



Clean Water Act Section 401 Water Quality Certification Application

Please refer to the “Clean Water Act Section 401 Water Quality Certification Application Guidance” document for assistance with completing this application.

A. Pre-Filing Meeting	
Please provide the date that a pre-filing meeting was requested from Nevada Division of Environmental Protection (NDEP) Bureau of Water Quality Planning (BWQP).	7/7/2025
<i>Note: If a pre-filing meeting has not been requested, please schedule a pre-filing meeting with NDEP BWQP.</i>	

B. Contact Information		
Project Proponent Information		
Company Name: Nevada Tahoe Conservation District		Address: PO box 915
Applicant Name: Meghan Kelly		City: Zephyr Cove
Phone: (775)524-3481	Fax: NA	State: Nevada
Email: mkelly@ntcd.org		Zip Code: 89448
Agent Information		
Company Name:		Address:
Agent Name:		City:
Phone:	Fax:	State:
Email:		Zip Code:

C. Project General Information			
Project Location			
Project/Site Name: McFaul Creek Stream and Meadow Restoration		Name of receiving waterbody: Lake Tahoe	
Address: 550 Sierra Sunset		Type of waterbody present at project location (<i>select all that apply</i>): <input type="checkbox"/> Perennial River or Stream <input checked="" type="checkbox"/> Intermittent River or Stream <input type="checkbox"/> Ephemeral River or Stream <input type="checkbox"/> Lake/Pond/Reservoir <input type="checkbox"/> Wetland <input type="checkbox"/> Other: _____	
City: Zephyr Cove			
County: Douglas			
State: Nevada			
Zip Code: 89448			
Latitude (UTM or Dec/Deg): 38.99546964090947		Longitude (UTM or Dec/Deg): -119.95092333683492	
Township: 13	Range: 18E	Section: 15	¼ Section:

Project Details		
Project purpose:	Restoration of McFaul Creek to improve habitat and and water quality while balancing the existing uses in the area.	
Describe current site conditions: Attachments can include, but are not limited to, relevant site data, photographs that represent current site conditions, or other relevant documentation.	McFaul Creek is currently a shallow, intermittent stream that runs dry by summer into fall. Due to Comstock-era activities, the creek was channelized and pushed to one side of the meadow adjacent to Lake Tahoe.	
Describe the proposed activity including methodology of each project element:	See NWP27 Report page 7	
Estimate the nature, specific location, and number of discharge(s) expected to be authorized by the proposed activity:	Discharge is limited to earthwork within the channel as described in NWP27 report page 8-9	
Provide the date(s) on which the proposed activity is planned to begin and end and the approximate date(s) when any discharge(s) may commence:	July 1 2026-October 15, 2026 while McFaul Creek is dry.	
Provide a list of the federal permit(s) or license(s) required to conduct the activity which may result in a discharge into regulated waters (see mandatory attachments):	US Army Corps of Engineer NWP27 and 404.	
Provide a list of all other federal, state, interstate, tribal, territorial, or local agency authorizations required for the proposed activity and the current status of each authorization:	Tahoe Regional Planning Agency (EIP Permit, initial discussions), Douglas County (Site Improvement Permit)	
Total area of impact to regulated waterbodies (acres):	0.15 acres	
Total distance of impact to regulated waterbodies (linear feet):	635 linear feet	
Amount excavation and/or fill discharged within regulated waters (acres, linear feet, and cubic yards):	Temporary:	Permanent:
	3 CY	292 CY Cut 75 CY Fill
Amount of dredge material discharged within regulated waters (acres, linear feet, and cubic yards):	Temporary:	Permanent:
	0 CY	
Describe the reason(s) why avoidance of temporary fill in regulated waters is not practicable (if applicable):	temporary fill is up to 3 coffer dams for diversion of the creek and water quality protection during construction.	

<p>Describe the Best Management Practices (BMPs) to be implemented to avoid and/or minimize impacts to regulated waters:</p> <p>Examples include sediment and erosion control measures, habitat preservation, flow diversions, dewatering, hazardous materials management, water quality monitoring, equipment or plans to treat, control, or manage discharges, etc.</p>	<p>Construction limit fencing will be installed to limit the footprint of the construction area. Filter fence and sediment logs will be used downhill of any earth disturbing utilities. Timing of the project will avoid water in the creek. See project SWPPP and dewatering plan for additional measures.</p>
<p>Describe how the activity has been designed to avoid and/or minimize adverse effects, both temporary and permanent, to regulated waters:</p>	<p>The Project has been designed to minimize adverse effects to WOUS through the phasing and timing of the project as well as the dewatering plan. The Project has a robust revegetation plan.</p>
<p>Describe any compensatory mitigation planned for this project (if applicable):</p>	<p>The project will result in a net gain of 0.53 acres of aquatic resources and therefore no compensatory mitigation is necessary.</p>

D. Signature		
Name and Title (Print): Meghan Kelly	Phone Number: (775) 901-9251	Date: 5/27/2026
		
<hr style="width: 30%; margin: auto;"/> Signature of Responsible Official		

Mandatory Attachments:

- **Federal Permit or License Application** - A copy of the federal permit or license application and any readily available water quality-related materials that informed the development of the federal license or permit application.
- **Site Map** - A map or diagram of the proposed project site including project boundaries in relation to regulated waters, local streets, roads, and highways.
- **Engineered Drawings** - Engineered drawings are preferred to be submitted at the 70% design level. If only conceptual designs are available at the time of application, plans for construction should be submitted prior to the start of the project. Specific locations of the proposed activities and details of specific work elements planned for the project should be identified (e.g., staging areas, concrete washouts, perimeter controls, water diversions, or other BMPs).

Submit the completed application materials to NDEP (ndep401@ndep.nv.gov) with the appropriate U.S. Army Corps of Engineers Regulatory Office copied on the communication (<http://www.spk.usace.army.mil/Missions/Regulatory/Contacts/Contact-Your-Local-Office/>).

NWP 27 Report- Aquatic Ecosystem Restoration, Enhancement, and Establishment Activities

McFaul Creek Stream and Meadow Restoration

1) Permittee Information

PERMITTEE

Patrick Willis, Willis Family Trust
 550 Sierra Sunset Lane Zephyr Cove, NV 89448

AGENT: Sierra Ecotone Solutions LLC is the Agent
 Garth Alling and Alison Stanton prepared this report
 PO Box 1297
 Zephyr Cove, NV 89448
 530-416-2240 galling@sierraecotonesolutions.com

PROJECT MANAGER

Nevada Tahoe Conservation District (NTCD)
 PO Box 915
 Zephyr Cove, NV 89448
 775-586-1610

2) Project Location

The McFaul Creek Stream and Meadow Restoration Project (Project) is located at 550 Sierra Sunset Lane in Zephyr Cove in Douglas County, Nevada (**Figure 1 Project Location and Vicinity**). The Project Area is 8.1 acres and located on the south side of US Highway 50 in the southeastern corner of Lake Tahoe.

Location	Douglas County, Nevada
APN	1318-15-101-009
Address	550 Sierra Sunset Lane Zephyr Cove 89488

Driving Directions	From Reno, take 395 South for 35 miles. Take exit to US-50 westbound and travel for approximately 19 miles. Turn right into the driveway. From Sacramento, take US-50 eastbound for approximately 108 miles to Zephyr Cove. Turn left into driveway.
Waterbody	McFaul Creek
Tributary to downstream waterbody	Lake Tahoe
Latitude & Longitude (DD)	38.99355 -119.95352
Township, Range, Section,	Township 14 North, Range 17 East, Section 3
USGS Quadrangle	South Lake Tahoe

3) Baseline Ecological Conditions

Watershed

The McFaul Creek watershed is a small steep drainage of only 3.7-acres located on the southeastern shore of Lake Tahoe in Douglas County, Nevada. Most of the watershed runs through remote, undeveloped public lands in the Carson Range owned by the US Forest Service. Within the final mile before draining into Lake Tahoe, the Creek runs through two private parcels. The first parcel includes Lake Tranquility, a privately owned dammed reservoir that holds water from McFaul for recreational purposes. McFaul Creek drains from the reservoir through a vault and a pipe, and then continues through a short steep gully before reaching a lower-gradient riparian corridor dominated by aspens. It then crosses below US Highway 50 through a concrete box culvert which discharges to McFaul Creek Meadow, a privately owned meadow extending between the highway and Lake Tahoe. Elevation in the study area ranges from 6,230 feet at the shoreline to approximately 6,260 feet on the upper end of McFaul Creek Meadow at US Highway 50.

Hydrology

McFaul Creek is a very shallow, intermittent stream that runs dry by summer and into fall. When there is water, this alluvial system supports limited transport and deposition of sand with some gravels. Hydrology in Marlette Creek is snow-melt dominated and punctuated with runoff from summer thunderstorms or from rain-on-snow events. Peak flows can occur during the snow-melt season (April through June) or during a rain-on-snow event.

The present-day condition of McFaul Creek and the meadow is significantly different from pre-Comstock Era conditions, when a perennial multi-threaded channel with frequent

overbanking likely ran through the meadow. An 1890s topographic map of the area shows two blue line streams, one running on the north side of the meadow, and one associated with McFaul Creek running down the center of the meadow. The pre-disturbance meadow would have likely been considered “Stage Zero”, according to contemporary geomorphologists under the Cluer and Thorne Stream Evolution Model. Today, an incised single threaded channel exists along the northern periphery of the meadow. The dam on Lake Tranquility alters flows in the channel, leaving it dry most years in the later summer and early fall. Various irrigation and diversions structures installed during the early 1900s along with additional modifications in the watershed, such as the US Highway 50 embankment and culvert and the development of lower portions of the watershed in Zephyr Heights and the Pinewild HOA Condominiums, continue to alter flow and disrupt natural drainage patterns in the meadow of both surface and groundwater. Issues resulting from the altered drainage, including bank erosion, channel incision, and headcut migration, will continue to degrade water quality if they are not addressed.

The first lakeside residence was constructed on the parcel in the mid-1900s. That residence was reconstructed and moved slightly further into the meadow in 2005. As part of the conditions of approval, an “SEZ mitigation project” was constructed in 2013, which created a new ditch in McFaul Creek Meadow and removed a small reservoir on McFaul Creek and created a new rocked outlet into Lake Tahoe. In 2020, horse grazing in the meadow ended after a new owner purchased the Sierra Sunset Estate. Most recently, a series of stormwater basins were constructed in 2025 on the northeastern corner of the property as part of the Nevada Department of Transportation Marla Bay Pinewild Water Quality Improvement Project. The project has the potential to increase both surface and groundwater flows into McFaul Creek after it is fully connected in 2026. Some of the additional water that will be conveyed into this system presently runs through the Marla Bay neighborhood to the north.

Aquatic and Terrestrial Habitat Conditions

As shown in **Table 1** and **Figure 1 Baseline Aquatic and Terrestrial Habitat Conditions Map**, a total of 5 habitat types are mapped Within the 8.1-acre Project Area.

MapID	Table 1. Mapped Habitat Types	Acres	Sq. Feet
1	Lake Tahoe (below OHW)	0.30	13,270
2	Riverine (McFaul Creek)	0.24	10,438
3	Stormwater basin (new in 2025)	0.43	18,886
4/5	Montane Riparian	1.79	77,859

6/7/8	Wet Meadow	3.26	142,221
	Jeffrey Pine Forest	2.07	93,739
	TOTAL	8.1	356,403

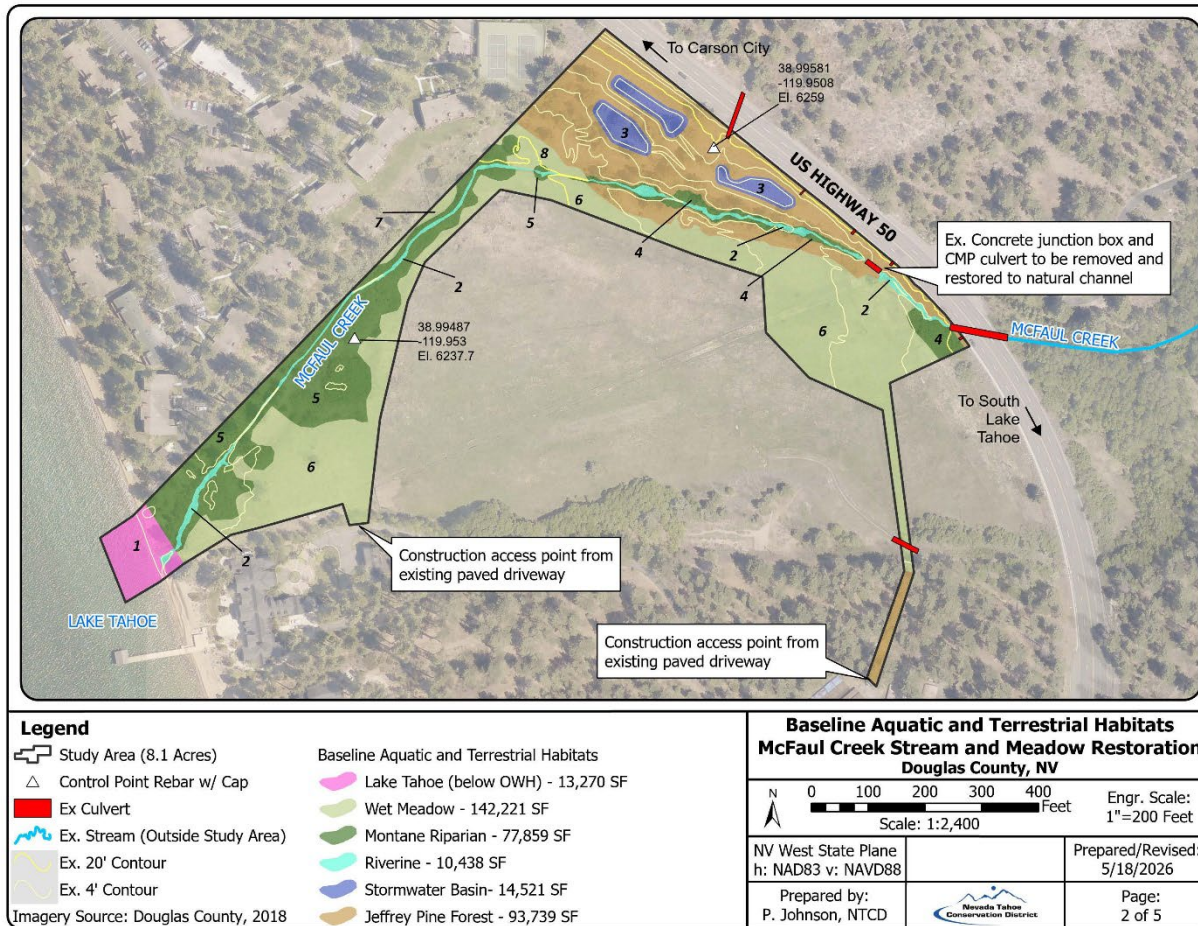


Figure 1. Baseline Aquatic and Terrestrial Habitat Conditions Map

Riverine

The Riverine habitat of the McFaul Creek channel occupies 0.24-acres and supports the adjacent 1.79- acres of Montane Riparian habitat. McFaul Creek is very shallow and usually runs dry by summer and into fall, therefore it provides limited aquatic habitat and does not provide suitable habitat for Lahontan cutthroat trout (*Oncorhynchus clarkia henshawi*; LCT) or Sierra Nevada yellow-legged frog (*Rana sierra*). When conditions are wet enough, obligate wetland species such as American brooklime (*Veronica americana*) and mountain bog bulrush (*Scirpus microcarpus*) occur within the channel.

Montane Riparian

McFaul Creek supports the adjacent 1.79- acres of Montane Riparian habitat. The width of the corridor varies depending on the degree of channel incision. Directly downstream of the US Highway 50 culvert, the McFaul Creek channel becomes deeply incised, with bank heights of 4 feet and greater. As a consequence, the Montane Riparian habitat is very narrow along this section. At the culvert, both sides of the channel are lined by a dense thicket of Woods rose (*Rosa woodsii*). South of the stormwater basins, upland vegetation lines the top of the banks. As the creek approaches the northern property line, it turns to the southwest towards Lake Tahoe and the Montane Riparian plant community from this point is dominated by Lemmon's willow (*Salix lemonii*). The channel becomes very constrained by a series of berms that were likely dredged from the meadow when the channel was moved in the 1990s. Closer to Lake Tahoe, the shallow channel becomes increasingly connected to the floodplain, and the riparian corridor expands. There are several more thickets of Woods rose growing among the willows in these reaches. The riparian corridor may provide nesting habitat for song birds.

Wet Meadow

Wet meadow habitat occupies the largest portion of the Project Area (3.26-acres). Meadow habitat along the area close to Highway 50 is fairly dry, but gets increasingly wet as it nears Lake Tahoe. The wetter areas support a variety of sedges (*Carex sp.*), Sierra rush (*Juncus nevadensis*), many grasses like meadow foxtail (*Alopecurus pratensis*) and tufted hairgrass (*Deschampsia cespitosa*), and a diverse assemblage of forbs such as seep spring arnica (*Arnica longifolia*) and American rocket (*Barbarea orthoceras*). The wet meadow provides foraging habitat for resident and migratory birds including ducks and geese.

Jeffrey Pine Forest

The area surrounding the new stormbasins and the top of the McFaul Creek channel in the vicinity of Highway 50 supports about 2-acres of Jeffrey Pine Forest, consisting of an overstory of Jeffrey pine (*Pinus jeffreyi*) and a shrub layer of upland species such as big sage (*Artemisia tridentata*) and bitterbrush (*Purshia tridentata*). Jeffrey pine forest also abuts the length of the northern boundary of the property.

Lake Tahoe shoreline

No project activities will occur within the shoreline of Lake Tahoe below the legal limit of 6,229.1 feet Lake Tahoe Datum. However, several plants of the Nevada State Critically Endangered Tahoe yellow cress (*Rorripa subumbellata*) were observed at the outlet of McFaul Creek in May 2026, just outside of the Project Area. No impacts to these plants will occur because no Project activities will occur in the vicinity.

4) Project Objectives

Restoring McFaul Creek and the meadow to its natural pre-Comstock Era Stage Zero state is not feasible due to extensive development in the watershed and private water rights that allow the upstream landowner to retain water in Lake Tranquility in the late summer that prevents natural baseflow conditions. In addition, restoring the stream to a Stage 0 condition with frequent overbanking into the meadow may lead to unintended consequences such as increased flooding of developed areas. Instead, the restoration will focus on improving water quality in McFaul Creek before it is discharged to Lake Tahoe and decreasing flood risk to private property. For example, improved conveyance in select areas of the creek and the establishment of a Stage 8 inset anastomosing flood plain would provide very high hydro-geomorphic, habitat, and ecosystem benefits, while protecting infrastructure from flooding.

Therefore, the purpose of the McFaul Creek Stream and Meadow Restoration Project is to provide ecosystem benefits while balancing existing uses in the area. The objectives of the restoration are to:

- Create a functional floodplain and expanded riparian area to improve hydrologic function and aquatic and terrestrial habitat conditions
- Create a new channel to improve the capacity of McFaul Creek to convey higher flows from the stormwater basins constructed in 2025 as part of the Marla Bay Pinewild Water Quality Improvement Project
- Improve channel morphology to lower stream velocities in McFaul Creek during high flows that improve water quality in McFaul Creek and Lake Tahoe
- Increase fire resiliency and meadow health through reduced conifer encroachment
- Decrease flood risk to infrastructure and private property in the McFaul Creek meadow

5) Proposed Restoration Actions

The Project area consists of a modified creek and meadow system that has been subject to historic and modern alterations, including channelization, berm construction, and adjacent infrastructure development. These modifications have contributed to channel incision, reduced floodplain connectivity, and localized erosion. The proposed restoration is intended to improve hydrologic function, water quality, and habitat conditions through channel reconstruction, floodplain enhancement, berm removal, and related grading activities designed to restore more natural geomorphic and ecological processes.

Conditions in the McFaul Creek channel are most degraded directly downstream of the US Highway 50 culvert, where bank heights can exceed 4 feet. Proposed actions in this section include:

- Remove an existing concrete junction box and CMP culvert
- Realign a 285 linear foot (LF) section of McFaul Creek to increase separation from the highway and reduce pollutant loading from roadway runoff
- Construct 350 LF of higher sinuosity channel using sod and blanket stabilization
- Install appropriate natural grade controls made of wood, rock and native vegetation to reduce flow velocities during high discharge events, promote bank overtopping, and mitigate flood risk.
- Use local channel bed material to fill existing 3-foot headcut and relocate willow to provide shading.
- Utilize grading to remove existing berms and increase the width of the floodplain by 10 to 14 feet on the north side of the creek.

As Mc Faul Creek continues toward Lake Tahoe, several types of legacy modifications prevent connectivity with the meadow. Constructing a floodplain in this area may help address groundwater issues at the house, which presently uses a pumping system to convey water back towards the creek. A more functional floodplain may also improve drainage and reduce the risk of flooding at the residence. Conifer encroachment is also occurring into the meadow. The proposed actions are:

- Use grading to lower elevated surfaces between the creek and the meadow by a maximum of 18 inches, with an average cut of 6 inches.
- Construct new inset floodplain up to 40-feet wide to re-establish hydrologic connectivity and reduce localized ponding and flood risk.
- Remove 12 trees to reduce conifer encroachment and decrease wildfire risk.
- Repair downstream head-cut using sod and material from the floodplain restoration

6) Proposed Avoidance and Minimization Actions

Construction is expected to occur during the summer and early fall months under low-flow conditions, therefore, dewatering measures are not anticipated for project implementation. To minimize or prevent sediment transport and protect water quality, the following avoidance and minimization measures are proposed:

- Isolated summer thunderstorms have the potential to cause intermittent flows in the creek during construction, therefore, the contractor will be required to have pumps on site at all times

- the contractor will be required to install a coffer dam at the downstream end of McFaul Creek as well as at the downstream end of work areas to minimize or prevent erosion
- standard construction BMPs such as silt fences, construction limit fencing, and other sediment barriers and erosion control measures will be utilized
- all areas of construction and access routes will be revegetated post-project with appropriate site-specific seed mix
- NTCD will conduct post-project monitoring to ensure the project is adequately stabilized and revegetated

7) Impact Summary

Ground disturbance associated with proposed Project activities will consist primarily of shallow excavation and grading, generally up to approximately two feet in depth, with limited deeper excavation possible within active channel reconstruction areas.

Disturbance will occur across multiple discrete locations within the Project area and will include excavation, grading, and minor placement of native fills. Native fill may include excavated soils, streambed rock or gravels, and/ or locally sourced logs.

As shown in **Table 2**, the proposed Direct Effects of the Project include proposed cut of 292 cubic yards (CY) and proposed fill in existing Aquatic Resources of 75 CY (1,886 square feet). The Project will result in a net increase of 2,276 Sq. ft. (0.05 acres) of potential Aquatic Resources and a concomitant decrease in the amount of Jeffrey Pine.

Table 2. Direct Effects and Impact Summary							
MapID	Habitat	Existing Area	Proposed Area	Change	Proposed Cut	Proposed Fill (native materials)	
		Sq. Feet	Sq. Feet	Sq. Feet	Cu. yards	Cu. yards	Sq. Feet
1	Lake Tahoe shore	13,270	13,270	0	0	0	0
2	Riverine	10,438	9,364	-1,074	5	60	1,296
3	Stormwater Basin	18,886	18,886	0	0	0	0
4	Montane Riparian	77,859	85,355	7,496	191	15	590
6	Emergent Wetland	142,211	138,062	-4,149	96	0	0
	Total in Aquatic habitat	262,664	264,937	2,273	292	75	1,886
	Jeffrey Pine upland	93,739	91,467	-2,272	12	NA	NA

Figure 2 illustrates the proposed changes in aquatic and terrestrial habitats that would result from Project activities. The proposed fill, consisting of soil excavated from the new 350-foot section of high sinuosity channel, will be used to fill the 285 LF of existing channel of McFaul Creek as part of the relocation. Additional fill, consisting of native soil with some logs and streambed gravels, will accompany construction of the new channel. The restoration will expand the area of montane riparian habitat in the vicinity of Highway 50 and decrease the amount of upland. The majority of the proposed cut in the Project Area

will occur throughout the riparian corridor along the McFaul Creek channel to remove existing berms and other legacy modifications that constrain connection with the floodplain. Those changes will also result in expanded riparian habitat.

The indirect effects of the Proposed Project are the anticipated restoration of more natural geomorphic and ecological processes within the McFaul Creek meadow system. The proposed restoration has been designed to result in future improvements in hydrologic function, water quality, and habitat conditions that would benefit wildlife. Additional benefits are increased fire resiliency and meadow health through reduced conifer encroachment and decreased flood risk to infrastructure and private property in the McFaul Creek meadow.

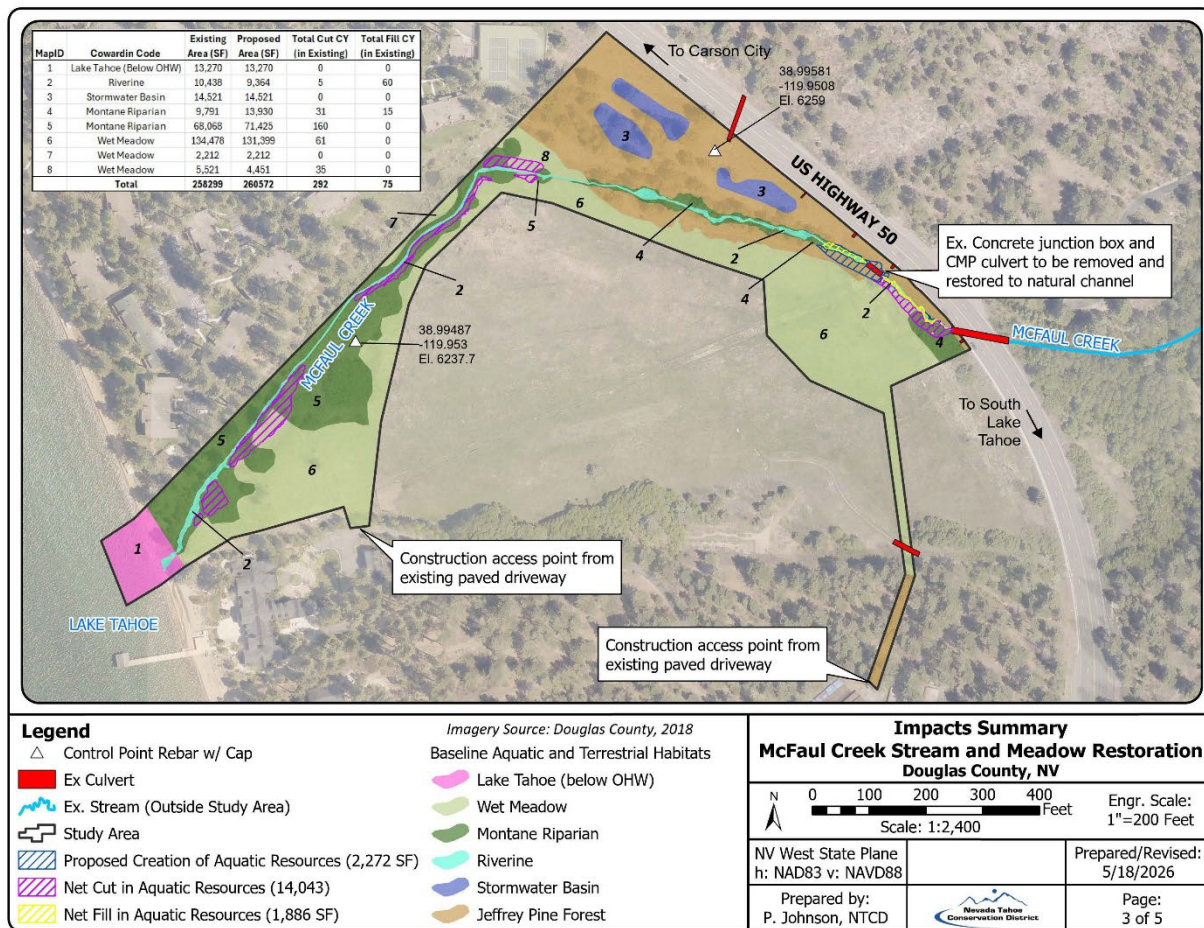
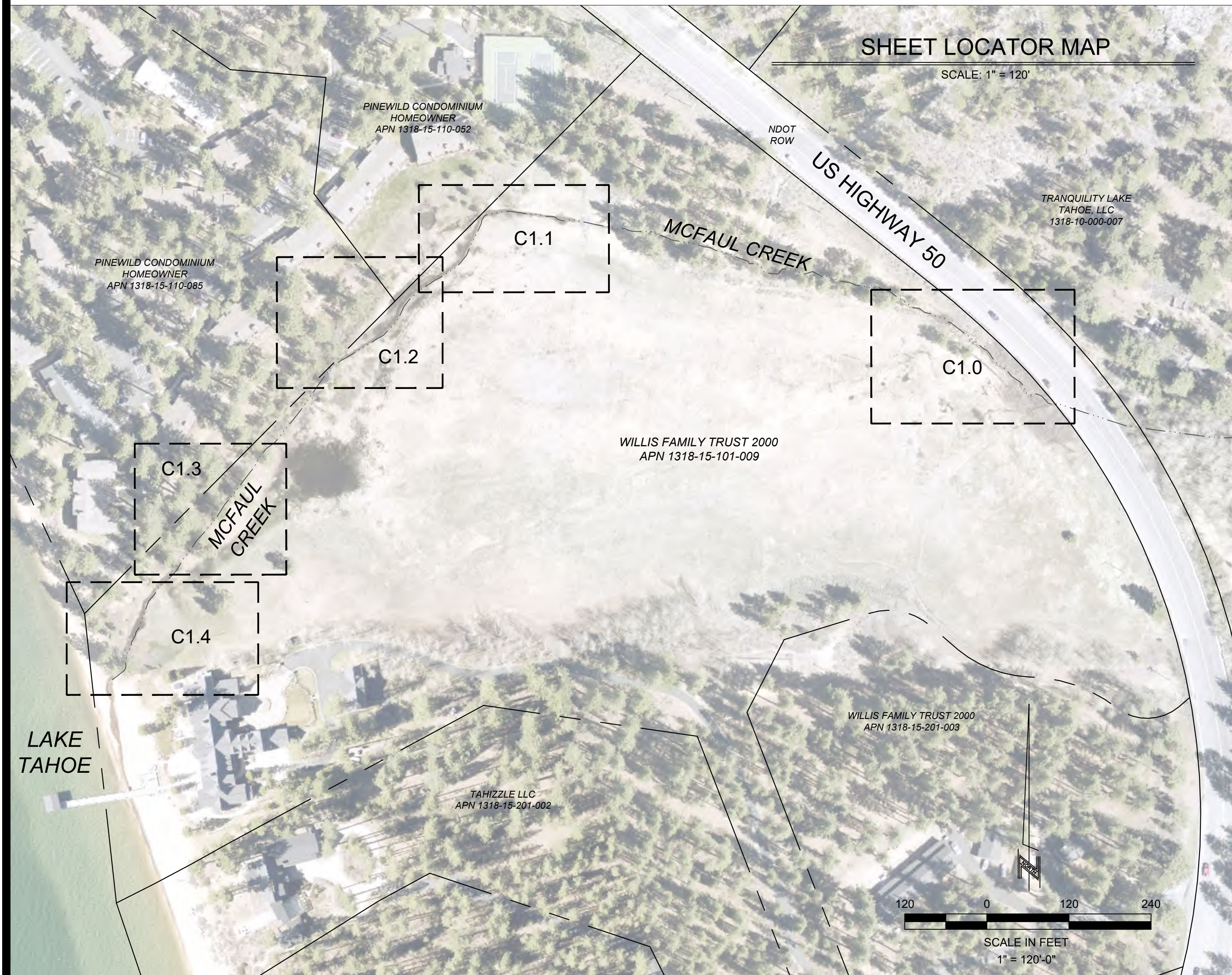


Figure 2. Summary of Proposed Impacts to Baseline Aquatic and Terrestrial Habitats.

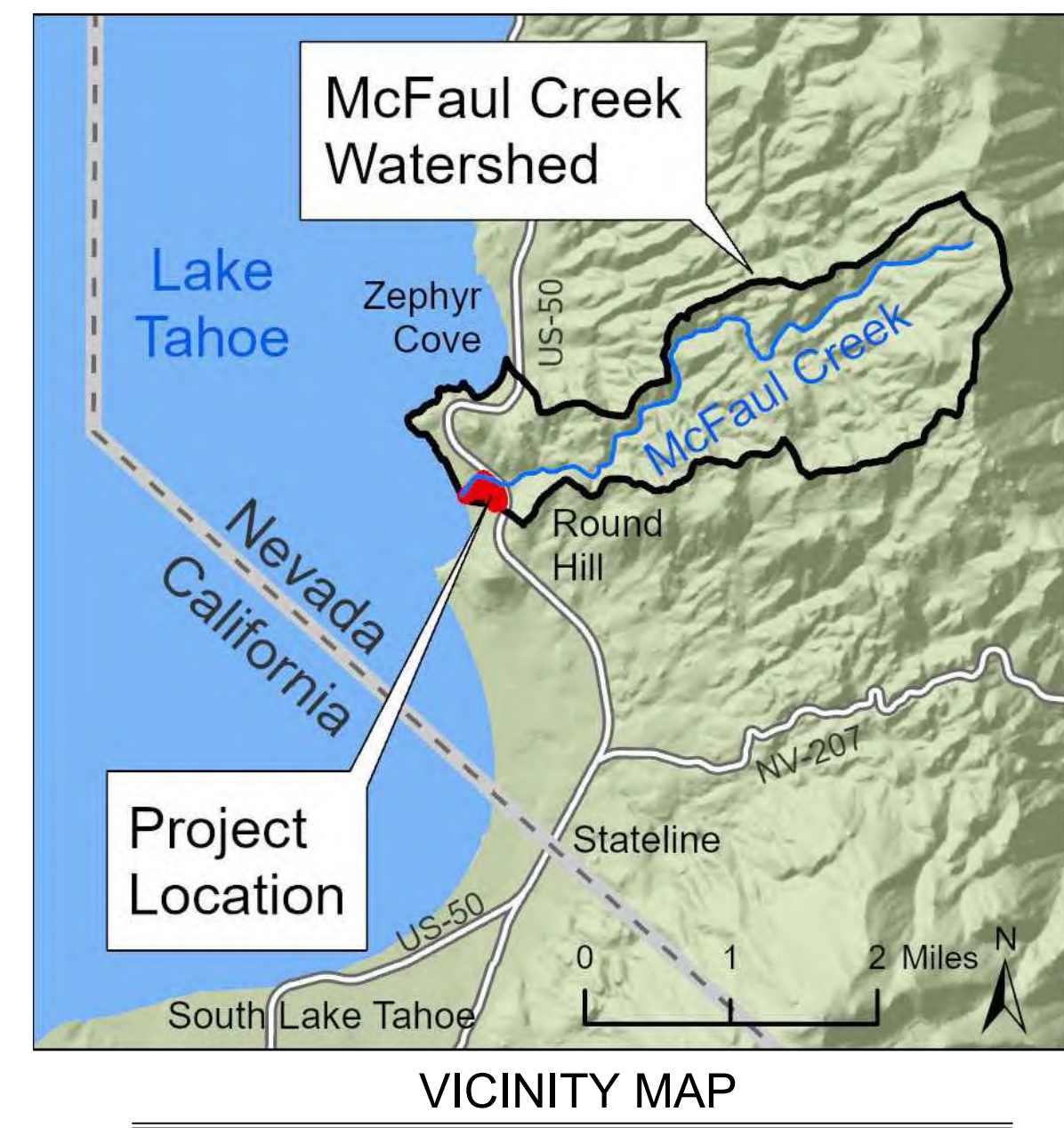
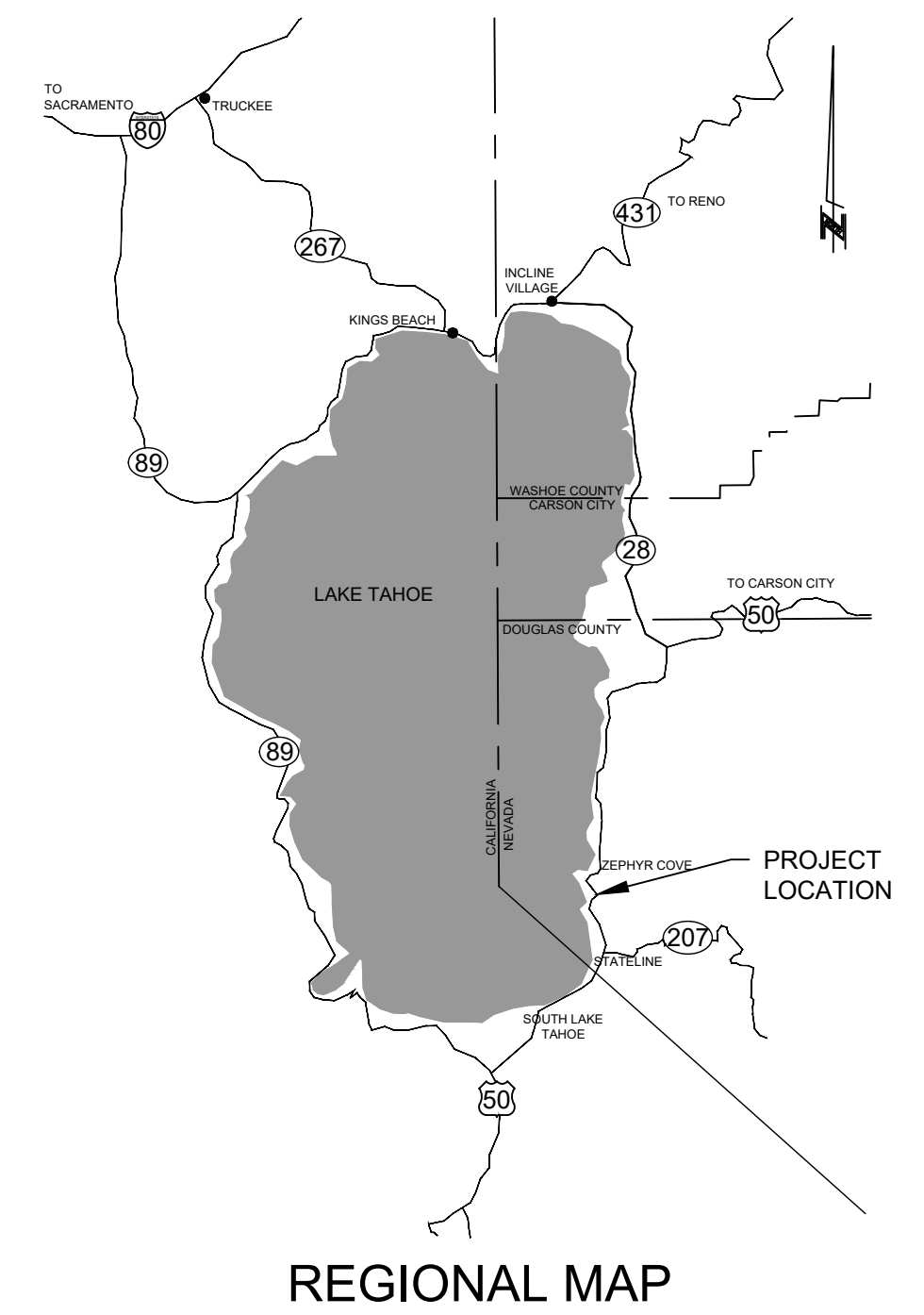
NEVADA TAHOE CONSERVATION DISTRICT

MCFAUL CREEK STREAM AND MEADOW RESTORATION

IN THE COUNTY OF DOUGLAS



SHEET LIST		
SHEET TITLE	SHEET NO.	PAGE NO.
TITLE	i	1
NOTES & LEGEND	ii	2
BMPS, EROSION CONTROL, STAGING, ACCESS AND DEWATERING PLAN	iii	3
CIVIL PLAN	C1.0	4
CIVIL PLAN	C1.1	5
CIVIL PLAN	C1.2	6
CIVIL PLAN	C1.3	7
CIVIL PLAN	C1.4	8
DETAILS	D1.0	9
DETAILS	D1.1	10
DETAILS	D1.2	11
REVEGETATION PLAN	R1.0	12



ENGINEER:

MEGHAN C. KELLY, P.E.
REGISTERED CIVIL ENGINEER
STATE OF NEVADA, NO. 20851
NEVADA TAHOE CONSERVATION DISTRICT
400 DORLA CT.
ZEPHYR COVE, NV 89448
(775) 586-1610

DATE _____

TITLE
MCFAUL CREEK STREAM AND MEADOW RESTORATION

DESIGNED/DRAWN
PJ
CHECKED BY
MK
DATE
4/2/2026
SCALE
AS SHOWN
PROJECT
MCSMR
SHEET



**80% DESIGN
NOT FOR CONSTRUCTION**

GENERAL NOTES

- ALL IMPROVEMENTS SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF NEVADA TAHOE CONSERVATION DISTRICT (NTCD). IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THESE PLANS, THE TECHNICAL PROVISIONS, AND THE 2016 STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("STANDARD SPECIFICATIONS"). THE CONTRACTOR IS OBLIGATED TO BE FAMILIAR WITH APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS NOT DISCUSSED IN THE GENERAL NOTES. THE CONTRACT SPECIAL TECHNICAL PROVISIONS SHALL SUPERSEDE THOSE OF THE STANDARD SPECIFICATIONS WHERE DISCREPANCIES OCCUR.
- CONTRACTOR SHALL MAINTAIN A SET OF PLANS ON SITE SHOWING "AS CONSTRUCTED" CHANGES. UPON COMPLETION, CONTRACTOR SHALL SUPPLY NTCD A SET OF "AS BUILT" PLANS.
- ANY MOBILIZATION AND STAGING AREAS NOT SHOWN ON PLANS ARE TO BE SECURED BY THE CONTRACTOR AND APPROVED BY TRPA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF MOBILIZATION AND STAGING SITES, INCLUDING PLACEMENT AND MAINTENANCE OF BMPs AND REPAIR OF ANY DAMAGED PAVED SURFACES
- PRIOR TO STARTING WORK, THE CONTRACTOR SHALL INSTALL TEMPORARY BMP MEASURES AT LOCATIONS WHERE NEEDED TO CONTROL EROSION AND WATER POLLUTION DURING THE CONSTRUCTION OF THE PROJECT. THE BMP MEASURES SHALL REMAIN IN PLACE AND SHALL BE MAINTAINED IN A FUNCTIONAL CONDITION FOR THE DURATION OF THE CONSTRUCTION. SILT FENCE IS REQUIRED AT ALL CROSS DRAIN OUTLETS. SILT FENCE OR FIBER ROLLS WILL BE REQUIRED AT OTHER LOCATIONS AS SHOWN ON THE DRAWINGS OR STAKED IN THE FIELD BY THE ENGINEER. ALL EROSION CONTROL MEASURES SHALL MEET OR EXCEED THE REQUIREMENTS IN THE RPMs.
- ALL EXISTING VEGETATION SHALL BE PRESERVED UNLESS SPECIFICALLY IDENTIFIED BY THE ENGINEER FOR REMOVAL. BMPs TO PROTECT VEGETATION SHALL BE INSTALLED BY THE CONTRACTOR. CONTRACTOR TO REVEGETATE ANY AREAS OUTSIDE THE DISTURBED AREA SHOWN ON THE PLANS WITH PLANTS APPROVED BY USFS AT THEIR OWN EXPENSE.
- NTCD WILL PROVIDE ONE SET OF CONSTRUCTION STAKES AS PART OF THE CONTRACT. ADDITIONAL CONSTRUCTION STAKES WILL BE PROVIDED AT THE CONTRACTOR'S EXPENSE. LIMITS FOR ALL ITEMS OF WORK SHALL BE STAKED IN THE FIELD BY THE ENGINEER. THESE LIMITS AND THE RESULTING TREATMENT LENGTH/AREAS MAY VARY FROM THOSE SHOWN ON THE DRAWINGS. PAYMENT FOR ITEMS OF WORK WILL BE MADE FOR THE AMOUNT AUTHORIZED BY THESE FIELD STAKED LIMITS AND THE SPECIAL TECHNICAL PROVISIONS.
- UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. WHERE EXCAVATION IS NECESSARY, THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AND ALL AFFECTED UTILITY COMPANIES TO LOCATE ALL BURIED UTILITIES AT LEAST 48 HOURS PRIOR TO EXCAVATION. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES FOR RELOCATION OF UTILITIES AS REQUIRED BY THE WORK. WHENEVER CONNECTIONS TO OR CLEARANCE FROM ANY UTILITY IS REQUIRED, THE CONTRACTOR SHALL POT-HOLE TO VERIFY THE LOCATION, SIZE AND MATERIAL OF THE UTILITY PRIOR TO CONSTRUCTION.
- THE COST OF REMOVAL AND/OR REPLACEMENT OF ANY DEFECTIVE WORK OR MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF RETESTING AND/OR INSPECTING OF REPLACED WORK AND MATERIAL IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR. SUCH COSTS WILL BE DEDUCTED FROM ANY MONEYS DUE OR WHICH MAY BECOME DUE TO THE CONTRACTOR.
- STANDARD WORK DAYS SHALL BE MONDAY THROUGH FRIDAY. SATURDAY AND SUNDAY MAY BE WORKED ON OCCASION ONLY TO MAKE UP FOR WEATHER DELAYS OR OTHER SCHEDULE DELAYS. NOISE GENERATING ACTIVITIES WILL BE LIMITED TO THE HOURS OF 8:00 AM TO 6:30 PM.
- NOISE SHALL BE REDUCED BY THE MANDATORY USE OF MUFFLERS ON ALL CONSTRUCTION VEHICLES AND EQUIPMENT. NOISE GENERATING ACTIVITIES WILL BE LIMITED TO THE HOURS OF 8:00 AM TO 6:30 PM.
- THE CONTRACTOR SHALL PROVIDE A WATER TRUCK TO WATER AREAS AS NECESSARY TO CONTROL DUST. THE CONTRACTOR WILL PROVIDE SWEEPING OF PAVED SURFACES AT THE END OF EACH DAY. THE CONTRACTOR IS RESPONSIBLE FOR SECURING CONSTRUCTION WATER.
- SOIL AND CONSTRUCTION MATERIAL SHALL NOT BE TRACKED OFF THE CONSTRUCTION SITE. GRADING OPERATIONS SHALL CEASE IN THE EVENT THAT A DANGER OF VIOLATING THIS CONDITION EXISTS.
- DURING CONSTRUCTION ENVIRONMENTAL PROTECTION DEVICES, SUCH AS EROSION CONTROL, DUST CONTROL, AND VEGETATION PROTECTION DEVICES SHALL BE MAINTAINED AT ALL TIMES.
- LOOSE SOIL MOUNDS OR SURFACES SHALL BE PROTECTED FROM WIND OR WATER EROSION BY BEING APPROPRIATELY COVERED WHEN CONSTRUCTION IS NOT IN ACTIVE PROGRESS OR WHEN REQUIRED BY USFS OR ENGINEER.
- EXCAVATED MATERIAL SHALL BE STORED UPGRADIENT FROM THE EXCAVATED AREA WHENEVER POSSIBLE. NO MATERIAL SHALL BE STORED IN ANY STREAM ENVIRONMENT ZONE (SEZ) OR WET AREA.
- ONLY EQUIPMENT OF A SIZE AND TYPE THAT WILL DO THE LEAST AMOUNT OF DAMAGE, UNDER PREVAILING SITE CONDITIONS, AND CONSIDERING THE NATURE OF THE WORK TO BE PERFORMED, WILL BE USED. ONLY RUBBER TRACKED EQUIPMENT SHALL BE USED ON UNPAVED SURFACES.
- NO WASHING OF VEHICLES OR HEAVY EQUIPMENT, INCLUDING CEMENT MIXERS, SHALL BE PERMITTED ANYWHERE ON THE SUBJECT PROPERTY UNLESS AUTHORIZED BY TRPA IN WRITING.
- ALL CONSTRUCTION SHALL BE WINTERIZED BY OCTOBER 15 TO REDUCE THE WATER QUALITY IMPACTS ASSOCIATED WITH WINTER WEATHER.
- THE CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATE ON, PAVED ROADS, PARKING AREAS, AND ASSOCIATED SHOULDERS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS CONSTRUCTION PROJECT.
- ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS AS SPECIFIED BY NDEP.
- TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LONGER THEN 24 HOURS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS BEEN TEMPORARILY OR PERMANENTLY CEASED.
- AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMP'S WEEKLY, PRIOR TO A FORECASTED RAIN EVENT AND WITHIN 24 HOURS AFTER ANY ACTUAL RAIN EVENT. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS FROZEN GROUND CONDITIONS OF SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE SWPPP.

ABBREVIATIONS

NOT ALL ABBREVIATIONS LISTED ARE USED IN THESE PLANS

A.B.	AGGREGATE BASE	NTCD	NEVADA TAHOE CONSERVATION DISTRICT
AC.	ACRE	N.T.S.	NOT TO SCALE
A.C.	ASPHALT CONCRETE	NO.	NUMBER
@	AT	OH(E/T)	OVERHEAD ELECTRIC OR TELEPHONE LINES PLUS OR MINUS
APPROX.	APPROXIMATE	P	PIPE
AVG.	AVERAGE	PT.	POINT
C&G	CURB AND GUTTER	PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT
CATV	CABLE TELEVISION	PIP	PROTECT IN PLACE
C.B.	CATCH BASIN	PVMT	PAVEMENT
CL	CENTERLINE	POS	POSITIVE
CLR.	CLEAR	PSI	POUNDS PER SQUARE INCH
CO.	CLEAN OUT	PL	PROPERTY LINE
CONST.	CONSTRUCT	PO	PUSH ON
CF	CUBIC FEET	PUE	PUBLIC UTILITY EASEMENT
CMP	CORRIGATED METAL PIPE	R	RADIUS
CY	CUBIC YARD	RCP	REINFORCED CONCRETE PIPE
D.G.	DECOMPOSED GRANITE	REVEG	REVEGETATION
DEG	DEGREE(S)	RLC	ROCK LINED CHANNEL
DI	DROP INLET	RPM	RESOURCE PROTECTION MEASURES
DIA.	DIAMETER	RT,R	RIGHT
DR	DIMENSION RATIO	R/W, W/W	RIGHT-OF-WAY
DWG	DRAWING	SS	SANITARY SEWER, STAINLESS STEEL
DW, DWY	DRIVEWAY	SSCO.	SANITARY SEWER CLEAN OUT
EA.	EACH	SSMH	SANITARY SEWER MANHOLE
EASE.	EASEMENT	S	SLOPE
EG	EXISTING GRADE	S.	SOUTH
ELEC	ELECTRIC	SF	SQUARE FOOT/FEET
ELEV.	ELEVATION	SHT	SHEET
EP	EDGE OF PAVEMENT	SN	SNAG
EC	END CURVE	STD	STANDARD
EX.	EXISTING	SDR	STANDARD DIMENSION RATIO
FG	FINISH GRADE	SSPWC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS STATION
FH	FIRE HYDRANT	STA	STORM DRAIN
FES	FLARED END SECTION (METAL)	SD	STORM DRAIN MANHOLE
FL	FLOWLINE	SDMH	TOP BACK OF CURB
FLG	FLANGED	TOC	TOP OF CURB
FT.	FOOT, FEET	TRPA	TAHOE REGIONAL PLANNING AGENCY
FTG	FOOTING	TYP	TYPICAL
FV	FLUSH VALVE	UGE	UNDERGROUND ELECTRIC LINES
°	DEGREE	UGT	UNDERGROUND TELEPHONE LINES
G	GAS	W	WATER
GV	GATE VALVE	WL	WATERLINE
GB	GRADE BREAK	W	WEST
HP	HIGH POINT	W/	WITH
HOR., HORIZ.	HORIZONTAL	WM	WATER METER
IN.	INCH		
IE	INVERT ELEVATION		
IRR.	IRRIGATION		
L	LEFT		
LEN.	LENGTH		
LF	LINEAR FEET		
LID	LOW IMPACT DEVELOPMENT		
LP	LOW POINT		
LS	LUMP SUM		
MH	MANHOLE		
MAX.	MAXIMUM		
MDD	MAXIMUM DRY DENSITY		
MI.	MILE		
MIN.	MINIMUM		
MISC.	MISCELLANEOUS		
N	NORTH		
N.I.C.	NOT IN CONTRACT		
NDEP	NEVADA DIVISION OF ENVIRONMENTAL PROTECTION		

UTILITIES

CABLE TELEVISION	CHARTER COMMUNICATIONS, (775) 588-1077
NATURAL GAS	SOUTHWEST GAS, (877) 860-6022
ELECTRIC	NV ENERGY, (775) 834-4444
SEWER & WATER	ROUND HILL GID, (775) 588-2571, TAHOE DOUGLAS DISTRICT (775)-588-5641
PHONE	FRONTIER, (775) 782-0966, ATT (800) 288-2020
USA DIGS	(800) 642-2444 OR 811

HORIZONTAL AND VERTICAL PROJECTION

VERTICAL CONTROL IS NAVD 88
HORIZONTAL CONTROL IS NEVADA STATE PLANE WEST, NAD 83, (U.S. FEET)

LEGEND

NOTE: LEGENDS PROVIDED ON INDIVIDUAL PLAN SHEETS OVERRIDES THIS LEGEND

EXISTING	PROPOSED
MAJOR CONTOUR	MAJOR CONTOUR
MINOR CONTOUR	MINOR CONTOUR
EXISTING MAJOR CONTOUR LABEL	MAJOR CONTOUR LABEL
EXISTING ALIGNMENT	CENTERLINE ALIGNMENT
EXISTING GRADE (SECTION VIEW)	GRADING DAYLIGHT LINE
PROPERTY LINE	FLOODPLAIN BOUNDARY
GUARDRAIL	REMOVE TREE
FENCE	DEWATERING PIPE
EDGE OF PAVEMENT	CONSTRUCTION ACCESS ROUTE
CULVERT / STORM DRAIN LINE	CONSTRUCTION STAGING AREA
CATCH BASIN	ROCK ENERGY DISSIPATOR / ROCK LINED CHANNEL
CHANNEL	RESTORATION AREA
TREE - (DIAMETER) JEFFREY PINE	COFFER DAM
(DIAMETER) SNAG	FILTER FENCE
CONCRETE CURB & GUTTER	CONSTRUCTION LIMIT FENCING
CONTROL POINT	DEWATERING AREA
SIGN	GRADE BREAK
OVERHEAD ELECTRIC	PROPOSED CHANNEL
UNDERGROUND ELECTRIC	
GAS LINE	
SANITARY SEWER LINE	
WATER LINE	

	SECTION OR DETAIL IDENTIFICATION
	NUMBER OF SHEET ON WHICH SECTION OR DETAIL IS DRAWN
	SECTION OR DETAIL IDENTIFICATION
	SYMBOL FOR DETAIL ON THE SAME SHEET



NOTES & LEGEND
MCFAUL CREEK STREAM AND MEADOW RESTORATION

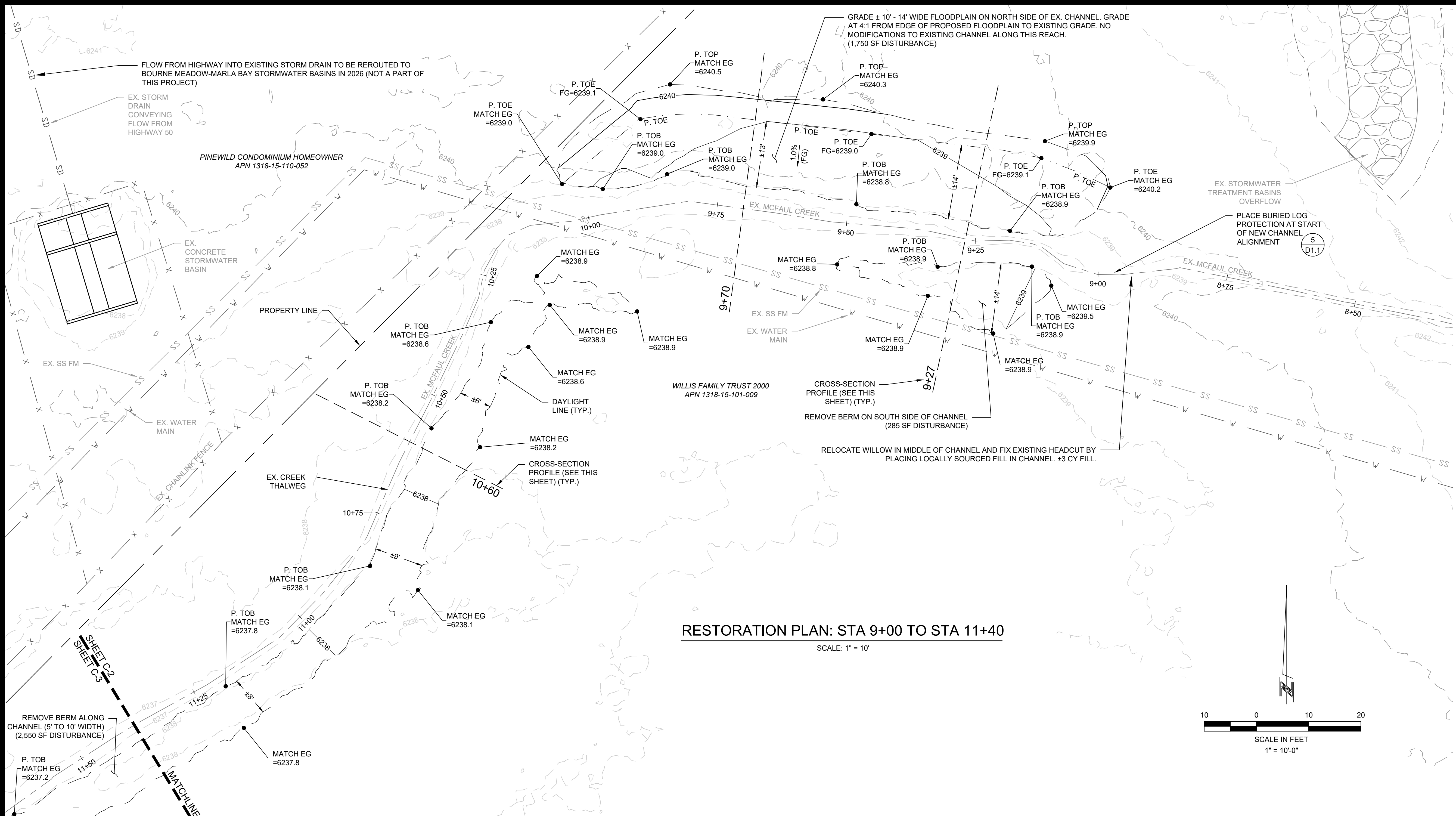
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DATE 4/2/2026
SCALE AS SHOWN
PROJECT MCSMR
SHEET

ii

2 OF 12

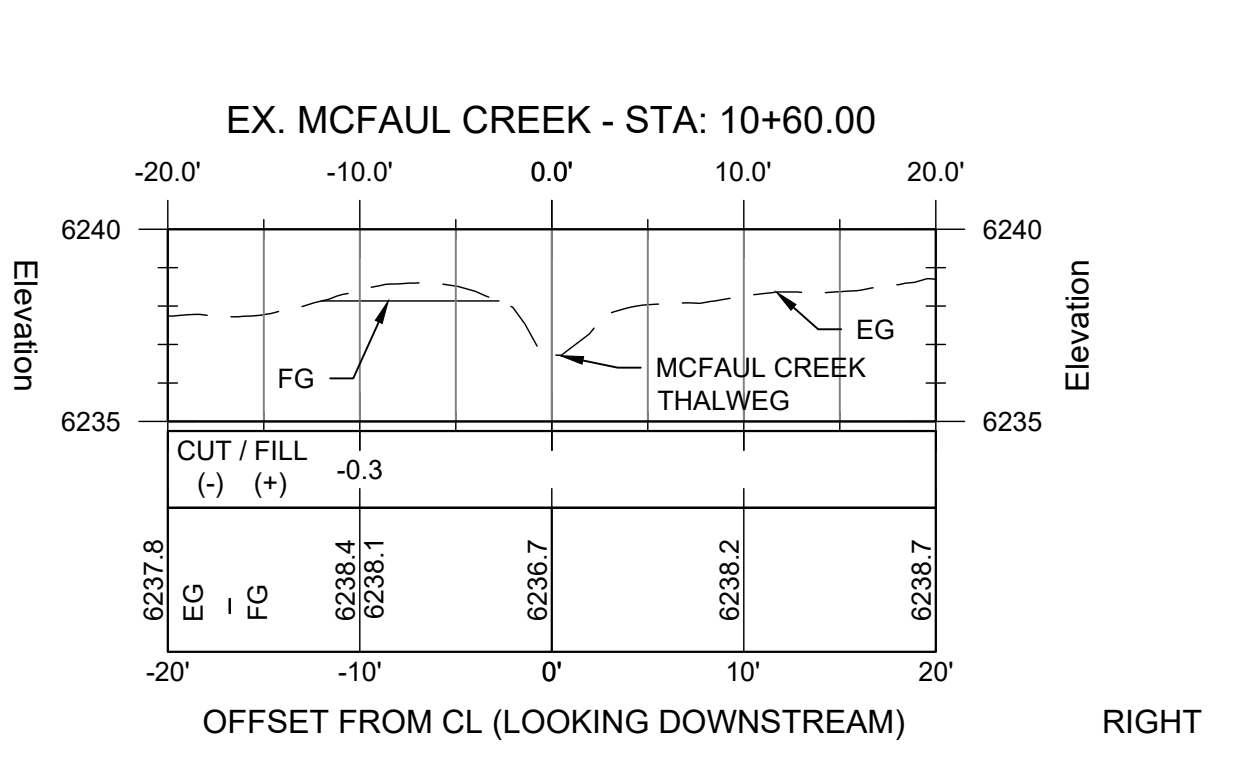
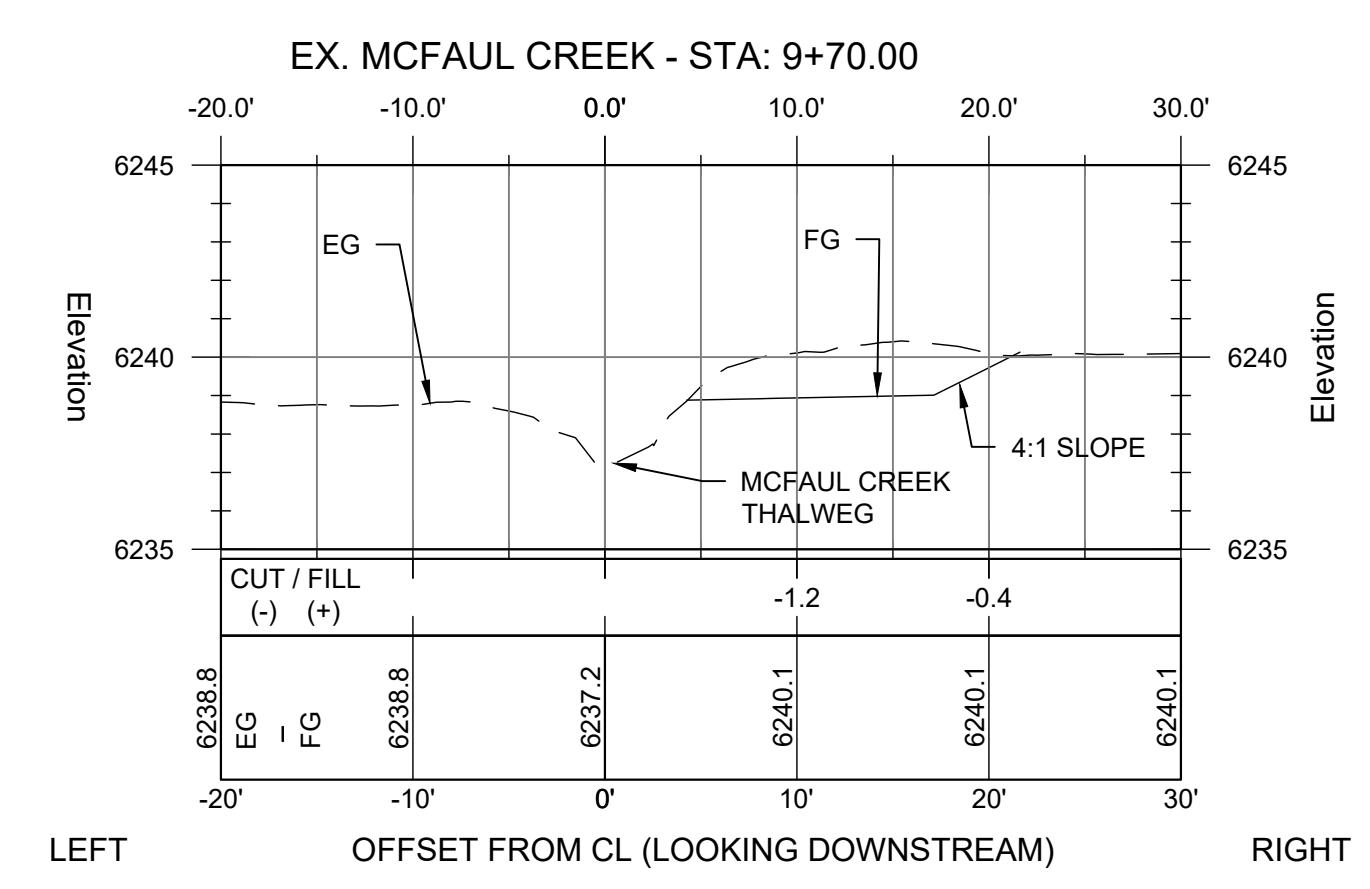
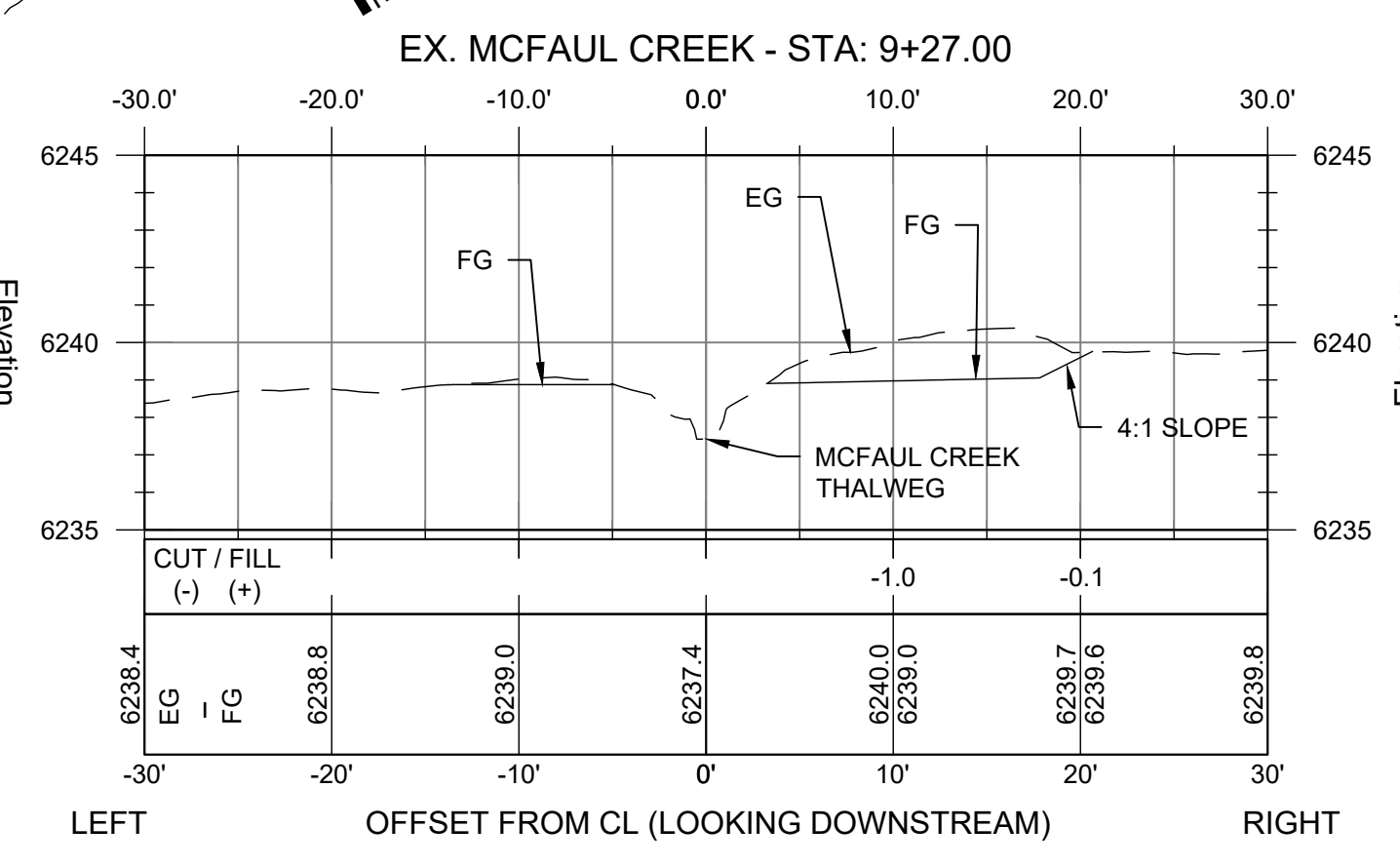
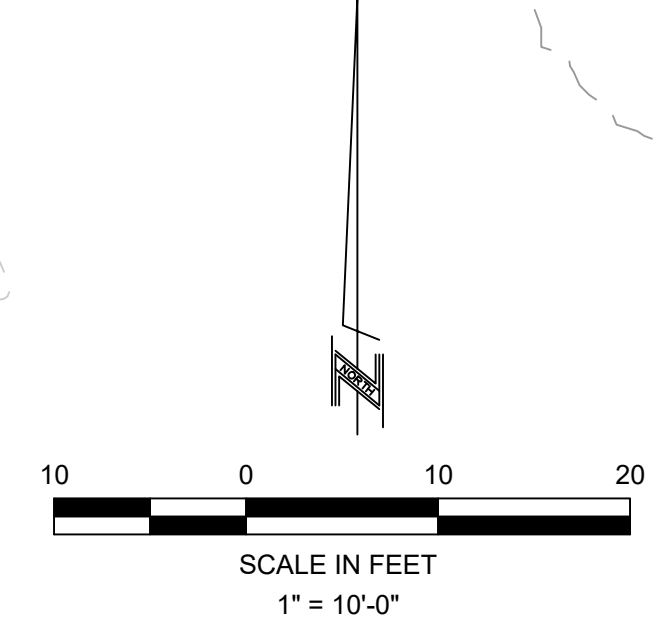


80% DESIGN
NOT FOR CONSTRUCTION



RESTORATION PLAN: STA 9+00 TO STA 11+40

SCALE: 1" = 10'



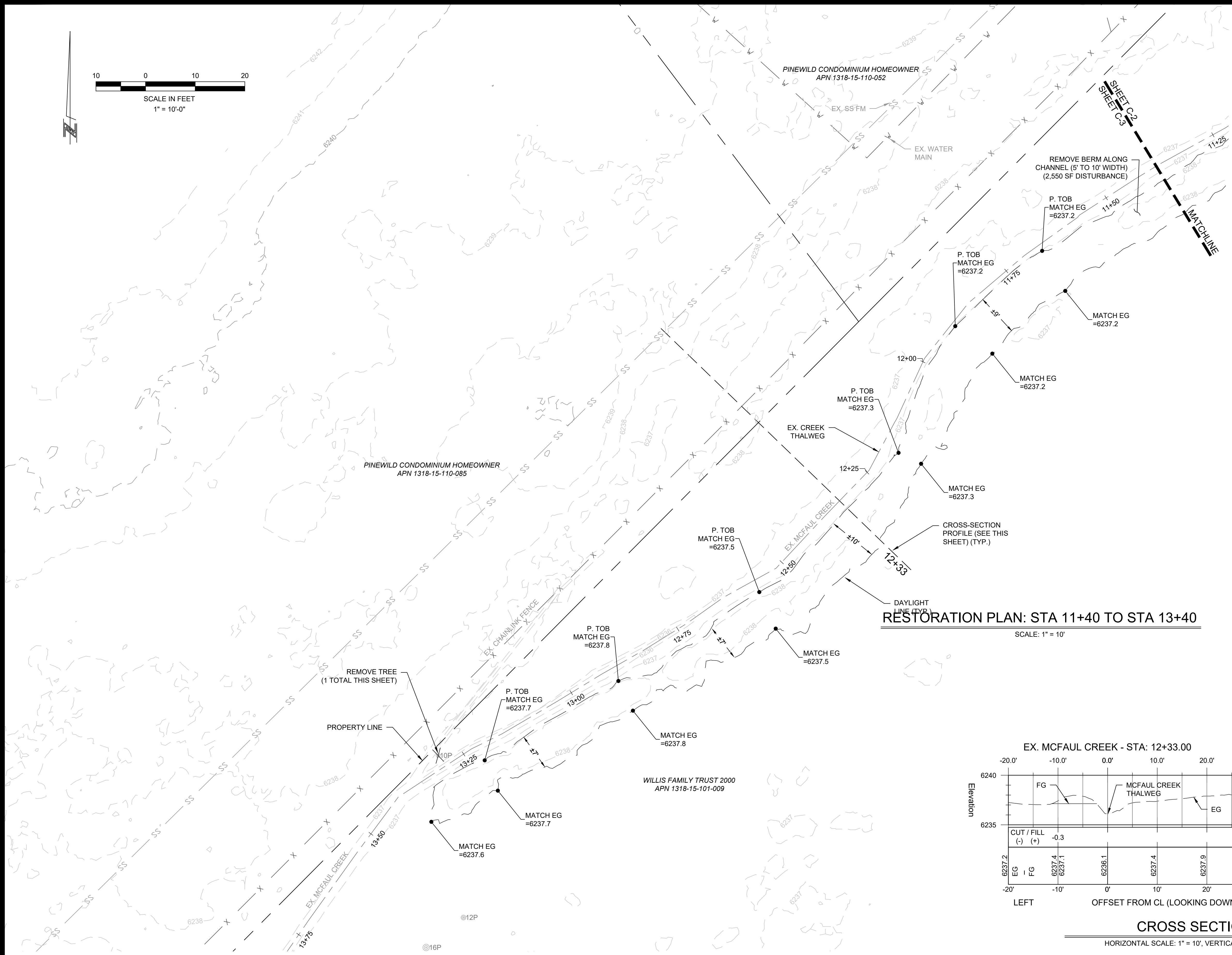
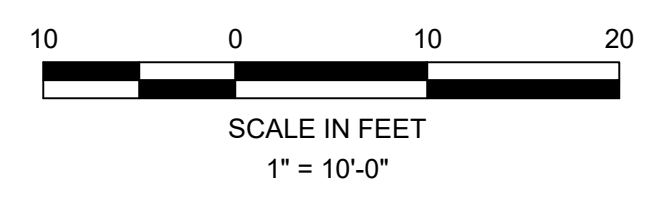
CROSS SECTIONS

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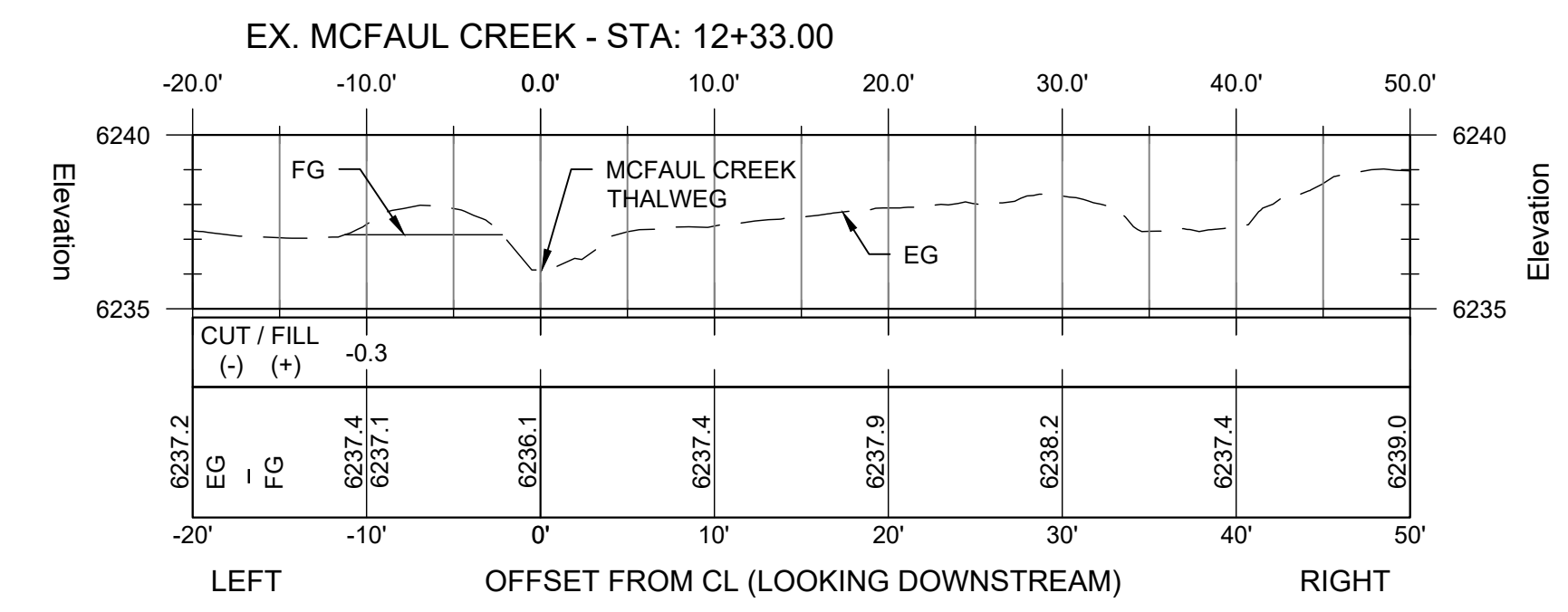
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PROJECT	MCSMR
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DESIGNED/DRAWN	PJ
CHECKED BY	MK
DATE	4/2/2026
SCALE	AS SHOWN
PROJECT	MCSMR
SHEET	



RESTORATION PLAN: STA 11+40 TO STA 13+40

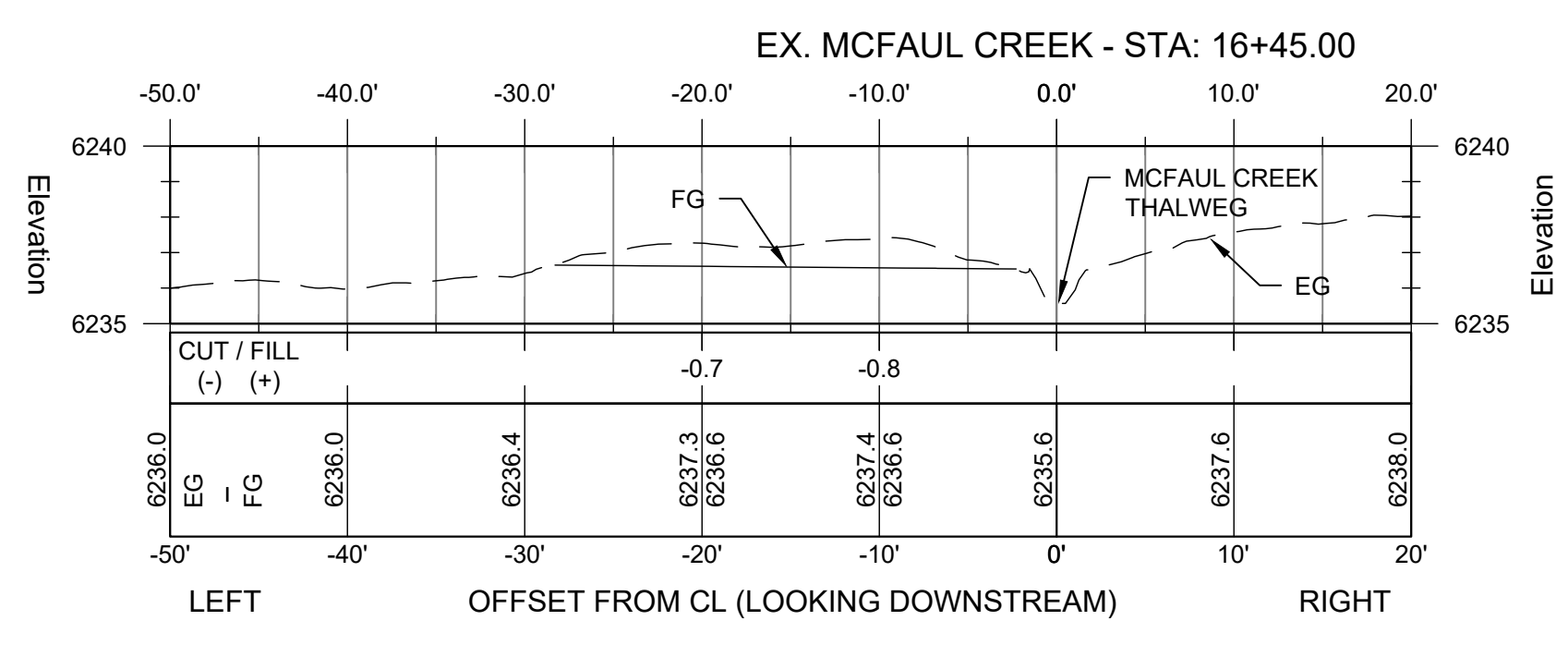
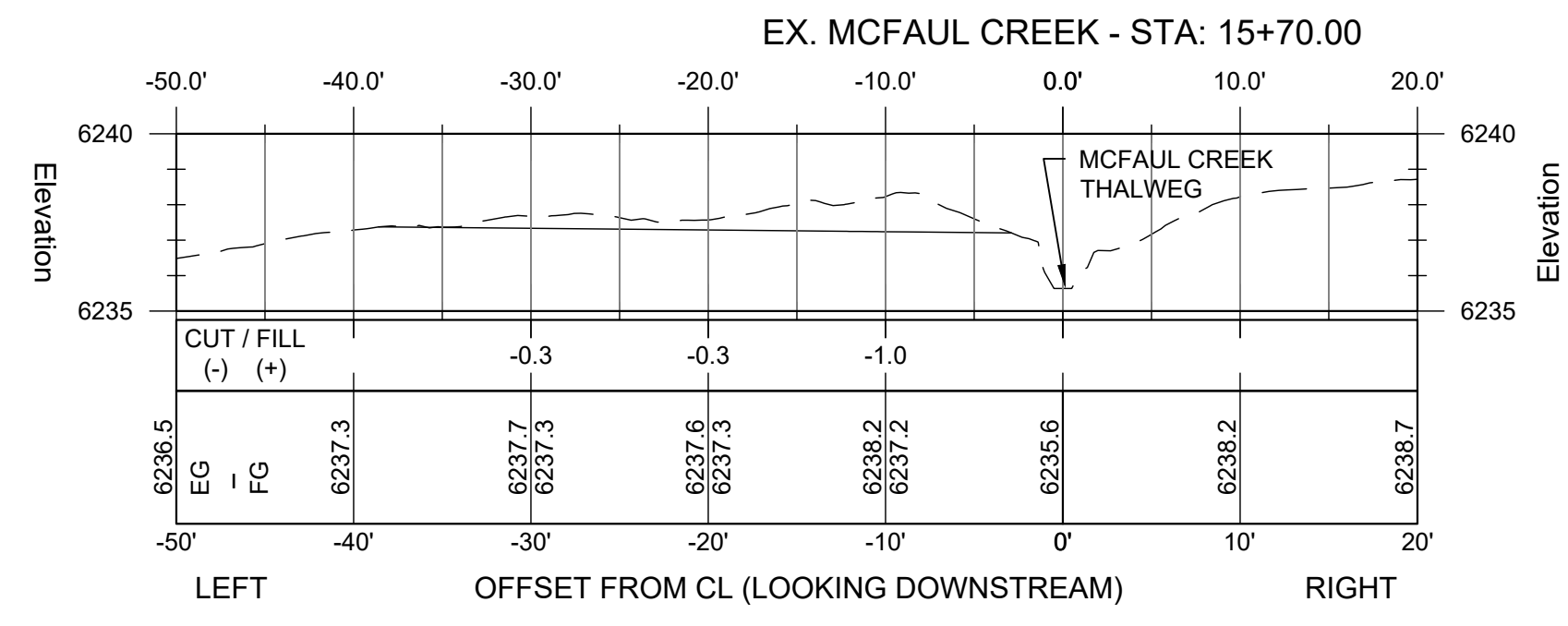
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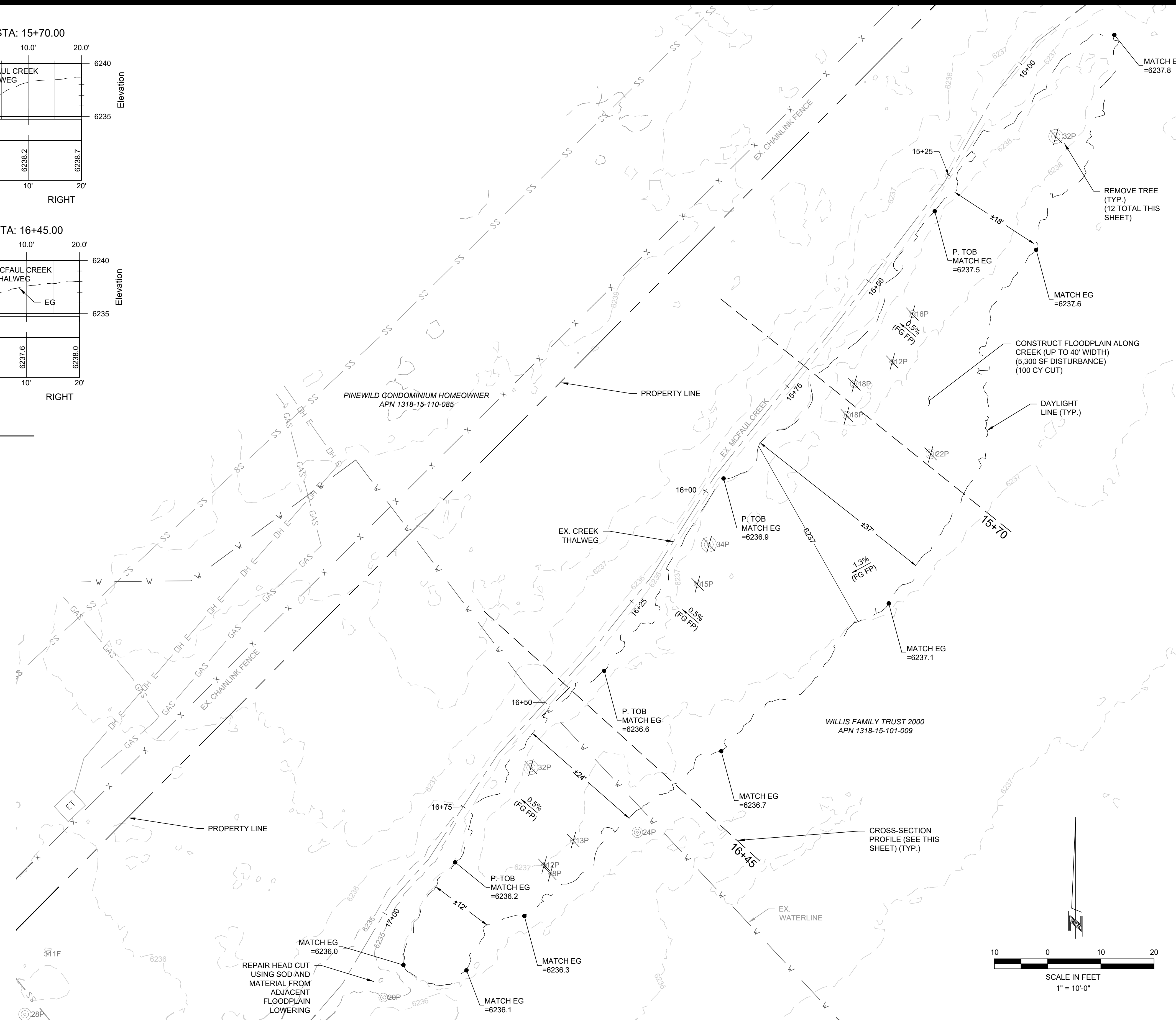
CROSS SECTION

HORIZONTAL SCALE: 1" = 10', VERTICAL SCALE: 1" = 5'

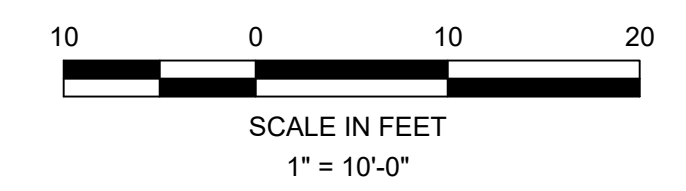
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CROSS SECTIONS
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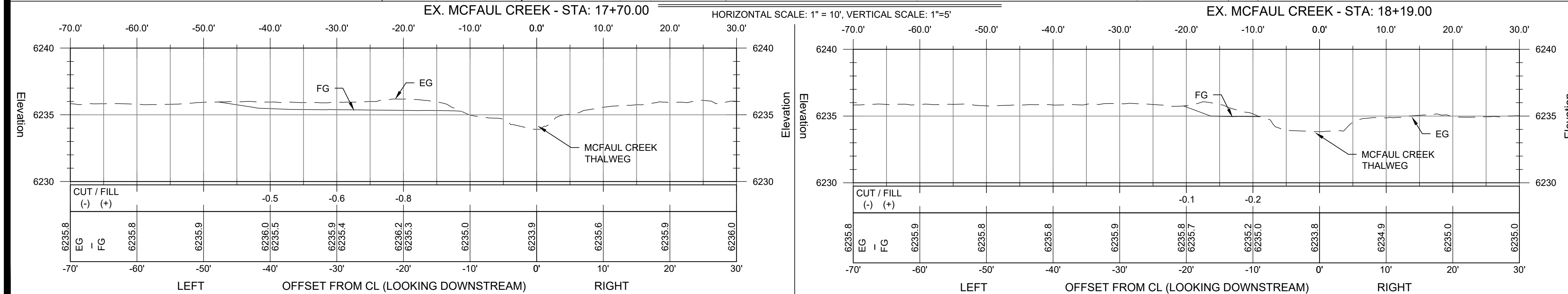
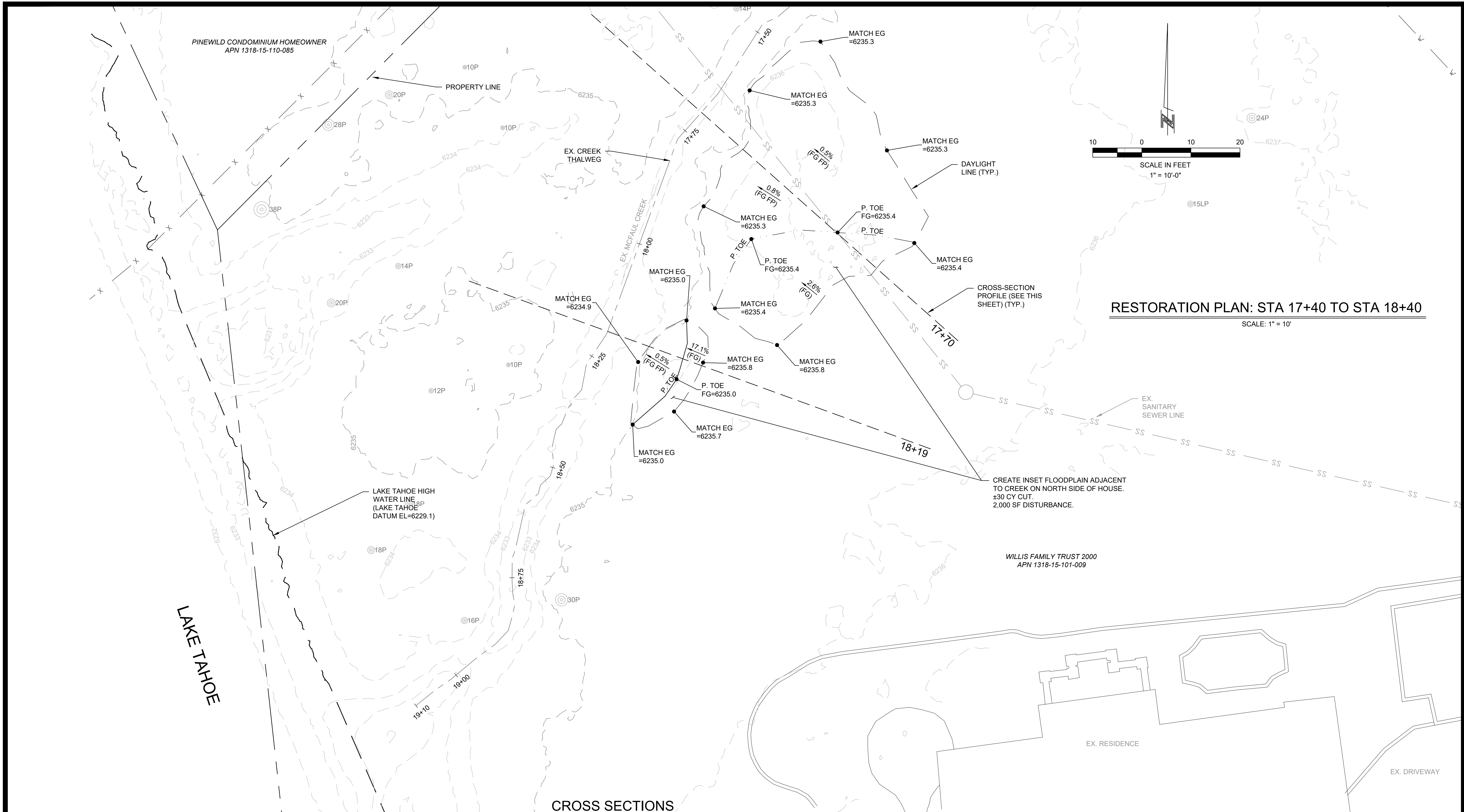


RESTORATION PLAN: STA 14+85 TO STA 17+10
SCALE: 1" = 10'



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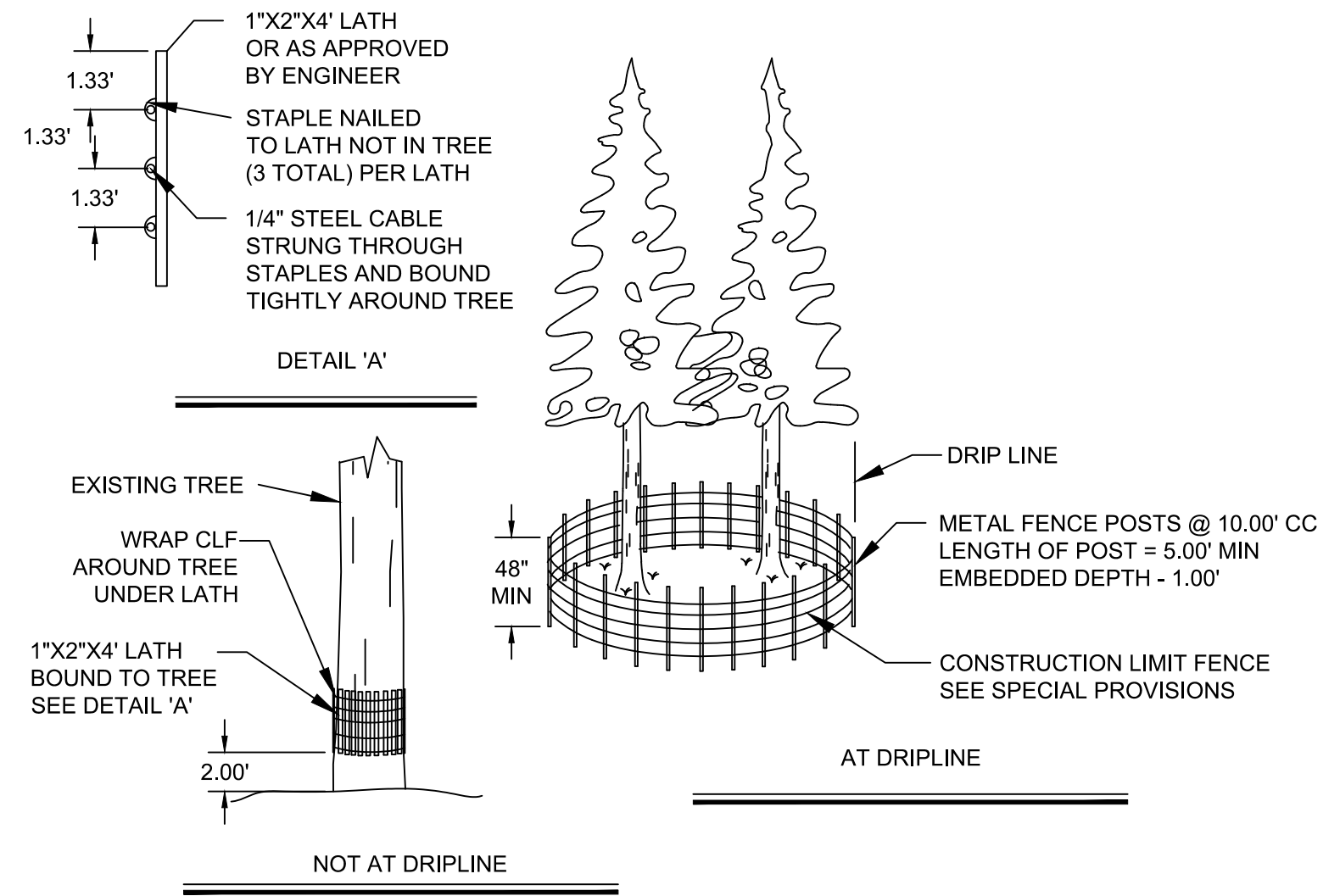
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PROJECT	MCSMR
SHEET	



**80% DESIGN
NOT FOR CONSTRUCTION**



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SCALE	AS SHOWN
PROJECT	MCSMR
SHEET	C1.4
	8 OF 12

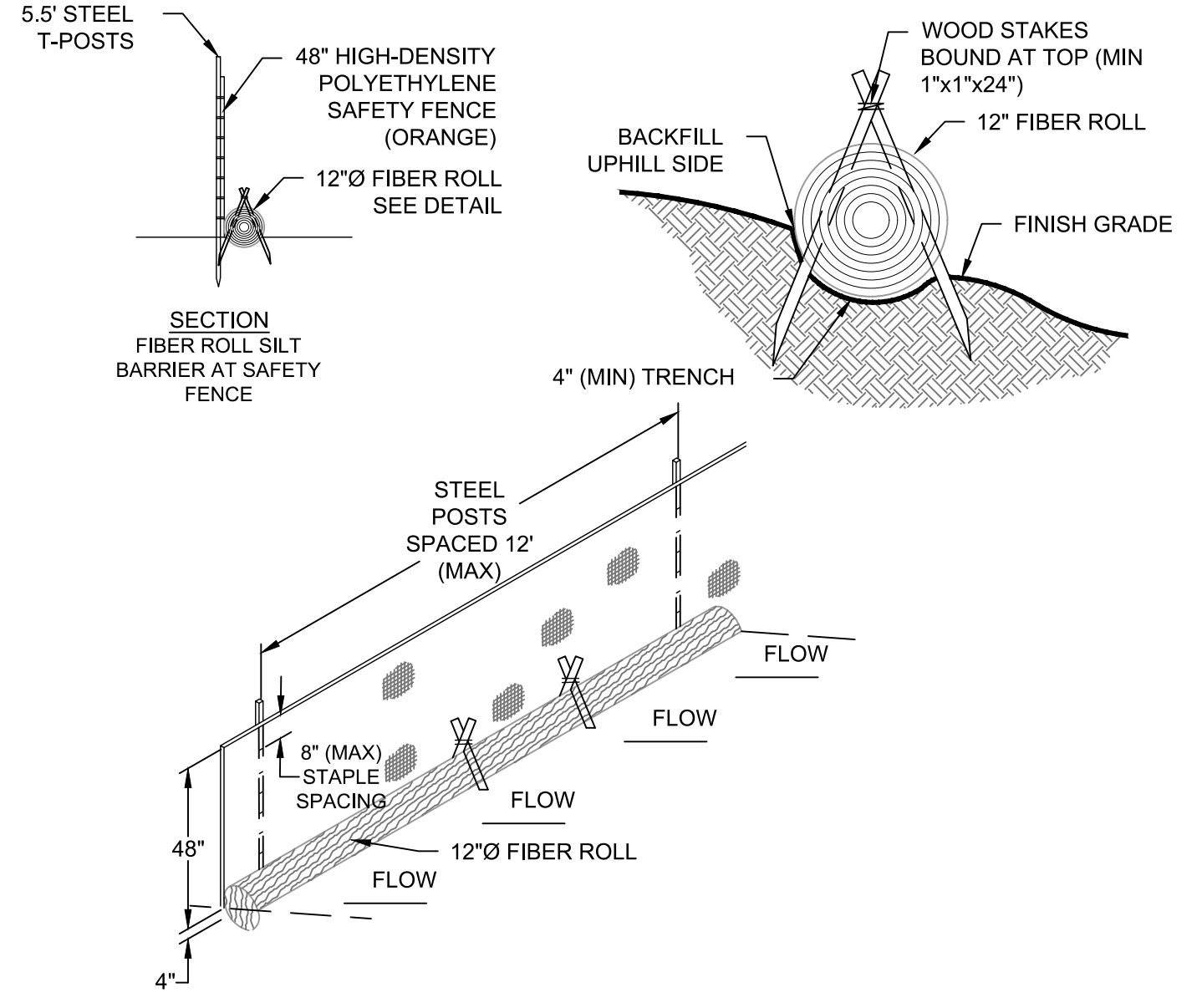


- NOTE:
1. CLF AND TREE PROTECTION FENCE SHALL BE A MINIMUM OF 48" HIGH. FOR TREES WITH DRIPLINES THAT OVERHANG THE CONSTRUCTION AREAS, THE LOCATION OF THE TREE PROTECTION FENCE SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER AND/OR THE TRPA AT THE PREGRADE MEETING.
 2. THE DETAIL SHOWN IS FOR TREE PROTECTION. MATERIAL AND SPACING SHOWN ALSO APPLIES TO CLF.
 3. QUANTITY OF FILTER FENCE AND CONSTRUCTION LIMIT FENCE DOES NOT INCLUDE MINIMUM LIMITS FOR TREE PROTECTION. TREE PROTECTION FENCING TO BE PER DETAIL THIS SHEET AND/OR AS DETERMINED IN THE FIELD.

CONSTRUCTION LIMIT FENCE & TREE PROTECTION

SCALE: N.T.S.

1
D1.0



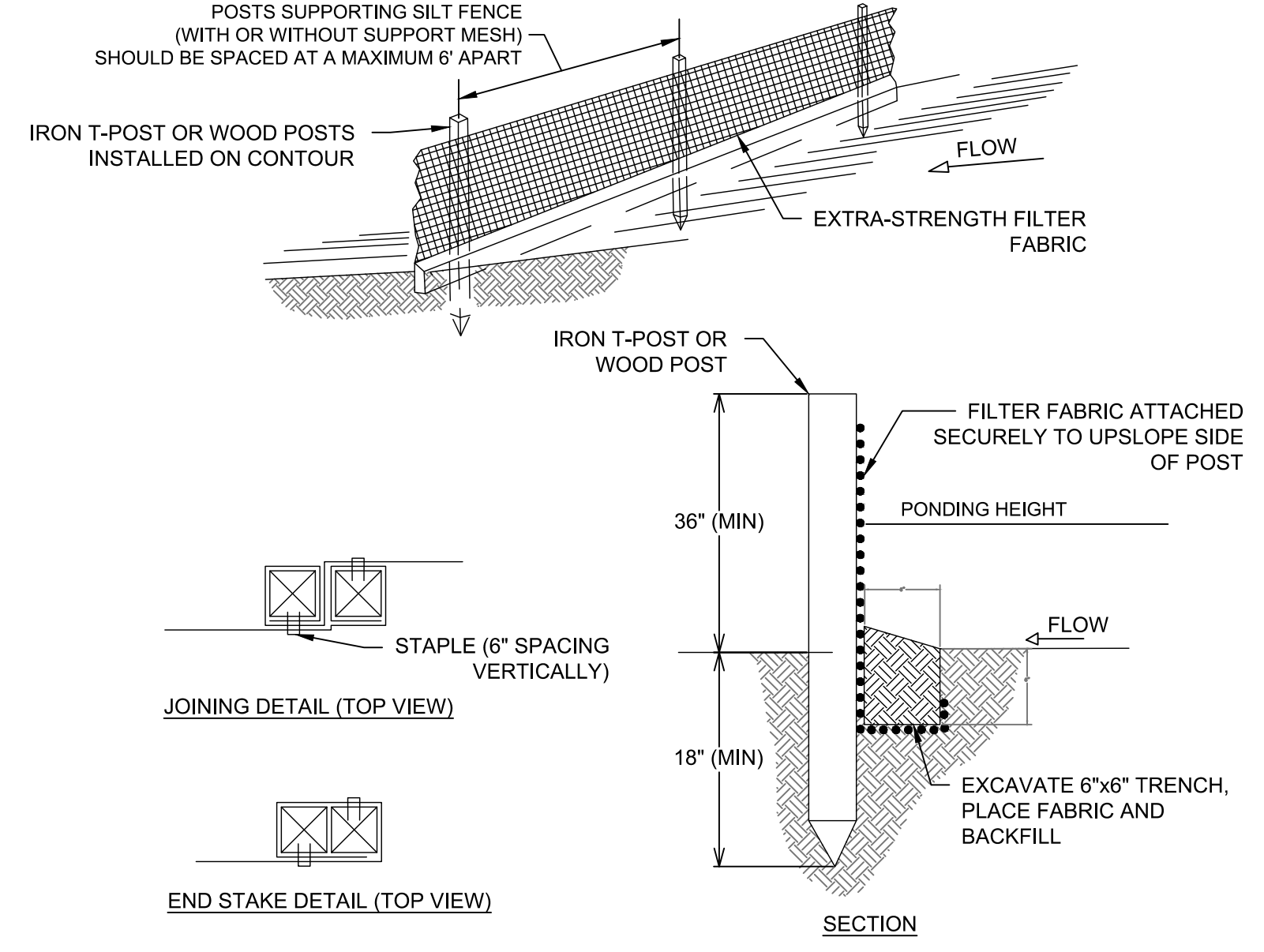
FIBER ROLL SILT BARRIER

- FIBER ROLL NOTES:**
1. FIBER ROLL SHALL NOT BE MADE FROM STRAW. FIBER ROLLS SHALL BE BOUND BY HIGH STRENGTH COIR NETTING, AND HAVE A MINIMUM WEIGHT OF 5 LBS PER LINEAL FOOT.
 2. ORANGE SAFETY FENCE IS INTENDED TO PROTECT FIBER ROLLS FROM COMPRESSION BY VEHICLES, CONSTRUCTION EQUIPMENT, EXT. FENCES SHALL BE HIGH DENSITY POLYETHYLENE WITH A MESH OPENING OF APPROXIMATELY 1 INCH BY 4 INCHES AND A MINIMUM HEIGHT OF 4 FEET. SAFETY FENCE MAY BE OMITTED IN LOW TRAFFIC AREAS.
 3. FIBER ROLL SILT BARRIER SHALL BE INSTALLED ALONG CONTOUR AND ON SLOPES 5H:1V OR FLATTER UNLESS OTHERWISE APPROVED BY TRPA.
 4. THE INSTALLATION CONFIGURATION SHALL PREVENT RUNOFF FROM LEAVING THE SITE OR ENTERING A WATERCOURSE WITHOUT PASSING THROUGH A SILT BARRIER.
 5. THE MAXIMUM LENGTH OF SLOPE DRAINING TO THE SILT BARRIER SHALL BE 100 FEET.
 6. FIBER ROLL SHALL BE INSTALLED BY SHAPING A 4 INCH DEEP FURROW TO MATCH THE SHAPE OF THE LOG, SECURING IN FURROW WITH WOOD STAKES, AND TAMPING THE GROUND AROUND THE FIBER ROLL TO FILL VOIDS BETWEEN THE LOG AND THE GROUND.

FIBER ROLL SILT BARRIER

SCALE: N.T.S.

2
D1.0



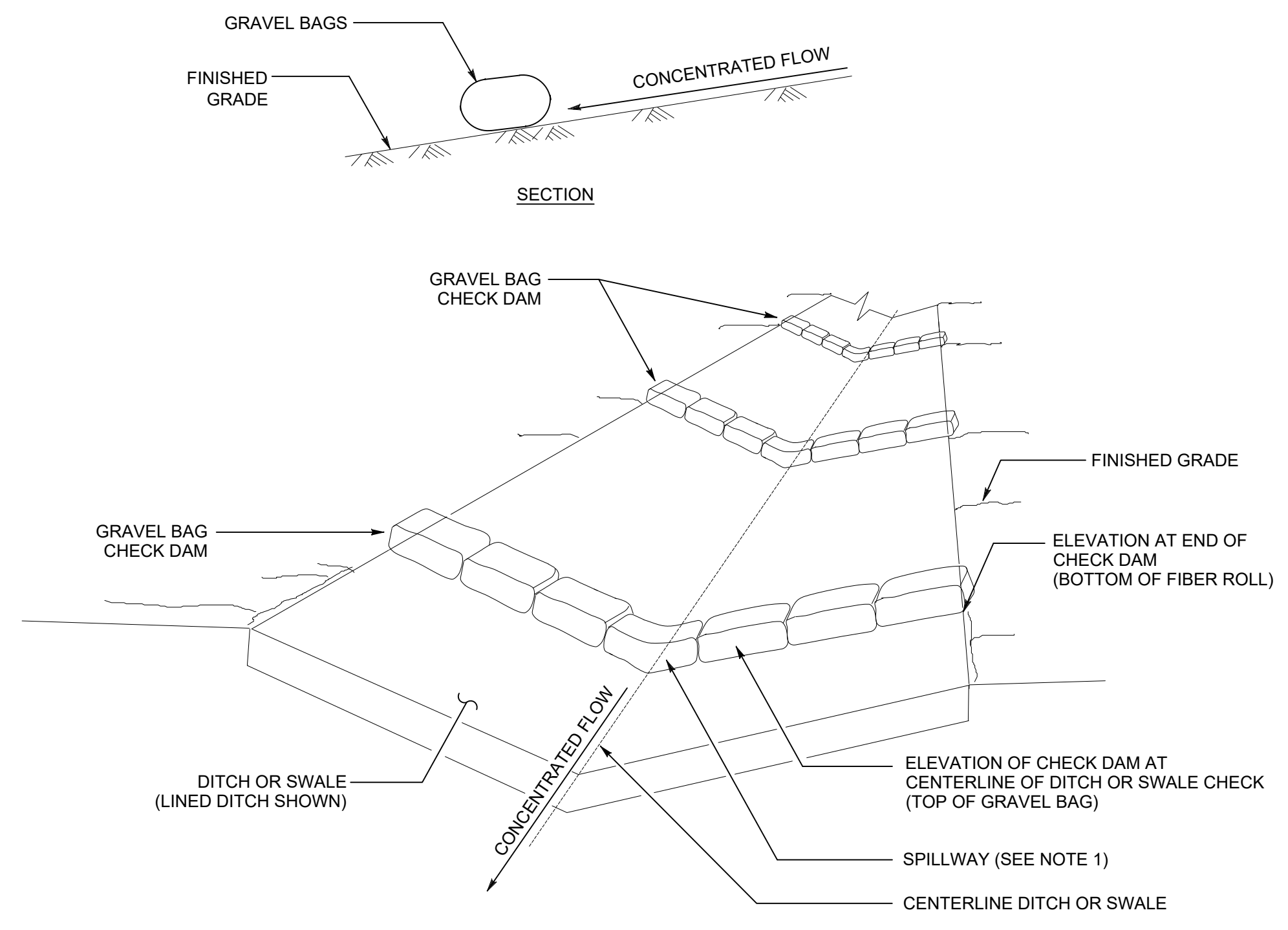
SILT FENCE NOTES:

1. USED IN AREAS WHERE SHEET FLOW OCCURS.
2. DO NOT USE IN STREAMS, CHANNELS, OR ANYWHERE FLOW IS CONCENTRATED. DO NOT USE SILT FENCES TO DIVERT FLOW.
3. DO NOT USE BELOW SLOPES SUBJECT TO CREEP, SLUMPING, OR LANDSLIDES.
4. SILT FENCE SHOULD BE WOVEN POLYPROPYLENE WITH A MINIMUM WIDTH OF 36 INCHES AND A MINIMUM TENSILE STRENGTH OF 100 LB FORCE.
5. INSTALL ALONG A LEVEL CONTOUR SO WATER DOES NOT POND MORE THAN 1.5 FEET AT ANY POINT ALONG THE SILT FENCE.
6. THE MAXIMUM LENGTH OF SLOPE DRAINING TO ANY POINT ALONG THE SILT FENCE SHOULD BE 200 FEET OR LESS.
7. THE MAXIMUM SLOPE PERPENDICULAR TO THE FENCE LINE SHOULD BE 1:1.
8. PROVIDE SUFFICIENT ROOM FOR RUNOFF TO POND BEHIND THE FENCE AND TO ALLOW SEDIMENT REMOVAL EQUIPMENT TO PASS BETWEEN THE SILT FENCE AND TOES OF SLOPES OR OTHER OBSTRUCTIONS.
9. TURN THE ENDS OF THE FILTER FENCE UPHILL TO CREATE A "J" SHAPE, TO PREVENT STORMWATER FROM FLOWING AROUND THE FENCE.
10. LEAVE AN UNDISTURBED OR STABILIZED AREA IMMEDIATELY DOWN SLOPE FROM THE FENCE WHERE FEASIBLE.
11. SILT FENCES SHOULD REMAIN IN PLACE UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.
12. REMOVE SEDIMENT WHEN DEPOSITS REACH APPROXIMATELY 1/3 HEIGHT OF BARRIER.

FILTER FENCE SILT BARRIER

SCALE: N.T.S.

3
D1.0



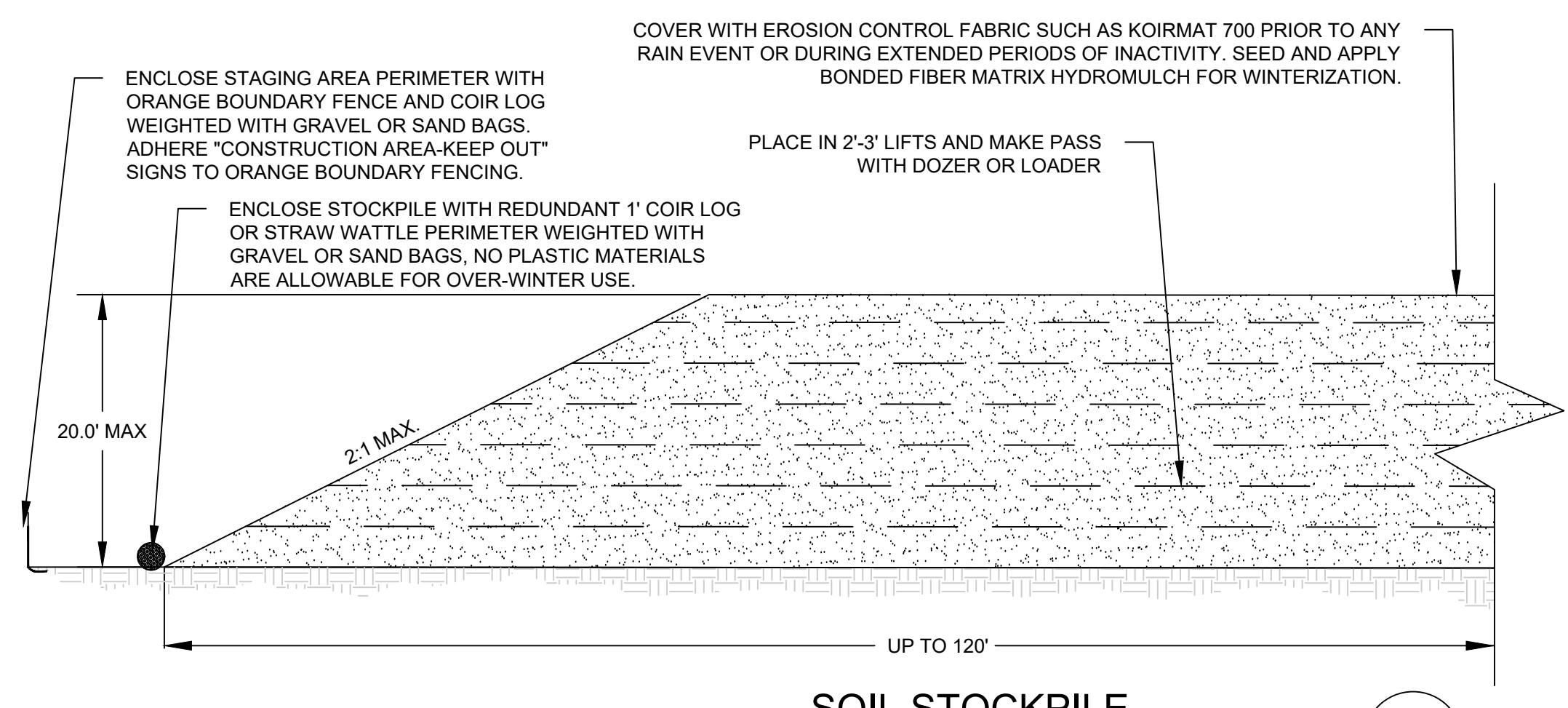
TEMPORARY CHECK DAM NOTES:

1. CHECK DAM DIMENSIONS TO BE VERIFIED BY CIVIL ENGINEER.
2. ONLY CLEAN/WASHED GRAVEL MUST BE USED IN BAGS

TEMPORARY CHECK DAM

SCALE: N.T.S.

4
D1.0



SOIL STOCKPILE

SCALE: N.T.S.

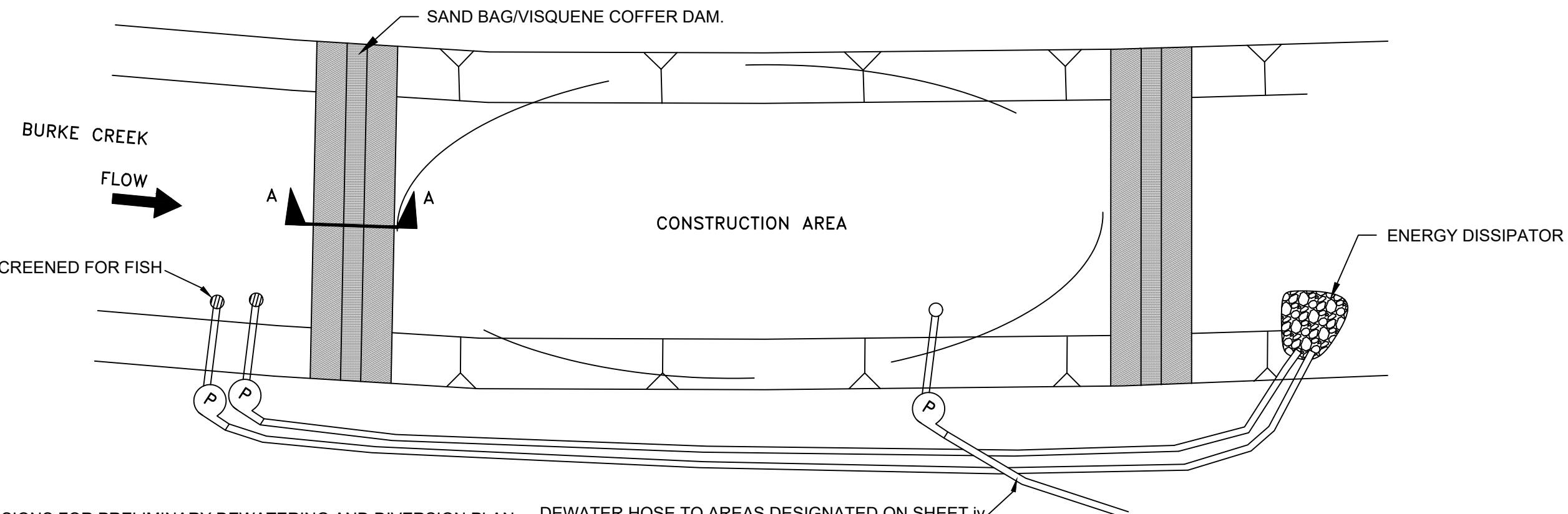
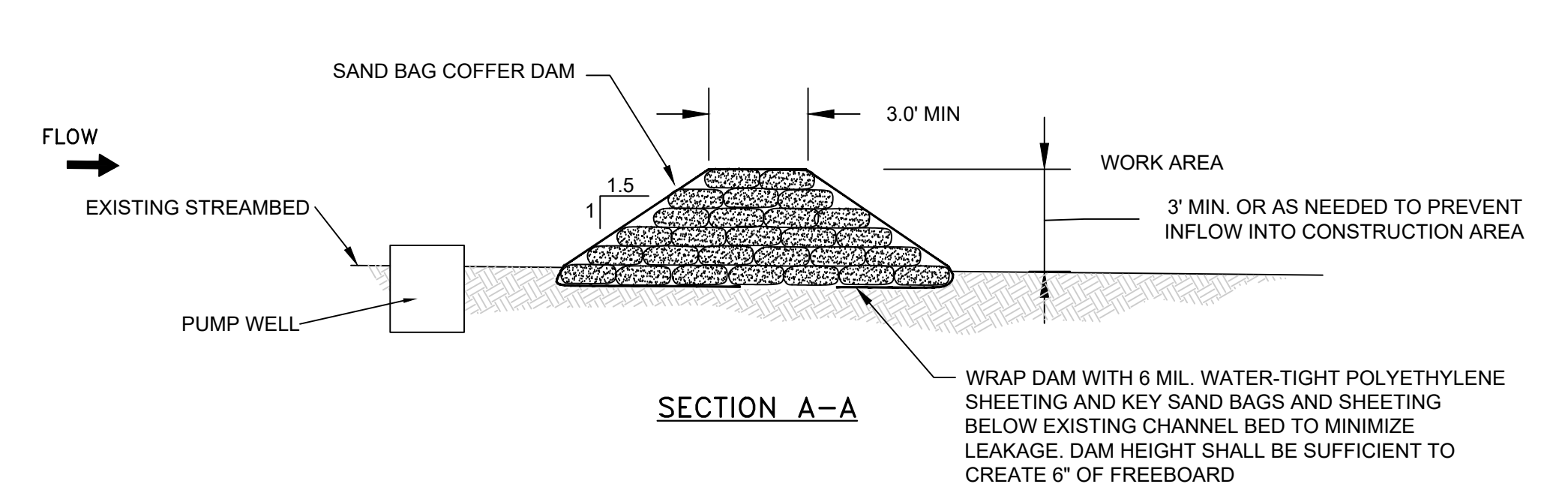
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D1.0



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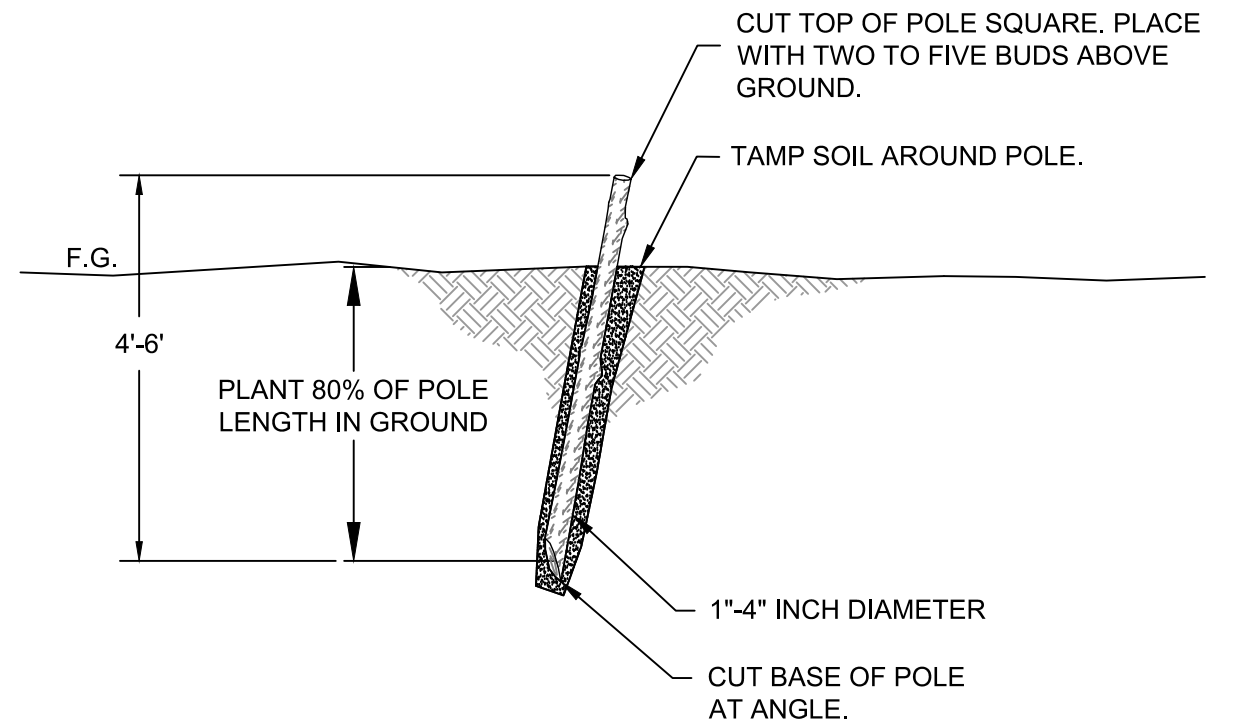
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DATE	4/2/2026
SCALE	AS SHOWN
PROJECT	MCSMR
SHEET	

D1.0
9 OF 28



DIVERSION NOTES:
 1. SEE SPECIAL TECHNICAL PROVISIONS FOR PRELIMINARY DEWATERING AND DIVERSION PLAN
 2. CONTRACTOR RESPONSIBLE TO FINALIZE SWPPP AND DEWATERING AND DIVERSION PLAN
 3. CONTRACTOR RESPONSIBLE FOR GAINING FINAL APPROVALS FOR CONSTRUCTION METHODS FOR DIVERSION AND DEWATERING FROM ALL APPLICABLE AGENCIES

DEWATERING DIVERSION
SCALE: N.T.S. **1**
D1.1

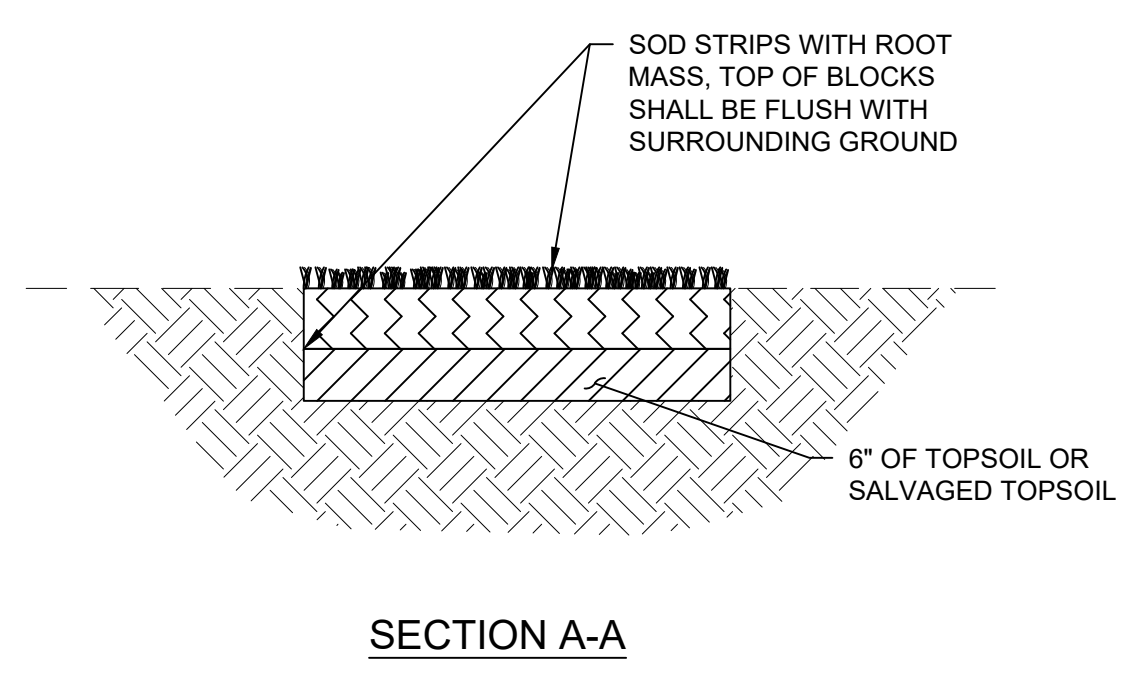
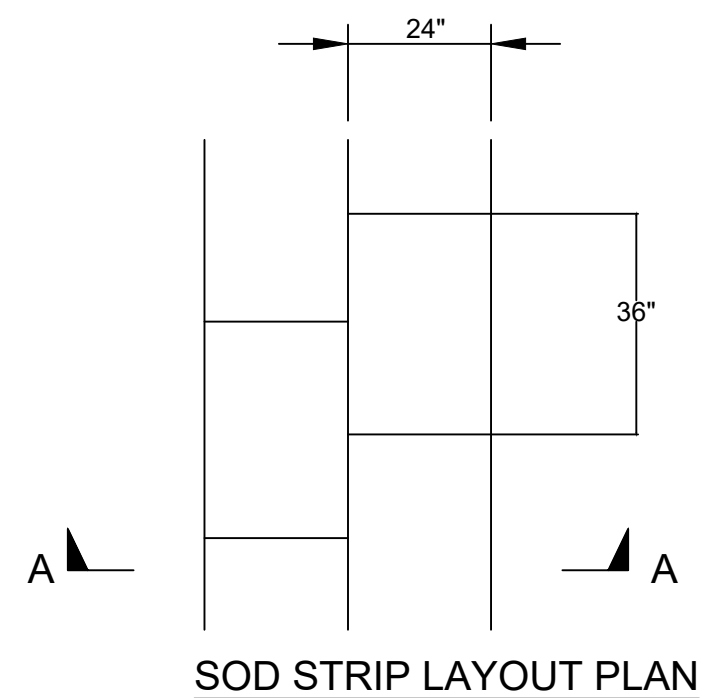


LIVE POLE NOTES
 REVEGETATION AND REPLACEMENT PLANTINGS SHALL CONSIST OF LOCALLY-OBTAINED, NATIVE SPECIES, PER SPECIFICATIONS.

WILLOW PREPARATION
 1. POLE CUTTINGS SHALL BE TAKEN WITH SHARP PRUNING SHEARS OR WITH A SHARP SAW BLADE, WITHOUT CAUSING INJURY TO THE BARK OR SPLITTING OF THE ENDS. THE BUTT END OF THE CUTTING SHALL BE ANGLED AND THE TOP END SHALL BE SQUARE.
 2. POLES SHALL BE FROM 4 TO 6 FOOT IN LENGTH AND 1 TO 4 INCHES IN DIAMETER. POLES SHALL BE CUT SO THAT A TERMINAL BUD SCAR IS WITHIN 1 TO 4 INCHES OF THE TOP. AT LEAST 2 BUDS AND/OR BUD SCARS SHALL BE ABOVE THE GROUND AFTER PLANTING. SIDE BRANCHES SHALL BE CUT WITH SHARP PRUNING SHEARS, FLUSH WITH POLE, WITHOUT CAUSING INJURY TO BUDS.

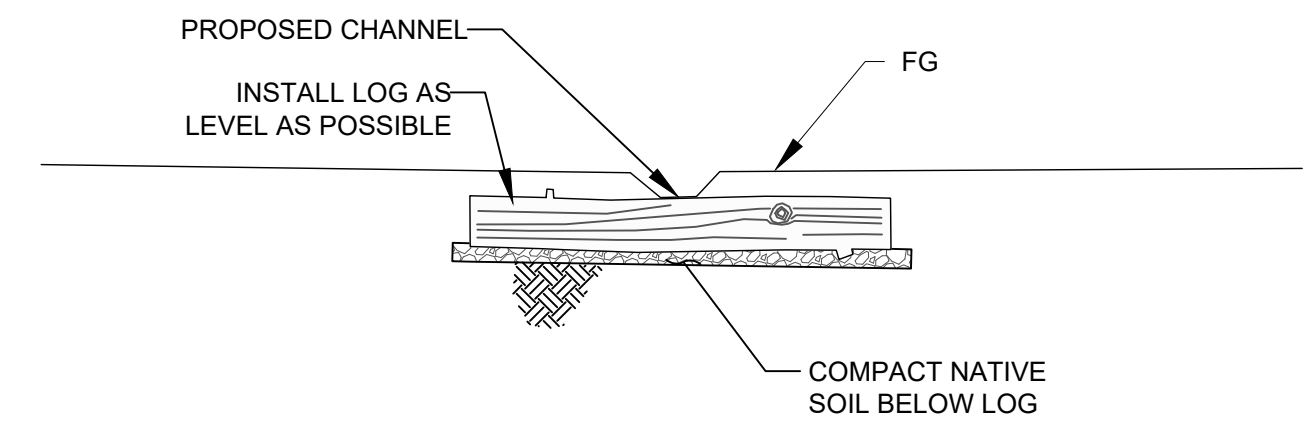
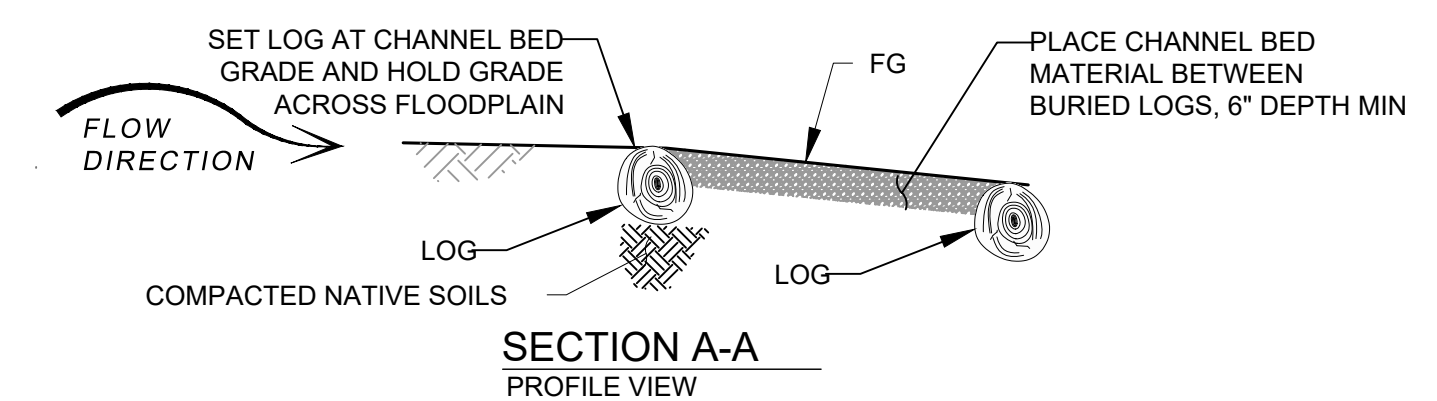
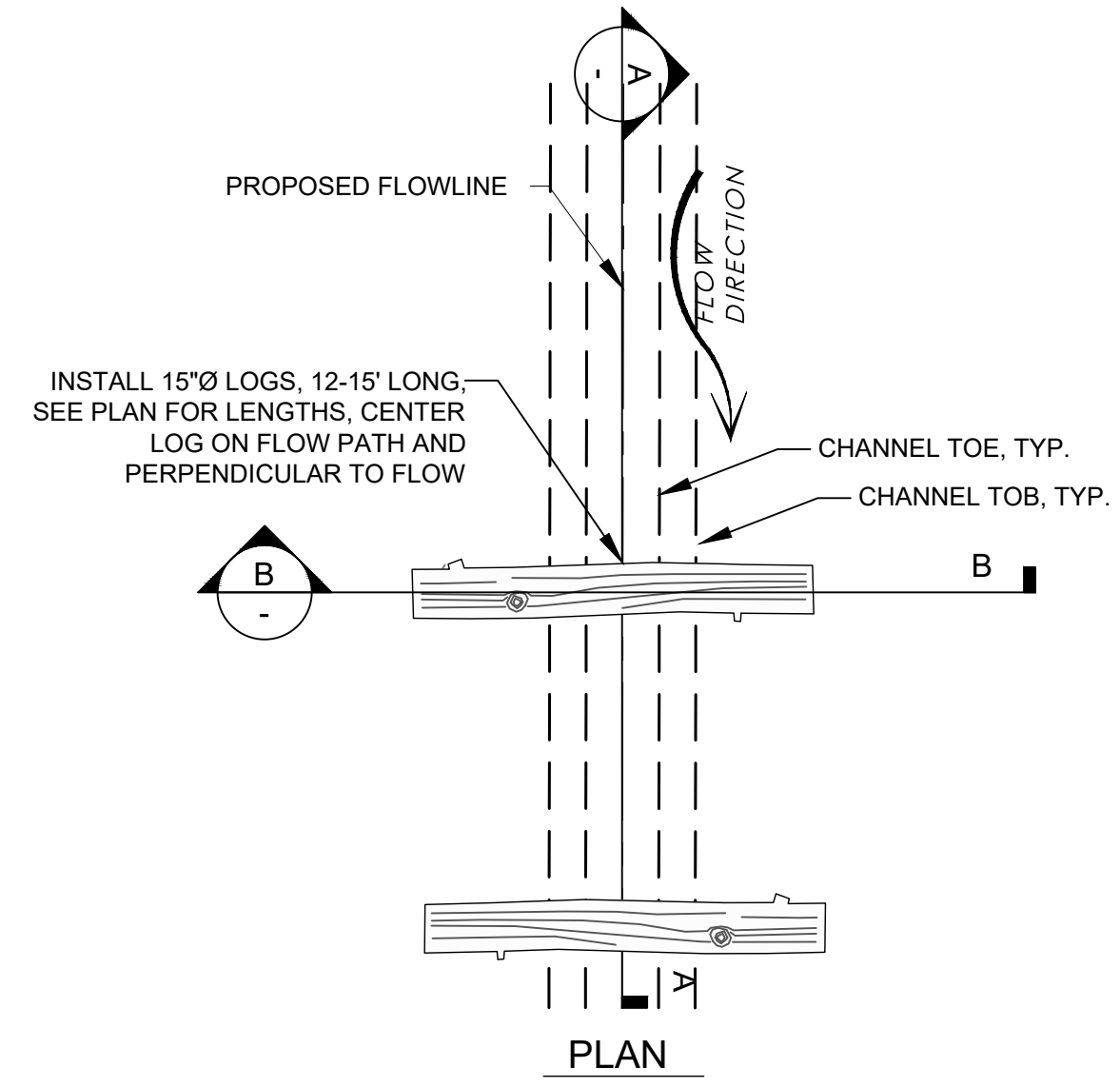
INSTALLATION
 1. LIVE POLES SHALL BE INSTALLED ON THE SAME DAY AS CUT OR SOAKED/FULLY EMERGED IN WATER IMMEDIATELY AFTER HARVESTING UNTIL PLANTING PRIOR TO INSTALLATION.
 2. THE POLE SHALL BE INSTALLED AS DEEP AS POSSIBLE INTO THE SOIL, PREFERABLY WITH 80% OF ITS LENGTH IN CONTACT WITH NATIVE SOIL. USE OF A PILOT BAR MAY HELP WITH INSTALLATION.
 3. SPECIAL CARE SHALL BE TAKEN TO NOT DAMAGE THE BUDS, SPLIT POLE ENDS, OR STRIP THE BARK DURING INSTALLATION.

LIVE POLE STAKE
SCALE: N.T.S. **2**
D1.1



SOD STRIP NOTES:
 REVEGETATION AND REPLACEMENT PLANTINGS SHALL CONSIST OF LOCALLY-OBTAINED, NATIVE SPECIES, PER SPECIFICATIONS.

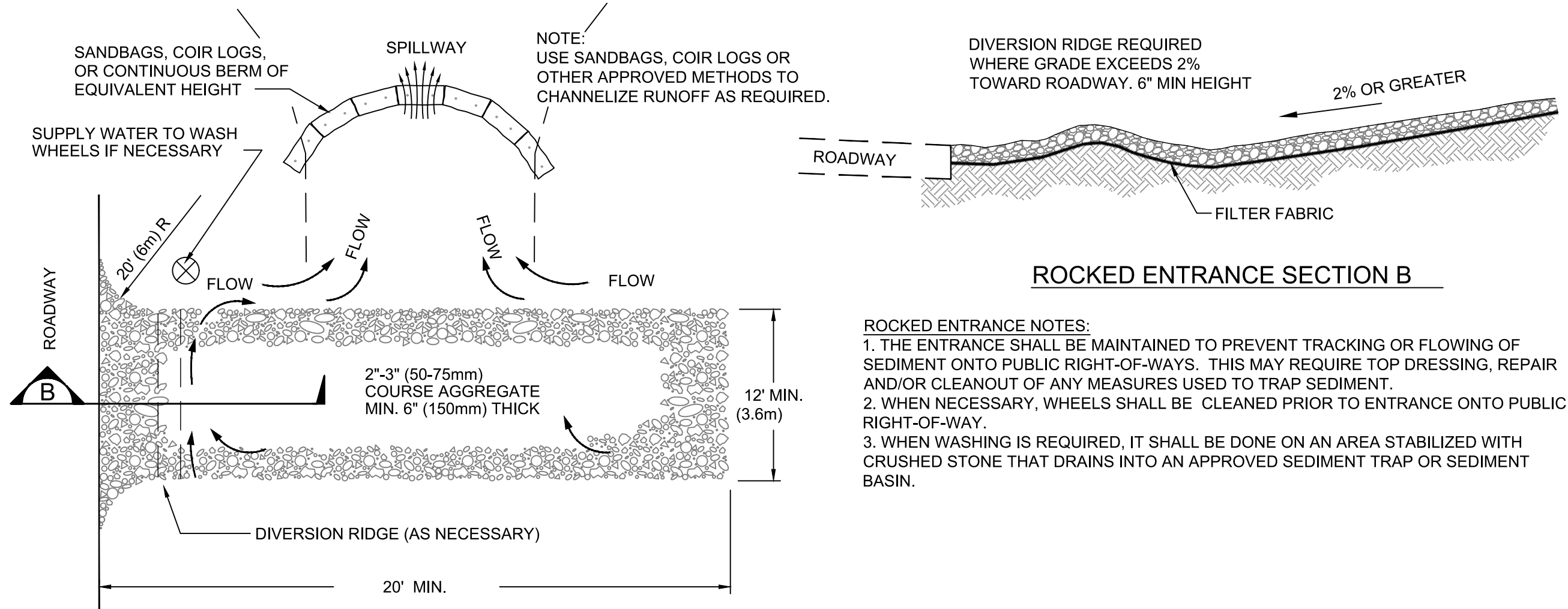
SALVAGED SOD
SCALE: N.T.S. **4**
D1.1



BURIED LOG PROTECTION
SCALE: N.T.S. **5**
D1.1

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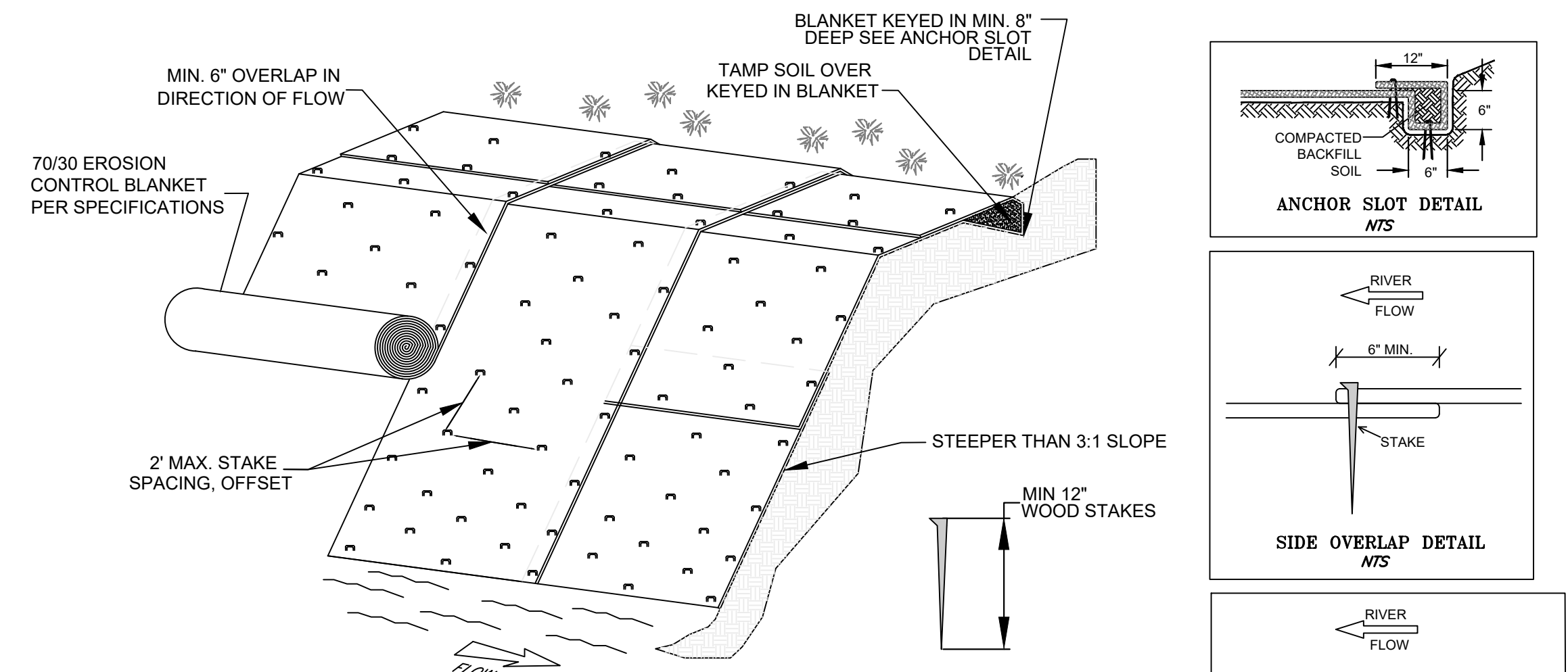
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DATE	4/2/2026
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PROJECT	MCSMR
SHEET	



ROCKED ENTRANCE NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

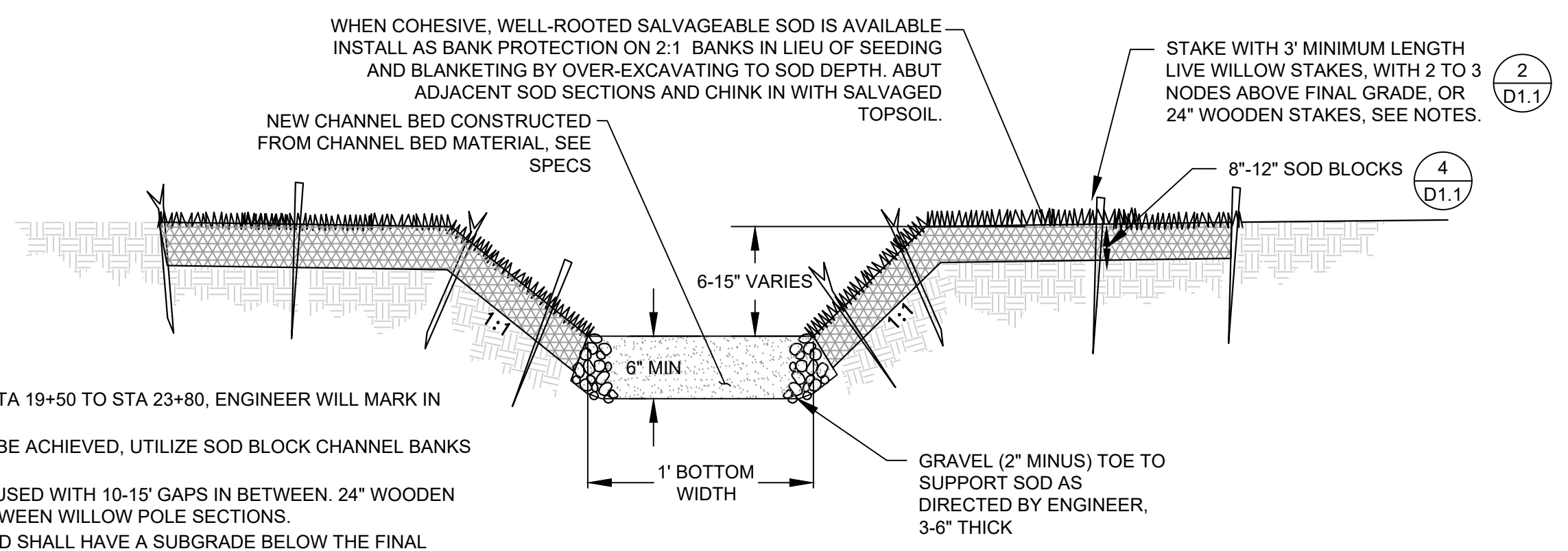
HARDENED CONSTRUCTION ENTRANCE 1
SCALE: N.T.S. D1.3



EROSION CONTROL BLANKET 2
SCALE: N.T.S. D1.2

NOTES:

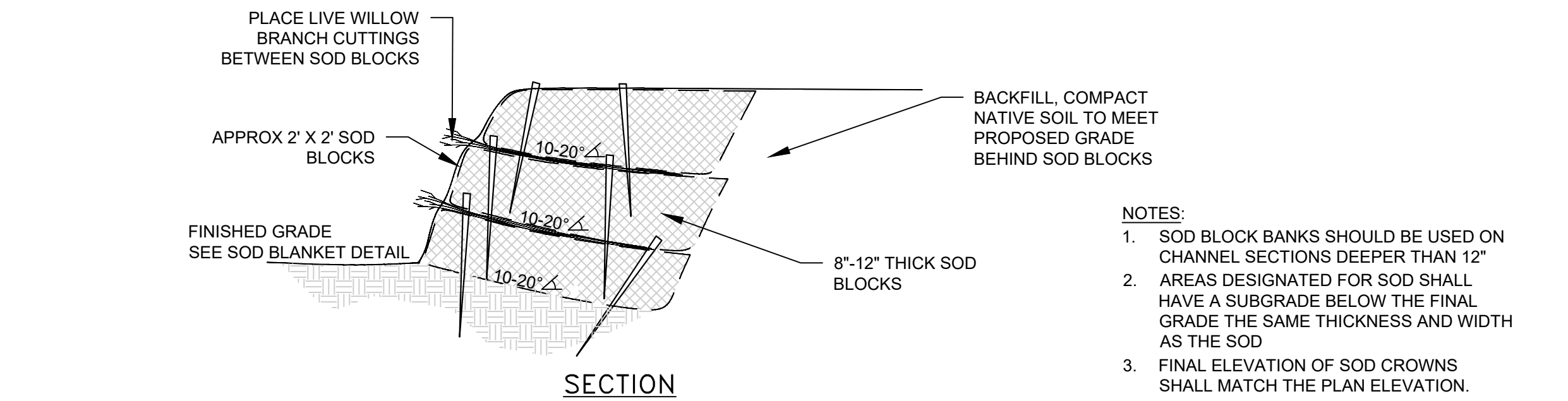
1. SLOPE SURFACE SHALL BE SMOOTH, AND FREE OF ROCKS, DIRT CLODS, AND STICKS.
2. APPLY SEEDING AND SOIL INOCULANT TO THE BANK BEFORE INSTALLING BLANKETS (SEE SPEC.)
3. LAY BLANKETS LOOSELY AND STAKE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH BLANKETS. (SEE SPEC.)
4. DRIVE STAKES FLUSH WITH BLANKET.



NOTES:

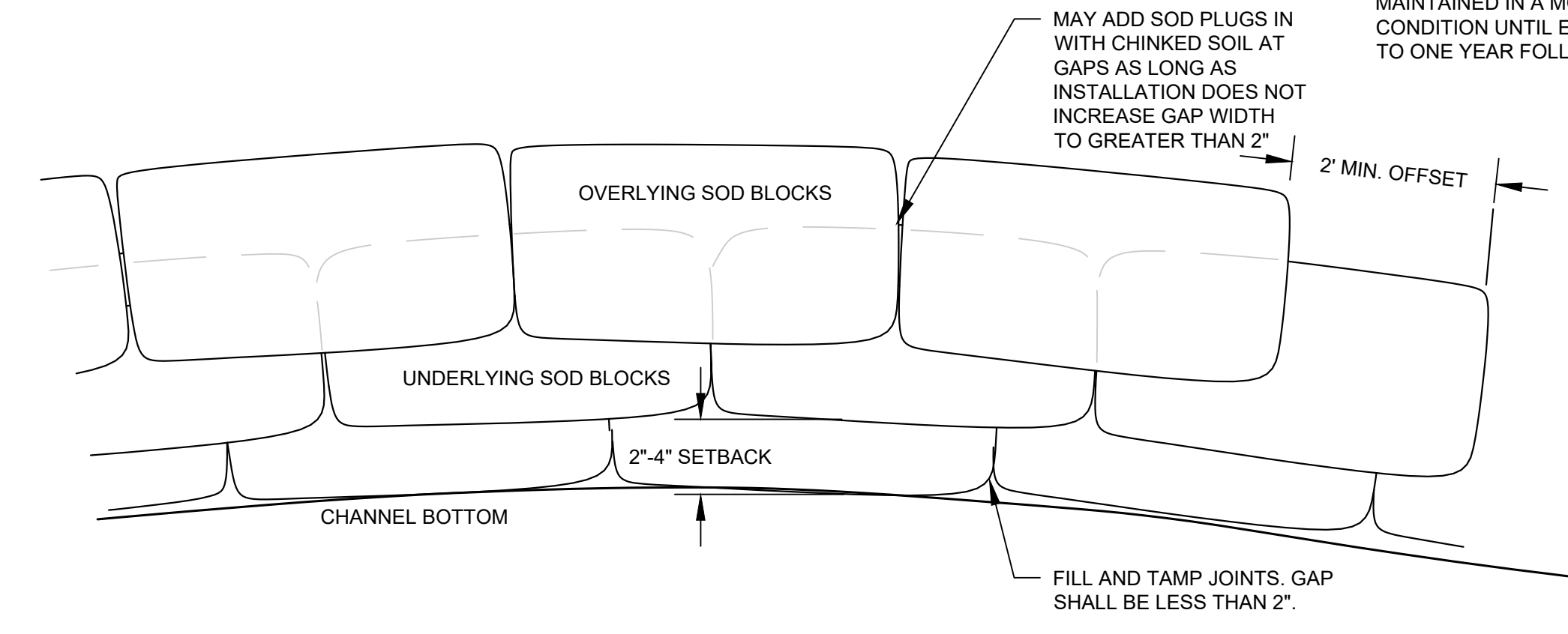
1. UTILIZE THIS DETAIL FROM STA 19+50 TO STA 23+80. ENGINEER WILL MARK IN FIELD.
2. IF 1:1 SIDE SLOPES CANNOT BE ACHIEVED, UTILIZE SOD BLOCK CHANNEL BANKS SHOWN IN DETAIL 3/D1.2
3. WILLOW POLES SHOULD BE USED WITH 10-15' GAPS IN BETWEEN. 24" WOODEN STAKES SHALL BE USED BETWEEN WILLOW POLE SECTIONS.
4. AREAS DESIGNATED FOR SOD SHALL HAVE A SUBGRADE BELOW THE FINAL GRADE THE SAME THICKNESS AS THE SOD (ROUGHLY 8" TO 12").
5. SOIL SHALL BE LOOSENEED AT THE SURFACE AND SOD PLANTED INTO MOIST SOIL SUCH THAT THE EDGES SNUGLY ADJOIN ADJACENT SECTIONS. NEXT CHINK WITH NATIVE TOPSOIL SO THAT THE EDGES OF THE SOD ARE WELL COVERED.
6. FINAL ELEVATION OF SOD CROWNS SHALL MATCH THE PLAN ELEVATION.
7. SOD TO BE THOROUGHLY WATERED AND MAINTAINED IN A MOIST, HEALTHY CONDITION UNTIL ESTABLISHED, FOR UP TO ONE YEAR FOLLOWING PLANTING.

SOD BLANKET CHANNEL 3
SCALE: N.T.S. D1.2



NOTES:

1. SOD BLOCK BANKS SHOULD BE USED ON CHANNEL SECTIONS DEEPER THAN 12"
2. AREAS DESIGNATED FOR SOD SHALL HAVE A SUBGRADE BELOW THE FINAL GRADE THE SAME THICKNESS AND WIDTH AS THE SOD
3. FINAL ELEVATION OF SOD CROWNS SHALL MATCH THE PLAN ELEVATION.
4. SOD TO BE THOROUGHLY WATERED AND MAINTAINED IN A MOIST, HEALTHY CONDITION UNTIL ESTABLISHED, FOR UP TO ONE YEAR FOLLOWING PLANTING.



SOD BLOCK CHANNEL BANKS 4
SCALE: N.T.S. D1.2

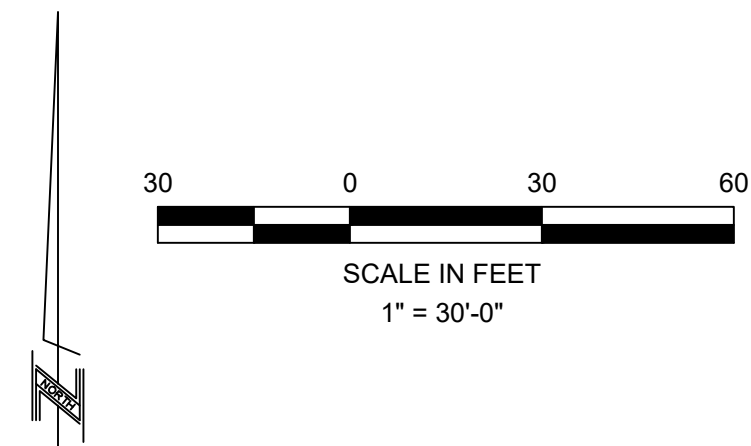
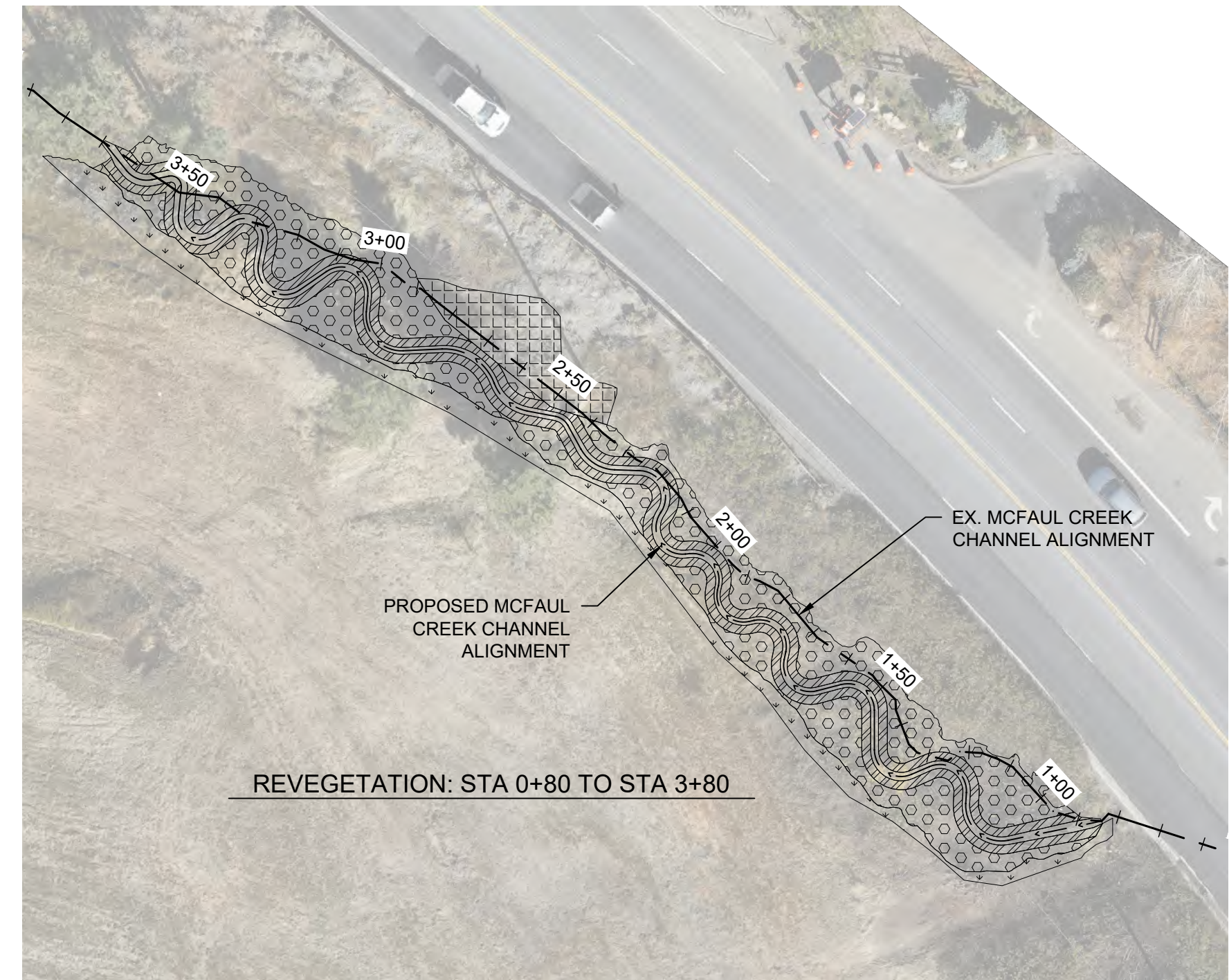


80% DESIGN
NOT FOR CONSTRUCTION

SEED MIXES

Seed Mix 1 (Over Sod)		
Species (Scientific Name)	Species (Common Name)	LBS per Acre
<i>Achillea millefolium</i>	Yarrow	0.10
<i>Bromus carinatus</i>	California brome	3.00
<i>Deschampsia cespitosa</i>	Tufted hairgrass	0.50
<i>Carex praegracilis</i>	Slender sedge	0.50
<i>Elymus glaucus</i>	Blue Wildrye 'Stanislaus'	3.00
<i>Geum macrophyllum</i>	Big-leaved avens	0.50
<i>Hordeum brachyantherum</i> (Sources above 6,000 in elevation only)	Meadow barley	2.00
<i>Juncus balticus</i>	Baltic rush	0.10
<i>Leymus triticoides</i>	Creeping wildrye	3.00
<i>Lupinus polyphyllus</i>	Tahoe lupine	1.00
<i>Penstemon rydbergii</i>	Rydberg's penstemon	0.25
<i>Poa pratensis</i> (local sources only)	Kentucky bluegrass	2.00
<i>Potentilla gracilis</i>	Slender cinquefoil	0.50
<i>Sidalcea oregana</i>	Checker mallow	0.50
Total		16.95

Seed Mix 2 (Slopes, Upland & Basin)		
Species (Common Name)	Species (Botanical Name)	LBS per Acre
Big Bluegrass	<i>Poa ampla</i> 'Canby'	2.00
Sheep Fescue 'Covar'	<i>Festuca trachyphylla</i> 'Covar'	3.50
Hard Fescue	<i>Festuca trachyphylla</i> 'Durar'	3.50
Squirreltail	<i>Elymus elymoides</i>	2.00
Creeping Wildrye	<i>Elymus triticoides</i>	4.00
Slender Wheatgrass	<i>Elymus trachycaulus</i> 'Revenue'	5.00
California Sierra Brome	<i>Bromus carinatus</i>	4.00
Western Needlegrass	<i>Achnatherum occidentale</i>	1.00
Blue Flax	<i>Linum perenne</i>	1.00
California Poppy	<i>Eschscholzia californica</i>	2.00
Sulfur-flower Buckwheat	<i>Eriogonum umbellatum</i>	3.00
Yarrow	<i>Achillea millefolium</i>	0.50
Woods Rose	<i>Rosa woodsii</i>	0.50
Total PLS LBS/ACRE RATE		32.00



REVEGETATION NOTES

- SOD IS SALVAGED AND REPLANTED CLOSEST TO CREEK. ALL DISTURBED AREAS, INCLUDING SOD TRANSPLANT, SHALL BE SEEDED WITH SEED MIX
- WORK SHALL BE CONDUCTED AND/OR OVERSEEN BY A LICENSED LANDSCAPE CONTRACTOR (C-10) IN THE STATE OF NEVADA AND WILL BE INSPECTED BY THE ENGINEER, IN CONJUNCTION WITH THE REVEGETATION SPECIALIST (RS). THE CONTRACTOR SHALL PERFORM ALL REVEGETATION WORK AS SPECIFIED HEREIN AND IN ACCORDANCE WITH THE PROVISIONS OF THESE SPECIAL TECHNICAL PROVISIONS, THE PROJECT PLANS, AND THE STANDARD SPECIFICATIONS. THE REVEGETATION WORK SHALL CONSIST OF ALL SITE PREPARATION ASSOCIATED WITH THE REVEGETATION TREATMENTS, AND SHALL INCLUDE SOD AND ORGANIC MATTER SALVAGE, STORAGE AND REPLANTING; WILLOW SALVAGE, STORAGE AND REPLANTING; SEEDBED PREPARATION; SEEDING; MULCHING; DESIGN, INSTALLATION AND MANAGEMENT OF THE IRRIGATION SYSTEM, IF NECESSARY, INCLUDING WINTERIZATION AND DECOMMISSIONING; AND RECORD KEEPING.
- AREAS TO RECEIVE REVEGETATION TREATMENTS SHALL INCLUDE ALL AREAS DISTURBED DURING CONSTRUCTION, INCLUDING STAGING OFF PAVEMENT STAGING AREAS AND ALL AREAS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER AND/OR THE RS.
- THE CONTRACTOR IS FURTHER REQUIRED TO ONLY USE "LOW IMPACT EQUIPMENT" FOR THIS PROJECT. NO EQUIPMENT HAVING A GROUND PRESSURE THAT WILL DISTURB AND/OR COMPACT THE GROUND (GENERALLY GROUND PRESSURES LESS THAN 25 PSI) WILL BE ALLOWED OFF OF PAVED AREAS OR OFF DESIGNATED TEMPORARY TRUCK HAUL ROUTES UNDER ANY CIRCUMSTANCES. ALL EQUIPMENT ON THE PROJECT SITE, (OFF PAVED AREAS OR DESIGNATED TRUCK HAUL ROUTES), SHALL MEET THIS LOW-PRESSURE REQUIREMENT.
- SUPPLEMENTAL TREATMENTS MAY BE REQUIRED IF REVEGETATION EFFORTS ARE UNSATISFACTORY FOLLOWING COMPLETION OF WORK AS DETERMINED BY THE ENGINEER. THE CONTRACTOR MUST ACHIEVE 70% OF PRE-DISTURBANCE (REFERENCE AREA) NATIVE VEGETATIVE COVER FOR AREAS RECEIVING SEED. WARRANTY 100% SURVIVAL OF ALL SALVAGED AND TRANSPLANTED SOD AND WILLOWS.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND RS NO LESS THAN TEN (10) WORKING DAYS IN ADVANCE OF REVEGETATION WORK AND SHALL NOT BEGIN WORK UNTIL PREPARED REVEGETATION TREATMENT AREAS HAVE BEEN ACCEPTED BY THE ENGINEER AND RS. THE CONTRACTOR SHALL REQUEST THAT TREATMENT TYPES AND BOUNDARIES ARE LOCATED BY THE ENGINEER AND/OR RS PRIOR TO PROGRESSING WITH THE WORK.
- NO SUBSTITUTIONS OR ALTERATIONS TO THESE SPECIAL TECHNICAL PROVISIONS SHALL BE ACCEPTED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER AND THE RS. NO FURTHER DISTURBANCE OF ANY TREATMENT AREA SHALL BE ALLOWED ONCE REVEGETATION HAS BEEN INITIATED.
- IF SITE CONDITIONS WARRANT PLANTING OF WETLAND PLUGS IN ADDITION TO SEEDING, THE CONTRACTOR WILL BE PROVIDED WITH A SPECIFICATION FOR MATERIALS AND PLANTING METHODS, INCLUDING SPECIES, SIZE, QUANTITIES, PLANT HEALTH, SPACING, PLANTING METHODS, MAINTENANCE, AND WARRANTY.

REVEGETATION LEGEND

- WATER'S EDGE TREATMENT (3,825 SF)
- FLOODPLAIN TREATMENT (2,870 SF)
- MEADOW TREATMENT (9,730 SF)
- SLOPE TREATMENT (570 SF)

- SOIL DISTURBANCE SHALL BE MINIMIZED AND LIMITED TO THOSE AREAS THAT REQUIRE TREATMENT. ALL EXISTING VEGETATION WITHIN THE PROJECT LIMITS NOT DESIGNATED FOR REMOVAL SHALL BE PROTECTED. DELINEATE PROJECT BOUNDARIES WITH FENCING PER THE REQUIREMENTS IN CONSTRUCTION LIMIT FENCING AND IN THESE SPECIAL TECHNICAL PROVISIONS. TRAFFIC OUTSIDE OF PROJECT AREA IS PROHIBITED. ANY EXISTING OR PREVIOUSLY INSTALLED VEGETATION DAMAGED SHALL BE REPLACED BY THE CONTRACTOR. AREAS TO RECEIVE REVEGETATION TREATMENTS SHALL INCLUDE ALL AREAS DISTURBED DURING CONSTRUCTION, AS INDICATED ON THE PROJECT PLANS AND AS DIRECTED BY THE ENGINEER AND/OR THE RS.
- SALVAGE ALL SOD TO BE DISTURBED INCLUDING BUT NOT LIMITED TO WHAT IS SHOWN ON THE DRAWINGS. SALVAGE SOD AND ORGANIC MATTER, STORE, AND REPLANT AS DIRECTED BY THE RS. TOP DRESS BARE AREAS WITH REVEGETATION SEED MIX 1. RAKE SEED TO INCORPORATE AND IRRIGATE TO ESTABLISH REQUIRED COVER IRRIGATE TO ESTABLISH SOD AND SEEDED AREAS. WATER SOD 2 TIMES PER DAY TO KEEP MOIST UNTIL PLANTED.
- SALVAGE, STORE, AND RE-PLANT WILLOWS AS SHOW ON THE PLANS AND AS DIRECTED BY THE RS. TOP DRESS BARE AREAS WITH SEED MIX 1. RAKE SEED TO INCORPORATE. IRRIGATE TO MEET PERFORMANCE CRITERIA.
- DECOMPACT SOILS TO ACHIEVE A MAXIMUM OF 85% COMPACTION FOR AN 8" MINIMUM DEPTH. APPLY REVEGETATION SEED MIX, INCORPORATE. APPLY RICE STRAW AND CRIMP TO ACHIEVE 100% COVER.
- ALL NON-NATIVE TREES WILL BE REMOVED. ALL NATIVE TREES LOCATED WITHIN DISTURBANCE AREA WILL BE REMOVED AND REPLACED 1:1 WITH POTTED QUAKING ASPEN (½ GALLON MIN).
- SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION ON SOD TRANSPLANT AND SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- PLACE 15 REVEGETATION SIGNS AS DIRECTED BY ENGINEER. SIGNS TO REMAIN IN-PLACE FOR TWO YEARS POST-CONSTRUCTION.



**80% DESIGN
NOT FOR CONSTRUCTION**



REVEGETATION PLAN
MCFAUL CREEK STREAM AND MEADOW RESTORATION

DESIGNED/DRAWN	PJ
CHECKED BY	MK
DATE	4/2/2026
SCALE	AS SHOWN
PROJECT	MCSMR
SHEET	R1.0
	12 OF 12