

MINIMUM SQUARE FEET OF BEARING SURFACE REQUIRED FOR HORIZONTAL THRUST BLOCKING AND VERTICAL THRUST DOWNWARD

PIPE SIZES	6" AND 8"				10" AND 12"				14" AND 16"			
	DEGREE BEND OR DEFLECTION				DEGREE BEND OR DEFLECTION				DEGREE BEND OR DEFLECTION			
	11 1/4"	22 1/2"	45"	90"	11 1/4"	22 1/2"	45"	90"	11 1/4"	22 1/2"	45"	90"
SAND 1 TON/SQ. FT. SOFT CLAY 1 TON/SQ. FT.	1.50	3.00	6.00	12.00	3.00	6.00	12.00	24.50	5.50	11.00	21.50	43.00
SAND & GRAVEL 2 TON/SQ. FT.	1.00	1.50	3.00	6.00	1.50	3.00	6.00	12.00	2.50	5.50	11.00	21.50
CLAY 3 TON/SQ. FT.	1.00	1.00	2.00	4.00	1.00	2.00	4.00	8.00	2.00	3.50	7.00	14.00
SOFT ROCK 5 TON/SQ. FT.	1.00	1.00	1.00	2.50	1.00	1.00	2.50	5.00	1.00	2.00	4.50	8.50
ROCK 20 TON/SQ. FT.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00

PIPE SIZES	18" AND 20"				24"				30"			
	DEGREE BEND OR DEFLECTION				DEGREE BEND OR DEFLECTION				DEGREE BEND OR DEFLECTION			
	11 1/4"	22 1/2"	45"	90"	11 1/4"	22 1/2"	45"	90"	11 1/4"	22 1/2"	45"	90"
SAND 1 TON/SQ. FT. SOFT CLAY 1 TON/SQ. FT.	8.50	16.50	33.00	66.00	13.6	27	52	97	21.3	41.4	81	150
SAND & GRAVEL 2 TON/SQ. FT.	4.00	8.50	16.50	33.00	6.8	13.5	26	48.5	10.6	20.7	40.5	75
CLAY 3 TON/SQ. FT.	3.00	5.50	11.00	22.00	4.5	9	17.3	32.3	7.1	13.8	27.0	50
SOFT ROCK 5 TON/SQ. FT.	1.50	3.50	6.50	13.00	2.7	5.4	10.4	19.4	4.2	8.3	16.2	30
ROCK 20 TON/SQ. FT.	1.00	1.00	1.50	3.50	.68	1.3	2.6	4.8	1.06	2.07	4.05	7.5

PIPE SIZES	36"				42"				48"				54"				60"			
	DEGREE BEND OR DEFLECTION				DEGREE BEND OR DEFLECTION				DEGREE BEND OR DEFLECTION				DEGREE BEND OR DEFLECTION				DEGREE BEND OR DEFLECTION			
	11 1/4"	22 1/2"	45"	90"	11 1/4"	22 1/2"	45"	90"	11 1/4"	22 1/2"	45"	90"	11 1/4"	22 1/2"	45"	90"	11 1/4"	22 1/2"	45"	90"
SAND 1 TON/SQ. FT. SOFT CLAY 1 TON/SQ. FT.	30.6	59.6	117	220	41.6	81	160	294	54.4	106	210	384	69	134	263	486	85	165.5	324.6	600
SAND & GRAVEL 2 TON/SQ. FT.	15.3	29.8	58.5	110.0	20.8	40.5	80	147	27.2	53	105	192	34.5	67	131.5	243	42.5	82.7	162.3	300
CLAY 3 TON/SQ. FT.	10.2	19.9	39	73.3	13.8	27	53.3	98	18.1	35.3	70	128	23	44.6	87.6	162	28.3	55.1	108.2	200
SOFT ROCK 5 TON/SQ. FT.	6.1	11.9	23.4	44	8.3	16.2	32	58.8	10.9	21.2	42	76.8	13.8	26.8	52.6	97.2	17	33.1	64.9	120
ROCK 20 TON/SQ. FT.	1.5	2.9	5.8	11	2.08	4.05	8	14.7	2.7	5.3	10.5	19.2	3.4	6.7	13.1	24.3	4.2	8.2	16.2	30

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**SCOTT TOWNSHIP AUTHORITY
STANDARD DETAILS**

COLUMBIA COUNTY

PENNSYLVANIA

PROJ. MGR. - JJM
DESIGN - WRB
CADD - RSF
CHECKED -
SCALE - N.T.S.
DATE - OCT. 2011

DETAIL NO. D25
SHEET NO. 4 OF 5
PROJECT 005755.0426