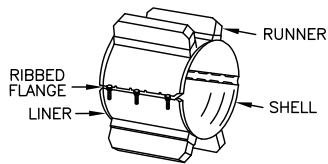


SECTION "A-A"



SPACER

STAINLESS STEEL SPACERS

CASING SPACERS SHALL BE:

- 1.) BE MADE FROM T-304 STAINLESS STEEL OF A MINIMUM 14 GAUGE THICKNESS.
- 2.) HAVE A SYNTHETIC RUBBER OR PVC LINER TO INSULATE THE PIPELINE FROM THE SPACER.
- 3.) HAVE A 1.5" WIDE GLASS REINFORCED PLASTIC OR UHMW POLYMER RUNNERS TO INSULATE THE SPACER FROM THE CASING.
- 4.) MANUFACTURED BY CASCADE WATERWORKS MFG. CO. (OR OTHER OUC APPROVED VENDOR).

PLACEMENT OF SPACERS ON CARRIER PIPE

GENERAL - ONE SPACER SHALL BE PLACED NOT MORE THAN TWO FEET FROM EACH END OF CASING. SUBSEQUENT SPACERS SHALL BE PLACED AT A MAXIMUM OF 10' APART WITHIN THE CASING, WITH AT LEAST THREE SPACERS PER JOINT OF PIPE.

CARRIER PIPE (IN.)	CASING OD (IN.)	WALL THICKNESS (OUC Std.)	HEAVY DUTY WALL THICKNESS (R.R. Projects)
4	12	0.250"	0.250"
6&8	16	0.250"	0.312"
10	20	0.312"	0.375"
12	24	0.375"	0.500"
16&20	30	0.375"	0.500"
24	36	0.375"	0.625"
30	48	0.500"	0.625"
36	54	0.500"	0.625"

CARRIER PIPE

CARRIER PIPE SHALL BE CENTERED WITHIN CASING BY USE OF MODEL CCES STAINLESS STEEL CASING SPACERS AS MANUFACTURED BY CASCADE WATER WORKS MFG. COMPANY OR OUC APPROVED EQUAL.

CASING PIPE

CASING PIPE SHALL EXTEND A MINIMUM OF 5' PAST EDGE OF PAVEMENT UNLESS OTHERWISE DIRECTED BY ENGINEER OR REGULATORY AUTHORITY.



ORLANDO UTILITIES COMMISSION
WATER BUSINESS UNIT
3800 Gardenia Orlando, FL 32839

ENG.: W.E.

DATE: 03-30-09

DRAWN: WETS

MAP SEC. N/A

W.R. No. N/A

SCALE: N.T.S.

ACAD No.: N/A

FILE: JACK & BORE.DWG

**JACK AND BORE FOR PAVEMENT
CROSSING WITH DUCTILE IRON PIPE**