



PVC DESIGN:  
 SOIL TYPE: SM  
 TRENCH TYPE: 5  
 COVER: 3' ≤ 12" DIA.  
           4' > 12" DIA.  
 TEST PRESSURE: 150 PSI

PVC LINE						
PIPE DIA.	BEND ANGLE					
	11 1/4°		22 1/2°		45°	
	L <sub>u</sub>	L <sub>L</sub>	L <sub>u</sub>	L <sub>L</sub>	L <sub>u</sub>	L <sub>L</sub>
4	4	1	8	1	17	3
6	6	1	11	2	23	3
8	8	1	15	2	30	4
10	9	2	18	3	36	5
12	11	2	21	3	43	6
16	10	2	21	4	42	8
20	13	3	25	5	51	9
24	15	3	29	5	60	11

PE WRAPPED DIP:  
 SOIL TYPE: SM  
 TRENCH TYPE: 5  
 COVER: 3'  
 TEST PRESSURE: 150 PSI

POLYETHYLENE WRAPPED DUCTILE IRON LINE						
PIPE DIA.	BEND ANGLE					
	11 1/4°		22 1/2°		45°	
	L <sub>u</sub>	L <sub>L</sub>	L <sub>u</sub>	L <sub>L</sub>	L <sub>u</sub>	L <sub>L</sub>
4	6	1	12	2	24	3
6	9	1	17	2	34	4
8	11	2	22	3	45	5
10	13	2	26	3	53	6
12	15	2	30	3	63	7
16	19	2	39	4	80	9
20	23	3	47	5	97	10
24	27	3	55	6	113	12

NOTES:

1. LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIA. IS IN INCHES
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER

FORCE MAIN VERTICAL BEND RESTRAINT

STANDARD  
 CONSTRUCTION  
 DETAILS



CITY OF  
*savannah*  
 WATER RESOURCES AND PUBLIC WORKS BUREAU  
 Planning & Engineering

SCALE: N.T.S.  
 DATED: JAN 2017  
 PLATE NUMBER:  
 S5