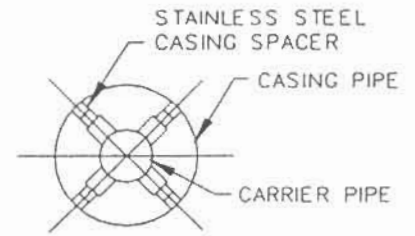


INSTALL PSI MODEL "C or W" END SEALS, WRAP AROUND CASING END AND CARRIER PIPE TO PROVIDE A BARRIER TO BACKFILL, DEBRIS AND SEEPAGE

RUBBER SEALS W/STAINLESS STEEL BAND RETAINERS



SECTION "A-A"

**NOTE:**

UNDERGROUND CROSSING REQUIRED A MINIMUM VERTICAL CLEARANCE OF 48" BELOW PAVEMENT SURFACE FOR FREEWAYS, 36" FOR OTHER HIGHWAYS OR 30" BELOW UNPAVED GROUND INCLUDING DITCH GRADE PER F.D.O.T.

**SPACERS**

ALL CASING SPACERS SHALL BE OF THE TYPE MANUFACTURED BY PIPELINE SEAL AND INSULATORS, MODEL CBG-2 16-INCH AND SMALLER, AND MODEL C12C-2 18-INCH THRU 36-INCH. OR APPROVED EQUAL BY ENGINEER. ALL CASING SPACERS LARGER THAN 36-INCH SHALL BE FACTORY DESIGNED, TAKING IN CONSIDERATION THE WEIGHT OF THE CARRIER PIPE FILLED WITH WATER. ALL CALCULATIONS AND DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. USE 304 STAINLESS STEEL SPACERS FOR LARGER DIAMETER PIPE OR APPROVED BY ENGINEER.

**PLACEMENT OF SPACERS**

- 1) GENERAL - ONE SPACER SHALL NOT BE PLACED MORE THAN TWO FEET FROM EACH END OF CASING. SUBSEQUENT SPACERS SHALL BE PLACED AT 8'-10" INTERVALS WITHIN THE CASING, OR IN ACCORDANCE WITH THE PIPE MANUFACTURING RECOMMENDATIONS.
- 2) PVC CARRIER - ONE SPACER SHALL BE PLACED ON THE SPIGOT END OF EACH SEGMENT AT THE LINE MARKING THE LIMIT OF INSERT INTO THE BELL OF THE JOINT SO THAT THE SPACER PUSHES THE JOINT AND RELIEVES COMPRESSION WITHIN THE JOINT. SUBSEQUENT SPACERS SHALL BE PLACED AT 8'-0" INTERVALS, OR IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS.

**CARRIER PIPE**

CARRIER PIPE SHALL BE CENTERED WITHIN CASING BY USE OF PSI 304 STAINLESS STEEL CASING SPACERS AS MANUFACTURED BY PIPELINE SEAL AND INSULATORS MFG. COMPANY OR APPROVED EQUAL.

**CASING PIPE**

CASING PIPE SHALL BE PRIME STEEL PIPE CONFORMING TO THE REQUIREMENTS OF ASTM DESIGNATION A-139.

|   | CARRIER PIPE<br>NOMINAL SIZE<br>INCHES | CASING PIPE<br>OUTSIDE DIAMETER<br>INCHES | CASING PIPE<br>WALL THICKNESS<br>INCHES |
|---|--|---|---|
| UP TO 14" CARRIER PIPE - 4 REQ'D.<br>OVER 14" THROUGH 36" CARRIER PIPE - 6 REQ'D.<br>OVER 36" THROUGH 48" CARRIER PIPE - 7 REQ'D. | 4"                                     | 16"                                       | 0.250"                                  |
|   | 6"                                     | 18"                                       | 0.250"                                  |
|   | 8"                                     | 20"                                       | 0.250"                                  |
|   | 10"                                    | 22"                                       | 0.250"                                  |
|   | 12"                                    | 26"                                       | 0.312"                                  |
|   | 14"                                    | 28"                                       | 0.312"                                  |
|   | 16"                                    | 30"                                       | 0.312"                                  |
|   | 18"                                    | 34"                                       | 0.375"                                  |
|   | 20"                                    | 36"                                       | 0.375"                                  |
|   | 24"                                    | 42"                                       | 0.500"                                  |

|             |               |
|-------------|---------------|
| JACK & BORE | SCALE: N.T.S. |
|             | DATE:         |
|             | CHK:          |
|             | DWG #: C-11   |