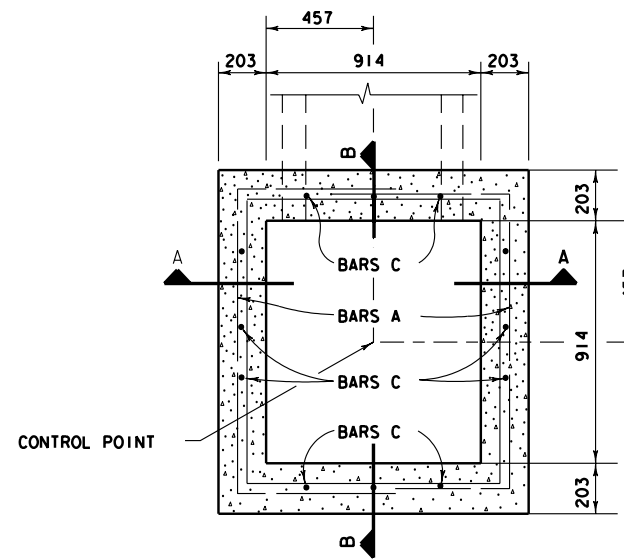
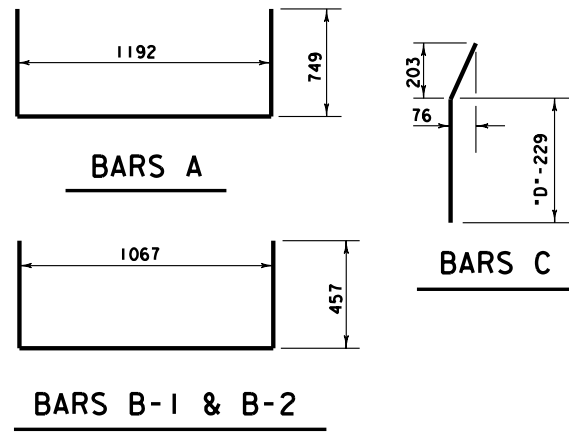


PLAN



PLAN

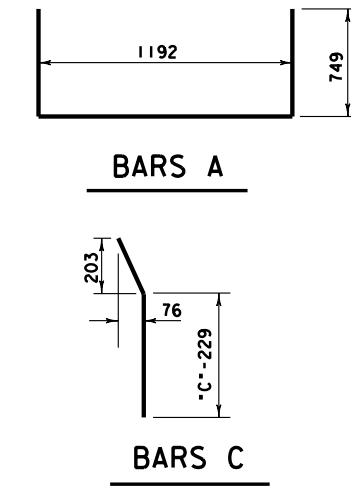
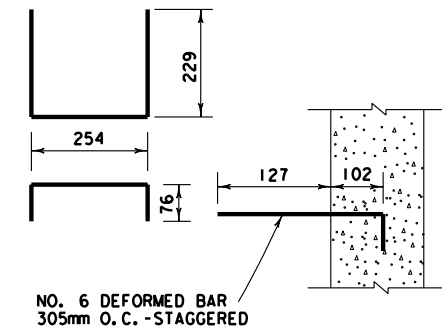


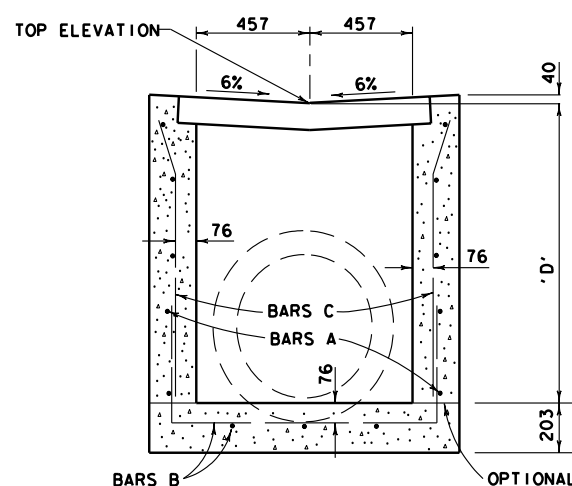
TABLE OF QUANTITIES 'C' = 455							
BARS A @ 305 ±		BARS C @ 305 ±		STEPS @305 (#6)			
NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.
6	2591			12	432	1	864
TOTAL STEEL				22.53 kg			
TOTAL CONC.				0.41m <sup>3</sup>			
ADDITIONAL STEEL				35.17kg/m			
ADDITIONAL CONC.				0.908m <sup>3</sup> /m			



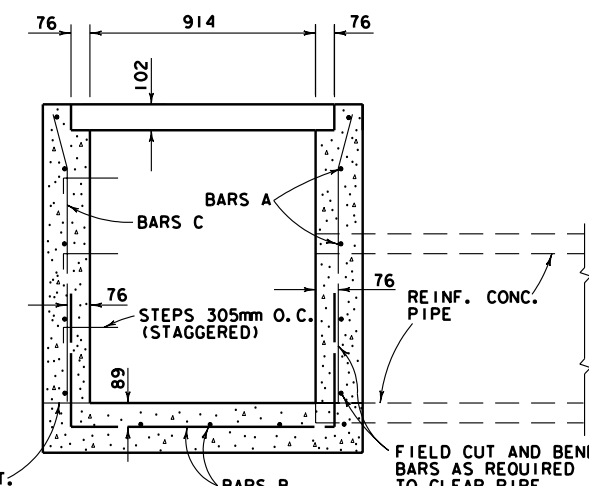
NO. 6 DEFORMED BAR  
305mm O.C. -STAGGERED

STEPS

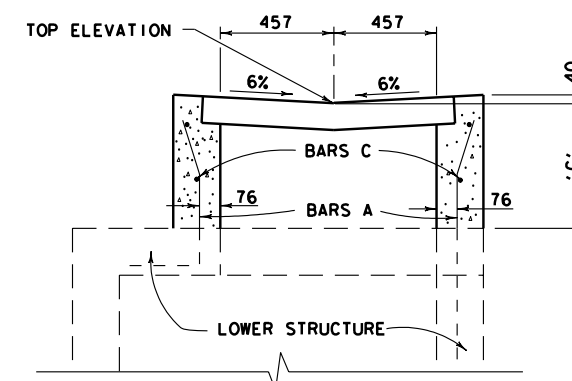
STEPS 305mm O.C.  
(STAGGERED)  
CUT AND BEND UP  
STEEL OF LOWER  
STRUCTURE AS SHOWN



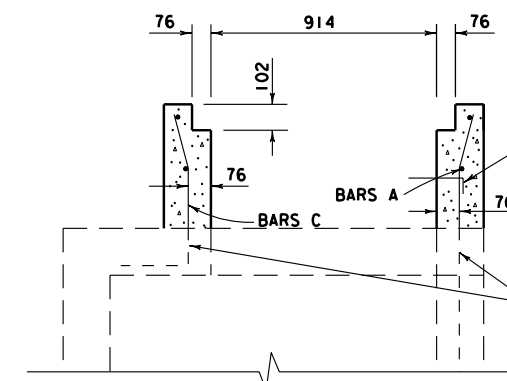
SECTION A-A



SECTION B-B



SECTION A-A

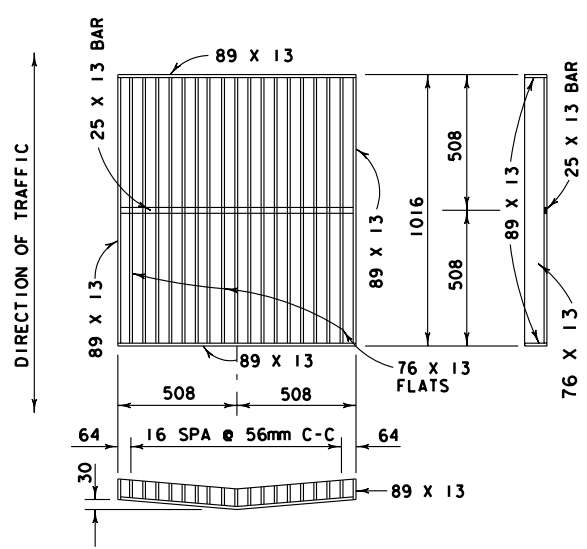


SECTION B-B

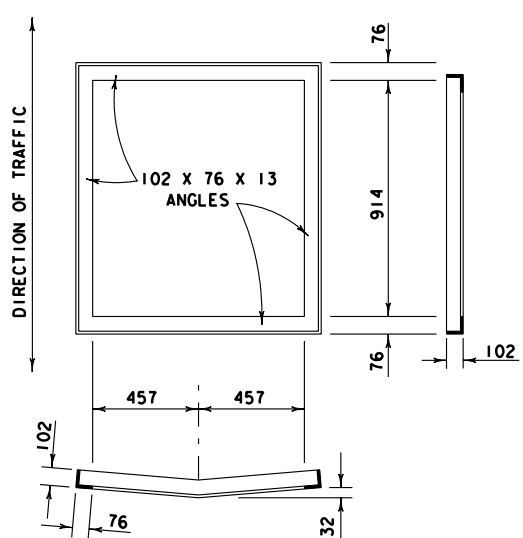
TYPE "X2" STRUCTURE

TYPE "X1" STRUCTURE

TABLE OF QUANTITIES 'C' = 1220							
BARS A @ 305 ±		BARS A @ 305 ±		BARS C @ 305 ±		STEPS @305 (#6)	
NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.
10	2591	6	1981	12	1194	3	864
TOTAL STEEL				57.61 kg			
TOTAL CONC.				1.45m <sup>3</sup>			
ADDITIONAL STEEL				35.17kg/m			
ADDITIONAL CONC.				0.908m <sup>3</sup> /m			



GRATE DETAIL



FRAME DETAIL

CONCRETE QUANTITY REDUCTION TABLE	
Pipe Diameter (mm)	Reduction One Pipe (m <sup>3</sup> )
375	0.03
450	0.04
525	0.06
600	0.07
675	0.08
750	0.11
825	0.13
900	0.15
1050	0.20
1200	0.27

- GENERAL NOTES:
1. ALL CONCRETE SHALL BE CLASS "A".
  2. ALL REINFORCING STEEL SHALL BE NUMBER FOUR (4) BARS. DIMENSIONS RELATING TO STEEL ARE TO CENTERS OF BARS. FIELD CUT AND BEND BARS AS REQUIRED TO ACCOMMODATE TIES TO LOWER STRUCTURE AND TO CLEAR PIPES.
  3. REDUCE CONCRETE QUANTITIES IN TABLES FOR AREA OF EACH PIPE IN STRUCTURE.
  4. GRATE AND FRAME SHALL CONFORM TO ITEM 471.
  5. LOCATION GIVEN IN PLANS IS TO CENTROID OF TOP STRUCTURE. BOTTOM STRUCTURE MAY BE POSITIONED AS REQUIRED TO ALIGN WITH TOP STRUCTURE, STORM DRAIN PIPES AND OTHER ADJACENT STRUCTURES.
  6. ALL DIMENSIONS ARE mm UNLESS SHOWN OTHERWISE.

REVISONS:		Texas Department of Transportation					
		<b>TYPES "X 1" &amp; "X 2"</b>					
		<b>GRATED INLETS</b>					
		MI-15(FW) (M)					
ORIG DRAW DATE:	DESIGN:	FED. REG.	STATE	FEDERAL AID PROJ NO.	HIGHWAY		
MAR. 1996	CHECKED:	6	TEXAS				
	DRAWN:	DISTRICT	COUNTY	CONTROL SECTION	JOB	SHEET	
	CHECKED:	FTW					

7:pub11c/me+std/mi15fw.m.dgn