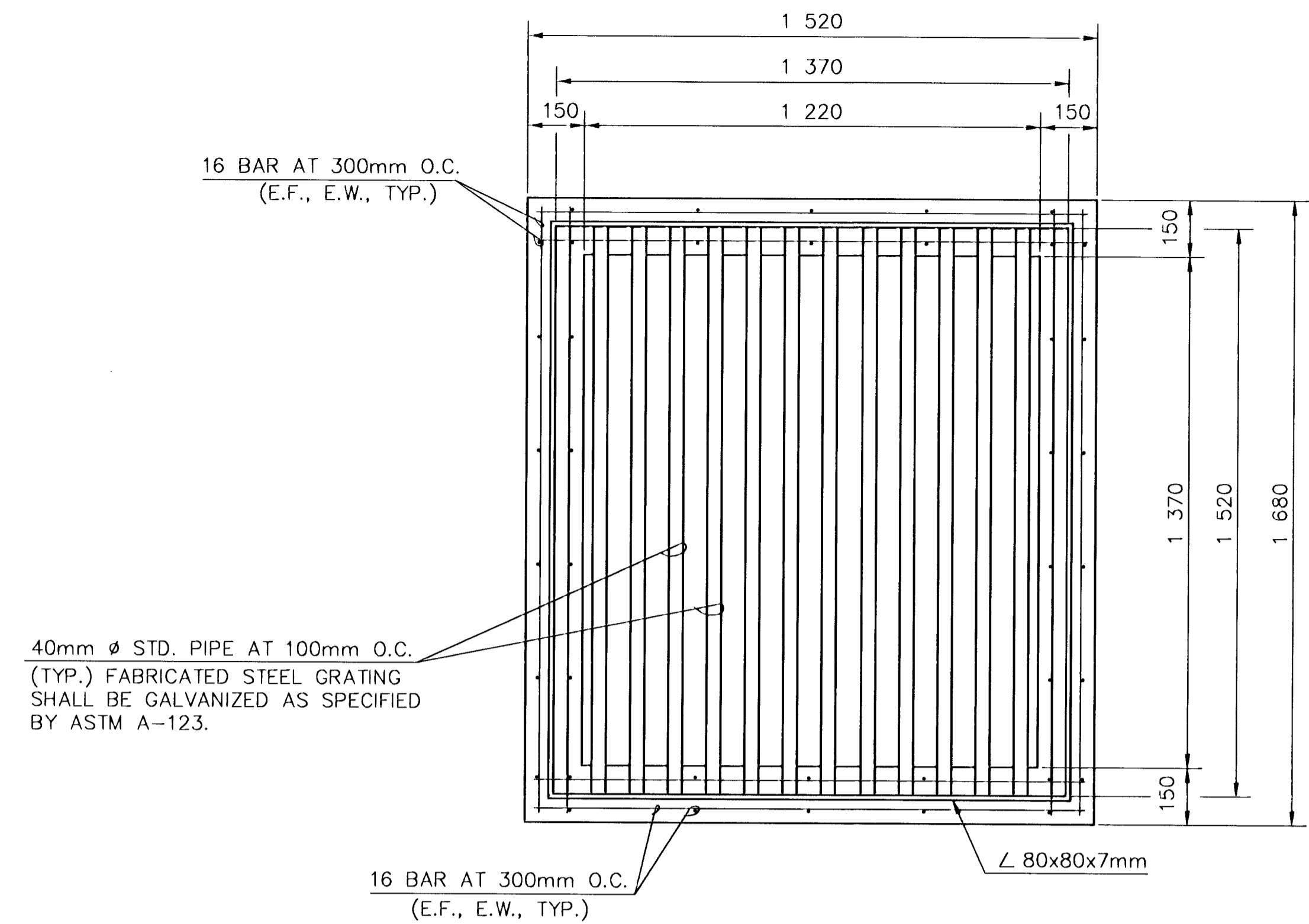


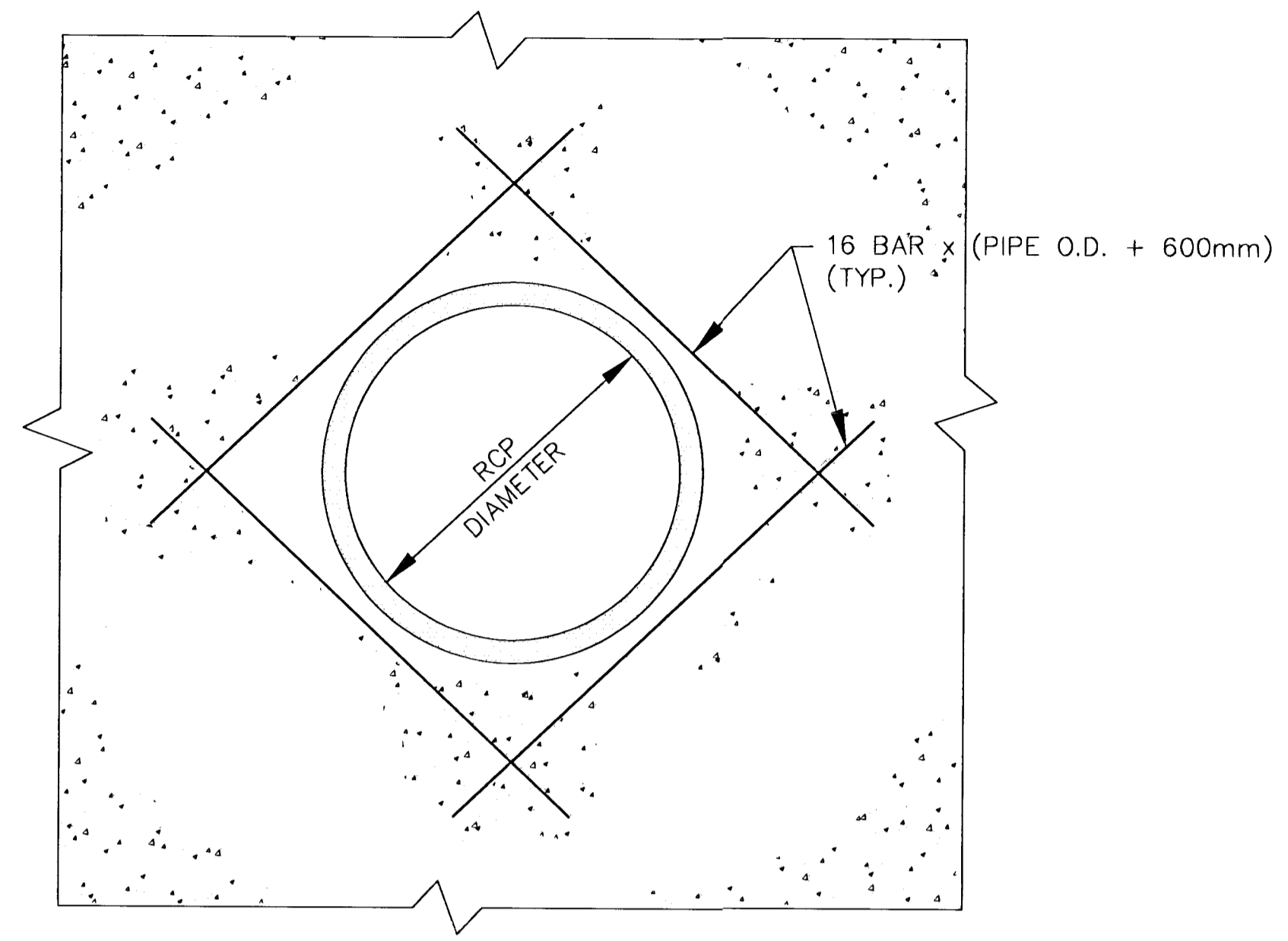
FHWA REG NO.	STATE	PROJECT NO.	YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	87-N-0200-01	2001	19	78

BY	DATE
REFERENCES NOTED	
REFERENCES CHECKED	



**PLAN VIEW**

CONTRACTOR MAY SUBSTITUTE 200mm BRICK WALL FOR 150mm REINFORCED CONCRETE WALL.

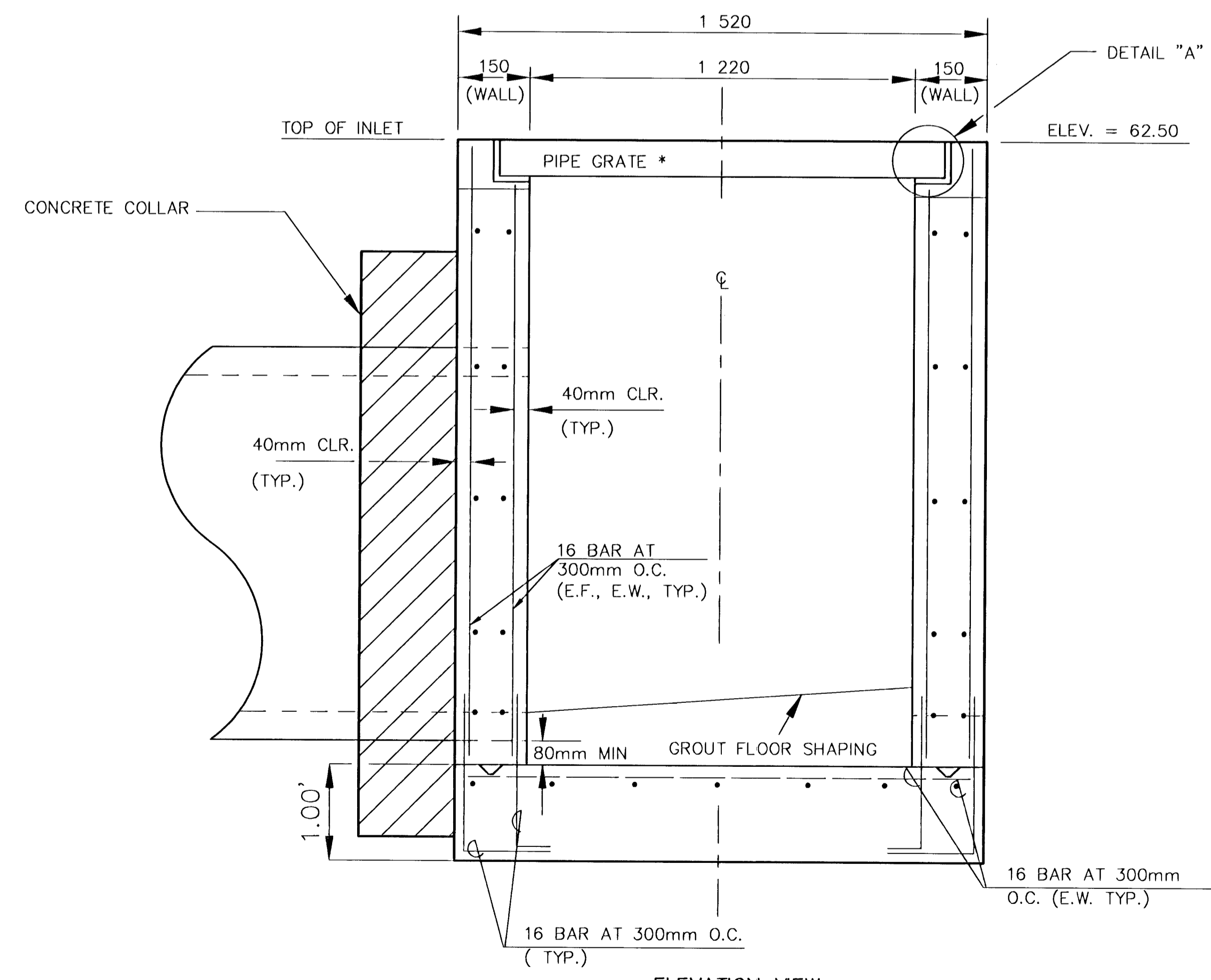


NOTE:  
CUT REINFORCING AS REQUIRED TO CLEAR RCP.

**TYPICAL REINFORCING AT PIPE**

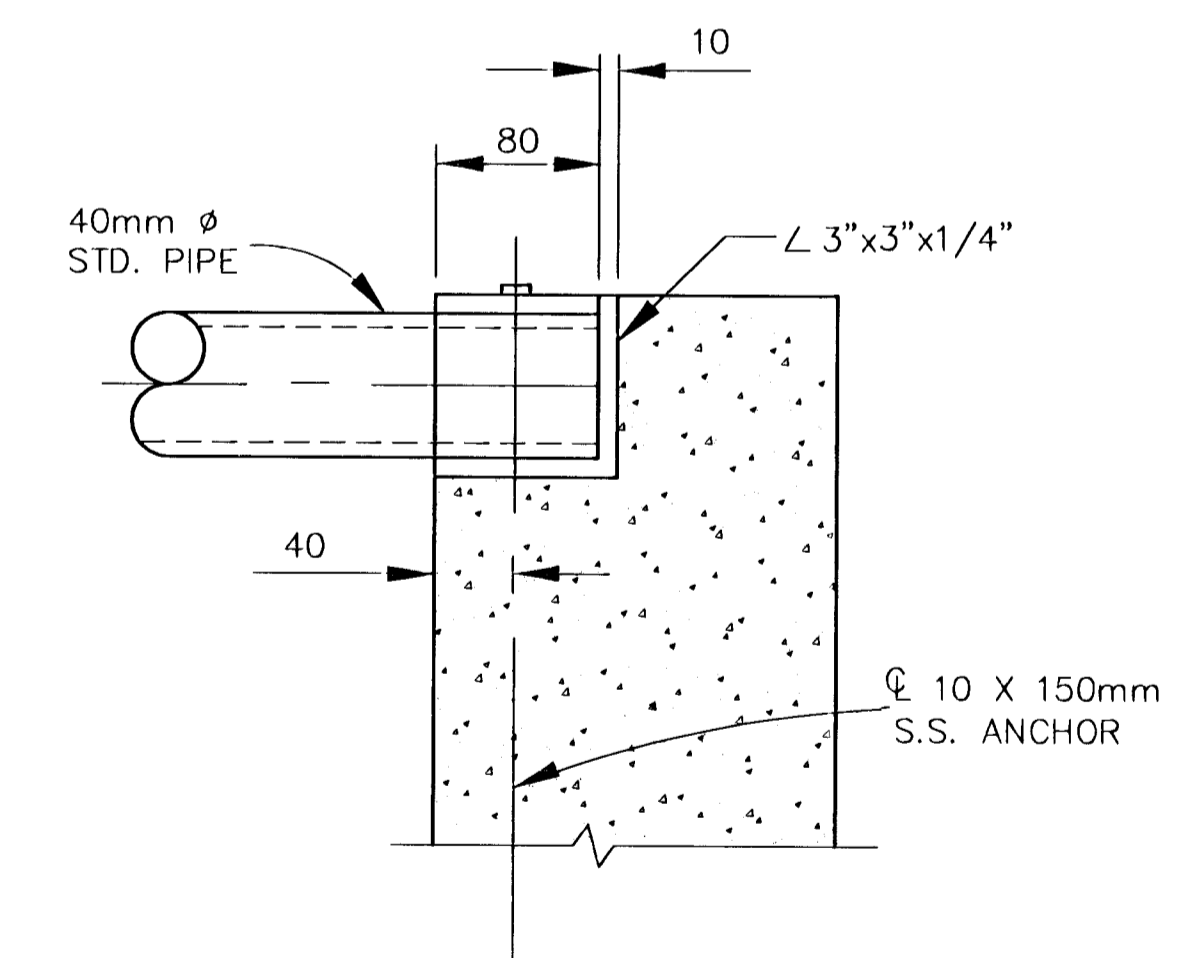
**MATERIAL SPEC'S**

- MORTAR - TYPE "M"
- BRICK - ASTM C62 GRADE MW
- STEEL - ASTM A36 OR EQUIVALENT GALV. ASTM A-123 STDS.
- CONCRETE -  $F'_c = 4,000$  PSI MINIMUM WITH 6 SACKS OF CEMENT PER CUBIC YARD MINIMUM.



**ELEVATION VIEW**

**REINFORCED CONCRETE AREA INLET**



NOTE:  
FABRICATED STEEL GRATING SHALL BE GALVANIZED AS SPECIFIED BY ASTM A-123.

**DETAIL "A"**

ORIFICE EQUATION				
$Q = C \cdot A \cdot \sqrt{2gh}$				
h (DEPTH)	2g	C	A	Q
0.5	64.4	0.7	8.625	34.3 cfs
1.0	64.4	0.6	8.625	41.5 cfs
2.0	64.4	0.6	8.625	58.7 cfs
2.0	64.4	0.7	8.625	68.5 cfs
3.0	64.4	0.6	8.625	71.9 cfs
4.0	64.4	0.6	8.625	83.1 cfs
5.0	64.4	0.6	8.625	92.9 cfs
6.0	64.4	0.6	8.625	101.7 cfs
7.0	64.4	0.6	8.625	109.9 cfs
8.0	64.4	0.6	8.625	117.5 cfs

NO.	DATE	REVISIONS	BY	APP'D
KANSAS DEPARTMENT OF TRANSPORTATION				
21ST STREET NORTH REINFORCED CONCRETE AREA INLET PROJ. NO. 87-N-0200-01				
MKEC ENGINEERING CONSULTANTS, INC. WICHITA, KANSAS				
DESIGNED BY:	DFL	CHECKED BY:	GJA	
DRAWN BY:	DAG	DATE:	JUNE 2001	SHEET 19 OF 72

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