CRITERIA FOR THE SEPARATION OF WATER MAINS AND SANITARY SEWERS

NEW FACILITIES SEPARATION STANDARDS

New water mains and sewer lines must comply with the most recent version of the California Code of Regulations Section 64572 Title 22 Chapter 16.

1. Parallel Construction: The horizontal distance between pressure water mains and sewer must be at least 10 feet.
2. Crossing Construction: Pressure water main must be at least 12 inches above sanitary sewer lines where these lines cross. Angle of crossing shall be between 45 and 90 degrees.
3. Separation distance is measured from the nearest edge of the facilities.
4. Water mains and sewer lines must not be installed in the same trench.

EXCEPTIONS TO BASIC SEPARATION STANDARDS

When local conditions or existing facilities create a situation where there is no alternative but to install water mains or sewer lines at a distance less than that required by the new facilities separation standards. In such cases, alternative construction criteria proposed by the water system must be approved by the State Water Resources Control Board, Division of Drinking Water. Alternatives may be proposed pursuant to CCR, Title 22, Section 64557.100.

ALTERNATIVE CRITERIA FOR CONSTRUCTION

The construction criteria for sewer lines or water mains where the Basic Separation Standards cannot be attained are shown in Figures 1 and 2, Engineering Standard 6140. There are two situations encountered:

Case 1 -- New sewer line - new or existing water main.
Case 2 -- New water main -- existing sewer line.

For Case 1, the alternate construction criteria apply to the sewer line.
For Case 2, the alternate construction criteria may apply to either or both the water main and sewer line.

The construction criteria apply to the house laterals that cross above a pressure water main. House laterals crossing below water main must have 4 inches of separation between water main and lateral.

CONSIDERATION OF RECYCLED WATER

Recycled water mains must be treated as sewer mains when considering their separation from potable water.
Recycled water mains must be treated as potable water mains when considering their separation from sewers.

CONSIDERATION OF STORM DRAINAGE

New water mains and supply lines shall be installed at least 4 feet from and one foot vertically above storm drainage pipes.
### CASE 1
NEW SEWER MAIN BEING INSTALLED
(See Figure 1, Engineering Standard 6140)

<table>
<thead>
<tr>
<th>ZONE</th>
<th>SPECIAL CONSTRUCTION REQUIRED FOR SEWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Sewer lines parallel to water mains shall not be permitted in this zone without approval from the Division of Drinking Water and water supplier.</td>
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</tbody>
</table>
| B    | A sewer line placed parallel to a water line shall be constructed of:  
  1. Use HDPE pipe with fused joints. |
| X    | Requires a waiver from the Division of Drinking Water pursuant to CCR, Title 22, Section 64551.100  
  Note: Applies to mains only. Supply lines and house laterals are not subject to waiver requirements. |

### CASE 2
NEW WATER MAIN BEING INSTALLED
(See Figure 2, Engineering Standard 6140)

<table>
<thead>
<tr>
<th>ZONE</th>
<th>SPECIAL CONSTRUCTION REQUIRED FOR WATER</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>No water mains parallel to sewers shall be constructed without approval from the Division of Drinking Water and water supplier.</td>
</tr>
</tbody>
</table>
| B    | If the sewer paralleling the water main does not meet the Case 1, Zone B requirements, the water main shall be constructed of:  
  1. Ductile iron pipe  
  2. Class 200 PVC Pipe |
| X    | Requires a waiver from the Division of Drinking Water pursuant to CCR, Title 22, Section 64551.100  
  Note: Applies to mains only. Supply lines and house laterals are not subject to waiver requirements. |
| D    | If the sewer crossing the is water main is not HDPE with fused joints, then the water main shall have no joints within 8 feet from either side of the sewer and shall be constructed of:  
  1. Ductile iron pipe  
  2. Class 200 PVC Pipe |