



# **BYRON SHIRE COUNCIL**

## **POLICY NO 4.20**

### **BUILDING OVER PIPELINES AND OTHER UNDERGROUND STRUCTURES**

**Policy - Building Over Pipelines and Other Underground Structures**

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**INFORMATION ABOUT THIS DOCUMENT  
(INTERNAL USE ONLY)**

<b>Date Adopted by Council</b>	29/3/97	<b>Resolution No.</b>	
<b>Policy Responsibility</b>	Water and Recycling Management Services		
<b>Review Timeframe</b>	As required		
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***Document History***

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#633505	23/3/99	
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***Further Document Information and Relationships***

<b>Related Legislation</b>	Protection of the Environment - Operations Act, Local Govt. Act, Public Health Act
<b>Related Policies</b>	Council's Policy No. 5.60 "Unauthorised Development and Activities"
<b>Related Procedures/ Protocols, Statements, documents</b>	

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<b>POLICY TITLE</b>	<b>BUILDING OVER PIPELINES AND OTHER UNDERGROUND STRUCTURES</b>
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**FILE REFERENCE**      COR050505

**1. OBJECTIVES**

- 1.1. To set out the conditions under which easements are created for underground pipelines and structure including sewer lines.
- 1.2. To set out the conditions under which excavations, cutting or filling of land or the erection of any structure over or near easements, pipelines and other underground structures may be permitted (except drainage easements).
- 1.3. To protect buildings and the public.
- 1.4. To protect and facilitate maintenance of Council’s assets.
- 1.5. To indemnify Council against damages caused by the failure of underground structures.

**2. POLICY STATEMENT**

This policy shall provide clear guidelines to developers, consultants and designers and the general public as to what is acceptable to Council with regards to building over or near to sewer mains, water mains, stormwater drainage lines, utilities and structures.

**3. POLICY DETAIL**

- 3.1. This policy applies to pipelines and other council owned underground structures.
- 3.2. This policy does not apply to drainage easements where encroachment of buildings and structure may affect overland stormwater flows.
- 3.3. Construction of buildings over or near to Council pipelines generally shall not be allowed.  
  
This is to ensure that access is available to the pipeline and that no load is transferred, or damage caused to pipelines, fittings and structures.
- 3.4. In all new subdivisions and/or developments an easement shall be provided for all pipelines (including gravity sewer mains) as follows:

<b>Depth to pipe invert</b>	<b>Minimum width of easement</b>
Up to 1.5m	3m plus outside dimensions of pipe
1.5m – 2.5m	4m plus outside dimensions of pipe
Greater than 2.5m	To be determined by Director.
Low Pressure Sewer Systems Director	1.0m Minimum or twice the depth to invert which ever is the greater/or determined by Director

A Section 88B Instrument shall be prepared for each block with an easement and a specimen of this instrument is given in Appendix A.

- 3.5. In a case where the pipeline is in an easement, no building works can be carried out in that easement. Building adjacent to an easement may be subject to conditions such as depth of foundations, footings, etc. Refer to (3.7) and Figure 2 – Appendix B.

### **Encroachments**

- 3.6. Where Council determines that a building's proposed location, relative to Council pipeline, is within the limits detailed in Figure 1 – Appendix B, the applicant shall furnish a survey accurate plan of the proposal showing the relative location of the building and the pipeline. It is the responsibility of the owner to determine the exact location of the pipeline which is or may be affected by the proposed building.

There are three options available for the applicant:

a) Relocate Building/Development

The preferred option, is that the building be relocated a minimum of 1.5m clear of any part of a Council pipeline after taking into account the design considerations as detailed in (3.7) below and Figure 1 in Appendix B.

b) Relocate Services

The second option is that the pipelines be relocated a minimum of 1.5m clear of the proposed building, at the owner's expense and under Council supervision. Plans and specifications for the work are to be first submitted for approval of the Director, Water and Recycling Management Services. Design considerations, as detailed in (3.7) below and Figure 1 in Appendix B are applicable.

c) Protection of Services

The least preferred option, is that the applicant is permitted to build near or over the pipeline. This option can be adopted only in particular circumstances, is not generally available for sewer deeper than 2.5m or trunk sewer mains greater than 150mm in diameter and approval by the Director Water and Recycling Management Services, must be obtained prior to Construction approval being issued. The restrictions specified in Appendix C shall in general apply if this option is pursued and also Appendix E (Concrete Encasement) in the WSAA Code.

- 3.7. In determining any application, submitted under (3.5) and (3.6) above, the Director, Water and Recycling Management Services shall take into account condition of the pipeline, soil characteristics, influence of loads, proximity of existing buildings to the pipeline, access requirements for maintenance and replacement of the pipeline etc.
- 3.8. In options in (3.6b) and (3.6c) above, gravity pipelines shall be inspected using CCTV cameras or other suitable method as determined by the Director, Water and Recycling Management Services before and after the construction work is carried out. Close liaison must be maintained with Council during this period of inspection process to allow witness by a Council inspector.

Council staff require 24 hours notice to arrange an on-site inspection. All costs associated with these inspections, including the cost of Council's inspector, shall be borne by the owner.

- 3.9. Any damage caused to pipelines as a result of the construction work must be repaired at the owner's expense, and under Council supervision. (Note: if the pipe is found to be defective before construction work commences Council shall make every effort to repair the line before issuing the construction approval).
- 3.10. Plans and specifications for any construction work proposed on, above or near the pipeline and plans of the proposed building are to be submitted to the Director, Water and Recycling Management Services for approval and endorsement of any additional conditions. These additional conditions must also be adhered to during construction.
- A bond, the value of which will be determined by the director, Water and Recycling Management Services, may need to be furnished by the applicant. It shall be retained by Council until all works are completed and conditions complied with to the satisfaction of the Director Water and Recycling Management Services.
- 3.11. All works covered by (3.10) above must be inspected by Council prior to the pouring of any concrete and / or backfilling. Council staff require 24 hours notice to arrange an on-site inspection. All costs associated with inspection by Council staff shall be borne by the owner.
- 3.12. The Director, Water and Recycling Management Services may delegate his responsibilities with respect to implementing this policy to other staff members.

#### **4. EXCEPTIONS**

This policy does not apply to developments located on Crown Lands, National Parks, State Rail, State and Commonwealth Authorities.

#### **5. DISCIPLINARY ACTIONS**

The provisions of Council's "Unauthorised Development and Activities" Policy No 5.60 can be utilised where a non-compliance is not resolved to Council's satisfaction. This may result, where justified in the issuing of a notice of intention to serve an order or notice under relevant legislation. The Notice of Order must provide the receiver of the notice with an option to comply with Council's requirements in order to avoid the actual issuing of an Order of Notice.

(See Council's Policy No 5.60 "Unauthorised Development and Activities").

#### **6. DEFINITIONS**

**"Clay"** is a fine grained soil with elastic properties when wet. Includes gravely, sandy or silty clays.

**"Construction"** is the excavation, cutting or filling of land or the erection of any structures which includes concrete slabs or paving. A Rainwater Collection Tank is considered to be a construction with regard/respect to this policy.

**"Footing"** means construction that transfers the load from the building to the foundation.

**"Invert"** in this instance means the outside edge of the lowest part of the cross section of a pipe.

**"Sand"** is a granular soil that may contain a small proportion of fines including silt or clay. The amount of fines may be assessed as small by visual inspection or it the amount that passes at 75 micron sieve is 15% or less, material with a higher proportion of finds shall be treated as silt or clay.

**“Silt”** is a fine grained soil that is non-cohesive and non-plastic when wet and can include some sand and clay.

**“Rock”** is a soft material including shaley material and strongly cemented sand or gravel that does not soften in water or collapse under a combination of loading and wetting. Material that cannot be readily excavated with a backhoe may be taken as rock.

**“Zone of influence”** a footing would be determined to be within a zone of influence where the invert of the sewer main or the edge of a drainage easement at the invert level of the pipe falls below a line drawn at 45 degrees in clay, or 30 degrees in sand or silt, from the underside of the footing. (See diagram in Appendix B).

**“WSAA”** is the abbreviation of Water Services Association of Australia, Code of Practice, which covers both Water Supply and Sewerage.

## **7. AUSTRALIAN STANDARDS**

The Australian Standards that may be relevant to this policy include the following:

AS2159-1995 Piling Code  
AS2566-1982 Plastics Pipelaying Design  
AS2870-1995 Residential Slabs and Footings  
AS3600-1994 Concrete Structures Code  
AS3725-1989 Load on buried Concrete Pipes  
AS4058-1992 Precast Concrete Pipes  
AS4060-1992 Loads on Buried Vitrified Clay Pipes  
AS4139-1993 Fibre-reinforced Pipes and Fittings

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**APPENDIX "A"**

**Specimen S88B instrument when creating an easement**

Instrument setting out the Terms of Easements and Restrictions on use intended to be Created Pursuant to Section 88B of the Conveyancing Act, 1919.

Part 2

Terms of easement for sewer gravity main \_\_\_\_\_ referred to in the abovementioned plan.

- a) Full and free right and liberty to the Council, its servants, agents or contractors together with implements and machinery to enter upon the land to lay, maintain, alter, enlarge or duplicate pipes, manholes, junctions and sidelines.
- b) The Council shall be responsible for the cost of any work in connection with the construction, maintenance, alteration, enlargement or duplication of any pipes manholes junctions or sidelines. Such responsibility shall not extend to any damage caused to the pipeline and / or structures as a direct consequence of the actions of the landowner or his/her agents. Such damages shall be repaired at the owner's expense.
- c) The registered proprietor of the land or his/her agent shall not plant any trees or shrubs within the area noted as an easement for sewer main.
- d) The registered proprietor shall not erect, construct or place upon the land burdened any building, outbuilding, garden shed or other structure whatsoever. The Director, Water and Recycling Management Services may approve construction of outbuildings of light construction erected on a removable concrete or clay paving slabs which could be removed for maintenance or replacement of the pipeline.
- e) Council will take all reasonable precautions to ensure as little disturbance as possible occur to the land burdened and will restore that surface as near as practicable to its original condition. This shall extend to any disturbance caused to land adjoining the easement.
- f) If a term or condition of this instrument is or becomes invalid or unenforceable, the remaining terms and conditions shall be valid to the fullest extent permitted by law.

Byron Shire Council is empowered to release, vary or modify the terms of the easements \_\_\_\_\_ referred to in the abovementioned plan.



APPENDIX "B"

Diagram of Typical Design Considerations

APPENDIX "B"

Diagram of Typical Design Considerations to be Taken into Account when Designing Foundations Near Pipelines

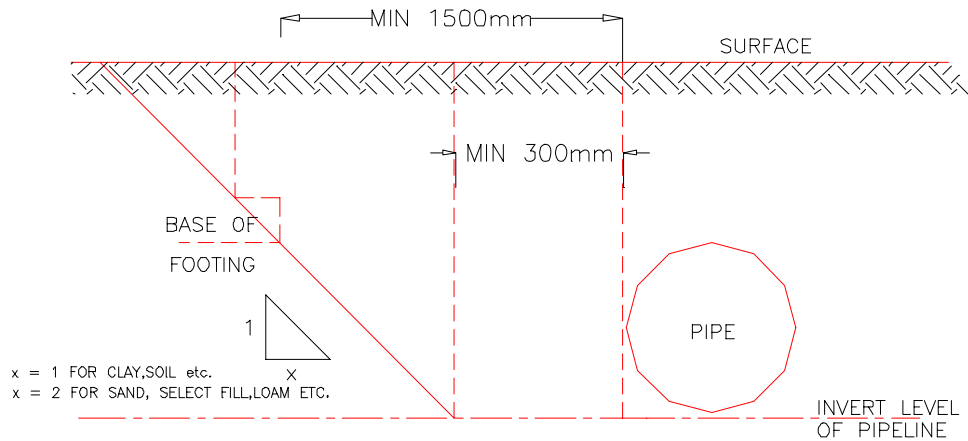


Figure 1: PIPELINE NOT IN EASEMENT

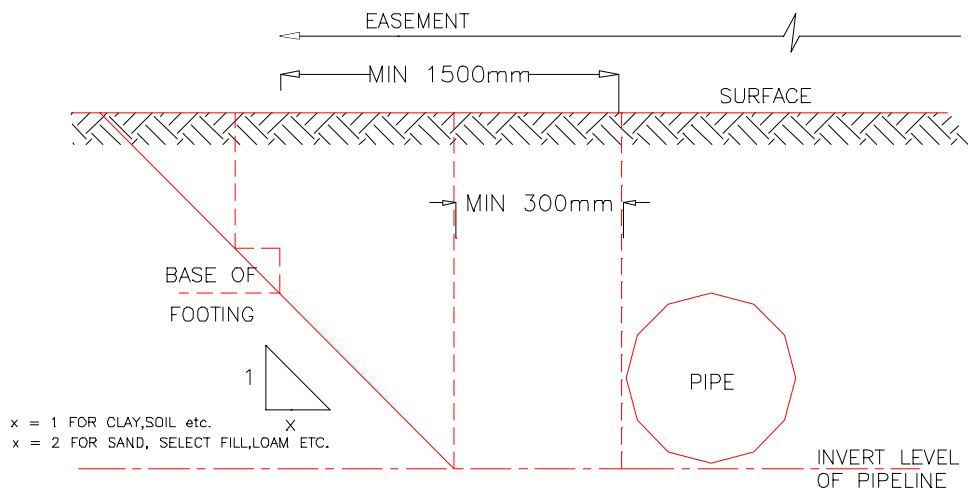


Figure 2: PIPELINE IN EASEMENT

NOTES:

1. ACTUAL ALIGNMENT OF PIPE TO BE DETERMINED ON SITE BY APPLICANT
2. APPLICANT TO CARRY OUT A TELEVISION CAMERA INSPECTION BEFORE AND AFTER ANY CONSTRUCTION WORK.
3. THE MINIMUM 1500mm CLEARANCE IS APPLICABLE FOR PIPES UP TO 1.5m DEPTH.
4. IN DETERMINING THE CLEARANCE DISTANCE FACTORS DETAILED IN THE POLICY SHALL BE TAKEN INTO ACCOUNT.

**APPENDIX "C"**

**Restrictions applicable when building over or near any Council pipeline**

The following restrictions shall apply generally when a structure is to be constructed over or near any Council sewers, drains and pipelines.

1. The foundations of any structure are to be constructed in such a manner that no loads due to the structure are transferred onto the pipeline or its foundations.
2. The building shall be constructed in such a manner that the floor and the structure can be removed in sections to provide access for repairs or replacement of the pipeline.
3. The owners of the land shall indemnify Council against damage caused to the pipeline by the application of dead loads, live loads and the effects of any settlement due to the construction of the building over the pipeline.
4. The owners of the land shall indemnify Council against damage to the building caused by the action of building over the pipeline.
5. The owners of the land shall indemnify Council against damage caused to others as a result of damages to the pipeline caused by the action of building over or near the pipeline.
6. All plans must be submitted for approval and indemnities signed **before** construction commences.

The above conditions will continue regardless of changes of ownership and provision must be made for this on the indemnity agreement, and suitable restriction shall be placed on the title of the land pursuant to Section 88 of the Conveyancing Act as detailed in Appendix D.

**APPENDIX "D"**

**Specimen of a S88B Instrument applicable for a property where a building is to be constructed over or near a pipeline**

For the purpose of this instrument:

**"cause"** shall include a partial cause or an indirect cause as if that were the sole and direct cause.

**"Council"** means the Byron Shire Council or its successor.

**"the property"** means the land burdened by this instrument.

**"the pipeline"** includes:

- I. drainage, water and sewerage pipelines or other structure; and
- II. any section of the same pipeline, whether on the property or on other property.

**"the owner"** means the Registered Proprietor of the property as may be the case from time to time.

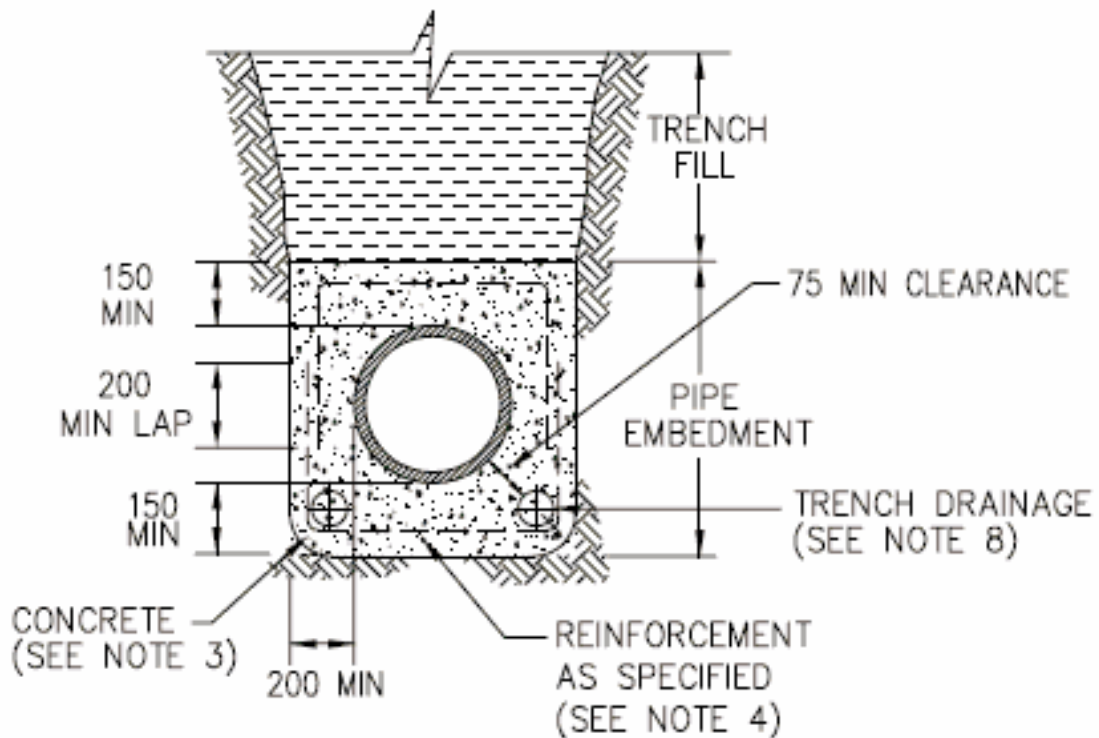
- a) The owner acknowledges that buildings on the property have been permitted over or near a pipeline and that there is no easement for the pipeline.
- b) The owners covenants to maintain the floor, roof and other structures of the building in removable sections as required by the council from time to time so as to allow Council to undertake repair, maintenance, replacement or such other works on the pipeline as in the opinion of Council are reasonably necessary.
- c) The owner covenants to immediately repair or replace any damaged pipeline on the property as requested by the Council or shall indemnify the Council for the costs of such work. The Council shall at all times have power in its absolute discretion to elect between requesting the owner to perform the work or to perform the work itself and be indemnified by the owner.
- d) The owner covenants in indemnify the Council against any damage or loss to the pipeline caused by the building over or near the pipeline.
- e) The owner covenants to release the Council from any liability (whether in negligence or otherwise) for the damages or loss suffered by the owner caused by the building over or near the pipeline.
- f) The owner covenants to indemnify the Council against damage or loss suffered by owners and/or occupiers of land other than the property caused by the building over or near the pipeline.
- g) The owner covenants that, in the event the preceding covenant is or becomes invalid or unenforceable, whether wholly or partially, he will indemnify the Council against damage or loss suffered by owners and/or occupiers of land in the vicinity of the property caused by the building over the pipeline.
- h) A certificate by an officer of the Council as to the cause of damage or loss shall, in the absence of any manifest error, be conclusive evidence of the cause of the damage or loss.
- i) If any covenant, term or condition of this instrument is or becomes invalid or unenforceable, the remaining terms and conditions shall be valid to the fullest extent

permitted by law.

- j) Byron Shire Council is empowered to release, vary or modify the terms of the restrictions referred to in this instrument.
- k) If a term or condition of this instrument is or becomes invalid or unenforceable, the remaining terms and conditions shall be valid to the fullest extent permitted by law.

APPENDIX "E"

Concrete encasement of sewer mains shall be constructed as detailed in the WASAA Sewerage Code of Australia - see Plan SEW-1205 Type 12.



**TYPE 12 SUPPORT**  
**UTILISING CONCRETE EMBEDMENT**  
(RIGID & FLEXIBLE PIPES)