

9.0 KERB & GUTTER WORKS - DESIGN & CONSTRUCTION

9.1 GRADING & ALIGNMENT

Kerb and guttering shall be graded and aligned in accordance with the plan. In culde-sacs or on internal roads, not to be later extended, minor variations of up to 20mm in line and 10mm in level over a distance of 5 metres will be accepted.

On through roads subject to future extension, variations greater than 10mm in line and level will not be accepted.

9.2 PLACEMENT & FINISHING

Concrete in kerb and guttering to be placed in accordance with the general requirements for concrete within this specification and shall have a minimum compression strength of 20MPa at 28 days. The finish is to be a smooth steel trowel type surface. All works shall comply with AS.2876-1987.

9.3 BASE MATERIAL

The kerb and guttering is to be laid on previously compacted approved gravel with no loose material beneath. Alternative construction options may be approved by prior arrangement with Council's Engineer.

9.4 JOINTS

Expansion joints shall be provided at junctions with accesses, pits and other structures, and shall comprise approved expansion jointing material placed through the entire cross sectional area of concrete, and finishing flush with exposed surfaces. Contraction joints consisting of a vertical cut to within 50mm of base shall be formed at a maximum of 6 metre intervals. Also refer to Chapter 11. All accesses are to be provided with expansion joints where the layback merges with the kerb.

9.5 ACCESS GUTTER CROSSINGS

Access gutter crossings are to be placed generally as shown on the engineering plans, to suit existing requirements or as directed by the developer and/or as determined by Council's Engineer.

Where gutter crossings are provided as part of the development, a concrete access slab from the kerb and gutter to the boundary shall be required over the footpath area. This may occur at pre-determined layouts of developments and existing driveways.

9.5.1 Heritage Kerb & Gutter

Where sandstone kerb and gutter exists every effort shall be made to protect this asset. Developments should be designed to facilitate the retainment of heritage kerb and gutter. Where driveway accesses are required, the sandstone kerb can be temporarily removed and, if necessary, the stone may be delivered to Council's Depot for storage. The layback in the kerb is to be constructed in sandstone, however if sandstone is difficult to obtain, consideration will be given to alternative materials. All design measures shall be discussed with Council's Manager Engineering Development.

9.6 RESIDENTIAL CROSSINGS

Where a domestic vehicle access is to be provided, each kerb crossing shall be three (3) metres along the flat section with a 500mm kerb wing at each end, unless otherwise instructed. Refer Drawing SD2.

9.7 INDUSTRIAL/COMMERCIAL GUTTER CROSSINGS

In the case of industrial or commercial access, crossings shall be a minimum of six (6) metres along the flat section unless otherwise instructed, with a 1 metre wing, and are to be fully reinforced 30 MPa concrete with one layer of F.72 mesh. Refer Drawing SD2.

9.8 PRAM RAMPS

Pram ramps shall be constructed at all street intersections and at public reserves or other pedestrian crossings, in accordance with the approved plan. Refer Drawing SD4 for details.

9.9 SERVICE LOCATIONS

Where services cross road, face of kerb will be marked as scheduled below:-

SERVICE	MARK
Watermain	WM
Water service	W
Telecom	T
Electricity	E
State Survey Marker	SSM
Main Cock	MG

Marks shall be impression in green concrete kerb, formed with 6mm diameter rod bent to required letter shape.

9.10 MACHINE PLACED KERB & GUTTER

The foregoing general requirements for kerb and guttering shall apply, with the following additional requirements.

9.10.1 Type

Only "slurryless" type machine placed kerb and gutter of approved sections will be accepted.

9.10.2 Bedding

The approved gravel bedding is to be thoroughly dampened immediately prior to placement.

9.10.3 Joints

Shall be provided as specified in Clause 9.4. Expansion joint placement at junction with other work shall be as specified in Clause 9.4.

9.10.4 Joining of Work

The completed section is to be cut off cleanly, the residue concrete removed and expansion jointing placed before recommencement of work, so that the new work will be squarely butted to the existing concrete.

9.10.5 Protection

Newly placed concrete shall be protected from rain by P.V.C. sheeting.

9.10.6 Testing

If in the opinion of Council's Engineer, the concrete does not conform to the specified compressive strength of 20MPa at 28 days, tests will be conducted on core samples taken as directed by Council's Engineer and tested by an independent registered NATA laboratory at the contractor's cost.

9.10.7 Storm water Pipe Outlets

In all kerbs, where connection of storm water to a common drainage line is not provided, an outlet shall be provided through the kerb on each side of the lot approximately 1.0 metre in from the boundary. Outlets shall be constructed from nominal 127x64x4mm RHS hot clip galvanised and cut to the shape of the kerb.

9.10.8 Curing

Kerb and gutter concrete shall be cured by the use of an approved curing compound. Application shall be by hand lance at the rate of 0.3 lit/m² and immediately following completion of surface finishing.