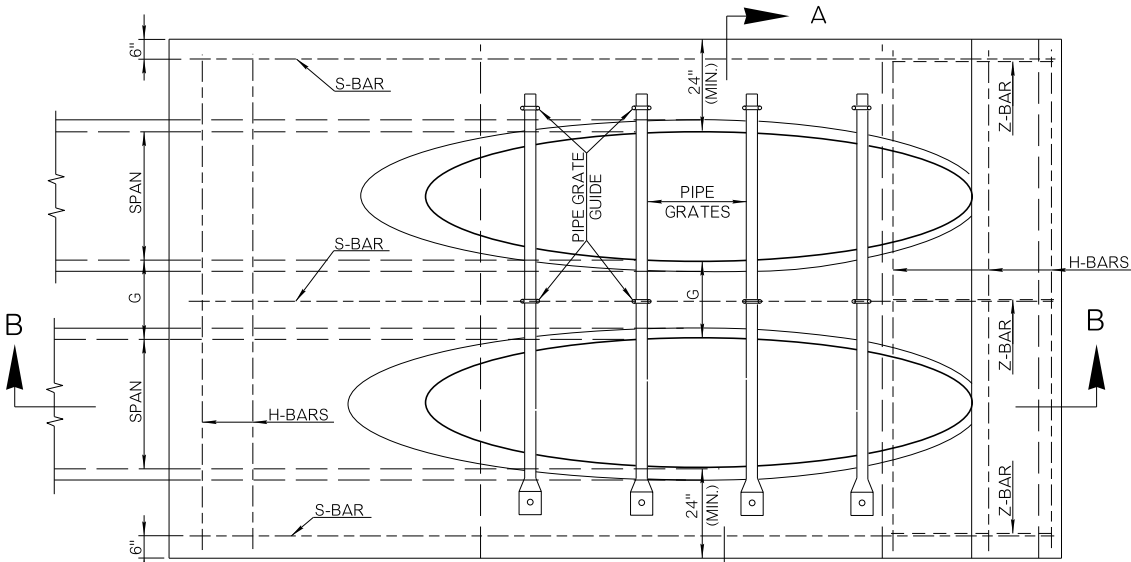
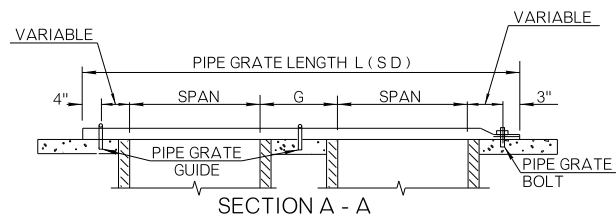


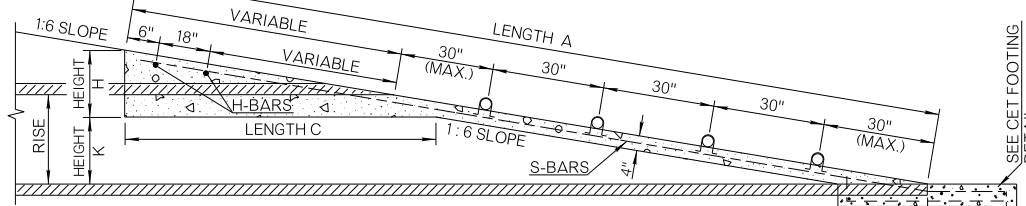
TABLE A - SCHEDULE OF PIPE SAFETY GRATES									
CET TYPE	CULVERT TYPE				SIDE DRAIN		CROSS DRAIN		G DIMENSION
	REINF. CONC., STEEL OR ALUMINUM ROUND PIPE	REINF. CONC. ARCH PIPE	REINF. CONC. ELLIPTICAL PIPE (RISE x SPAN)	STEEL OR ALUMINUM ARCH PIPE	NO. OF GRATES	GRATE LENGTH L (SD)	NO. OF GRATES	GRATE LENGTH L (CD)	
AA6	18"				3	5'-8"		NONE	12"
		22" x 13"	14" x 23"	21" x 15"	2	6'-6"		NONE	12"
				24" x 18"	3	6'-8"		NONE	12"
BB6	24"				4	6'-8"		NONE	12"
		28" x 18"	19" x 30"		3	7'-8"	2	15'-9"	12"
				28" x 20"	4	7'-8"		NONE	12"
		36" x 22"	22" x 34"		4	8'-6"	2	17'-6"	12"
				35" x 24"	4	8'-6"	2	18'-3"	12"
CC6	30"		24" x 38"		4	9'-2"	2	18'-3"	15"
					6	7'-10"		NONE	15"
	43" x 26"				5	10'-0"	2	19'-9"	15"
				42" x 29"	5	10'-0"	2	20'-9"	15"
			29" x 45"		5	10'-4"	2	20'-9"	15"
DD6	36"				6	11'-8"	2	21'-9"	18"
				49" x 33"	6	11'-3"	2	22'-8"	18"
			34" x 53"		6	12'-0"	2	23'-6"	18"
	42"				7	9'-8"	2	24'-6"	18"
		58" x 36"	38" x 60"	57" x 38"	8	10'-4"	2	27'-6"	21"
EE6					7	13'-4"	2	25'-6"	21"
					8	14'-2"	4	26'-6"	21"
				64" x 43"	8	14'-2"	4	28'-0"	21"
	48"		43" x 68"		9	11'-8"	2	30'-6"	24"
					8	15'-0"	4	28'-0"	24"
EE6		73" x 45"		71" x 47"	9	15'-9"	4	30'-0"	24"
			48" x 76"		9	16'-5"	4	30'-6"	26"



PLAN (SIDE DRAIN SHOWN)



SECTION A - A



SECTION B - B

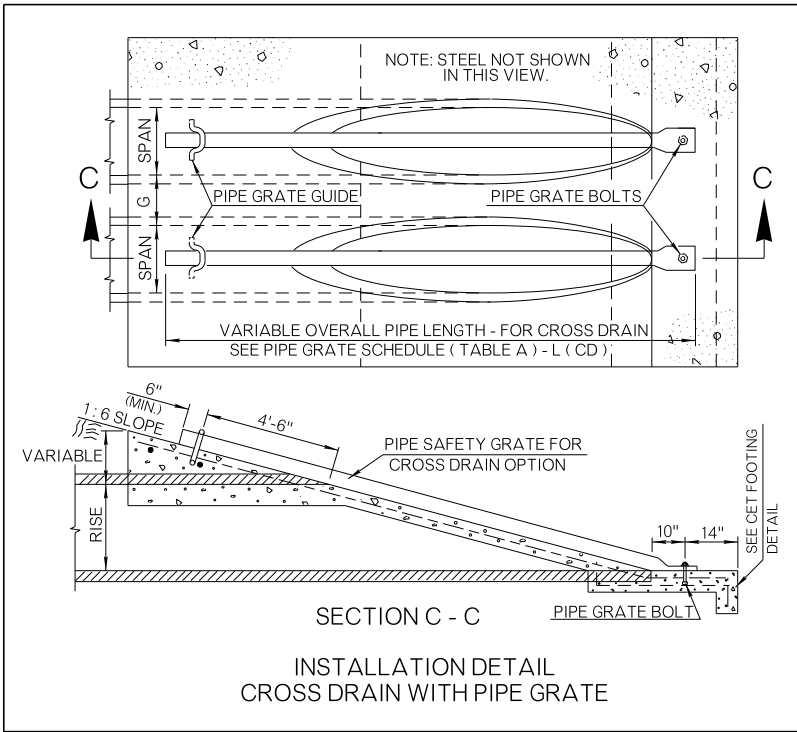
TABLE B - SCHEDULE OF DIMENSIONS													
C.E.T. TYPE	LENGTH A	WIDTH BB	WIDTH BB	LENGTH C	HEIGHT H	HEIGHT K	CONC. CY	CONC. CY	STEEL LENGTH				G
									CONC. CY	CONC. CY	H-BARS	H-BARS	
AA6	15'- 3"	8'-0"	9'-4"	8'- 6"	21"	9"	3.55	4.00	7'-8"	9'-0"	17'- 9"	4'- 10"	
BB6	18'- 3"	9'-0"	11'-0"	9'- 0"	22"	14"	4.40	5.68	8'-8"	10'-8"	20'- 9"	4'- 10"	
CC6	23'- 4"	10'-4"	14'-0"	11'- 0"	26"	20"	6.16	9.54	10'-0"	13'-8"	25'- 10"	4'- 10"	
DD6	27'- 9"	12'-9"	16'-6"	12'- 0"	28"	27"	9.64	12.53	12'-5"	16'-2"	30'- 5"	4'- 10"	
EE6	30'- 6"	14'-0"	18'-0"	13'- 0"	30"	30"	11.85	15.79	13'-8"	17'-8"	32'- 11"	4'- 10"	

(R) ROUND SHAPE CULVERT OPTIONS

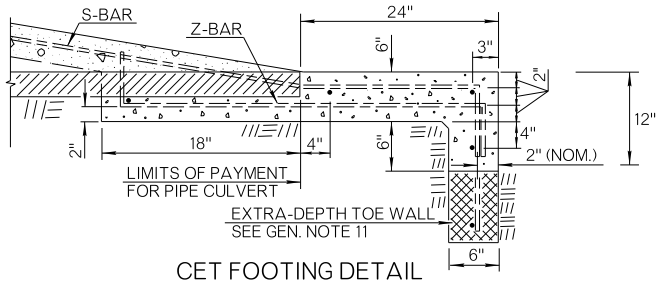
(A) ARCH SHAPE CULVERT OPTIONS

(E) HORIZONTAL ELLIPSE SHAPE CULVERT OPTIONS

NOTE: FOR G DIMENSION, SEE TABLE A



SECTION C - C
INSTALLATION DETAIL
CROSS DRAIN WITH PIPE GRATE



CET FOOTING DETAIL

TYPICAL ABBREVIATIONS	
RS	ROUND SIDE DRAIN
RC	ROUND CROSS DRAIN
AS	ARCH SIDE DRAIN
AC	ARCH CROSS DRAIN
GR	GRATED
NG	NON-GRATED

PRECAST CULVERT END TREATMENTS OR OTHER ALTERNATIVE DESIGNS MAY BE USED IF APPROPRIATE DRAWINGS ARE SUBMITTED TO AND APPROVED BY THE ENGINEER.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
613 (M)	CULVERT END TREATMENT	EA

- SPECIFY TYPE OF END TREATMENT (EXAMPLE: TYPE BB6 CULVERT END TREATMENT)
- CET ORIENTATION AND SAFETY GRATE REQUIREMENTS SHALL BE SPECIFIED ON THE SUMMARY OF DRAINAGE STRUCTURES. (SEE TYPICAL ABBREVIATIONS)

APPROVED BY ROADWAY ENGINEER: *[Signature]* DATE: 3/31/2025

ROADWAY DESIGN DIVISION STANDARD

CULVERT END TREATMENT
DOUBLE PIPE INSTALLATION
1 TO 6 SAFETY SLOPE



2019 SPECIFICATIONS

CET6D-4

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