPE 2 DEBRIS JAM (SEE DETAIL 2, SHEET 4.0)

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**UPPER LACEY MEADOWS
 REACHES I & J**
 LACEY MEADOWS RESTORATION DESIGN
 SIERRA AND NEVADA COUNTIES, CALIFORNIA

PROJECT NUMBER
 218199
 SCALE (AT 22" X 34")
 1" = 80'
 SHEET



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65% DESIGN - NOT FOR CONSTRUCTION

MATCHLINE SEE SHEET 3.3

MATCHLINE SEE SHEET 3.1

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IN CHARGE			
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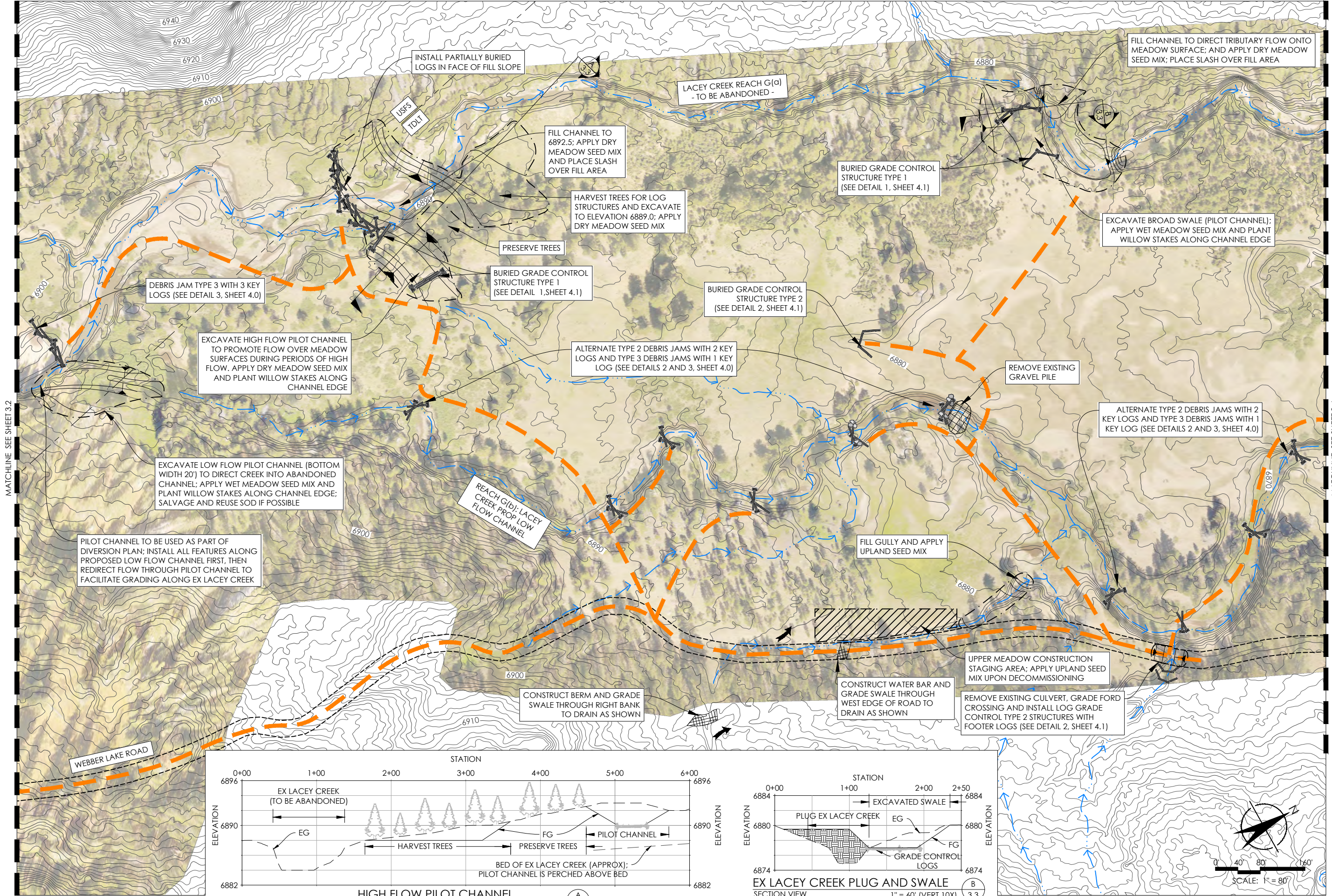
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**UPPER LACEY MEADOWS
REACH H**
 LACEY MEADOWS RESTORATION DESIGN
 SIERRA AND NEVADA COUNTIES, CALIFORNIA

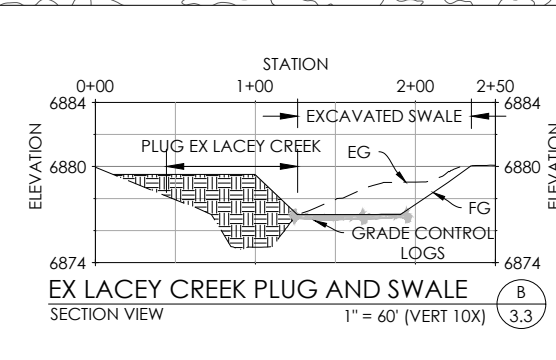
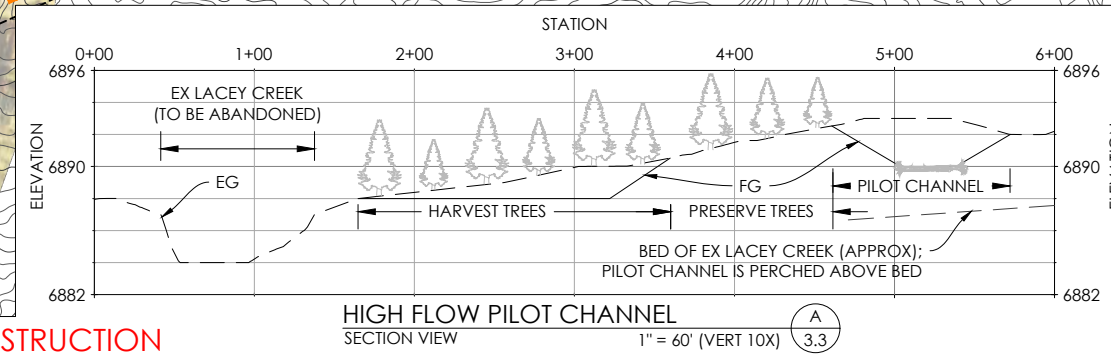
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3.2

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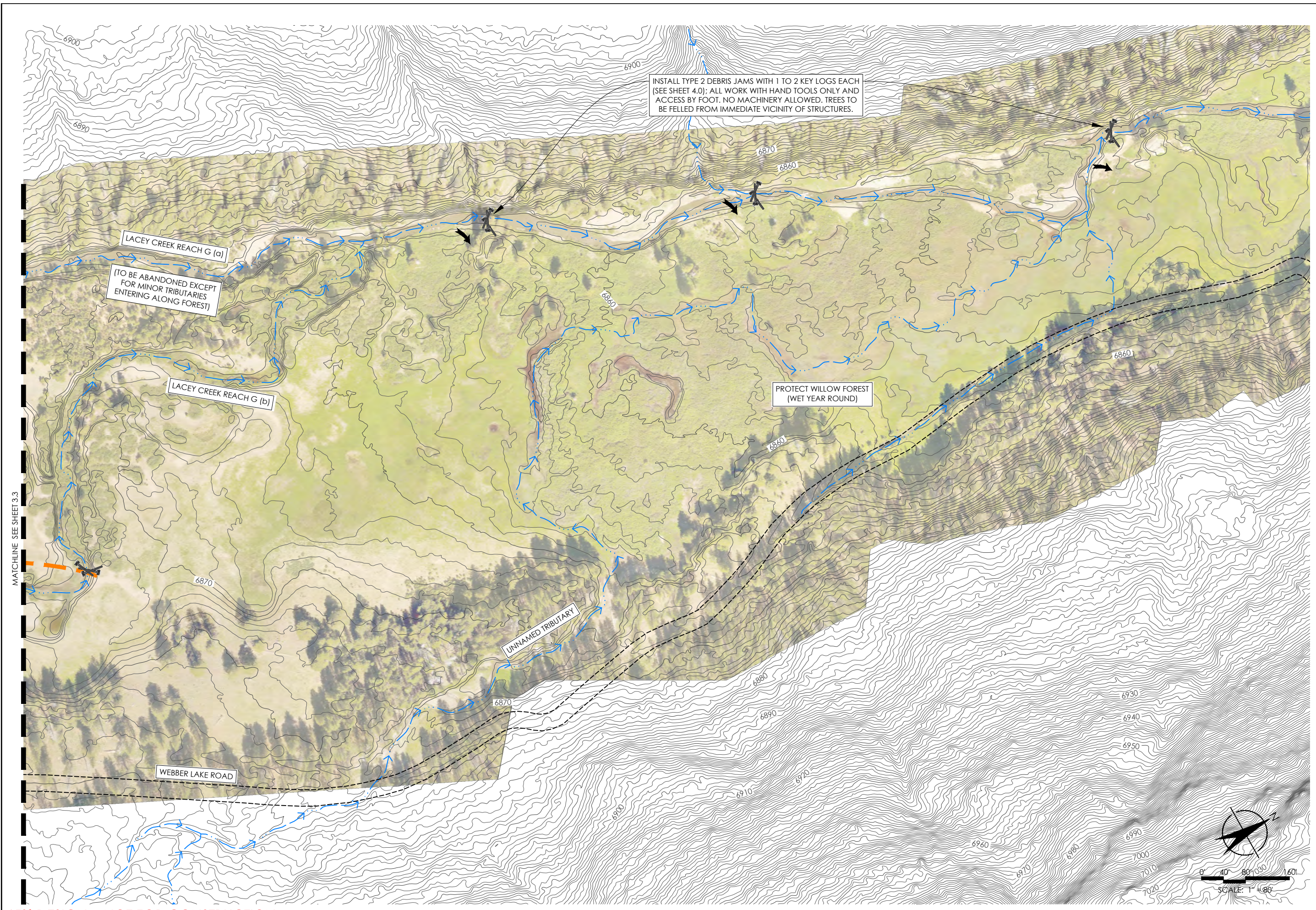
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**UPPER LACEY MEADOWS
 REACHES G(a) & G(b)**
 LACEY MEADOWS RESTORATION DESIGN
 SIERRA AND NEVADA COUNTIES, CALIFORNIA

PROJECT NUMBER 218199
SCALE (AT 22' X 34') 1" = 80'
SHEET 3.3



INSTALL TYPE 2 DEBRIS JAMS WITH 1 TO 2 KEY LOGS EACH (SEE SHEET 4.0); ALL WORK WITH HAND TOOLS ONLY AND ACCESS BY FOOT. NO MACHINERY ALLOWED. TREES TO BE FELLED FROM IMMEDIATE VICINITY OF STRUCTURES.

LACEY CREEK REACH G (a)

(TO BE ABANDONED EXCEPT FOR MINOR TRIBUTARIES ENTERING ALONG FOREST)

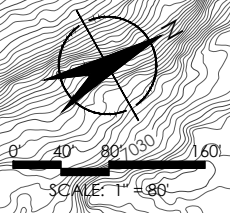
LACEY CREEK REACH G (b)

PROTECT WILLOW FOREST (WET YEAR ROUND)

UNNAMED TRIBUTARY

WEBBER LAKE ROAD

MATCHLINE SEE SHEET 3.3



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65% DESIGN - NOT FOR CONSTRUCTION

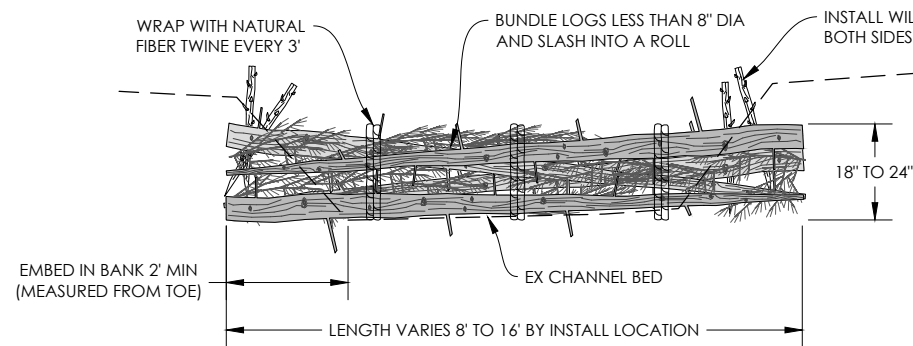
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**UPPER LACEY MEADOWS
 REACHES G(a) & G(b)**
 LACEY MEADOWS RESTORATION DESIGN
 SIERRA AND NEVADA COUNTIES, CALIFORNIA

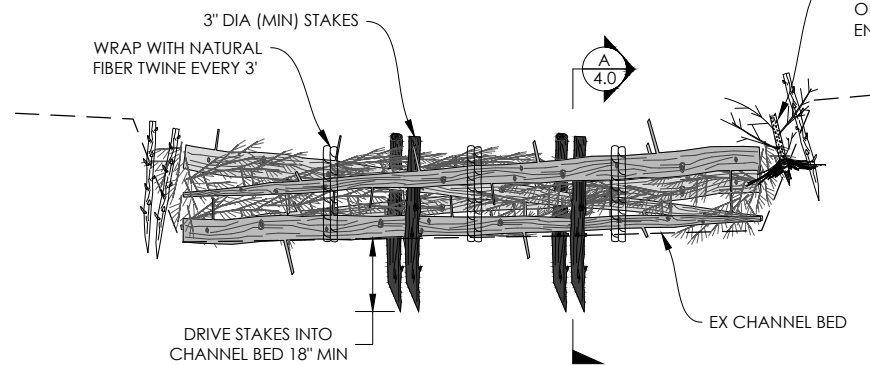
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 SHEET

3.4



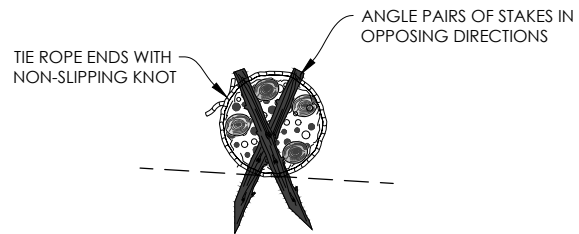
NOTE:
BUNDLE MATERIAL SHALL BE PIECES OF TREES LESS THAN 12" DIAMETER AND THEIR BRANCHES

DEBRIS JAM TYPE 1 (BANK ANCHOR STYLE)
ELEVATION VIEW
1" = 2' 4.0



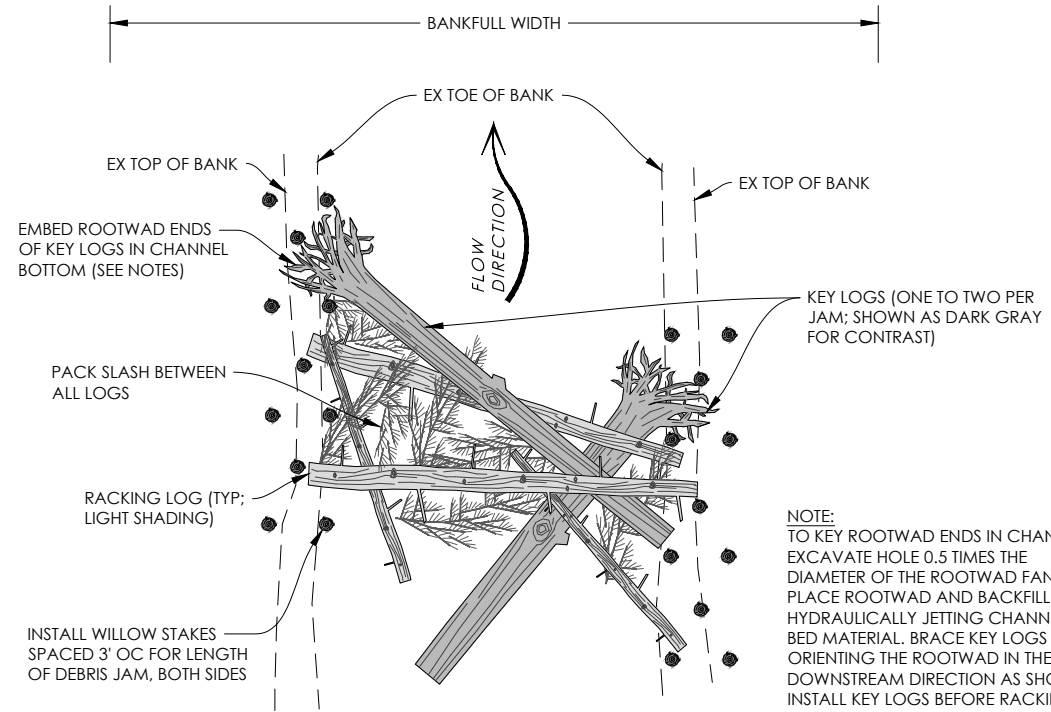
DEBRIS JAM TYPE 1 (STAKE ANCHOR STYLE)
ELEVATION VIEW
1" = 2' 4.0

PACK DEBRIS AND INSTALL WILLOW CLUMPS AND STAKES PER THE DIRECTION OF THE ENGINEER'S REPRESENTATIVE AT ENDS OF BUNDLE, BOTH SIDES



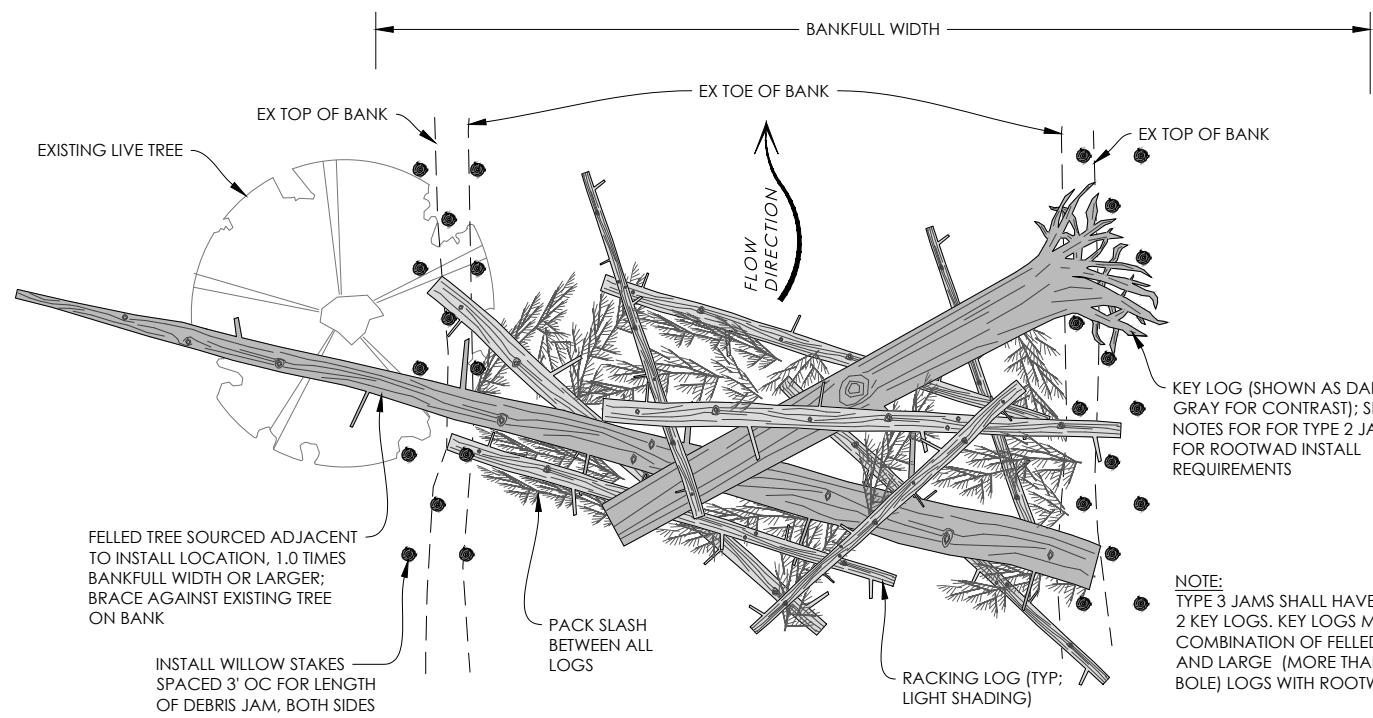
DEBRIS JAM TYPE 1 (STAKE ANCHOR STYLE)
SECTION VIEW
1" = 2' 4.0

1 DEBRIS JAM TYPE 1 - BUNDLE
SCALE: 1" = 2'



NOTE:
TO KEY ROOTWAD ENDS IN CHANNEL, EXCAVATE HOLE 0.5 TIMES THE DIAMETER OF THE ROOTWAD FAN. PLACE ROOTWAD AND BACKFILL BY HYDRAULICALLY JETTING CHANNEL BED MATERIAL. BRACE KEY LOGS BY ORIENTING THE ROOTWAD IN THE DOWNSTREAM DIRECTION AS SHOWN. INSTALL KEY LOGS BEFORE RACKING LOGS AND SLASH.

2 DEBRIS JAM TYPE 2 - SMALL LOG JAM
SCALE: 1" = 5'



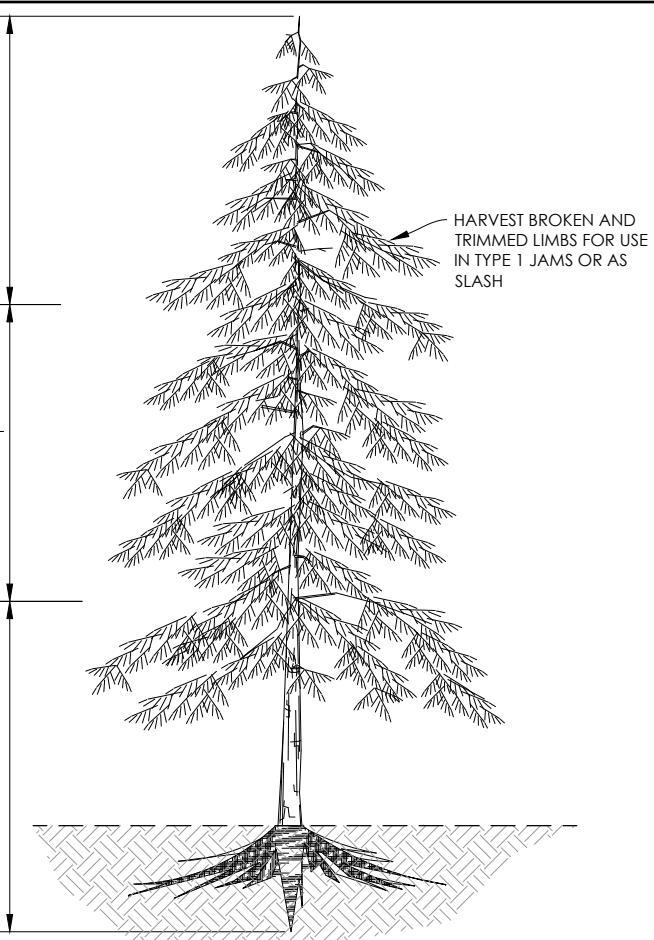
NOTE:
TYPE 3 JAMS SHALL HAVE A MINIMUM OF 2 KEY LOGS. KEY LOGS MAY BE A COMBINATION OF FELLED/BRACED TREES AND LARGE (MORE THAN 16" DIA AT BOLE) LOGS WITH ROOTWADS

3 DEBRIS JAM TYPE 3 - LARGE LOG JAM
SCALE: 1" = 5'

UPPER SECTION:
• INCLUDES TRUNK AND ATTACHED LIMBS
• LENGTH VARIES BY WHATEVER IS LEFTOVER, BUT TRIMMING MAY BE REQUIRED DEPENDING ON INSTALL LOCATION
• USE IN TYPE 1 JAMS OR AS SLASH

MIDDLE SECTION:
• INCLUDES TRUNK AND ATTACHED LIMBS
• CUT TO LENGTH BASED ON THE BANKFULL WIDTH OF THE INSTALL LOCATION
• LENGTH WILL BE PROVIDED BY THE ENGINEER'S REPRESENTATIVE BUT SHALL BE NO LESS THAN 0.25 OF BANKFULL WIDTH OF INSTALL LOCATION, PREFERABLY LARGER
• USE AS KEY LOGS IN TYPE 2 JAM IF TRUNK DIAMETER IS 12" TO 16"
• USE AS RACKING LOG IN TYPE 2 JAM OR IN TYPE 1 JAM IF TRUNK DIAMETER IS LESS THAN 12"
• DEPENDING ON TREE SIZE, IT MAY NOT BE POSSIBLE TO HARVEST A SUITABLE MIDDLE SECTION

LOWER SECTION:
• INCLUDES ROOTMASS WITH ATTACHED TRUNK AND LIMBS
• CUT TO LENGTH (MEASURED FROM BOLE TO CUT) BASED ON THE BANKFULL WIDTH OF THE INSTALL LOCATION
• LENGTH WILL BE PROVIDED BY THE ENGINEER'S REPRESENTATIVE BUT SHALL BE NO LESS THAN 0.5 OF BANKFULL WIDTH OF INSTALL LOCATION
• USE AS KEY LOGS IN TYPE 3 JAM IF DIAMETER (MEASURED AT BOLE) IS GREATER THAN 16"
• USE AS KEY LOGS IN TYPE 2 JAM IF DIAMETER (MEASURED AT BOLE) IS 12" TO 16"



4 TREE DISECTION FOR DEBRIS JAMS
SCALE: NTS

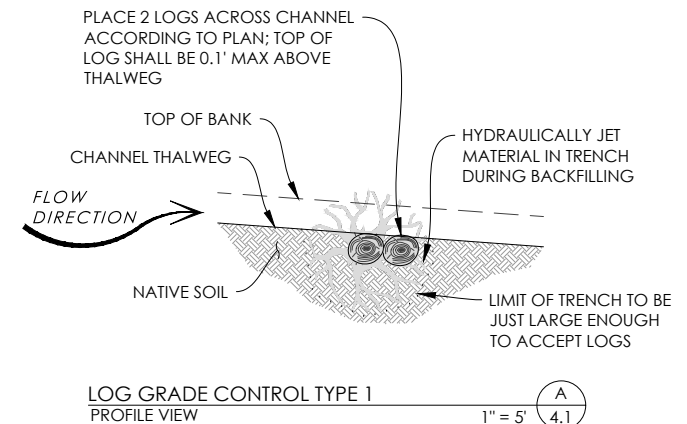
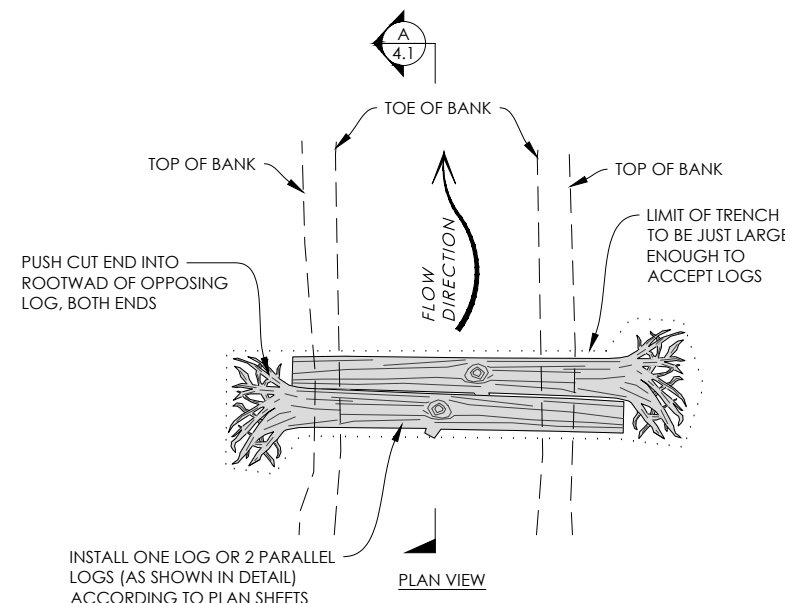
DESIGNED BY	DATE	BY	DATE	SUBMITTALS / REVISIONS
BKH	11/15/19	BKH	11/15/19	30% DESIGN
PR	7/15/20	BKH	7/15/20	65% DESIGN
EB				
IN CHARGE				
PK				
DATE	7/15/20			

NOT FOR CONSTRUCTION

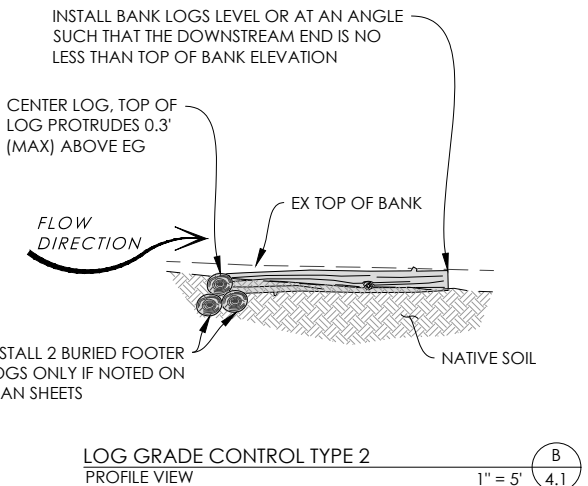
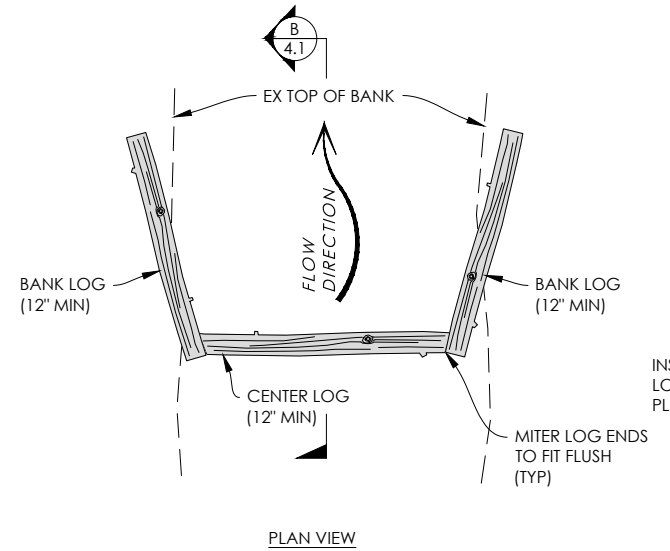
DEBRIS JAM TYPICALS
LACEY MEADOWS RESTORATION DESIGN
SIERRA AND NEVADA COUNTIES, CALIFORNIA

PROJECT NUMBER
218199
SCALE (AT 22" X 34")

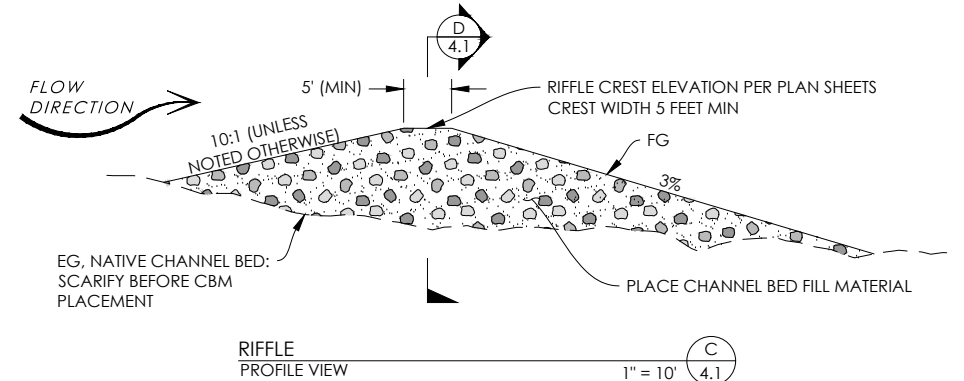
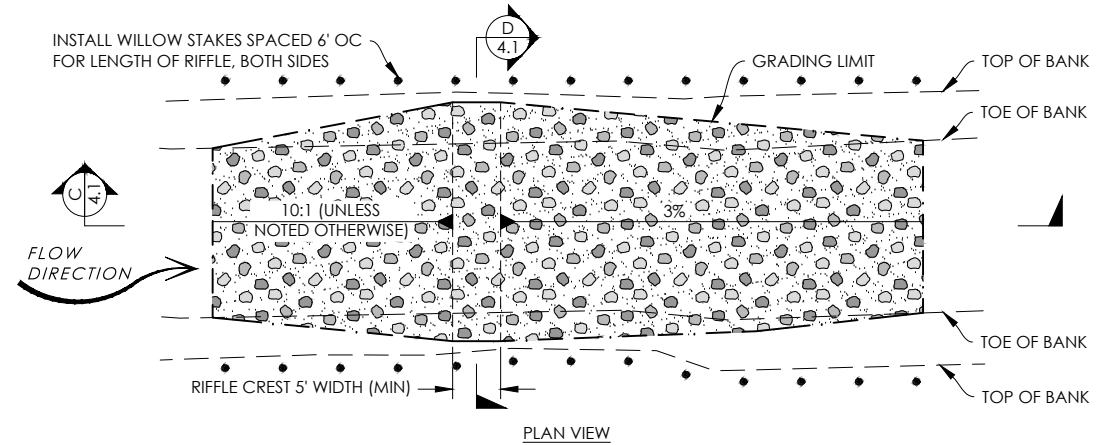
SHEET
4.0



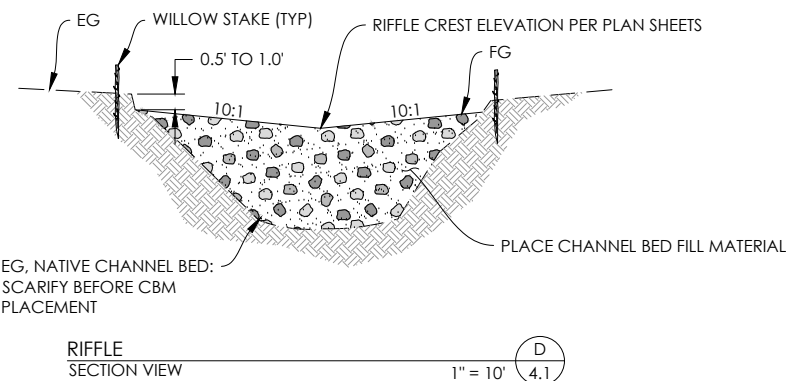
1 LOG GRADE CONTROL TYPE 1
SCALE: 1" = 5'



2 LOG GRADE CONTROL TYPE 2
SCALE: 1" = 5'



3 RIFFLE
SCALE: 1" = 10'



RIFFLE SECTION VIEW
SCALE: 1" = 10'

DESIGNED BY	DATE	BY	REVISIONS / SUBMITTALS
BKH	11/15/19	BKH	30% DESIGN
PR	7/15/20	BKH	65% DESIGN
EB			
PK			
DATE			

NOT FOR CONSTRUCTION

LOG GRADE CONTROL AND RIFFLE TYPICALS
LACEY MEADOWS RESTORATION DESIGN
SIERRA AND NEVADA COUNTIES, CALIFORNIA

PROJECT NUMBER 218199
SCALE (AT 22' X 34')

SHEET
4.1

PLANTING PALETTES:

SYMBOL	TREATMENT	SPECIES NAME	COMMON NAME	TYPE	CONTAINER SIZE	OC SPACING	APPROX TOTAL PLANTING AREA (SF)		
	WET / MESIC (CONTAINERS)	CAREX ANGSTATA	NARROW-LEAF SEDGE	PLUG CONTAINER	TREEBAND	2			
		CAREX LENTICULARIS VAR. LIPOCARPA	FAT FRUITED SEDGE	PLUG CONTAINER	TREEBAND	2			
		JUNCUS NEVADENSIS	SIERRA RUSH	PLUG CONTAINER	TREEBAND	2			
		HORDEUM BRACHYANTHERUM SSP. BRACHYANTHERUM	MEADOW BARLEY	PLUG CONTAINER	TREEBAND	2			
		DANTHONIA CALIFORNICA	CALIFORNIA OAT GRASS	PLUG CONTAINER	TREEBAND	2			
				SEEDING RATE (LBS PURE LIVE SEED PER ACRE)					
	UPLAND (SEED)	ELYMUS ELYMOIDES SSP. CALIFORNICUS	BOTTLEBRUSH SQUIRRELTAIL		4				
		ELYMUS GLAUCUS SSP. GLAUCUS	BLUE WILD RYE		4				
		STIPA OCCIDENTALIS	WESTERN NEEDLEGRASS		5				
		POA SECUNDA SSP. SECUNDA	ONE-SIDED BLUE GRASS		0.75				
		PURSHIA TRIDENTATA VAR. TRIDENTATA	ANTELOPE BITTERBRUSH		9				
		ARTEMISIA CANA	SILVER SAGEBRUSH		0.25				
		ERIOGONUM UMBELLATUM VAR. TORREYANUM	SULPHUR BUCKWHEAT		1.25				
		PENSTEMON RYDBERGII	RYDBERG'S PENSTEMON		0.5				
		WYETHIA MOLLIS	SOFT MULES EARS		5				
		ARCHILLEA MILLEFOLIUM	YARROW		0.25				
						SEEDING RATE (LBS PURE LIVE SEED PER ACRE)			
						SEEDING RATE (LBS PURE LIVE SEED PER ACRE)			
	DRY MEADOW (SEED)	ELYMUS GLAUCUS SSP. GLAUCUS	BLUE WILD RYE		6				
		ELYMUS TRACHYCAULUS SSP. TRACHYCAULUS	SLENDER WHEATGRASS		6				
		HORDEUM BRACHYANTHERUM SSP. BRACHYANTHERUM	MEADOW BARLEY		8				
		ARGOSTIS EXARATA	SPIKE BENTGRASS		0.1875				
		POTENTILLA GRACILIS VAR. FASTIGIATA	SLENDER CINQUEFOIL		0.25				
		SOLIDAGO ELONGATA (AKA S. CANADENSIS SSP. ELONGATA)	CANADA GOLDENROD		0.0625				
		SYMPHYOTRICHUM SPATHULATUM/ASCENDENS	WESTERN MOUNTAIN ASTER		0.25				
		ACHILLEA MILLIEFOLIUM	YARROW		0.25				
		PENSTEMON RYDBERGII	RYDBERG'S PENSTEMON		0.5				
						TOTAL:		21.5	

PLANTING NOTES:

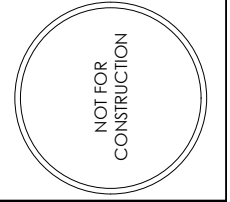
- PRIOR TO APPLICATION, CONTRACTOR SHALL SUBMIT TO THE ENGINEER'S REPRESENTATIVE A SIGNED LETTER, SEED LOT TAGS, OR OTHER WRITTEN DOCUMENTATION FROM PLANT/SEED SUPPLIER STATING THE BOTANICAL NAME, COMMON NAME, AND PROVENANCE OF ALL PLANT MATERIALS. FOR SEEDS, SAID DOCUMENTATION SHALL ALSO INCLUDE THE MINIMUM PERCENT PURITY, MINIMUM PERCENT GERMINATION, AND POUNDS PURE LIVE SEED OF THE SEED MIX PRIOR TO APPLICATION.
- ALL PLANT MATERIALS (I.E., SALVAGED WILLOW AND WILLOW STAKES, CONTAINER STOCK, AND SEED) SHALL BE FROM LOCAL GENETIC STOCK ORIGINATING FROM SIMILAR MONTANE VEGETATION WITH SOILS AND CLIMATE SIMILAR TO THE PROJECT SITE, FROM AN ELEVATION WITHIN 1,500 FEET OF THE PROJECT SITE ELEVATION, FREE OF INSECTS AND DISEASE, AND ORIGINATING AT OR NEAR THE PROJECT SITE, AND/OR WITHIN THE TRUCKEE-LAKE TAHOE BASIN. IF A PARTICULAR SPECIES IS NOT AVAILABLE WITHIN THIS ZONE, AVAILABLE PLANT MATERIALS FROM ADJACENT LOCALES MAY BE SUBSTITUTED ONLY UPON APPROVAL FROM THE ENGINEER'S REPRESENTATIVE. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER'S REPRESENTATIVE NINETY (90) WORKING DAYS PRIOR TO PLANTING TO OBTAIN THESE APPROVALS.
- SOURCE LOCATIONS OF WILLOW TRANSPLANTS AND STAKES WILL BE AVAILABLE ON FOREST SERVICE LANDS NEAR THE PROJECT SITE AND WITHIN THE LACEY CREEK WATERSHED, OR FROM OTHER AREAS WITHIN THE TRUCKEE-LAKE TAHOE BASIN AS DIRECTED BY THE ENGINEER'S REPRESENTATIVE. DONOR PLANTS SHALL BE IDENTIFIED WHILE SAID PLANTS ARE IN FULL LEAF. APPROVED SOURCE PLANTS SHALL BE FLAGGED AT THIS TIME TO ENSURE THAT THEY CAN BE IDENTIFIED DURING COLLECTION SEASON WHILE THEY ARE DORMANT. PLANT MATERIAL FROM ANY WILLOW THAT CANNOT BE VERIFIED TO BE ONE OF THE NATIVE SPECIES SPECIFIED SHALL NOT BE COLLECTED. UNLESS OTHERWISE SPECIFIED, WILLOW TRANSPLANTS AND STAKES SHALL BE OBTAINED FROM HEALTHY, VIGOROUS WILLOW STANDS AT THE LOCATIONS SHOWN ON THE DRAWINGS, AND STAKES SHALL BE CUT FROM VERTICAL STEMS TO THE EXTENT POSSIBLE. CONTRACTOR SHALL HARVEST NO MORE THAN 50% OF THE PLANTS IN A DESIGNATED AREA. NO MORE THAN 30% OF EACH INDIVIDUAL PLANT SHALL BE CUT IN A SINGLE SEASON.
- SEED SHALL BE A FRESH, CLEAN, NEW CROP MIXED BY DEALER AND PACKAGED IN DEALER'S UNOPENED CONTAINER WITH ORIGINAL LABEL. CONTAINERS OPENED PRIOR TO INSPECTION OR WITHOUT A LABEL OR TAG WILL NOT BE ACCEPTED. EACH SEED BAG SHALL BE DELIVERED TO PROJECT SITE SEALED AND CLEARLY MARKED AS TO THE SPECIES, PURITY, PERCENT GERMINATION, WEED SEED, INERT MATERIAL, DEALER'S GUARANTEE, AND DATE OF TEST. SEED SHALL HAVE BEEN TESTED FOR PURITY AND GERMINATION NOT MORE THAN FIFTEEN (15) MONTHS PRIOR TO THE APPLICATION OF THE SEED.
- MULCH SHALL BE CERTIFIED NOXIOUS WEED FREE DERIVED FROM NATIVE GRASS SPECIES GROWN IN IRRIGATED CROPLAND (IF STRAW) OR LOCALLY COLLECTED PINE NEEDLE MULCH. MULCH PIECES SHALL BE AT LEAST 6 - 8 INCHES LONG. MULCH SHALL NOT CONTAIN GLASS, PLASTIC, METAL, ROCKS, OR OTHER INORGANIC MATERIAL. MULCH SHALL NOT HAVE BEEN USED PREVIOUSLY FOR ANY OTHER USE.
- CONTAINER STOCK SHALL BE CONTRACT GROWN BY A NURSERY SPECIALIZING IN NATIVE PLANT MATERIAL AND IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATE FREE OF DISEASE OR HAZARDOUS INSECTS AND, AS DESCRIBED BY ANSI Z60.1, THEY SHALL BE HEALTHY, VIGOROUS, WELL ROOTED, AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE GROWING. PLANTS SHALL NOT BE PRUNED PRIOR TO DELIVERY AND SHALL BE LABELED AT THE SUPPLYING NURSERY WITH GENUS, SPECIES, VARIETY, AND COLLECTION LOCATION.
- ALL PLANT MATERIAL OR MULCH SUBSTITUTIONS SHALL BE APPROVED IN WRITING BY THE ENGINEER'S REPRESENTATIVE. SUBSTITUTED PLANT OR MULCH MATERIALS SHALL MEET ALL ORIGINALLY STIPULATED CONDITIONS, BE OF THE SAME SIZE AS THE MATERIAL ORIGINALLY SPECIFIED, AND BE MADE AT NO ADDITIONAL COST TO FOREST SERVICE.
- CONTRACTOR SHALL COORDINATE WITH THE ENGINEER'S REPRESENTATIVE MINIMUM TEN (10) WORKING DAYS PRIOR TO PLANTING TO ENSURE THE

ENGINEER'S REPRESENTATIVE IS ONSITE AT THE TIME OF PLANT DELIVERY AND TO ACCEPT OR REJECT PLANT MATERIALS.

- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER STORAGE, HANDLING, AND PROTECTION OF PLANT MATERIALS ONCE THEY ARE DELIVERED TO PROJECT SITE. PLANTS SHALL BE MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES AND PROTECTED FROM SUN AND DRYING WINDS. PLANTS THAT CANNOT BE INSTALLED IMMEDIATELY UPON DELIVERY SHALL BE KEPT IN THE SHADE, WATERED, AND KEPT IN A DEER-PROOF ENCLOSURE TO PREVENT BROWSING. AFTER DELIVERY, CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF ANY DAMAGED PLANT MATERIAL, AS DETERMINED BY THE ENGINEER'S REPRESENTATIVE AT NO EXPENSE TO FOREST SERVICE.
- CONTRACTOR SHALL COORDINATE WITH THE ENGINEER'S REPRESENTATIVE MINIMUM TEN (10) WORKING DAYS PRIOR TO PLANTING TO ACCEPT THE LAYOUT OF EACH PLANTING AREA. EACH PLANTING AREA SHALL BE FLAGGED BY CONTRACTOR MEETING THE APPROVAL OF THE ENGINEER'S REPRESENTATIVE. INDIVIDUAL WILLOW STAKE AND WATTLE LOCATIONS SHALL BE FLAGGED AND APPROVED BY THE ENGINEER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- CONTRACTOR SHALL INITIATE PLANTING IN THE AREAS FURTHEST FROM THE ACCESS POINT. THIS IS INTENDED TO MINIMIZE DISTURBANCE OF INSTALLED PLANTS. ADDITIONAL EFFORTS SHALL BE MADE TO LIMIT TRAMPLING OF SEED IN THE PLANTING AREA, INCLUDING RESTRICTING FOOT TRAFFIC TO A SINGLE-TRACK PATHWAY AROUND THE PERIMETER OF EACH PLANTING AREA, RATHER THAN CRISSCROSSING THE PLANTING AREAS IN MULTIPLE LOCATIONS. WORKERS SHALL LEAVE THE MAIN PATH ONLY TO PERFORM WORK AT SPECIFIC LOCALES WITHIN THE PLANTING AREA.
- PLANT MATERIALS SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS AFTER GRADING AND OTHER DISRUPTIVE CONSTRUCTION ACTIVITIES ARE COMPLETED AND FINAL GRADES HAVE BEEN APPROVED BY THE ENGINEER'S REPRESENTATIVE, BETWEEN 1 SEPTEMBER AND 15 OCTOBER UNLESS OTHERWISE APPROVED BY THE ENGINEER'S REPRESENTATIVE. WILLOW STAKE COLLECTION AND INSTALLATION AND INSTALLATION OF SALVAGED WILLOW TRANSPLANTS SHALL OCCUR BETWEEN 1 OCTOBER - 31 OCTOBER.
- PRIOR TO INSTALLATION OF PLANT MATERIALS, CONTRACTOR SHALL PREPARE SOILS BY DECOMPACTING TO MINIMUM 12 INCHES IN DEPTH BY CROSS RIPPING IN AT LEAST 2 DIRECTIONS. PLANT MATERIALS SHALL BE INSTALLED BEFORE THE ONSET OF WINTER RAINS, SNOW ACCUMULATION, AND GROUND FREEZE. WORK SHALL BE PERFORMED ONLY AT TIMES WHEN WEATHER CONDITIONS AT PROJECT SITE ARE FAVORABLE. NO WORK SHALL BE PERFORMED WHEN WIND CONDITIONS PROHIBIT UNIFORM DISTRIBUTION OF SEED UNLESS APPROVED BY THE ENGINEER'S REPRESENTATIVE. NO WORK SHALL BE PERFORMED WHEN SOILS ARE SATURATED.
- SEED SHALL BE INSTALLED AS FOLLOWS:
 - PREPARE SEEDBED BY RAKING SEEDING AREAS WITH A METAL RAKE IN TWO (2) DIRECTIONS.
 - BROADCAST SEED BY HAND USING BELLYGRINDER, OR SIMILAR METHOD, AT THE STIPULATED APPLICATION RATE.
 - HAND RAKE ALL SEED INTO SOIL IMMEDIATELY AFTER APPLICATION. RAKE SEED BED LIGHTLY TO COVER SEED WITH 1/8-INCH TO 1/4-INCH LAYER OF SOIL. SEED COVER SHALL NOT EXCEED 1/4 INCH.
 - APPLY MULCH AT A RATE OF 2000 LBS PER ACRE (TO ACHIEVE ROUGHLY 2 - 3 INCHES COVER) AND CRIMP MULCH INTO SOIL USING A SHOVEL.
- FOLLOWING INSTALLATION OF WILLOW STAKES, WILLOW TRANSPLANTS, AND CONTAINER STOCK, CONTRACTOR SHALL ENSURE THAT PLANTS ARE IRRIGATED WITHIN ONE (1) HOUR OF INSTALLATION AS FOLLOWS: WILLOW TRANSPLANTS, 20 GALLONS WITHIN A 3-FOOT RADIUS SURROUNDING PLANT; WILLOW STAKES AND CONTAINER PLANTS, 10 GALLONS WITHIN A 3-FOOT RADIUS SURROUNDING PLANT; PLUG PLANTS, 1 GALLON WITHIN A 1-FOOT RADIUS SURROUNDING EACH PLANT. IRRIGATION MAY BE DONE BY HAND IF NECESSARY.
- SOD SHALL CONSIST OF WETLAND PLANT SPECIES SALVAGED BY THE CONTRACTOR FROM A LOCATION ON TDLT LAND AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SALVAGING THE SOD IN 4-FOOT WIDE STRIPS, EXCAVATING A MINIMUM OF 6-INCHES OF SOIL TO CONTAIN AS MANY OF THE PLANT ROOTS AS POSSIBLE. THE CONTRACTOR MAY COLLECT DIFFERENT SIZE SOD STRIPS IF APPROVED BY THE ENGINEER.
- SOD SHALL NOT BE STORED AT THE PROJECT SITE FOR LONGER THAN 8-HOURS; UNLESS THE CONTRACTOR HAS IDENTIFIED A SAFE LOCATION AND WATER SOURCE THAT IS APPROVED BY THE ENGINEER BEFORE STORAGE OPERATIONS. SOD SHALL BE PROTECT FROM EXPOSURE TO WIND, SHADED FROM THE SUN, AND KEPT IN MOIST CONDITIONS UNTIL READY FOR INSTALLATION. PROTECT ROOT SYSTEM FROM EXPOSURE TO THE WEATHER.



DESIGNED BY	BKH	DATE	11/15/19
DRAWN BY	PR	DATE	7/15/20
CHECKED BY	EB	DATE	
IN CHARGE	PK	DATE	7/15/20
SUBMITTALS / REVISIONS			
BY			
	30% DESIGN		
	65% DESIGN		

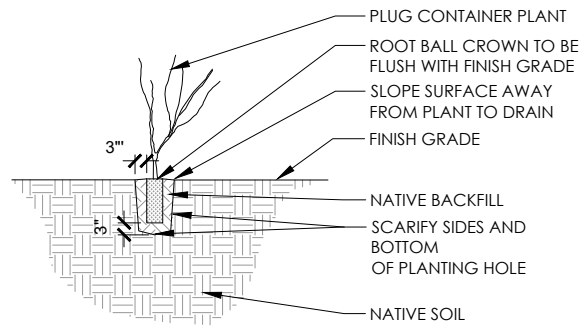


PLANTING PALETTE & NOTES
 LACEY MEADOWS RESTORATION DESIGN
 SIERRA AND NEVADA COUNTIES, CALIFORNIA

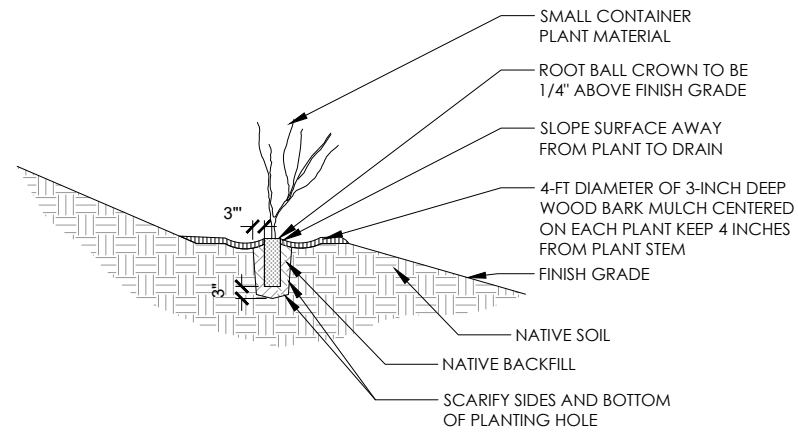
PROJECT NUMBER
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SCALE (AT 22" X 34")

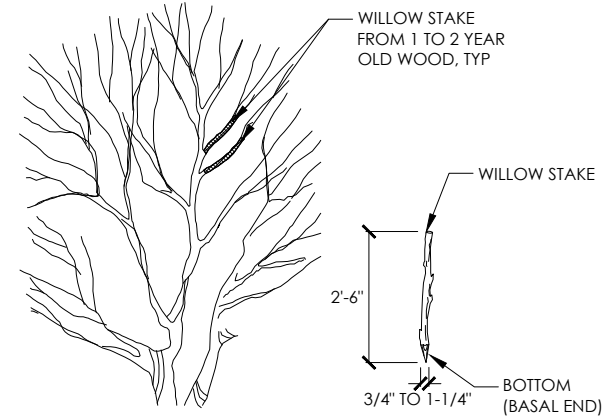
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1 PLUG CONTAINER PLANT - FLAT
SCALE: NTS



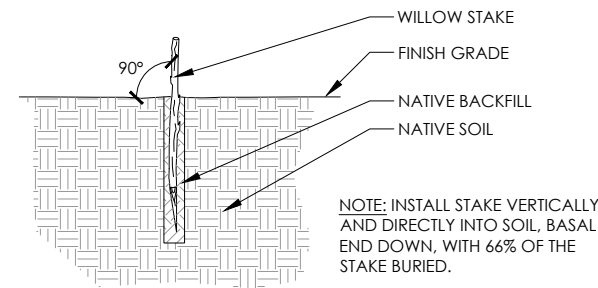
2 PLUG CONTAINER PLANT - SLOPE
SCALE: NTS



NOTES:

1. COLLECT MATERIAL FROM SELECT, HEALTHY GREEN WOOD FROM LOCATIONS APPROVED BY PROJECT BIOLOGIST.
2. NO MORE THAN 50% OF THE PLANTS IN A DESIGNATED AREA SHALL BE CUT. NO MORE THAN 30% OF EACH INDIVIDUAL PLANT SHALL BE CUT IN A SINGLE SEASON.
3. AFTER CLEANLY CUTTING STAKE FROM TREE, TRIM TWIGS AND BRANCHES FLUSH TO STAKE.
4. ORIENT STAKE WITH LEAF BUD SCARS POINTING UP.
5. CUT TOP SQUARE.
6. CUT BOTTOM (BASAL END) AT A 45 DEGREE ANGLE.
7. IMMEDIATELY AFTER CUTTING AND TRIMMING, SUBMERGE 75% OF STAKE, BASAL END DOWN, IN WATER TO PREVENT DESICCATION.
8. STAKES SHALL BE PLANTED THE SAME DAY THEY ARE CUT.

3 WILLOW STAKE COLLECTION
SCALE: NTS



NOTE: INSTALL STAKE VERTICALLY AND DIRECTLY INTO SOIL, BASAL END DOWN, WITH 66% OF THE STAKE BURIED.

4 WILLOW STAKE INSTALLATION
SCALE: NTS

DESIGNED BY	DRAWN BY	CHECKED BY	IN CHARGE	DATE	DATE	DATE
BKH	BKH	EB	PK	7/15/20		
	PR					

BY	DATE	REVISIONS
BKH	11/15/19	30% DESIGN
BKH	7/15/20	65% DESIGN

NOT FOR CONSTRUCTION

PLANTING DETAILS
LACEY MEADOWS RESTORATION DESIGN
SIERRA AND NEVADA COUNTIES, CALIFORNIA

PROJECT NUMBER
218199
SCALE (AT 22' X 34')

SHEET

5.1