

CHAPTER 5 - WATER SYSTEM DESIGN

5.01 GENERAL DESIGN REQUIREMENTS

5.02 ALIGNMENT AND COVER

Curved alignment for water mains is permitted and shall follow the street centerline when practical. The minimum allowed radius shall be based on allowable pipe deflection for the pipe diameter and the pipe laying length but shall not exceed AWWA specs or manufacturer specs.

5.02.01 RIGHT-OF-WAY LOCATION

In general, water mains shall be located 11-feet south or east from the right-of-way centerline or as approved by the Engineer. For roadways less than 30-feet in width, the waterline location shall be a minimum of 5-feet from the face of curb and shall maintain 5-foot minimum center-to-center spacing with the stormwater line. Except as provided in **Section 2.07**, all water mains and service lines shall be in the public right-of-way. Curbs, gutters, sidewalks, posts, fences, walls, trees, road signs, or other similar structures, shall not be placed over water lines unless otherwise approved by the Engineer. All abrupt changes in vertical or horizontal alignment shall be made with a fitting and adequate thrust restraint. Refer to **Standard Detail 507, Horizontal Thrust Blocking, Standard Detail 508, Vertical Thrust Blocking and Standard Detail 509, Straddle Block.**

5.02.02 MINIMUM DEPTH

5.02.03 MAXIMUM DEPTH

5.02.04 SEPARATION WITH SANITARY SEWER LINES

5.02.05 SEPARATION WITH UTILITIES OTHER THAN SANITARY SEWER LINES

5.02.06 EASEMENTS

5.02.07 RELATION TO WATERCOURSES

5.03 PIPE MATERIALS AND SIZE

5.04 APPURTENANCES

5.05 BACKFLOW PREVENTION

5.06 WATER SERVICE LINES

5.07 SYSTEM TESTING

5.08 WATER QUALITY SAMPLING STATIONS