

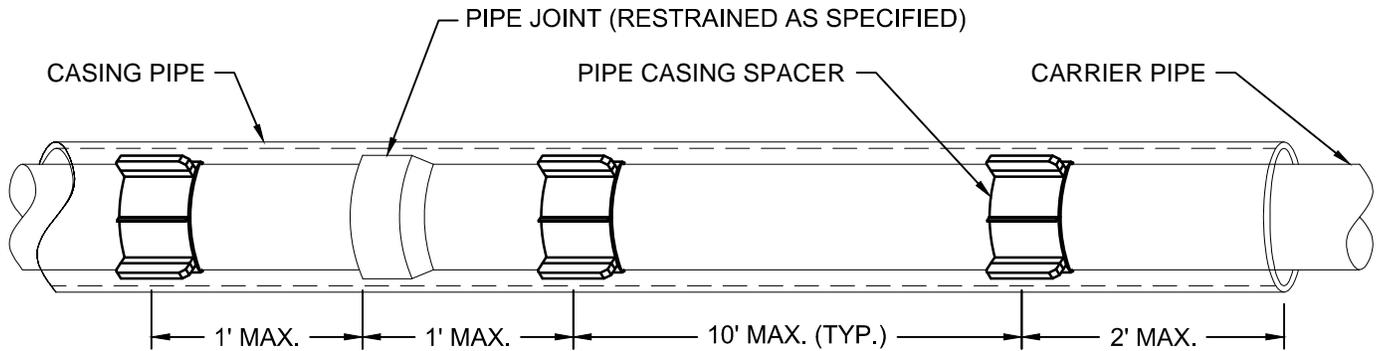


# CASING SPACERS (TYPICAL)

Created: January 1, 2002

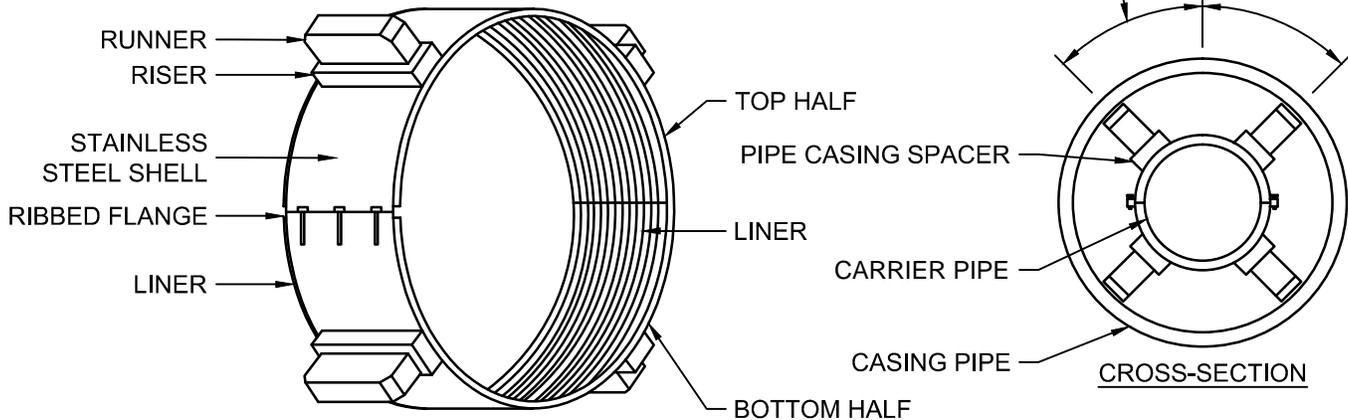
Revised: January 5, 2015

Scale: N.T.S.



| CARRIER PIPE |             |             |
|--------------|-------------|-------------|
| PIPE SIZE    | CASING O.D. | THICKNESS * |
| 6"           | 16"         | 1/4"        |
| 8"           | 18"         | 1/4"        |
| 10"          | 20"         | 5/16"       |
| 12"          | 24"         | 5/16"       |
| 16"          | 30"         | 3/8"        |
| 18"          | 30"         | 3/8"        |
| 20"          | 36"         | 1/2"        |
| 24"          | 42"         | 1/2"        |

ANGLES TO BE CONSTANT AROUND ENTIRE CIRCUMFERENCE OF THE PIPE. NUMBER OF SPACERS PER MANUFACTURER'S SPECIFICATIONS



**NOTES:**

1. CASING SPACERS SHALL BE CCS SERIES BY CASCADE WATERWORKS MFG. ALTERNATE CASING SPACERS MAY BE USED WITH PRIOR APPROVAL FROM CITY UTILITIES PROJECT ENGINEER.
2. CITY UTILITIES APPROVED CASING SPACERS AND END SEALS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. USE A "CENTERED" CONFIGURATION AND PROVIDE THE MANUFACTURER WITH THE FOLLOWING INFORMATION: CARRIER PIPE O.D., CASING PIPE I.D., AND CASING LENGTH.