

SPECIFICATION FOR THE CONSTRUCTION OF COMMERCIAL/INDUSTRIAL CROSSOVERS

1. GENERAL

- a) The specification is made pursuant to the provisions of Schedule 9.1, clause 7(2) of the Local Government Act 1995 and Regulation 12 of the Local Government (Uniformed Local Provisions) Regulations 1996.
- b) The construction of crossovers shall be executed under the supervision of and to the direction of the Manager Engineering Services or their nominated representative.
- c) All materials used in the construction of crossovers shall be in accordance with the Council's standard specification and any materials used which are inferior to those specified or as directed by the Manager Engineering Services shall be liable to rejection or replacement without any payment or compensation being made to the contractor.
- d) Protection of works and the public shall be provided by the contractor who shall supply and keep supplied as directed all necessary signs, barricades, road warning lamps etc.
- e) Any damage which may occur to any Council facilities or private property during the course of the works or which may subsequently become evident from the operations thereof, shall be the sole responsibility of the contractor who shall be held responsible for the repair, replacement, legal claims, liability or any other thing which may arise from the carrying out of any such works.
- f) The Manager Engineering Services reserves the right to order the alteration or removal of any constructed crossover which does not conform to Council specifications or is a hazard in the road verge (schedule 9.1, clauses 6 and 7 of the Local Government Regulation 1996).
- g) Crossovers which fail to comply with these specifications will not be eligible for Council's subsidy. In addition, any required remedial works shall be undertaken by the contractor or owner at their expense.
- h) At the completion of developing a new property or the re-development of an existing property, a crossover conforming to Councils specifications shall be installed.

2. CONCRETE CONSTRUCTION

a) Concrete Thickness

All commercial/industrial concrete crossovers shall have a minimum thickness of 150mm and contain galvanized mesh.

b) Concrete Specifications

All concrete used in works shall develop a minimum compressive strength of 20 mega Pascals at 28 days and shall be composed of a mixture of aggregate, sand and cement to give the strength specified with a maximum slump of 80mm. Please note: - the minimum allowable aggregate size for crossovers is 10mm.

c) Mesh

F62 mesh is to be used and laid between 50mm and 100mm from finished surface level. Sheets of mesh must be overlapped.

d) Removal of Existing Kerb

In-situ barrier and semi-mountable kerbing can be removed (refer section 9a) and the crossover shall abut the road surface. When the crossover is constructed there shall be a 25mm bullnose lip at the carriageway aligned with the front of kerb. The crossover must blend in with the existing kerbing.

e) Sub-grade Formation and Compaction

The existing ground shall be boxed out and shaped to the required dimensions and levels to give a minimum depth of 150mm of concrete pavement, refer Drawing Number MISP-0208E. The sub-grade shall be wet down and compacted using overlapping passes with a vibrating plate compactor. The excavation shall be made to provide a firm and level base, free from any organic and hazardous materials.

f) Placing Concrete

The base shall be thoroughly and evenly moistened prior to placing concrete. Concrete shall be evenly placed to a minimum depth of 150mm and shovelled into position continuously, especially at all edges to ensure maximum density. No break in operations shall be permitted from time of placing to finishing except as authorized by the Manager Engineering Services or their nominated representative.

g) Finishing

The finishing shall be obtained by screeding to the correct levels and broom or wood float finished to match any existing concrete surface, and to provide a non-slip, dense surface free of any depressions, marks, honeycomb sections or accumulation of fine dust particles liable to cause excessive surface wear. The final surface finish shall be to the entire satisfaction of the Manager Engineering Services or their nominated representative who shall reserve the right to require the removal of or the correction of any surface deficiencies or finish. A steel trowel finish is not permitted on any surface of a vehicle crossing.

h) Expansion and Construction Joints

Construction joints shall be made in the form of plain dummy joints or fracture joints, be 10mm deep and finished with an approved jointing tool and in positions as shown on attached Drawing Number MISP-0208E. The distance whether laterally or longitudinally between construction joints shall not exceed 2.5m. Expansion joints shall be full depth joints 14mm wide and filled with bitumen impregnated caneite or similar approved material. They shall be located at the property line, at the back of kerb and, where applicable, between the footpath and the edge of the crossover.

3. **ASHPALT CONSTRUCTION**

a) Sub-base Thickness

The sub-base will comprise of 75mm crushed limestone and shall have a minimum compacted thickness of 200mm. The asphalt laid shall be of high resistance and have a minimum compacted thickness of 40mm. A total minimum crossover thickness of 240mm must be achieved.

b) Sub-grade Formation and Compaction

The existing ground shall be boxed out and shaped to the required dimensions and levels to give a minimum pavement depth of 240mm. The sub-grade shall be wet down and compacted using overlapping passes with a vibrating compactor. The excavation shall be made to provide a firm and level base, free from any organic and hazardous materials.

c) Sub-base Formation and Compaction

After placing the sub-base material in the box, it shall be balanced, watered and rolled to provide a compacted formation. It shall then be final trimmed to level, watered and rolled to provide compacted surface hardness.

d) Asphalt Specifications

All asphalt shall be manufactured, supplied and laid in accordance with the Institute of Public Works Engineering Australia (WA Division) and AAPA (WA Branch) Technical specifications Revision No 2 April 2002 and AS 2150-2005 Hot Mix Asphalt – A guide to good practice.

4. FOOTPATHS

- a) Where a footpath exists, the cross-over must “tie-in” with the existing footpath levels. If any section of the footpath is to be removed, it shall be cut with a concrete cutting saw and in alignment with the edge of the proposed crossover. For concrete crossovers, expansion material must be placed between the side of the crossover and the footpath.
- b) Any section of footpath which is damaged and/or removed outside the area of the crossover shall be reinstated to the nearest fracture or expansion joint with in-situ concrete. Expansion material must be placed between the side of the crossover and the footpath.

5. VERGE LEVELS AND PEDESTRIAN ACCESS

- a) The crossover shall be constructed to the existing verge grade, subject to requirements of section 6e.
- b) The crossover shall be constructed so as not to pose a hazard or obstruction to pedestrian access along the verge.
- c) No part of any retaining wall, boundary fence or edging can extend onto the verge.
- d) If Council deems the verge heights have been altered and the crossover poses a hazard to pedestrian access, remedial works may need to be undertaken at the property owner’s expense.

6. ALIGNMENT AND PROFILE

- a) All crossovers shall be at right angles to the roadway kerb line.
- b) Crossovers shall be no closer than 400mm to the property side boundary.
- c) Crossover wings shall not be less than 1500mm wide, unless the overall width of the crossover at the road edge is greater than 7.0 metres.
- d) No portion of the wing shall extend beyond the side boundary alignment of the property it serves.
- e) Part of the crossover must have a finished level 75mm above the top of the kerb. Any variation to these heights is to be determined by the Manager Engineering Services or their nominated representative prior to the crossover being constructed.

- f) At the property boundary, the crossover shall have a minimum width of 4.0 metres and a maximum width of 10.0 metres.
- g) At the kerb line, the crossover shall have a minimum width of 7.0 metres and a maximum width of 13.0 metres.
- h) Crossovers that do not meet the minimum and maximum allowable widths will only be considered acceptable for Council subsidy where written approval has been obtained from the Manager Engineering Services prior to the crossover being constructed.
- i) No part of the crossover shall extend into the turning radius of another road intersecting the road that the crossover is servicing. Refer Drawing Number MISP-0208F.
- j) Where necessary, crossovers may be constructed to abut an existing side-entry drainage pit lid, without the need to provide a wing.

7. COMPLETION

- a) On completion, the site is to be left in a clean and tidy condition to the satisfaction of the Manager Engineering Services or their nominated representative. All crossover edges must be back filled with clean sand or top soil and left level with the existing verge height. All surplus material, including kerbing and footpath panels, must be removed from site and taken to a Landfill facility.

8. CONTRACTORS RESPONSIBILITIES

- a) Safe access along the verge and/or footpath, clear of any hazardous material and uneven ground, must be maintained for pedestrian traffic.
- b) After concrete has been poured, the finished surface must be protected from rain, vehicular and pedestrian traffic, graffiti etc, for a period of 24 hours.
- c) Reinstatement must be made to kerbing, footpaths, verge and any road surfaces damaged during the crossover construction to the satisfaction of the Manager Engineering Services or their nominated representative. Any concrete must be totally removed from the road surface.
- d) To liaise with the Manager Engineering Services or their nominated representative in regards to levels, lay-outs, dimensions etc and/or any other general enquiries regarding the crossover and verge.
- e) The repair to any of Council's infrastructure and public utilities damaged during the course of works shall be the responsibility of the Contractor at their expense.

9. GENERAL

- a) Existing in-situ barrier and semi-mountable kerbing should be cut with a concrete cutting saw and removed without damage to the road surface or remaining kerb. Where a concrete apron or crossover is to be installed, the road surface shall be cut with a concrete cutting saw to leave a clean and straight edge.
- b) Should there be a relocation of a public utility asset required for the construction of a crossover, the owner is responsible to liaise directly with the relevant authority to undertake such work at the owner's cost.
- c) Where a new crossover is constructed and an old crossover becomes redundant, the old crossover shall be removed and the verge and kerb reinstated to match the existing verge and kerb type.
- d) Any special requirement placed on the construction or location of a crossover by the Manager Engineering Services or their nominated representative must be adhered to.
- e) Where crossovers are constructed, all repairs and maintenance shall be the

responsibility of the property owner to the satisfaction of the Manager Engineering Services or their nominated representative.

- f) Crossovers requiring a culvert to be installed shall comprise of 300mm class 2 concrete pipe or an equivalent diameter and strength rigid polyethylene pipe. Maintenance of the culvert, and one metre distance upstream and downstream, is the responsibility of the owner.

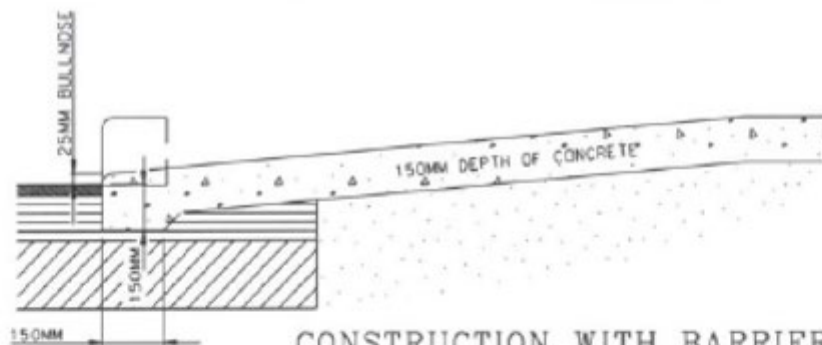
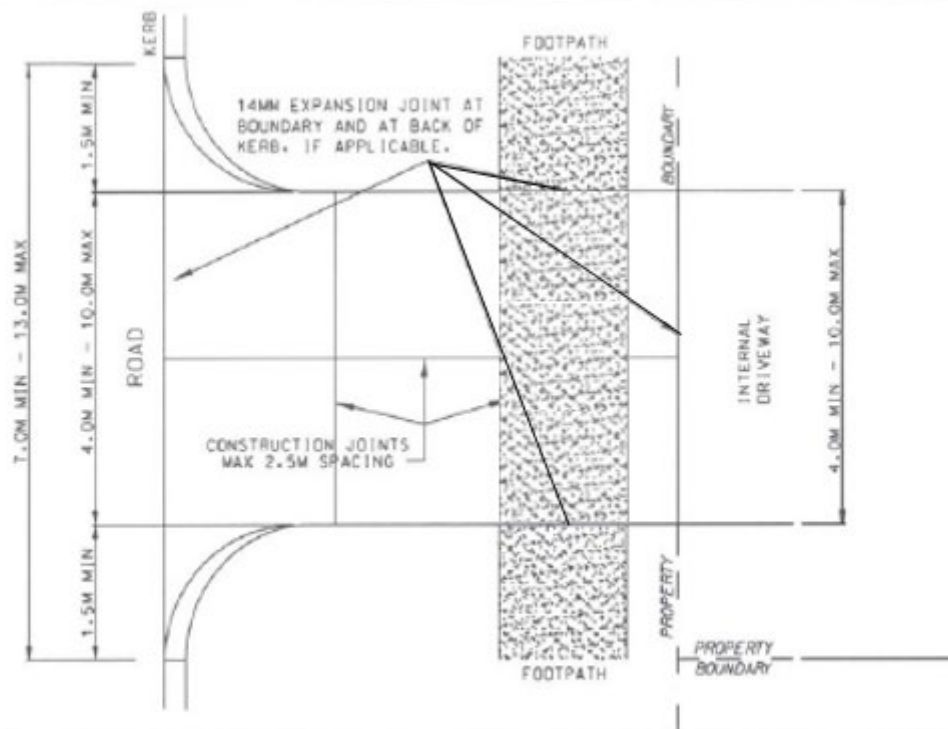
10. COUNCIL CONTRIBUTION

- a) On completion of a crossover, written application on the appropriate form should be made to the Council for a contribution and a final inspection. A delivery docket or supply docket stating strength and quantity of materials used must be attached to the application. The contribution from Council will be 50% of the minimum width requirements for a commercial/industrial crossover constructed in concrete. A subsidy payment will only be made to crossovers which conform to Council specifications or have approval from the Manager Engineering Services, in writing, prior to construction.
- b) Only one crossover per lot will be contributed to by Council. However, with properties of Duplex zoning or greater, Council will contribute to each crossover servicing a business or group of businesses.

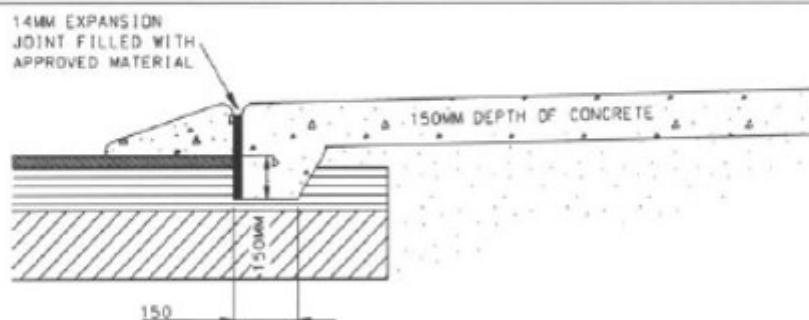
If your proposed crossover does not meet these specifications, please contact Engineering and Parks Services on 9528 0333 to discuss alternatives.

DIRECTOR ENGINEERING & PARKS SERVICES

October 2020

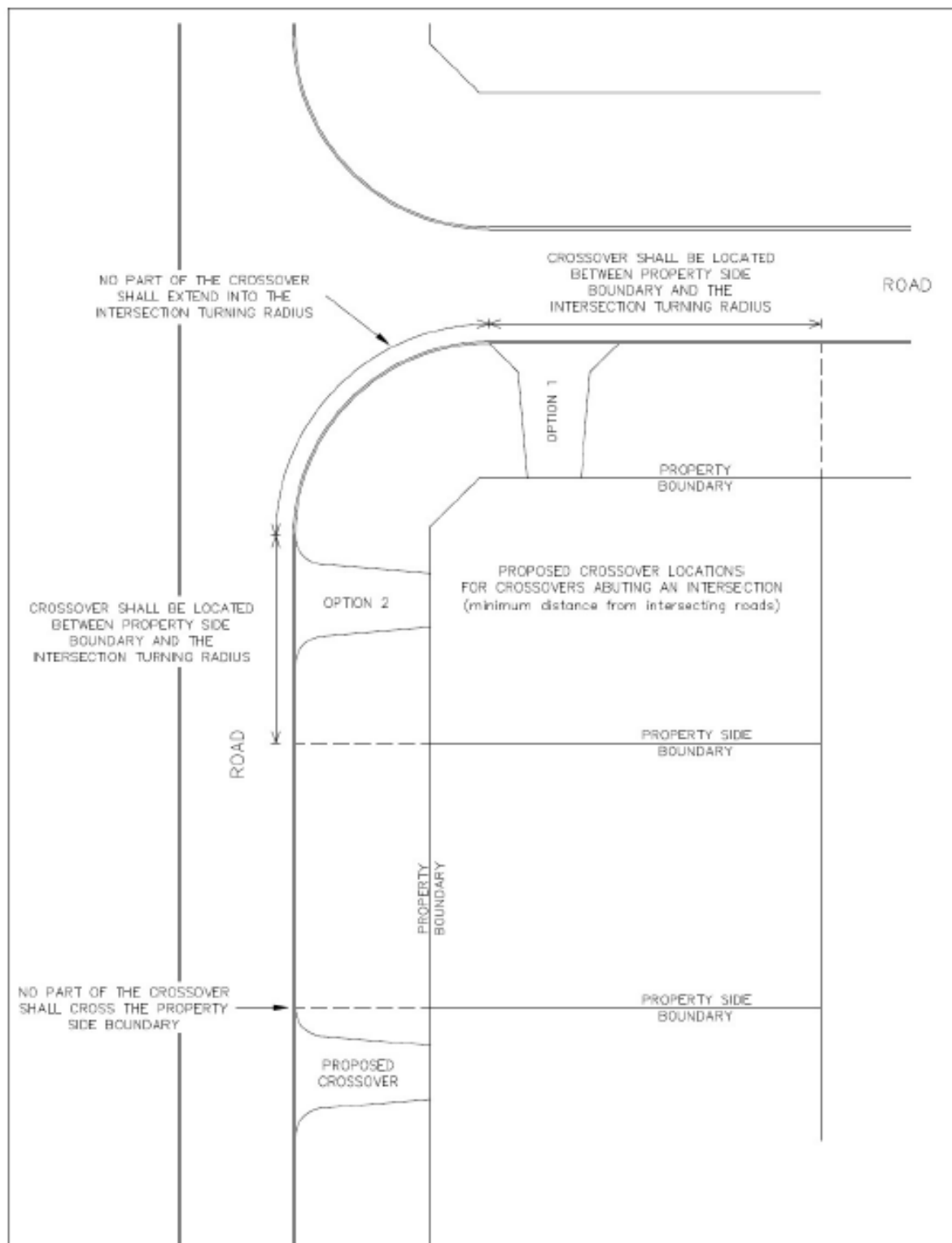


CONSTRUCTION WITH BARRIER OR SEMI-MOUNTABLE KERB



CONSTRUCTION WITH MOUNTABLE KERB

CITY OF ROCKINGHAM	Scale	N.T.S.
	Date	09-01-2008
	Drawn	S BOLTON
	DWG No.	MISP-0208E
STANDARD CONCRETE/POURED LIMESTONE CROSSOVER		



CITY OF ROCKINGHAM

STANDARD COMMERCIAL CROSSOVER
LOCATION AT INTERSECTING ROADS

Scale N.T.S.

Date 09-01-2008

Drawn S BOLTON

DWG No. MISP-0208F