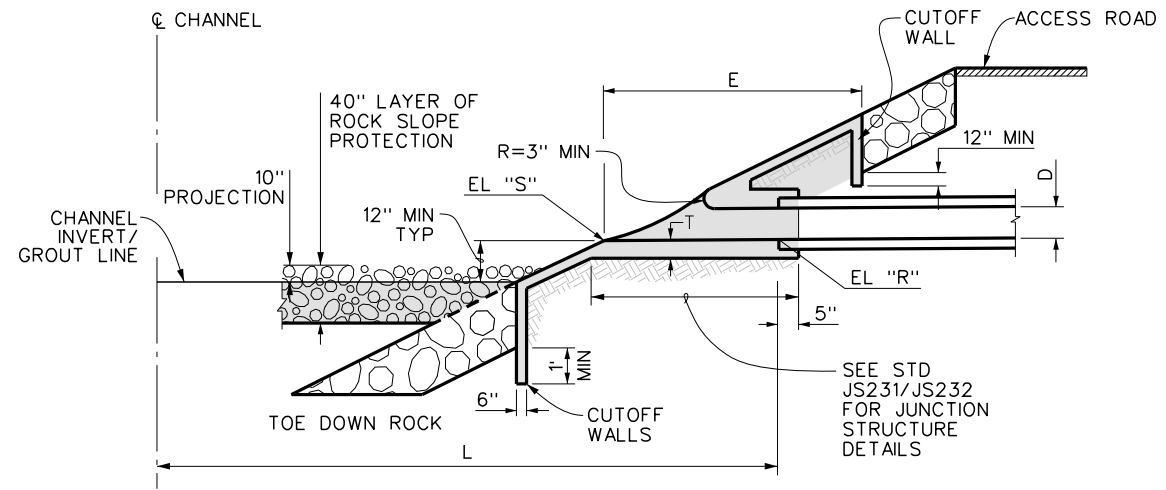
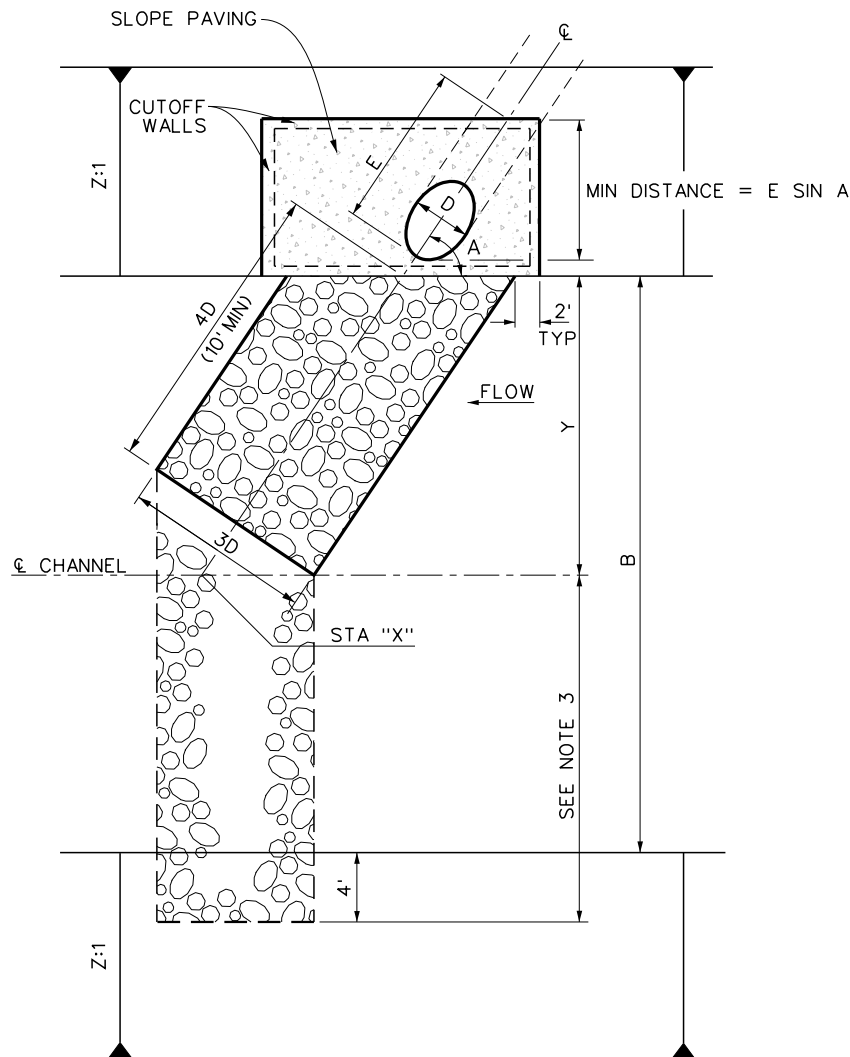


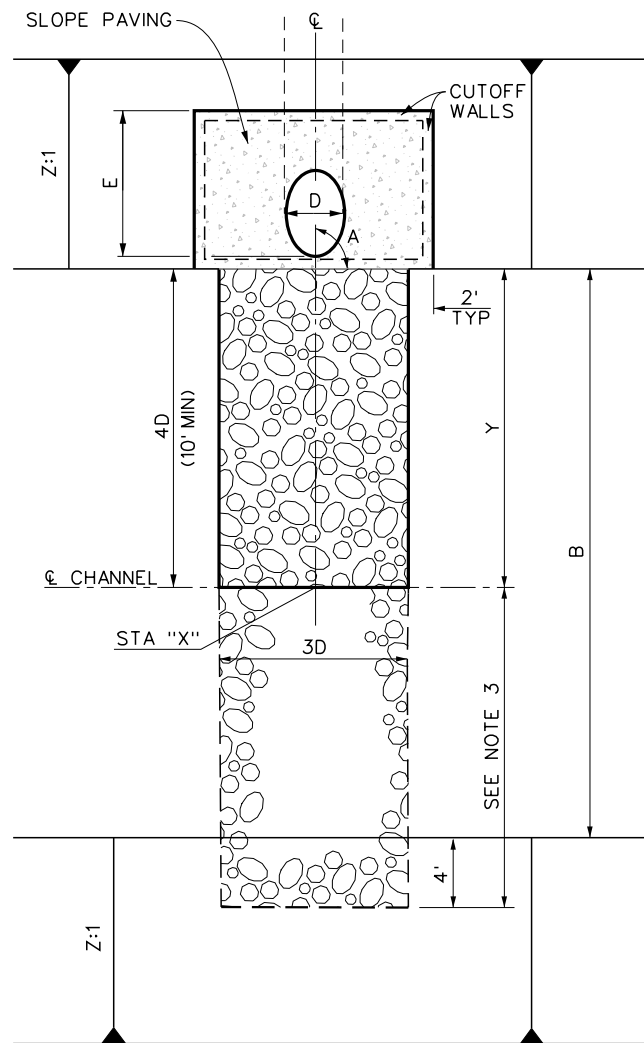
UNLINED CHANNEL CONDITION
NTS



ROCK LINED CHANNEL CONDITION
NTS



ROCK ENERGY DISSIPATOR
(ANGLED JUNCTION)
NTS



ROCK ENERGY DISSIPATOR
(PERPENDICULAR JUNCTION)
NTS

LEGEND

- D = INSIDE PIPE DIAMETER (FT)
- A = JUNCTION ANGLE TO BE DETERMINED BY ENGINEER
- Z = HORIZONTAL COMPONENT OF SIDE SLOPE RATIO
- $E = \frac{Z(D+2)}{\sin A}$ NOT TO EXCEED TOP OF CHANNEL

NOTES

1. 1/4 TON CONCRETE ROCK SLOPE PROTECTION PER CALTRANS STANDARD SPECIFICATION SECTION 72, CURRENT EDITION. **NO ROCK ENERGY DISSIPATOR REQUIRED WHEN LATERAL Q IS LESS THAN 10 CFS.**
2. CONCRETE MAY EXTEND TO TOP OF SLOPE FOR ROCK LINED CHANNEL.
3. IF "Y" IS GREATER THAN OR EQUAL TO B/2, EXTEND CONCRETED ROCK SLOPE PROTECTION ACROSS ENTIRE BASE WIDTH OF CHANNEL AND 4 FEET UP THE OPPOSITE SLOPE, OR AS APPROVED BY THE ENGINEER.
4. SEE STANDARD CH326 FOR SLOPE PAVING AND CUTOFF WALL (REINF.) DETAILS.



RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	
APPROVED BY: <i>[Signature]</i> GENERAL MANAGER/CHIEF ENGINEER DATE: 7-2-2019	APPROVED BY: <i>[Signature]</i> CHIEF, DESIGN & CONSTRUCTION DATE: 7-2-2019
R.C.E. NO. 59795	R.C.E. NO. 70355