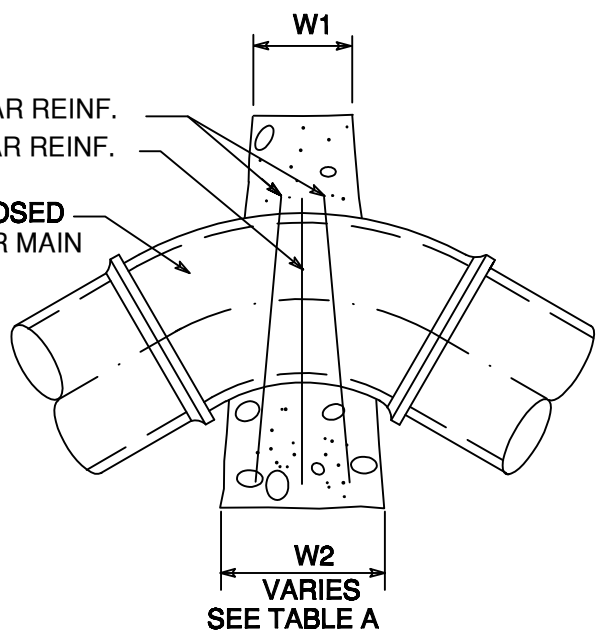


DOUBLE BAR REINF.
SINGLE BAR REINF.

PROPOSED
WATER MAIN



REINFORCEMENT SHALL BE PROVIDED AS FOLLOWS

6"-12" PIPE	1#5
14"-30" PIPE	2#5'S
36"-48" PIPE	2#7'S

VERTICAL DOWN BEND

TABLE A
UPWARD THRUST GRAVITY BLOCKS

PIPE DIA.	MIN. TOP WIDTH W1	ANGLE (degrees)	BOTTOM WIDTH- W2 (in)
6"	6"	0-5	NOTE 2
		5-15	24
		15-25	48
		> 25	NOTE 1
8"	6"	0-5	NOTE 2
		5-9	30
		9-15	36
		> 15	NOTE 1
12"	6"	0-5	NOTE 2
		5-15	48
		> 15	NOTE 1
16"	12"	0-5	NOTE 2
		5-10	60
		10-15	96
		> 15	NOTE 1
24" THRU 36" DIA.		> 5.0	NOTE 1
42" THRU 48" DIA.		> 3.0	NOTE 1

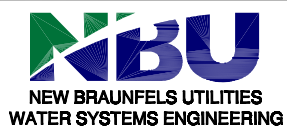
NOTES:

- 1- FOR ANGLES GREATER THAN THOSE INDICATED RESTRAINED JOINTS SHALL BE INSTALLED
- 2- FOR JOINT DEFLECTIONS LESS THAN 5 DEGREES, NO HORIZONTAL OR VERTICAL THRUST RESTRAINT IS REQUIRED FOR PIPES LESS THAN 42" IN DIAMETER.

THRUST BLOCK DESIGN AS FOLLOWS

- A. PRESSURE OF 150 P.S.I. (ACTUAL IF HIGHER) + 50 % SURGE ALLOWANCE
- B. MAXIMUM SOIL BEARING SEE TABLE BELOW

SOIL TYPES	PRESSURE
LOOSE OR SPONGY SOIL	1500 Lb/Sq.Ft.
UNDISTURBED SOIL, CALICHE	2000 Lb/Sq.Ft.
LIMESTONE ROCK	4000 Lb/Sq.Ft.



DRAWN BY:
JD Amaro
APPROVED BY:

STANDARD DRAWING:

CONCRETE THRUST BLOCKING

UPDATED: **4-16-03** SCALE: **N.T.S.** SHEET: **1 OF 2** DRAWING NO. **221**