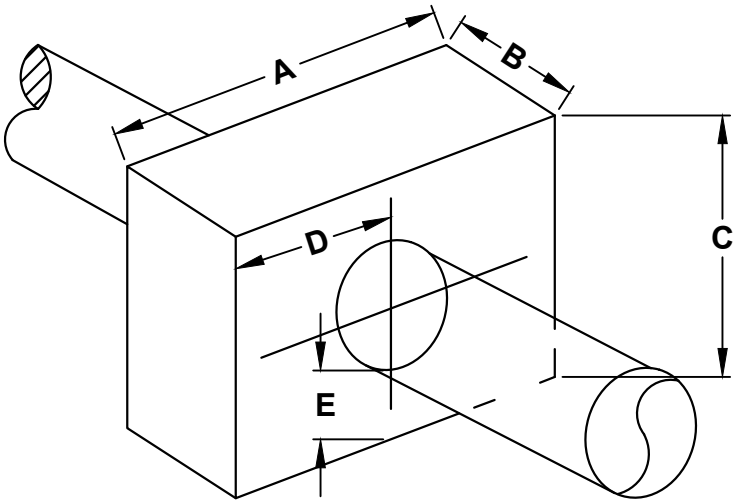

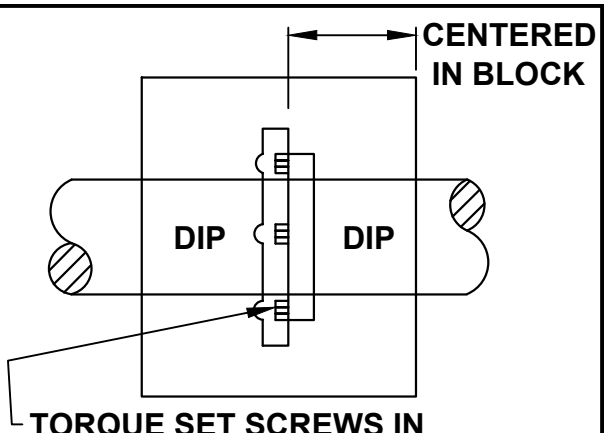

TORQUE SET SCREWS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSPECTOR MUST WITNESS INSTALLATION.

MINIMUM DIMENSIONS IN FEET FOR CONCRETE COLLAR ON DUCTILE IRON PIPE TO BE USED WITH EMBEDDED DUCTILE IRON RETAINER GLAND.

PIPE SIZE	A	B	C	D	E	VOLUME CU YDS	CONC WT	THRUST
4"	3' - 6"	3' - 0"	1' - 5"	1' - 6"	1' - 0"	0.55	2230	3150
6"	4' - 0"	3' - 0"	2' - 7"	2' - 0"	1' - 0"	1.15	4650	7070
8"	4' - 6"	3' - 0"	3' - 0"	2' - 3"	1' - 3"	1.5	6075	12,570
10"	5' - 2"	3' - 0"	3' - 2"	2' - 7"	1' - 3"	1.81	7330	19,635
12"	5' - 9"	3' - 0"	3' - 8"	2' - 10.5"	1' - 8"	2.34	9475	28,775
14"	6' - 6"	3' - 0"	4' - 0"	3' - 3"	1' - 9"	2.89	11,700	38,490
16"	6' - 9"	3' - 0"	4' - 9"	3' - 3"	2' - 3"	3.56	14,410	50,270

NOTES:

1. SOIL CONDITIONS SHALL BE VERIFIED BY THE ENGINEER BEFORE THRUST RESTRAINT DESIGN IS IMPLEMENTED.
2. PIPE MUST BE DUCTILE IRON.

DESIGN DATA:

1. DIMENSION OF THRUST RESTRAINT IN FEET BASED ON 2000 POUNDS PER SQUARE FOOT SOIL BEARING PRESSURE AND 250 PER SQUARE INCH TEST PRESSURE. ACTUAL INSIDE DIAMETER OF DUCTILE IRON PIPE, CLASS 50, USED AS STANDARD.
2. CONCRETE SHALL BE CLASS A, 3000 PSI.
3. UNDER ADVERSE CONSTRUCTION CONDITIONS, CONCRETE SHALL BE "HIGH EARLY" TYPE.
4. ALLOW CONCRETE TO SETUP A MINIMUM OF 6 HOURS BEFORE PLACING BACKFILL.

CUMMING UTILITIES

LATEST REVISION

07/14/2017

CITY OF CUMMING

DEPARTMENT OF UTILITIES

THRUST RESTRAINT CONCRETE COLLAR

DETAIL NUMBER:

S-20

SCALE: NOT TO SCALE