



CARRIER PIPE NOMINAL DIA.	CASING PIPE		MINIMUM RUNNER SIZE
	MIN. O.D.	MIN. WALL THICK	
4"	12"	0.188"	2" x 4"
6"	16"	0.250"	2" x 4"
8"	18"	0.282"	2" x 4"
12"	22"	0.344"	2" x 4"
16"	28"	0.406"	2" x 6"
20"	32"	0.469"	2" x 6"

**NOTES:**

- 1 - RUNNER LENGTH TO BE 75% OF LAYING LENGTH.
- 2 - CASING LENGTH IS MIN. OF 18 FEET. CONCRETE ENCASEMENT OF SEWER SHALL EXTEND A DISTANCE OF 10 FEET HORIZONTALLY AND PERPENDICULAR TO EITHER SIDE OF THE WATER MAIN.
- 3 - HARNESS LUGS TO BE INSULATED FROM D.I. PIPE.
- 4 - NEOPRENE OR PVC RUNNERS MAY BE USED AS AN ALTERNATIVE TO TREATED REDWOOD.
- 5 - TRENCH LAID CASINGS SHALL BE DESIGNED AND INSTALLED TO CONDUIT STANDARDS.