



CITY OF VINCENT

**SPECIFICATIONS FOR
THE INSTALLATION OF
BRICK PAVED CROSSOVERS**

Revised 20 July 2009

CONSTRUCTION OF CROSSOVERS

OBJECTIVES

To define the City's specification for the construction of crossovers in road reserves.

POLICY STATEMENT

In accordance with Schedule 9.1 Clause 7 (4) of the Local Government Act 1995, it is the Council's Policy that the construction of all crossovers within the road reserve requires the approval of the City.

The City may approve the private construction of either a cast insitu concrete or a clay brick paved crossover located in the road reserve:

- Between the edge of the carriageway (back of kerb) and the existing footpath located adjacent the property boundary; or
- Between the existing footpath located (located adjacent to the edge of the carriageway) and the property boundary.

The crossover construction is to be in accordance with the City's requirements relating to the location and standards of construction.

City will refund one half the cost of the first standard crossover at a property. A standard crossover and the cost of a standard crossover will be determined by the City.

SPECIFICATION

BRICK PAVED CROSSOVERS

1. DEFINITIONS

- 1.1 *Superintendent* shall mean the City's Director Technical Services or nominated person responsible for the supervision of the work.
- 1.2 *Applicant* shall mean the property owner or their agent or contractor employed by the applicant.
- 1.3 *Crossover* is that section of the "drive-in" that extends from the edge of the path to the street channel (*where the path adjoins the property boundary*).
- 1.4 *Sweep* is that part of the approach which is the transition between the road kerb and the kerbing of the approach.

2. PROCEDURE

2.1 Application for Installation of cross over

The City will **NOT** undertake the construction of brick paved crossovers.

Should the applicant wish to construct a crossover or employ a contractor to construct a brick paved crossover the applicant **MUST** apply in writing to the City and complete the City's Application for Crossover form.

2.2 Approval and Quotation

Approval to construct the crossover shall be issued by the City following a site inspection.

If requested by the applicant, a quotation for the City to replace the existing kerb section with the approved concrete kerb will be undertaken by the City.

Should the applicant require that the City installs the kerb prior to the construction of the brickpaved crossover, the applicant **MUST** sign a declaration that should the kerb be damaged during construction of the crossover the applicant will be liable for the cost of repairing/replacing the damaged kerb section.

2.3 Assessment

Following receipt of an application to construct the crossover, the superintendent will carryout a site inspection to determine any conditions that may apply to the approval.

2.4 Final Inspection

Request for the refund of the bond must be made in writing at which time an inspection will be carried out by a Technical Services Officer.

3. GENERAL

3.1 Insurance

The works shall be covered by the insurance policies for workers' compensation and public liability (person and property). The latter policy shall provide sufficient cover for all claims arising from the construction of the crossover.

3.2 Obstructions and Safety Precautions

The work shall be carried out with minimum disruption to pedestrians and vehicular traffic. Every precaution shall be taken to ensure the safety of persons and property.

All excavations, materials, plant and equipment must be made safe, barricaded and provided with warning lights, during the hours of darkness to the satisfaction of the Superintendent.

All work is to be carried out in accordance with the Occupational Safety and Health Act 1984 and Regulations as amended.

3.3 Testing

Where required all testing shall be carried out in accordance with the relevant Australian Standards.

3.4 Making Good

All reinstatement caused as a result of the Contractor's work, shall be carried out by the City, at the applicant's cost or by the applicant subject to the approval of the Superintendent.

3.5 Verge Trees

No verge trees will be removed without written approval from the Manager of Parks Services

- (a) The responsibility for the removal of verge trees which conflict with, or tree roots which intrude into, the proposed crossover rests with the City's Parks Services. If justified, the Superintendent will on behalf of the applicant, arrange with Parks Services to remove any trees or roots affected by the crossover. ALL costs incurred in this regard will be the responsibility of the contractor or applicant.
- (b) Removal of verge trees and major root systems **MUST** be inspected and approved by the Superintendent before works commence.

3.6 Levels

Where there is no existing footpath or there is any doubt the levels at the street alignment must comply with those of the proposed footpath in grade and level and the Superintendent **MUST** be notified at least 24 hours prior to the commencement of the works so that appropriate levels can be determined.

Where a footpath *exists refer to clause 4.7 - Existing Footpath.*

3.7 Disposal of Unwanted Material

Any surplus material arising from the construction of the crossover shall be neatly stacked and disposed of by the applicant to an approved disposal site.

4. DETAILS

4.1 Specification and Drawings

All works associated with the construction of the crossover shall be carried out in accordance with this specification and the attached drawings to the satisfaction of the Superintendent.

4.2 **Width**

The minimum width of a crossover is to be 3.0m and the maximum width of any crossover and/or adjoining crossover is to be 7.5 metres, except for service stations, which may be 10.5 metres depending on the location.

4.3 **Island Separator**

Island separators shall be used for crossovers exceeding 7.5 metres unless otherwise determined by the Superintendent.

4.4 **Crossover Alignment**

Crossovers are to be constructed perpendicular to:

- The property boundary; and
- Road carriageway,

The crossover will have a minimum clearance of 0.5 metres from a side boundary (Refer Drawing No 2055-SD sheet 1) and shall not exceed the width of the internal access driveway onto the property.

4.5 **Crossover Location**

The location of crossovers shall be approved by the Superintendent and shall be no closer to an intersection than:-

- (a) The point of intersection between a standard truncation and the street alignment; or
- (b) As specified in the Australian Standard AS2890.1 clause 3.2.3 (i.e. 6.0m from tangent point of kerb);

Which ever is furthest from the corner. (*Refer Drawing No. 2055-SD sheet 1*)

Crossovers which are to be constructed within close proximity of a signalised intersection (Traffic Signals) shall be individually assessed by the Superintendent, in accordance with the requirements of Main Roads Western Australia and AS2890.1.

4.6 **Levels**

Crossover levels at the property boundary are to be determined by the Superintendent where required.

4.7 **Clearances**

The minimum clearance of any existing tree or pole in the verge is to be 0.5 metres. Where an existing tree is within 1.5 metres of a crossover, advice shall be obtained from Parks Services on the future size of the tree and the advisability of it being retained.

4.8 **Existing Footpath**

The portion of the existing footpath (concrete) traversing the proposed crossover, subject to the existing footpath being in a good condition as determined by the superintendent, **MUST BE RETAINED** such that it forms a part of the proposed crossover, indicates a visual continuation of the footpath. The proposed crossover levels shall match the level/s of the existing footpath.

Where the existing footpath (*Concrete*) is located adjacent to the road carriageway the portion of existing kerbing and footpath is to be removed and reconstructed (*in concrete*) as directed by the superintendent. The City may carry out this work at the applicant's expense.

4.9 **Main Roads**

Where it is proposed that the crossover will connect the property boundary with a Main Road (Primary Distributor) i.e. Charles Street or East Parade, approval for the crossover shall in the first instance be obtained from Main Roads Western Australia (MRWA).

Where it is proposed that the crossover will connect a property with a District Distributor Road (as defined by the Metropolitan Area Functional Road Hierarchy) the City will issue approval for the crossover.

Note: Where the road is the subject of an MRS widening the approval of the Western Australian Planning Commission may also be required.

4.10 **Public Utilities**

The applicant must apply to the relevant public utility authorities for approval to alter any utility service that may be in conflict with the proposed crossover.

ALL costs associated with the alteration of any service and subsequent reinstatement of the verge to original shall be borne by the applicant. In this regard, the location of the crossover is subject to approval by the relevant service authorities.

Note: Any adjustments to services **MUST** be completed prior to the installation of the crossover.

5.0 **MATERIALS**

5.1 **Limestone**

Crushed limestone shall be free from all deleterious materials and graded to the following grading envelope:-

Passing 75.00mm	100%
Passing 19.50mm	50 - 75%
Passing 2.36	30 - 50%

5.2 **Screed Sand**

Screed sand shall be well graded, free from deleterious materials and organic matter and must not contain soluble salts that may cause efflorescence.

5.3 **Setting Sand**

Setting sand shall be well graded, pass a 2.36mm sieve and be free from deleterious materials likely to cause staining.

5.4 **Bricks**

Bricks shall be new, solid, manufactured in clay or concrete and have sharp or true bevelled arises. They shall have nominal dimensions of 230x115x60mm, be classified as trafficable by their manufacture and have an equivalent transverse strength of 2.5mpa as determined by AS1226.3

Note: Rumbled / handmade bricks will not be approved.

5.5 **Brick Samples**

If required, at least 24 hours prior to the commencement of works, the applicant shall supply the Superintendent with a sample of the brick to be used in the construction of the crossover for testing.

This requirement will only apply if the Superintendent is not satisfied with the proposed brick to be used for the crossover.

In this case NO works shall commence of the construction of the crossover until the superintendent is satisfied that the bricks are of a suitable make and quality.

5.6 Kerbing

The portion of existing barrier or semi-mountable kerbing which is affected by the proposed crossover, shall be cut and removed by the applicant and replaced with an insitu concrete mountable kerb (*refer clause 2.2 - Approval and Quotation*).

6.0 CONSTRUCTION

6.1 Formation

The crossover formation shall be constructed in accordance with the details indicated in Drawings No. 2055_SD sheet 2.

Boxing out for the formation shall be carried out taking due care to protect the surrounding verge, utility services, vegetation and footpath, if applicable.

The subgrade generally consists of sand which is adequately compacted. Where the subgrade has failed the contractor shall replace the defective material with suitable sand which is to be compacted to a minimum density of 7 blows per 300mm as determined by a standard penetrometer.

6.2 **Base Construction**

The base material (limestone) shall be placed at optimum moisture content and spread such that the final compacted thickness is a minimum of 150mm. The materials shall be worked to the correct lines and levels and thoroughly compacted. Alternative base materials such as rock base and cement stabilised sand may be permitted, subject to approval by the Superintendent.

6.3 **Bedding Sand Placement**

Bedding sand shall be placed and screeded at optimum moisture content. The finished thickness of the sand shall be in the range of 35 to 50mm.

6.4 **Placement of Bricks**

Brick crossovers shall be constructed in accordance with the details indicated on Drawings 2055-SD sheet 2. Bricks shall be laid in either a 45° or 90° herringbone pattern, leaving a maximum space of 2 - 3mm between each brick, or as approved by the superintendent.

Immediately after the laying of the bricks, a minimum of three passes shall be made over the surface with a suitable vibrating plate compactor. During compaction, the paving shall be protected from damage by utilising a suitable protective medium between the surface of the plate compactor and the paving units.

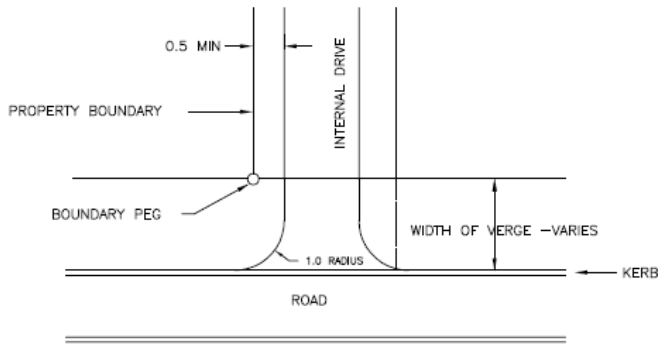
As soon as practicable after compaction, the bricks shall be set by brooming the setting sand into the joints. To ensure that the joints are completely filled, the pavement shall receive one or more passes of the plate compactor and the joints refilled.

6.5 **Edge Restraints**

The edges of the crossover are to be restrained as per manufacturers specifications or a single row of header bricks shall be set on a concrete beam using a mortar mix of four parts bricklayer' sand one part cement.

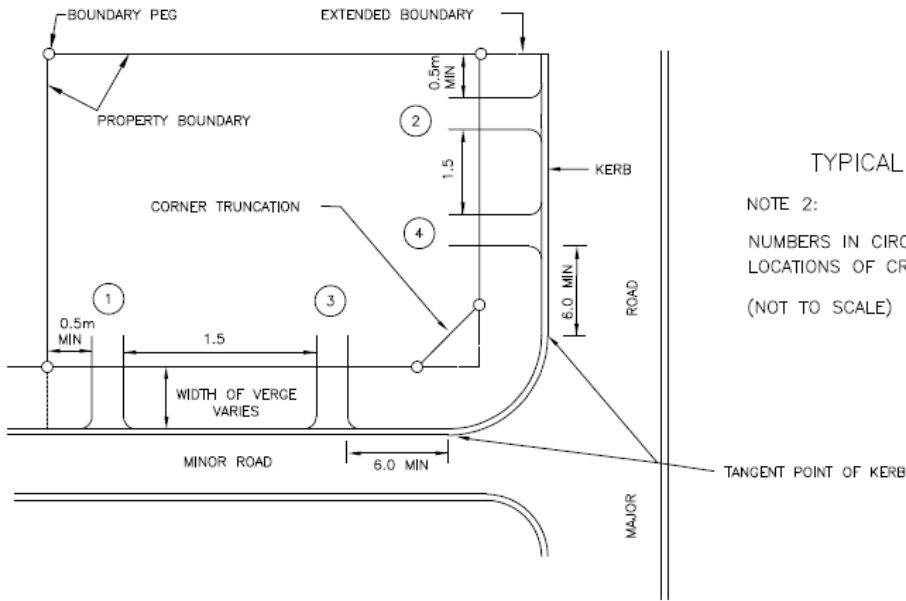
7.0 **UNUSED (BLIND) CROSSOVERS**

Crossovers that are no longer required or no longer connect with an internal driveway are not permitted and must be removed at the cost of the owner of the property.



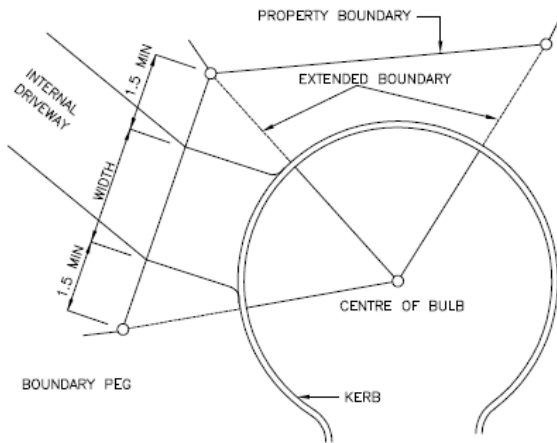
TYPICAL CASE 1

NOTE 1:
 WIDTH OF CROSSOVER ALLOWED IS
 BETWEEN 3.0m – 7.3m FOR RESIDENTIAL
 (NOT TO SCALE)



TYPICAL CASE 2

NOTE 2:
 NUMBERS IN CIRCLE SHOW PREFERRED
 LOCATIONS OF CROSSOVER.
 (NOT TO SCALE)



TYPICAL CASE 3

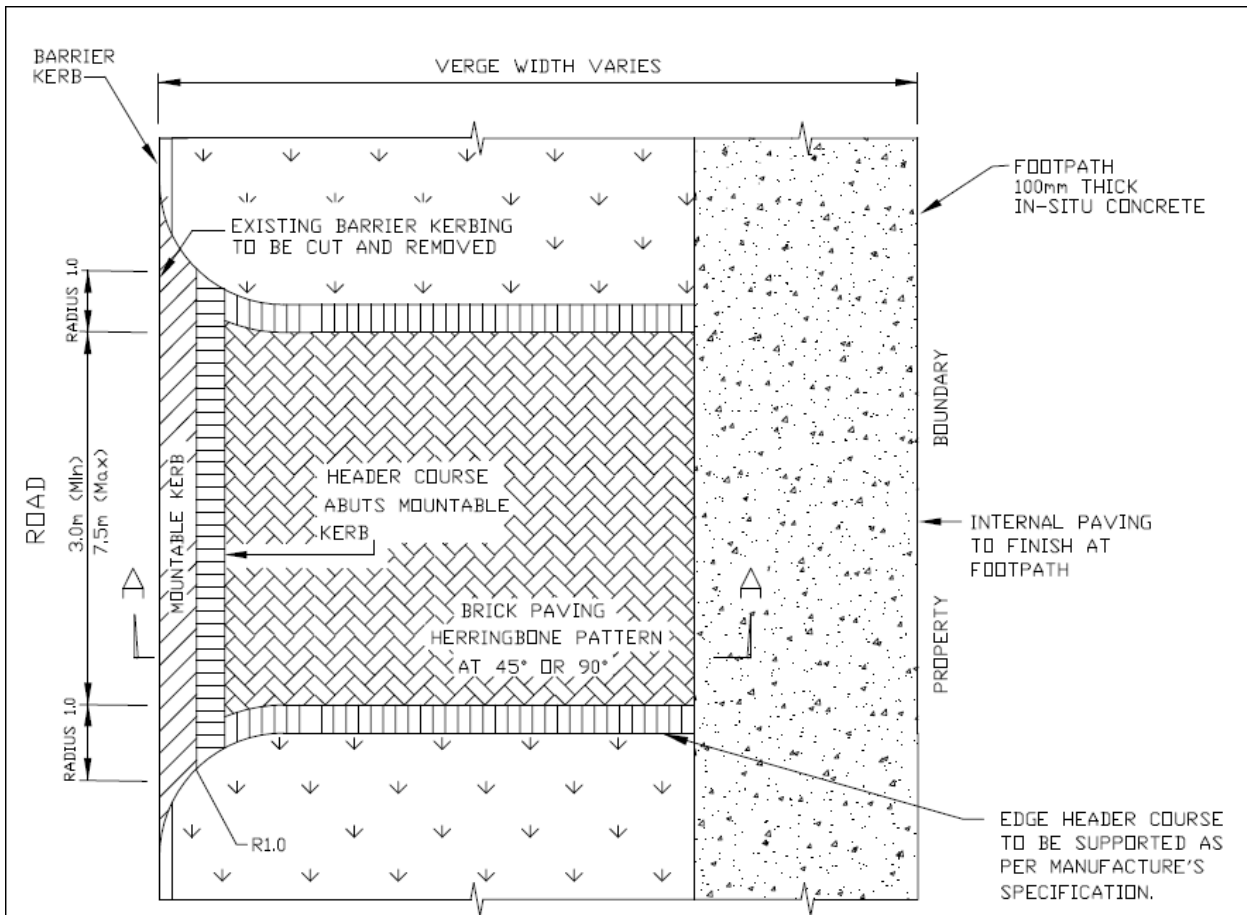
NOTE 3:
 CROSSOVERS TO BE LOCATED WITHIN
 THE AREA CREATED BY JOINING
 THE BOUNDARY PEGS TO THE CENTRE
 OF THE CUL-DE-SAC BULB.
 ANY DIFFICULTIES IN LOCATING THE
 CROSSOVER OR OTHER QUERIES, PLEASE
 CONTACT THE SUPERINTENDENT.
 (NOT TO SCALE)



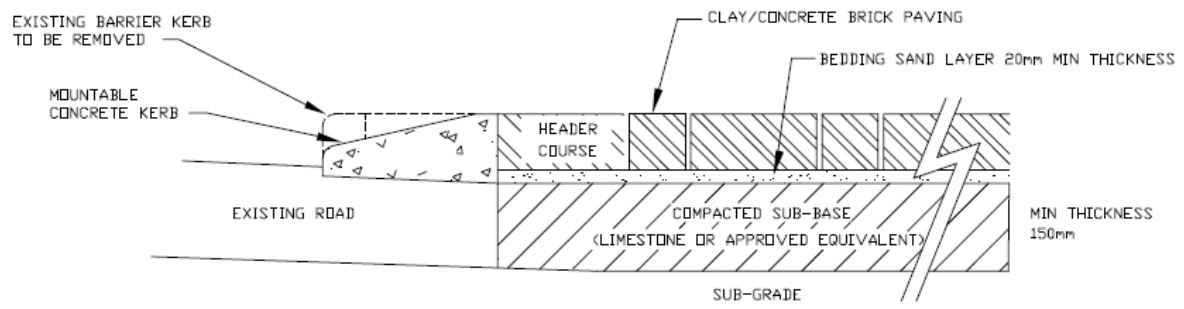
CITY OF VINCENT
 244 VINCENT STREET LEEDERVILLE, 6007
 TECHNICAL SERVICES

STANDARD
 CROSSOVER
 LOCATIONS

SCALE: N.T.S.	DRAWN: KW	DRAWING NO: 2055-SD	
DATE: 10 '2003	CHECKED: CW	SHEET 1 OF 4.	A4



PLAN



NOTE

- LEVELS AT BOUNDARY ARE DETERMINED BY EXISTING FOOTPATH LEVELS.
- WHERE THERE IS NO FOOTPATH, LEVELS FOR THE CROSSOVER ARE TO BE ESTABLISHED BY COUNCIL PRIOR TO CONSTRUCTION.
- FOR EXISTING SLAB FOOTPATH CROSSOVER IS TO EXTEND THROUGH FOOTPATH TO INTERNAL DRIVEWAY
- FOOTPATH EITHER SIDE OF CROSSOVER TO BE REINSTATED TO THE TOWN'S STANDARDS.
- MIN. GRADE FOR CROSSOVER IS 2% DOWN TOWARDS TOP OF KERB OR AS DIRECTED BY THE TOWN'S TECHNICAL SERVICES.



CITY OF VINCENT
244 VINCENT STREET LEEDERVILLE, 6007
TECHNICAL SERVICES

STANDARD
BRICK PAVED
CROSSOVER DETAILS

SCALE: N.T.S.	DRAWN: KW	DRAWING NO: 2055-SD	
DATE: 5 '2003	CHECKED: CW	SHEET 2 OF 4.	A4