

Adoption Date: 10/12/96



LOCAL PLANNING POLICY NO. 3/96

TITLE: SUBDIVISION DEVELOPMENT STANDARDS

PURPOSE:

To set out Council's requirements and guidelines in respect of subdivision development standards.

SCOPE:

This Policy shall apply to all subdivisional and development works in all areas of the Shire.

PROVISIONS:

The minimum subdivisional works standards for urban and rural areas shall be in accordance with the following Schedule -

MINIMUM STANDARDS - SUBDIVISIONAL WORKS

URBAN SUBDIVISIONS

1.0 GENERAL

- 1.1 The following specification and design parameters are intended for the general guidance of Land Subdividers, Surveyors and Engineers engaged in the design and construction of subdivisional roadworks, drainage, water and sewerage reticulation for urban subdivisions within the Shire. All roadworks are to be to bitumen standard.
- 1.2 These Standards are to be read in conjunction with Council's Bylaws together with any conditions and requirements set out by Council in its approval to any specific subdivisional proposal.
- 1.3 Design

No subdivisional works construction is to be commenced until plans, specifications, schedules and supporting calculations have been submitted to Council for review and Council's written approval thereto has been issued to the Applicant. Such plans, specifications etc. are to be prepared by an Engineer with qualifications acceptable to Council.

- 1.4 Supervision

1.4.1 The works are to be supervised on the Applicant's behalf by an Engineer with qualifications acceptable to Council, who will issue to Council at the practical completion of the works, certified "as constructed" plans of the work and his certificate as to the satisfactory completion of the work.

1.4.2 The works are to be available for inspection by Council's Engineer, or his delegate, at all times. Council's Engineer will undertake inspections of the work at the following stages:-

- (i) Stormwater drainage pipelines complete prior to backfilling.
- (ii) Water and sewerage reticulation pipelines complete prior to backfilling.
- (iii) Water and sewerage reticulation during hydrostatic testing.
- (iv) Subgrade prior to construction of kerb and channelling.
- (v) Pavement box complete prior to pavement placement.
- (vi) Pavement complete prior to bitumen surfacing.
- (vii) At practical completion.
- (viii) At completion of maintenance period.

Adequate notice is to be given to Council's Engineer by the Developer to enable him to arrange the above inspections of the work. At the times of inspections (iv), (v) and (vi) the Council's Engineer is to be provided with certified copies of "as constructed" levels of the subgrade, kerb levels or pavement levels as appropriate.

1.4.3 Soil Testing

Soil testing for design confirmation and project control is to be carried out at the Developer's cost, by a testing organisation acceptable to Council. Certified results of testing are to be presented for Council's records in support of subgrade analysis, pavement design, subgrade densities, pavement analysis and pavement densities.

1.4.4 Water and Sewerage Reticulation Testing

A hydrostatic pressure test of the water and sewerage reticulation system is to be specified. Such testing is to be witnessed by Council's Engineer.

1.5 Declared Roads

Where proposed subdivisional roads are required to intersect with roads declared under the Main Roads Act, the location, design and construction of such intersection shall be in accordance with the specific requirements of the Main Roads Department.

1.6 Services

1.6.1 Telephone - To be provided at no cost to Council.

The Developer is to liaise with TELSTRA AUSTRALIA to determine the location and status of any existing or proposed telephone equipment which might be affected by the location or construction of the proposed subdivisional works. The Developer is to meet the costs incurred in the preservation, repair or relocation of such equipment arising from his works.

1.6.2 Electricity - To be provided at no cost to Council.

The Developer is to liaise with CAPRICORNIA ELECTRICITY to determine the location and status of any existing or proposed power lines which might be affected by the location or construction of the proposed subdivisional works. The Developer is to meet the costs incurred in the preservation, repair or relocation of such equipment arising from his works.

1.6.3 Water

For subdivisional developments in areas within Council's defined water area, connection to Council's reticulation system is mandatory in accordance with Council's Local Planning Policy 1/96.

For subdivisional developments in areas outside of Council's defined water area, it must be demonstrated by the applicant to the satisfaction of Council that every lot proposed for residential, commercial or industrial purposes can be provided with a bore, licensed by the Water Resources Commission and that such bore will, in the opinion of the Council, provide adequate potable water.

Alternatively, an application should be made to Council for an extension of Council's defined water supply area in accordance with Council's Local Planning Policy 1/96.

1.6.4 Sewerage

For subdivisional development in areas within Council's defined sewerage area, connection to Council's reticulation system is mandatory in accordance with Council's Local Planning Policy 1/96.

For subdivisional developments in areas outside of Council's defined sewerage area, it must be demonstrated by the applicant to the satisfaction of Council that every lot proposed for residential, commercial or industrial purposes shall be situated on lands capable of the receiving of, or the transpiration of, septic wastes.

Alternatively, an application should be made to Council for an extension of Council's defined sewerage area in accordance with Council's Local Planning Policy 1/96.

2.0 SURVEYS

- 2.1 New road reserve widths shall be as determined by Council in each case, however, the following minimum widths are set out as a guide in planning:

Cul-de-sacs & Minor Residential Streets

16 metres or such greater width needed to achieve minimum required constructed width plus 4.0 metre footpaths.

Collector & Distributor Roads

_____ 20 metres

Sub-Arterial Roads

_____ 40 metres

2.2 Truncations

_____ A minimum single chord truncation of 4 metres will generally apply, however, Council may require a larger truncation in particular circumstances. Bends in roads are to be truncated generally to allow a minimum radius of 80 metres and to preserve the minimum 4 metres footpath width.

- 2.3 Road and Drain Line centre lines are to be pegged and levelled at 25 metre intervals together with such intermediate points as are necessary to show all significant features and changes of grade.

Cross sections at right angles to the centre line shall be recorded at each peg and intermediate point, the cross section shall extend at least 3 metres beyond the allotment boundary with sufficient lines to adequately describe the surface profile.

Surveys shall be related to an established Bench Mark, to State Datum if practicable. Levels shall extend beyond the proposed construction at all intersections and terminations to enable grading to conform to existing or future works to be confirmed.

All existing relevant features such as Telstra installations, service poles, drainage

3.3 Design Parameters - Drainage

3.3.1 Runoff

Stormwater runoff is to be calculated in accordance with the principles set out in Australian Rainfall and Runoff. The following recurrence intervals are to be adopted:

years	Open Space Areas	2
years	Residential Areas	10
years	Commercial Areas	20

3.3.2

Capacities

A piped underground drainage system is to be provided to carry stormwater runoffs calculated as above. Designed above ground flow paths are to be provided along roads or through park and reserve areas to carry stormwater flows in excess of the capacity of the pipe system.

KERB & CHANNEL CAPACITY	As set out in Australian Rainfall & Runoff
KERB GULLY PIT CAPACITY	Single extended Inlet Gully 0.12 m ³ /sec Double extended Kerb Inlet Gully 0.20 m ³ /sec
PIPELINE CAPACITY	Calculated from the curves set out in AS 2200 - 1978 "Design Charts for Water Supply and Sewerage"

3.4 Design Parameters - Water Reticulation

The works are generally to conform to the requirements set out in "Guidelines for Water Supply Planning" issued by the Queensland Department of Local Government. The following particular requirements are to be noted:-

PIPE CLASSES

Asbestos cement pressure pipe Class 'D' for 100 and 150 mm. dia. and Class 'C' for 200 mm. dia. where not located under road pavements.

Current lined ductile cast iron Class K9.

Where located under road pavements.

PIPE SIZES

General	Minimum pipe size 100 mm. dia.
Cul-de-sacs	Services to the head of the cul-de-sac are to be provided from a 50 mm. dia. polyethylene ring main run round the head of the cul-de-sac.

VALVE LOCATIONS

An adequate number of stop valves are to be provided to facilitate logical and limited area isolation for servicing purposes. All valves are to be located within footpath reserves.

3.5 Design Parameters - Sewerage Reticulation

The works are generally to conform to the requirements as set out in "Guidelines for Review of Sewerage Schemes" issued by the Queensland Department of Local Government. The following particular requirements are to be noted.

PIPE CLASSES

UPVC Class 5H rubber ring jointed where cover to the pipeline is less than 1.25 m. or greater than 3.0 m. Otherwise asbestos cement bitumen dipped Class 35.

PIPE SIZES

General

Minimum pipe size 150 mm. mains
Minimum pipe size 100 mm. house drains

Location

Maximum manhole spacings 90 metres

Generally sewer mains shall be located within road reserves wherever possible.

HOUSE CONNECTIONS

A house connection is to be provided for each new allotment to be created by the subdivision. All such connections are to be located at a depth below the finished ground surface level of 1.5 metres, approximately unless approved otherwise by Council's Engineer. All connection branches are to be sealed off with a removable cap to prevent ingress of water. Where the sewer line is located outside the allotment, the house connection branch is to extend at least 300 mm. out into the allotment.

STANDARD DRAWINGS

Construction details are to conform to the following Queensland Local Government Department drawings or equivalents approved by Council's Engineer.

<u>DRAWING NO.</u>	<u>TITLE</u>
80001A	Sewers and Housedrains - Types of Construction
80002	Sewers and Housedrains
- Typical Details	
80003	Sewer Manhole
80004	End of Line Manhole
80005	Inspection Chambers
80006	Manhole Cover - Concrete
80007	Manhole Cover - Cast Iron
80008	Manhole Cover - Bolt Down Cast Iron
80009	Step Iron

4.0 CONSTRUCTION

4.1 Specifications

_____The working plans are to be supported by job specifications adequate to ensure that the design intent is met in the construction of the works and that sound construction practices are followed.

4.2 Roadworks

_____4.2.1 Clearing

_____The new road reserves are to be fully cleared and grubbed. Any fallen and cleared timber is to be disposed of by burning or removal from the site.

4.2.2 Formation

_____The roads are to be formed and trimmed for the full width of the reserve. Batters are to be not steeper than 1:4.

4.2.3 Concrete Kerb and Channelling

_____Specifications may provide for either formed or machine extruded kerbing. The specification should provide for control as to concrete strength and grading, finish and the provision of reinforcement where subgrade conditions dictate this.

4.2.4 Bitumen Sealed Pavements

_____An approved soil aggregate or crushed rock pavement is to be provided to the width appropriate to the road classification and as required by Council.

The pavement depth is to be calculated employing Queensland Main Roads Department methods, based on CBR tests on the subgrade and will not, in any case, be less than 150 mm. All pavement materials will be tested to conform, in place, with the current Queensland Main Roads Department specifications for such pavement materials. Compaction standards for subgrade and pavement are to be nominated.

The bitumen seal coat is to take the form of a two (2) coat, hot bitumen flush seal system. The materials used, application rates, standards and methods are to be specified and are to be not less than the Queensland Main Roads Department standards. Precoating of all sealing aggregates will be required.

4.3 Stormwater Drainage

4.3.1 All stormwater drainage pipelines are to be bedded and backfilled to a level at least 100 mm. above the crown of the pipe with an approved granular fill material. Where drainage pipelines are located beneath road pavements, backfilling procedures and materials are to be specified to minimise the likelihood of future settlement.

4.3.2 Drainage outlets are to be located, graded and constructed in such a way as to avoid the risk of ponding and damage by scouring.

When drainage pipelines discharge into land owned by persons other than the subdivider, evidence is to be produced to Council of an agreement between the subdivider and the adjoining property owner that arrangement acceptable to both parties have been made in relation to the stormwater discharge.

4.4 Water Reticulation

4.4.1 Water reticulation pipelines are to be laid with the following minimum cover:-

Pipelines under road pavements 750 mm.
Pipelines in other locations 600 mm.

4.4.2 All water reticulation pipelines are to be bedded and backfilled to a level at least 100 mm. above the crown of the pipe with an approved granular fill material. Where pipelines are located beneath road pavements, backfilling procedures and materials are to be specified to minimise the likelihood of future settlement.

4.4.3 All valves and hydrants are to be provided with a cast iron cover box and concrete surround at finished ground surface level and provided with a marker post and plate to Council's standards.

4.4.4 Services & Conduits

Where water services are required to cross road pavement, the following provisions are to be made by the subdivider:-

- (i) A 100 mm. dia. service conduit is to be provided.
- (ii) The service conduit location is to be permanently marked on the kerb and channel at each end.
- (iii) A 25 mm. dia. tapping and service cock is to be provided in the main adjacent to each conduit location.
- (iv) A 25 mm. dia. polyethylene service is to be run from the tapping through the conduit extruding 4 metres beyond the kerb line. The extended pipe length is to be left buried in the trench.

4.5 Sewerage Reticulation

_____All works shall be carried out in accordance with the "Sewerage and Water Supply Act Amendment Act 1981".

5.0 SIGNS

The subdivider is to supply and erect all road name, direction and warning signs required. Road names are to be first approved by Council.

6.0 CONCRETE KERB AND CHANNELLING

Kerb profile is to be vertical "Barrier" type for distributor roads (12 metres min. width) and "Layback" type for all other road classifications.

7.0 FOOTPATH ALLOCATION

Generally, the allocation of space for services within the footpath shall be in accordance with Drwg. No. SD-03 unless otherwise approved by the Director - Technical Services in the case of exceptional circumstances.

8.0 FLOODING

All lots shall be free from flooding.

9.0 PARKS

Refer to Local Planning Policy 2/96 "Parks Contributions".

10.0 ROAD PATTERN

Roads should follow contours, avoid long cul-de-sacs and have an alternative access. Provision should also be made for connecting to the road system of adjoining or future subdivisions so that a comprehensive and co-ordinated road pattern is achieved.

11.0 PEDESTRIAN ACCESS

Accesses should be provided for pedestrians and cyclists between heads of cul-de-sacs and give easy access to schools and recreation areas.

Such access shall be fenced along common boundaries to allotments to the satisfaction of the Director - Technical Services. The minimum standard shall be as set out in Standard Drawing STD16 - Fencing to Pathways and Parks.

12.0 ALLOTMENTS

A variety of allotment sizes and shapes is preferred to encourage the subdivision into allotments that take advantage of contours, natural features and make the best use of

building sites. A proportion of hatchet-shaped blocks will be considered provided that the dimensions of the access strip and the block are in accordance with the Council's published policy.

13.0 NATURAL FEATURES

Trees and other attractive natural features should be retained.

14.0 STREET LIGHTING

Street lighting in accordance with the Council's published standards is required at all intersections and the heads of cul-de-sacs.

15.0 BUS SHELTERS AND BUS STOPS

Bus stop signs and bus shelters shall be installed where directed and to the approval of the Council.

16.0 MAINTENANCE

The whole of the works are to be maintained by the Subdivider for a period of six (6) months after formal acceptance of the works by Council at Practical Completion. The Subdivider will, at his cost, undertake and complete all works of a maintenance nature required by Council prior to final acceptance of the works.

MINIMUM STANDARDS - SUBDIVISIONAL WORKS

RURAL SUBDIVISIONS

1.0 GENERAL

1.1 The following specification and design parameters are intended for the general guidance of Land Subdividers, Surveyors and Engineers engaged in the design and construction of subdivisional works for rural subdivisions within the Shire.

1.2 These Standards are to be read in conjunction with Council's Bylaws together with any conditions and requirements set out by Council in its approval to any specific subdivisional proposal.

1.3 Design

No subdivisional roadworks or drainage construction are to be commenced until plans, specifications, schedules and supporting calculations have been submitted to Council for review and Council's written approval thereto has been issued to the Applicant. Such plans, specifications etc. are to be prepared by an Engineer with qualifications acceptable to Council.

1.4 Supervision

1.4.1 The works are to be supervised on the Applicant's behalf by an Engineer with qualifications acceptable to Council, who will issue to Council at the practical completion of the works, certified "as constructed" plans of the work and his certificate as to the satisfactory completion of the work.

1.4.2 The works are to be available for inspection by Council's Engineer, or his delegate, at all times. Council's Engineer will undertake inspections of the work at the following stages:-

- (i) Pavement box complete prior to pavement placement.
- (ii) Pavement complete prior to bitumen surfacing.
- (iii) At practical completion.
- (iv) _____At completion of maintenance period.

Adequate notice is to be given to Council's Engineer by the Developer to enable him to arrange the above inspections of the work.

1.4.3 Soil Testing

Soil testing for design confirmation and project control is to be carried out at the Developer's cost, by a testing organisation acceptable to Council. Certified results of testing are to be presented for Council's records in support of subgrade analysis, pavement design, subgrade densities, pavement analysis and pavement densities.

1.5 Declared Roads

_____Where proposed subdivisional roads are required to intersect with roads declared under the Main Roads Act, the location, design and construction of such intersections shall be in accordance with the specific requirements of the Main Roads Department.

1.6 Services

1.6.1 Telephone - To be provided at no cost to Council.

The Developer is to liaise with TELSTRA AUSTRALIA to determine the location and status of any existing or proposed telephone equipment which might be affected by the location or construction of the proposed subdivisional works. The Developer is to meet the costs incurred in the preservation, repair or relocation of such equipment arising from his works.

1.6.2 Electricity - To be provided at no cost to Council.

The Developer is to liaise with CAPRICORNIA ELECTRICITY to determine the location and status of any existing or proposed power lines which might be affected by the location or construction of the proposed subdivisional works. The Developer is to meet the costs incurred in the preservation, repair or relocation of such equipment arising from his works.

1.6.3 Water

For subdivisional developments in areas zoned in Council's present Town Planning Scheme as Village or Rural Residential, it must be demonstrated by the applicant to the satisfaction of the Council that every lot proposed for residential, commercial or industrial purposes can be provided with a bore, licensed by the Water Resources Commission and that such bore will be in the opinion of the Council provide adequate potable water.

Alternatively, an economically viable (in the opinion of Council) water supply scheme by reticulation to the standards set by the Queensland Department of Local Government may be permitted. In such a proposal, a planning report shall be submitted to the Queensland Local Government Department and Council simultaneously and be approved by both bodies prior to rezoning or subdivision approval as the case may be.

2.0 SURVEYS

- 2.1 New road reserve widths shall be as determined by Council in each case but will be not less than 20 metres. Truncations shall be provided at road intersections to a minimum of a 4 metre single chord or such larger truncation as might be required by Council in the particular circumstances.
- 2.2 Road centre lines shall be surveyed and pegged at 25 metre intervals together with such intermediate points as are necessary to indicate all significant features and changes of grade.

Cross sections at right angles to the centre line shall be recorded at each peg and intermediate point, the cross sections shall extend at least 8 metres beyond the proposed construction with sufficient levels to adequately describe the surface profile.

Surveys shall be related to an established Bench Mark, to State Datum if practicable.

Levels shall extend beyond the proposed construction at all intersections and terminations to enable the road gradings to conform to existing or future works to be confirmed.

All existing relevant features such as Telstra installations, drainage structures, poles and fences must be accurately located and levelled. Where part of the area is subject to flooding, known maximum flood levels are to be obtained and recorded.

- 2.3 Working plans should include a layout plan at a minimum scale of 1:1000, longitudinal sections at a scale not less than 1:2000 horizontal and 1:200 vertical

plus cross sections, details etc. to adequately illustrate the extent of the proposed work.

3.0 DESIGN

3.1 Design Reference

The design principles embodied in the Main Roads Department "Road Design Manual" are to be adopted where appropriate.

3.2 Design Parameters

The following design parameters are to be adopted:-

DESIGN SPEEDS

<u>Topography</u>	<u>Average Slope</u>	<u>Design Speed</u>
Flat - Undulating	0 - 4%	80 - 100 kph
Undulating - Hilly	4% - 10%	60 - 80 kph
Hilly - Steep	10% - 18%	40 - 60 kph

MAXIMUM GRADES

Unsealed Roads	8.0%
Sealed Roads	12.5%

ROAD WIDTHS

<u>Road Classification</u>	<u>Maximum No. of Allotments Served or Able to be Served</u>	<u>Formation Width</u>	<u>Pavement Width</u>
Rural Access	Less than 10	7.0 metres	4.0 metres
Rural Collector	10 - 80	8.0 metres	6.0 metres
Rural Arterial	More than 80	9.3 metres	8.0 metres

3.3 Drainage

Roads are to be drained in accordance with sound practice, water is to be discharged from the tabledrains by diversion drains, blocks and other means in such a manner that erosion of the road shoulders, tabledrains and outlets is effectively prevented.

Catch drains are to be provided above all cuttings.

Cross drainage will generally be required to pass under the road by use of culverts, or bridges however, in special circumstances, the Council may approve

the use of reinforced concrete floodways with cutoff walls and aprons. Culverts shall not be less than 8.5 metres long with inlet and outlet headwalls.

The Engineer shall provide Council with summaries of calculations in support of all drainage design.

4.0 CONSTRUCTION

4.1 Specifications

_____The working plans are to be supported by job specifications adequate to ensure that the design intent is met in the construction of the works and that sound construction practices are followed.

4.2 Clearing

_____The road alignments are to be cleared to a minimum width of 12 metres or to such greater width required to accommodate the construction works. All stumps and roots are to be grubbed out to a depth of 300 mm. and all fallen and cleared timber disposed of by burning or removal from the site. Vegetation outside the cleared width is to be preserved to the maximum extent possible.

4.3 Pavement

_____4.3.1 Council will, in its approval to the subdivisional application, indicate whether bitumen surfacing to the roadways is required in each case. In areas zoned Village and Rural Residential, bitumen sealing will be mandatory.

4.3.2 Unsealed Pavements

_____An approved soil aggregate or crushed rock pavement is to be provided to the width appropriate to the road classification and as required by Council. The pavement depth proposed is to be approved by Council and will, in any case, be not less than 100 mm. Compaction standards for the subgrade and pavement are to be nominated.

4.3.3 Bitumen Sealed Pavements

_____An approved soil aggregate or crushed rock pavement is to be provided to the width appropriate to the road classification and as required by Council.

The pavement depth is to be calculated employing Queensland Main Roads Department methods, based on CBR tests on the subgrade and will not, in any case, be less than 150 mm. All pavement materials will be tested to conform, in place, with the current Queensland Main Roads Department specifications for such pavement materials. Compaction standards for subgrade and pavement are to be nominated.

The bitumen seal coat is to take the form of a two (2) coat, hot bitumen flush seal system. The materials used, application rates, standards and methods are to be specified and are to be not less than the Queensland Main Roads Department standards. Precoating of all sealing aggregates will be required.

4.4 Signs

_____The Subdivider is to supply and erect all road name, direction and warning signs required. Road names are to be first approved by Council.

5.0 FLOODING

All lots shall be free from flooding.

6.0 ROAD PATTERN

Roads should follow contours, avoid long cul-de-sacs and have an alternative access. Provision should also be made for connecting to the road system of adjoining or future subdivisions so that a comprehensive and co-ordinated road pattern is achieved.

7.0 ALLOTMENTS

A variety of allotment sizes and shapes is preferred to encourage the subdivision into allotments that take advantage of contours, natural features and make the best use of building sites. A proportion of hatchet shaped blocks will be considered provided that the dimensions of the access strip and the block are in accordance with the Council's published policy.

8.0 NATURAL FEATURES

Trees and other attractive natural features should be retained.

9.0 BUS SHELTERS AND BUS STOPS

Bus stop signs and bus shelters shall be installed where directed and to the approval of the Council.

10.0 MAINTENANCE

10.1 The whole of the works are to be maintained by the Subdivider for a period of six (6) months after formal acceptance of the works by Council at Practical Completion. The Subdivider will, at his cost, undertake and complete all works of a maintenance nature required by Council prior to final acceptance by Council of the works.