DONNER CREEK RESTORATION PROJECT SITES 2 - 4



VICINITY MAP

HORIZONTAL & VERTICAL CONTROLS

VERTICAL CONTROL IS NAVD 88, FEET

HORIZONTAL CONTROL IS CALIFORNIA STATE PLANE, ZONE 2, NAD 83, FEET

CALL USA (UNDERGROUND SERVICE ALERT) AT LEAST 48 HRS IN ADVANCE OF WORK 1-(800)-642-2444 OR 811.



Town of Truckee, Nevada County, CA 96161

Prosser	
1	
inshire Or	

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ABBREVIATIONS

AC	ASPHALT CONCRETE; ACRE
APPROX	APPROXIMATELY
CL	CENTERLINE
CONC	CONCRETE
CRZ	CLEAR RECOVERY ZONE
CTE	CALTRANS ELECTRICAL
DI	DRAINAGE INLET
DBH	DIAMETER BREAST HEIGHT
EG	EXISTING GRADE
EL	ELEVATION
EOP	EDGE OF PAVEMENT
ETW	EDGE OF TRAVELED WAY
EX	EXISTING
FT	FEET
H:V	HORIZONTAL:VERTICAL (SLOPE)
INV	INVERT
LBS	POUNDS
LOD	LIMIT OF DISTURBANCE
MAX/MIN	MAXIMUM/MINIMUM
Ν	NEW
NTS	NOT TO SCALE
OC	ON CENTER
PLS	PURE LIVE SEED
PLS	PURE LIVE SEED BROADCAST RATE
ROW	RIGHT-OF-WAY
RSP	ROCK SLOPE PROTECTION
SS	SANITARY SEWER
STA	STATION
TBD	TO BE DETERMINED
ТВМ	TEMPORARY BENCHMARK
TRWC	TRUCKEE RIVER WATERSHED COUNCIL
TYP	TYPICAL
VERT	VERTICAL
W/	WITH
#	NUMBER
%	PERCENT
0	
<i>w</i>	AI

APPROVED:

LISA WALLACE, EX TRUCKEE RIVER W

TBD CALIFORNIA DEPAR

CAROL Y BEAHAN, P.E. WILDSCAPE ENGINEERING, INC.

CONTACT THE ENGINEER FOR SYMBOLS OR ABBREVIATIONS NOT SHOWN

Project Partners:	
Gitrans	

LEGEND

PROPOSED IMPROVEMENTS	
LIMIT OF DISTURBANCE	
TEMP. ACCESS ROUTE	
TEMP. CONSTRUCTION LIMIT FENCE	
TEMP. SILT FENCE	
PROPOSED STAGING/PARKING AREAS	7//////////////////////////////////////
PROPOSED BOULDERS	$\bigcap O O O$
PROPOSED ROOTWAD REVETMENT	
PROPOSED BOULDER BENDWAY WEIR	म्बरहरम
PROPOSED ROCK SLOPE PROTECTION	
PROPOSED GRASS-LINED SWALE	
PROPOSED CONTOUR	
TEMPORARY TRAFFIC CONTROL SIGN	
PORTABLE FLASHING BEACON	
EXISTING CONDITIONS	$\overline{\mathbf{x}}_{\mathbf{x}}$
MINOR CONTOUR LINE (2-FOOT)	
MAJOR CONTOUR LINE (10-FOOT)	
APPROX. ORDINARY HIGH WATER	
PROPERTY LINE	
CALTRANS RIGHT-OF-WAY BOUNDARY	· · · · · ·
GAS PIPELINE	— GAS — GAS —
EX SEWER LINE	SS
EX ELECTRICAL LINE	——— Е ———
EX WATER LINE	w
EX STORM DRAIN	— sD — sD —
EX CAL TRANS ELECTRICAL LINE	CT E
EX FIBER OPTIC	FO
EX ACCESS CONTROL FENCE	-0-0-0-0
CLEAR RECOVERY ZONE	
EX MANHOLE	
EX ABOVE-GROUND GAS	⊗
EX CULVERT OUTLET/INLET	0
EX LIGHT POLE	×
FLOW PATH	
EX ROCK GABION WEIR (SITE 3)	
TREE W/ ASSOCIATED DRIPLINE	\sim
ECUTIVE DIRECTOR	DATE
VATERSHED COUNCIL	
	DATE
RTMENT OF TRANSPORTATION	(CALTRANS)
	、 /



RUCKEE RIVER WATERSHED COUNCIL

DATE



GENERAL NOTES

- CONTOURS SHOWN ARE FROM SURFACE GENERATED FROM FIELD SURVEY DATA AND LIDAR DATA OBTAINED FROM 2014 TAHOE NATIONAL FOREST LIDAR POINT CLOUD DATA SET FROM OPENTOPOGRAPHY.ORG.
- 2. UTILITY LOCATIONS AND PARCEL/RIGHT-OF-WAY BOUNDARIES SHOWN ARE APPROXIMATE. CALL TO START OF CONSTRUCTION TO HAVE UTILITIES MARKED.
- CONTRACTOR SHALL POSSESS A CLASS "A" LICENSE. 3.
- 4. CONTRACTORS AND SUBCONTRACTORS WORKING AT SITE 3 MUST REVIEW AND COMPLY WITH EDUCATION CODE SECTIONS 45125.1 AND 45125.2, INCLUDING BACKGROUND CHECK/FINGERPRINTING REQUIREMENTS.
- 5. CONSTRUCTION SHALL BE CONDUCTED BETWEEN THE LAST WEEK OF JUNE AND OCTOBER 15. CREEK AT USGS GAGE STATION 10338700 DROP BELOW 100 CFS (DATA AVAILABLE FROM: https://waterdata.usgs.gov/nwis/uv/?site_no=10338700). SITE 3 CONSTRUCTION SHALL BE CONDUCTED ONLY AFTER THE PUBLIC SCHOOL YEAR ENDS.
- 6. CONSTRUCTION SHALL TAKE PLACE ON WEEKDAYS BETWEEN THE HOURS OF 7:00AM AND 6:30 A CASE BY CASE BASIS.
- 7. ALL WORK SHOWN ON THESE PLANS SHALL BE DONE IN ACCORDANCE WITH CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS DATED 2023 (AVAILABLE FROM:
- HTTPS://DOT.CA.GOV/PROGRAMS/DESIGN/JULY-2023-CCS-STANDARD-PLANS-AND-STANDARD-SPECIFICATIONS). 8. WORK ALONG SHOULDER TO BE DONE USING TEMPORARY TRAFFIC CONTROL PER CA MUTCD CHAPTER 6 AND STANDARD PLAN TEMPORARY TRAFFIC CONTROL SYSTEMS SECTION.
- 9. CONTRACTOR SHALL PROVIDE A MINIMUM 72-HOUR NOTICE TO TRWC PRIOR TO MOBILIZING ONSITE OR INITIATING WORK.
- 10. STAGING AREAS SHOWN ARE APPROXIMATE AND SHALL BE FIELD FIT UNDER THE DIRECTION OF THE TRWC APPOINTED ENGINEER (ENGINEER).
- 11. CONTRACTOR SHALL ONLY USE ACCESS AND STAGING AREAS SHOWN ON THESE PLANS OR SUBMIT A PLAN TO TRWC FOR ANY ADDITIONAL AREAS AND RECEIVE APPROVAL PRIOR TO USE.
- 12. ALL EXISTING VEGETATION SHALL BE PROTECTED UNLESS OTHERWISE NOTED OR APPROVED IN THE FIELD BY THE ENGINEER OR RESTORATION ECOLOGIST.
- 13. ALL TEMPORARY STAGING AND ACCESS AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UPON PROJECT COMPLETION TO THE SATISFACTION OF TRWC AND CALTRANS.
- 14. ALL NATURAL GRADED AREAS SHALL TRANSITION SMOOTHLY TO ADJACENT FEATURES AND GRADES AND MEET FINISH GRADE AS SHOWN ON THE PLANS +/- 0.2 FEET IN THE VERTICAL AND +/- 0.2 FEET IN THE HORIZONTAL.
- 15. CONTRACTOR SHALL ADHERE TO ALL RELEVANT PERMITS INCLUDING BUT NOT NECESSARILY LIMITED TO CALTRANS ENCROACHMENT PERMITS, LAHONTAN REGIONAL WATER QUALITY CONTROL BOARD 401 AND STORM WATER POLLUTION PREVENTION PLAN, ARMY CORPS OF ENGINEERS 404 PERMIT. CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE STREAMBED ALTERATION AGREEMENT, NEVADA COUNTY AND TOWN OF TRUCKEE PERMITS.
- 16. CONTRACTOR SHALL PHOTOGRAPH/VIDEO PRE- AND POST-CONSTRUCTION CONDITION OF SCHOOL ACCESS ROADS BETWEEN DONNER PASS ROAD AND SITE 3 STAGING AREA AND **RESTORE ANY DAMAGES TO ORIGINAL CONDITION.**

SITE MAP

FOD L'
WILDSCAPE ENGINEERING, INC. 1901 Lisa Maloof Way, Suite #108 South Lake Tahoe, CA 96150 www.wildscape-engineering.com
DONNER CREEK BONNER CREEK RESTORATION PROJECT SITES 2 - 4 Town of Truckee, CA 96161
Designed: Drawn: Checked: CYB GRH/JA CYB File Date: 01/11/2024 REVISIONS: No. Date Description
Sheet Title:
KEY PLAN, GENERAL NOTES Sheet Scale: AS SHOWN Sheet Number G-2



TEMP. DIVERSION PIPE

- TEMP. FISH SCREEN

• TEMP SIDEWALK/BIKE PATH SIGNAGE

TEMP HIGHWAY SIGNAGE

NOTES:

- 1. CONTRACTOR SHALL SUBMIT A DETAILED TRAFFIC CONTROL PLAN AND CREEK DIVERSION/DEWATERING PLAN FOR REVIEW AND APPROVAL AT LEAST 4 WEEKS PRIOR TO START OF CONSTRUCTION. CONTRACTOR MAY MODIFY DIVERSION PLAN AS SHOWN FOR REVIEW AND APPROVAL BY TRWC AND THE ENGINEER, HOWEVER ANY APPROACH FROM THE WEST BANK WOULD REQUIRE ADDITIONAL TRAFFIC CONTROL AND CALTRANS APPROVALS.
- 2. EQUIPMENT >15,000 LBS/AXLE SHALL NOT BE PERMITTED TO TRAVEL ALONG THE UTILITY ACCESS ROAD SHOWN.
- 3. CONTRACTOR SHALL NOT BLOCK ACCESS TO SIERRA COLLEGE ROAD OR SIDEWALK.
- 4. FOR ACCESS THROUGH FORESTED AREA AS SHOWN, MINIMIZE VEGETATION DISTURBANCE TO THE EXTENT PRACTICABLE, SHRED ANY REMOVED TREES AND REUSE MULCH ONSITE.
- 5. UPON PROJECT COMPLETION, RIP COMPACTED ACCESS ROUTE TO 6-INCH MIN. DEPTH THEN SEED AND MULCH. SEE SHEETS R-1 AND R-4 FOR ADDITIONAL INFORMATION.
- 6. ALL TRAFFIC CONTROL SIGNAGE TO FOLLOW TEMPORARY TRAFFIC CONTROL PER CA MUTCD CHAPTER 6 AND STANDARD PLAN TEMPORARY TRAFFIC CONTROL SYSTEMS SECTION.
- 7. CONTRACTOR SHALL PROTECT ALL EX UTILITIES AT ALL TIMES.





REMOVE EX DEBRIS PILE



REGRADE EX GRAVEL BAR AND SALVAGE EX WILLOW PLANTS

RESTORE SECONDARY CHANNELS

PROPOSED GRADE



PLANTED RSP

NOTES:

- 1. ALL WORK SHALL BE CONDUCTED UNDER THE SUPERVISION OF THE ENGINEER.
- 2. REWORK EAST GRAVEL BAR TO RESTORE FLOODPLAIN AND ACTIVATE SECONDARY FLOW CHANNELS PER FIELD DIECT. APPROX. CUT VOLUME IS 200 +/- 30 CY.
- 3. REMOVE DEBRIS FROM EXISTING DEBRIS PILE AND REUSE/ REDISTIBUTE AS DIRECTED BY THE ENGINEER.
- 4. REBUILD WEST BANK TO 1.5:1 (H:V) MAX SLOPE USING EXCAVATED MATERIAL FROM GRAVEL BAR AND OTHER ONSITE MATERIALS AS AVAILABLE. SUPPLEMENT WITH APPROVED LOCAL SOURCES AS NEEDED. APPROX. FILL VOLUME IS 300 +/- 45 CY.
- 5. KEY IN BOULDERS AND INSTALL PLANTINGS SALVAGED WILLOWS AND WILLOW POLES TO STABILIZE BANK (SEE SECTION VIEWS) - PER FIELD DIRECT.
- 6. INSTALL BENDWAY WEIRS TO REDIRECT FLOWS TO CHANNEL CENTER PER FIELD DIRECT.
- 7. INSTALL TWO 10' WIDE ROCKED SEGMENTS IN LOCATION FLAGGED BY ENGINEER TO MAINTAIN CREEK VIEWS. ROCK TO BE 3" TO 6" DIAM. RIVER ROCK INSTALLED TO 12" MIN. DEPTH WITH NO GAPS CONTRACTOR TO PROVIDE A SAMPLE OF ROCK FOR TRWC APPROVAL, SEE SPECIFICATIONS.
- 8. SEE SHEET C-1 FOR STAGING, ACCESS, AND TEMP. EROSION CONTROL.
- 9. SEE SHEET R-1 AND R-4 FOR REVEGETATION PLANS.



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SECTION A-A

SECTION B-B

	FODTVOCT RUCKEE RIVER WATERSHED COUNCIL
ION	WILDSCAPE E NGINEERING
	WILDSCAPE ENGINEERING, INC. 1901 Lisa Maloof Way, Suite #108 South Lake Tahoe, CA 96150 www.wildscape-engineering.com
6 0 4	DONNER CREEK RESTORATION PROJECT SITES 2 - 4 Town of Truckee, CA 96161
VATION B	Designed: Drawn: Checked: CYB GRH/NCP CYB File Date: 01/12/2024 REVISIONS: No. Date Description
2	Sheet Title:
	SITE 2 SECTIONS Sheet Scale: AS SHOWN Sheet Number C-3 5 of 19

NOTES:

- 1. REMOVE SECTIONS OF EX CHAIN LINK FENCE FOR SITE ACCESS WHERE SHOWN. CONTRACTOR TO PHOTO DOCUMENT CONDITION OF EX CHAIN LINK FENCE TO BE REMOVED PRIOR TO REMOVAL AND RESTORE OR REPLACE TO ORIGINAL OR BETTER CONDITION UPON PROJECT COMPLETION.
- SITE ACCESS, EMPLOYEE PARKING, AND CONSTRUCTION SCHEDULE SUBJECT TO APPROVAL BY TAHOE TRUCKEE UNIFIED SCHOOL DISTRICT.
- 3. PROTECT EXISTING RIPARIAN AND UPLAND TREES AND SHRUBS ADJACENT TO WORK AREAS USING
- CONSTRUCTION LIMIT FENCING. PRUNE AS NEEDED TO PROTECT VEGETATION FROM EQUIPMENT DAMAGE.
 4. TEMP. STAGING AREA AND ACCESS ROUTES SHOWN SHALL BE RESTORED TO ORIGINAL CONDITION AT LEAST ONE WEEK PRIOR TO THE FIRST DAY OF THE SCHOOL YEAR. A NEW STAGING AREA MAY BE CREATED ON THE WEST SIDE OF THE PROJECT, SUBJECT TO APPROVAL BY TAHOE TRUCKEE UNIFIED SCHOOL DISTRICT, FOR ANY REMAINING STAGING NEEDS (I.E. FOR REVEGETATION EFFORTS).
- SILT FENCE TO BE INSTALLED IN DRY AREAS ONLY. IF AREA WHERE SILT FENCE IS PROPOSED IS SATURATED OR HAS STANDING WATER, CONTRACTOR TO WORK WITH ENGINEER TO ADJUST LOCATION.
 CONTRACTOR SHALL PROTECT ALL EX UTILITIES AT ALL TIMES.

LEGEND

STABILIZED CONSTRUCTION ENTRANCE

→ VEHICLE/EQUIPMENT ACCESS ROUTE

NOTES:

- 1. ALL EXCAVATION WORK SHALL BE FIELD DIRECTED BY THE ENGINEER OR RESTORATION ECOLOGIST. APPROX. TOTAL EXCAVATION VOLUME IS UP TO 3,300 CY.
- 2. CONTRACTOR SHALL SUBMIT A DETAILED WORK PLAN INCLUDING SPOILS MANAGEMENT PLAN FOR REVIEW AND APPROVAL AT LEAST 2 WEEKS PRIOR TO START OF CONSTRUCTION.
- BEGIN WORK AT PROJECT ENDS AND WORK BACK TOWARDS ACCESS ENTRY POINTS. 3.
- SEE SHEET C-4 FOR STAGING, ACCESS, AND TEMP. EROSION CONTROL 4
- SEE SHEET R-2 FOR REVEGETATION PLAN AND SHEET R-4 FOR REVEGETATION SPECIFICATIONS. -5
- ENGINEER'S SURVEYOR TO STAKE ALIGNMENT OF EXPANDED WETLAND AREA AND CONTRACTOR TO CONTACT USA TO MARK UTILITIES 6 WITHIN GRADING EXTENTS TWO WEEKS PRIOR TO CONSTRUCTION. CONTRACTOR TO POTHOLE FOR GAS AND ANY OTHER UTILITIES A MINIMUM OF 1 WEEK PRIOR TO CONSTRUCTION TO DETERMINE IF DEPTHS OR EXTENTS NEED TO BE MODIFIED. CONTRACTOR TO PROVIDE TRWC AND THE ENGINEER AT LEAST 48 HOUR NOTICE OF POTHOLE DATE/TIME.

LEGEND

APPROX 40' SETBACK FROM EOP

SECTION B-B

/ 1−80 →	5896 5892 NOILEVAI 5886 5882		FOLLA COUNCIL
+80 1-		EXISTING GRADE PROPOSED GRAD	WILDSCAPE ENGINEERING, INC. 1901 Lisa Maloof Way, Suite #108 South Lake Tahoe, CA 96150 www.wildscape-engineering.com
			DONNER CREEK BONNER CREEK RESTORATION PROJECT SITES 2 - 4 Town of Truckee, CA 96161
			Designed: Drawn: Checked: CYB File Date: 1/18/2024 REVISIONS: No. Date Description No. Date Description Image: Checked: Sheet Title: Sheet Title: SITE 3 SECTIONS Sheet Scale: AS SHOWN Sheet Scale: AS SHOWN

NOTES:

1. ROOTWAD INSTALLATIONS SHALL BE UNDER THE FIELD DIRECTION OF THE ENGINEER. INSTALLATION LOCATIONS SHOWN ARE APPROXIMATE AND WILL BE FIELD FLAGGED BY THE ENGINEER.

- 2. GRADE OUT ANY GULLIES/RILLS BETWEEN VEGETATED SWALE AND FREEWAY SHOULDER.
- SEE SHEET C-7 FOR STAGING, ACCESS, AND TEMP. EROSION CONTROL. 3
- 4. SEE SHEETS R-3 AND SHEET R-4 FOR REVEGETATION.

5. IN ADDITION TO PROTECTING ALL EXISTING UTILITIES AT ALL TIMES AS SHOWN ON C-7, THE SS LINE MUST ALSO BE PROTECTED AT ALL TIMES. LOCATION AND ELEVATIONS OF SANITARY SEWER (SS) LINE SHOWN ARE APPROXIMATE AND BASED ON RELATIVE AS-BUILT INFORMATION WITH UNKNOWN VERTICAL DATUM. TRWC REPRESENTATIVE WILL CONTACT TRUCKEE SANITARY DISTRICT TWO WEEKS PRIOR TO CONSTRUCTION TO HAVE SS LINE MARKED IN THE FIELD.

6. DELINEATION OF CLEAR RECOVERY ZONE BASED ON 2022 AERIAL IMAGERY.

WORK ALONG SHOULDER TO BE DONE USING TEMPORARY TRAFFIC CONTROL PER CA MUTCD CHAPTER 6 7. AND STANDARD PLAN TEMPORARY TRAFFIC CONTROL SYSTEMS SECTION.

8. ENGINEER'S SURVEYOR TO STAKE ALIGNMENT OF SWALE AND CONTRACTOR TO CONTACT USA TO MARK UTILITIES ALONG INTERSTATE 80 EASTBOUND SHOULDER ALONG SWALE EXTENTS TWO WEEKS PRIOR TO CONSTRUCTION. CONTRACTOR TO POTHOLE FOR CTE AND ANY OTHER UTILITIES THAT INTERSECT WITH SWALE ALIGNMENT A MINIMUM OF 1 WEEK PRIOR TO CONSTRUCTION TO DETERMINE IF CTE RELOCATION IS REQUIRED.OR SWALE LENGTHS EXTENTS SHOWN NEED TO BE TRUNCATED. CONTRACTOR TO PROVIDE TRWC AND THE ENGINEER AT LEAST 48 HOUR NOTICE OF POTHOLE DATE/TIME.

9. FLOODPLAIN BENCH EXTENTS SHOWN ARE APPROXIMATE. ENGINEER TO FLAG EXTENTS IN THE FIELD PRIOR TO EXCAVATION.

LEGEND

CLEAR RECOVERY ZONE

PROFILE LEGEND

CUT

PROPOSED GRADE

FLOODPLAIN BENCH

PLANTED RSP

NOTES:

- 1. THE SS LINE MUST BE PROTECTED AT ALL TIMES. LOCATION AND ELEVATIONS OF SANITARY SEWER (SS) LINE SHOWN ARE APPROXIMATE AND BASED ON RELATIVE AS-BUILT INFORMATION WITH UNKNOWN VERTICAL DATUM. TRWC REPRESENTATIVE WILL CONTACT TRUCKEE SANITARY DISTRICT TWO WEEKS PRIOR TO CONSTRUCTION TO HAVE SS LINE MARKED IN THE FIELD.
- 2. REGRADE BANK TO 1.5:1 MAX SLOPE AND STABILIZE WITH PLANTED RSP. KEY IN 1/2-TON BOULDERS AT TOE AND TRANSITION TO 1/4-TON BOULDERS EXTENDING TO TOP OF RESTORED BANK AS DIRECTED BY THE ENGINEER. INCORPORATE WILLOW POLES WITHIN RSP PER DETAIL 4, SHEET D-2. WHEN TREES >1' DIAM DBH ARE AVAILABLE WITHIN THE DISTURBANCE AREA AND THERE IS AT LEAST 15' OF SPACE BETWEEN THE EX SS LINE AND TERMINUS OF LOG PLACEMENT INCORPORATE UP TO 4 ROOTWADS AT BANK TOE SPACED 10' +/- O.C. ON U/S AND D/S ENDS OF RSP WHEN BUILDING UP RSP, PER DETAIL 3, SHEET D-2.
- 3. ROOTWAD INSTALLATIONS SHALL BE UNDER THE FIELD DIRECTION OF THE ENGINEER. INSTALLATION LOCATIONS SHOWN ARE APPROXIMATE.
- 4. SEE SHEET C-7 FOR STAGING, ACCESS, AND TEMP. EROSION CONTROL.
- 5. SEE SHEETS R-3 AND SHEET R-4 FOR REVEGETATION.

1 REBUILD SOUTH BANK NTS

4X VERTICAL EXAGGERATION

Elevation		
0.00		WILDSCAPE ENGINEERING, INC. 1901 Lisa Maloof Way, Suite #108 South Lake Tahoe, CA 96150 www.wildscape-engineering.com
0.00		DONNER CREEK RESTORATION PROJECT LOWER SITE 4 Town of Truckee, CA 96161
Elevation		Designed: Drawn: Checked: CYB GRH/JK CYB File Date: 1/18/2024 REVISIONS: No. Date Description
0.00		Sheet Title: LOWER SITE #4 RESTORATION
5.00	0 10 20 SCALE: feet	Sheet Scale: AS SHOWN Sheet Number C-10 12 of 19

REVEGETATION SEED MIX 1 (TABLE 1), 7,920 SF

REVEGETATION SEED MIX 2 (TABLE 2), 3100 SF

INSTALL 50-80 WILLOW POLES, 8' O.C., 1300 SF

NOTES:

- 1. SALVAGE WILLOW POLES AS DIRECTED BY THE ENGINEER OR RESTORATION SPECIALIST.
- 2. INSTALL WILLOW POLES CONCURRENTLY WITH BOULDER PLACEMENT ALONG REBUILT BANK UNDER THE FIELD DIRECTION OF THE ENGINEER OR RESTORATION SPECIALIST.
- 3. SALVAGE AND INSTALL ANY WILLOWS WITHIN DISTURBANCE AREA PER FIELD DIRECT.
- 4. DECOMPACT ALL DISTURBED STAGING AND ACCESS AREAS. SEED AND MULCH AS DIRECTED BY RESTORATION SPECIALIST.
- 5. SEE SHEET R-4 FOR ADDITIONAL REVEGETATION SPECIFICATIONS.

		PLS
Botanical Name	Common Name/Variety	lbs./acre
Achillea millefolium	yarrow	0.10
Elymus elymoides	squirreltail	2.00
Elymus glaucus	blue wildrye, 'Stanislaus'	3.00
Elymus trachycaulus	slender wheatgrass 'Revenue'	2.00
Hordeum brachyantherum	meadow barley, from 6,000' and higher	2.00
Leymus triticoides	creeping wildrye "Shoshone"	5.00
Lupinus polyphyllus	Tahoe lupine	2.00
Poa pratensis	Kentucky bluegrass	3.00
Poa secunda	Sandberg bluegrass, 'Sherman'	1.00
Potentilla gracilis	cinquefoil	0.50
Total		20.60

Table 1.	Revegetation	Seed	Mix	1
	revegetation	Occu		

Table 2	Reverentation	bool	Niv	2
Table 2.	Revegetation	Seed	ΙΝΙΙΧ	Ζ

		PLS
Botanical Name	Common Name/Variety	lbs./acre
Achillea millefoium	yarrow	0.10
Achnatherum occidentalis	Western needlegrass	1.00
Artemisia tridentata ssp. vaseyana	Mtn. big sagebrush	0.50
Elymus elymoides	Squirreltail	3.00
Elymus trachycaulus	slender wheatgrass 'Revenue Pryor'	3.00
Eriogonum umbellatum	sulphur buckwheat	1.00
Linum lewissi	Lewis flax 'Maple Grove"	0.25
Lupinus lepidus	Pacific lupine	3.00
Poa secunda	Sandberg bluegrass 'Sherman'	2.00
Purshia tridentata	Antelope bitterbrush	3.00
Wyethia mollis	Mule's ears	0.50
Total		17.35

WETLAND SWALES/BASIN. SALVAGE TOPSOIL AND ORGANIC MATTER AND SOD. REAPPLY ALL MATERIAL TO FINISH GRADE. BROADCAST REVEGETATION SEED MIX 3 (TABLE 1). INSTALL COIR 40/400. SEE NOTES HERE AND SHEET R-4 HYDROSEED REVEGETATION SEED MIX 2 (TABLE 2). INSTALL FIBER ROLLS 40' O.C. PER FIELD DIRECT.

INSTALL UP TO 150 WILLOW POLES, 8' O.C., SEE DETAIL 4 SHEET D-2

WILLOW POLE SALVAGE AREA, SEE NOTES SHEET R-4

FIBER ROLL

		PLS
Botanical Name	Common Name/Variety	lbs./acre
Achillea millefolium	yarrow	0.10
Elymus glaucus	blue wildrye, 'Stanislaus'	3.00
Elymus trachycaulus	slender wheatgrass 'Revenue' or 'Pryor'	3.00
Geum macrophyllum	big-leaved avens	0.50
Hordeum brachyantherum	meadow barley, from 6,000' and higher	2.00
Juncus balticus	Baltic rush	0.10
Leymus triticoides	creeping wildrye	3.00
Lupinus polyphyllus	Tahoe lupine	2.00
Penstemon rydbergii	whorled penstemon	0.50
Potentilla gracilis	slender cinquefoil	0.50
Sidalcaea oregana	checker mallow	0.50
Total		15.20

Table 1. Revegetation Seed Mix 3

Table 2. Revegetation Seed Mix 2

		PLS
Botanical Name	Common Name/Variety	lbs./acre
Achillea millefoium	yarrow	0.10
Achnatherum occidentalis	Western needlegrass	1.00
Artemisia tridentata ssp. vaseyana	Mtn. big sagebrush	0.50
Elymus elymoides	Squirreltail	3.00
Elymus trachycaulus	slender wheatgrass 'Revenue Pryor'	3.00
Eriogonum umbellatum	sulphur buckwheat	1.00
Linum lewissi	Lewis flax 'Maple Grove"	0.25
Lupinus lepidus	Pacific lupine	3.00
Poa secunda	Sandberg bluegrass 'Sherman'	2.00
Purshia tridentata	Antelope bitterbrush	3.00
Wyethia mollis	Mule's ears	0.50
Total		17.35

Table 1. Site #4 Dianting Specification							INSTALL WILLOW POLES AND APPLY WETLAND SEED MIX	AND BROADCAST WETLAND SEED MIX
Species		Approx. Nun	nber	Spacing	301 27 23 1314	L. o/		IF OPTIONAL STAGING IS USED - HYDROSEED
Lemmon's willow (S. lemmonii)80 Poles			8' OC			Table 4	Site 4 Unland Seed Mix	
Table 2. Site 4 Wetland Seed Mix								
			PLS	Table 3	3. Site 3 and 4 Swale Seed Mix		Botanical Name	Common Name/Variety
Botanical Name	Common Name/Varie	ety	lbs./acre			PLS	Achillea millefoium	yarrow
Achillea millefolium	yarrow		0.10	Botanical Name	Common Name/Variety	lbs./acre	Achnatherum occidentalis	Western needlegrass
Elymus elymoides	squirreltail		2.00	Achillea millefoium	yarrow	0.10	Artemisia tridentata ssp. vaseyana	Mtn. big sagebrush
Elymus glaucus	blue wildrye, 'Stanisla	IUS'	3.00	Achnatherum occidentalis	Western needlegrass	1.00	Elymus elymoides	Squirreltail
Elymus trachycaulus	slender wheatgrass 'F	Revenue'	2.00	Bromus carinatus	California brome	3.00	Elymus trachycaulus	slender wheatgrass 'Revenue' 'Pryor'
Hordeum brachyantherum	meadow barley, from	6,000' and higher	2.00	Elymus elymoides	squirreltail	3.00	Eriogonum umbellatum	sulphur buckwheat
Leymus triticoides	creeping wildrye "Sho	oshone"	5.00	Elymus trachycaulus	slender wheatgrass, 'Pryor'	3.00	Linum lewisii	Lewis flax 'Maple Grove"
Lupinus polyphyllus	Tahoe lupine		2.00	Eriogonum umbellatum	sulphur buckwheat	2.00	Lupinus lepidus	Pacific lupine
Poa pratensis	Kentucky bluegrass		3.00	Lupinus argenteus	silvery lupine	3.00	Poa secunda	Sandberg bluegrass 'Sherman'
Poa secunda	Sandberg bluegrass,	'Sherman'	1.00	Poa secunda	Sandberg bluegrass	2.00	Purshia tridentata	Antelope bitterbrush
Potentilla gracilis	cinquefoil		0.50	Thinopyrum intermedium	intermediate wheatgrass, 'Luna'	3.00	Wyethia mollis	Mule's ears
Total			20.60	_ Total		20.10	Total	

PLANTING NOTES

1. ALL REVEGETATION WORK SHALL BE CONDUCTED BY A LICENSED C27 CONTRACTOR UNDER THE SUPERVISION OF THE TRWC RESTORATION SPECIALIST.

SEEDING/SITE PREPARATION

- 2. LOOSEN ALL DISTURBED AREAS TO A 6-IN MIN DEPTH PRIOR TO SEED APPLICATION.
- 3. ALL SEED SHALL CONFORM TO ALL LAWS AND REGULATIONS PERTAINING TO THE SALE AND SHIPMENT OF SEED REQUIRED BY THE CALIFORNIA FOOD AND AGRICULTRAL CODE OF 1982, REGULATIONS OF 1983, AND THE FEDERAL SEED ACT. SEED SHALL BE FROM NATIVE, HIGH-ELEVATION SOURCES (>5000 -FEET) TO THE GREATEST EXTENT POSSIBLE. ALL SEED MUST BE TESTED WITHIN 12 MONTHS OF THE APPLICATION DATE. SUBMIT ORIGINAL SEED TESTS BY LOT NUMBER TO THE TRWC 30 -DAYS PRIOR TO APPLICATION TO ALLOW FOR WRITTEN APPROVAL PRIOR TO MIXING AND SUBSEQUENT PLACEMENT. SEED TAGS MUST REFLECT THE MOST RECENT TEST DATE. DELIVER ALL SEED TO THE PROJECT SITE IN SEALED, TAGGED BAGS. CROP SEED SHALL NOT EXCEED 0.25% OF THE PURE LIVE SEED (PLS) SPECIFIED. WEED SEED SHALL NOT EXCEED 0.15% OF THE PLS AND SHALL NOT INCLUDE ANY SEED OF THE FOLLOWING SPECIES:
- -CHEATGRASS (BROMUS TECTORUM); -RUSSIAN THISTLE (SALSOLA TRAGUS);

-SWEET BLOSSOM CLOVERS (MELILOTUS OFFICINALIS, M. ALBA); AND -TANSY MUSTARD (DESCURAINIA PINNATA).

SEED TAGS SHALL SHOW THE FOLLOWING INFORMATION:

- -SCIENTIFIC NAME
- -COMMON NAME
- -LOT NUMBER
- -PERCENT PURITY

-PERCENT GERMINATION, INCLUDING HARD AND DORMANT SEED -PERCENT WEED SEED

-ORIGIN

SUBMIT REQUESTS FOR SUBSTITUTE SPECIES, AND/OR VARIETIES IN WRITING. WRITTEN APPROVAL FROM TRWC IS REQUIRED FOR ALL REQUESTED SUBSTITUTIONS.

- 4. APPLY SEED AFTER SEPTEMBER 15 AS THE CONSTRUCTION SCHEDULE ALLOWS.
- 5. CONTRACTOR SHALL NOTIFY THE RESTORATION SPECIALIST AT LEAST 72 HOURS IN ADVANCE OF ANY SEEDING.
- FOR COMPACTED SOILS (85% OR MORE) LOOSEN TO A SIX INCH MIN. DEPTH (LEAVE SURFACE ROUGH) THEN EVENLY HAND BROADCAST SEED (UNLESS HYDROSEED IS CALLED FOR) WHERE SHOWN ON THE PLANS AT SPECIFIED RATES AND RAKE TO INCORPORATE TO A DEPTH OF 1/4 - 1/2 INCH.
- 7. DO NOT APPLY SEED DURING WINDS > 5MPH.

SALVAGED WETLAND SOD

- 8. SOD SHALL BE SALVAGED FROM THE WORK AREAS AS SHOWN ON THE DRAWINGS. HARVESTED SOD SHALL CONSIST OF ABOVE GROUND AND BELOW GROUND PLANT MATERIALS INCLUDING LEAVES AND ROOTS, AND THE SOIL BOUND BY THE ROOT MASS.
- 9. CONTRACTOR SHALL STAKE AREAS OF SOD TO BE HARVESTED FROM THE SITE AS SHOWN ON THE DRAWINGS FOR APPROVAL BY THE RESTORATION SPECIALIST. REMOVE IN 3 -FOOT BY 3 -FOOT SECTIONS, RESULTING IN CLEAN, VERTICAL EDGES. SOD SHALL BE SCALPED FROM THE ORIGINAL GROUND SURFACE TO A DEPTH OF NO LESS THAN 8 -INCHES, AS MEASURED FROM THE ROOT CROWN. ALL NON-COHESIVE MATERIAL SHALL BE SALVAGED AND PLACED AS ORGANIC MATERIAL AND TOPSOIL.
- 10. LIFT SOD FROM THE SUB-GRADE USING MACHINERY EQUIPPED WITH A FRONT-END BUCKET OR OTHERWISE APPROVED APPARATUS. REDUCE HANDLING AND STORAGE TIME SO THAT EXCAVATION AND REAPPLICATION IS CONCURRENT AS MUCH AS PRACTICABLE. USE LOW GROUND PRESSURE EQUIPMENT AND TRAILERED TANK OR EQUIPMENT AS APPROVED IN THE SUBMITTALS TO LIMIT COMPACTION AND TO WATER SOD PRIOR TO LIFTING.
- 11. STOCKPILE WHERE APPROVED BY THE TRWC AND ADJACENT TO THE SALVAGE AREA, STORED SOD SHALL BE PLACED WITH ROOTS DOWN AND EDGES SNUGLY ADJOINING ADJACENT SECTIONS FOR A MAXIMUM DURATION OF TWO WEEKS. STORED SOD SHALL NOT BE STACKED. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE MOISTURE TO THE SOD DURING THE INTERIM STORAGE PERIOD AND IS RESPONSIBLE FOR MAINTAINING HEALTHY MATERIAL UNTIL IT IS RE-PLANTED.
- 12. SOD PLACEMENT WITH NETTING. WATER SURFACES PRIOR TO PLACEMENT AS DIRECTED. OVER-EXCAVATE AREAS FOR INSTALLATION AS NEEDED SO CROWNS OF SOD ARE AT FINISH GRADE. PLANT INTO MOIST SOIL SUCH THAT EDGES SNUGLY ADJOINING ADJACENT SECTIONS. CHINK WITH NATIVE TOPSOIL SO THAT THE EDGES OF THE SOD ARE WELL COVERED. THOROUGHLY WATER SOD. SOD SHALL BE MAINTAINED IN A MOIST, HEALTHY CONDITION UNTIL ESTABLISHED. APPLY WETLAND SEED MIX OVER ANY BARE AREAS AND WHERE COVER BY PLACED SOD COVER IS LESS THAN 100%.FOR THE WETLAND SWALE/BASINS START AT THE OUTFALL END OF THE CHANNEL WORKING UPSTREAM TO THE INLET, OVERLAPPING NETTING IN A SHINGLE PATTERN WITH A MINIMUM SIX-INCH OVERLAP. STAKE WITH 12-INCH STAKES ON AVERAGE 2 STAKES PER SQ. YARD IN A DIAMOND PATTERN. LAY BLANKETS LOOSELY TO ENSURE GOOD SOIL/SOD CONTACT.
- **HYDROMULCH AND TACKIFER (SITE 4 SWALE, SITE 2 & 4 ACCESS/STAGING)** 13. RECYCLED PAPER MULCH CONSISTS OF DEGRADABLE GREEN-DYED
- 100%-RECYCLED MATERIAL PRODUCED FROM NEWSPRINT, CHIPBOARD, CORRUGATED CARDBOARD, OR A COMBINATION OF THESE MATERIALS.
 14. MATERIAL SHALL BE FREE FROM WEEDS OR OTHER FOREIGN MATTER TOXIC TO SEED GERMINATION.

- 15. TACKIFIER. MATERIAL SHALL BE OF AN ORGANIC, PL SUBSTANCE CONTAINING PSYLLIUM OR GUAR GUM
- THEREOF SUCH AS M-BINDER OR APPROVED EQUAL
 16. MATERIAL SHALL FORM A TRANSPARENT THREE-DIN
 FILM-LIKE CRUST PERMEABLE TO WATER AND AIR A
 AGENTS TOXIC TO SEED GERMINATION.
- 17. APPLY 2,000 LBS./ACRE RECYCLED PAPER MULCH, TACKIFIER .
- 18. USE EQUIPMENT WITH BUILT-IN AGITATION SYSTEM OPERATING CAPACITY SUFFICIENT TO AGITATE, SUS HOMOGENEOUSLY MIX A SLURRY. DO NOT APPLY UI CONDITIONS. DO NOT LET LIVE MATERIAL SIT IN THE TWO HOURS. BLEND MATERIALS WITH ADEQUATE W SLURRY SUITABLE FOR APPLICATION WITH POWER S
- 19. EQUIP DISTRIBUTION AND DISCHARGE LINES WITH A DISCHARGE SPRAY NOZZLES THAT WILL PROVIDE A DISTRIBUTION OF THE SLURRY. APPLICATION SHALL ANY SHEET OR RILL EROSION AND SUBSEQUENT RU

WILLOW POLES

- 20. ALL BRANCHES SHALL BE CUT FROM HEALTHY, LIVE BRANCHES OF WILLOW (SALIX LEMMONII, S. GEYERI LASIANDRA) AND SHALL BE TAKEN FROM SUITABLE THE PROJECT AREA VICINITY.
- 21. WILLOW POLES SHALL BE LIVE DORMANT MATERIAL SEPTEMBER 15). SEE DETAIL 4, D-2 FOR ADDITIONAL SPECIFICATIONS.

SALVAGED WILLOW PLANTS/CLUMPS

- 22. SALVAGE UP TO 12 WILLOW CLUMPS AS STAKED IN ENGINEER OR RESTORATION SPECIALIST.
 23. REMOVE AND REDUCTION CONCLUDED IN MITH CONCLUDING IN M
- REMOVE AND REPLANT CONCURRENT WITH CONSTI AS PRACTICABLE.
 PRIOR TO REMOVAL PRUNE PLANTS SO THAT BRANK
- 3 NODES, BUT DO NOT EXCEED 6" IN LENGTH. CUTS LEAVE NO FRAYED BARK, AND BE MADE $\frac{1}{2}$ " ABOVE THE
- 25. GENTLY REMOVE PLANTS BY EXCAVATING AROUND WITH A BACKHOE BUCKET, OR SIMILAR EQUIPMENT ENGINEER OR RESTORATION SPECIALIST. AS MUCH AS FEASIBLE SHALL BE REMOVED INTACT. PRUNE D BURLAP MAY BE USED TO WRAP AND PROTECT THE DURING TRANSPORT AND STORAGE. STORE AS DIRE LOCATION APPROVED BY THE ENGINEER OR RESTO AND WATER AS NEEDED AND DIRECTED UNTIL THEY AN APPROVED LOCATION. PRECISE LOCATIONS FOR BE DETERMINED BY THE ENGINEER OR RESTORATION
- 26. PLANTING HOLES MAY NOT BE PREPARED MORE TH TO PLANT REMOVAL FROM STORAGE SITE. HOLES S EXCAVATED 12" BELOW THE ROOT ZONE AND 12" WI OF THE ROOT MASS. LOOSEN SOILS IN THE BOTTOM SIDES OF THE HOLE AND PLACE THE PLANT IN THE F WITH THE EXCAVATED MOIST SOIL SO THAT THE RO BELOW EX GRADE. TAMP SOIL AND THOROUGHLY W FOLLOWING PLANTING. .

EROSION CONTROL BLANKETS

- 27. 40/400 NETTING SHALL BE 100% COIR FIBER TWINE V 11.8 -OZ/SY (400 G/SQ.M.), 0.3-INCHES THICK, (7.6 MM 166 -FEET (50M) IN LENGTH, AND 65% OPEN AREA OF OR PRODUCT EQUAL).
- 28. 70/700 NETTING SHALL BE 100% HIGH STRENGTH CC IN THICKNESS, MADE FROM WELL-CLEANED, FRESH COCONUT FIBER, 50% OPEN AREA OF WEAVE (TYP D OR 700 SERIES OF COIR NETTING PRODUCTS). THE I ABLE TO WITHSTAND FLOWS OF UP TO 12 FT/SEC AN LONGEVITY OF 4 TO 6 YEARS. STANDARD ROLL SIZE (2M X 50M) - 120 SY/ROLL 13.1' X 83' (4M X 25M) - 120 S (4M X 50M) - 240 SY/ROLL.
- 29. STAKES SHALL BE 12 -INCHES IN LENGTH, MANUFAC HARDWOOD (ECO-STAKE OR EQUIVALENT).
- 30. AFTER BROADCASTING SEED, INSTALL BLANKETS FI THE SLOPE TO BEHIND THE RSP AS SHOWN ON THE A 6 X 6 INCH TRENCH AT THE TOP OF THE SLOPE, O INCHES AND STAKE WITH 12 INCH STAKES ON AVER SQ YARD IN A DIAMOND PATTERN. LAY BLANKETS LO FOR GOOD SOIL CONTACT.
- 31. CAREFULLY KEY IN BLANKETS UNDER ALL STRUCTU ENDS OF BLANKETS.

MAINTENANCE/WARRANTY

32. FOR 2 YEARS FOLLOWING WORK COMPLETION, WAR OCCURRENCE OR EVIDENCE OF RILL OR SHEET ERC SURVIVAL OF POLES AND 100% SURVIVAL OF PLANT AND WILLOW CLUMPS.

LANT-DERIVED , OR A COMBINATION	
L. MENSIONAL AND CONTAINING NO	
AND 200 LBS./ACRE	
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UNOFF.	
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L WILLOW POLE	
	1NC #108 50 com
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