THRUST BLOCK SIZING FOR 250 PSI PRESSURE

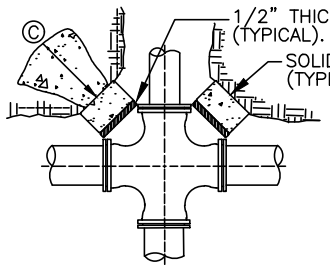
MIN. BEARING AREA AGAINST UNDISTURBED SOIL IN SQUARE FEET.

PIPE SIZE	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
4"	3/(2)	2/(1)	2/(1)	1/(1)	1/(1)
6"	6/(4)	4/(3)	3/(2)	2/(1)	1/(1)
8"	10/(7)	7/(5)	5/(4)	3/(2)	2/(1)
10"	15/(10)	11/(7)	8/(5)	4/(3)	2/(2)
12"	22/(14)	15/(10)	12/(8)	6/(4)	3/(2)
14"	29/(20)	21/(14)	16/(11)	8/(5)	4/(3)
16"	38/(26)	27/(18)	21/(14)	11/(7)	5/(4)

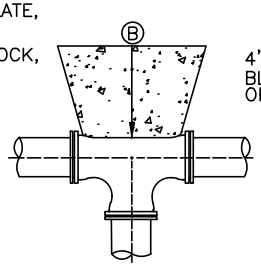
SAFE BEARING LOADS IN LBS./SQ. FT.

THE SAFE BEARING LOADS GIVEN IN THE FOLLOWING TABLE ARE FOR HORIZONTAL THRUSTS WHEN THE DEPTH OF COVER OVER THE PIPE EXCEEDS 2 FEET.

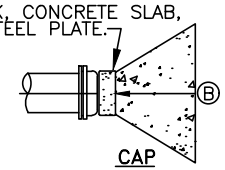
SOIL	SAFE SOIL BEARING LOAD
*MUCK, PEAT, ETC.	SEE GENERAL NOTE #7
SOFT CLAY	1,000
SAND	2,000
SAND AND GRAVEL	3,000
SAND AND GRAVEL CEMENTED W/CLAY	4,000
HARD SHALE	10,000



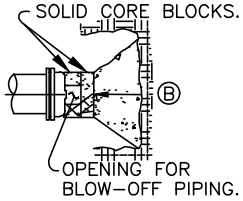
UNBALANCED CROSS



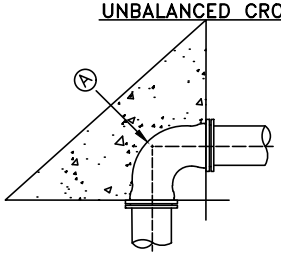
TEE



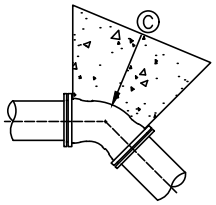
CAP



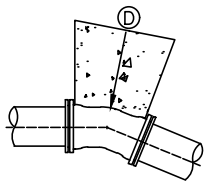
TAPPED CAP/PLUG



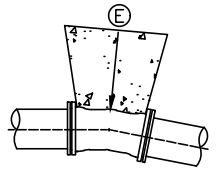
90° BEND



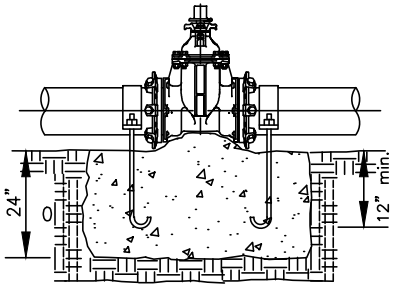
45° BEND



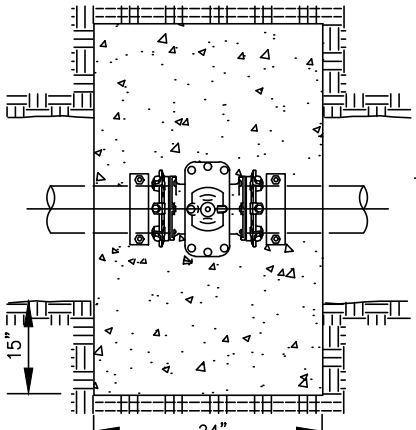
22½° BEND



11¼° BEND



INLINE VALVE – PROFILE



INLINE VALVE – PLAN

NOTE:
BLOCKING AT VALVES IF LINE WILL BE EXTENDED.

NO SCALE

NOTES:

1. CONCRETE THRUST BLOCK AREA BASED UPON A SAFE SOIL BEARING LOAD OF 2,000/(3,000) LBS. PER SQ. FT (SAND/(SAND GRAVEL)).
2. AREAS MUST BE ADJUSTED FOR OTHER SIZE PIPE, PRESSURES AND SOIL CONDITIONS.
3. CONCRETE BLOCKING SHALL BE CAST-IN-PLACE AND HAVE MINIMUM OF 1/2 SQUARE FOOT CONTACT BEARING AGAINST THE FITTING.
4. BLOCK SHALL BEAR AGAINST FITTINGS ONLY AND SHALL BE CLEAR OF JOINTS TO PERMIT TAKING UP OR DISMANTLING JOINT. INSTALL 8 MIL. PLASTIC SHEETING BETWEEN FITTING AND BLOCK.
5. CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.
6. POLYETHYLENE WRAP NOT SHOWN FOR CLARITY. IN MUCK OR PEAT, PIPE AND FITTING RESTRAINT SHALL BE AS DIRECTED BY THE TOWN.
7. CONCRETE BLOCKING AREA IS BASED ON 250 PSI WATER PRESSURE AND 2500 PSI CONCRETE STRENGTH.
8. HARDWARE NOT EMBEDDED IN CONCRETE SHALL BE CLEAN AND COATED WITH COAL TAR EPOXY.

TOWN OF FRIDAY HARBOR Incorporated 1909 WASHINGTON

APPROVAL

Wayne R. Hanfelt

PUBLIC WORKS DIRECTOR

THRUST BLOCKING HORIZONTAL BENDS AND VALVES

DATE 01/21/2022

DRAWING NO. W-7

REV: