

Water and Reclaimed Water

Type of Pipe	Diameter of Pipe	Minimum Horizontal Separation			Minimum Soil Cover**	Minimum Vertical Separation	
		to Sanitary Sewer Main, Manhole, or Other Sewer Structure	to Building or Other Above Ground Structure	to Storm Drain or Other Underground Utility		to Sanitary Sewer	to Other Utility**
Main	12-inch and Larger	10 feet (Water) 6 feet (Reclaimed)	15 feet*	6 feet	3.5 feet	1.5 feet	1.5 feet
Main	6-inch to 10-inch	10 feet (Water) 6 feet (Reclaimed)	15 feet*	6 feet	3 feet	1.5 feet	1.5 feet
Service	all sizes	6 feet from a sanitary lateral	5 feet from building, structure, or driveway	5 feet	3 feet	1.5 feet	1.5 feet

All clearances are as measured outside to outside.

Minimum separation between water service connections along the main is 5 feet.

* Where more than fifteen feet of separation from a structure is required, pursuant to Section 4.3 B. 8. d. or Section 4.3 B. 8. e., provide easement to the limit of the required separation.

Provide separation between water mains and traffic signal poles, and/or other structures appurtenant to traffic control equipment, based on loading plain requirements of 4.3 B.8.e

** Where water is above other utility, this requirement may be relaxed to as little as 0.5 foot, if such is critical to maintaining water's position on top. Additional clearance may be required where crossing over large storm sewers, to mitigate freezing. If absolutely necessary, where no valves are included on the main, and at Loudoun Water's discretion, reduced cover on water main will be considered, but in no case will this result in a cover of less than 2.0 feet for 8 inch and smaller mains and 3.0 feet for 12 inch and larger mains.

Sanitary Sewer

Type of Pipe	Diameter of Pipe	Minimum Horizontal Separation					Minimum Vertical Separation		Minimum Soil Cover	Maximum Cover
		to Water Main	to Building or Other Above Ground Structure	to Storm Drain or Other Underground Utility	to Non-Potable Well	to Potable Well*	Sewer is Below Utility	Sewer is Above Utility		
Trunk Main or Interceptor	16-inch and larger	10 feet	15 feet	6 feet	25 feet	50 feet	2 feet	1.5 feet	6 feet **	20 feet ***
Local Collection Main	8-inch to 12-inch	10 feet	15 feet	6 feet	25 feet	50 feet	2 feet	1.5 feet	6 feet **	20 feet ***
Lateral or Bulding Sewer	4-inch and larger	6 feet from a water service	6 feet	6 feet	25 feet	50 feet	2 feet	1.5 feet	2 feet	--
Manhole	All	10 ft	15 feet	6 feet	25 feet	50 feet				

All clearances are as measured outside to outside.

Minimum separation between sewer service connections along the main is 5 feet.

Must have 10 foot separation between parallel gravity sanitary sewer mains; must have 6 ft separation between parallel force mains.

* May be reduced to as little as 35 feet if sewer is pressure pipe, tested in place. This separation is regulated by the Code of Virginia and Loudoun County Ordinance.

** May be reduced to as little as 4 feet in isolated instances, with case specific approval from Loudoun Water. See Chapter 5 for parameters. At least 4 vertical feet are needed to accomodate a manhole.

*** Deeper sewers are discouraged, but are occasionally necessary, based on available routes and topography. Successful designs will be those that follow the natural topography. See Chapter 5 for design parameters. Consult Loudoun Water staff where considering a design requiring sewer deeper than 20 vertical feet.