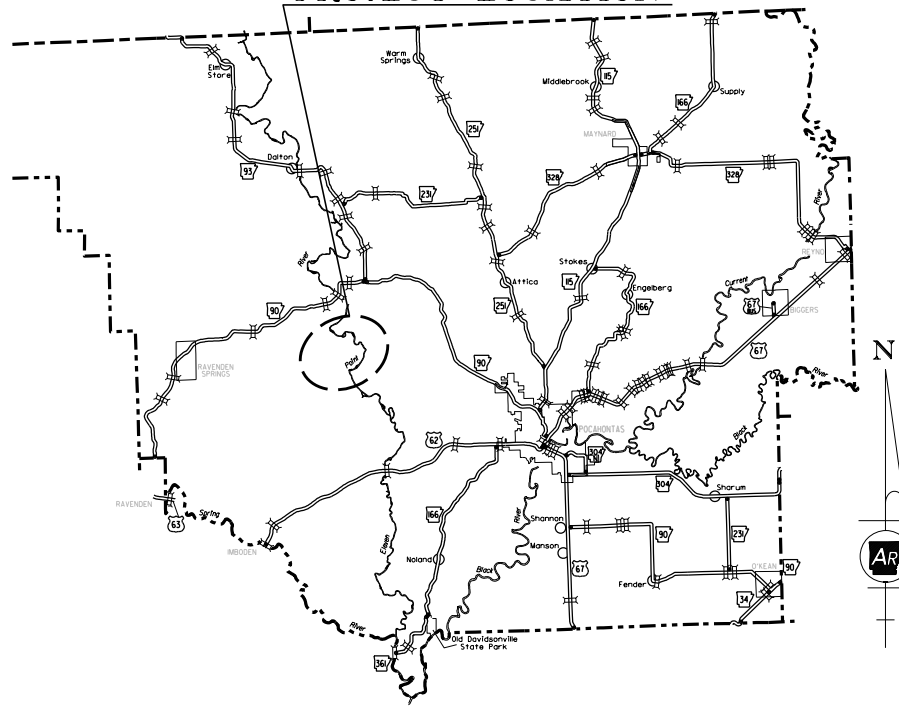


DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	101115	1	19
ELEVEN POINT RIVER STREAM RESTORATION (S)						

**PROJECT LOCATION**



**VICINITY MAP**

**ARKANSAS DEPARTMENT OF TRANSPORTATION  
CONSTRUCTION PLANS**



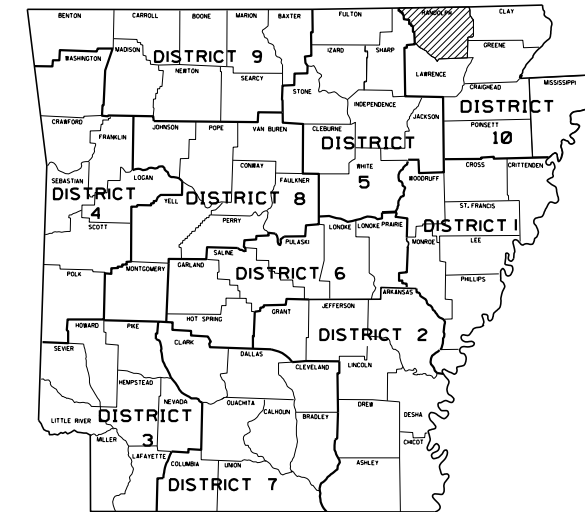
**ELEVEN POINT RIVER  
STREAM RESTORATION (S)**

**RANDOLPH COUNTY**

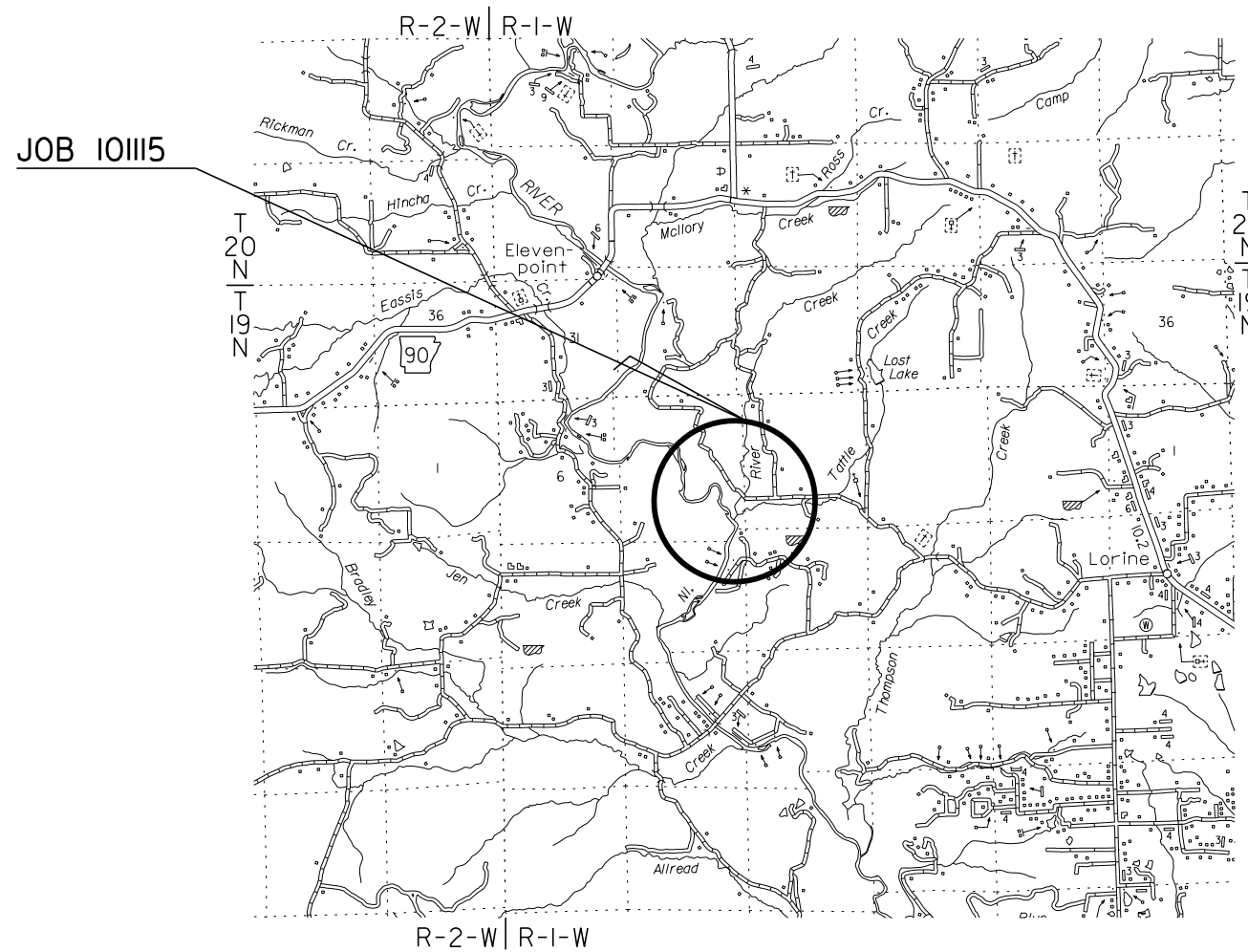
**JOB 101115**

**FED. AID PROJ. STPF-0061(25)**

**NOT TO SCALE**



**ARKANSAS HIGHWAY DISTRICT 10**



	BEGIN OF PROJECT	MID-POINT OF PROJECT	END PROJECT
LATITUDE	N 36°19'12"	N 36°19'12"	N 36°19'06"
LONGITUDE	W 91°05'59"	W 91°05'53"	W 91°05'52"

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12-10-2025



DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
3-30-2026		6	ARK.	10115	3	19
GOVERNING SPECIFICATIONS AND GENERAL NOTES						



**GOVERNING SPECIFICATIONS**

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

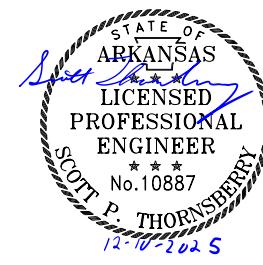
NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPOSALS
102-3	PREQUALIFICATION OF BIDDERS
103-2	CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS
105-4	MAINTENANCE DURING CONSTRUCTION
107-2	RESTRAINING CONDITIONS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
110-1	PROTECTION OF WATER QUALITY AND WETLANDS
210-1	UNCLASSIFIED EXCAVATION
303-1	AGGREGATE BASE COURSE
306-1	QUALITY CONTROL AND ACCEPTANCE
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-3	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
620-1	MULCH COVER
802-5	CONCRETE FOR STRUCTURES
JOB 101115	BARE ROOT SEEDLINGS
JOB 101115	BIDDING REQUIREMENTS AND CONDITIONS
JOB 101115	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 101115	BUY AMERICA - CONSTRUCTION MATERIALS
JOB 101115	CARGO PREFERENCE ACT REQUIREMENTS
JOB 101115	COIR FIBER MATTING
JOB 101115	CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB 101115	DOCUMENTATION OF PAYMENTS MADE - PROMPT PAYMENT (SIGNET SOFT LAUNCH)
JOB 101115	DOCUMENTATION OF PAYMENTS MADE TO DISADVANTAGED BUSINESS ENTERPRISES
JOB 101115	DOCUMENTATION OF PAYMENTS MADE TO SUBCONTRACTORS
JOB 101115	FLEXIBLE BEGINNING OF WORK - CALENDAR DAY CONTRACT
JOB 101115	GEO-LIFT
JOB 101115	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 101115	LIVE BRUSH FASCINE
JOB 101115	LIVE STAKES
JOB 101115	MANDATORY ELECTRONIC CONTRACT
JOB 101115	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 101115	PRICE ADJUSTMENT FOR FUEL
JOB 101115	PRIME CONTRACTOR PERFORMANCE EVALUATION
JOB 101115	PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
JOB 101115	REMOVING AND REPLACING TOPSOIL
JOB 101115	SPECIAL CLEARING PUP SEASON REQUIREMENTS
JOB 101115	SPECIAL SEEDING - PERMANENT
JOB 101115	SPECIAL SEEDING REQUIREMENTS
JOB 101115	SPECIAL TEMPORARY SEEDING AND MULCH COVER
JOB 101115	STORM WATER POLLUTION PREVENTION PLAN

**GENERAL NOTES**

1. THE CONTRACTOR IS REQUIRED TO INSTALL IN-STREAM STRUCTURES USING A TRACK HOE WITH A HYDRAULIC THUMB OF SUFFICIENT SIZE TO PLACE BOULDERS (4'x3'x2'), LOGS AND ROOT WADS.
2. WORK IS BEING PERFORMED AS AN ENVIRONMENTAL RESTORATION PLAN. THE CONTRACTOR SHOULD MAKE ALL REASONABLE EFFORTS TO REDUCE SEDIMENT LOSS AND MINIMIZE DISTURBANCE OF THE SITE WHILE PERFORMING THE CONSTRUCTION WORK.
3. CONTRACTOR SHOULD CALL ARKANSAS "ONE-CALL" BEFORE EXCAVATION STARTS. (811 or 1-800-482-8998)
4. TOPSOIL SHALL BE EXCAVATED TO A DEPTH OF 8" AND STOCKPILED SEPARATELY FROM UNDERCUT SOIL. 6" OF TOPSOIL SHALL BE PLACED ON ALL TERRACES AND IF AND WHERE DIRECTED BY THE ENGINEER.
5. ALL DISTURBED EMBANKMENTS SHALL BE MATTED WITH COIR FIBER MATTING OR IF AND WHERE DIRECTED BY THE ENGINEER.
6. ALL STREAM BANKS SHALL BE LIVE STAKED.
7. UNLESS THE ALIGNMENT IS BEING ALTERED, THE EXISTING CHANNEL DIMENSIONS ARE TO REMAIN, UNLESS OTHERWISE NOTED.
8. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
9. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
10. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
11. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED IF AND WHERE DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
13. THIS PROJECT IS COVERED UNDER A SECTION 404 NATIONWIDE 27 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	10115	4	19
LEGEND & VEGETATION SELECTION						



# LEGEND

- ROCK J-HOOK
- GRADE CONTROL ROCK J-HOOK
- ROCK VANE
- OUTLET PROTECTION
- ROCK CROSS VANE
- ROCK DOUBLE DROP ROCK CROSS VANE
- SINGLE WING DEFLECTOR
- DOUBLE WING DEFLECTOR
- TEMPORARY SILT CHECK
- ROOT WAD
- LOG J-HOOK
- GRADE CONTROL LOG J-HOOK
- LOG VANE
- LOG STEP
- LOG CROSS VANE
- LOG AND ROCK STEP POOL
- BOULDER STEP
- CONSTRUCTED RIFFLE
- BOULDER CLUSTER
- ROCK STEP POOL
- JURISDICTIONAL WETLAND BOUNDARY
- SAFETY FENCE
- SILT FENCE
- 100 YEAR FLOOD PLAIN
- CONSERVATION EASEMENT
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- LIMITS OF DISTURBANCE
- PROPERTY LINE
- FOOT BRIDGE
- TEMPORARY STREAM CROSSING
- PERMANENT STREAM CROSSING
- TRANSPLANTED VEGETATION
- TREE REMOVAL
- TREE PROTECTION
- CHANNEL PLUG
- STABILIZATION / RESTORATION AREA
- BRUSH TOE WITH MATTING AND DOUBLE LIVE STAKES
- GEOLIFT WITH BRUSH TOE
- GEOLIFT WITH LIVE BRUSH, LOGS, AND ROOT WADS
- NON-CREDITED JURISDICTIONAL WETLANDS
- WETLAND RE-ESTABLISHMENT
- WETLAND ENHANCEMENT

\*\*NOTE: ALL ITEMS ABOVE MAY NOT BE USED ON THIS PROJECT

## VEGETATION SELECTION

REFER TO SPECIAL PROVISIONS FOR ADDITIONAL CONSTRUCTION INFORMATION.

Proposed Bare-Root and Live Stake Species			
Botanical Name	Common Name	% Planted by Species	Wetland Tolerance
<b>All Buffer Plantings at 680 stems/acre using 8' X 8' spacing</b>			
<b>Riparian Zone – Overstory/Canopy Species</b>			
<i>Populus deltoides</i>	Cottonwood	15%	FAC
<i>Acer saccharinum</i>	Silver Maple	15%	FAC
<i>Celtis occidentalis</i>	Hackberry	10%	FACU
<i>Liriodendron tulipifera</i>	Tulip Poplar	10%	FACU
<i>Betula nigra</i>	River Birch	15%	FACW
<i>Platanus occidentalis</i>	Sycamore	15%	FACW
<i>Diospyros virginiana</i>	Persimmon	5%	FAC
<i>Quercus phellos</i>	Willow Oak	5%	FAC
<i>Quercus palstris</i>	Pin Oak	5%	FACW
<i>Quercus michauxii</i>	Swamp Chestnut Oak	5%	FACW
<b>Riparian Zone – Understory/Shrub Species</b>			
<i>Aronia melanocarpa</i>	Black Chokeberry	15%	FACW
<i>Cephalanthus occidentalis</i>	Buttonbush	20%	OBL
<i>Cornus amomum</i>	Silky Dogwood	15%	FACW
<i>Amorpha fruticosa</i>	False Indigo	10%	FACW
<i>Crataegus viridis</i>	Green Hawthorn	10%	FACW
<i>Physocarpus opulifolius</i>	Ninebark	15%	FAC
<i>Salix interior</i>	Sandbar Willow	15%	OBL
<b>Streambank Live Stake Mix and Live Branch Species</b>			
<i>Salix interior</i>	Sandbar Willow	20%	FACW
<i>Cephalanthus occidentalis</i>	Buttonbush	10%	OBL
<i>Cornus amomum</i>	Silky Dogwood	20%	FACW
<i>Salix nigra</i>	Black Willow	25%	OBL
<i>Populus deltoides</i>	Cottonwood	25%	FAC

Permanent Seed Mixture for Riparian Areas					
Botanical Name	Common Name	% Planted by Species	Density (lbs/ac)	Wetland Tolerance	
<i>Agrostis alba</i>	Redtop	10%	1.5	FACW	
<i>Elymus virginicus</i>	Virginia Wildrye	15%	2.25	FACW	
<i>Panicum virgatum</i>	Switchgrass	15%	2.25	FAC	
<i>Tripsacum dactyloides</i>	Eastern Gamma Grass	5%	0.75	FACW	
<i>Polygonum pennsylvanicum</i>	Pennsylvania Smartweed	5%	0.75	FACW	
<i>Schizachyrium scoparium</i>	Little Blue Stem	5%	0.75	FACU	
<i>Juncus effusus</i>	Soft Rush	5%	0.75	FACW	
<i>Bidens frondosa (or aristosa)</i>	Beggars Tick	5%	0.75	FACW	
<i>Coreopsis lanceolata</i>	Lance-Leaved Tick Seed	10%	1.5	FACU	
<i>Dichanthelium clandestinum</i>	Tioga Deer Tongue	15%	2.25	FAC	
<i>Andropogon gerardii</i>	Big Blue Stem	5%	0.75	FAC	
<i>Sorghastrum nutans</i>	Indian Grass	5%	0.75	FACU	
<b>Total</b>		<b>100%</b>	<b>15</b>		

**Note:** Final species selection may change due to refinement of site conditions or to availability at the time of planting. If species substitution is required, the planting Contractor will submit a revised planting list to the Engineer for approval prior to the procurement of plant stock.

Permanent Seed Mixture for Upland Areas				
Botanical Name	Common Name	% Planted by Species	Density (lbs/ac)	Wetland Tolerance
<i>Andropogon gerardii</i>	Big Blue Stem	34.9%	6.98	FAC
<i>Panicum virgatum</i>	Switchgrass	27.0%	5.4	FAC
<i>Elymus virginicus</i>	Virginia Wildrye	21.0%	4.2	FACW
<i>Sorghastrum nutans</i>	Indian Grass	9.0%	1.8	FACU
<i>Rudbeckia hirta</i>	Blackeyed Susan	3.0%	0.6	FACU
<i>Chamaecrista fasciculata</i>	Partridge Pea	2.0%	0.4	FACU
<i>Heliopsis helianthoides</i>	Oxeye sunflower	1.5%	0.3	UPL
<i>Coreopsis tinctoria</i>	Plains Coreopsis	1.0%	0.2	FAC
<i>Desmodium canadense</i>	Showy Trictrifol	0.4%	0.08	FAC
<i>Asclepias syriaca</i>	Common Milkweed	0.1%	0.02	UPL
<i>Monarda fistulosa</i>	Wild Bergamot	0.1%	0.02	FACU
<b>Total</b>		<b>100%</b>	<b>20</b>	

**Note:** Final species selection may change due to refinement of site conditions or availability at the time of planting. If species substitution is required, the planting Contractor will submit a revised planting list to the Engineer for approval prior to the procurement of plant stock.

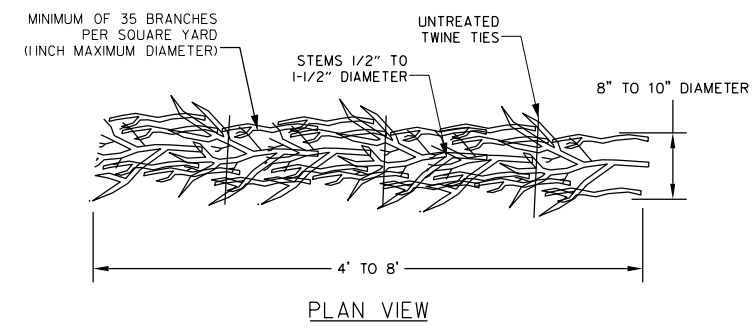
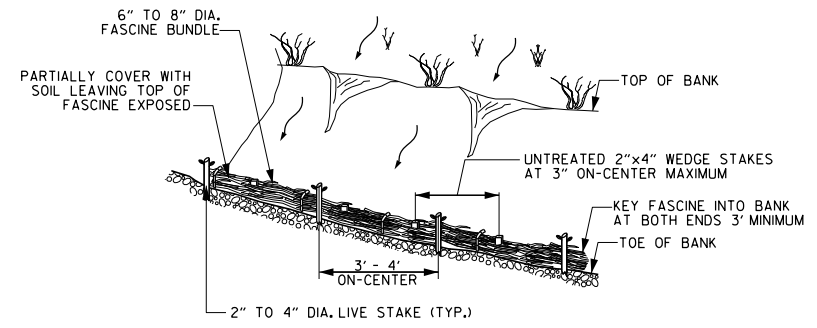
Temporary Seeding Selection and Application Rates				
Botanical Name	Common Name	Application Time	Application Rate	Total (lbs/acre)
<i>Secale cereale</i>	Cereal Rye	September - March	3 lb/1,000 sq ft.	130 lbs/acre
<i>Urochloa ramosa</i>	Browntop millet	April - August	1 lb/1,000 sq ft.	44 lbs/acre

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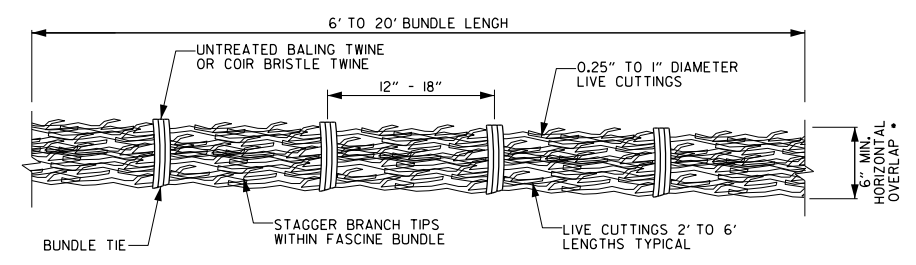
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		6	ARK.	10115	5	19
STREAM RESTORATION DETAILS						



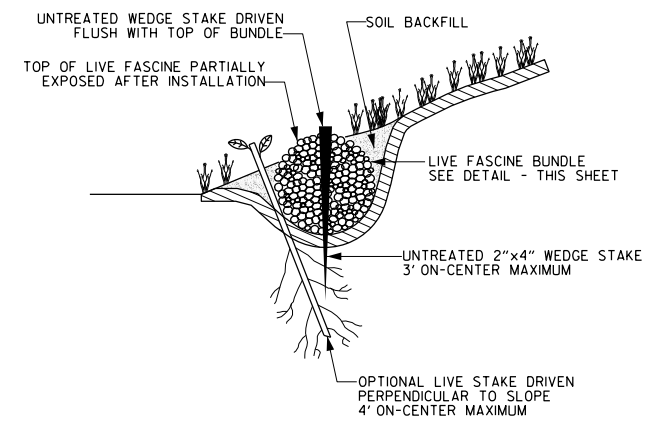
### LIVE FASCINE



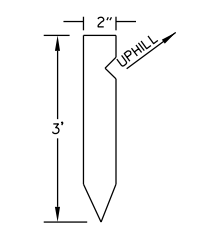
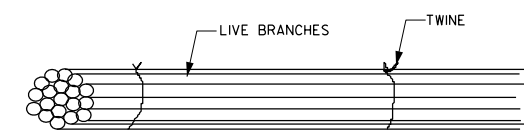
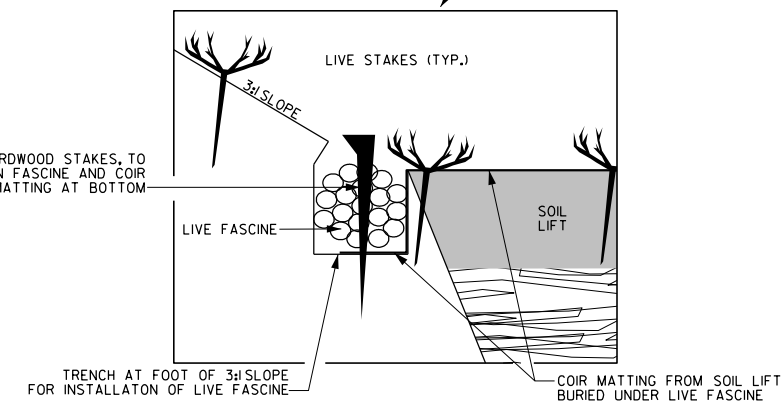
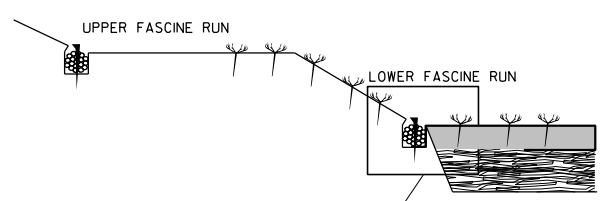
**ISOMETRIC VIEW**  
SHOWN ON SURFACE FOR CLARITY  
FASCINES SHALL BE TRENCHED IN AS SHOWN IN SECTION VIEW



**LIVE FASCINES DETAIL** • FINAL DIAMETER WHEN FIRMLY COMPRESSED AND TIED



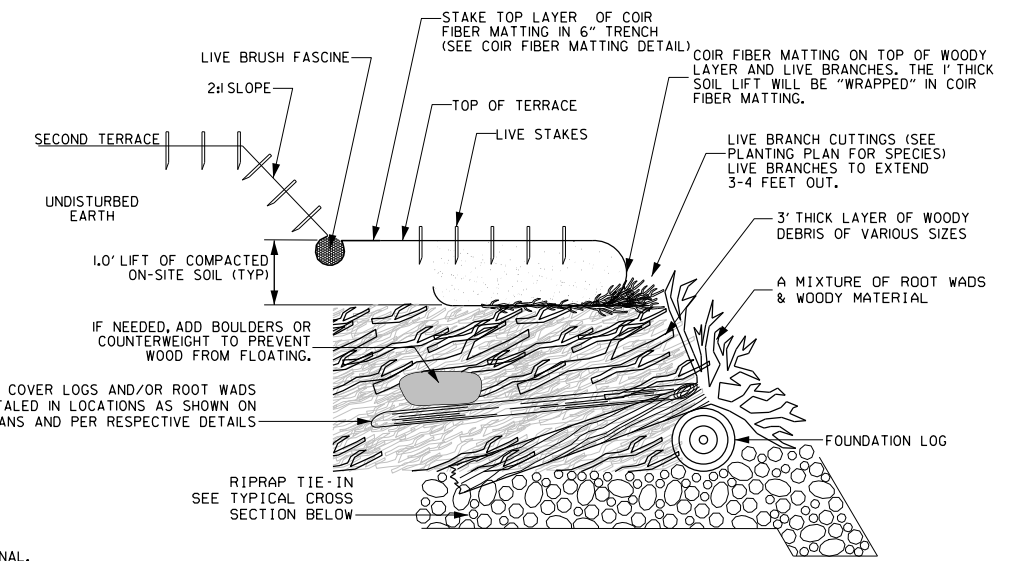
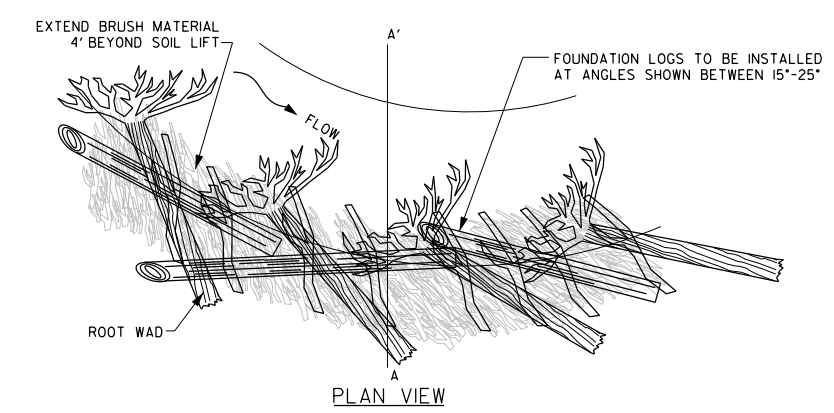
**SECTION VIEW**



**NOTE**  
1. BOARD FOR STAKE SHALL BE 2" X 4" X 3'

1. LIVE FASCINES ARE CYLINDRICAL BUNDLES OF LIVE BRANCH CUTTINGS USED AS A BANK STABILIZATION MEASURE TO PROTECT BANK AND TOE FROM SURFACE EROSION, TRAP SEDIMENTS, AND INCREASE SLOPE STABILITY WITH A DEVELOPED ROOT SYSTEM. FASCINES ARE USED ABOVE THE BASE FLOW ELEVATION OF A SLOPE TO TRAP SEED AND SEDIMENT AND TO ENHANCE CONDITIONS FOR COLONIZATION OF NATIVE VEGETATION USED IN THE BUNDLES.
2. CONSTRUCTION OF FASCINES ON SLOPES SHALL CONFORM TO ASTM D 6599.
3. THIS MEASURE MAY BE COMBINED WITH OTHER SLOPE STABILIZATION MEASURES INCLUDING LIVE STAKES, EROSION CONTROL BLANKET, TURF REINFORCEMENT, BRUSH MATTRESSES, AND LONGITUDINAL STONE TOE.
4. FASCINES ARE NOT SUITABLE FOR USE ON SLOPES COMPRISED OF SAND, GRAVEL, OR ROCK, OR ON SLOPES THAT ARE NOT IN FULL SUNLIGHT. FASCINES SHALL NOT BE USED WHERE THEY WILL BE SUBJECTED TO CONCENTRATED FLOW FROM ABOVE THE STREAMBANK OR WHERE CHANNEL FLOW VELOCITIES EXCEED 12 FEET PER SECOND.
5. FASCINES SHALL BE PLACED ON A SLOPE ALONG THE CONTOUR AND SHALL BE KEYPED INTO BANK AT BOTH ENDS OF THE FASCINE ROW A MINIMUM OF 3 FEET.
6. FASCINE BUNDLES SHALL BE CONSTRUCTED OF LIVE DORMANT BRANCH CUTTINGS RANDOMLY BOUND TOGETHER WITH UNTREATED TWINE EVERY 12 TO 18 INCHES. BASAL (CUT) ENDS OF BRANCHES SHALL BE ALTERNATING WITHIN THE FASCINE BUNDLE.
7. UNTREATED 2"x4" WEDGE STAKES SHALL BE INSTALLED FLUSH WITH THE TOP OF THE FASCINE BUNDLES AND SHALL BE SPACED AT 3 FEET ON-CENTER MAXIMUM.
8. LIVE DORMANT BRANCH CUTTINGS SHALL BE OBTAINED FROM LOCAL SOURCES APPROVED BY THE ENGINEER. PAYMENT FOR LIVE FASCINES SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION OF THE LIVE FASCINE.

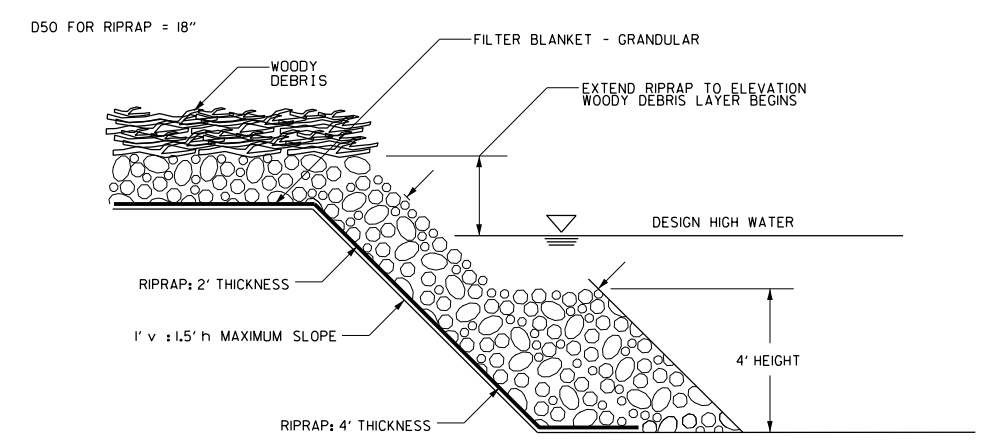
### GEOLIFT WITH LIVE BRUSH, LOGS, AND ROOT WADS



- NOTES:**
1. THE USE OF ROOT WADS IS OPTIONAL.
  2. FOUNDATION LOGS SHALL BE A MINIMUM OF 10" IN DIAMETER AND AT LEAST 12' LONG.

**A - A' SECTION VIEW**

### TYPICAL STONE CROSS SECTION (APPLIED BELOW GEOLIFT)



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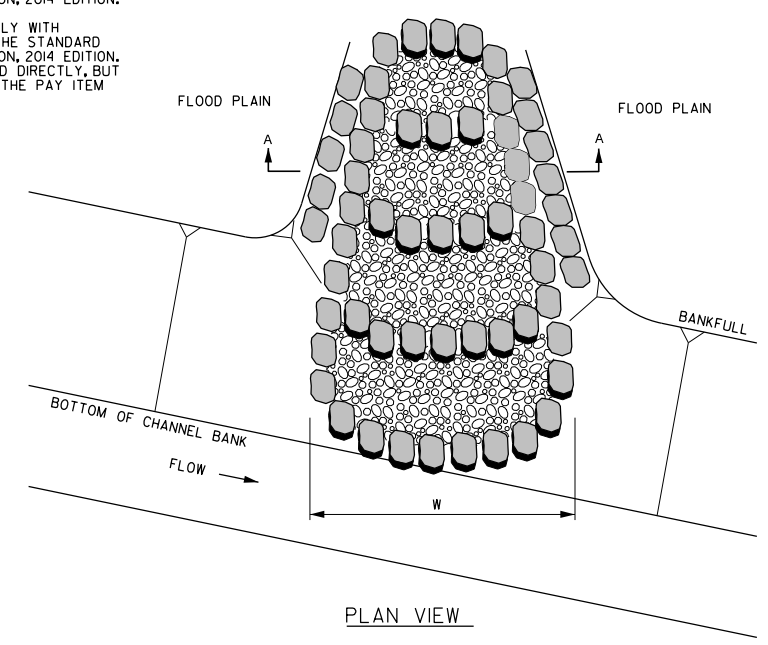


DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	10115	7	19
STREAM RESTORATION DETAILS						

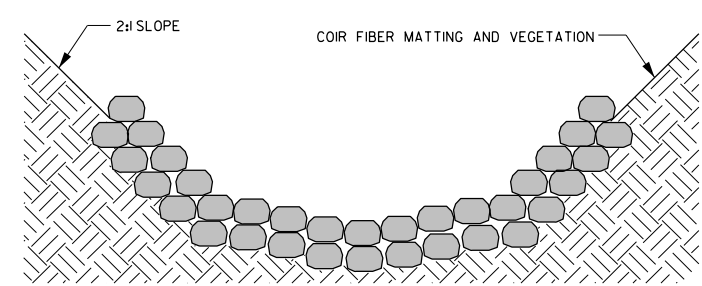


**NOTES:**  
 1. REFER TO SECTION 630, ROCK BUTTRESS, OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.  
 2. GEOTEXTILE FABRIC (TYPE 5) SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 625 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION. THE GEOTEXTILE FABRIC WILL NOT BE PAID DIRECTLY, BUT WILL BE INCLUDED IN THE PRICE BID FOR THE PAY ITEM "ROCK BUTTRESS".

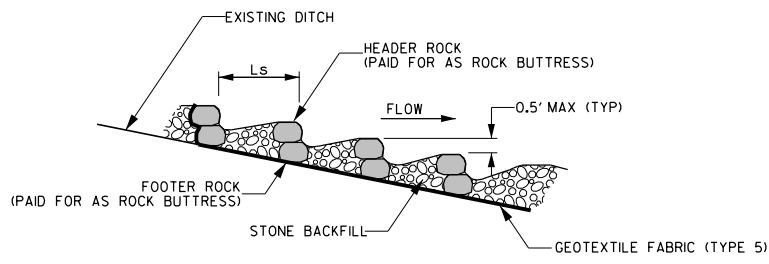
**OUTLET PROTECTION**



PLAN VIEW

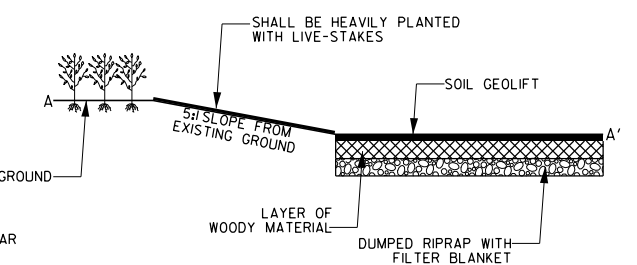
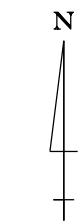
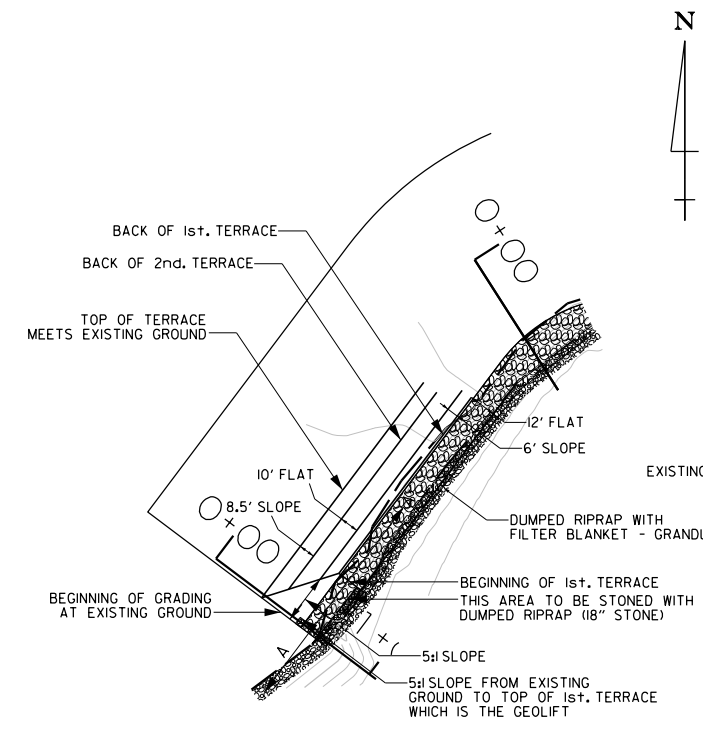


CROSS SECTION A - A



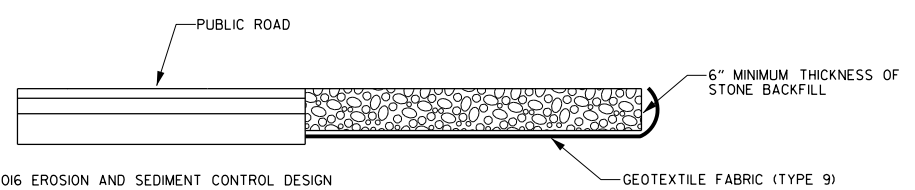
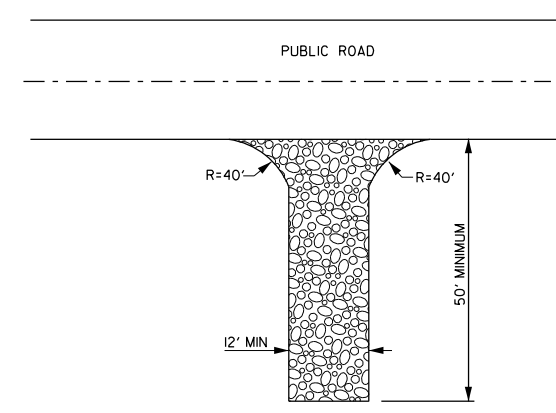
PROFILE VIEW

**TERRACE TIE-IN**



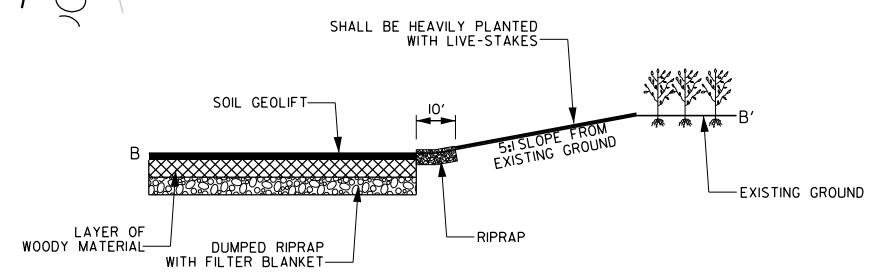
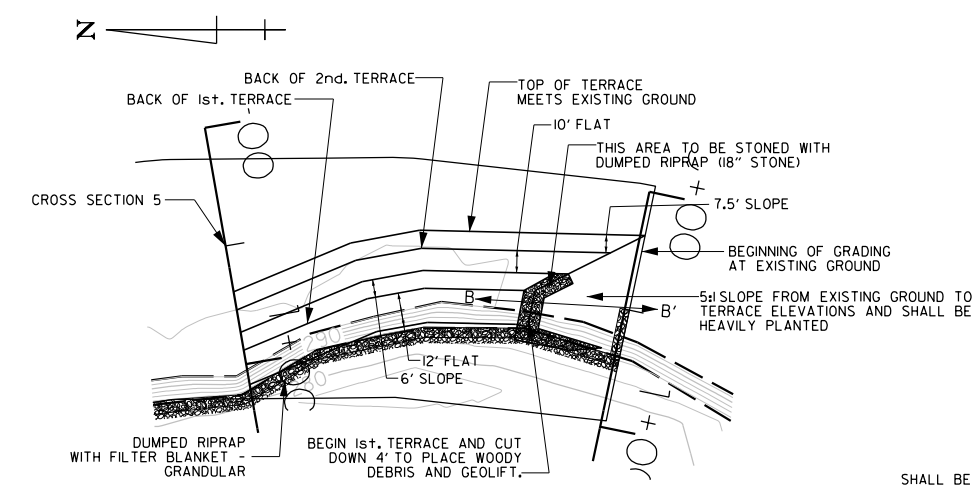
CROSS SECTION A-A'

**TEMPORARY CONSTRUCTION ENTRANCE**



**NOTES:**  
 1. REFER TO CONSTRUCTION ACCESS "ARDOT 2016 EROSION AND SEDIMENT CONTROL DESIGN AND CONSTRUCTION MANUAL".  
 2. GEOTEXTILE FABRIC (TYPE 9) SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 625 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. THE GEOTEXTILE FABRIC WILL NOT BE PAID DIRECTLY, BUT WILL BE INCLUDED IN THE PRICE BID FOR THE PAY ITEM "STONE BACKFILL".

**LOWER TIE-IN**



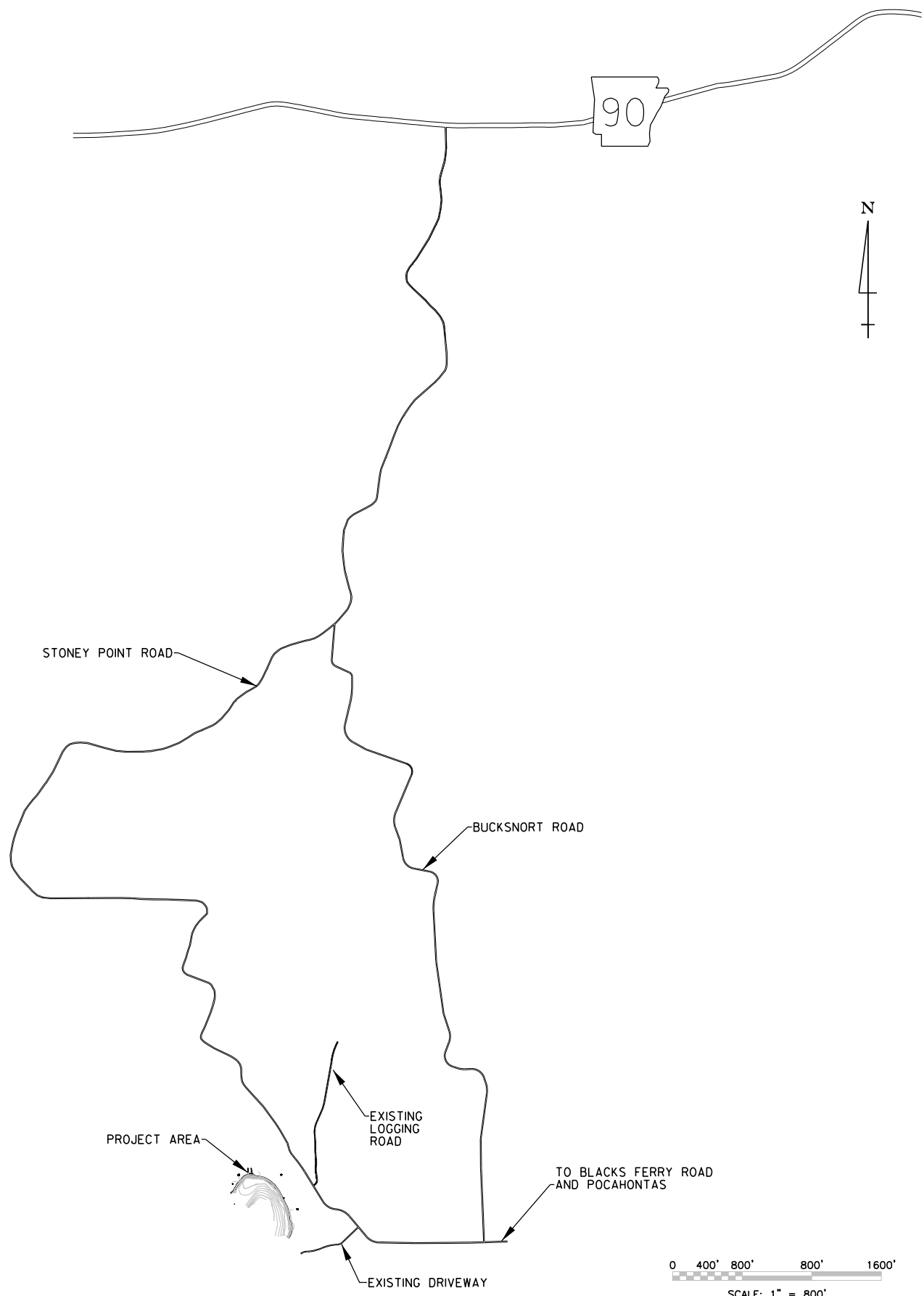
CROSS SECTION B-B'

**STREAM RESTORATION DETAILS**

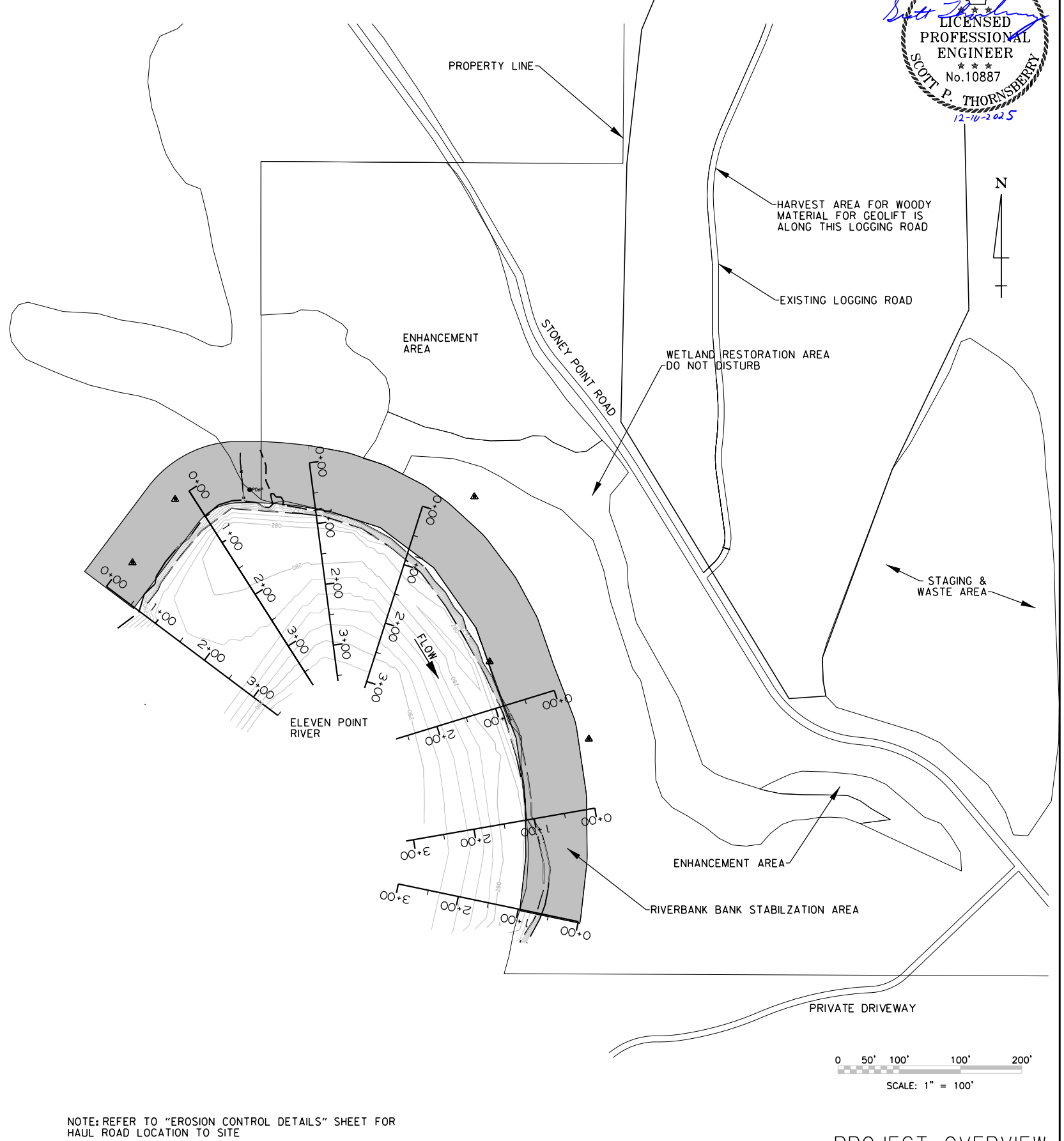
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 REVISIONS: 1.0  
 REVISION DATE: 10/20/2025

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	10115	8	19
PROJECT OVERVIEW						

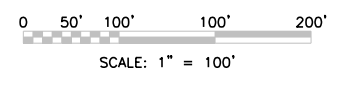
HWY 90 ACCESS MAP



REFER TO HWY. 90 ACCESS MAP TO LEFT



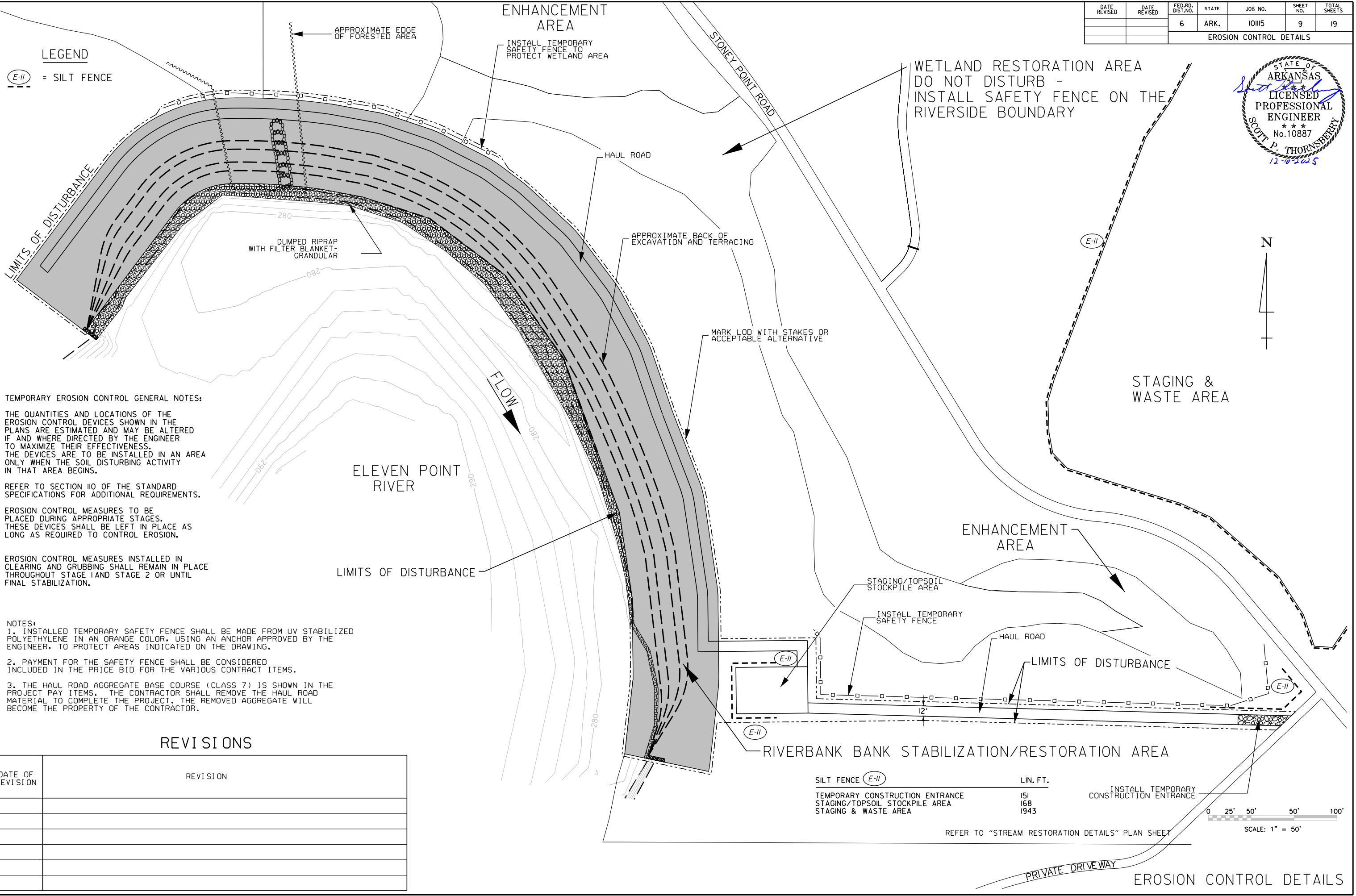
NOTE: REFER TO "EROSION CONTROL DETAILS" SHEET FOR HAUL ROAD LOCATION TO SITE



PROJECT OVERVIEW

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	10115	9	19
EROSION CONTROL DETAILS						



**LEGEND**  
 (E-II) = SILT FENCE

**TEMPORARY EROSION CONTROL GENERAL NOTES:**

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY WHEN THE SOIL DISTURBING ACTIVITY IN THAT AREA BEGINS.

REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

EROSION CONTROL MEASURES INSTALLED IN CLEARING AND GRUBBING SHALL REMAIN IN PLACE THROUGHOUT STAGE 1 AND STAGE 2 OR UNTIL FINAL STABILIZATION.

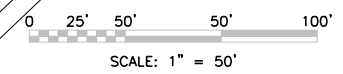
- NOTES:**
1. INSTALLED TEMPORARY SAFETY FENCE SHALL BE MADE FROM UV STABILIZED POLYETHYLENE IN AN ORANGE COLOR, USING AN ANCHOR APPROVED BY THE ENGINEER, TO PROTECT AREAS INDICATED ON THE DRAWING.
  2. PAYMENT FOR THE SAFETY FENCE SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.
  3. THE HAUL ROAD AGGREGATE BASE COURSE (CLASS 7) IS SHOWN IN THE PROJECT PAY ITEMS. THE CONTRACTOR SHALL REMOVE THE HAUL ROAD MATERIAL TO COMPLETE THE PROJECT. THE REMOVED AGGREGATE WILL BECOME THE PROPERTY OF THE CONTRACTOR.

**REVISIONS**

DATE OF REVISION	REVISION

SILT FENCE (E-II)	LIN. FT.
TEMPORARY CONSTRUCTION ENTRANCE	151
STAGING/TOPSOIL STOCKPILE AREA	168
STAGING & WASTE AREA	1943

INSTALL TEMPORARY CONSTRUCTION ENTRANCE

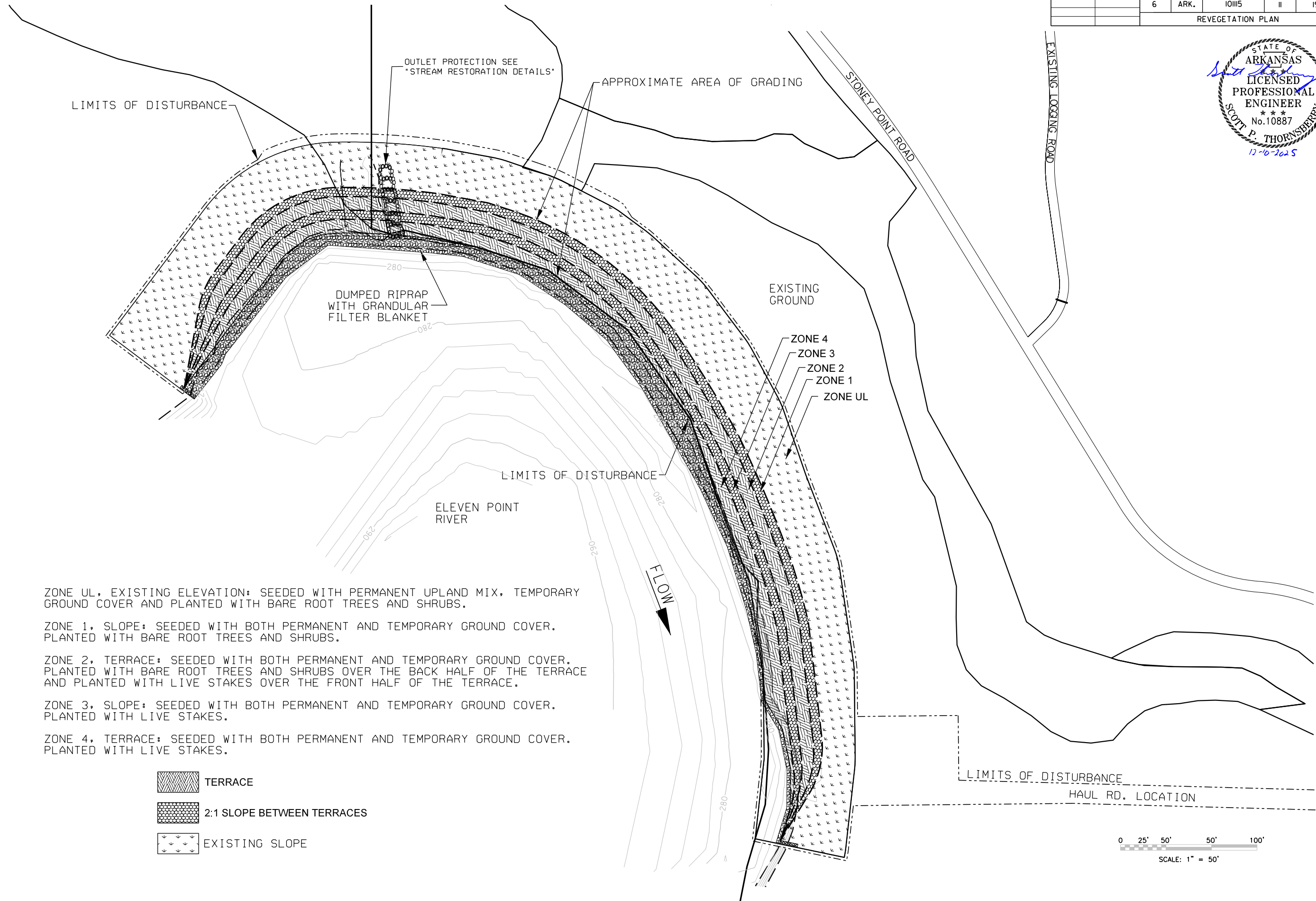


REFER TO "STREAM RESTORATION DETAILS" PLAN SHEET

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 REVISION DATE: \*\*REVISION\*\*



DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	10115	II	19
REVEGETATION PLAN						






ZONE UL, EXISTING ELEVATION: SEEDED WITH PERMANENT UPLAND MIX, TEMPORARY GROUND COVER AND PLANTED WITH BARE ROOT TREES AND SHRUBS.

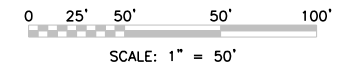
ZONE 1, SLOPE: SEEDED WITH BOTH PERMANENT AND TEMPORARY GROUND COVER. PLANTED WITH BARE ROOT TREES AND SHRUBS.

ZONE 2, TERRACE: SEEDED WITH BOTH PERMANENT AND TEMPORARY GROUND COVER. PLANTED WITH BARE ROOT TREES AND SHRUBS OVER THE BACK HALF OF THE TERRACE AND PLANTED WITH LIVE STAKES OVER THE FRONT HALF OF THE TERRACE.

ZONE 3, SLOPE: SEEDED WITH BOTH PERMANENT AND TEMPORARY GROUND COVER. PLANTED WITH LIVE STAKES.

ZONE 4, TERRACE: SEEDED WITH BOTH PERMANENT AND TEMPORARY GROUND COVER. PLANTED WITH LIVE STAKES.

-  TERRACE
-  2:1 SLOPE BETWEEN TERRACES
-  EXISTING SLOPE



REVEGETATION PLAN

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	10115	12	19
CONSTRUCTION SEQUENCE						

## CONSTRUCTION SEQUENCE



**Construction shall be performed in general accordance with the following sequence:**

1. Prior to beginning of any land disturbing activities, notification and approval must be granted by Arkansas Department of Transportation indicating that all environmental permits have been obtained. Name of the contact person is-  
Kayti Ewing  
Natural Resources Division Head  
ARDOT  
Telephone No.- 501-569-2522.
2. The Contractor shall contact Arkansas "One Call" Center (811 or 1.800.482.8998) before any excavation as required by *Arkansas Underground Facilities Damage Prevention Act, §14-271.*
3. The Contractor will mobilize equipment and materials to the site using the construction entrances (shown on the plans) along Stoney Point Road. The rock construction entrance shall be constructed.
4. The Contractor shall utilize the haul roads and staging/stockpile areas and will store all equipment and materials in staging areas as shown on the plans.
5. A construction staging area will be established in the vicinity of the access/haul road at the lower end of the project site as shown on the plan sheets. Equipment and materials will be mobilized to this location.
6. The landward side of the haul road and "Limits of Disturbance", shall be marked with visible stakes and flagging to indicate where equipment should move up and down the project site and where no access shall be allowed. Temporary safety fence should be installed to delineate the protected wetland area, where no access shall be allowed.
7. Contractor shall not disturb stable sections of the channel, any wetland areas, or other areas outside of the limits of disturbance.
8. There is a small forested area on the property line between the ARDOT property and Mr. Tweedy's property, along the north side of the project. ARDOT or the Engineer will mark the location of the haul road through this forested area, so that there is as little impact to the trees as possible.
9. Wood material (including trees, root wads, limbs and woody brush) should be harvested from the indicated harvest location on the north side of Stoney Point Road. This material shall be stockpiled along the riverbank in locations where it can be easily accessed for installation, but at the same time does not obstruct grading of the terraces.
10. Enough wood material should be stockpiled on site prior to beginning a new segment of terracing, so that the segment can be completed without delay.
11. Harvested wood material should be kept in as large and intact pieces as possible. Logs should be at least 10 ft. in length and longer is preferred. Root wads should have a trunk of at least 10 ft. attached so that they can be anchored into the bank. Wood should be primarily hardwoods, but softwood trees can be used as fill within the woody fill area.

12. It is important that trees be installed as soon after harvest as possible and before they have time to dry out.
13. Riverbank terracing and woody toe installation should begin at the upstream end of the project and move downstream. Construction should be done in segments of approximately 50-100 linear feet and one segment completed before opening ground and starting the next segment downstream, except for a short transition area.
14. Excavation within the grading limits will be performed so as to limit sediment migration off-site. All stockpiled soil shall have a sediment fence established between the soil and any water body.
15. Do not over excavate; only the soil that needs to be removed should be excavated in order to avoid unstable fill being used to bring the ground surface to grade.
16. Once all materials needed for finishing a segment are stockpiled near the segment, excavation may begin at the upstream end of the project. Excavation of the bank should begin at the elevation indicated and the area to be filled with woody material cut first.
17. Once grading has lowered the bank to the extent needed for access, the dumped riprap toe protection should be placed along the toe of the bank and extended up to the elevation that the woody material will be placed. Dumped riprap should be placed as shown on the typical sections and details.
18. Once the woody material "pit" is open woody material should be placed into this area, with 3 or 4 feet of woody material extending beyond the bank. Material should be compacted, and some soil added to fill voids. It is important that as much of the space be filled with woody material as possible, while being stabilized with some soil fill as needed. This woody material layer should be 3 feet thick.
19. When the woody layer is filled, the live brush stems should be laid out across the surface with 1 - 2 feet of each stem extending beyond the filled layer. A light layer of soil can be placed on top of the brush to hold it in place while the coir fiber matting is placed. Coir fiber matting should be laid on top of the front half of this woody debris layer, so that the width of the matting is aligned upstream to downstream, and the length of the matting can be unrolled up the slope. This can be done by cutting several 25-foot pieces, so that 3-4 can be installed at a time.
20. Approximately 7-feet of coir fiber matting should be placed over the front half of the wood layer and the rest of the lose matting temporarily placed at the water's edge. Then a 1-foot layer of soil should be placed on top of the matting and wood layer. This should be compacted by the excavator bucket. Then the lose matting can be pulled back over the soil layer (or lift) enveloping the soil in a "wrap" of coir matting. The matting should be pinned with hardwood stakes to the top of the soil layer. The end of the matting should be buried in a trench at the back of the soil layer (lower terrace) and under a live brush fascine to be installed in the same trench.

21. This woody layer installation and creation of the lower terrace should continue downstream until the first segment is complete. Then the grading of the 3:1 slope, the upper terrace and the final slopes to existing ground can be completed.
22. Once the lower 3:1 slope is graded, coir fiber matting should be applied to this slope and trenched in the upper terrace.
23. Prior to laying any of the matting, the soil surface should be seeded with both the perennial native seed mix and the temporary sediment control seed mix, lightly mulched with straw and then the matting placed and pinned to the soil.
24. The live brush fascine, live stakes, bare-root trees, and any available transplantable trees should be installed if construction is accomplished during the dormant season, fall or early winter. If construction is not accomplished during the dormant season, then installation of live woody material will need to be done as soon as dormant live material is available.
25. Excavated soil will need to be moved to the upstream disposal area as it is excavated from the bank, so that excess soil does not obstruct work along the bank and does not create an erosion problem. Soil will be placed on a high ground disposal site at least 50 feet from surface waters. Silt fence shall be placed down slope of the disposal site before soil is moved to the site. This soil will be sloped to match the existing ground. After the soil is leveled it will be seeded and mulched.
26. Bank and floodplain vegetation, including trees and live stakes, will be installed during the dormant season, November to April.
27. Construction entrances, staging areas and silt fences will be removed once planting is complete.
28. Immediately upon completion of bank grading, the slope will be seeded and covered with Coir Fiber Matting.
29. Upon completion of the riverbank stabilization work, all disturbed floodplain areas including staging areas and haul roads, shall be seeded and mulched. Trees shall be planted in accordance with the planting plan. Permanent seeding mixtures shall be applied as shown on the vegetation plan. Temporary seeding shall be applied in all areas susceptible to erosion (i.e. disturbed ditch banks, steep slopes, and spoil areas) such that ground cover is established within 21 working days following completion of any phase of grading. Permanent ground cover shall be established for all disturbed areas within 15 working days or 90 calendar days (whichever is shorter) following completion of construction.
30. The Contractor shall not disturb stable sections of the channel, any wetland areas, or other areas outside of the limits of disturbance.
31. The contractor shall remove the Haul Road aggregate base course prior to demobilization from the site.
32. The Contractor shall ensure that the site is free of trash and leftover materials prior to demobilization of equipment from the site.

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
3-19-2026		6	ARK.	10115	13	19
QUANTITIES						



**ADVANCE WARNING SIGNS**

SIGN NUMBER	DESCRIPTION	TOTAL SIGNS REQUIRED	SIGNS
		NO.	SQ. FT.
W20-1	ROAD WORK AHEAD	2	32.0
G20-2	END ROAD WORK	2	16.0
<b>TOTAL:</b>			<b>48.0</b>

NOTE: SIGNS WILL BE PLACED IF AND WHERE DIRECTED BY THE ENGINEER FOR SAFETY.

**PLANTING AREAS - SHOWN FOR INFORMATION ONLY**

ZONE	TOTAL AREA IN ZONE	SPECIAL SEEDING (PERMANENT GROUND COVER)		SPECIAL TEMP. SEEDING (TEMPORARY GROUND COVER)	SOIL-1' DEPTH COIR WRAPPED SOIL LIFT
		RIPARIAN MIX	UPLAND MIX		
		SQ.FT	ACRE		
1	15336	0.35	0.00	0.35	
2	12446	0.29	0.00	0.29	
3	19175	0.44	0.00	0.44	
4	13121	0.30	0.00	0.30	486
UL	67553	0.00	1.55	1.55	
<b>SUBTOTALS:</b>		<b>1.38</b>	<b>1.55</b>		
<b>TOTALS:</b>		<b>127631</b>	<b>2.93</b>	<b>2.93</b>	<b>486</b>

**EARTHWORK**

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION CU. YD.
ENTIRE	PROJECT	ELEVEN POINT STREAM	11799
<b>TOTAL:</b>			<b>11799</b>

NOTE: EARTHWORK QUANTITIES SHALL BE PAID AS PLAN QUANTITY.

**EROSION CONTROL**

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL				
			SPECIAL SEEDING	LIME	SPECIAL MULCH COVER	WATER	SPECIAL SECOND SEEDING APPLICATION	SPECIAL TEMPORARY SEEDING	SPECIAL MULCH COVER	WATER	SILT FENCE	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	(E-11) LIN. FT.	CU. YD.
ENTIRE	PROJECT	CLEARING AND GRUBBING	2.93	5.86	2.93	298.9	2.93	2.93	2.93	2.93	59.8	
ENTIRE	PROJECT	ELEVEN POINT STREAM RESTORATION	3.00	6.00	3.00	306.0	3.00	3.00	3.00	3.00	61.2	84
<b>TOTALS:</b>			<b>5.93</b>	<b>11.86</b>	<b>5.93</b>	<b>604.9</b>	<b>5.93</b>	<b>5.93</b>	<b>5.93</b>	<b>5.93</b>	<b>121.0</b>	<b>2262</b>

BASIS OF ESTIMATE:

LIME .....2 TONS / ACRE OF SPECIAL SEEDING  
 WATER.....102.0 M.G. / ACRE OF SPECIAL SEEDING  
 WATER..... 20.4 M.G. / ACRE OF TEMPORARY SEEDING

NOTE: THE TEMPORARY EROSION CONTROL DEVICES SHOWN ABOVE AND ON THE PLANS SHALL BE INSTALLED IN SUCH A SEQUENCE AS TO DETER EROSION AND SEDIMENTATION ON U.S. WATERWAYS AS EXPLAINED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT.

\*QUANTITIES ESTIMATED.  
 SEE SECTION 104.03 OF THE STD. SPECS.

**STONE BACKFILL**

STATION	STATION	LOCATION / DESCRIPTION	STONE BACKFILL TON
ENTIRE	PROJECT	OUTLET PROTECTION	26.80
ENTIRE	PROJECT	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE	23.33
<b>TOTAL:</b>			<b>50.13</b>

NOTE: REFER TO THE "TEMPORARY CONSTRUCTION ENTRANCE" AND "OUTLET PROTECTION" DETAILS ON THE "STREAM RESTORATION DETAILS" PLAN SHEET # 7.

**CLEARING AND GRUBBING**

STATION	STATION	LOCATION	CLEARING	GRUBBING
			ACRE	
ENTIRE	PROJECT	ELEVEN POINT STREAM	4	4
<b>TOTALS:</b>			<b>4</b>	<b>4</b>

**DUMPED RIPRAP AND FILTER BLANKET**

STATION	LOCATION	DUMPED RIPRAP	FILTER BLANKET
		TON	SQ. YD.
*ENTIRE PROJECT	ELEVEN POINT STREAM RESTORATION	4366	2629
<b>TOTALS:</b>		<b>4366</b>	<b>2629</b>

\*NOTES: QUANTITY ESTIMATED.  
 SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS

FILTER BLANKET WILL BE SUITABLE FOR INSTALLATION UNDER WATER IN SECTION 816 AND AS APPROVED BY THE ENGINEER. SECTION 816 (e) SHALL NOT BE USED.

**AGGREGATE BASE COURSE (CL. 7)**

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)	
			FEET	TON / STATION	TON
				ENTIRE	PROJECT
<b>TOTAL:</b>					<b>234.69</b>

\* QUANTITY ESTIMATED AND BASED ON 12' OF AGGREGATE ON HAUL ROAD.

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	10115	14	19
QUANTITIES						



**LIVE BRUSH FASCINE**

ZONES	LIVE BRUSH FASCINE
	LIN. FT.
1-2	1299
3-4	1231
<b>TOTAL:</b>	<b>2530</b>

NOTE: "LIVE BRUSH FASCINE" QUANTITIES ARE BASED ON THE LENGTH BETWEEN THE ZONES.

**GEOLIFT**

ZONE 4 AREA	ZONE 4 AVERAGE LENGTH	DEPTH OF GEOLIFT	GEOLIFT
SQ. FT.	LIN. FT.	LIN. FT.	LIN. FT.
13121	1217	3	1217
<b>TOTAL VOLUME OF MATERIAL:</b>			<b>1217</b>

NOTE: REFER TO THE "GEOLIFT" SPECIAL PROVISION AND THE "GEOLIFT WITH LIVE BRUSH, LOGS, AND ROOT WADS" DETAIL ON THE "STREAM RESTORATION DETAILS" PLAN SHEET # 5. THE REQUIRED SOIL, LIVE BRANCHES, AND WOODY MATERIALS WITH ANY COUNTERWEIGHTS ARE PAID AS "GEOLIFT".

**LIVE STAKES**

ZONES	ZONE AREAS	LIVE STAKES
	SQ. FT.	EACH
1	15336	0
2	12446	691
3	19175	2131
4	13121	1458
<b>TOTAL:</b>		<b>4280</b>

NOTES: 1. THE "LIVE STAKES" QUANTITIES ARE BASED ON THE FOLLOWING RATE: 3 FT. SPACING = 1 LIVE STAKE PER 9 SQ. FT.  
 2. THE QUANTITY FOR ZONE 2 IS SPLIT IN HALF BETWEEN LIVE STAKES AND BARE ROOT SEEDLINGS.  
 3. REFER TO "LIVES STAKES" SPECIAL PROVISION.

**COIR FIBER MATTING AREA**

DEPTH OF COIR WRAPPED SOIL LIFT	WIDTH OF COIR WRAPPED SOIL LIFT (AVERAGE)	EXTRA COIR FIBER LENGTH FOR SOIL LIFT	SLOPE UP ZONE 3 (X:1)	HORIZONTAL WIDTH OF ZONE 3 (AVERAGE)	3D DISTANCE ALONG WIDTH OF ZONE 3 (AVERAGE)	HORIZONTAL DISTANCE OF ZONE 2 (AVERAGE)	SLOPE UP ZONE 1 (X:1)	HORIZONTAL WIDTH OF ZONE 1 (AVERAGE)	3D DISTANCE ALONG WIDTH OF ZONE 1 (AVERAGE)	LENGTH OF RESTORATION (AVERAGE)	COIR FIBER MATTING	
											SQ. FT.	SQ. YD.
1	12	3	2.00	6	13.4164	10.00	2.00	8.10	18.1122	1264	89148.1504	9905
<b>TOTAL:</b>												<b>9905</b>

NOTES: 1. REFER TO THE "GEOLIFT" SPECIAL PROVISION AND "STREAM RESTORATION DETAILS" PLAN SHEET # 5 FOR PLACEMENT OF THE COIR FIBER MATTING "WRAP" OF THE 1 FOOT GEOLIFT SOIL AND EXTENTION AROUND THE LIVE FASCINE.  
 2. REFER TO PLAN SHEET # 11 FOR ZONES LABELS.

**BARE ROOT SEEDLINGS**

ZONES	ZONE AREAS	BARE ROOT SEEDLINGS
	ACRES	EACH
1	0.67	239
2	0.88	97
3	0.53	0
4	0.94	0
UL		1055
<b>TOTAL:</b>		<b>1391</b>

NOTES: 1. THE "BARE ROOT SEEDLINGS" QUANTITIES ARE BASED ON THE FOLLOWING RATE: 680 SEEDLINGS PER ACRE.  
 2. THE QUANTITY FOR ZONE 2 IS SPLIT IN HALF BETWEEN "LIVE STAKES" AND "BARE ROOT SEEDLINGS".  
 3. REFER TO "BARE ROOT SEEDLINGS" SPECIAL PROVISION.

**ROCK BUTTRESS**

STATION	LOCATION	ROCK BUTTRESS
		CU. YD.
ENTIRE PROJECT	OUTLET PROTECTION	30
<b>TOTAL:</b>		<b>30</b>

NOTE: REFER TO THE "OUTLET PROTECTION" DETAIL ON THE "STREAM RESTORATION DETAILS" PLAN SHEET # 7. ALSO, REFER TO SECTION 630, "ROCK BUTTRESS" AND SECTION 625, "GEOTEXTILE FABRIC" OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION. GEOTEXTILE FABRIC WILL NOT BE PAID DIRECTLY, BUT WILL BE INCLUDED IN THE PRICE BID FOR THE PAY ITEM "ROCK BUTTRESS".

**REMOVING AND REPLACING TOPSOIL**

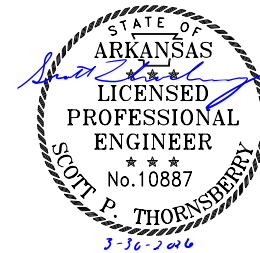
STATION	STATION	*REMOVING AND REPLACING TOPSOIL
		CU. YD.
ENTIRE	PROJECT	1787
<b>TOTAL:</b>		<b>1787</b>

\* QUANTITY ESTIMATED  
 SEE SECTION 104.03 OF THE STD. SPECS.

REFER TO "REMOVING AND REPLACING TOPSOIL" SPECIAL PROVISION.

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
3-19-2026		6	ARK.	10115	15	19
3-30-2026						
SUMMARY OF QUANTITIES & REVISIONS						



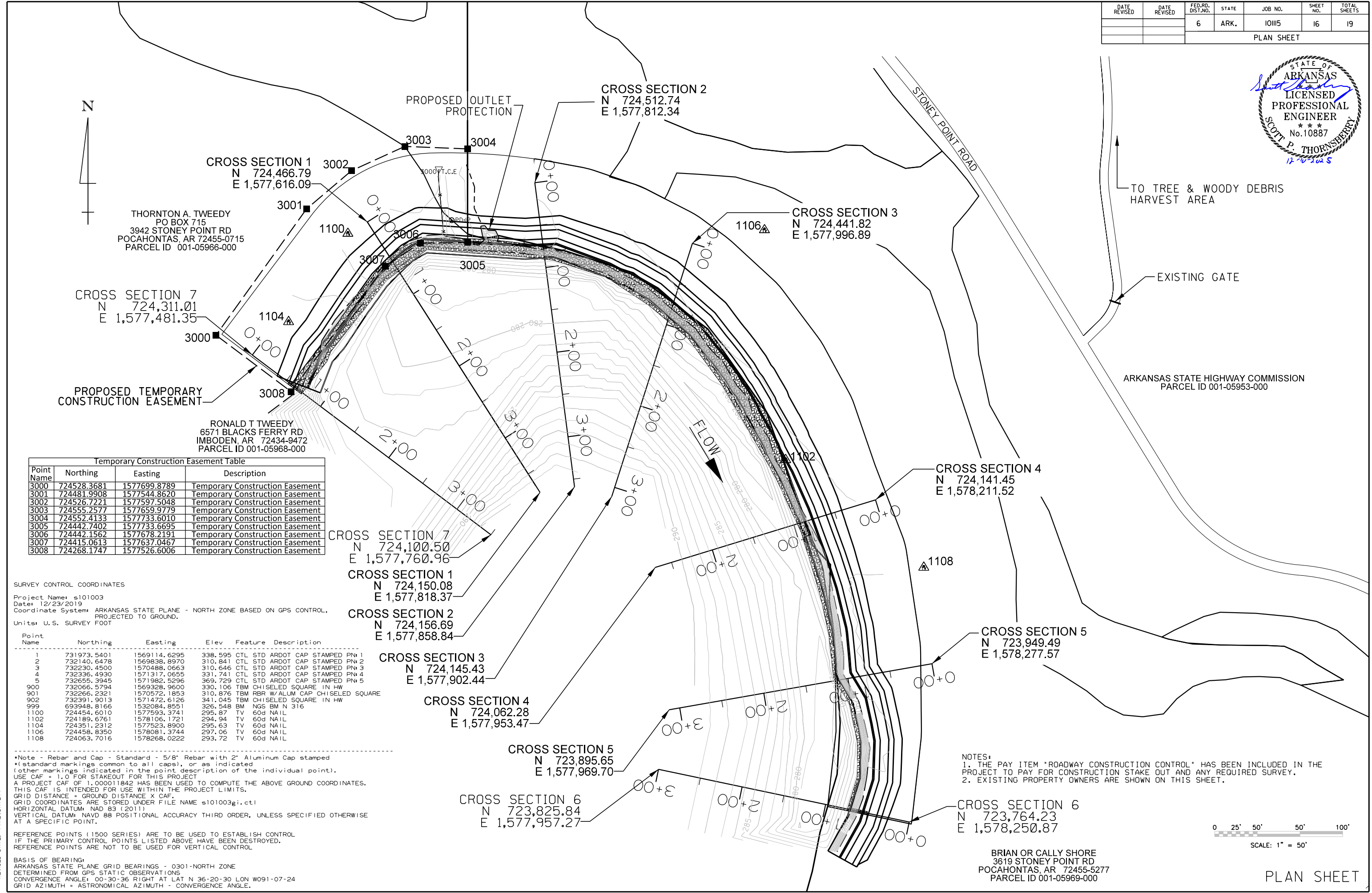
**SUMMARY OF QUANTITIES**

ITEM NUMBER	ITEM	QUANTITY	UNIT
201	CLEARING	4	ACRE
201	GRUBBING	4	ACRE
SP & 207	STONE BACKFILL	50	TON
SP, SS, & 210	UNCLASSIFIED EXCAVATION	11799	CU. YD.
SP	REMOVING AND REPLACING TOPSOIL	1787	CU. YD.
SP, SS, & 303	AGGREGATE BASE COURSE (CLASS 7)	235	TON
601	MOBILIZATION	1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE	1	EACH
SS & 604	SIGNS	48	SQ. FT.
620	LIME	12	TON
SP & 620	SPECIAL SEEDING	5.93	ACRE
SP, SS, & 620	SPECIAL MULCH COVER	11.86	ACRE
620	WATER	725.9	M. GAL.
SP & 621	TEMPORARY SEEDING	5.93	ACRE
621	SILT FENCE	2262	LIN. FT.
621	SEDIMENT REMOVAL AND DISPOSAL	84	CU. YD.
SP	COIR FIBER MATTING	9905	SQ. YD.
SP	GEOLEFT	1217	LIN. FT.
SP	LIVE BRUSH FASCINE	2530	LIN. FT.
SP	LIVE STAKES	4280	EACH
SP & 623	SPECIAL SECOND SEEDING APPLICATION	5.93	ACRE
630	ROCK BUTTRESS	30	CU. YD.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
SS & 816	FILTER BLANKET	2629	SQ. YD.
SS & 816	DUMPED RIPRAP	4366	TON
SP	BARE ROOT SEEDLINGS	1391	EACH

**REVISIONS**

DATE	REVISION	SHEET NUMBER
3/19/2026	CHANGED PAY ITEM UNIT FOR DUMPED RIPRAP FROM CU. YD. TO TON.	13, 15
3/30/2026	ADDED SP "DOCUMENTATION OF PAYMENTS MADE - PROMPT PAYMENT (SIGNET SOFT LAUNCH)".	3, 15

Scott Thornsberry 3/30/2026 3:28:41 PM  
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 REVISION DATE: \*\*REVISION\*\*



THORNTON A. TWEEDY  
PO BOX 715  
3942 STONEY POINT RD  
POCAHONTAS, AR 72455-0715  
PARCEL ID 001-05966-000

RONALD T TWEEDY  
6571 BLACKS FERRY RD  
IMBODEN, AR 72434-9472  
PARCEL ID 001-05968-000

TO TREE & WOODY DEBRIS  
HARVEST AREA

EXISTING GATE

ARKANSAS STATE HIGHWAY COMMISSION  
PARCEL ID 001-05953-000

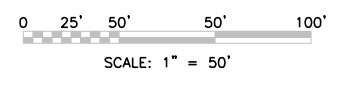
Point Name	Northing	Easting	Description
3000	724528.3681	1577699.8789	Temporary Construction Easement
3001	724481.9908	1577544.8620	Temporary Construction Easement
3002	724526.7221	1577597.5048	Temporary Construction Easement
3003	724555.2577	1577659.9779	Temporary Construction Easement
3004	724552.4133	1577733.6010	Temporary Construction Easement
3005	724442.7402	1577733.6695	Temporary Construction Easement
3006	724442.1562	1577678.2191	Temporary Construction Easement
3007	724415.0613	1577637.0467	Temporary Construction Easement
3008	724268.1747	1577526.6006	Temporary Construction Easement

SURVEY CONTROL COORDINATES  
Project Name: s101003  
Date: 12/23/2019  
Coordinate System: ARKANSAS STATE PLANE - NORTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND.  
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature Description
1	731973.5401	1569114.6295	338.595	CTL STD ARDOT CAP STAMPED PN# 1
2	732140.6478	1569838.8970	310.841	CTL STD ARDOT CAP STAMPED PN# 2
3	732230.4500	1570488.0663	310.646	CTL STD ARDOT CAP STAMPED PN# 3
4	732336.4930	1571317.0655	331.741	CTL STD ARDOT CAP STAMPED PN# 4
5	732655.3945	1571982.5296	369.729	CTL STD ARDOT CAP STAMPED PN# 5
900	732066.5794	1569328.9600	330.106	TBM CHISELED SQUARE IN HW
901	732266.2321	1570572.1853	310.876	TBM RBP W/ALUM CAP CHISELED SQUARE
902	732391.9013	1571472.6126	341.045	TBM CHISELED SQUARE IN HW
999	693948.8166	1532084.8551	326.548	BM NGS BM N 316
1100	724454.6010	1577593.3741	295.87	TV 60d NAIL
1102	724189.6761	1578106.1721	294.94	TV 60d NAIL
1104	724351.2312	1577523.8900	295.63	TV 60d NAIL
1106	724458.8350	1578081.3744	297.06	TV 60d NAIL
1108	724063.7016	1578268.0222	293.72	TV 60d NAIL

\*Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped  
\*(standard markings common to all caps), or as indicated  
(other markings indicated in the point description of the individual point).  
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT  
A PROJECT CAF OF 1.00001842 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.  
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.  
GRID DISTANCE = GROUND DISTANCE X CAF.  
GRID COORDINATES ARE STORED UNDER FILE NAME s101003gi.ctb  
HORIZONTAL DATUM: NAD 83 (2011)  
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE  
AT A SPECIFIC POINT.  
REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL  
IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED.  
REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL  
BASIS OF BEARING:  
ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE  
DETERMINED FROM GPS STATIC OBSERVATIONS  
CONVERGENCE ANGLE: 00-30-36 RIGHT AT LAT N 36-20-30 LON W091-07-24  
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

NOTES:  
1. THE PAY ITEM "ROADWAY CONSTRUCTION CONTROL" HAS BEEN INCLUDED IN THE PROJECT TO PAY FOR CONSTRUCTION STAKE OUT AND ANY REQUIRED SURVEY.  
2. EXISTING PROPERTY OWNERS ARE SHOWN ON THIS SHEET.



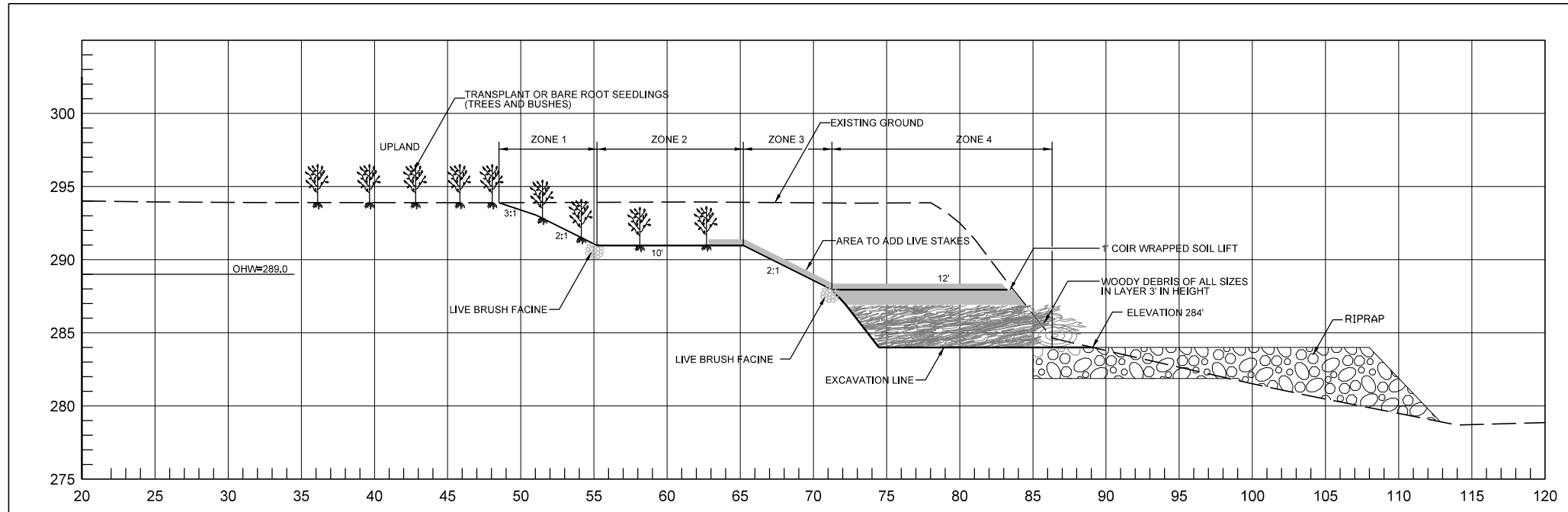
BRIAN OR CALLY SHORE  
3619 STONEY POINT RD  
POCAHONTAS, AR 72455-5277  
PARCEL ID 001-05969-000

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 REVISION DATE: \*\*REVISION\*\*

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	10115	17	19
CROSS SECTIONS						

## TYPICAL RIFFLE, POOL, AND BANKFULL BENCH CROSS SECTIONS

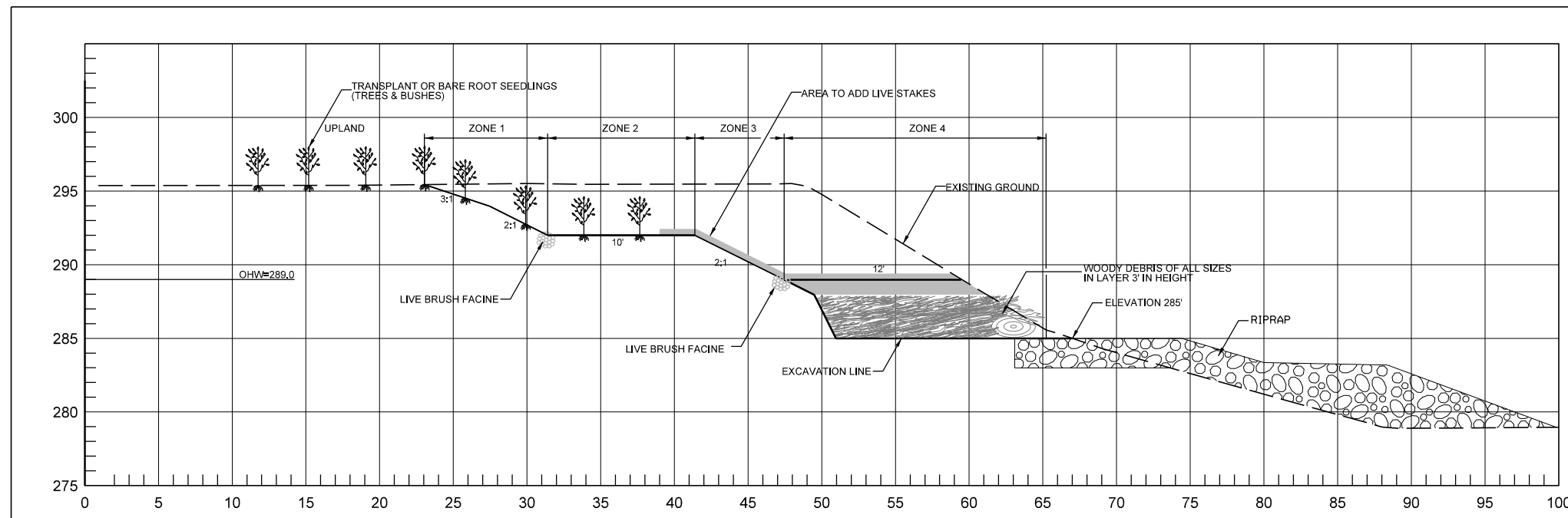
### CROSS SECTION 2



H:V



### CROSS SECTION 1



H:V

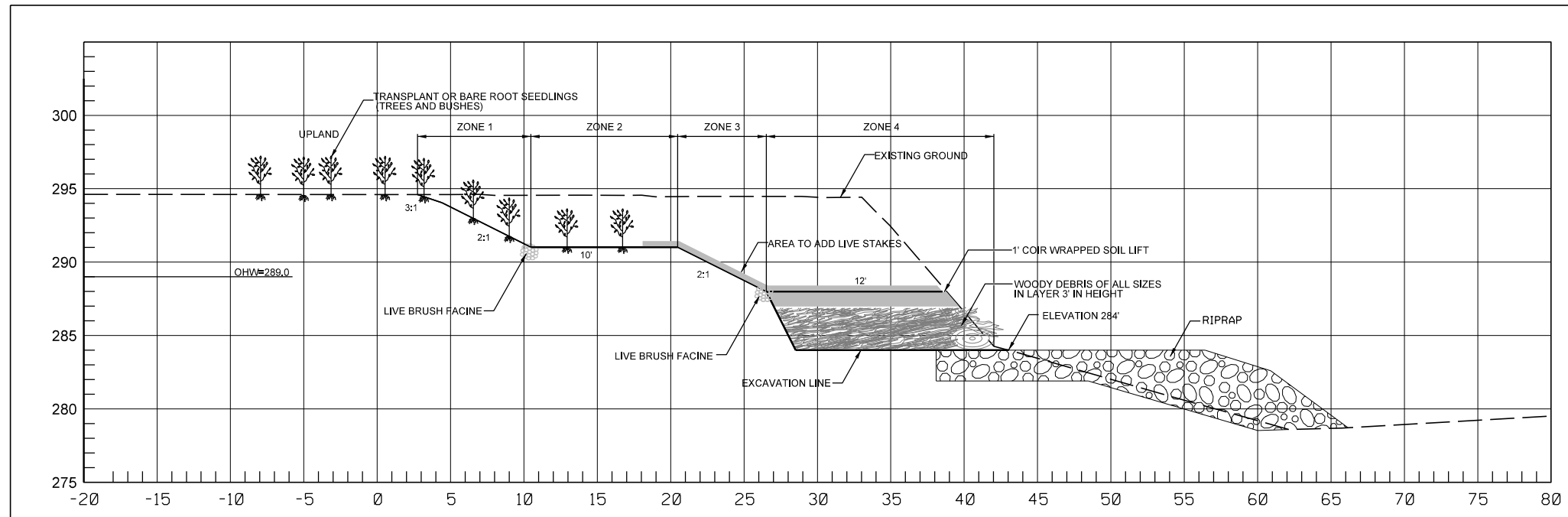
CROSS SECTIONS

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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	10115	18	19
CROSS SECTIONS						

# TYPICAL RIFFLE, POOL, AND BANKFULL BENCH CROSS SECTIONS

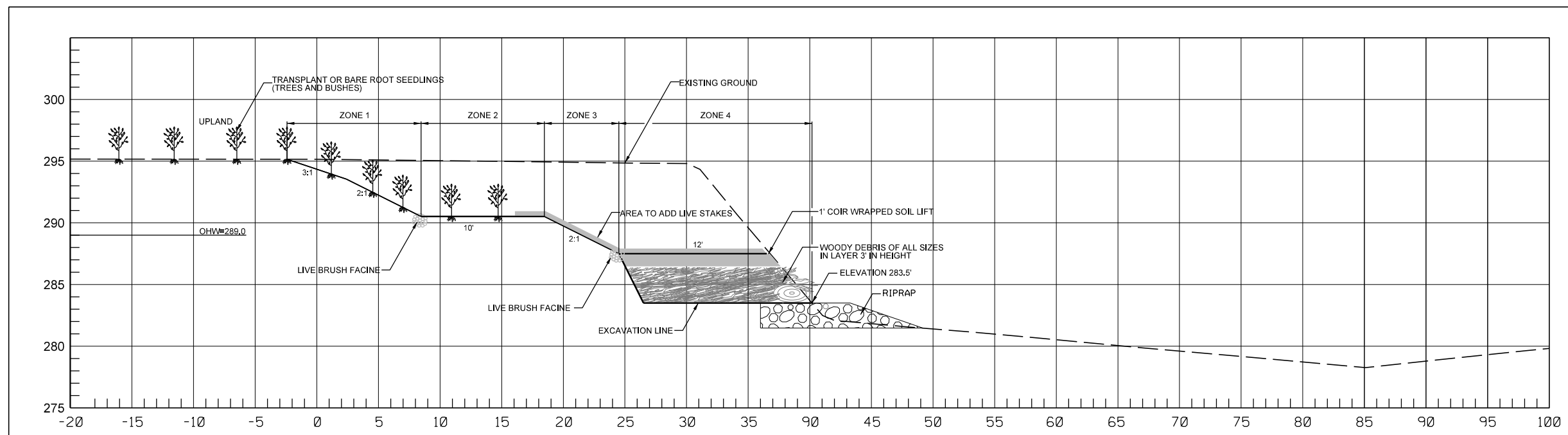
## CROSS SECTION 4



H:V



## CROSS SECTION 3

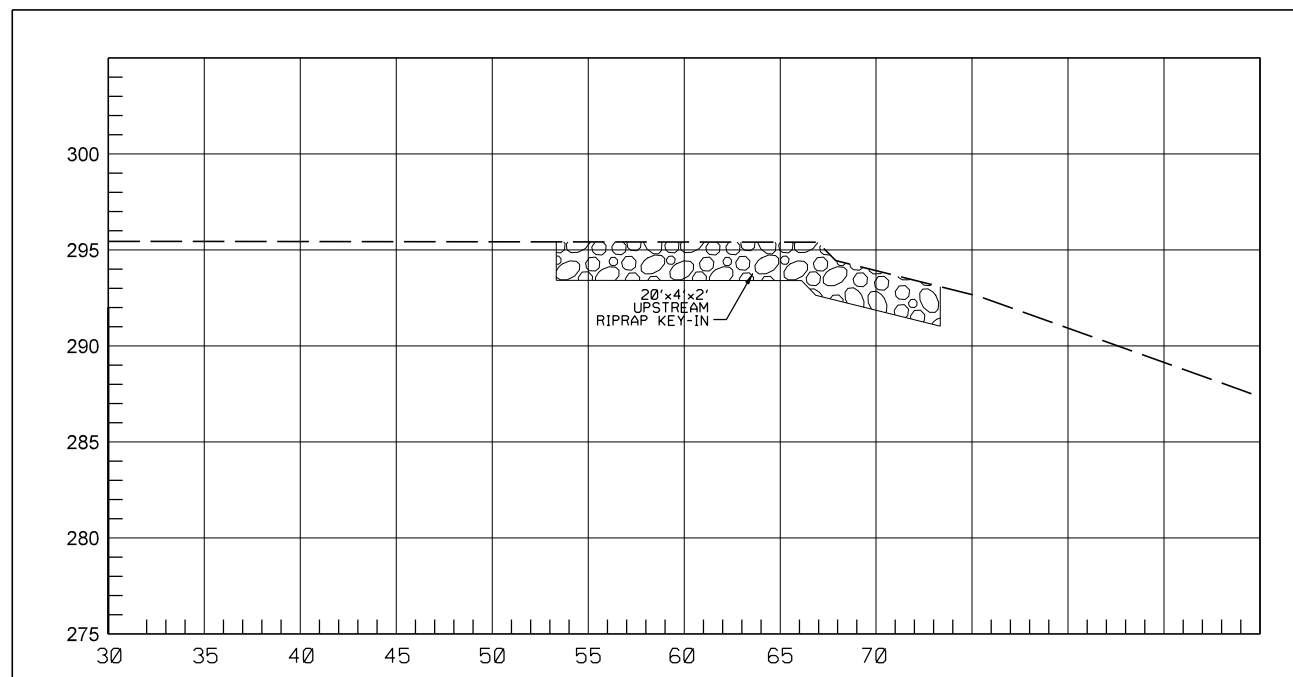


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 REVISED DATE: \*\*REVE DATE\*\*

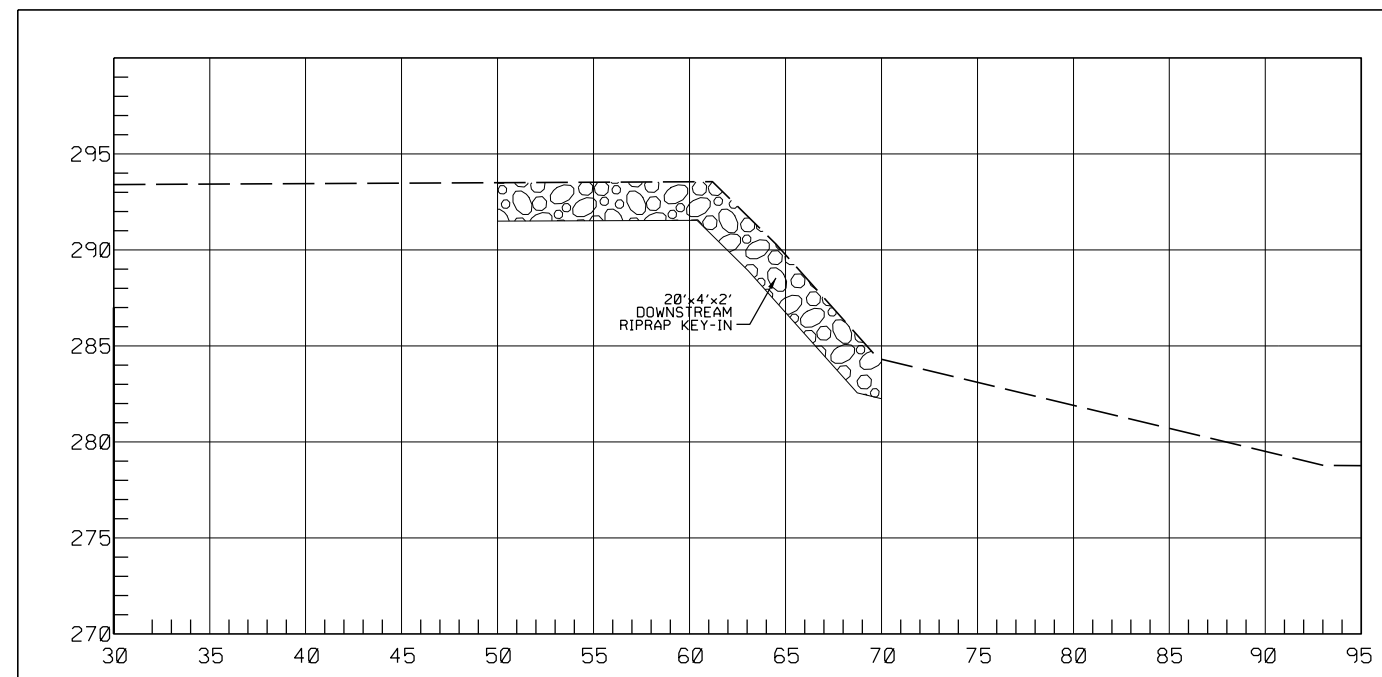
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	10115	19	19
CROSS SECTIONS						

KEY IN 1  
CROSS SECTION 7



H:V

KEY IN 2  
CROSS SECTION 6

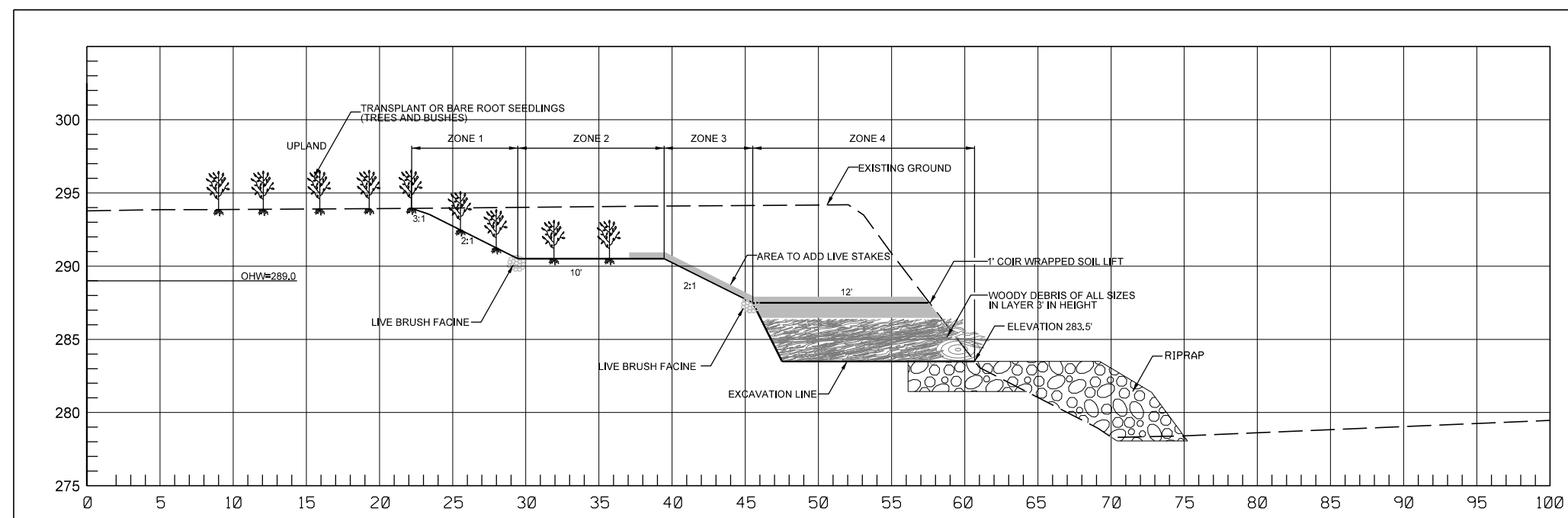


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TYPICAL RIFFLE, POOL, AND BANKFULL BENCH CROSS SECTIONS

CROSS SECTION 5



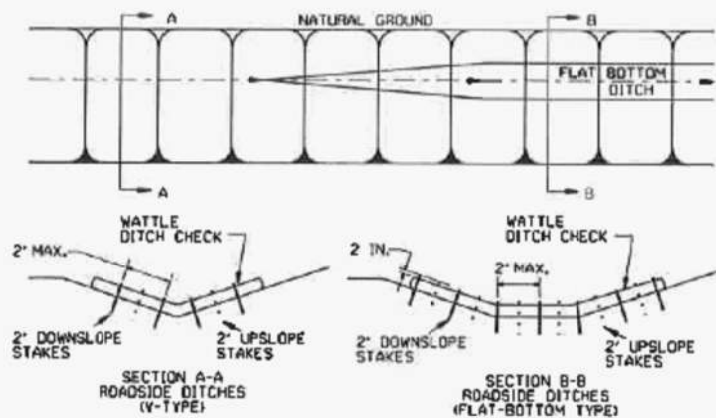
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CROSS SECTIONS

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 REVISION DATE: \*\*REVISION DATE\*\*

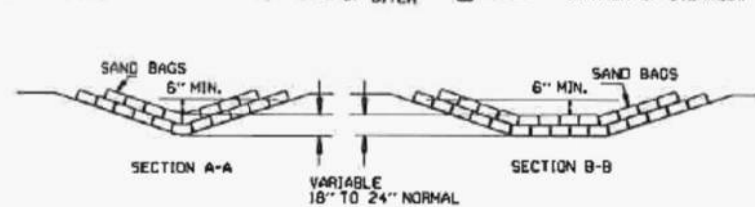
**GENERAL NOTES**

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

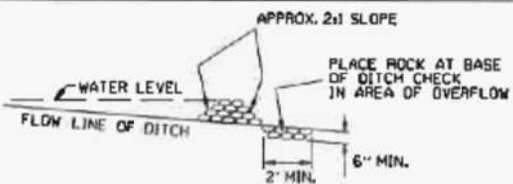


**WATTLE DITCH CHECK (E-1)**

NUMBER OF SAND BAGS AND ARRANGEMENT VARIABLE WITH ON-SITE CONDITIONS. PLACE SAND BAGS AT BASE OF DITCH CHECK IN AREA OF OVERFLOW.

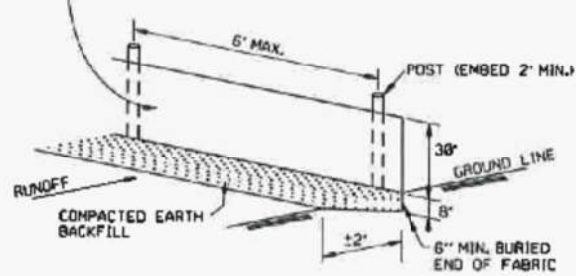


**SAND BAG DITCH CHECK (E-5)**

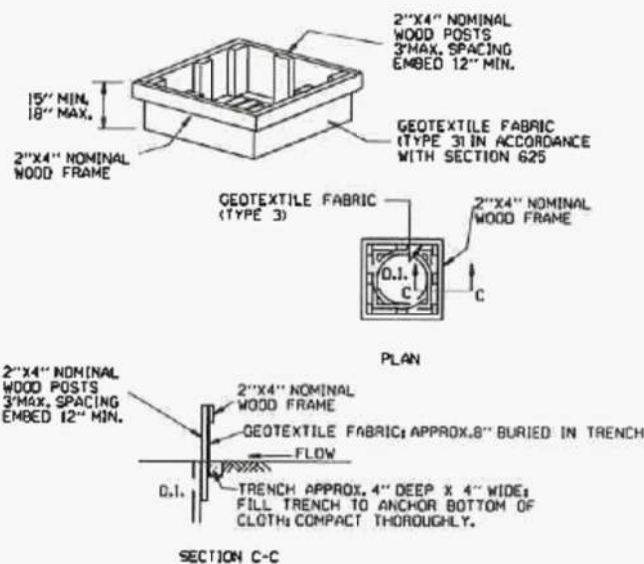


**ROCK DITCH CHECK (E-6)**

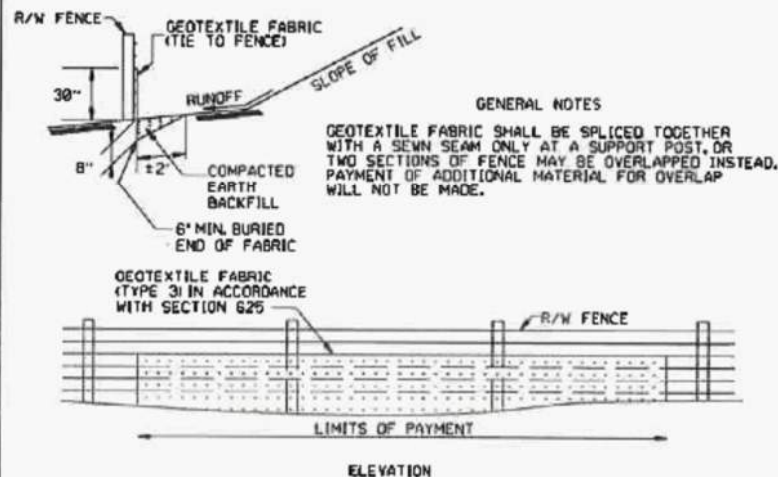
**GENERAL NOTES**  
 GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625  
 GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



**SILT FENCE (E-11)**

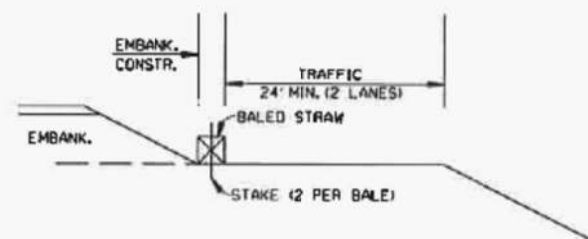


**DROP INLET SILT FENCE (E-7)**

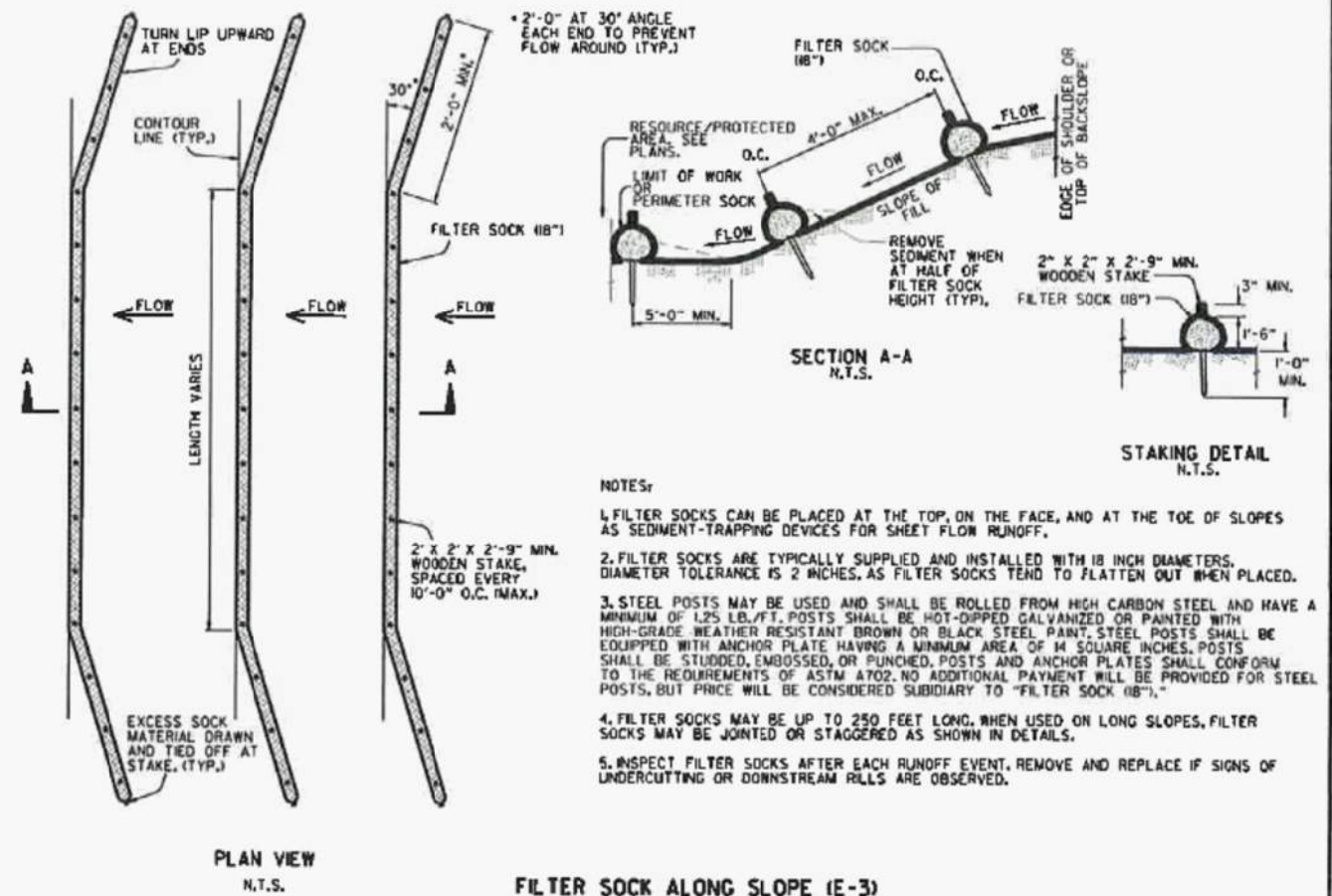


**SILT FENCE ON R/W FENCE (E-4)**

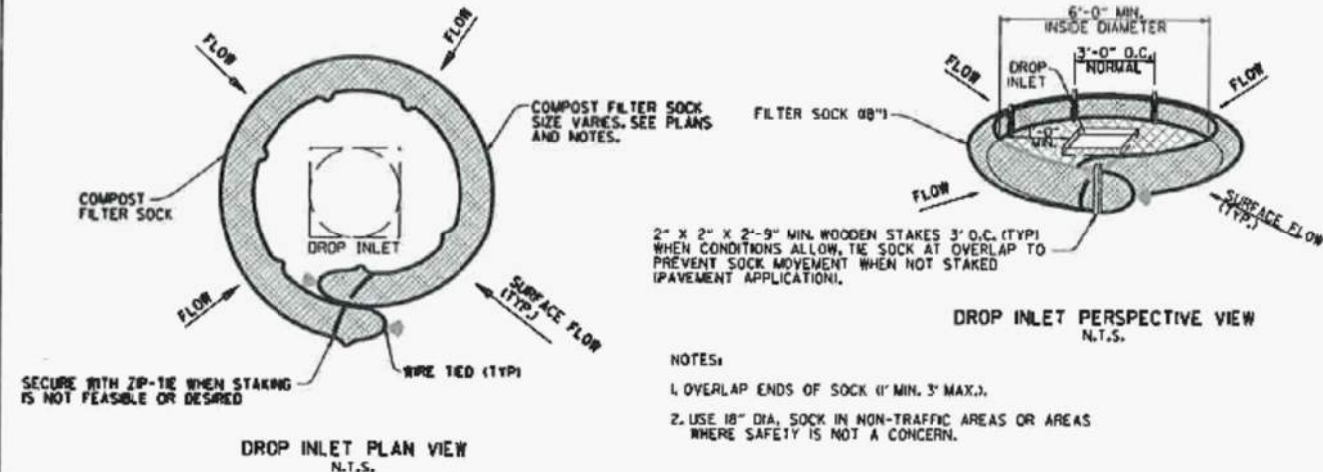
**GENERAL NOTES**  
 1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.  
 2. NO GAPS SHALL BE LEFT BETWEEN BALES.  
 3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



**BALED STRAW FILTER BARRIER (E-2)**



**FILTER SOCK ALONG SLOPE (E-3)**



**COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)**

DATE	REVISION	ISSUED R.O.M.
08-02-76	ISSUED R.O.M.	298-7-28-76
10-01-92	REDRAWN	
04-01-93	REDRAWN	
06-02-94	REVISED E-1, 4, 7 & 8, DELETED E-2 & 3	6-2-94
07-15-94	REV. E-4 & E-8 MIN. 15\"/>	
07-20-95	REVISED SILT FENCE E-4 AND E-8	7-20-95
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
07-16-98	ADDED NOTES	
12-15-98	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
08-16-17	ADDED FILTER SOCK E-3 AND E-13	

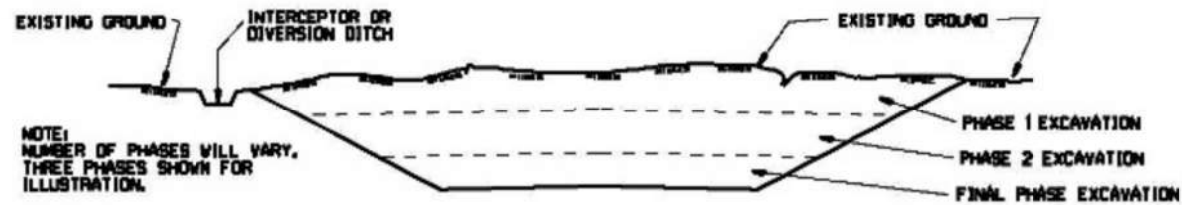
ARKANSAS STATE HIGHWAY COMMISSION  
 TEMPORARY EROSION CONTROL DEVICES  
 STANDARD DRAWING TEC-1

## CLEARING AND GRUBBING

### CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES, DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

## EXCAVATION



NOTE:  
NUMBER OF PHASES WILL VARY.  
THREE PHASES SHOWN FOR  
ILLUSTRATION.

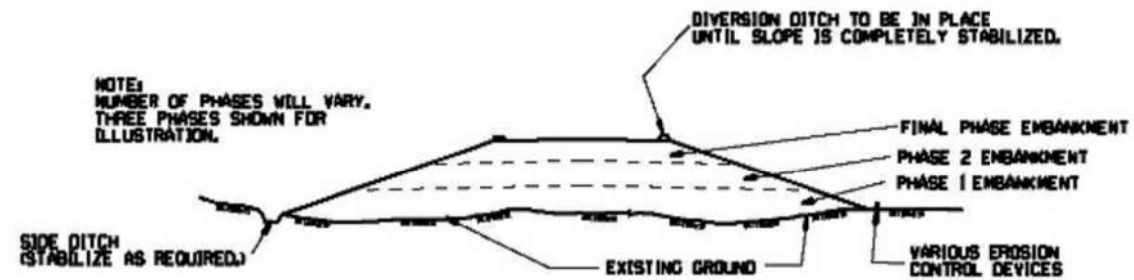
### GENERAL NOTE

ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

### CONSTRUCTION SEQUENCE

1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES. CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

## EMBANKMENT



NOTE:  
NUMBER OF PHASES WILL VARY.  
THREE PHASES SHOWN FOR  
ILLUSTRATION.

SIDE DITCH  
(STABILIZE AS REQUIRED.)

### GENERAL NOTE

ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

### CONSTRUCTION SEQUENCE

1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

		ARKANSAS STATE HIGHWAY COMMISSION	
		TEMPORARY EROSION CONTROL DEVICES	
		STANDARD DRAWING TEC-3	
11-83-94	CORRECTED SPELLING		
8-2-94	Drawn & Issued	6-2-94	FILED
DATE	REVISION		