NOTE:
NON-SHRINK GROUT BULKHEAD AT EACH END OF CASING PIPE
STYROFOAM PLUG TO ASSIST GROUT PLACEMENT, ALL AROUND
STEEL CASING PIPE
DIP CARRIER PIPE

FINISHED GRADE

1/2

8"

2" Ø GALV STEEL VENT, TWO PER CASING, ONE AT EACH END OF CASING PIPE

PROVIDE PLASTIC SHEET BOND-BREAKER BETWEEN CARRIER PIPE AND GROUT, ALL AROUND

NOTE:
NON-SHRINK GROUT SHALL BE "EURO-N-9" BY THE EUCLID CHEMICAL COMPANY; "MASTERFLOW 713" BY MASTER BUILDERS, OR EQUAL.

PROVIDE 2" Ø GALV STEEL DRAIN IN BULKHEAD AT LOW END OF CASING PIPE AND 1/3 CU YD OF CRUSHED STONE AT DRAIN, WRAP STONE WITH FILTER FABRIC

TYPICAL CASING PIPE PLUG

NOTE:
USE A MINIMUM OF 2 SPIDERS PER JOINT PLACED ONE FOURTH OF THE PIPE JOINT LENGTH IN FROM BOTH THE BELL AND SPIGOT.

CARRIER PIPE
3/8" STEEL PLATE, TYP
3/8"x4" STEEL PLATE, TYP
5/8" Ø A325 BOLT
CASING PIPE
3/16 4
1" R ON ALL CORNERS

PIPE ALIGNMENT GUIDE

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
AERIAL PIPE CROSSING
CASING PIPE DETAILS

<table>
<thead>
<tr>
<th>DRAWING NO.</th>
<th>REV.</th>
<th>DATE</th>
<th>REV.</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-18</td>
<td>A.P.</td>
<td>4/16/04</td>
<td>U.P.</td>
<td>6/18/05</td>
</tr>
</tbody>
</table>