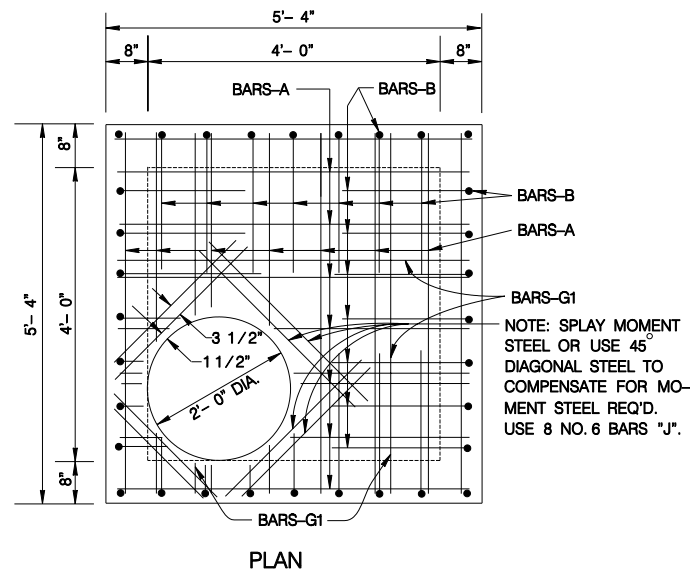
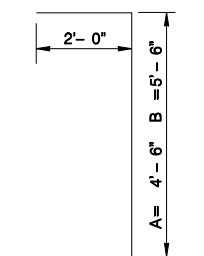


PLAN

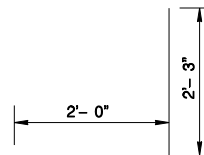


PLAN

JUNCTION BOX TOP SLAB SHOWING STEEL



BARS-B

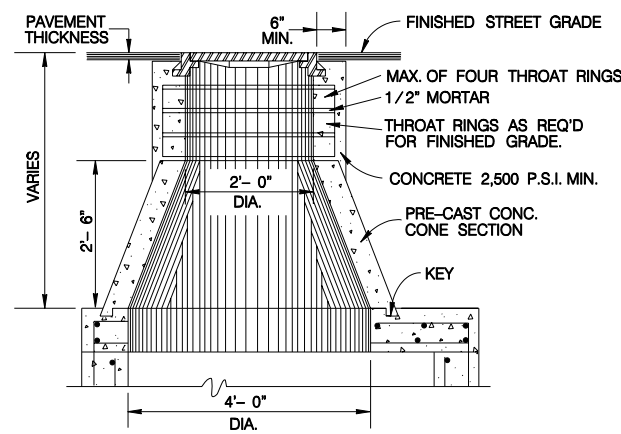


BARS-C

SCHEDULE FOR REINFORCING STEEL						
SHAPE	BAR	NO.	SIZE	SPACING	LENGTH	WEIGHT
STRAIGHT	A	16	4	9" O.C.	5'-1"	54
	B	32	5	8" O.C.	6'-10"	228
	C	32	5	8" O.C.	4'-3"	142
STRAIGHT	D	16	4	9" O.C.	5'-1"	54
STRAIGHT	E	16	3	12" O.C.	3'-11"	24
STRAIGHT	G	16	4	12" O.C.	5'-1"	54
STRAIGHT	G <sub>1</sub>	8	4	AS SHOWN	5'-1"	27
STRAIGHT	H	20	3	12" O.C.	4'-5"	33
STRAIGHT	J	8	6	3 1/2"	2'-10"	34
TOTAL						650 LBS.

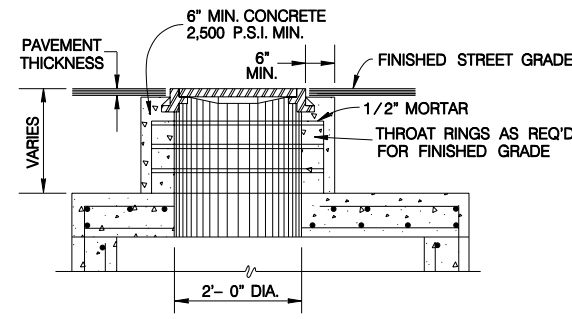
CLASS "A" CONCRETE- 3.43 CU. YDS. (DOES NOT EXCLUDE MANHOLE OPENINGS OR PIPE OPENING)

\* NOTE: BAR SIZE AND SPACING BASED ON SPANS AS SHOWN - ANY REVISIONS TO THESE SPANS SHALL INCLUDE A RE-DESIGN ON STEEL REQ'D.



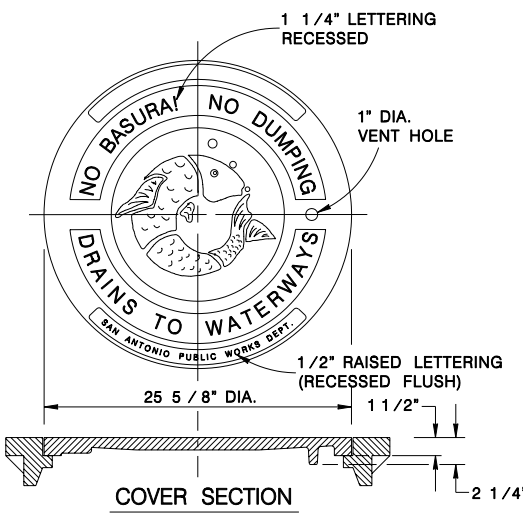
VARIATION OF VERTICAL STACK

VERTICAL STACK DESIGN SHALL BE GOVERNED BY THE DEPTH OF THE TOP OF THE JUNCTION BOX BELOW THE FINISHED STREET GRADE.



MANHOLE LID & RING DETAIL

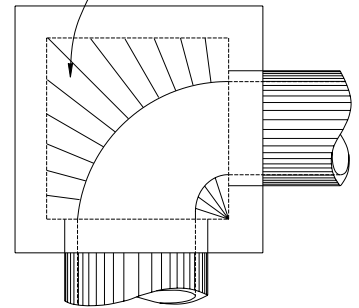
SCALE: 1:16



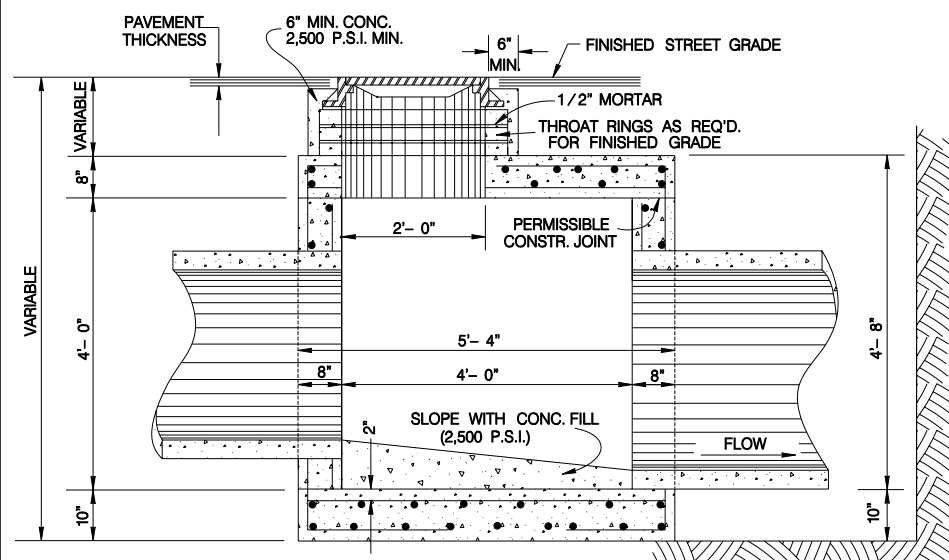
NOTES FOR MANHOLE LID AND RING

- FOR LID DESIGN OUTSIDE OF CITY OF SAN ANTONIO, DELETE "SAN ANTONIO PUBLIC WORKS DEPT.".
- CASTING NUMBER AND MANUFACTURER'S I.D. ON LID AND RING.
- LOAD BEARING CAPABILITY OF HS-20 MINIMUM.
- THE LOAD BEARING SURFACES SHALL BE MACHINE GROUND.
- THE COMBINED WEIGHT OF THE MANHOLE RING AND COVER MUST BE AT LEAST 260 LBS.

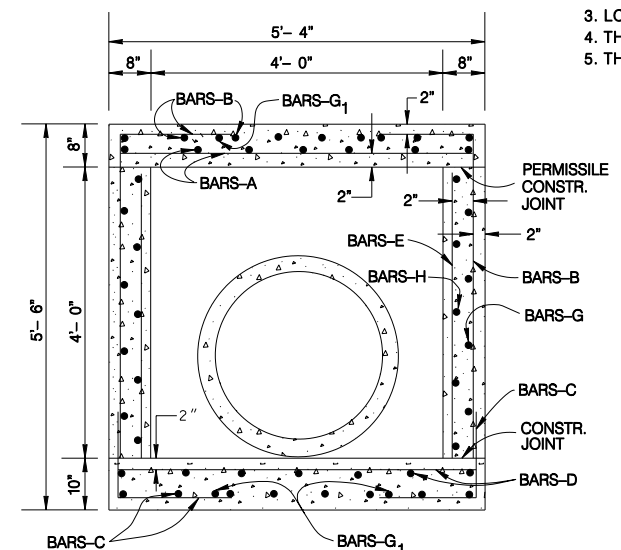
FILL TO SPRING LINE OF PIPE WITH 2,500 P.S.I. CONCRETE NON-PAY ITEM. COST SUBSIDIARY TO CLASS "A" CONCRETE (JUNCTION BOX).



CURVED DEFLECTOR DETAIL



SECTION A-A



SECTION B-B

JANUARY 2005

CITY OF SAN ANTONIO  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

4'x4'x4' JUNCTION BOX  
STANDARDS

DRWN. BY:	DGN. BY:	CHKD. BY:	DATE:
% SUBMITTAL	PROJECT NO.:	SHEET NO. OF	