

**TABLE 5.5 CLEARANCES BETWEEN SEQWATER MAINS AND UNDERGROUND SERVICES**

SERVICE TYPE	Minimum Horizontal Clearance to Seqwater Main (mm)			Minimum Vertical Clearance to Seqwater Main <sup>1</sup> (mm)	
	≤ DN200	> DN200 and < DN600	≥ DN600	< DN375	≥ DN375
Water Mains ≤DN375 <sup>2</sup>	300 <sup>3</sup>	600	1000	150	300
Water Mains >DN375 <sup>2</sup>	600	1000	2000	300	500
Gas mains - Low pressure	300 <sup>3</sup>	600	1000	300	500
Gas mains - High pressure	5000	5000	5000	300	500
Telecommunication conduits and cables	300 <sup>3</sup>	600	600	150	150
Electrical conduits and cables	500	1000	1000	300	500 <sup>7</sup>
Electrical and communication poles	600	600	2000	N/A	N/A
Drains <DN300	300 <sup>3</sup>	600	1000	150 <sup>4,8</sup>	150
Drains ≥DN300	300 <sup>3</sup>	600	2000	150 <sup>4,8</sup>	500 <sup>4,8</sup>
Sewers <DN200	1000 <sup>5,9</sup> /600	1000 <sup>5,9</sup> /600	1000 <sup>9</sup>	500 <sup>4,8</sup>	500
Sewers ≥DN200	1000 <sup>5,9</sup> /600	1000 <sup>5,9</sup> /600	1000 <sup>9</sup>	500 <sup>4,8</sup>	500 <sup>4,8</sup>
Kerbs	150	600 <sup>6</sup>	600	900	900

**Notes:**

3. Clearances can be further reduced to 150 mm for distances up to 2 m when passing installations such as concrete bases for small structures, providing the structure is not destabilised in the process. The clearance from timber poles should be at least 300mm.
4. Sewers and Drains should cross under water mains. For cases where there is no alternative then the sewer or drain should be joint free and continuous between manholes. It may be necessary to concrete encase the Seqwater main as per Drawing No. D-DWG-STD-001 (encasement to extend 2 m on both sides of the utility service crossing)
7. An additional clearance from high voltage electrical installations should be maintained above the conduits or cables to allow for a protective barrier and marking to be provided as per the requirements of an LFI and EPR investigation (to be approved by Seqwater).
8. When the water main is concrete encased a minimum vertical clearance of 150 mm is required between the sewer/drain and the concrete encasement.
9. If the sewer cannot be maintained at the minimum vertical clearance below the water main, then the horizontal clearance must be amended in accordance with an assessment of the associated risks to water quality.