



Driveway Access to Property Design Specification

Version 1.1

Adopted by Council
at its meeting on

Minute No:

Division:	Engineering & Operations
Section	Planning & Infrastructure Unit
File Reference:	
Historical Reference:	v1.0 adopted 15/12/2004

Driveway Access to Property Design Specification

1. Who needs to use this Specification?

The Specification affects any person or organisation that wants to construct or undertake any works within the public road reserve. This includes concrete driveways, retaining walls pipes, gardens and footpaving.

This specification specifically deals with access driveways and information regarding other works is available upon request from Council's Engineering Services Division on (02)6670 2501 or Council's website.

2. What law controls driveways?

Section 138 of the Roads Act 1993 requires Council Consent for works on road reserves (local roads) which includes driveways, footpaths/retaining walls & gardens.

A formal application must be made to Council under Section 138 of the Roads Act 1993 and should be made on the appropriate form "Driveway Access to Property application" and the applicable fee paid. Incomplete applications will not be considered until all requested information is provided.

3. What are the rules generally?

3.1 Number of Driveways

One driveway is generally permitted for each property adjoining a public road.

In some circumstances a second driveway may be approved provided the constraints in Development Control Plan No 6 regarding garage door presentation to the street and Section 4.2 (on-street parking) are satisfied. Dual road frontage properties will generally not be permitted to access both roads if either is a designated distributor road in Council's road hierarchy plan (LEP 2000).

Medium Density residential and other larger developments will be assessed based on merit.

3.2 Shared Driveways

Shared driveways are not encouraged and will usually only be permitted where properties are accessed via a right of carriageway, or the terrain prevents alternatives.

3.3 Ownership

As driveways within public road reserve are on Council land, they are under the control of Council. Nevertheless access driveways within the road reserve are the property owners' responsibility to initially construct and then maintain. Damage caused by Council or other public authorities undertaking works will be reinstated by the Authority causing the damage, however, whilst reasonable attempts will be made to match coloured or stencilled concrete finishes – an exact match is not guaranteed.

Note that Council accepts no legal responsibility for claims arising from accidents to the public caused by badly constructed or unauthorised driveways.

3.4 Australian Road Rules

Australian Road Rules adopted in 1999 prohibit the parking of a vehicle on the footpath area or verge outside the road carriageway. This means that vehicles parked in driveways between the property boundary and the road carriageway are in breach of the Road Rules and can be fined. Your driveway design should allow for standing of vehicles between the property boundary and the garage door, alternatively an open carport shelter may be approved.

3.5 Crown Roads & Reserves

Historically some properties were permitted to access via unformed Crown Roads or Reserves when they were under the care and control of Council. The Roads Act 1993 now vests control of all Crown Roads in the Crown. Persons wishing to gain access via an unformed Crown Road must first obtain and submit written approval from the appropriate State Government authority. Council will not under any circumstances approve access to a property via a public reserve.

3.6 Other Public Authorities

In some instances Council will need to refer applications to other Authorities such as the Roads & Traffic Authority (RTA). If the driveway or works is adjacent to the Pacific Highway or some other classified roads then RTA approval is also required.

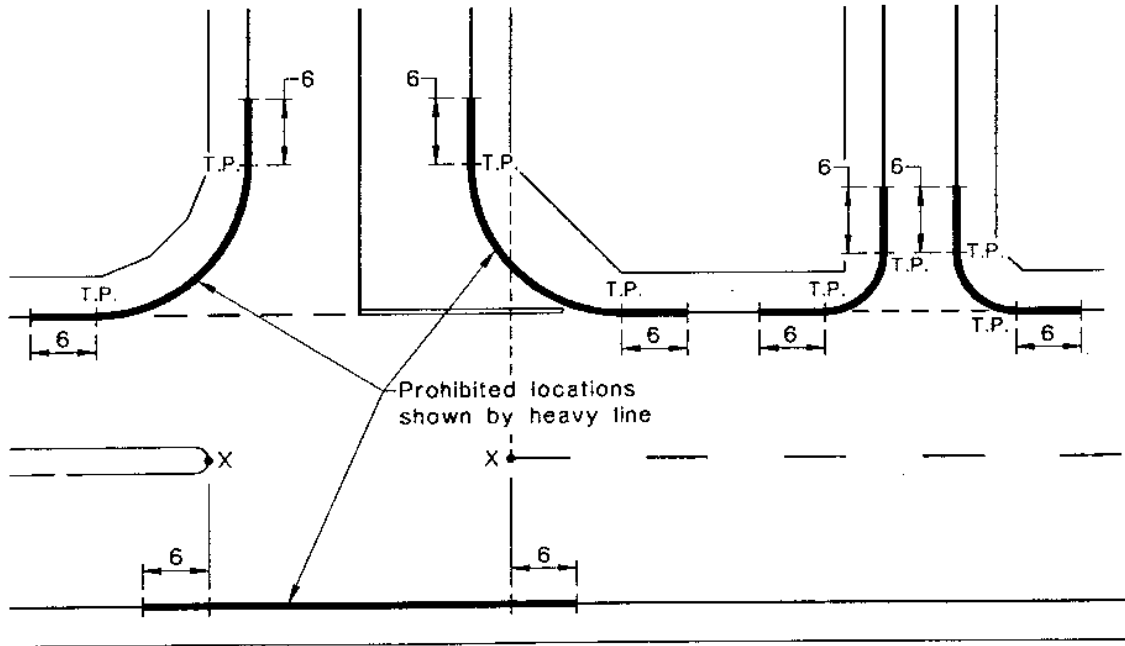
4. What are the Detailed Design Requirements?

4.1 Driveway Locations

4.1.1 Street Corners

Driveways at intersections must be located at least six (6) metres beyond the tangent points of the kerb and gutter returns (where the curved kerb straightens out). The sketch below shows the locations where driveways are prohibited.

PROHIBITED LOCATIONS OF DRIVEWAYS



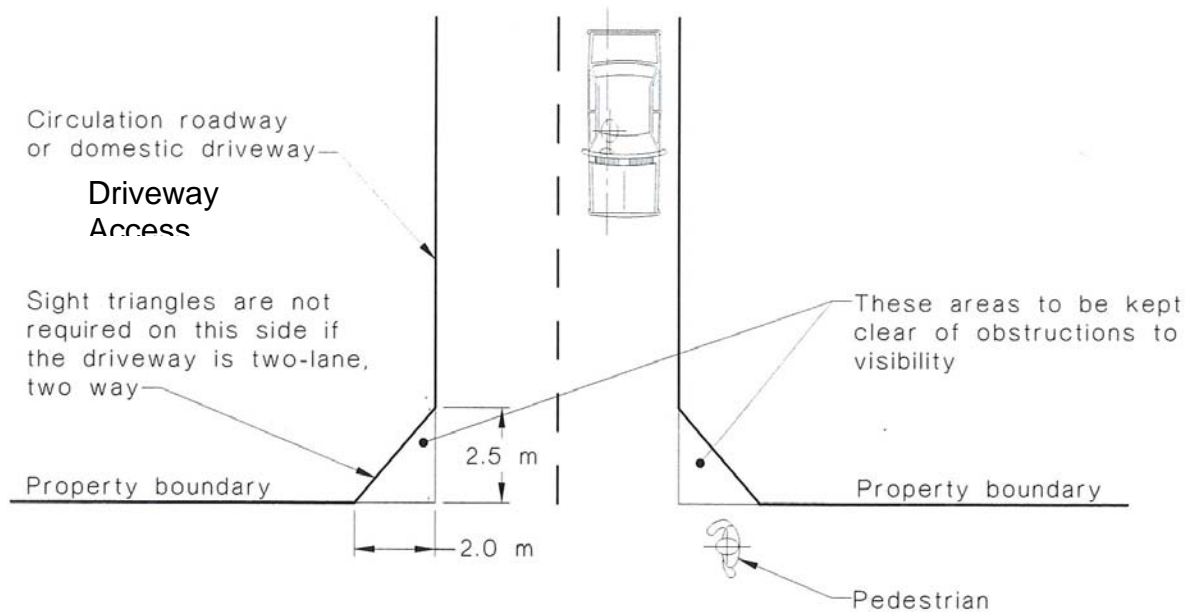
T.P. = Tangent Point
 Dimensions in metres

NOTE: The points marked “x” are either at the median end of a divided road, or at the intersection of the main road centre-line and the prolongation of the side road property on an undivided road.

4.1.2 Sight Lines & Safe Visibility

In urban areas a “sight triangle” as shown on the sketch below must be maintained. This is required to ensure pedestrians and cyclists can see vehicles exiting driveways and vice versa.

Minimum Sight Lines for Pedestrian Safety



* 2m for single and dual occupancy dwellings

This requirement is important if “solid” front boundary fences or walls over 600mm high are planned as they must not encroach on the sight line above and will also impact on the location and design of driveway gates. (See Section 4.7).

The following table specifies the sight distance required measured from the driveway to oncoming traffic in both vertical and horizontal alignment. The sight distance is relative to traffic speed (speed zone) of the adjoining road.

For Driveways to Single Dwellings or Duplexes			For all other Driveways		
Speed (kph) *	Sight Distance Urban (m)	Sight Distance Rural (m)	Speed (kph) *	Sight Distance Urban (m)	Sight Distance Rural (m)
40	30		40	60	
50	40		50	80	
60	55	65	60	105	115
70		85	70		140
80		105	80		175
90		130	90		210
100		160	100		250

* May be reduced below regulatory limit if speed environment demonstrates lower.

4.1.3 Obstructions

Care should be taken to ensure planned driveways are located clear of stormwater gully pits, light poles and Telstra pits. If any of these or other facilities are affected the owner/applicant will need to meet the costs of relocation.

Sewer manholes and water supply hydrants can be incorporated in driveways but special covers are required. The Council should be contacted regarding any of these issues if in doubt. See also Section 4.7 “Gates”.

4.1.4 Adjoining Frontages & Driveways

Driveways are to be orthogonal to the road carriageway and should therefore not encroach on a neighbouring frontage. In some instances due to steep topography Council may consider a variation to this requirement.

Similarly abutting driveways are not encouraged and a minimum gap of 6.0 metres between driveways should be provided where possible to facilitate on street parking

4.2 Additional Driveway Access’s

Similarly, in commercial areas and on sites where a second driveway access is approved driveways must be at least 6.5 metres apart or multiples thereof so as to preserve on street car parking.

4.3 Urban Streets with Kerb Gutter

4.3.1 Roll Top Kerb

Driveways in streets with roll top kerb and gutter should be designed to match the top of the kerb as the kerb profile readily permits access over the kerb.

It should be noted that streets with older style angle back kerb may need to provide a layback kerb section as shown on the standard drawings in Section 6 Drawing SD017.

Approval will not be given for concrete nibs or timber in the gutter or steel plates as alternatives to the above as they are potential traffic and pedestrian hazards and may impede stormwater flow.

4.3.2 Vertical Faced Kerb

Driveways in streets with this type of kerb will required removal of the kerb and replacement with a “layback section” as shown on the standard drawings in Section 6 Drawing SD017.

4.4 Urban Streets with No Kerb & Gutter

Where kerb and guttering has not been provided but levels for the future kerb and guttering are available the proposed access must accommodate the future design. Normally, a piped crossing of the table drain is to be provided. See Section 4.5 for standards. This can be constructed by Council, at the property owner's expense, or privately, to Council's requirements. Concrete driveways may be extended from the property boundary to the kerb line or edge of bitumen and levels will be provided, on request, from the Engineering Services Division.

A copy of Council's "Vehicular Driveway Access Details with Piped Table Drains" is in Section 6.1 Drawing 1 setting out all relevant requirements.

4.5 Rural Roads

Driveways must include stormwater culvert within any existing table drain as shown on the standard drawing in Section 6 Drawing 1.

They must be no closer that 1.2 metres to the edge of the traffic travel lane and should have a guide post erected on the “approach” side of the culvert.

It should be noted that keeping the culvert inlet clear of debris is repairing erosion at the culvert outlet is the responsibility of the property owner serviced by the driveway.

4.6 Existing Concrete Paving

Where a proposed access driveway crosses existing concrete footpaving the footpaving must be sawcut at the extremities of the driveway and removed and reconstructed to the specified access driveway standards shown in this specification.

The grade and crossfall of the pre-existing footpath must be maintained so in some cases additional footpaving may need to be removed.

Where no footpaving exists and driveways are planned to be cut into the footpath to obtain grades, the nature strip on each side of the driveway must be battered smoothly at a grade no steeper than 1 in 14 to maintain acceptable stands for pedestrians and enable future provision of concrete footpaving.

Where the paved footpath is immediately behind a vertical face kerb, the footpath will usually need to be deviated toward the property boundary to allow cutting in of the

driveway access. The maximum directional deviation of the footpath in this instance should exceed 30 degrees.

4.7 Gates Across Driveways

Solid or opaque gates must be kept clear of sight lines specified in Section 4.1.2.

If the gates are of a see-through construction such as weldmesh or grates then they may be constructed up to 2.0 metres behind the property boundary on local roads or minor collector roads for all types of residential construction. For major collectors and distributor roads, gates must be set back 2.0 metres for single dwellings or duplexes and 5 metres for all other residential development behind the property boundary to enable a vehicle to stand clear of the footpath area whilst the gate is opened.

It is a breach of the Australian Road Rules (see Section 3.4) to obstruct the footpath area and undesirable for safety and traffic efficiency reasons for vehicles to sit on the road carriageway whilst gates are opened.

All gates must be swung into private property.

4.7.1 Manually Operated Gates

If the gates are of a see-through construction such as weldmesh or grates then they may be constructed up to 2.0 metres behind the property boundary on local roads or minor collector roads. For major collectors and distributor roads gates must be set back 5.0 metres behind the property boundary to enable a vehicle to stand clear of the footpath area whilst the gate is opened.

It is a breach of the Australian Road Rules (see Section 3.4) to obstruct the footpath area and undesirable for safety and traffic efficiency reasons for vehicles to sit on the road carriageway whilst gates are opened.

4.7.2 Remote Controlled Electric Gates

The standing requirements applying to manual gates may be waived in this circumstance, but the visibility requirements in Section 4.1.2 must be observed.

5. Driveway Geometry

Different driveway standards apply based on driveway usage and frontage road classification.

5.1 Driveway Widths, Thickness & Reinforcement

The following table specifies the driveway widths for various types of development and also specifies the driveway thickness and steel reinforcement required.

DRIVEWAY WIDTHS

TYPE OF DRIVEWAY	WIDTH AT BOUNDARY (M) "X"	WIDTH AT KERB (M) "Y"	THICKNESS/ REINFORCEMENT "T"
SINGLE DWELLING OR DUPLEX UNIT	3.00 min. 6.00 max.	3.00 min. 6.00 max.	100 F72
UNITS LOCAL STREETS	3.50	6.50	150/F72
* UNITS COLLECTOR ROADS	6.00	9.00	150/F72
* COMMERCIAL/ INDUSTRIAL	7.00	13.00	200 F82

* These widths are indicative only and different widths may be specified in Section 138 Approvals

5.2 Grades and Crossfalls

5.2.1 **Transverse Grades (Crossfall)**

The transverse grade on the driveway must be the same as that on the kerb and gutter (or road if no kerb and gutter) and must be carried over to the property boundary, although it may be necessary to rotate slightly to match existing footpath levels.

Once inside the property the transverse levels can be "rotated to match in with internal constraints such as garage ramps.

Edge "coving" and mini-kerbs are a serious pedestrian "trip" hazard and are not permitted on any trafficable footpath.

5.2.2. **Driveway Grades & Crossfall**

The maximum longitudinal grade on the driveway across the footpath area is 2.5% (1 in 50) (see Section 6.1 Drawing SD017). For domestic properties (3 or less residences) from the property boundary to the garage or car space the maximum grade is 25% (1 in 4) (see Section 6.1 Drawing SD017). For non domestic driveways a maximum gradient of 1 in 20 (5%) is permitted from the property line or building alignment for a least the first 6m.

5.2.3. **Footpath Intersections**

Where the driveway intersects on paved or grassed footpath the existing grade of the footpath must be maintained across the driveway with no drainage slots, kerbs or steps to create a pedestrian hazard.

5.2.4 **Older Subdivisions**

Subdivisions approved prior to 1980 may have steep footpath crossfalls that prevent compliance. Proposals should be discussed with Council staff before detailed design commences.

5.3 Surface Finishes

5.3.1 Allowable Surfaces

Plain concrete wood floated or broomed

Paving bricks if laid on 100mm thick concrete slab.

Exposed aggregate provided “angular” non- slip aggregate is used (rounded pebbles not accepted).

Coloured concrete

Stencilled concrete with non-slip surface

5.3.2 Unacceptable Surfaces

Stamped pattern concrete

Paving bricks on sand or gravel bases.

Polished or slippery finishes.

Grass, dirt or gravel.

It must be noted that Council accepts no responsibility to match exacting any surfaces if they have been removed or damaged as a result of any works undertaken by Council within the Road Reserve.

Failure to observe those requirements or failure to properly maintain the driveway surface, resulting in slippery conditions or a trip hazard, will render the property owner legally liable for injury to pedestrians who suffer as a consequence.

6. Standard Drawings

6.1 Tweed Shire Council Standard Drawings

The following drawings provide all relevant details for the design and construction of driveway access within the road reserve.

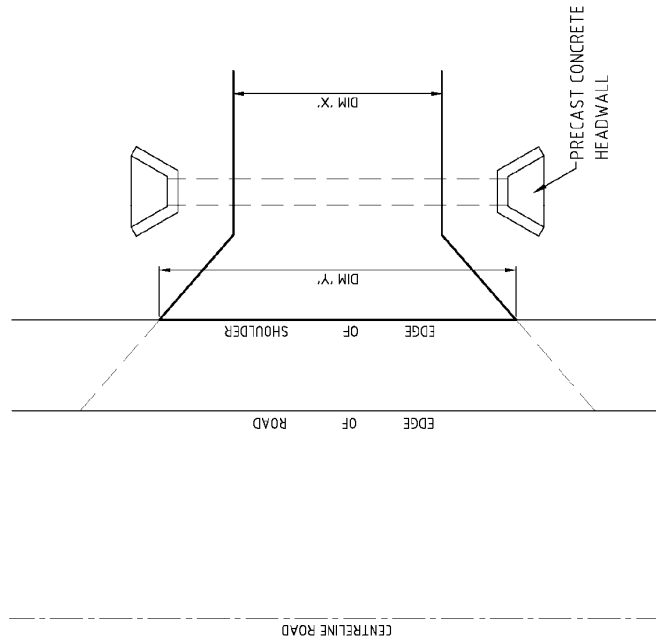
Notes:-

Domestic (3 or less Residences) A driveway gradient of 1:6 is currently considered to provide suitable access to a level carparking space, carport or garage. Council may be prepared to accept a steeper gradient of 1:4 for houses situated on very steep grades. However, if the driveway is to be used for carparking, a gradient no more than 1:10 is most appropriate.

Non Domestic Max driveway gradient 1:20 of (5%) from property line for the first 6m.

Note that Council will not approve driveways with ramps extending into the road reserve footpath zone unless special circumstances can be demonstrated. (e.g. the footpath is already permanently untrafficable for pedestrians.)

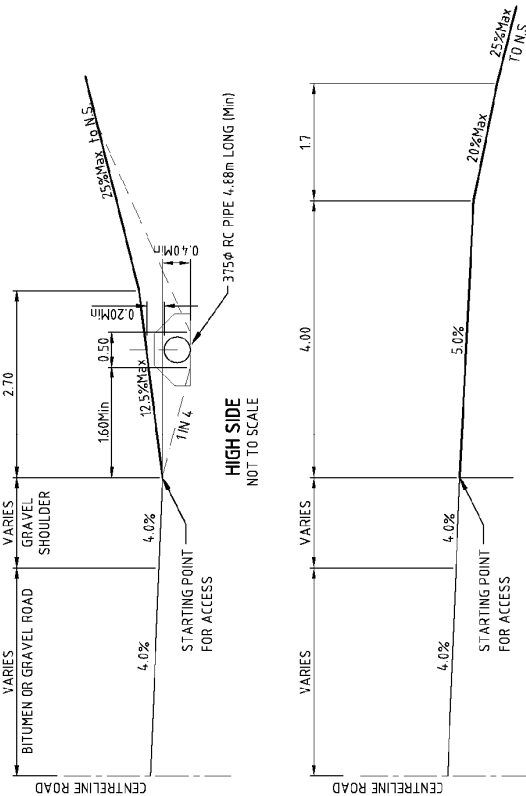
* Transition curves extending 0.8 metres each side of the road boundary are required between steep and level grades to enable vehicles to maintain underbody clearances. These shorten the potential length of maximum gradient available. Designers should check clearances with a vehicle template for Australian family sedan. Transition curves are required when changes in grade exceed 12.5% algebraically (1:8) (eg 1:4 to 2.5% \Rightarrow + 25% - 2.5% = 22.5% therefore transition required).



PLAN
NOT TO SCALE

TYPE OF DRIVEWAY	WIDTH AT BOUNDARY 'X' min	WIDTH AT SHOULDER 'Y' min	PAVEMENT THICKNESS
SINGLE DWELLING OR DUPLEX UNIT	3000 min 6000 max	3000 min 6000 max	100mm BASE COURSE
LOCAL STREETS	3500	6500	SITE SPECIFIC DESIGN REQUIRED
* UNITS COLLECTOR ROADS	6000	9000	SITE SPECIFIC DESIGN REQUIRED
* COMMERCIAL/ INDUSTRIAL	7000	13000	SITE SPECIFIC DESIGN REQUIRED

* These widths are indicative only and different widths may be specified in Section 138 Approvals



SECTION THROUGH ACCESS
NOT TO SCALE

NOTES:

1. A DRIVEWAY GRADIENT OF 1:6 IS CURRENTLY CONSIDERED TO PROVIDE SUITABLE ACCESS TO A LEVEL CARPARKING SPACE, CARPORT OR GARAGE. COUNCIL MAY ACCEPT A STEEPER GRADIENT TO A MAX. OF 1:4 FOR HOUSES SITUATED ON VERY STEEP SITES. HOWEVER, IF THE DRIVEWAY IS TO BE USED FOR CARPARKING, A GRADIENT OF NO MORE THAN 1:10 IS MOST APPROPRIATE.
2. TRANSITION CURVES MAY BE REQUIRED AT THE TOP & BOTTOM OF STEEP SECTIONS OF DRIVEWAYS TO MAINTAIN UNDERBODY CLEARANCES. WHERE THE ALGEBRAIC CHANGE OF GRADE EXCEEDS 12.5 %, DESIGNERS SHOULD CHECK CLEARANCES WITH A VEHICLE TEMPLATE FOR AN AUSTRALIAN FAMILY SEDAN.
3. FOR NON-DOMESTIC DRIVEWAYS, MAX. DRIVEWAY GRADIENT TO BE 1:20 (5%) FROM PROPERTY LINE FOR FIRST 6000mm.
4. TWENTY FOUR (24) HOURS NOTICE TO THE ENGINEERING & OPERATIONS DIVISION IS REQUIRED FOR INSPECTION OF GRADE, POSITION, & WIDTH BEFORE SEALING.
5. DRIVEWAYS MUST BE PERPENDICULAR TO THE ROAD OR STREET (UNLESS SPECIFICALLY APPROVED BY COUNCIL).
6. HEADWALLS SHALL BE HUMPS PRECAST CONCRETE OR APPROVED EQUIVALENT FOR RURAL LOCATIONS, AND GROUDED STONE PITCHED HEADWALLS FOR URBAN ACCESS.
7. CULVERT PIPES SHALL BE 375mm DIAMETER, & A MIN. OF 4.88m LONG UNLESS SPECIFICALLY APPROVED BY COUNCIL.
8. UNDER NO CIRCUMSTANCES MAY THE DRIVEWAY PROTRUDE BEYOND THE OUTER EDGE OF THE ROAD SHOULDER.
9. FOR BITUMEN SEALED ROADS, THE DRIVEWAY AND THE SHOULDER SHALL BE SEALED WITH 2 COAT BITUMEN SEAL. FOR UNSEALED ROADS, THE DRIVEWAY SHALL BE UNSEALED IF THE GRADIENT IS LESS THAN 10%. FOR GRADIENTS 10% OR GREATER, THE DRIVEWAY SHALL BE SEALED WITH 2 COAT BITUMEN SEAL.
10. DRIVEWAY CROSSFALL SHALL BE ENGINEERED TO ENSURE THAT RUNOFF DOES NOT DISCHARGE ONTO OR ACROSS THE ROAD PAVEMENT.

		TWEED SHIRE COUNCIL DESIGN UNIT		PROJECT NUMBER: DATE: DRAWN BY: CHECKED BY:		PROJECT: DATE: DRAWN BY: CHECKED BY:		DRAWING NUMBER: S.D. 011	
COUNCIL OFFICE: TOWN HALL, 100 WILSON ROAD, TWEED HEADLAND, NSW 2464		PHONE: (07) 9386 2000 FAX: (07) 9386 2001 WEBSITE: www.tweed.nsw.gov.au		DESIGNER: DRAWN BY: CHECKED BY: APPROVED BY:		PROJECT TITLE: ROAD WORKS STANDARDS		SHEET 1 OF 1 SHEETS ISSUE: []	
BITUMEN SEALED DRIVEWAY		UNSEALED DRIVEWAY		ROAD TITLE: DRIVEWAY ACCESS TO PROPERTIES FRONTING UNKERBED ROADS		ROAD TITLE: DRIVEWAY ACCESS TO PROPERTIES FRONTING UNKERBED ROADS		ROAD TITLE: DRIVEWAY ACCESS TO PROPERTIES FRONTING UNKERBED ROADS	

6.2 Applicant's Drawings

The applicant is to prepare and submit the following drawings with their applications:-

- Three (3) copies of a site plan of the property and adjacent section of public road, drawn to a scale of 1:200 showing:- (a) The location and widths of the proposed driveway or modifications from the garage/carpark to the kerb and gutter/edge of bitumen; (b) Proposed restoration of existing surfaces or services that are likely to be damaged; (c) Proposed construction or modification, including levels, of kerb and gutter or footpath paving on a public road.
- Three (3) copies of a longitudinal section from the garage/carport/parking area to the kerb and gutter (or edge of bitumen showing the natural surface levels and the proposed finished driveway levels drawn to a scale of 1:50.
- On steeper slopes, 3 copies of a cross section showing natural surface and finished levels plus any proposed retaining walls to a scale of 1:50

6.3 Traffic & Pedestrian Safety Management

Occupation Health & Safety, Workcover and Australian Standards require that all work sites be made safe for pedestrians, traffic workers.

In respect of all construction work the contractor or person constructing the access must provide proper fencing, guarding, lighting and care of all works and temporary footways, guards and fences as required for the accommodation and protection of pedestrians, motorists and the public. The signs, lights, barriers and fences are to be in accordance with A.S. 1742 (Traffic Control Devices). The contractor or property owner shall be adequately insured against Public Risk Liability and shall be responsible for any claims arising from these works.

6.3.1 Work Safety Plan

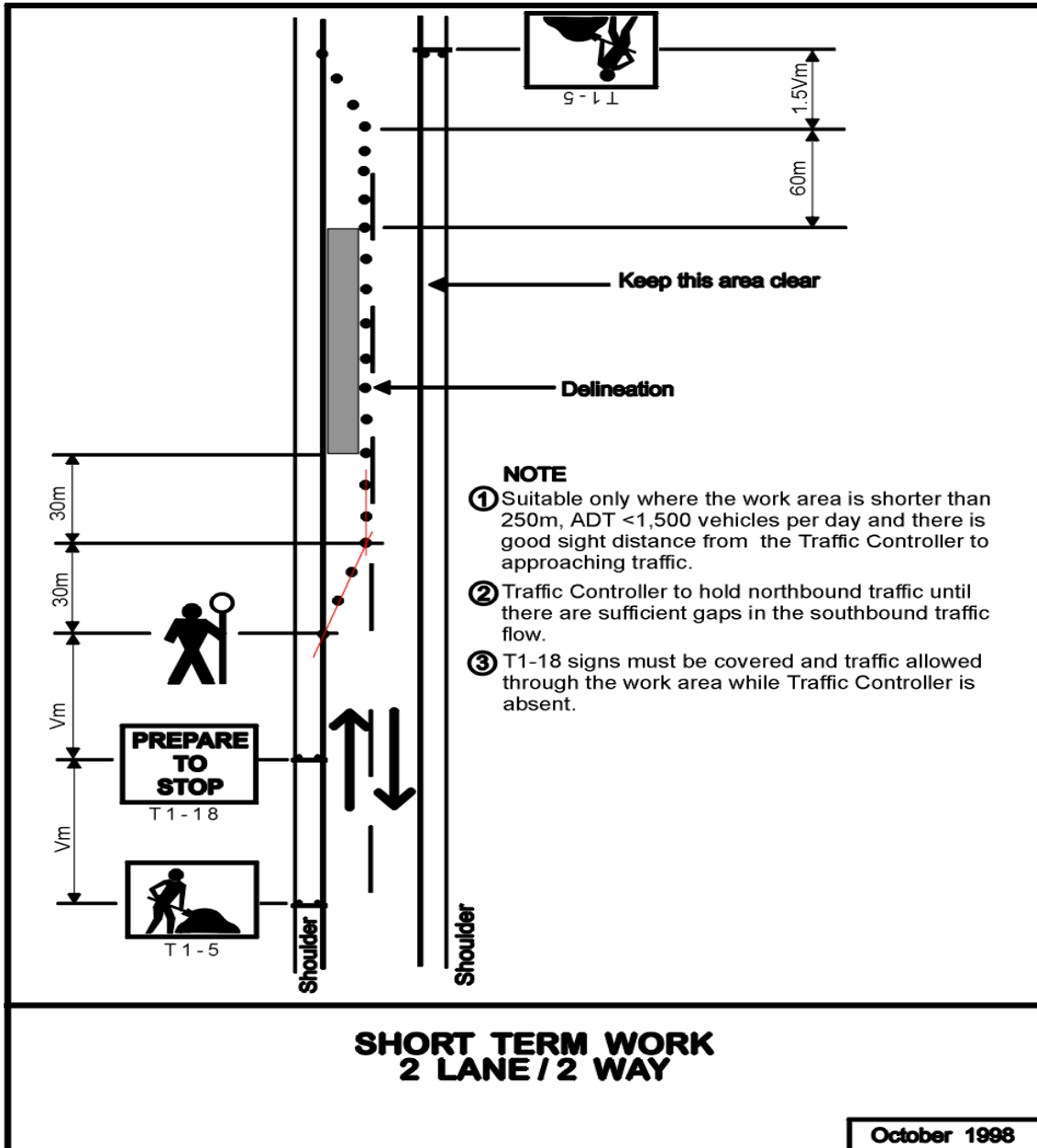
The following drawings provide examples of traffic and pedestrian controls at driveway construction sites. They are not applicable to all sites and therefore all sites must be considered individually and varied as appropriate to produce a site specific Work Safety Plan.



MAINTENANCE ACTIVITIES

TWEED SHIRE COUNCIL

Traffic Control at Work Sites



TCP 108a

Approved: _____ Date: / / Rev. A



The enclosed information is a guide only of the process that must be followed to gain approval to construct a driveway access in Tweed Shire.

Council's *Driveway Access to Property Design Specification and Construction Specification* is supplied with the application form. **These Specifications must be retained and will be required by you or your contractor when constructing the driveway after Council Approval has been issued.**



Once the application is approved you will be provided with a *Notice of Approval to Construct a Driveway Access on a Public Road* and any other conditions or requirements that are relative to your driveway.

The documents

- “Driveway Access to Property Design Specification”,
- “Driveway Access to Property Construction Specification” and
- “Driveway Access to Property Application Form”

are available on Council's internet site at www.tweed.gov.nsw.au/forms.

The form can be picked up at Council's offices in Tweed Heads or Murwillumbah.



PO Box 816
MURWILLUMBAH 2484
Ph: 6670 2440
www.tweed.nsw.gov.au

Offices located at:
Brett Street, Tweed Heads
Tumbulgum Road, Murwillumbah

Driveway Access to Property Guide



FEBRUARY 2008

Introduction

The provision and maintenance of a vehicular access driveway from the property boundary to the kerb and gutter or the edge of road seal is the responsibility of the property owner.

However, any work undertaken by private owners on Council roads requires written approval.



Section 138 of the Road Act 1993 requires council consent for works on road reserves (local roads), which includes driveways, footpaths, retaining walls and gardens.

This process is necessary to ensure such works comply with the many Australian Standards and Policies that enable works to be safe and practicable for all road users, including pedestrians and cyclists.

It should be noted that driveways and other works placed in the road reserve without Council approval may need to be removed if deemed to be a safety or public liability risk.



How to Proceed

1. Obtain the correct Application Form **Driveway Access to Property Application** by:
 - Calling in at Council's offices at Tweed Heads Civic Centre or Murwillumbah Civic Centre; or
 - Downloading a copy from Council's website at www.tweed.nsw.gov.au/forms; or
 - Calling Council on (02) 6670 2440 for a copy to be posted.
2. Read the form carefully and prepare the information requested. If in doubt, call Council on (02) 6670 2501.
3. Submit the form and any other documents required and pay the application fee at the Tweed Heads or Murwillumbah Civic Centres. Payment of the fee does not mean the works can commence.
4. Council staff may contact you after inspecting the site and reviewing your plans, they may request more information or amendments. Submit these promptly. **Do not** start work yet.
5. Once formal approval (Notice of Approval to Construct a Driveway Access on a Public Road) is received by you, implement the devices and precautions you nominated in your Work Safety Plan and Erosion & Sedimentation Control Plan. Make sure all public utilities are adequately located and protected, and **then** commence site excavation or filling. Ensure that you maintain site management controls as you progress.
6. Prepare the driveway in accordance with "Council's Construction Specification" which is provided with the Approval in (5) above. When you are at least 24 hours away from pouring concrete, and prior to ordering the concrete delivery, contact Council and request an inspection of the formwork and reinforcing steel you have placed.
7. Council's inspector, on arrival, will check your work for compliance and may require you to alter the formwork and steel you have placed, or advise you to proceed with the concrete pour and issue a Preparation Inspection Certificate.
8. After a satisfactory Preparation Inspection Certificate is issued, complete the driveway construction work, restore the footpath to its prior condition, and remove all surplus materials, barriers, and waste from the site. Council's inspector may make a final inspection to ensure compliant completion.