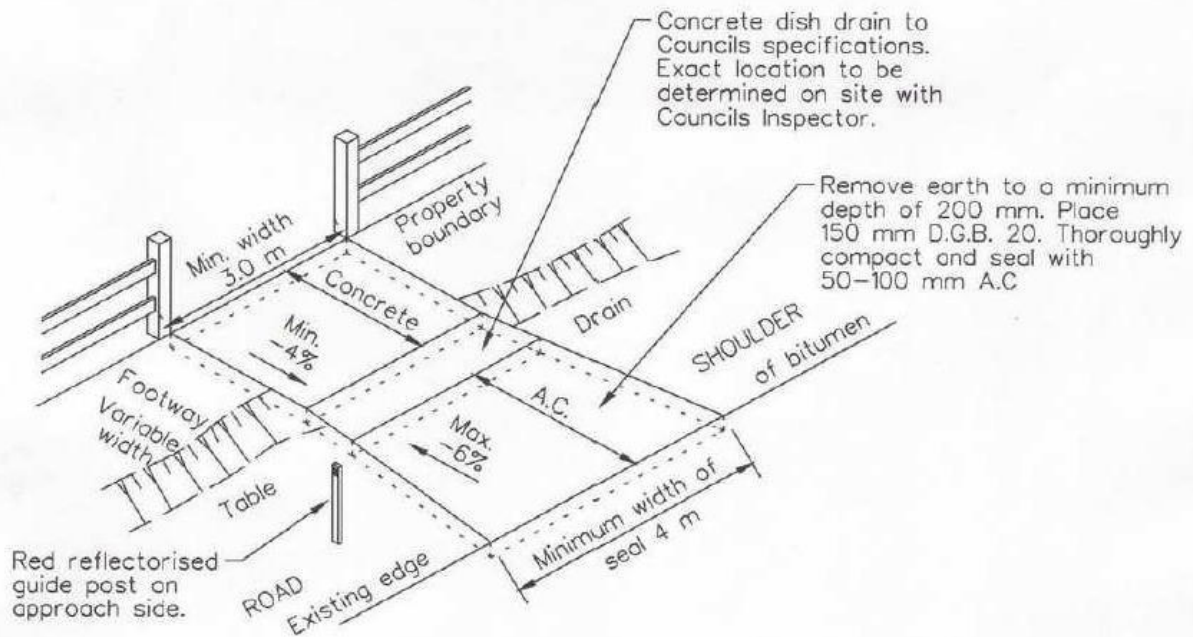


RURAL VEHICULAR CROSSING – TYPE 1 - 259 WEST WILCHARDS ROAD

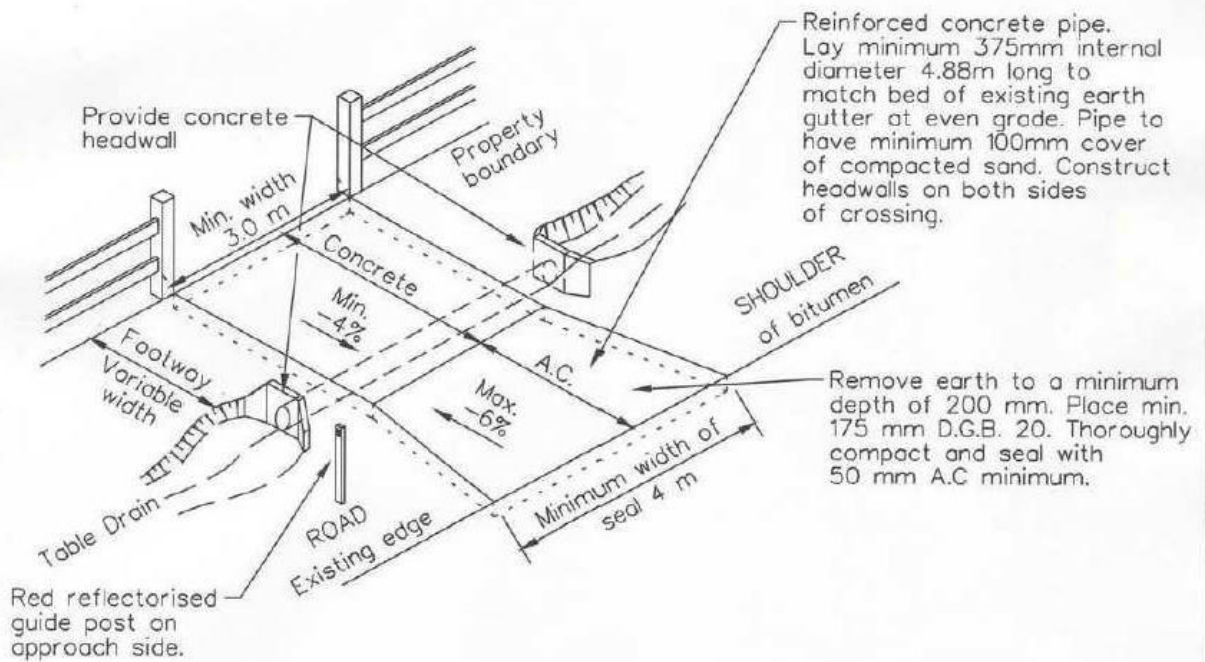


Photographs of proposed rural vehicular crossing 259 West Wilchards Road





RURAL VEHICULAR CROSSING – TYPE 1



RURAL PIPED VEHICULAR CROSSING – TYPE 2

DESIGNED	
DRAWN	SLM
APPROVED	
DATE	

RURAL VEHICULAR CROSSINGS

FILE No.
PLAN No.

CONDITIONS GOVERNING VEHICLE CROSSOVERS

Footpath crossings and foot paving construction may only be carried out by property owners, or accredited licensed contractors, subject to the following conditions.

1. No work is to start on Council property until a 'Footpath Crossing Application' is lodged and receipted by Council. Failure to do so will incur infringement notices and fines.
2. All contractors intending to perform work on Council property within the Penrith LGA must lodge with Council (prior to work commencing) a copy of their current Public Liability Insurance Policy, providing an indemnity limit of not less than \$20 million dollars, and a copy of their relevant (current) Contractors License.
3. Council will not be held responsible for any Public Risk Claims or otherwise, arising from incorrectly installed or unapproved footpath crossings or associated works.
4. The person carrying out the construction must also sign the application form, if they are not the property owner, to acknowledge their responsibilities.
5. Workcover approved barriers, for the protection of the public, must be erected and maintained at any worksite on Council owned or managed property.
6. The contractor/owner is responsible for all damage caused to any public utility located in the footway/road area that is damaged as a result of work performed.
7. All crossings must have the written approval from other Public Utilities, should their service be required to be relocated or remain in the crossing area. It is the owner's responsibility to contact the relevant authority before any concrete is poured. A fee may be applied by the Authority concerned for this service.
8. Council is responsible for any future restoration work in plain grey concrete only, and the use of non-standard materials may require owners to meet any additional cost or to carry out the work themselves of any work by Public Authorities.
9. All stormwater pipes and outlets are to be relocated clear and are not be located within the crossover/layback area.
10. In cases where a new layback is required at a different location, approval will only be granted conditional on the unused layback being restored at the same time, unless both are to be utilised.
11. For crossovers to properties which are lower than the road surface, a cross sectional plan is to be submitted with the application, and an onsite meeting with Council's Engineering Co-ordinator is to be arranged, prior to any work commencing.

Inspections

All crossings and associated works are to be inspected when the formwork, steel, chairs, sand and pins are in place. Bookings for inspections are to be made by contacting Council's Co-ordinator prior to 11am for inspections that are PM or after 11am for next morning inspections Monday to Friday. Please ensure that you **quote the Application Number**, which is found on the bottom left hand side of the form.

Inspections are carried out **AM** (between 7-9am) and **PM** (between 12-2pm) Monday to Friday.

Approvals/non approvals

1. Upon inspection, if the work is constructed to Council's satisfaction, an Inspection Certificate will be issued. It is the property owner/contractors' responsibility to check that approval has been granted as non-approvals are also issued on the same form. Reasons for non-approvals are stated. The form is placed under the steel fabric on completion. If the form cannot be located, Council's Co-ordinator must be contacted before pouring on Council's property.
2. Any persons carrying out unauthorised work without an application being lodged will incur fines or default fee as defined under the Local Government Act. The removal of any concrete or material may also be ordered at the owners/contractors expense.

CROSSOVER AND LAYBACK SPECIFICATION

Standard requirements

- A minimum concrete strength of FC20mpa to AS 3600 is to be used in all crossovers and associated works.
- All crossovers are to be sited perpendicular (90 deg) to the kerb. Sides may be equally angled outwards from the boundary, but not inwards.
- Types of concrete allowed on Council owned property are: plain/coloured/stencil concrete; pavers. The use of stamped, exposed aggregate or pebblecrete is **NOT** allowed on Council owned property.
- In new release subdivision release areas, crossovers from the boundary to the kerb are to be constructed and remain in plain grey concrete only to a maximum width as specified in the DCP. eg. Jordan Springs 5.5m wide, Caddens 4.5m wide etc. Where applicable, the pedestrian footpath is to remain as an integral part of the crossover so they remain continuous along the street.
- The finished surface must be sufficiently rough so as to ensure safety for pedestrians and other users. In the case of concrete, the finished surface must **NOT** be finished in a smooth steel float finish. The surface of the crossover must **NOT** be coated with any epoxy type 'paint' or other sealant. These types of surfaces may result in a smooth finish, which can be slippery in wet weather.
- Concrete slabs without control joints must not exceed 6 metres in any direction or 36 sqm in area.
- Soil erosion and sedimentation control measures are to be maintained during the entire construction period until the disturbed areas are restored. Council may issue infringement notices including a monetary penalty where the control measures fail to meet minimum standards as required by Council policy and Acts of Law.
- When the formwork is removed, the excavated area is to be backfilled and leveled to the top of the slab, and made safe for pedestrian traffic. Maintenance of this area over the settlement period is the owner's responsibility.
- When lapping fabric sheets ensure a minimum of one grid plus 25mm is allowed and sheets tied together.
- Sand, or a similar fine-grained material, to a compacted depth of 30mm is to be placed under concrete.
- Steel mesh is to be firmly supported on bar chairs at a maximum spacing of 1.2m, and shall have a minimum concrete cover of 40mm.
- Where it is not possible to have the finished crossover level with the existing footway, then the footway is to be graded to a maximum grade of 1:14 to meet the new crossover. The reinstatement of concrete footpaving if damaged or removed is the property owner's responsibility to have reinstated.
- A movement control joint is to be placed at the property boundary. Full depth mastic or similar is also to be used at the layback joint.
- A maximum grade of 12% (1:8) with a minimum grade of 4% is allowed over the first 3 metres from the layback (where possible). If not possible an onsite meeting with Council's Engineering Co-ordinator is required.
- When reconstructing laybacks and/or K&G a sub-base of at least 200mm compacted thickness on a compacted sub-grade shall be provided in accordance with Council's Engineering Guidelines for Subdivision and Development Works (pt2).
- Council cannot guarantee that cracking, settlement, etc of the construction will not occur in the future and will not be held liable for any claims to repair or reconstruct crossings even where Council had originally inspected and approved the work.

Single dwellings/dual occupancy

- Crossings are to be a minimum of 100mm thick with one layer of F72 mesh, wired on chairs, with 30mm of compacted sand or fine granular material, keyed into the layback with 12mm galvanised pins, starting 350mm from each side then at 900mm centres.
- Crossovers are to be a minimum of 3 metres wide (maximum of 6 metres) unless otherwise stated, for residential areas. If the gutter is badly cracked or damaged, the complete layback and gutter is to be removed. In this case, the road is to be sawcut 300mm from the gutter lip, and repaired at the property owner's/contractor's expense. The new gutter is to be poured to a board. If the gutter is in good condition, the kerb may be sawcut full depth at the invert with the gutter and a new layback constructed utilizing 12mm starter bars at 400mm centres, depending on suburb.

Light commercial/light industrial units/townhouse units

Crossings and laybacks are to be 150mm thick with one layer of F82 mesh, wired on chairs with a 30mm base of compacted sand or fine granular material. It is to be keyed into the layback with 20mm galvanized pins starting 500mm from each side then 900mm centres.

Heavy commercial/heavy industrial

Crossovers and laybacks are to be a minimum of 15.5 metres wide (AS 2890.2 – 2002). A **minimum** depth of 225mm thick with two layers of F82 mesh, wired on chairs on a 30mm compacted sand or fine granular material base, keyed into layback with 20mm galvanised pins starting 500mm from each side then 900mm centres. Crossovers and laybacks must be poured separately with a movement control joint at the property boundary. As with residential laybacks, if the gutter is to be removed, the road is to be sawcut.

Pavers

Council has approved heavy duty pavers for use in vehicle crossings, subject to the following conditions:

- Pavers must be laid on 30mm bedding sand on 75mm thick concrete with F72 mesh wired, on chairs, on a 30mm compacted sand base, keyed into layback with 12mm galvanised pins starting 350mm from each side then at 900mm centres.
- Pavers are to be laid in accordance with manufacturer's specifications and a minimum of 60mm thick.
- Pavers are to be placed, with a nominal gap between pavers and filled with fine sand or a suitable replacement.
- Owners are responsible for the maintenance of pavers - keeping them true and level at all times.
- Concrete edge restraints must be used to restrain the pavers and the sand.
- Pavers for townhouses and commercial crossings are to be laid on 30mm bedding sand on 100mm concrete with F72 mesh on bar chairs, on a 30mm compacted sand base, keyed into layback with 20mm galvanised pins starting 500mm from each side at 900mm centres.

Non-standard crossings

- The use of stamped, exposed aggregate or pebblecrete is **NOT** allowed on Council owned property.
- Any material other than plain grey concrete is classed as "non-standard". Property owners are advised that if the vehicle crossing is constructed in material other than plain grey concrete, Council will not be responsible for any restoration work as a result of works performed by Council, other than in plain grey concrete.
- All crossovers are to comply with AS/NZS 4663.2.2; AS/NZS 4586.1999; AS/NZS 3661.2.1994 in relation to non-slip finishes.

Rural crossings

Due to the variances involved in rural areas - with differences in road reserves and table drain widths, a site inspection by Council's Engineering Co-ordinator must be held before any works commence, to ascertain levels, designs, etc.

Pipe crossings

Pipes are to be a minimum of 300mm inside diameter supported by headwalls at either end, on a 100mm sand/cement base. A minimum of 100mm cover is to be provided over the top of the pipe and all drainage levels are to be calculated and checked prior to installation. See attached drawings for construction specifications.

Dish crossings

Are to be constructed as per Council specifications. Dish crossings are to have a crossfall along the length of the table drain in the direction of the water flow.