



TYPICAL SECTION
VERTICAL THRUST DOWNWARD

NOT TO SCALE

NOTES:

1. ALL CONCRETE SHALL HAVE A MIN. COMPRESSIVE STRENGTH OF 2500 P.S.I.
2. ALL FITTINGS AND JOINTS SHALL BE COVERED WITH POLYETHYLENE FILM BEFORE PLACING CONCRETE.
3. PAINT ALL EXPOSED STEEL WITH TWO COATS OF VALDURA PAINT OR APPROVED EQUAL.
4. FOR THE REQUIRED BEARING SURFACE SEE STANDARD DETAIL.

BEARING SURFACE REQUIRED – SQ. FT.																
HORIZONTAL THRUST BLOCKING AND VERTICAL THRUST DOWNWARD																
100 P.S.I. WORKING PRESSURE																
PIPE SIZE	6" & 8"				10" & 12"				16" 18" 20"				24"			
	DEGREE OF BEND OR DEFLECTION															
TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS	22.5°	45°	90°	D.E.	22.5°	45°	90°	D.E.	22.5°	45°	90°	D.E.	22.5°	45°	90°	D.E.
SAND 0.75 TON/SQ.FT.	3.4	6.0	11.0	6.4	6.7	12.8	23.4	14.2	14.8	28.8	52.9	34.4	26.1	48.3	89.7	64.0
SOFT CLAY 1 TON/SQ.FT.	2.6	4.6	8.2	4.8	5.0	9.6	17.5	10.7	11.2	21.7	39.7	28.2	19.6	36.3	67.3	48.0
SAND & GRAVEL 2 TON/SQ.FT.	1.3	2.3	4.1	2.4	2.5	4.8	8.8	5.3	5.6	10.8	20.0	14.1	9.8	13.1	33.6	24.0
CLAY 4 TON/SQ.FT.	1.0	1.2	2.1	1.3	1.3	2.4	4.4	2.7	2.8	5.4	10.0	7.2	4.9	9.1	16.8	12.0
SOFT ROCK 5 TON/SQ.FT.	1.0	1.0	1.6	1.0	1.0	1.9	3.5	2.2	1.6	4.4	8.0	5.7	3.9	7.3	13.5	9.6
ROCK 15 TON/SQ.FT.	–	–	1.0	0.4	–	1.0	1.2	0.8	1.0	1.4	2.6	1.9	1.3	2.4	4.5	3.2

REVISED 7/4/12

DOWNWARD THRUST BLOCK

PREPARED FOR:

PERKASIE REGIONAL AUTHORITY



**ANDERSEN
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