

YOUNG SHIRE COUNCIL

ENGINEERING GUIDELINES  
FOR  
SUBDIVISIONS &  
DEVELOPMENTS

PART 1

General Requirements

Prepared by Engineering & Technical  
Services Department  
Young Shire Council

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# PART 1

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## 1. INTRODUCTION

This section of the Engineering Guidelines for Subdivision and Development have been compiled to outline Council's general procedures and practices in respect of the engineering requirements for subdivision and development of land within the Shire of Young.

The following guidelines have been prepared in order to facilitate the expeditious processing of engineering plan submissions, construction approvals and linen plan releases for subdivisions and developments. Applicants should be aware that each development is required to be treated on its merits and that approval is dependent on the overall impact of the development on the area and not solely in compliance with minimum engineering standards.

Council welcomes the submission of innovative design solutions and staff are available for initial consultation to discuss and assess the prospects for approval.

All applicants are advised to ensure that all conditions of the Development Consent are addressed within the detailed engineering plans.

All references to the Director should be interpreted as referring to the Director of Engineering and Technical Services or his nominated representative.

All references to an engineer should be interpreted as a person acceptable for Corporate Membership of The Institution of Engineers, Australia with qualifications.

All references to "Engineering Guidelines" should be interpreted as referring to "Engineering Guidelines for Subdivisions and Developments". All reference to a "Registered Surveyor" should be interpreted as a person registered under the Surveyor's Act, 1929 as amended.

Part 1 of the Subdivision and Development Guidelines outlines Council's general engineering requirements. The detailed engineering requirements are given in Parts 2 to 7.

- Part 1 - General Requirements
- Part 2 - Guidelines for Design of Roads
- Part 3 - Guidelines for Design of Drainage
- Part 4 - Guidelines for Design of Water Reticulation
- Part 5 - Guidelines for Design of Wastewater Reticulation
- Part 6 - Guidelines for Landscaping, Erosion and Dust Control
- Part 7 - Guidelines for Testing

## 2. GENERAL

Council has determined that where a developer proposes, or is required to carry out civil engineering works in connection with a subdivision or development, the civil engineering works are to become the responsibility of Council.

Before the developer commences the civil engineering works, a satisfactory engineering plan(s) and specification of the proposals should be submitted to and approved by the Director.

When approval to a subdivision or other development includes conditions of construction which are embodied in the approved plans and specifications, the onus is primarily on the applicant to whom the approval is given to ensure that the work is completed in accordance with plans and specifications.

A contractor carrying out subdivision works is responsible to the developer, not the Council.

The developer should nominate to Council, the person or firm, with whom correspondence relating to the technical aspect of the development should be exchanged.

The Council will hold the developer (applicant), to whom the development approval was issued, solely responsible for constructing the required development works to Council's satisfaction and maintaining them during any specified period.

The developer should nominate to the Director for approval prior to commencement of construction, the name of the contractor who is to carry out the work associated with the development. Details of experience and technical expertise in similar works and the financial capabilities of the contractor to carry out the works is also required by the Director.

The Director will not require the details above for contractors previously approved.

Sub-Contractors should not be employed to carry out any part of the works unless prior approval has been obtained by the Director.

### 3. SUBMISSION OF ENGINEERING DRAWINGS AND SPECIFICATIONS

#### 3.1 Engineering Drawings

The following requirements apply in the preparation of engineering drawings for developments and subdivisions, including all associated works:-

Engineering drawings are to be submitted in quadruplicate, with a covering letter, by the applicant. One (1) set of approved plans will be returned to the applicant.

It is suggested that one (1) A1 size set be forwarded initially with relevant stormwater data, etc. for examination by Council and the additional four (4) A3 size sets forwarded upon approval.

For uniformity of plan presentation and to facilitate filing and microfilming, all plan sizes, lettering, line work and symbols are to conform to A.S. 1100 - Technical Drawing.

All scales are to be shown in the form of a "bar" with a ratio scale shown adjacent thereto.

All drawings should include a list of symbols used.

The following items should be detailed in the drawings, and the layout of each should be on a separate sheet unless otherwise approved by the Director.

1. A Cover Sheet with a Locality Plan and List of Drawings
2. Roads and Kerb and Gutter
3. Stormwater
4. Water Supply
5. Sewerage
6. Landscaping Plan
7. Dust, Erosion and Sediment Control Plan
8. Telecom
9. Electricity

All drawings should be signed by the respective Consultant/Engineer engaged by the Developer.

#### 3.2 Persons Qualified

Council requires that design plans be prepared to Council's standards by a person, either holding qualifications acceptable for Corporate Membership of the Institution of Engineers, Australia, or approved by the Director and/or who has proven experience in the preparation of plans and specifications for land development.

### 3.3 Construction Specification

These guidelines are not to be considered as a Code or a Specification, even though they do specify some basic requirements throughout.

Preparation of the specification is the responsibility of the Applicant, and the specification may include reference to requirements contained within Council's Engineering Guidelines, together with the appropriate standard specifications selected from other sources.

One (1) copy of the Construction Specification is to be submitted with the initial set of engineering drawings, which should be checked by Council.

### 3.4 Approval of Engineering Drawings and Specification

The Civil Engineering Drawings and Construction Specification will be checked by Council for compliance with these Guidelines. All calculations and designs may not be thoroughly checked. It is the entire responsibility of the person(s) or company submitting the documents, to ensure that the designs and specification comply with the following:-

- . Council's Subdivision Guidelines
- . Relevant Australian Standards
- . Relevant Local, State and Federal Government Legislation

The Director's approval is conditional on the above basis and does not relieve the developer from rectifying any errors or omissions which become evident during construction. Additionally, the approval is current for just two (2) years within this period. The developer is required to comply with Council's current Engineering Guidelines. If work has not substantially commenced inside of this two (2) year period, the Director may require that revised Engineering Drawings and Construction Specification be submitted for approval.

4. INSPECTION OF WORKS

- 4.1 The whole of the road, drainage, kerb and gutter, water and sewerage construction works, which the developer is required to carry out in respect of a development will be inspected by Council's staff under the direction of the Director; OR

If approved by Council, the subdivider may arrange for the inspection on Council's behalf to be carried out by an Engineer, approved by the Director.

The whole of the works are to be carried out to the entire satisfaction of the Director. The developer should at all times give uninterrupted access and afford every facility for the examination of any works and materials as requested by the Director, or any officer authorised by him to inspect the works.

- 4.2 The developer should not obstruct and will be held responsible for the safety of the public, traffic and utility services such as electricity, water, Telecom and the like, and should provide all watchmen, lights, barriers, signs and fences necessary to prevent any accidents to public or private damage or loss. The developer should provide, erect and maintain all necessary temporary roads, bridges, footways, drains, supports and protection in order to ensure the above.
- 4.3 In the event of any of the abovementioned services being damaged or interrupted, the developer should forthwith notify the responsible authority and take all necessary steps to provide for the safety of the public and to have the damage repaired as quickly as possible. The cost of all repairs is to be borne by the developer.
- 4.4 Signs, barricades, barriers, warning lights, etc. should be placed where works are in progress and in accordance with AS 1742 - "Manual of Uniform Traffic Control Devices".
- 4.5 The developer should provide and maintain adequate fire fighting equipment and take adequate fire protection measures during the carrying out of the works and should take action to prevent damage to, or destruction by fire of forests, trees, shrubs or grasses.
- 4.6 Before starting any work across a railway or a railway property, the developer should have obtained from the Divisional Engineer, State Rail Authority, approval to commence such work. The developer should comply with all requirements of the Director and complete such work to his entire satisfaction.

- 4.7 The developer should supply the following notices, in writing to the Director and comply with the following requirements:-
- (a) The name, address and telephone number of the contractor is to be submitted at least seven (7) days prior to the proposed date of commencement of any construction;
  - (b) Forty-eight (48) hours notice should be given by the developer (or his contractor) to the Director in respect to each of the following:-
    - (i) Completion of formwork/stringlines for kerb and gutter;
    - (ii) Opening of trenches ready for pipe laying;
    - (iii) Placing of pipes in trenches prior to backfilling;
    - (iv) Testing of water and sewer mains;
    - (v) Completion of subgrade preparation before placing of pavement;
    - (vi) Completion of each pavement layer ready for testing;
    - (vii) Sealing of roadworks.
    - (viii) Commencement of any construction activity on Council owned or controlled land or road reserve.
- 4.8 The developer should, if required by the supervising engineer, submit docketts from the supplier of ready-mixed concrete in order that the quality of the concrete supplied may be checked.
- 4.9 The developer should, within seven (7) days of the sealing of any pavement, supply to the supervising engineer all supply docketts and spraying records in respect of such work.
- 4.10 If for any reason the Council should relieve the developer of the obligation to carry out construction works under the direct supervision of Council's staff, then the developer should, at the conclusion of the work, supply to Council a Certificate from the Inspecting Engineer stating that the whole of the works have been carried out in accordance with the approved plans and specifications.



- 4.11 The Director should inspect the works to ensure that the works are constructed in accordance with Council requirements and the approved plans.

The Director does not carry out the functions of "Superintendent" as defined in the General Conditions of Contract - AS 2124, 1992. The developer is required to appoint a consultant to carry out this function.

5. FEEs AND CONTRIBUTIONS

5.1 Subdivision/Development Inspection Fees

Fees for examinations of engineering drawings, inspections of subdivision works and release of "Linen Plans" are as follows:-

*For Urban & Rural Subdivisions assessed as 1.5% of the estimated cost of the works.*  
~~Urban Subdivisions - \$5.00 per metre length of road~~  
~~Rural Subdivisions - Assessed~~

The fee is to be paid when Engineering Drawings are lodged with Council.

5.2 Sewer Headworks

A charge for sewer headworks will be required for:

1. The provision of adequate trunk main facilities, pumping stations and sewage treatment. The charge per additional lot in a residential and industrial subdivision is assessed annually by Council and in accordance with Council's current Young township development contributions policy. This fee is payable prior to the release of the linen plan.
2. Contributions due under Council's trade Waste Policy where applicable. Details are scheduled in Council's policy document.

5.3 Drainage Contribution

A contribution may be required toward the increased capacity of the downstream reticulation necessary to cater for the developed run-off from the proposed subdivision based on the current Section 94 Contribution Plan. A contribution to Council is payable prior to the release of the linen plan. Where a contribution from Council, is required, such contribution will be paid at the time of linen plan release.

5.4 Extension of Water Reticulation System and Headworks Charges

Contributions may be required towards the provision of adequate dam storage, treatment works, pumping stations, reservoirs, truck mains and reticulation mains.

Contributions will be based on:

1. The current Young Township Development Contributions Policy.
2. Current South West Tablelands Water Supply contribution policy levied on Council and charged directly to developments.

These charges do not include costs for construction works carried out by Council at the Developer's request, eg, connection of new water mains to existing mains, water connections to newly created allotments.

5.5 Physical Testing

Testing to ascertain whether works comply with the Drawings and Specifications shall be carried out by the Director or by a testing authority approved by him. The cost of the first tests shall be borne by Council.

The costs of further tests shall be borne by the Developer. The following fee structure for testing of works is applicable.

1. The fee for the first test is nil.
2. The fees for subsequent tests:-
  - (a) Beam Testing of Pavement \$53.00 plus \$62.00/hr
  - (b) Concrete, Pavement Density, Material Testing etc. At Cost
  - (c) Testing of Sewer, Water, Subgrade, Crossfalls etc. \$23.00 plus \$27.00/hr

6. BONDS AND GUARANTEES FOR PERFORMANCE

6.1 Council may give favourable consideration to a request from a developer to:-

- (i) Carry out construction works within a subdivision on behalf of the developer, or,
- (ii) Accept a suitable bond or guarantee from the developer in consideration of which the developer will perform certain works within specified time.

6.2 Council has resolved that:-

- (i) The linen plan should not be signed and released by the General Manager until the Director certifies that the following works are completed:-

Water supply, sewer reticulation, kerb and gutter, stormwater drainage and the road construction up to and including the sub-base pavement;

- (ii) A bond is required from the developer prior to the release of the linen plan and it should be the value of the outstanding works, plus 5% of the total contract value, as determined by the Director;
- (iii) The Director will fix a reasonable time for the completion of works from the date of release of the linen plan, and;
- (iv) If works are incomplete in the time allowed, the Director may grant an extension of time to complete, or Council may complete works at the developer's cost using the bond. Any unexpended balance will be refunded to the developer.

6.3 Developers should note that when Council carries out the work on their behalf, the priority of the work is determined from the date that satisfactory financial arrangements for the carrying out of the work have been lodged with Council, and that development works are carried out in strict order of receipt.

7. WORKS-AS-EXECUTED (W.A.E.) PLANS

Following the completion of engineering works in a subdivision or development, "Works-As-Executed" A(1) size, transparency plans are required to be prepared by a registered surveyor/professional engineer and forwarded to the Director prior to the release of the final plan of subdivision.

The W.A.E. plans should include the following:-

- . notation that all works have been completed generally in accordance with the approved plans and specification;
- . any departure from the approved plans;
- . any additional work that has been undertaken;
- . the location of conduits, subsoil lines, stub mains and interlot drainage lines, etc.;
- . W.A.E. levels of pipeline long sections showing the constructed invert levels of each pipe at each pit and pipe dimensions;
- . all other details which have a bearing on the extent of works and their acceptance by Council;
- . W.A.E. locations of stop valves, hydrants, sewer manholes, sewer junctions, interlot drainage inlet points and stormwater drainage manholes.

. The Works-As-Executed plans must be certified by the Registered Surveyor or the Engineer responsible for the preparation of the Works-As-Executed plans.

. The following certificate is to be appended to each page of the plans and signed by the supervising surveyor or engineer:-

*"I hereby certify that engineering works shown on this plan are Works-As-Executed and have been constructed in accordance with the plans and specifications approved by the Director.*

Name:

Signature:

Capacity:

Date:

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The Registered Surveyor responsible for the Linen Plan of survey covering the subdivision is to supply a signed certificate stating that all pipes and associated pits are located wholly within the respective easements. This certificate must be supplied prior to the release of the linen plan of subdivision.

8. COMPLETION OF WORKS

8.1 Notification of Completion

When the developer (or his consultant) is of the opinion that Completion of Works has been reached, the developer should, in writing, request the Director to issue a Notification of Completion.

Within fourteen (14) days of the receipt of the request, the Director should inspect the works and should issue a Notification of Completion or should give the developer, in writing, the reasons for not issuing the above. The developer or his contractor should be present for the inspection and assist the Director for checking levels, opening manholes etc., as required.

8.2 Maintenance of Works

The Maintenance Period should be twelve (12) months and should commence on the date of Notification of Completion.

Subject to the Maintenance Bond being lodged with Council, any bonds for outstanding works should be released by Council following practical completion.

The Maintenance Bond should be an amount of five percent (5%) of the value of the total Contract, with a minimum amount of three hundred dollars (\$300). This bond should be held by Council to cover any defects or omissions which may arise or become apparent in the maintenance period.

At any time during the Maintenance Period, the Director may direct the developer to rectify any omission or defect in the work which exist at Notification of Completion or becomes apparent prior to the expiration of the Maintenance Period. If defects or omissions are not rectified to the satisfaction of the Director, Council should be at liberty to rectify the same and apply the maintenance bond for payment of the cost thereof.

The nature of some defects, eg. water main breaks, sewer main connections etc., may necessitate Council's immediate action to repair. The maintenance bond will be used for the costs unless the developer elects to pay Council separately.

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9. SURVEY AND SETTING OUT REQUIREMENTS

9.1 Centreline Marking

9.1.1 Urban

The Centreline of the proposed road should be pegged a maximum spacing of twenty (20) metres. Recovery pegs should be placed on both sides of the road off-set approximately fifteen (15) metres at each tangent point (T.P.) of curves and at no greater than 150 metres on straights.

9.1.2 Rural/Rural Residential

The centreline pegging should be as required for urban roads except that the spacing should be thirty (30) metres and the provisions of M.R. Form Nos. 355 and 892 should apply in respect to the pegging of curve transitions.

9.2 Datum

The survey should be undertaken on Australian Height Datum.

9.3 Bench Marks

Bench Marks should be established at intervals not exceeding 300 metres and in accordance with sound surveying practice.

9.4 Survey Control Marks

All plans of survey are to show connection to at least two (2) survey control permanent marks where such exist in the vicinity of the subdivision or where practicable. In the case where it is intended to open a new road at least two (2) control marks per sheet of the subdivision plan are to be established in the road by the Surveyor and connected to the nearest allotment corner.

The survey control marks shall be in accordance with the "Survey Practice Regulations, 1990".

9.5 Lot Boundaries

Lot boundaries should be established to the standard required by Survey Practice Regulation 1990, prior to the final inspection of works.



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10. MISCELLANEOUS

10.1 Public Liability Insurance

Contractors engaged on Development or Subdivision Works should take out Public Liability Insurance to the value of \$5 million. The policy should specifically indemnify Council from all claims arising from the execution of the works.

Council will annually check on each contractor's public liability insurance.

10.2 Compliance with Acts

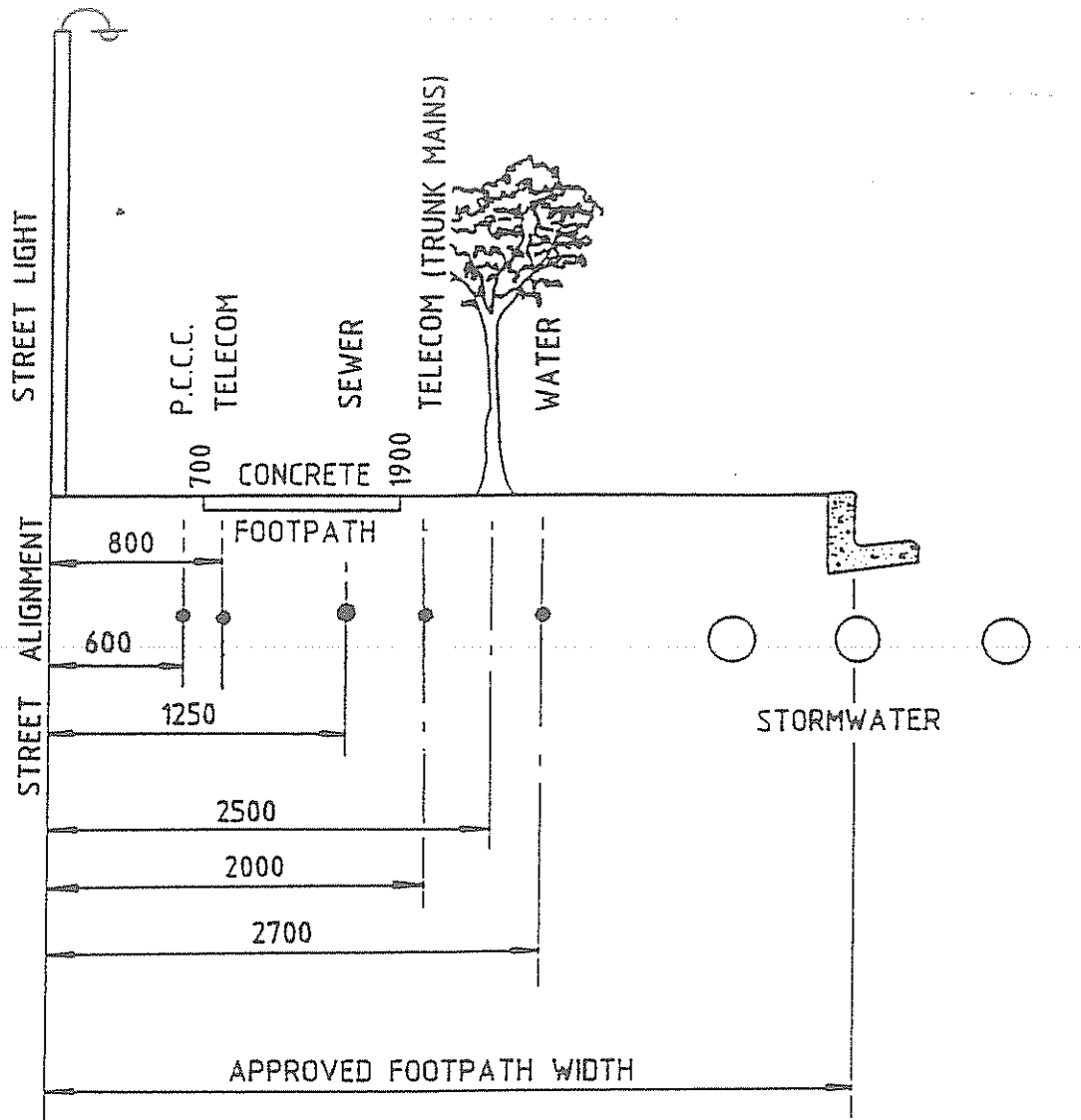
It is the responsibility of the Developer or his contractor to ensure that all works are undertaken in a safe and efficient manner. In particular, the Contractor should ensure compliance with the Occupational Health and Safety Act (1983) and any other relevant Acts, Ordinances and Regulations in New South Wales.

10.3 Location of Services

The location of services should be as per Council's Drawing No. 6501.

All services should generally run parallel to the road centreline and should cross the road centreline perpendicular to it unless otherwise approved by the Director.

Sewer mains may be located inside newly created lots within two metres of the footpath boundary.



**NOTE:**

1. All Measurements Are From Street Alignment To Centreline Of Services.
2. Telecom Trunk Mains, Where Possible, To Be Located In Opposite Footpath To Sewer & Water.
3. Maximum Telecom Inspection Pit Size To Be 950 Overall Where Located On Same Side As Sewer.
4. Small Diameter Pipes For Telecom & Electricity Cables Adjoining Building Alignment By Arrangement Between The Two Bodies.
5. Where Manholes & Pits Are Required Special Arrangements To Be Made.
6. In Footways Where Permanent Levels Have Been Established, All Mains Are To Be Laid At Sufficient Depth To Permit Driveways To Be Constructed Into Any Property Fronting Such Footways.
7. Cases Not Covered By Standard To Be Determined By Mutual Agreement Between Authorities Interested.
8. Selected Species Of Street Trees To Be Planted In Locations Where Overhead Power Or Telecom Lines Are Utilised.
9. All Dimensions in mm.

<b>YOUNG SHIRE COUNCIL</b>	SCALES AS SHOWN		DIR.	SERVICES	DATE
	DRAWN	TRACED	<div style="display: flex; justify-content: space-between;"> <span style="font-size: 1.5em;"><b>A4</b></span> <span style="font-size: 1.2em;"><b>DRAWING No.</b></span> </div> <div style="text-align: right; font-size: 1.5em; margin-top: 10px;"><b>6501</b></div>		
<b>FOOTPATH ALLOCATIONS</b>		CHECKED			