Policy register

incorporating
policies, procedures and protocols

Building in close proximity to sewers

Policy, procedure, protocol	Policy
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Section / Department	Water Cycle
Linkage to Our Community Plan	2 Infrastructure
Objective	2.1 We will have communities that are well serviced with appropriate infrastructure
Strategy	2.1.1 Maintain and renew water and sewer networks

Table of contents

1. Purpose

Council's Development Control Plans require that buildings be set back a minimum of 1.5 metres from any sewer main, which shall be measured from the centre of sewer line to the nearest edge of the footing. This policy has been prepared to provide additional guidance regarding building in close proximity to Council's sewer mains. The implementation of this policy will ensure that Council's sewer assets are protected.

Council also requires reasonable access to its sewers (both access chambers and pipes) to enable maintenance, repair and/or possible replacement in perpetuity.

2. Definitions

N/A

3. Background/legislative requirements

Under Section 191A of the *Local Government Act, 1993* (LG Act) Council has the power to enter private property to construct and/or maintain its water, sewer and stormwater works irrespective of whether there is an easement over the works. Under Section 59A of the LG Act Council also has ownership of sewer works constructed by or on its behalf, regardless of property title. Parties working on public and private property have an obligation to protect Council's water and sewer works from accidental damage and Council may recover costs of repair. Deliberate damage or unauthorised interference with water supply or sewerage works is an offence under Section 635 of the LG Act.

4. Policy statement

Structures generally should not be constructed within 1.5 metres of sewer mains. However, it is recognised that in some circumstances there may be justification for varying this blanket exclusion.

This policy outlines how applications for building in close proximity to a Council sewer asset will be considered. Applications for construction in close proximity to Council's sewer assets will only be considered if it can be clearly demonstrated that the applicant has investigated all other options for development. Council will treat each application on its merits, but applicants should not assume that consent for construction over or near sewer assets will be automatically granted.

5. Procedures

The circumstances where building will be permitted in close proximity to a sewer asset, and the requirements which may be imposed, are outlined in the attachment to this Policy.

6. Appeal/objections process

The provisions of the policy are applied through the development approval process and those appeal provisions therefore apply.

7. Attachment

Requirements for Building in Close Proximity to Sewers

Attachment: Requirements for Building in Close Proximity to Sewers

A Sewerage easements

Subject to Section B buildings shall not be approved within a sewerage easement.

As part of any subdivision approval, the developer will be required to provide an easement over any existing or proposed sewers. The width of the easement shall be:

i) Where the sewer is less than 1.5 metres depth, the easement width shall be 3.0 metres, except that for sewers which are less than or equal to 0.75 metres depth and serving only one residential lot, the easement width may be reduced to 1.5 metres,

ii) Where the sewer is more than 1.5 metres and less than 3.0 metres in depth, the easement width shall be 5.0 metres,

iii) Where the sewer is greater than 3.0 metres depth, the easement width shall be determined by Council staff following an assessment of maintenance access requirements.

B Building within sewerage easements or 1.5 metres of existing sewers

B.1 Enclosed buildings, swimming pools and major retaining walls

The construction of enclosed buildings, in-ground swimming pools, and major retaining walls within sewerage easements shall not be permitted. Where no easement is provided over an existing sewer, construction of enclosed buildings, in-ground swimming pools, and major retaining walls within 1.5 metres of public sewers shall only be considered in the following circumstances:

i) Where the structure will not impose additional load on the sewer main and adequate maintenance access to the sewer main is able to be provided, building may be permitted closer to the main with a minimum setback of 0.75 metres

ii) Where 100% site coverage is permissible under Council's planning controls. In this case, the Director Works and Civil may impose special conditions such as concrete encasing. Any costs of these conditions shall be the responsibility of the applicant.

When full site coverage is permitted, designers should take care that rodding access is available to the sewer and to private drainage lines from points within the building.

Building foundations should not impose additional load on the sewer.

iii) Sterilisation of an approved building lot from development because of the presence of sewer or sewers with the building envelope which cannot be feasibly relocated and would leave insufficient residual land for erection of an appropriate building consistent with the zoning and character of the area. Developers should note that the location of sewers is a potential constraint to the maximum development density which would otherwise be permissible on the site.

The Director Works and Civil will impose special development conditions in this event. This may include special rights of access, special indemnity to Council and Section 88B instruments added to the land title. Any costs of these conditions shall be the responsibility of the applicant.

B.2 Non-habitable buildings and structures

In the case of unenclosed buildings and other civil construction, lightweight or demountable structures may be permitted closer than the minimum 1.5 metre setback. Examples might include carports, driveways, cantilevered verandahs, open workbays, retaining walls less than 1.2 metres in height, portable garden sheds, breezeways, single storey light steel framed and light timber framed garages and so forth. No concrete or masonry structures will be permitted to be built over sewer mains.

Before approval, the Director Works and Civil must be satisfied that:

i) the plant and labour force appropriate for future sewer excavations at the site would have adequate clearance to work in the space created by the structure;

ii) the structure, flooring or paving can be removed and reinstated at the owner's cost and the scale of removal is reasonably limited;

iii) access to the sewer and access chambers is unlikely to be denied by new security provisions associated with the work;

The Director Works and Civil will impose special conditions such as rights of access, special indemnity and Section 88B instruments added to the land title. Any costs of such conditions shall be borne by the applicant. In the event of Council's requiring direct access to a sewer main which has been permitted under a structure, the owner shall be required to move the structure to provide adequate access clearance for machinery. Full cost of any such works shall be the responsibility of the landowner.

C Building near deep sewers

Many existing areas have been sewered with deep sewer lines or sewers which intrude into the possible building envelope. The potential for buildings to structurally load sewers, to be undermined by erosion of backfill into damaged sewers, or to prevent safe trenching for repair purposes, requires some restriction on proximity.

Buildings and other structures shall be founded so that the 45 degree decline from the base of any part of the strip footing passes 150mm below the sewer line in firm natural ground. The minimum distance horizontally from a buried structural element shall be 0.75 metres, from the edge of the sewer or as specified by the Council dependent on circumstances.

Designers should be aware of the possible reductions in bearing capacity of strip footings closely parallel to uncompacted back fill in sewer trenches. Designers should also recognise the need for protective attachment of piped utilities buried beneath floor slabs which span between piered footings, as loss of support may occur after nearby sewer maintenance excavations.

D Relocating sewers

Where a developer is unable to satisfy the exceptional circumstances in Section B of these requirements, relocation of the sewer may be permitted at the landowner's cost. Relocation will only be permitted where the minimum grades specified in Council's Engineering Development specifications can be achieved. An access chamber shall be required at each change of direction or grade, and Council will require reasonable access in accordance with Section 1 of the policy.

Any proposed relocation of sewers shall require approval of a Construction Certificate.

E Earthworks near sewers

Caution must be exercised when altering the cover to gravity sewers and pressure mains.

Consequences:

Increased cover may cause the sewer to fail under increased bearing forces; or local increases (such as mass retaining walls) may cause failure due to differential settlement. Manholes might be buried by landscaping. Toes of fill batters may be unstable near sewer trenches, or become unstable when trenches are excavated.

Decreased vertical cover may expose the sewer to accidental breakage by transient loading from vehicles. Decreased lateral cover (caused by cut faces of earthworks in proximity to trenches) may result in slumping out of the backfill and/or sewer pipe, or washing out of sand bedding carrying groundwater.

Remedies:

Proposals to increase cover over sewer mains should be checked for pipe crushing capacity and local effects as above. Pressure mains should not be deeply buried but rather regraded by the proponent, as potential failures are usually more frequent and more severe.

Manhole alterations required by building or development applications or necessitating reduction or increase in height are permitted with Council consent, at the proponent's cost.

Loss of lateral support by adjacent excavation must be reinstated at least up to the point of intersection of a 45 degree decline from the sewer invert to the face of the cut batter. Where it is apparent that the sewer overburden has a safe angle of repose of less than 45 degrees, the Director Works and Civil may require reinstatement of support of up to the height of the sewer obvert plus minimum permissible cover.

The minimum permissible depth of cover for gravity sewers and pressure mains is outlined in Table E.1 following:

Table E.1

Location of Pipe	Gravity Sewers	Pressure Mains	
		uPVC	Others
Areas not subject to vehicle loading	450mm	450mm	450mm
Areas subject to vehicular loading:			
a) not in roadway	600mm	600mm	600mm
b) in sealed roadway	750mm	600mm	600mm
c) in unsealed roadway	750mm	750mm	600mm

Insufficient vertical cover may be permitted where concrete protection is provided, but rigid encasement of jointed pipe is generally to be avoided.

The preferred technique is packing no less that 50mm of loose fill around the sides and top of the pipe and pouring a minimum 150mm thick concrete shield outside this material. The legs of the bridging shield should bear on a compacted bedding of sound undisturbed material below pipe invert level. A layer of trench mesh should be provided in the top of the shield. (Details must be provided before commencement.)

F Penalties

Failure to abide by Council's requirements may incur the penalties allowed by the LG Act plus costs of restitution. In cases of danger to public health or safety, Council may perform the work itself immediately and recover the costs from the delinquent party.