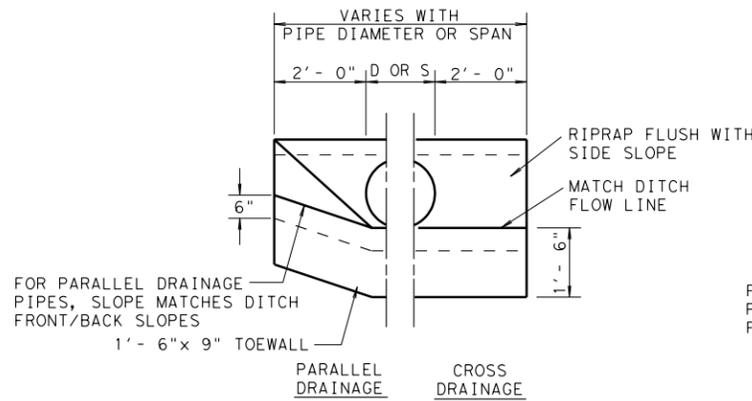
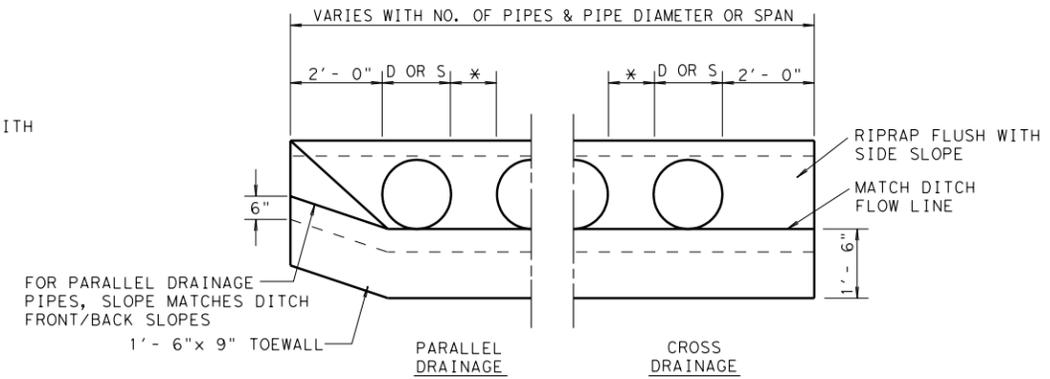


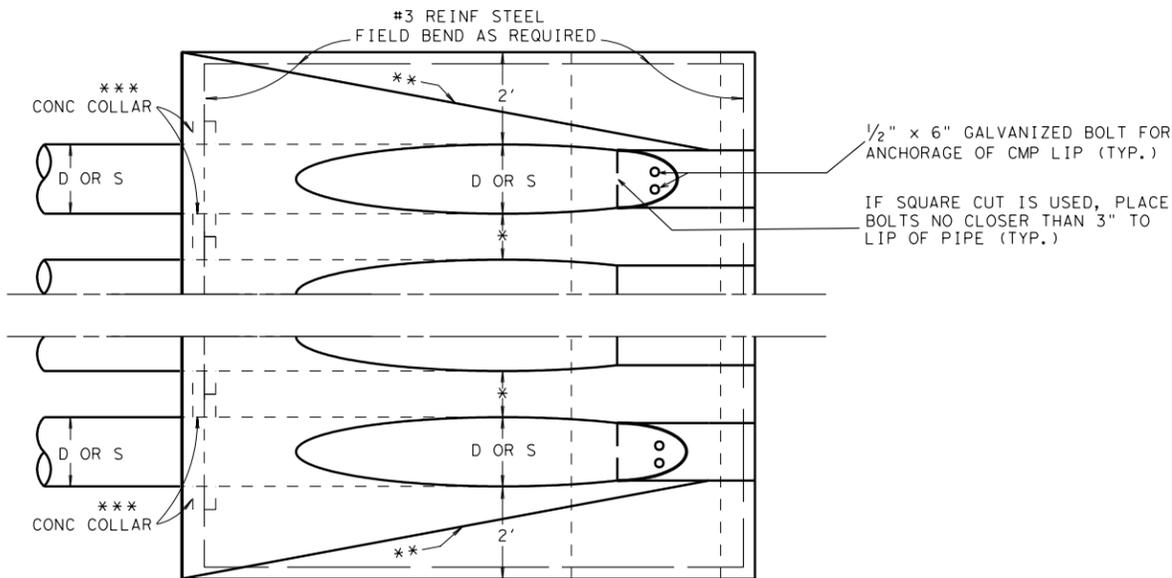
SINGLE PIPE PLAN



SINGLE PIPE END ELEVATION



MULTIPLE PIPES END ELEVATION



MULTIPLE PIPES PLAN

- * CLEAR DISTANCE VARIES WITH PIPE DIAMETER.
- ** BREAK IN SLOPE APPLIES ONLY TO PARALLEL DRAINAGE PIPES.
- *** WHEN NECESSARY

D = DIAMETER OF CIRCULAR PIPE
 S = SPAN OF ARCH/ELLIPTICAL PIPE
 R = RISE OF ARCH/ELLIPTICAL PIPE

GENERAL NOTES:

USE CLASS "C" FOR ALL RIPRAP CONCRETE. REINFORCE WITH WWF 6X6-W2.9XW2.9 AND #3 REINFORCING STEEL AS SHOWN.
 SLOPE RATE SHALL BE 6:1 OR FLATTER FOR PARALLEL DRAINAGE INSTALLATIONS; SLOPE RATE MATCHES ADJACENT SIDE SLOPE RATE FOR CROSS DRAINAGE INSTALLATIONS.
 CONSIDER RIPRAP CONCRETE CL "C", REINFORCING STEEL, CORRUGATED METAL PIPE OR REINFORCED CONCRETE PIPE SUBSIDIARY TO PERTINENT ITEM.

PARALLEL DRAINAGE PIPES FOR DRIVEWAYS, SIDE ROADS, ETC.

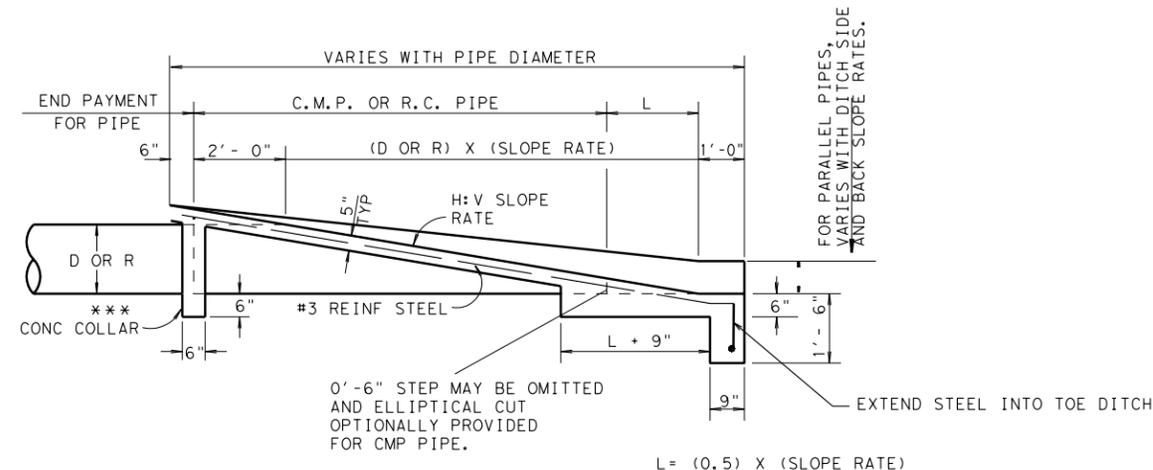
MINIMUM DIAMETER OR SPANS REQUIRING SAFETY PIPE RUNNERS AS DETAILED ON SETP-PD:

PIPE	SINGLE	DOUBLE	TRIPLE OR MORE
CIRCULAR	36"	30"	ALL
ARCH/ELLIP	DES 4	DES 3	ALL

CROSS DRAINAGE PIPES

MINIMUM DIAMETER OR SPANS REQUIRING SAFETY PIPE RUNNERS AS DETAILED ON SETP-CD:

CIRC. PIPE DIA. OR ARCH/ELLIPTICAL PIPE DESIGN SIZE	CIRC. PIPE DIA. OR ARCH/ELLIPTICAL PIPE DESIGN SIZE			
	SKEW	SINGLE PIPE	MULTIPLE PIPE	TRIPLE OR MORE
NORMAL		42" OR DESIGN 5	36" OR DESIGN 4	ALL
15°		36" OR DESIGN 4	36" OR DESIGN 4	ALL
30°		30" OR DESIGN 3	30" OR DESIGN 3	ALL
45°		30" OR DESIGN 3	24" OR DESIGN 2	ALL



SIDE ELEVATION

Texas Department of Transportation
 Austin District Design

SAFETY END TREATMENT
 TYPE II

Austin District Standard

© TxDOT 2003	DIST	FED REG	FEDERAL AID PROJECT	SHEET
REVISIONS	AUS	6		
3/03 District Update	COUNTY	CONTROL	SECT	JOB
9/04 2004 Update				HIGHWAY