

Specifications

Construction of Standard Residential

Brick Paved Crossovers

1) SCHEDULE OF REQUIREMENTS:

- a) Thickness of Heavy duty Brick Paver - 60mm minimum
- b) Minimum width of crossover at the property line - 3.0 metres
- c) Maximum width of crossover at property line - 6.0 metres
- d) Brick paving patterns refer to attached standard drawing ES07-8-1
- e) Depth of Sand Bedding – 20-40 mm after compaction
- f) Depth of Sub-base – 150mm for limestone Sub-base or 100mm for Rock base/Gravel. The material shall have a density of at least 95% of the Modified Maximum Dry Density (MMDD).
- g) Edge restraints refer to attached standard drawing ES07-4-4.
- h) Splay dimensions - Typically for a maximum of 6.0m wide crossover, a 1.0m wide by 1.5m deep splay at 90 degrees to the kerb line is required. For narrower crossovers typically less than 6.0m wide, the following table is to apply for splay dimensions:

Width of Crossover	3.0m	3.0m - 4.0m	4.0m - 5.0m	5.0m - 6.0m
Splay Dimensions	3.0m by 2.0m	2.5m by 2.0m	2.0m by 1.5m	1.5m by 1.0m

- i) Verge Gradient - A positive 2.0% grade over at least a distance of 2.5m from the back of kerb must be maintained. **NOTE:** This may not be achievable in some locations, that being the case the maximum grade can be determined specific to the site requirements and at the approval of the City.
- j) Mountable kerbing or apron kerbing is required to separate the crossover from the carriageway. **(Existing Kerb must not be removed or modified without the City's Approval).**
- k) Crossovers must be constructed to meet the kerb line at an angle of 90 degrees.
- l) The crossover must be constructed at least a minimum of 0.5 metres off the side property line. **NOTE:** Splays of crossovers may not overlap adjoining properties' verge area.
- m) Other than major intersections, crossovers must be located at least 6m to a street corner or the point at which a carriageway begins to deviate. (Refer to Figure 1 of the Crossover Guidelines).
- n) Crossovers shall be located at a minimum distance to obstructions as follows:
 - i) Drainage pits, Utility Boxes, Street trees and Street Lights: 1.0m
 - ii) Bus stops and Bus stands: 1.5m

2) CONSTRUCTION:

- a) **Brick Paving** – Pavers that are manufactured in concrete or clay and are specifically designed by the manufacturer for the use in crossovers or driveways shall be used. Any material which is inferior to those specified, as determined by the City, will be rejected. The replacement will be at the cost of the property owner to make the crossover/driveway compliant.
- b) **Excavation**
 - i) The excavation for the crossover bed shall be taken out to the levels, lines and grades as per the standard design shown on standard drawing ES07-4-4. Excavation shall be cleanly executed, watered vibrated to give a solid compaction to provide for a sound base free from any deleterious materials giving a minimum depth of 60mm of Heavy Duty Brick paving for residential crossovers.
 - ii) All surplus material resulting from site preparation and construction of the crossover shall become the property of the property owner and shall be removed at the owner's expense.
 - iii) Where an existing concrete footpath has thickness of 100mm or more, in good condition, and adjacent the lot boundary or kerb line, the crossover shall be constructed either side of the concrete path.
- c) **Sub-base Construction** – The required compacted thickness of the sub-base layer will depend on the existing ground conditions; however, the schedule of requirements indicates the minimum depths and the compaction required.
- d) **Edge Restraints** – The perimeter of all paved areas must be provided with a restraining barrier (Refer to standard drawing ES07- 4 -4 attached).
 - i) Restraints must be 250mm wide and a minimum of 80mm deep and robust enough to withstand vehicle impact and prevent any lateral movement of the bricks as this movement could cause pavement failure.
 - ii) Mountable road kerbs or Apron kerbs provide adequate restraint on the vehicle crossing/road interface. The remaining sides must be supported with barriers – e.g. concrete, grouted brick header course.
 - iii) Visible edge restraints shall be installed flush to the crossover and to the approved verge level.
- e) **Bedding Sand** – The bedding layer shall have a pre-compacted depth of 20mm to 40mm, such that the final compacted thickness is within a tolerance of 25mm ± 10mm. The bedding layer shall be well-graded concreting sand, free of deleterious materials. The sand should be of uniform moisture content, and is to be spread over the compacted sub-base layer and screeded in a loose condition.
- f) **Laying Patterns** – As per schedule of requirements.
- g) **Laying of Bricks** – Bricks shall be laid onto the loose bedding sand with a gap of approximately 2mm-4mm between adjacent bricks. Part bricks shall be neatly cut to size with hydraulic guillotine, bolster or saw.
- h) **Compaction and Joint Filling** - The units should be immediately compacted and brought to level by not less than three passes of the vibrating plate compactor. The plate should have sufficient area to simultaneously cover 12 units. To prevent damage to the pavers, sheets of plywood of minimum thickness of 12mm shall be laid on the bricks to prevent the compactor coming in contact with the paved surface. As soon as possible after compaction, sand for joint filling should be broomed over

the pavement and into the joints. Excess sand should be removed as soon as joints are filled.

Ideally the sand used for joint filling should be finer than the bedding layer with a nominal particle size of 2mm. Sand used for joint filling should be free from salts or contaminants likely to cause efflorescence. However, the use of bricklayer's sand or the addition of a small amount of silt material to the joint filling sand can be of considerable benefit in reducing water penetration in the early life of the pavement.

3) GENERAL:

- a) The existing kerbing is not to be removed or modified without the City's prior approval. Kerbing must be reinstated as mountable kerbing or crossover apron kerbing to the City's Specifications (Refer to standard drawing ES05-1-3).
- b) If a footpath is present within the verge area, the path will continue through the body of the crossover and shall not be removed.
- c) All materials used in the construction of vehicle crossings shall be in accordance with the standard specifications of the Council and any materials used which are inferior to those specified shall be liable to rejection and replacement without payment or compensation being made to the owner.
- d) Any damages that may occur to any City infrastructure 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 owner who shall be held responsible for the repair replacement or legal liability.

4) CONTRIBUTION:

If it is a first crossing constructed on the property or is the replacement of a bitumen crossover to concrete or brick paving material, the City may contribute towards the cost. The Subsidy Payment form for First/Replacement of Vehicle Crossing can be found on the City's webpage and is required to be completed once the works have been carried out. Application for a subsidy payment must be made on the prescribed form within 6 months of the date it was constructed and is to be accompanied by proof of payment (invoice or delivery docket). **NOTE:** The rebate payment will be provided once the application form has been approved and the crossover is deemed to be compliant.