CONCRETE THRUST BLOCK DETAIL

NOTES:
1. THRUST BLOCKS SHALL BE INSTALLED ON PVC WATER DISTRIBUTION LINES 6" THRU 12" DIAMETER IN THE MANNER SHOWN. SEE FAYPW Much STANDARD ALTERNATE RESTRAINING DETAIL W.18 FOR ACCEPTABLE ALTERNATE RESTRAINING SYSTEMS.
2. PIPE GREATER THAN 12 INCH DIAMETER SHALL REQUIRE RESTRAINT JOINT PIPE FOR THE PROPER LENGTH.
3. COMPACT FITTINGS ARE NOT ACCEPTABLE. STANDARD FITTINGS SHALL BE USED WITH CONCRETE THRUST BLOCKING.
4. THRUST BLOCKS SHALL BE INSTALLED ON SEWER FORCE MAIN IN THE MANNER SHOWN.
5. IF SAC-CRETE IS USED, MIXING MUST BE ON SITE UTILIZING A MECHANICAL MIXER.
6. NO CONCRETE SHALL BE PLACED ON BOLTS. WRAP JOINT FITTINGS WITH PLASTIC.
7. CONCRETE SHALL BE A MINIMUM 3,000PSI.
8. ALL BEARING SURFACES SHALL BE AGAINST UNDISTURBED SOIL AND SHALL BE APPROVED BY FAYPWC PROJECT COORDINATOR PRIOR TO PLACEMENT OF CONCRETE.
9. USE OF RESTRAINED JOINT DUCTILE IRON WILL BE REQUIRED IF SOIL CONDITIONS DO NOT ALLOW THE USE OF THRUST BLOCKS.
10. ALL VERTICAL BENDS SHALL BE RESTRAINED USING RESTRAINED JOINT DUCTILE IRON PIPE.

MINIMUM BEARING AREA EACH DIRECTION
OF THRUST IN SQUARE FEET
(based on soil supporting value of 2,000psf @ 200 psig test pressure)

<table>
<thead>
<tr>
<th>PIPE SIZE</th>
<th>TEES &amp; DEADENDS</th>
<th>90° ELBOWS</th>
<th>45° ELBOW &amp; CROSSES</th>
<th>22-1/2° ELBOWS</th>
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<tbody>
<tr>
<td>6&quot;</td>
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<td>3</td>
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<td>12&quot;</td>
<td>15</td>
<td>21</td>
<td>11</td>
<td>6</td>
</tr>
</tbody>
</table>

SIDE EXCAVATIONS (TYP.)
ALL BEARING SURFACES SHALL BE AGAINST UNDISTURBED GROUND (TYP.)

CONCRETE THRUST BLOCK (TYP.)
See blow-off detail for clarification of construction required at dead ends.

HORIZONTAL BEND

THRUST BLOCK
UNDISTURBED SOIL
AREA OF BEARING

DEAD END

SIDE EXCAVATIONS (TYP.)
CONCRETE SHALL BE KEPT CLEAR OF PIPE JOINTS (TYP.)

TEE

CROSS

TAPPING SLEEVE AND VALVE