

GUIDELINES TO WORK WITHIN A ROAD RESERVE (Minor Works)

These Guidelines aim to assist Consultants, Developers, Contractors, and other parties to comply with the requirements of Litchfield Council when undertaking minor works within Council Lands and Reserves. Major works requirements are being addressed in the Subdivision / Development Guidelines.

1. Permit to Work within a Road Reserve - General

Prior to the commencement of any work, the Contractor shall hold a copy of the Approved Permit to work within a Road Reserve at all times.

- » The applicant is responsible to provide a minimum of 5 working days notice to Council to enable appropriate decisions to be made.
- » Approved Traffic / Pedestrian Management Plan shall be in place at all times during the duration of the works.
- » Open excavations are not permitted across the road. Thrust boring is a preferred method. The Director of Works reserves the right to provide exceptional permission under specific site conditions.
- » Please visit <http://www.litchfield.nt.gov.au/index.php?page=council-standard-drawings> to download copies of the Standard Drawings.
- » Where an alteration is required as a direct result of the Works / Development, the Developer will be responsible for all costs associated with the alteration including design, consultation, and physical works.

2. Driveways

Council has specified 2 types of vehicle accesses:

- » Standard vehicle access
- » Industrial vehicle access

For residential properties, Litchfield Council provides a Standard Drawing considering a 5.2m (AS 2890. 1-2004, B99) Vehicle.

Industrial driveways are required anywhere where the likelihood of heavy vehicles using the access is Medium to High. The Designer / Developer shall confirm the width considering the most likely vehicle allowed to use the driveway. The access should be wide enough to enable the design vehicle to remain on the correct lane at all times. The "Austroads Design Vehicle and Turning Path Template's guidelines" should be consulted to confirm the dimensions of the driveway.

3. Drawings Requirements

The following information is the minimum information required on the engineering drawings prior the commencement of works:

- » The offsets from boundaries of the allotment / property and from the road.
- » The presence of reticulated services and the proposal for relocation (if required).
- » The presence of drainage infrastructure (e.g. catchpits, kerbs, inverts, culverts)
- » Driveways

4. Earthworks

- » Earthworks should include considerations for protection of vegetation, placing of stockpiles, vehicle parking areas, dust control, runoff control, pedestrian movements, access restrictions to adjoining properties, etc.
- » New road batters must be stabilized and extended to the boundary of the properties.

- » The topsoil of all disturbed areas should be kept, and reused on those areas to facilitate the re-establishment of vegetation.
- » All batters must be appropriately graded allowing sheet flows preventing mosquito breeding. All topsoil shall remain onsite.
- » Compaction requirements as follows:

5. Backfilling Around Ducts, Pipes, Or Cables

Unless otherwise approved by the Director, all services must be laid at a minimum cover of 350 mm below the footpath surface (or not subject to vehicle loading) and 750 mm below the road surface (or subject to vehicle loading).

Prior to backfill operations, all loose rubbish and foreign material should be removed from the trenches. All open trenches not occupied by permanent work must be backfilled.

Above the level of the sand backfill around ducts, pipes or cables trenches must be backfilled with sand up to the underside of the footpath pavement and compacted in layers no more than 150mm thick using mechanical rammer to 95 percent Modified Density, in accordance with test 5.21 of AS1289. The material used is to be at Optimum Moisture Content (OMC).

Above the level of backfill material, reinstatement of the footpath sub-base is to be constructed Type 3 gravel material. Placement is to be in one 150mm thick layer and compacted to 95% Modified Density in accordance with test 5.2.1 of AS1289

6. Backfilling of Roadway Trench

Above the level of the sand backfill around ducts, pipes, or cables, trenches must be backfilled with sand up to the underside of the road pavement and compacted in layers no more than 150mm thick with mechanical rammers to 95 percent Modified Density (MMDD), in accordance with test 5.2.1 of AS 1289.

The material used is to be at Optimum Moisture Content (OMC).

Above the level of the sand backfill, reinstatement of the pavement is to be constructed using approved Type 2 Gravel base material and compacted in layers no more than 150mm thick with mechanical rammers to 95% percent MMDD minimum in accordance with test 5.2.1 of AS 1289. Nevertheless, the top 150mm layer of the road based shall be compacted to 100% MMDD. The material used is to be at Optimum Moisture Content (OMC). Above the level of the pavement, trench is to be finished off with 40mm of Asphalt after the edges have been saw cut.

Table - Dry Density Ratios for Conformance

Works Components	Mean Dry Density Ratio (R) % ("n" is 3 to 5)	
Natural surface to subgrade, fill, batters, table drain blocks, fill for water course, unpaved areas	90.0 or greater	Conformance
	89.9 or less	Non-conformance
Subgrade, sub-base, unsealed base, shoulders, select fill, levees, structures and culverts in fill, bridge foundation backfill, bridge abutment fill	95.0 or greater	Conformance
	94.9 or less	Non-conformance
Sealed basecourse	100.0 or greater	Conformance
	99.9 or less	Non-conformance
Stabilised basecourse	98.0 or greater	Conformance
	97.9 or less	Non-conformance

Backfill all test excavations with the material and density ratio specified for that layer stabilised with at least 3% cement (by mass).

7. Subgrade And Pavements

- » Should the construction of a Subgrade is required; it must be constructed to the same cross section profile as the finished pavement surface.
- » Compaction test for Subgrade and Pavement form part of the approval process.
- » Once the Subgrade is approved, it must not be left exposed for longer than one week.
- » Preparation of the base course is not to proceed until the Director has given approval. Council will recover costs of any additional inspection if the developer has made no genuine attempt to protect the Subgrade.
- » The base course must be placed, rolled, and compacted in layers not exceeding 150mm in depth, and to the correct moisture content. The correct pavement shape must be maintained at each compacted layer.
- » The developer must not proceed with any bituminous surfacing on the pavement until approval from the Director has been obtained following the final trim and compaction testing.
- » Director reserves the right to request a proof rolling for compaction testing

8. Road Drainage

On rural areas, table drains play a key role in managing the storm water runoff.

- » Council has adopted trapezoidal (flat bottom) table drains as they reduce the risk of erosion.
- » When possible, road drainage should be dispersed intermittently off the road reserve, via cut off drains rather to directly direct all storm water runoff to natural waterways. Exercise care with cut off drains in order to prevent erosion to adjacent properties.
- » Batters must not be extended into private properties.
- » Council also requires topsoiling and the re-establishment of native grass to minimise the erosion, movement of silt to natural waterways and silt deposits on the base of the drain itself.
- » Road drainage shall be designed for a specific design of storm recurrence interval. The value adopted by the Council is Q5
- » Property accesses shall be designed for an ARI of Q100.
- » Culvert design must include the design of causeways and floodways.
- » Considerations of the design and calculations results shall be shown on the Drawings.
- » Drainage calculations shall be made using a method that complies with current Australian Hydrologic Engineering Practice.

9. Surfacing

- » Residential vehicle driveways: Prime and seal – 10 mm aggregate
- » Industrial Access as per Council Standard Drawing

10. Reticulated Services

- » Should the Developer / Contractor seeks to install / relocate services, Council will require the “for Construction Drawings” being approved by the relevant authority prior the commencement of any works (e.g. PowerWater). The Approval must contain the stamp, Name, Signature, and a Contact number of the person conceding the approval.
- » Open excavations are not permitted across the road. Thrust boring is a preferred method. Director of Works reserves the right to provide exceptional permission under specific site conditions.
- » Stormwater connection to Council’s system (under the verge):
 - To be reinforced concrete Pipe Class 2 or equivalent 225mm minimum.
 - Sealed joints are to be used for all drainage lines – external bands or rubber ring joints.
 - PVC / PVC-U not permitted.
- » Line is to be extended at least 1 metre each side of the pavement.
- » Water rain marker tape will be required when the service is laid in an open excavation.



- » For thrust boring within Council road reserves, appropriate safety measures are required around the trench at the side of the road, to Worksafe NT Standard. Please refer to AS1742 for Signs and Safety Fences.
- » Contractor/Applicant is to notify Litchfield Council's Works Department (08 89830622 / 89830615) prior to commencement and on completion of works.

DOCUMENT CONTROL

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