



**Clearance & Easement
Requirements for Structures
Adjacent to Sewer & Stormwater
Mains Policy**

POLICY OBJECTIVE

The objective of this policy is to outline clearance requirements for structures adjacent to sewer and stormwater mains.

LEGISLATIVE PROVISIONS

Local Government Act 1993

Local Government (General) Regulation 2005

New South Wales Code of Practice Plumbing and Drainage 2006

Australian Standard AS3500 2005 Plumbing and Drainage

Sewerage Code of Australia WSA 2014 Version 3.1

POLICY STATEMENT

A clearance between structure's and a sewer or stormwater asset is required for the following reasons:

- To allow access for maintenance equipment to inspect sewer manholes, stormwater pits, sewer connections, boundary risers, and drainage pits;
- To allow access for the possible repair / replacement of sewer or stormwater mains;
- To protect the stability of adjacent buildings;
- To protect the sewer or stormwater main from damage, by ensuring structures and structural footings are not located within the zone of influence;
- To minimise the potential for trench instability due to the presence of nearby footings;
- To minimise the costs and/or inconveniences associated with restoration works for the property owner;

The provisions of this policy applies regardless of the recent developments in construction techniques, including current non-surface disruptive techniques such as pipe bursting or other trenchless technology.

APPLICATION

The following structures cannot be constructed over, or within, the minimum clearance zones of Council's sewer and stormwater mains:

- Dwellings
- Buildings
- Garages
- Store rooms
- Tool Sheds
- Garden Sheds
- Rain Gardens
- Gazebos
- Verandas
- Decks
- Pergolas
- Bio-retention Basins/Pits
- Green/Glass houses
- Aviaries
- Pools
- Electrical and Gas appliances
- Support structures for building overhangs
- Reinforced footings
- Retaining walls built parallel to the sewer or stormwater main

The following structures can be built provided they comply with the exemptions detailed below:

- Carports
- Paved Areas
- Rainwater Tanks
- Cantilevered Overhangs
- Retaining Walls
- Structures built in the Town Centre Zone

CLEARANCE SPACE AND EASEMENT REQUIREMENTS

Single Main

A single sewer or stormwater main requires clearances and easements as given in Table 1 below.

Table 1: Pipe Depth, Minimum Horizontal Clearance and Easement Width requirements

Pipe Depth (m)	Minimum Horizontal Clearance (m)	Minimum Easement Width (m)
<1.5	1.5	3
1.5 – 2	1.75	3.5
2 – 2.5	2	4
2.5 - 3	2.25	4.5
3 – 3.5	2.5	5
3.5 - 4	2.75	5.5
4 – 4.5	3	6
4.5 - 5	3.25	6.5
5 – 5.5	3.5	7
5.5 - 6	3.5	7

Twin Mains

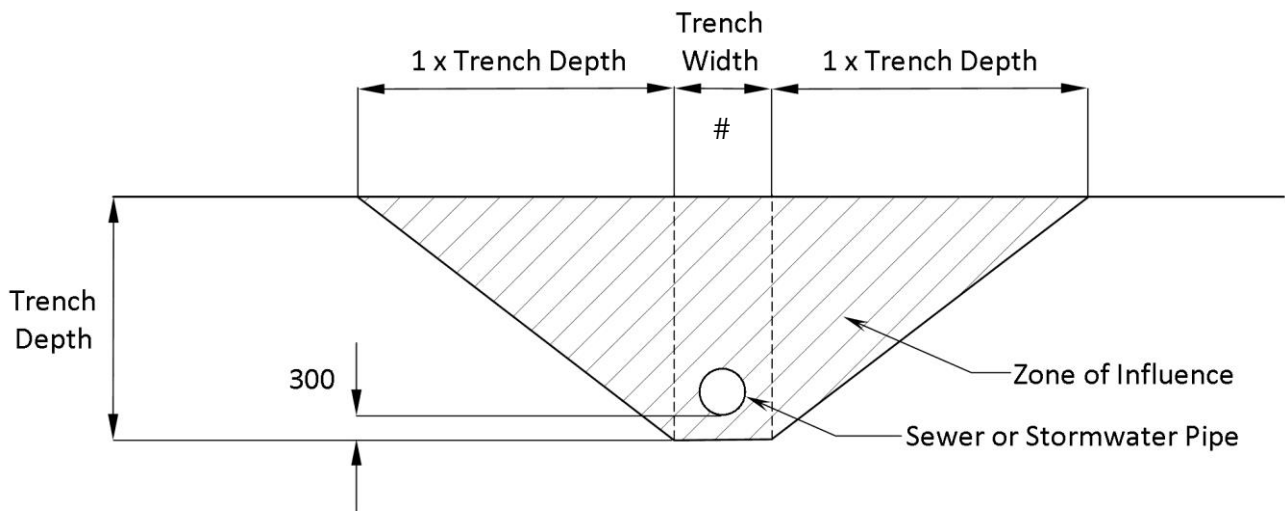
Where a sewer main and a stormwater main are close and parallel to each other, the minimum clearances shall apply to each main. The easement width shall encompass both such clearances.

A minimum clearance of 1m is required between the two mains.

ZONE OF INFLUENCE REQUIREMENTS

In addition to the clearance requirements above, there are requirements on building within a wider span of the zone of influence.

The zone of influence refers to the area either side of the main where a structure may transmit a load to the main. The zone of influence is determined by the depth of the main, width of the trench (minimum width of 600mm required) and the angle of repose of 45 degrees, as indicated in the figure below.



- | | | |
|---|-------------|--|
| # | (A) 600mm: | Typical for pipes up to 300mm diameter not requiring trench support |
| | (B) 1000mm: | For pipes greater than 1.5m deep and/or where trench support is required |

The design of a structure's footings can be configured to transfer loads outside the zone of influence to allow building within the zone. Structures are only permitted within the zone of influence (but outside the minimum clearance requirements) under the following conditions:

1. The footing design must be undertaken by a suitably qualified engineer;
2. The footings must be taken to a depth below the zone of influence;
3. The structure and its footings shall be designed to not suffer damage should the trench subside or be excavated for maintenance and repairs of the main;
4. The structure and its footings shall not apply load to the main; and
5. Construction of the structure and its footings shall not damage the buried asset.

EXEMPTIONS

Carpports

Single vehicle carpports are permitted to be built over sewer or stormwater mains under the following conditions:

- The posts supporting the carpport are to be secured to the ground by bolts, to allow for it to be easily disassembled. Other methods for securing the posts to the ground (placing in concrete footings, etc.) that do not allow for easy and fast disassembly of the carpport are not permitted;
- Should a problem occur with the sewer or stormwater main requiring the removal of the carpport, the owner of the property is to bear all costs associated with removing and reinstating the carpport; and
- The carpport must be open on at least 3 sides.

Rainwater Tanks

Rainwater tanks are permitted to be built over sewers or stormwater mains under the following conditions:

- The tank/s must be plastic moulded type, with a combined volume capacity no greater than 10,000L;
- The tank must be placed on appropriate flat bedding material (that can be easily removed if needed), at or just above natural surface level to distribute loads evenly. Elevated tanks supported on structures/pedestals (platforms, concrete blocks, etc.) are not permitted;
- The tank/s must be installed to ensure it can be easily emptied, disconnected and removed from the easement;
- If the tank/s are connected to town water supply, valving must be remote from the tank;
- The tank/s must be a minimum of 2.0 metres clear of any sewer manholes, stormwater pits, sewer junctions or inspection openings;
- Should a problem occur with the sewer or stormwater main requiring the removal of the tank/s, the owner of the property shall bear all costs associated with removing and reinstating the tank. This includes any costs incurred by Council; and
- Should the tank/s damage the underlying sewer or stormwater pipe, the owner of the property shall bear all costs associated with the repair of the pipe.

Retaining Walls

Retaining walls are permitted to be built over sewer and stormwater mains under the following conditions:

- The retaining wall is perpendicular to the sewer or stormwater main (parallel retaining walls are not permitted within the zone of influence);
- The retaining wall spans across the zone of influence; and
- Any piers supporting the retaining wall must be located outside the zone of influence.

Town Centre Zone

Buildings may be erected over sewer (but not stormwater) mains in the 'Commercial Core' zone. In these instances, the following conditions must be met:

- The footings are to be piers and beamed to the design of a structural engineer;
- The main must be renewed (either replaced or relined) and concrete encased, at the developer's cost. A design must be submitted to Council for approval before work commences;
- The main is to be physically located prior to any excavation to ensure the sewer main is not damaged during construction; and
- The structure is not to be constructed over or within 2m to the centre of a manhole, maintenance shaft, or sewer main dead end.

Paved Areas

- Paved areas in concrete, asphalt or unit pavers are permitted provided they are constructed with expansion joints at the edges on the easement.

Cantilevered Overhangs

- Cantilevered overhangs, including eaves, are permitted provided there is a minimum 3.0m vertical clearance above the sewer or stormwater main.

Plants and Other Structures

- All plants, shrubs and landscaping (excluding lawns) must have a minimum horizontal clearance of 1.0m and minimum 2.0m vertical clearance from any sewer manholes, stormwater pits and maintenance structures.
- All structures are to have a minimum horizontal clearance of 1.5m from any sewer manholes, stormwater pits and maintenance structures, unless the depth is greater than 1.5m for the sewer manholes, stormwater pits and maintenance structures in question in turn requiring a greater clearance (Refer to Table 1).

Community Land and Community Facilities

- Building over the sewer or within the sewer easement may be permissible on community based land or community based facilities where sewer or building relocation is not possible. For such cases Council will review any application and base any decision on the specific circumstances. In these cases, if approval is granted, the conditions outlined for the Town Centre Zone must be met.

Removal of Structures and Objects under Exemptions

The owner of the property is liable for the removal and rehabilitation of any structure, object or items listed above under ‘Exemptions’ (except those under the sub-heading ‘Town Centre Zone’), which are removed as part of maintenance or repair work of sewer or stormwater mains located within the easement/s.

DAMAGE TO SEWER AND STORMWATER MAINS

Any damage caused to sewer and stormwater mains shall be the responsibility of the person undertaking the work and will be fully recovered by Council.

Version	Council Meeting Date	Resolution	Adoption Date	Effective From
1	15 May 2007	07/230	15 May 2007	15 May 2007
2	19 May 2009	09/264	6 July 2009	6 July 2009
3	17 November 2009	09/698	17 November 2009	17 November 2009
4	21 June 2011	11/220	17 August 2011	17 August 2011
5	16 July 2013	13/292	16 July 2013	19 July 2013
6	22 October 2013	13/438	22 October 2013	22 October 2013
7	3 May 2016	16/171	6 June 2016	9 June 2016
8	2 May 2017	17/148	2 May 2017	2 June 2017
9	7 June 2022	2022/192	7 June 2022	5 July 2022

All policies can be reviewed or revoked by resolution of Council at any time.

DIRECTORATE: Utilities

BUSINESS UNIT: Infrastructure