

HORIZONTAL REQUIREMENTS:
ZONE 1: MORE THAN 10 FEET APART
 NO SPECIAL REQUIREMENTS
ZONE 2: FROM 6 TO 10 FEET APART
 A. No special requirements for service lines.
 B. Potable and non-potable mains separated by at least 6 feet at outside walls and:
 i. Potable mains higher in elevation than the non-potable mains and
 ii. Non-potable mains constructed to with potable water class pipe and pressure tested for water tightness.
ZONE 3: CLOSER THAN 6 FEET APART
 NOT ALLOWED

VERTICAL REQUIREMENTS:
ZONE 1: POTABLE LINE 18" OVER NON-POTABLE LINE
 Potable water and non-potable mains and service lines must be separated by at least 18 inches and one full, uncut length of non-potable pipe must be centered on the crossing so that the joints are as far as possible from the crossing.
ZONE 2: POTABLE LINE < 18" OVER NON-POTABLE LINE
 One full, uncut length of non-potable pipe must be centered on the crossing so that the joints are as far as possible from the non-potable line and either a or b.
 a) Non-potable line must be constructed to potable water pipe standards and pressure tested for water tightness for a horizontal distance of ten feet on both sides of the crossing.
 b) Non-potable or potable line must be cased in a larger diameter carrier pipe for a horizontal distance of ten feet on both sides of the crossing, with no joints.
ZONE 3: POTABLE WATER < 18" UNDER NON-POTABLE LINE
 Same requirements as Zone 2 except the non-potable line must also be supported above the crossing to prevent settling.
ZONE 4: POTABLE WATER 18" UNDER NON-POTABLE LINE
 Same requirements as Zone 1 except the non-potable line must also be supported above the crossing to prevent settling.

GENERAL NOTES:
 1. Sewage force mains shall have at least ten feet of horizontal separation and eighteen inches of clearance from potable water mains. Zone 2 and 3 placements are prohibited.
 2. Separation requirements also apply to potable and non-potable service lines controlled by the system owner and extending the main line to the property line, service meter, or cleanout.

CITY OF LEWISTON, IDAHO
 PUBLIC WORKS DEPARTMENT
POTABLE & NON-POTABLE WATERLINE SEPARATION
 APPROVED FOR PUBLICATION DWG. NO. 4-1
 City Engineer Date 11/9/09

CITY OF LEWISTON, IDAHO
 PUBLIC WORKS DEPARTMENT
GATE VALVE BOX WITH ASSEMBLY
 APPROVED FOR PUBLICATION DWG. NO. 4-2
 City Engineer Date 11/9/09

CITY OF LEWISTON, IDAHO
 PUBLIC WORKS DEPARTMENT
THRUST BLOCKING DETAIL
 APPROVED FOR PUBLICATION DWG. NO. 4-4
 City Engineer Date 11/9/09

Fitting Size	BEARING AREA OF THRUST BLOCKS IN SQ. FT.				
	TEE, Wye, Plug or Cop	90° Bend	45° Bend	22 1/2° Bend	11 1/4° Bend
4	1.0	1.4	1.0	---	---
6	2.1	3.0	1.6	1.0	---
8	3.8	5.3	2.9	1.5	1.0
10	5.9	8.4	4.6	2.4	1.2
12	8.5	12.0	6.6	3.4	1.7
14	11.5	16.3	8.9	4.6	2.3
16	15.0	21.3	11.6	6.0	3.0
18	19.0	27.0	14.6	7.6	3.8
20	23.5	33.3	18.1	9.4	4.7
24	34.0	48.0	26.2	13.6	6.8

Fitting Size	VOLUME OF THRUST BLOCK IN CU. YD.				
	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND	---
4	---	---	---	---	---
6	1.3	---	---	---	---
8	2.3	1.1	---	---	---
10	3.7	1.8	---	---	---
12	5.5	2.8	1.2	---	---
14	7.6	3.9	1.7	---	---
16	9.9	5.1	2.3	0.9	---
18	---	6.3	3.2	1.4	---
20	---	7.7	4.0	1.8	---
24	---	11.1	5.7	2.6	---

CITY OF LEWISTON, IDAHO
 PUBLIC WORKS DEPARTMENT
FIRE HYDRANT W/ SHUT-OFF VALVE
 APPROVED FOR PUBLICATION DWG. NO. 4-12
 City Engineer Date 11/9/09

CITY OF LEWISTON, IDAHO
 PUBLIC WORKS DEPARTMENT
WASTEWATER TYPE 1 MANHOLE
 APPROVED FOR PUBLICATION DWG. NO. 5-3
 City Engineer Date 12/12/10

CITY OF LEWISTON, IDAHO
 PUBLIC WORKS DEPARTMENT
WASTEWATER CONCRETE MANHOLE COLLAR
 APPROVED FOR PUBLICATION DWG. NO. 5-6
 City Engineer Date 12/12/10

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RIEDEL Engineering

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NO.	DATE BY	DESCRIPTION
1	11/12/09	REVISED PER CITY COMMENTS
2	11/12/09	REVISED PER CITY COMMENTS
3	11/12/09	REVISED PER CITY COMMENTS
4	11/12/09	REVISED PER CITY COMMENTS
5	11/12/09	REVISED PER CITY COMMENTS
6	11/12/09	REVISED PER CITY COMMENTS

HARRY WALL INDUSTRIAL PARK
 INFRASTRUCTURE EXTENSION PROJECT
 2013
 DETAILS

REGISTERED PROFESSIONAL ENGINEER
 No. 13055
 State of Idaho
 P. MORTENSON

DESIGNED
 BJW
 DESIGN CHECKED
 JRW / JPM
 DETAILED
 BJW
 DRAWING CHECKED
 JRW / JPM
 FILE NAME
 2080-DETAILS.dwg
 DRAWING DATE
 1/4/13
 DRAWING SCALE
 AS SHOWN
 SHEET 9 OF 10