

BUILDING OVER OR NEAR SEWER INFRASTRUCTURE GUIDELINE

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Table of Abbreviations

Term	Abbreviation
Build Over Sewer Easement	BOSE
Closed Circuit Television	CCTV
Inspection Opening	IO
Maintenance Hole	MH
Maintenance Structure	MS
Queensland Development Code Mandatory Part 1.4	QDC MP1.4
Referral Agency Assessment	RAA

1. Introduction

1.1 The Queensland Development Code Mandatory part 1.4 (QDC MP1.4) Building over or near relevant infrastructure (QDC MP 1.4)

The QDC MP 1.4:

- Outlines the assessment criteria (Performance Requirements and Acceptable Solutions) for building work for a building or structure that is proposed to be carried out on a lot (the subject lot) where infrastructure is located on the subject lot and/or on a lot adjacent to the subject lot; and
- Provides details about the types of structures and requirements for their construction in close proximity to relevant infrastructure and;
- Needs to be read in conjunction with this guideline.

Note: The acceptable solutions set out in QDC MP 1.4 are relevant to building work for a Class 1 building, or a Class 10 building or structure only.

1.2 Building over or near sewer infrastructure guideline

This guideline is intended to:

- Help people gain an understanding about the process required for building over or near sewer infrastructure;
- Provide information about Referral Agency Assessment (RAA) application for building over or near sewer infrastructure;
- Provide information about Build Over Sewer Easement (BOSE) application;
- Outline City of Gold Coast minimum design requirements for a RAA application for building over or near sewer infrastructure. This minimum design requirements ONLY applies for a Class 1 building or a Class 10 building or structure and gravity sewer infrastructure with a main no greater than 225mm diameter; and
- Outline City of Gold Coast minimum application submission requirements for a RAA application for building over or near sewer infrastructure.

Notes:

1. The minimum design requirements set out in this document represent the absolute minimum clearances permitted for building over or near sewer infrastructure. City of Gold Coast will not approve designs which do not comply with the minimum criteria.
2. For any gravity sewer main that is greater than 225mm or any pressure main or any building work from a Class 2 up to a Class 9 building will require a RAA application and will be assessed on a case by case basis.

2. Building over or near sewer infrastructure

2.1 Engage a private building certifier

- Before you begin designing engage a private certifier to understand the rules and regulations you need to follow, and
- Before lodging any application to City of Gold Coast.

Note: City of Gold Coast may require additional assessments. This may trigger a Referral Agency Assessment application:

1. To assess whether your proposed building and/or structure complies with boundary setbacks, site cover, amenity and aesthetics, etc.; and
2. If there is other infrastructure that might be affected by your proposed building and/or structure (For example: stormwater infrastructure).

Your private building certifier will need to contact City of Gold Coast Planning Enquiries Centre. Call 07 5582 8708 or email mail@goldcoast.qld.gov.au to confirm and to obtain information regarding additional information that will be required to be submitted for assessment prior to submitting the RAA application.

2.2 Confirmation from private certifier

Your private certifier is able to approve your proposed building and/or structure if:

1. There is no sewer easement over the sewer infrastructure;
2. Your proposed building and/or structure complies with the Acceptable Solutions of the QDC MP1.4; and
3. There are no additional assessments required by City of Gold Coast.

2.3 Submit your application to City of Gold Coast

2.3.1 Scenario 1 - Referral Agency Assessment (RAA) application for building over or near sewer infrastructure

Your proposed building and/or structure for building over or near sewer infrastructure **does not comply** with the Acceptable Solutions of the QDC MP1.4. Your private building certifier will not be able to approve your proposed building and/or structure without referral and approval by City of Gold Coast:

- Your private building certifier will need to lodge a Referral Agency Assessment application with the City of Gold Coast. This must include minimum application submission requirements. These requirements are outlined in Appendix A.

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- The City of Gold Coast as a referral agency will assess if your proposed building and/or structure meets City of Gold Coast minimum design requirements.

2.4 Referral Agency Assessment application gets approved:

2.4.1 The following process is ONLY applicable for Referral Agency Assessment application.

- City of Gold Coast will issue conditions of approval.
- Prior to construction, potholing must be undertaken on site by the contractor to locate the sewer infrastructure which must be witnessed by City of Gold Coast's Water and Waste Officer. Set out on site must also be in place for this inspection and passed by City of Gold Coast's Water and Waste Officer. City of Gold Coast's Water and Waste Officer will then permit site works to commence.
- During Construction City's Water and Waste officer may require additional inspections during the works.
- After your building works finish you will need to submit to City of Gold Coast a post-construction CCTV inspection video and written report for review. This requirement will be conditioned as part of the approval.

2.5 Scenario 2 - Built over Sewer Easement (BOSE) application

Your proposed building and/or structure for building over or near sewer infrastructure **does comply** with the Acceptable Solutions of the QDC MP1.4. Also there are no extra assessments required by the City of Gold Coast that may trigger a Referral Agency Assessment application.

Your private building certifier will not be able to approve your proposed building and/or structure without City's consent if there is a sewer easement exists over the sewer infrastructure.

Your private building certifier will need to lodge a Build over Sewer Easement (BOSE) application with the City. This must include a copy of the detail drawings. The certifier will lodge this application on your behalf for approval.

Aspect of works	Criteria
<p>Building near a sewer main or sewer property connection (including the sewer property inspection opening (IO)).</p>	<ul style="list-style-type: none"> A minimum horizontal clearance of 600mm from edge of footing to edge of sewer main or sewer property connection (including the sewer property IO). <p>Note: footings must be bored or screw piers.</p>
<p>Building near a sewer maintenance hole or structure (MH/MS).</p>	<ul style="list-style-type: none"> A minimum horizontal clearance of 600mm from edge of footing to edge of the sewer Maintenance Hole (MH) or Maintenance Structure (MS). <p>Note: footings must be bored or screw piers.</p>
<p>Building near neighbour's sewer property connection.</p>	<ul style="list-style-type: none"> A minimum horizontal clearance of 1.0m from edge of footing to edge of sewer main or sewer property connection (including the sewer property IO). <p>Note: footings must be bored or screw piers.</p>
<p>Building over a sewer main - where infrastructure will become inaccessible following works.</p> <p>For example: swimming pool, house, shed, cantilevered slabs, or similar.</p>	<ul style="list-style-type: none"> A minimum horizontal clearance of 600mm from edge of footing to edge of sewer main. <p>Note: footings must be bored or screw piers.</p> <ul style="list-style-type: none"> Reline or replace Asbestos Cement, Vitreous Clay and Masonry pipes in all circumstances. Other sewer main types may require replacement with new or different material, or relining subject to the material/ age/condition of the sewer main or if damage or ponding is identified at the pre-construction CCTV condition assessment by City of Gold Coast. <p>Note: Any requirements for replacement or relining will be conditioned as part of the approval and may require a subsequent Operational Works application to be lodged for the required works.</p>
<p>Building over a sewer maintenance hole or structure (MH/S).</p>	<ul style="list-style-type: none"> A minimum horizontal clearance of 600mm from edge of footing to edge of the sewer MH/MS. <p>Note: footings must be bored or screw piers.</p>

	<ul style="list-style-type: none"> • Maintain a minimum 2.4m unobstructed vertical clearance above the sewer MH/MS cover from the original surface level <u>at all times</u>, alternatively <ol style="list-style-type: none"> a) When the proposed surface level or level of deck/slab/other structure is raised or lowered up to 300mm measured from existing surface level: <ol style="list-style-type: none"> i. Raise/lower sewer MH/MS lid to the same level as the proposed surface level or level of deck/slab/other structure, ii. Maintain a minimum 2.4m unobstructed vertical clearance above the new sewer MH/MS cover level <u>at all times</u>, and iii. Install a trafficable MH/MS lid if in a trafficable area (such as a shed or carport or driveway). Note: also applicable if the surface level does not change. <p>Note: MH/MS will be conditioned to be raised/lowered to match the proposed surface level or level of deck/slab/other structure and this may require an Operational Works application to be lodged.</p> b) When the proposed surface level or level of deck/slab/other structure is raised more than 300mm from the original surface level: <ol style="list-style-type: none"> i. Install a lightweight MH/MS lid and ring, and ii. Maintain a minimum 2.4m unobstructed vertical clearance above the finished level of the new deck/slab/other structure over the MH/MS allowing a clear area of 1.5m (radius about the centre of the MH/MS lid) <u>at all times</u>. • Any structure built over an MH/MS must be designed with adequate ventilation to allow sewer gasses to escape (such as being open on one or more sides). • MH/MS must remain accessible at all times.
<p>Building over sewer property connection (including the sewer</p>	<ul style="list-style-type: none"> • A minimum horizontal clearance of 600mm from edge of footing to edge of sewer property

<p>property inspection opening (IO)).</p>	<p>connection (including the sewer property IO). Note: footings must be bored or screw piers.</p> <ul style="list-style-type: none"> • IO may require to be raised/lower to the same level as the proposed surface level or level of deck/slab/other structure. • Install a trafficable lid if in a trafficable area (such as a shed or carport or driveway). • IO must remain accessible at all times. <p>Note: IO may be conditioned to be raised/lowered to match the proposed surface level or level of deck/slab/other structure.</p>
<p>Building over neighbour's sewer property connection.</p>	<p>City of Gold Coast will not support construction of building or structures over a neighbouring property connection, except for a retaining wall being constructed perpendicular (or thereabouts) to the sewer property connection for the purpose of filling a lot.</p> <p>In this instance, the applicant's options are:</p> <ul style="list-style-type: none"> • Relocate the neighbour's sewer property connection, including the sewer property IO inside the neighbour's property and the associated plumbing with consent from the owner, at the applicant's cost. <p>OR</p> <ul style="list-style-type: none"> • Relocate the proposed structure to a compliant location.

Did you know?

If you don't locate the actual location of the sewer infrastructure on site when you design your building or structure, you are running the risk of damaging City of Gold Coast's sewer infrastructure on your property and may create blockages along the sewer main downstream of your property. This will cost you financially but also your time as well as impacting your neighbour and your community. That's why it is important that you engage a qualified professional to carry out an on-site field survey to locate the sewer infrastructure before your building works get approved.

Note: After your RAA application gets approved, City of Gold Coast's Water and Waste Officer will undertake construction inspections to ensure sewer assets are protected by requiring that potholing be done on site and witnessed by City of Gold Coast's Water and Waste Officer prior to construction. Set out on site must also be in place for this inspection and passed by City of Gold Coast's Water and Waste Officer before the Officer will allow you to start the construction works.

Appendix A - City of Gold Coast minimum application submission requirements for a RAA application for building over or near sewer infrastructure

The minimum design requirements ONLY apply for a Class 1 Building or a Class 10 Building or structure, and where the gravity sewer infrastructure is not greater than 225mm diameter.

When lodging a design which requires assessment by City of Gold Coast, the design plans must be certified by a Registered Professional Engineer of Queensland (RPEQ), and pre-construction CCTV of the sewer will need to be provided as part of the RAA application.

Minimum Requirements	How to comply with minimum requirements
<p>1. Pre-construction service location and CCTV.</p>	<p>Pre-construction service location (can be using CCTV trace or alternative method; not to be plotted from Council records) to include:</p> <ul style="list-style-type: none"> a. The location of the sewer main (including the invert level, material and size). b. Sewer property connection up to and including the sewer property IO. c. Maintenance holes or structures (if applicable). <p>Pre-construction CCTV inspection to meet the following specifications:</p> <ul style="list-style-type: none"> a. The pre-construction CCTV inspection video and condition report shall be compiled in accordance with the WSA 05-2013 Conduit Inspection Reporting Code of Australia Version 3.1 and only be undertaken by suitably qualified persons. b. Colour CCTV equipment shall be used. c. A tilt/panning head camera shall be used to give clear view of each internal cut-out at junctions and house connection branches looking along the laterals. d. The camera shall be raised in position to reduce the risk of picture distortion and the lens shall be positioned to look along the axis of the sewer main. e. The sewer main being inspected must be in a sufficiently clean condition prior to the CCTV being undertaken. This allows the sewer main, joints, and junctions to be reviewed sufficiently by Water & Waste using CCTV footage. CCTV

	<p>footage that has excessive build up within the sewer main will not be accepted, and the Applicant or their representative will be required to clean the sewer main and perform the inspection again at their cost.</p> <ul style="list-style-type: none"> f. The pre-construction CCTV footage must be clear and sharp so a full inspection of the sewer main can be undertaken. CCTV footage that is of poor resolution or out of focus will not be accepted, and the Applicant or their representative will be required to perform the inspection again at their cost. g. Should the manhole be covered or blockages in the sewer main make the CCTV survey unattainable, the contractor is to notify City of Gold Coast's Water and Waste 1300 000 928 for service personnel to attend. h. The pre-construction CCTV must be accompanied by a service report detailing camera position, any blockages, and observations as to the condition of the sewer main, joints, and junctions. The CCTV must be MH/MS to MH/MS. Where building over a sewer property connection and CCTV is required, CCTV only needs to include the sewer property connection.
<p>2. Drawings and design.</p>	<p>A plan view drawing certified by an RPEQ (not an architectural or planning drawing) which depicts the following:</p> <ul style="list-style-type: none"> a. Property boundaries. b. Existing building/structure(s). c. Proposed building/structure(s). d. Proposed footings set out clearly identifying any footings which do not comply with the QDC MP1.4 A1 and A2. e. Existing sewer infrastructure including dimensions depicting the alignment from boundaries (using accurate surveyed information as per requirement in item 1 above). f. A minimum of 600mm horizontal clearance between the closest face of the proposed footings and the outside edge of the sewer infrastructure. <p>Note: for building near neighbour's sewer property connection. A minimum horizontal clearance of 1.0m from edge of footing to edge</p>

of sewer main or sewer property connection (including the sewer property IO) must always be maintained.

- g.** For a retaining wall being constructed perpendicular (or thereabouts) to the neighbour's sewer property connection for the purpose of filling a lot. A minimum horizontal clearance of 1.0m from edge of footing to edge of sewer main or sewer property connection (including the sewer property IO).
- h.** Any easements on the property.
- i.** Any other infrastructure assets (private or public) which will be impacted by the design.

Detailed sectional drawing certified by an RPEQ which depicts the following:

- a.** Existing surface level.
- b.** Proposed surface level or level of deck/slab/other structure (if applicable).
- c.** Existing sewer main including the invert level (using accurate surveyed information as per requirement in item 1 above).
- d.** Proposed building/structure(s).
- e.** Maintenance cover and/or sewer property IO is raised/lowered to proposed surface level or level of deck/slab/other structure (if applicable).
- f.** A minimum 2.4m unobstructed vertical clearance from existing/proposed surface level above the existing sewer infrastructure.

Alternatively,

- i.** For Class 1 buildings or a pool that is built right on top of the sewer main; OR
- ii.** For any buildings or structures that cannot achieve the minimum clearance mentioned above.

Council may require the applicant to reline and/or replace the existing sewer main subject to the assessment conditions, size and depth of the existing sewer main as well as the nature of the proposed buildings and structures. This will be a condition of the decision notice and may require a further Operational Works application to be lodged for

	<p>any sewer replacement works.</p> <ul style="list-style-type: none"> g. Proposed footings (for any footings which do not comply with the QDC MP1.4 A1 and A2) showing: <ul style="list-style-type: none"> i. Type; and ii. Depths – this <u>MUST</u> include the proposed final footing depth. This drawing must be able to be used for construction purposes and cannot require further calculation or investigation by others. h. A minimum of 600mm horizontal clearance between the closest face of the proposed footings and the outside edge of the sewer infrastructure. <p>Note: for building near neighbour’s sewer property connection. A minimum horizontal clearance of 1.0m from edge of footing to edge of sewer main or sewer property connection (including the sewer property IO) must always be maintained.</p> i. If applicable, for a retaining wall being constructed perpendicular (or thereabouts) to the neighbour’s sewer property connection for the purpose of filling a lot. A minimum horizontal clearance of 1.0m from edge of footing to edge of sewer main or sewer property connection (including the sewer property IO). j. The zone of influence of the proposed footings are to extend a minimum of 300mm below the invert level of the sewer main. k. Where multiple footings are proposed which are assessable under the QDC MP1.4 and require different depths or types, a separate drawing/detail is required for each. <p>Engineering certification provided by a RPEQ certifying that no additional loading is imposed on the sewer main and the integrity of the sewer main will be preserved.</p>
<p>3. Form 15 (or equivalent engineering certification).</p>	<p>Form 15 certification (or equivalent) must include:</p> <ul style="list-style-type: none"> a. Wording certifying that the proposal complies with the relevant Performance Criteria identified in the QDC MP1.4. b. Wording certifying that the work does not adversely affect the operation of the

	<p>infrastructure; or impose loading on the infrastructure.</p> <p>b. Wording certifying that when completed the building work:</p> <ul style="list-style-type: none"> i. Allows any gas that builds up in the infrastructure to escape in a way that ensures individuals in close proximity to a maintenance cover for the infrastructure are not harmed by the gas (if applicable); and ii. Does not prevent the relevant service provider from gaining access to the infrastructure for the purpose of inspecting, maintaining or replacing the infrastructure. <p>c. Form 15 is certified by an appropriately qualified RPEQ and lists all relevant design drawings.</p>
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Note 1:

RAA applications will be deemed not properly made by Council until all submission requirements stated above are submitted and meet the criteria for submission requirements to be accepted.

Note 2:

No building/structure is permitted to be built over or within 1.0m of any property connection servicing a neighbouring property (with the exception of a retaining wall).

Note 3:

If any changes to City of Gold Coast sewer infrastructure are required, further approval must be obtained from Council, refer to Council’s Water and Sewerage Connections Policy.

Note 4:

Standardised details and designs will not be accepted by City of Gold Coast for assessment.

Note 5:

Nominal or indicative dimensions will not be accepted by Council for assessment.

This assessment requires precise and calculated design drawings in order for Council to be confident that no loading will be exerted on the sewer main.