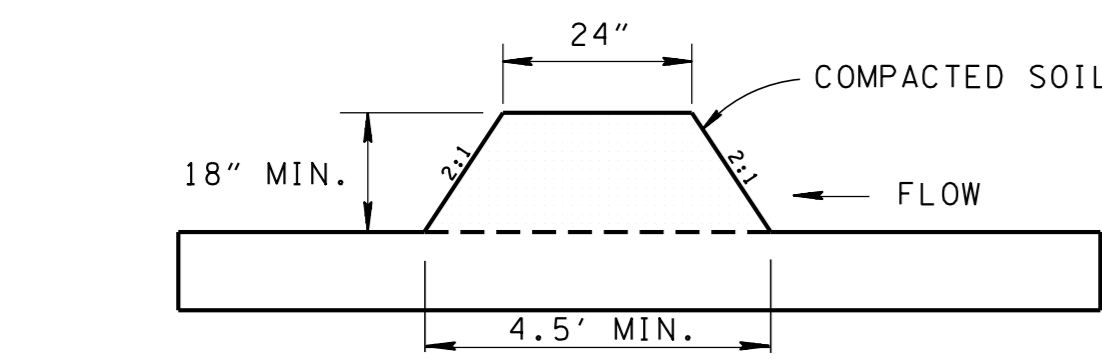
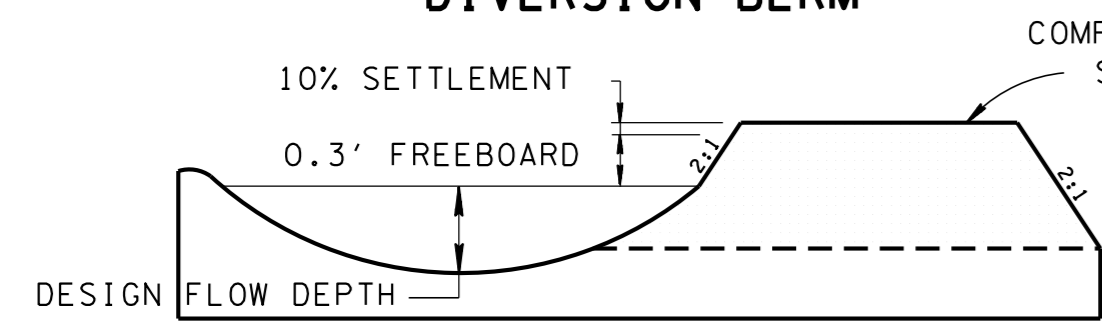


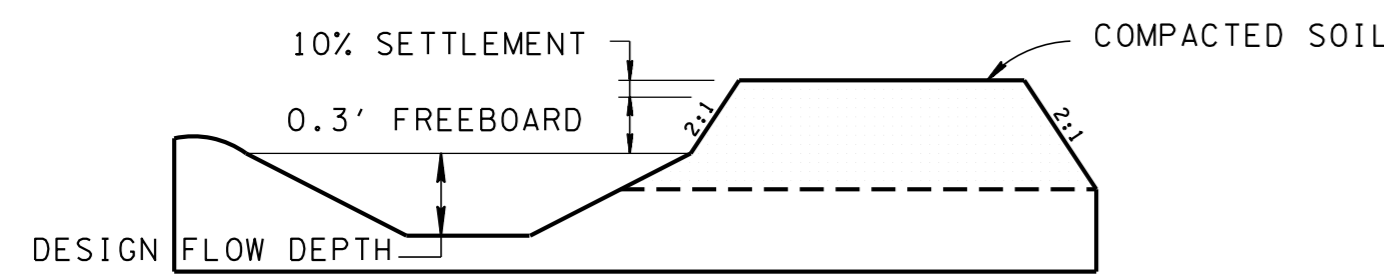
TEMPORARY BERM DETAILS



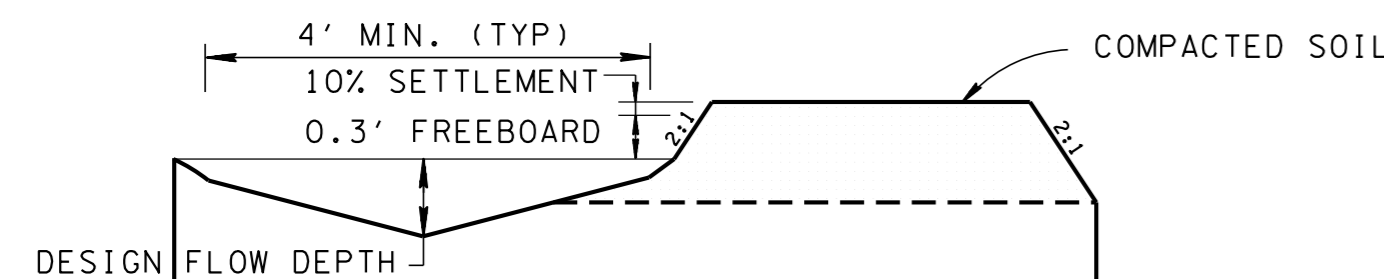
DIVERSION BERM



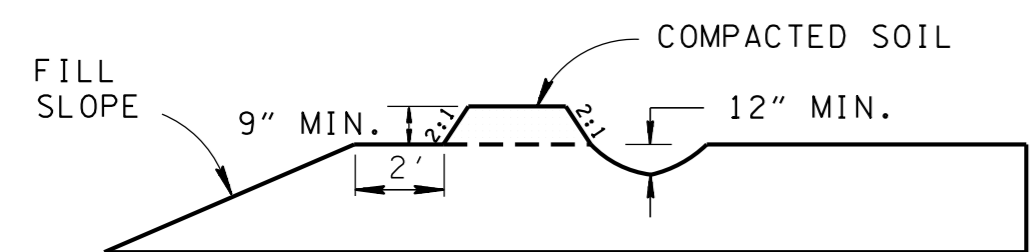
PARABOLIC DIVERSION



TRAPEZOIDAL DIVERSION

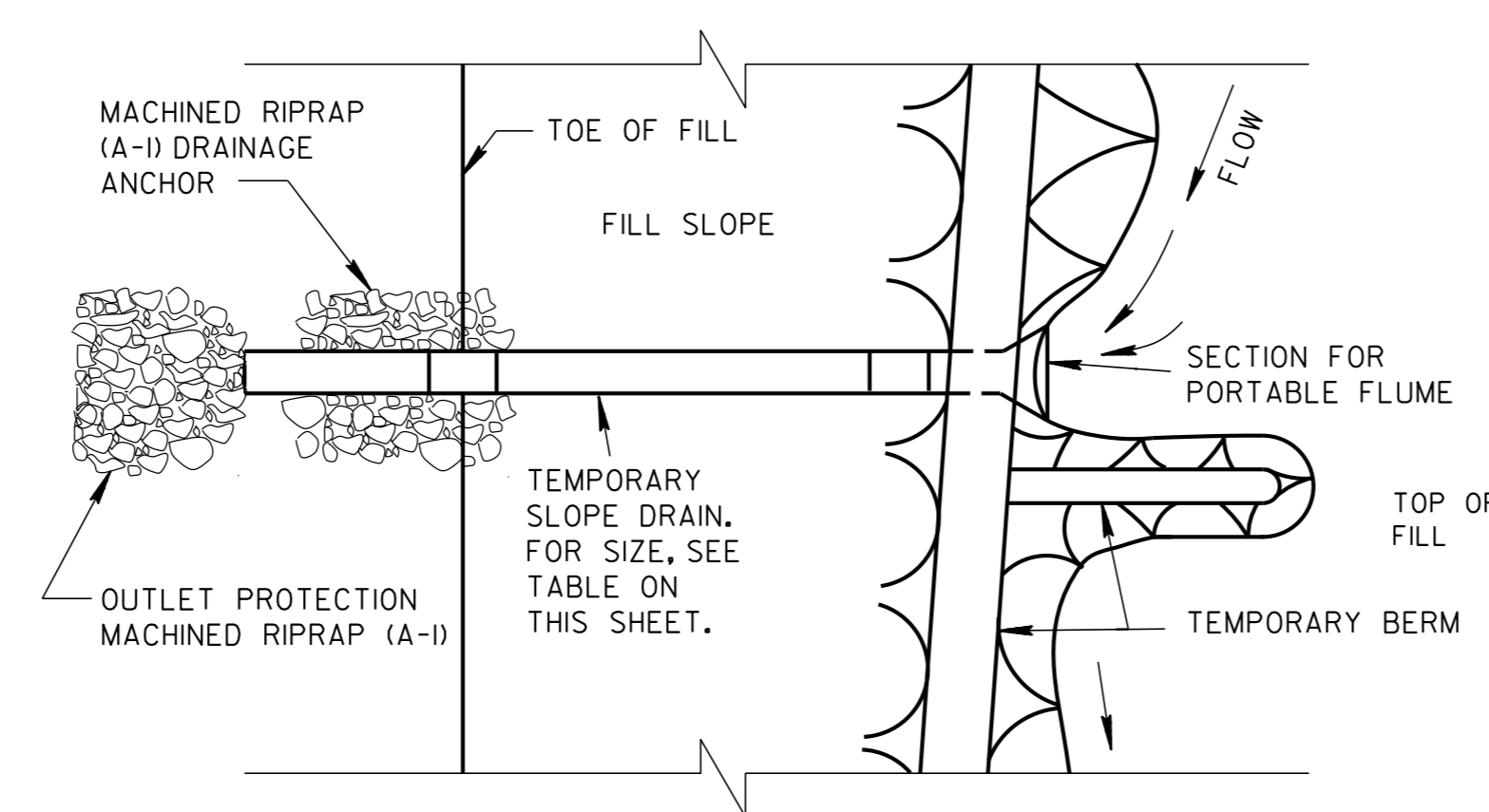


VEE-SHAPED DIVERSION

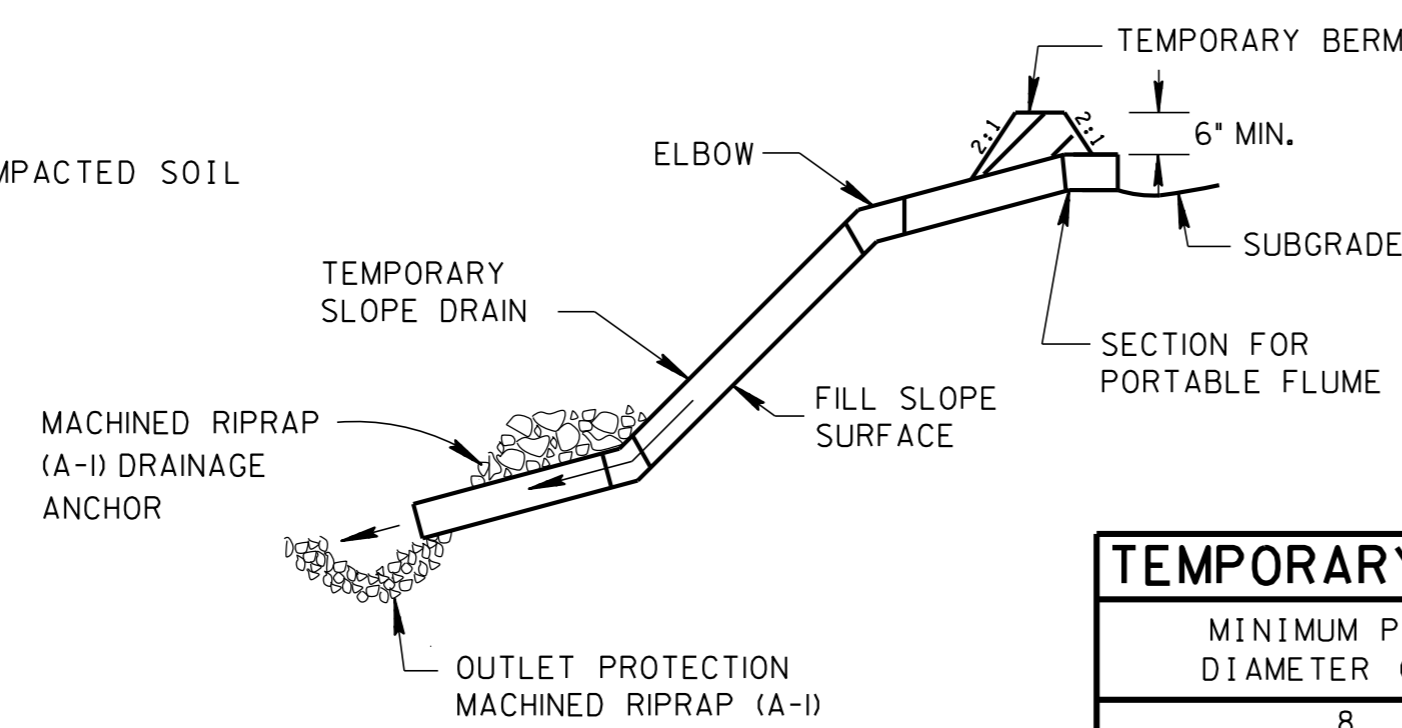


TEMPORARY FILL DIVERSION

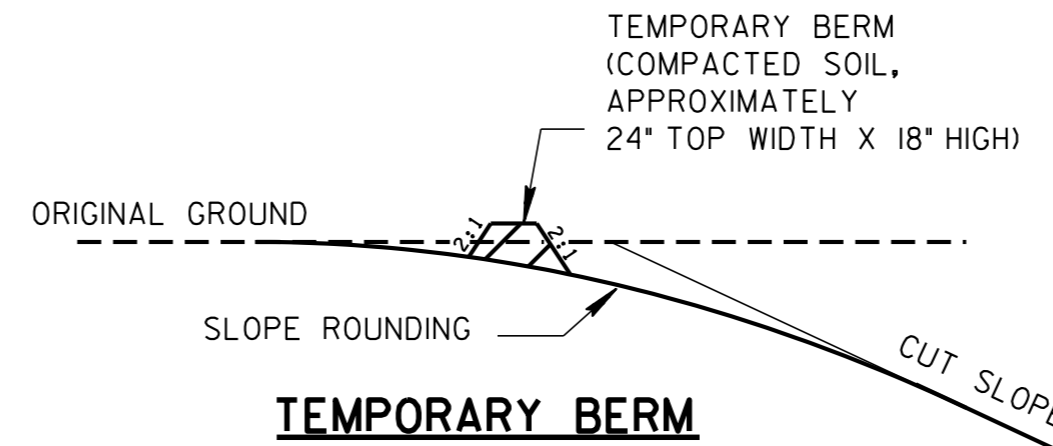
TEMPORARY SLOPE DRAIN WITH BERM AND RIPRAP



PLAN VIEW

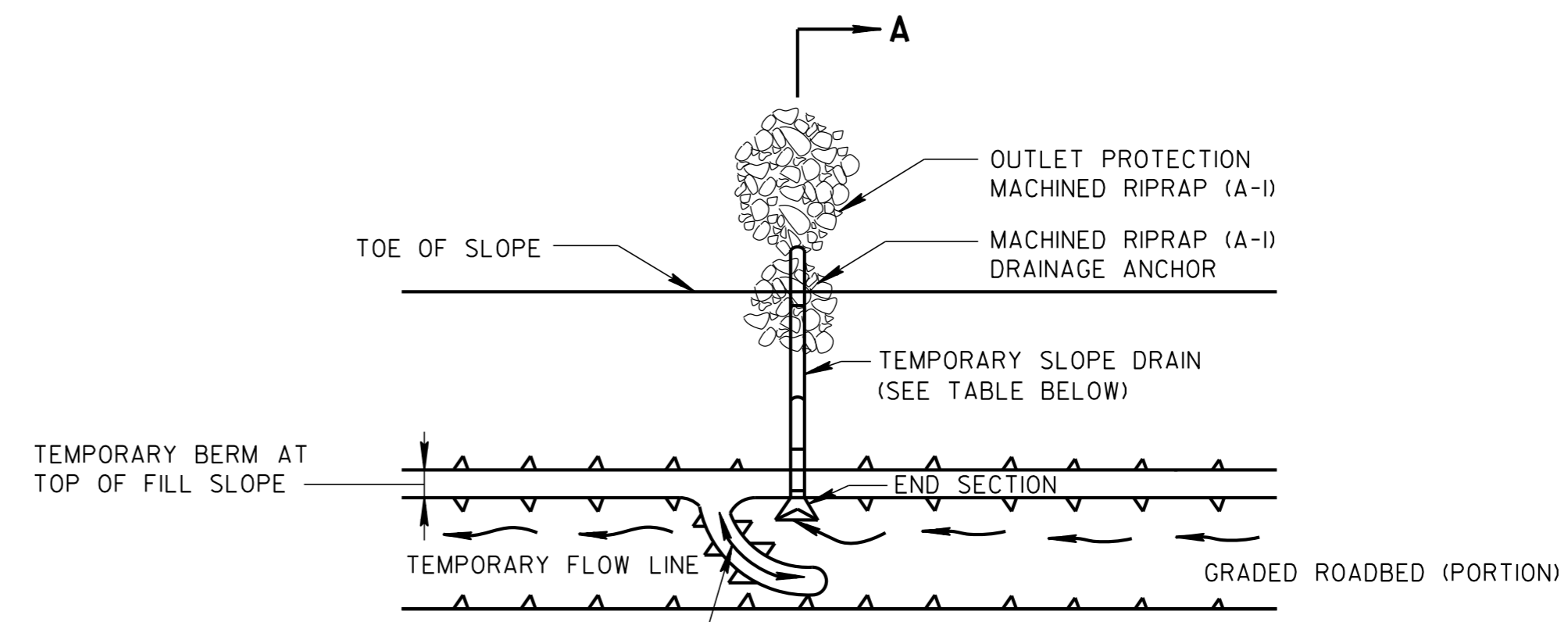


SIDE VIEW

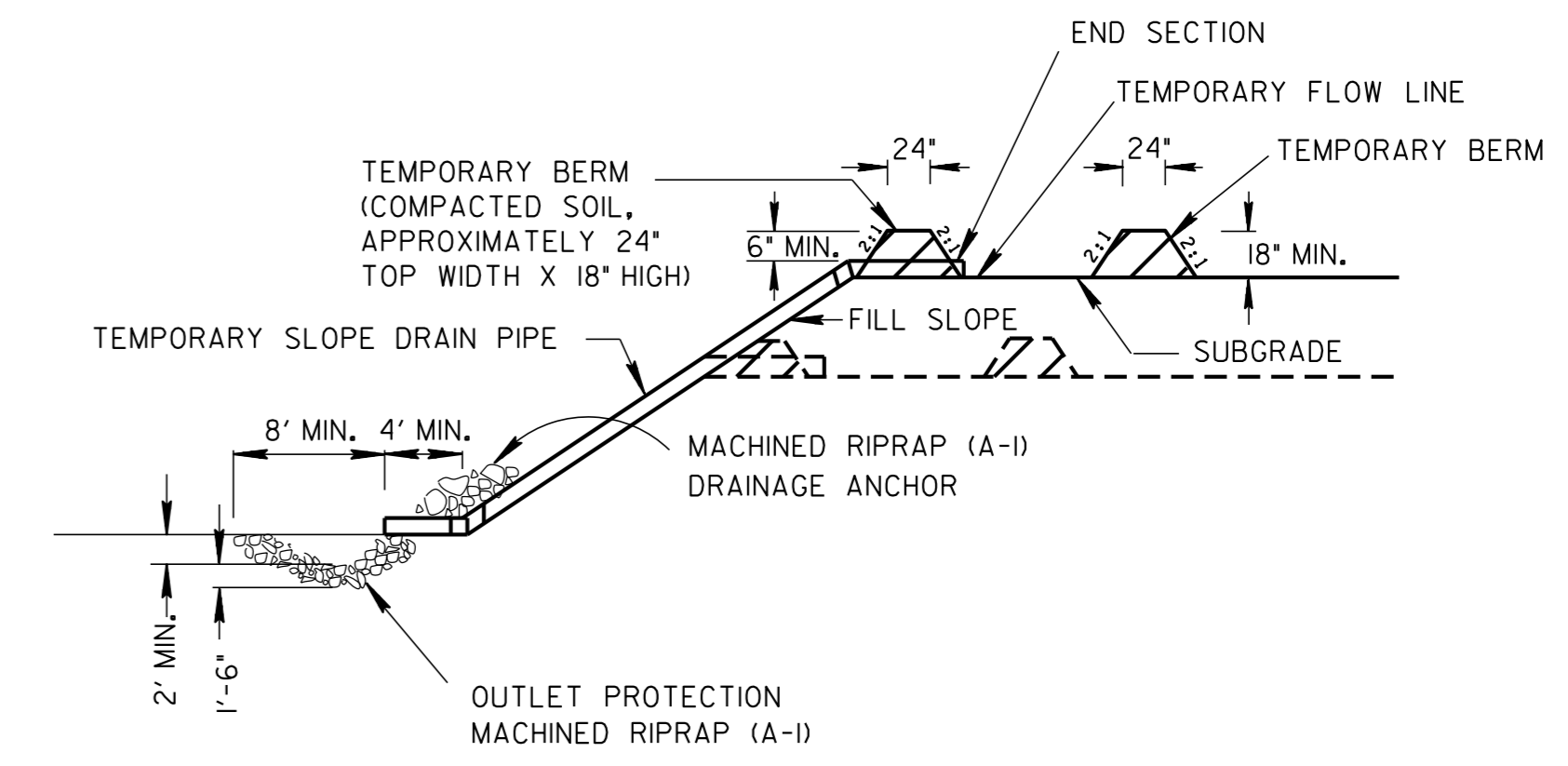


**TEMPORARY BERM
(FOR CUT SLOPES)**

MINIMUM PIPE DIAMETER (IN)	MAXIMUM DRAINAGE AREA (ACRES)
8	0.25
10	0.3
12	0.5
15	0.75
18	1.5



PLAN VIEW



**SECTION A-A
(FOR FILL SLOPES)**

TEMPORARY BERMS GENERAL NOTES

- (A1) USE TEMPORARY BERMS TO DIVERT FLOW FROM UNPROTECTED SLOPES TO STABILIZED DITCHES (OUTLETS) AND TO DIVERT SEDIMENT LADEN RUNOFF TO SEDIMENT TRAPS. TEMPORARY BERMS MAY BE USED ABOVE, ACROSS, OR BELOW DISTURBED AREAS.
- (A2) TEMPORARY BERMS SHALL BE CONSTRUCTED AT THE TOP OF ALL ERODIBLE CUT SLOPES DESIGNATED BY THE ENGINEER. THE GRADIENT OF THE BERMS SHALL BE THE MINIMUM POSSIBLE THAT CONDITIONS PERMIT. WHERE EXCESSIVE GRADIENTS ARE NECESSARY, CHECK DAMS SHALL BE USED IN ORDER TO REDUCE THE VELOCITY OF THE RUNOFF.
- (A3) STABILIZE THE BERMS AND/OR DITCHES OUTSIDE LIMITS OF CONSTRUCTION WITH VEGETATION OR RIPRAP WHENEVER THE PROFILE GRADE IS GREATER THAN 2%.
- (A4) CONSTRUCT THE TEMPORARY BERMS OUTSIDE THE LIMITS OF CONSTRUCTION BEFORE ACTUAL PROJECT CONSTRUCTION BEGINS AND SEED THE TEMPORARY BERMS WITHIN 15 CALENDAR DAYS OF CONSTRUCTION.
- (A5) MAINTAIN THE TEMPORARY BERMS BY INSPECTING AFTER EACH RAINFALL AND/OR ONCE WEEKLY AND REPAIR AS NEEDED.
- (A6) THE MAXIMUM DRAINAGE AREA FOR TEMPORARY BERMS SHALL BE 1.5 ACRES.
- (A7) TEMPORARY BERMS MAY REMAIN IN PLACE AS PERMANENT BERMS IF SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
- (A8) TEMPORARY BERMS SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBER:
 203-01 ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED) PER CUBIC YARD
 ITEMS USED FOR THE STABILIZATION OF BERMS SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEM NUMBERS.
 PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF TEMPORARY BERMS.

EROSION CONTROL PLAN LEGEND: TEMPORARY BERM

TEMPORARY SLOPE DRAIN WITH BERM AND RIPRAP GENERAL NOTES

- (B1) TEMPORARY SLOPE DRAINS ARE USED TO CONVEY CONCENTRATED STORMWATER FROM THE TOP OF A CUT OR FILL SLOPE TO ITS BASE, THUS PROTECTING THE SLOPE FROM EROSION.
- (B2) TEMPORARY SLOPE DRAINS SHALL BE USED AS THE EMBANKMENT IS CONSTRUCTED. LOCATION AND SPACING OF THE DRAIN ASSEMBLY SHALL BE DESIGNATED BY THE ENGINEER. ALL SLOPE DRAINS SHALL BE IN PLACE BY THE END OF EACH WORK SHIFT. THE DRAIN ASSEMBLIES SHALL BE USED UNTIL THE SLOPES ARE PROTECTED WITH PERMANENT SOIL EROSION CONTROL MEASURES.
- (B3) THE MAXIMUM DRAINAGE AREA FOR TEMPORARY SLOPE DRAINS SHALL BE 1.5 ACRES. MULTIPLE PIPES MAY BE USED IN PLACE OF A SINGLE TEMPORARY SLOPE DRAIN FOR DRAINAGE AREAS LARGER THAN 1.5 ACRES.
- (B4) TEMPORARY SLOPE DRAINS SHALL BE ANCHORED WITH GROMMETS OR STAKES AT INTERVALS NOT TO EXCEED 10 FEET. IN SOME CASES IT MAY BE NECESSARY TO EMBED THE SLOPE DRAIN INTO THE FILL SLOPE TO ENSURE PROPER ANCHORAGE.
- (B5) FOR HIGH FLOW CONDITIONS, A T-JOINT OR ELL-JOINT MAY BE USED DOWN STREAM ON THE TEMPORARY SLOPE DRAIN TO CONTROL VELOCITY. A T-JOINT OR ELL-JOINT MAY ALSO BE USED UPSTREAM AT LOW POINTS TO INTERCEPT FLOW.
- (B6) TEMPORARY SLOPE DRAINS SHALL EXTEND DOWN THE CUT OR FILL SLOPE TO A POINT BEYOND THE TOE OF THE SLOPE. A STABILIZED OUTLET FOR VELOCITY REDUCTION SHOULD BE PROVIDED.
- (B7) TEMPORARY SLOPE DRAINS SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBERS:
 203-01 ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED) PER CUBIC YARD
 209-02.03 THRU --"TEMPORARY SLOPE DRAIN PER LINEAR FOOT
 209-02.07 MACHINED RIP-RAP (CLASS A-1) PER TON
 709-05.06
 PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF TEMPORARY SLOPE DRAIN.

EROSION CONTROL PLAN LEGEND: TEMPORARY SLOPE DRAIN

- REV. 12-18-95: CHANGED DRAWING NO. FROM ESC-STR-27 TO EC-STR-27.
- REV. 7-29-97: CHANGED EROSION CONTROL PLAN LEGEND.
- REV. 5-27-01: CHANGED ITEM NOS. 209-01 TO 203-01, 209-02.02 TO 209-02.03, 209-07 TO 709-05.06, 209-07.01 TO 709-05.07, AND 801-07 TO 801-01.07.
- REV. 4-15-06: REFORMATTED SHEET, REVISED NOTES, MISC. EDITS TO DRAWING.
- REV. 4-1-08: REVISED AND ADDED NOTES, REFORMATTED SHEET, CHANGED DRAWING NAME, AND MISC. DRAWING EDITS.
- REV. 8-1-12: MINOR EDITS TO DRAWING AND GENERAL NOTES.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

NOT TO SCALE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TEMPORARY
SLOPE DRAIN
AND BERM

10-26-92 EC-STR-27