



TOWN OF BASSENDEAN

ASSET SERVICES

SPECIFICATION FOR THE CONSTRUCTION OF CROSSOVERS

1. OBJECTIVE

The purpose of this document is to define the Town of Bassendean's specifications for the construction of vehicle crossovers.

In accordance with the Local Government Act 1995, Schedule 9.1 Clause 7 and Clause 8 and the Town of Bassendean's 'Activities on Thoroughfares and Trading in Thoroughfares and Public Place Local Law'; all vehicle crossings constructed within a thoroughfare require approval from the Town of Bassendean.

The Town shall approve the private construction of a crossover between the edge of the carriageway and the property boundary in accordance with the Town's requirements relating to the location and standards of construction.

2. PROCEDURE

2.1 Specifications

These are obtained from the Town of Bassendean. If required the Town may provide a quotation to install a concrete crossover. Residents may use a private contractor to construct the crossover according to this specification.

2.2 Application

Where the work is being done by the property owner or the applicant's contractor the Town's Officers are required to make periodic checks on the work to ensure compliance with specifications.

The property owner or the applicant's contractor are required to:

1. Pay a supervision/inspection fee to the Town of Bassendean Customer Service Centre prior to commencement of works.
2. Notify the Town of Bassendean two working days prior to the pouring of concrete to organise site inspection.

2.3 Inspection and Council Contribution

Where applicable, payment of the Council contribution will be made following written advice from the applicant that construction is complete. The crossover will be inspected, by an Officer of the Town, and if constructed to this specification shall be approved for payment of the contribution.

Council will make a contribution equal to one half of the cost per m² for the construction of one standard crossover per residential lot to a maximum of that set in council's Schedule of Fees and Charges. The contribution will only be made following the actual construction of the crossover and providing that it is constructed in accordance with this specification.

Where the crossover has not been constructed to the Town of Bassendean specifications, the Town shall instruct the property owner or the applicant's contractor to modify the crossover at their cost, to ensure compliance with the specifications.

The cost of a standard crossover constructed by the Town or by a private contractor will be determined by the Town.

Where lots are strata-titled, more than one contribution may be made, at the discretion of the Town, if more than one crossover is constructed. The number of crossovers attracting the contribution shall not exceed the number of separately titled unit on the lot.

2.4 Street Tree Protection

Refer to the Council's Street Tree Protection policy at: www.bassendean.wa.gov.au located in Council –Documents & Publications – Policies – Section 1 – Town Planning and Built Environment – Page 37 -Street Tree Protection Policy which requires the property owner or applicant's contractor to protect the street tree prior to and during the development phase.

To protect the street tree the Town may request an approved independent suitably qualified arborist report to guide the management practices during the development.

A temporary barricade may be required to be erected at the outer canopy of the street tree to protect the root zone and tree during development. Vehicles are not permitted to park and building materials or debris are not permitted to be placed or stored under the tree canopy.

All building contractors utilised on the development are to be aware of the importance of protecting the Council's street tree, and that any damages occurring to the tree, wilful or otherwise will be subject to prosecution under the Local Government (Uniform Local Provisions Regulations 1996), Schedule 9.1 Clause 2.

2.5 Reinstatements

All damaged roads, paths, vehicle crossings, piped or open drains, verges, landscaping and any other structure or facility under the Town's care, control and management shall be reinstated in accordance with Town's specifications.

3. GENERAL

3.1 No matter the size of the project, it is essential that the property owner or applicant contact "Dial Before You Dig" (www.1100.com.au or alternatively contact the call centre on 1100 during business hours) for information on locating underground utilities. Underground utility owners will respond directly with the cable and pipe location

information. This information is to be used to prevent any damage to the underground services.

- 3.2 Any damages which may occur to any of the Town's facility, private property or underground services during the course of works or which subsequently becomes evident, shall be the sole responsibility of the property owner and or contractor who shall be held responsible for the repair, replacement, legal claims or any other thing which may arise from the carrying out of any such work.
- 3.3 Storm water from the driveway of a private property shall be managed in a detention system (eg soak wells) on the private property. No Storm water from the private property shall flow onto the crossover into the Town of Bassendean's drainage network.
- 3.4 The construction of vehicle crossings shall be executed under the supervision of and to the direction of the Manager Asset Services or his authorised representative.
- 3.5 All levels for grading, surfacing finishing, jointing or other construction requirements shall be as outlined in this document or as directed by the Manager Asset Services.

The crossover should be at least 0.5 metres from the side boundary at the front property line. Drainage entry pits require a minimum clearance of 1.0 metres (refer to drawing no TOB-STD-12-1) and Western Power poles require a clearance of 0.6 metres. In accordance with specification 5.2 below, the minimum clearance for street trees shall be determined by an approved independent suitably qualified arborist report to guide the management practices during the development

- 3.6 Crossovers to be constructed within close proximity of a signalized intersection shall be individually assessed by the Manager Asset Services, in accordance with the requirements of Main Roads Western Australia (MRWA).
- 3.7 Where a crossover connects the property boundary with a Primary Distributor Road (e.g. Guildford Road), approval from Main Roads Western Australia is required. Where a crossover connects a property with a Regional Road (Collier Road, Morley Drive, Lord Street, or Walter Road East) approval from the Department of Planning is required.
- 3.8 All materials and workmanship used in the construction of vehicle crossings shall be in accordance with this specification and materials or workmanship which are inferior to those specified shall be rejected and the works make good to Town's satisfaction.
- 3.9 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 Manager Asset Services. All work is to be carried out in accordance with the Occupational Health, Safety and Welfare Act 1984 and Regulations as amended.
- 3.10 Alterations to the verge, path, or crossover that encroach on to a neighbouring property shall be carried out at the expense of the applicant. The property owner of the neighbouring property is to be notified of the details of the alterations prior to the application being made. A written response from the neighbouring property owner is to be provided with the application.
- 3.11 Vehicle crossovers that are no longer required or no longer connect with an internal driveway are deemed redundant and are not permitted and must be removed at the cost of the property owner and the verge and kerbing restored.

4. CONTRACTOR'S RESPONSIBILITY

- 4.1 Cutting existing kerbing with a concrete saw or removing existing precast kerbing without damage to the remaining pavement and kerbing.
- 4.2 Removal and disposal of all surplus materials from the site of the works and leaving the site in a clean and tidy condition.
- 4.3 Reinstatement of kerbing, concrete or bituminous road surfaces damaged during the course of the work.
- 4.4 Reinstatement of any verge or private property.
- 4.5 Removal of any redundant crossovers.
- 4.6 Liaison with the ratepayer to provide for ingress and egress and notification of intention to commence works.
- 4.7 Liaison with the Manager Asset Services, or his delegated representative on construction levels, setting out, inspection and measuring up of works.
- 4.8 Maintaining good public relations with Council and Ratepayers generally.
- 4.9 Apply to the relevant public utility authorities for approval to alter any utility service that is in conflict with the proposed crossover. Any costs incurred in the alteration of any service and subsequent reinstatement of the verge shall be borne by the contractor or applicant.

5. LEVELS, FOOTPATHS AND OTHER FEATURES

- 5.1 Crossovers are to be constructed perpendicular to the road edge or kerb line with a minimum clearance of 0.5 metres from a side boundary and shall align with the internal access into the property.
- 5.2 The presence of street trees on the verge may impact on the location and/or alignment of a crossover. This specification is to be implemented in conjunction with the Town's Street Tree Protection Policy whereby, unless there are valid reasons for its removal, the street tree shall take precedence over the crossover.

Where an existing tree is within 1.5 metres of a proposed crossover, advice is to be sought from an approved independent suitably qualified arborist to provide a report on the characteristics of the tree, projected future growth/size and to guide the management practices during the development. Based on the approved arborist report provided the Town will determine vehicle sight clearance requirements.

Any costs incurred in regards to the obtaining the approved independent suitably qualified arborist report and actions required to protect the street tree will be the responsibility of the property owner or applicant.

Only with the approval of the Manager Asset Services can the street tree have remedial arboricultural work undertaken by the approved arborist.

The property owner / applicant is to ensure that Street Trees are protected during the construction of a crossover or any other work on the verge, in accordance to the Street

Tree Protection policy. Any damages occurring to the tree, wilful or otherwise will be subject to prosecution under the Local Government (Uniform Local Provisions Regulations 1996), Schedule 9.1 Clause 2.

- 5.3 Where a vehicle crossing is required to cross a footpath or dual use path, the contractor shall construct the vehicle crossing to either side of the path and match up with it (refer to Drawing no. TOB-STD-4-3).

Where a crossover is to be constructed or upgraded, a footpath crossing shall be provided which is physically and visually predominant and shall have precedence over the crossover, and this reinstatement shall match the original path materials. The pedestrian footpath for the entire street shall be a continuous accessible means of travel allowing universal access for all users.

Crossover shall be constructed to match the predominant footpath colour. For example, a grey coloured crossover is to match a grey coloured concrete footpath while a red bricked footpath (e.g. for Old Perth Road) will have a crossover to match the brick colour.

For the Town's paving specification for Old Perth Road footpath, refer to "Specification for the Construction of Old Perth Road Paved Crossovers".

- 5.4 Crossing levels shall match up with:

5.4.1 The existing verge level if it is of uniform height with the adjacent verges.

5.4.2 The average level of the two adjacent crossovers or verge levels where there are no crossovers.

5.4.3 An apron (1m wide) shall be provided in accordance with drawing No. TOB-STD-4 – (Sheet 1 to 6).

- 5.5 Where the crossing covers an existing Council manhole, the lid is to be adjusted so as to be flush with the finished surface. The lid is to be replaced with 'Heavy Duty' type. Where the manhole belongs to a Public Utility, the applicant is to show evidence to the Manager Asset Services that they have fulfilled the requirements of the Public Utility in relation to the manhole.

- 5.6 All crossovers shall be constructed so that the crossover lies flush with the road carriageway and there is no lip.

- 5.7 For a corner site, no new crossovers shall be constructed within 12.0 metres from the side boundary. i.e. For a corner site, with a 6x6m truncation, no new crossovers shall be constructed within 6.0 metres of the truncation peg. For a corner site, with a 3x3m truncation, no new crossovers shall be constructed within 9.0 metres of the truncation peg. Refer to drawing no. TOB-STD-11-1.

- 5.8 Where a doubt exists on the above, refer all queries to the Manager Asset Services for determination prior to construction.

6. CONSTRUCTION

- 6.1 Construction Materials:

6.1.1 Crossover may be constructed in one of the following materials:

- a) Residential crossover:
 - i. In-situ concrete
 - ii. Pavers;
 - iii. Other material approved by the Town.

Where a crossover is required to cross a footpath, the colour for that part of the crossover is to be in accordance with Clause 5.3.

- b) Industrial and commercial crossover:
 - i. In-situ concrete;
 - ii. Asphalt/bitumen.

6.1.2 All concrete used in kerbing shall develop a minimum compressive strength of 20 MPa at 28 days and shall compose of a mixture of screenings, sand and cement to give the strength specified with a zero slump.

6.1.3 All concrete shall have an approved high early strength additive to give rapid hardening where directed by the Manager Asset Services.

6.1.4 Pavers shall be clay brick or concrete block pavers from an approved manufacturer, to be a minimum thickness of 60mm. and laid in accordance with manufacturer's specifications and any material used which are inferior to those specified or directed the Manager Asset Services shall be liable to rejection and replacement at the Contractor's cost.

6.2 Excavation:

6.2.1 Excavation for the crossing shall be taken out to the levels, lines and grades as set out on the site by the contractor in accordance with this specification and all excavation shall be executed cleanly and efficiently to provide for a compacted sound sub-grade, free of depressions or soft spots or any deleterious materials to the required depths.

6.2.2 Compaction of the sub-grade is achieved by watering and vibratory compaction of 95% of maximum density as determined by modified compaction test under AS 1289 (Methods of Testing Soil for Engineering Purposes – Part E, Soil Compaction and Density Tests).

In sand, this may be deemed to be satisfied if a Standard Penetrometer Test result of 7 blows per 300mm is achieved within the first 450mm.

6.2.3 Surplus materials resulting from site preparation and construction of crossovers shall become the property of the contractor and shall be removed at the contractor's expense.

7. CONCRETE CROSSOVERS

7.1 Form Work:

Applicant /contractor to liaise with Manager Asset Services to confirm/determine the location for the footpath though the crossover so as to ensure a continuous accessible means of universal access pedestrian travel for all users.

Where a crossover is to be constructed or upgraded, the formwork shall separate the footpath from the crossover. This is to ensure that the footpath physically and visually predominant and shall have precedence over the crossover.

7.2 Base Preparation & Laying Concrete:

The base shall be thoroughly and evenly moistened but not saturated prior to placing concrete. All deleterious material shall be removed from the base before placing concrete. Concrete shall match the predominant footpath colour and shall be evenly placed to the depth specified and shoveled into position continuously and spaded, especially at all edges to give maximum density. No break in operation shall be permitted from time of placing to finish.

7.3 Finishing:

The finish shall be obtained by rendering to correct levels and wood float or broom finished to provide a non-slip surface free of any depressions, marks, irregularities, honey comb sections or accumulations of fine density secretions liable to cause excessive surface wear. The final surface shall be to the entire satisfaction of the Manager Asset Services who shall reserve the right to require the removal of or the correction of any surface deficiencies or finish.

Where required, and/or where directed, a portion of the surface may be required to be treated with a multi-grooved grooving tool with grooving of 200mm centres worked parallel to kerb line to minimize the slipping effect. A steel trowel finish is NOT PERMITTED on a vehicle crossing.

7.4 Jointing:

Plain contraction and/or construction joints finished with an approved jointing tool shall be located as shown in the drawing. Expansion joints are required at the junction with Council's kerb and at the property line. Joint filler shall consist of 14mm polystyrene strip 100mm deep or other approved material.

7.5 Return of Kerbing:

Concrete kerbing returns of following specified radius shall be provided from kerb line at the junction with the existing road:

- a) Residential: 1m minimum or alternatively 1m x 1m splay minimum.
- b) Industrial and commercial: 5.5m minimum or alternatively 5.5m x 5.5m splay minimum.

Kerbing returns shall be constructed so as to be monolithic with the crossover proper. Kerbing shall be vertical on the outside face and gently humoured into the crossing over the length of the curve. At junctions with existing kerbing, expansion joint shall be provided. The top of the kerb return is to form a straight gradient between the tangent point at the road kerbing and the tangent point at the crossover.

7.6 Curing:

The concrete crossing shall be cured either with a chlorinated rubber curing membrane sprayed on the exposed concrete surface or shall be covered with plastic film for a minimum of 5 days.

8. PAVED CROSSOVERS

It shall be constructed according to the manufacturer's specifications. Information below is for reference only.

8.1 Sub-grade Preparation - Formation:

8.1.1 Boxing-out shall be done carefully to avoid undue disturbance of the newly prepared sub-grade surface. The surface shall be levelled and compacted using a mechanical plate compactor or similar approved method, until a compaction of 95% modified compaction as provided under AS1289.5 (Methods of Testing Soil for Engineering Purposes - Soil Compaction & Density Tests). In sand, this may be deemed to be satisfied if an S.P.T result of 7 blows per 300mm is achieved within the first 450mm.

8.1.2 Where fill is required to be imported, material of approved quality (preferably with CBR - 30%) shall be used with each layer not exceeding 75mm in loose depth. Compaction shall be to at least 95% modified compaction as in (7.1.1) above.

8.1.3 The whole of the sub-grade shall be prepared in a manner as to ensure adequate drainage and protection against storm water and sub-soil flows.

Sub-grade preparation shall extend to the rear face of all edge restraints.

8.2 Base Preparation:

8.2.1 The base material (limestone) shall be placed at optimum moisture content and spread such that the final compacted thickness is a maximum of 100mm. The materials shall be worked to the correct lines and levels and thoroughly compacted. Alternative base materials such as rockbase, natural gravel and cement stabilised sand may be permitted, subject to approval by the Manager Asset Services.

8.2.2 The base course shall extend in 'width' to at least the rear face of all edge constraints. The upper layer of base course shall be sufficiently dense to prevent downward infiltration of bedding sand. Base course tolerance shall be ± 5 mm of nominated design levels. The surface of the base course shall not deviate by more than 10mm from the base of a 2 metre long straight edge placed in any direction on an area of specified uniform gradient or crossfall. No ponding shall be permitted on base course surface. Sand bedding material shall not be used as a levelling material to compensate for base course not complying with the approved tolerance.

8.3 Concrete Apron and Edge Restraint:

8.3.1 In accordance to the attached drawings a concrete apron matching the colour of the concrete kerbing shall be provided.

8.3.2 The perimeter of the crossover shall be provided with restraining barriers. Restraints shall be robust enough to withstand vehicle impact and prevent lateral movement of bricks as such movement could cause pavement failure.

8.3.3 Where the crossover has required the removal of a precast barrier kerb, the contractor MUST construct a concrete apron prior to laying the brick paving. The apron shall be 1.0m wide x 100mm deep (minimum) parallel and flush to the roadway and blend into the existing kerbing at each end. Paving bricks shall be laid commencing from the rear face of the apron.

8.3.4 Edge restraints shall be taken vertically down to base course and shall be supported on the compacted base course which shall not be less than 100mm thickness below

the restraint. All concrete edge restraints shall have a minimum compressor strength of 30MPa.

8.3.5 Edge restraints along kerb returns shall be supported on concrete or block barriers to ensure full rigidity. A 200mm x 100mm deep concrete strip on each return should be satisfactory.

8.4 Sand Bedding:-

8.4.1 Only even graded siliceous sand shall be used. Sand shall be non-plastic and free from deleterious materials such as stones, roots, clay lumps and excessive organic material. The sand shall all pass a 4.75mm screen aperture and have a maximum 5% passing a 0.075mm screen. Sand shall be protected from excessive change in moisture content and shall have a uniform moisture content when laid. .

8.4.2 Bedding sand shall be screeded slightly ahead of laying operations and maintained in a loose condition and protected from pre-compaction (including rain and pedestrian traffic). Any surface irregularities exceeding 5mm shall be loosened, raked and re-screeded before laying pavers.

8.4.3 For manual placing of paving units, the bedding sand shall be maintained at a uniform density but as loose as screeding operations will permit. For mechanical placing, bedding sand shall be uniformly and firmly, but not fully, compacted.

8.5 Laying Paving Units:

8.5.1 Paving units shall be placed by hand or mechanically in clusters on the screeded sand bedding to nominated patterns as per schedule. Care shall be taken to ensure that a gap of 2-4mm (nominal 3mm) is maintained between paving bricks and that no units are in direct contact with each other.

8.5.2 The first row shall be laid against an edge restraint or previously completed paving or an established straight line. It shall be laid at a suitable angle to achieve the required orientation and pattern.

8.5.3 Full units shall be used first followed by edge or closer units. Closer units shall consist of not less than 25% of full units and shall be cut to size to suit the joint widths. Spaces of less than 20% paving brick size shall be in-filled with concrete of 1 part cement and 2 parts fine aggregate and sand by weight.

8.6 Compaction of Brick Pavement:

8.6.1 After laying the paving units, sheets of plywood of minimum thickness 12mm shall be laid on the pavement which shall then be compacted with 2 passes of a high frequency low amplitude plate compactor having an area sufficient to cover a minimum of 12 pavers. Compaction shall continue, where necessary, until lipping between adjoining units has been eliminated.

8.6.2 Any units damaged during compaction shall be removed and replaced. Compaction shall be complete and the crossover shall be brought to design profile before spreading or placing of sand filling in the joints.

8.7 Filling Joint:

8.7.1 As soon as practicable after compaction and prior to acceptance of traffic, dry sand for joint-filling shall be spread over the pavement and swept into the joints. Sand used for bedding is NOT suitable for joint filling. Sand shall be free of soluble salts or contaminants that could cause efflorescence. Cement in joint-filling is not permitted.

8.7.2 To ensure complete filling of joints, both sand and paving units shall be as dry as practicable when spreading and brooming take place. A further two passes of the plate compactor shall be applied and the joints re-filled with sand as necessary until all joints are completely filled. Excess joint filling sand shall be removed from the crossover on completing the works.

ITEM		TYPE OF VEHICLE CROSSOVER			
		Light Duty	Medium Duty	Heavy Duty	
		Residential	Multi Residential with <10 car parking bays	Light Industrial & Commercial with >30 car parking bays	Heavy Duty Industrial & Commercial
1.	<u>GENERAL CONDITIONS</u>				
1.1	Minimum width of crossover at property line	3m	6m	4.5m	4.5m
1.2	Maximum width of crossover at property line	6m	6m	10.7m	10.7m
1.3	Minimum width of crossover at kerb line	5m	8m	15.5m	15.5m
1.4	Maximum width of crossover at kerb line	8m	8m	21.7m	21.7m
1.5	Alignment of Vehicle crossing	90 degrees to road or kerb line unless otherwise approved by Manager Asset Services			
1.6	Radius of kerb return to kerb line	1m minimum	1m minimum	5.5m minimum	
1.7	Step-up at road channel	NIL	NIL	NIL	NIL
1.8	In-situ concrete finish to match footpath colour	Non slip wood float or broom			
1.9	Minimum setback from side boundary	0.5m	0.5m	0.5m	0.5m
1.10	Minimum distance of crossover corner truncation.	Refer to Specification 5.7	Refer to Specification 5.7	Refer to Specification 5.7	Refer to Specification 5.7
1.11	Council's supervision fee for crossovers constructed privately	\$106.00 (2013/2014)			
2.	<u>CONCRETE</u>				
2.1	Concrete thickness	100mm	125mm	150mm	200mm
2.2	Steel reinforcement mesh	No	ARC F62 mesh	ARC F62 mesh	ARC F82 mesh
2.3	Minimum high strength at 28 days	20 MPa	20 MPa	20 MPa	25 MPa
3.	<u>BITUMEN – (INDUSTRIAL ONLY)</u>				
3.1	Minimum depth of excavation	N/A	200mm	275mm	300mm
3.2	Minimum compacted thickness of:				
3.2.1	Sub-base	N/A	NIL	150mm	150mm
3.2.2	Base	N/A	175mm	100mm gravel/roadbase	100mm gravel/roadbase
3.2.3	Hotmix	N/A	25mm	25mm	50mm
4.	<u>PAVED</u>				
4.1	Pavers	In accordance with manufacturer's specifications.			
4.2	Concrete Apron & Edge restraints	Concrete apron matching the colour of the concrete kerbing and edge restraints shall be provided as per manufacturer's recommendations			

Name: _____

Address: _____

Phone No: _____

Chief Executive Officer
Town of Bassendean
PO Box 87
BASSENDEAN WA 6934

Dear Sir

**CLAIM FOR COUNCIL CONTRIBUTION TOWARD THE COST OF A
RESIDENTIAL CROSSOVER.**

The crossover at _____ has recently
been completed to Council's specifications and I wish to claim the Council contribution
(as per the fees and charges) toward the cost of construction of the crossover.

Please indicate whether refund required by EFT by cheque

Please pay the contribution to my nominated bank account:

BSB: _____

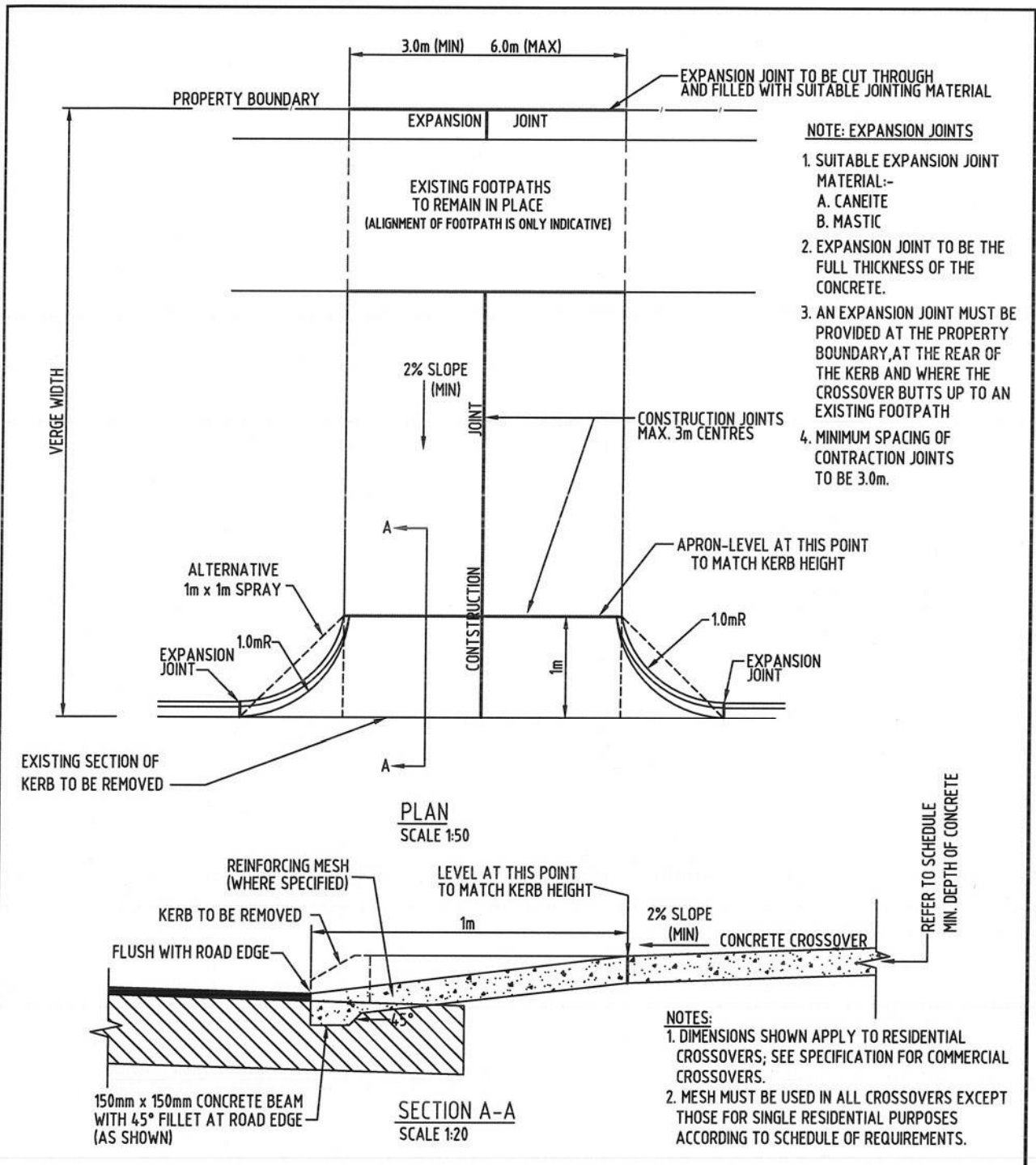
Account: _____

Account Name: _____

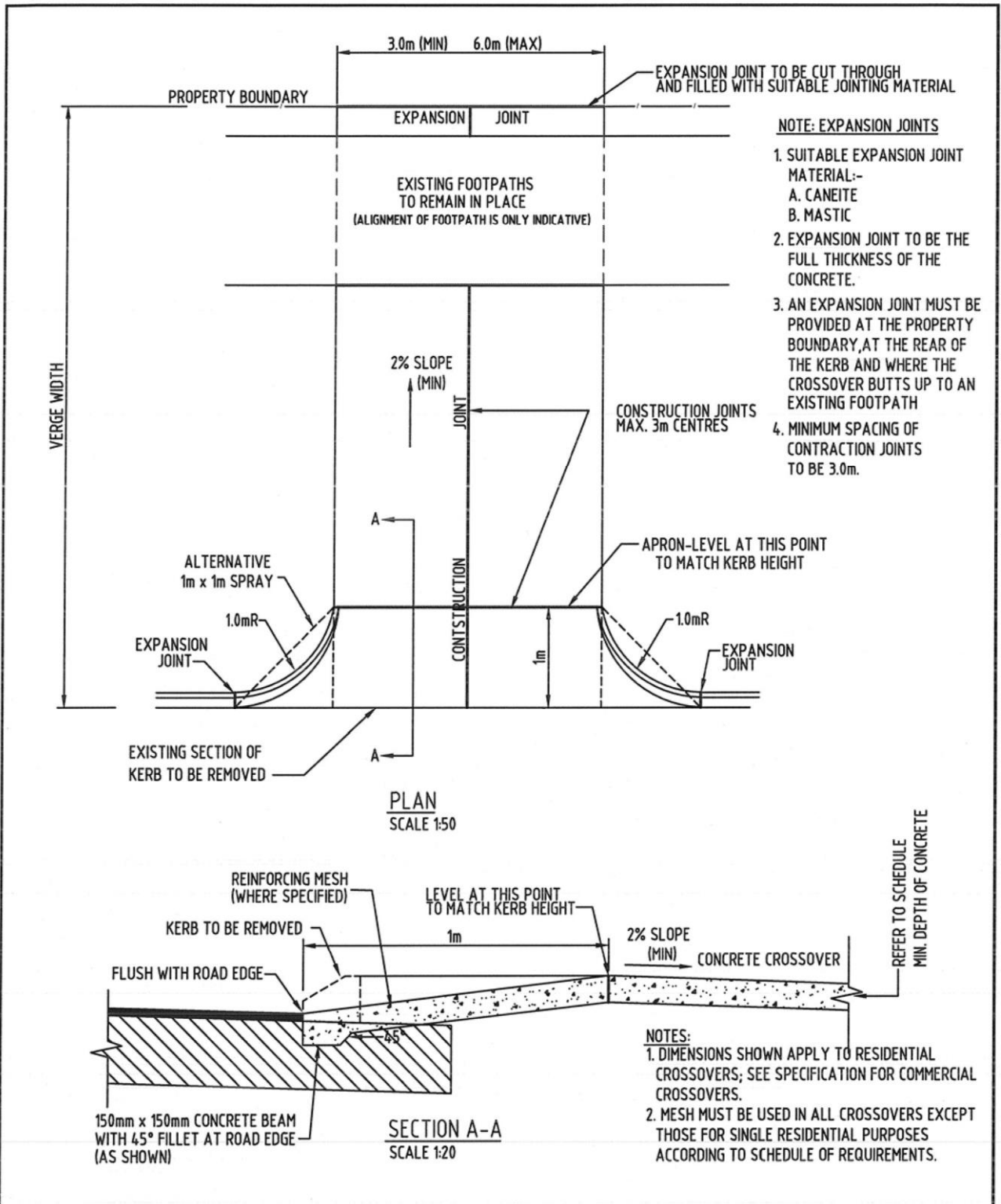
Email address for remittance advice: _____

Yours faithfully

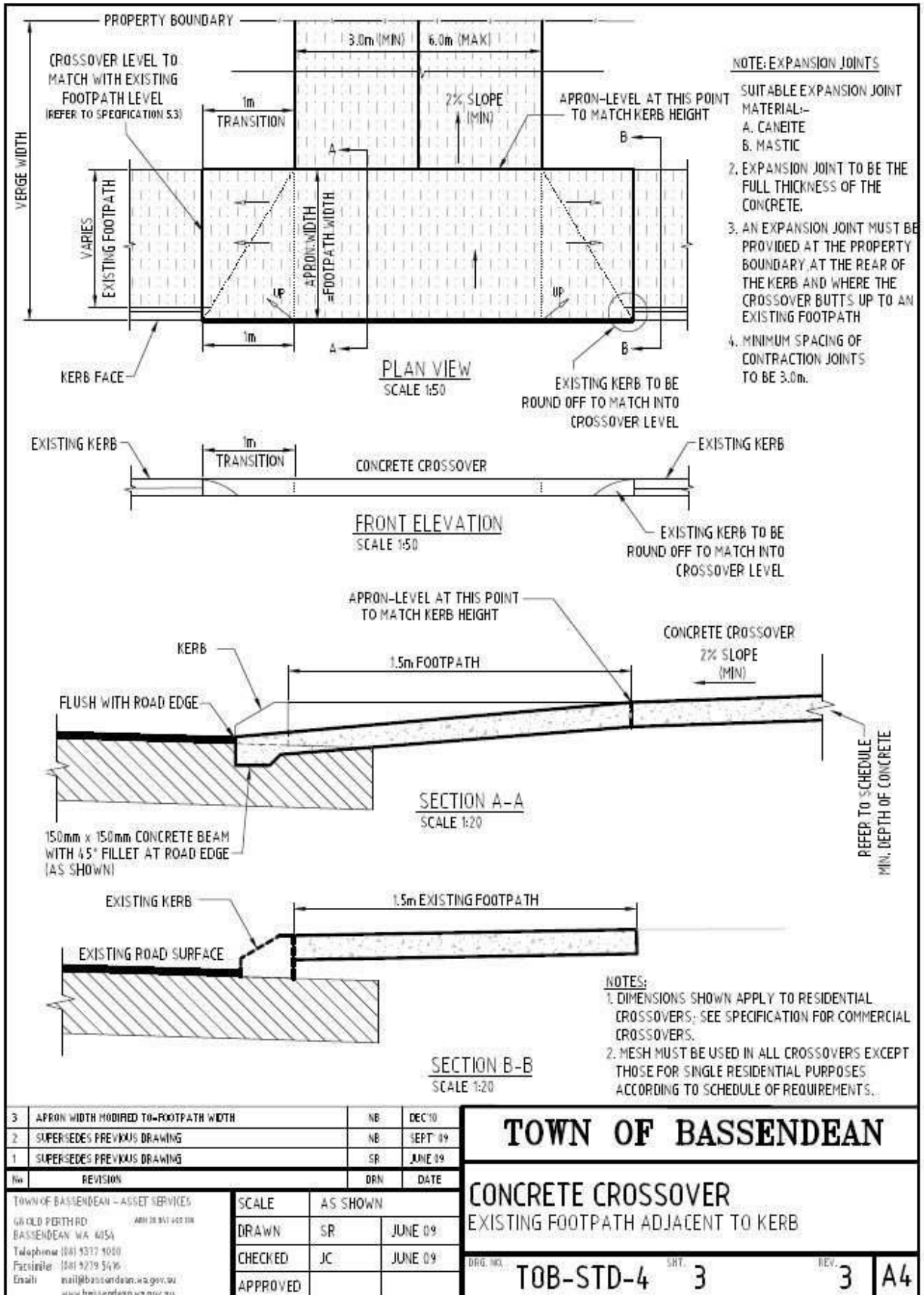
Date _____



2	SUPERSEDES PREVIOUS DRAWING	NB	SEPT' 09	TOWN OF BASSENDEAN
1	SUPERSEDES PREVIOUS DRAWING	SR	JUNE 09	
No	REVISION	DRN	DATE	CONCRETE CROSSOVER VERGE AT PROPERTY LINE ABOVE ROAD CHANNEL
TOWN OF BASSENDEAN - ASSET SERVICES 48 OLD PERTH RD BASSENDEAN WA 6054 Telephone: (08) 9377 9000 Facsimile: (08) 9279 5416 Email: mail@bassendean.wa.gov.au www.bassendean.wa.gov.au		SCALE	AS SHOWN	
		DRAWN	SR JUNE 09	DRG. NO. TOB-STD-4 SHT. 1
		CHECKED	JC JUNE 09	REV. 2 A4
		APPROVED		



2	SUPERSEDES PREVIOUS DRAWING	NB	SEPT' 09	TOWN OF BASSENDEAN
1	SUPERSEDES PREVIOUS DRAWING	SR	JUNE 09	
No	REVISION	DRN	DATE	CONCRETE CROSSOVER VERGE AT PROPERTY LINE LOWER THAN ROAD CHANNEL
TOWN OF BASSENDEAN - ASSET SERVICES 48 OLD PERTH RD BASSENDEAN WA 6054 Telephone: (08) 9377 9000 Facsimile: (08) 9279 5416 Email: mail@bassendean.wa.gov.au www.bassendean.wa.gov.au		SCALE	AS SHOWN	
		DRAWN	SR JUNE 09	DRG. NO. TOB-STD-4 ^{SHT.} 2 ^{REV.} 2 A4
		CHECKED	JC JUNE 09	
		APPROVED		



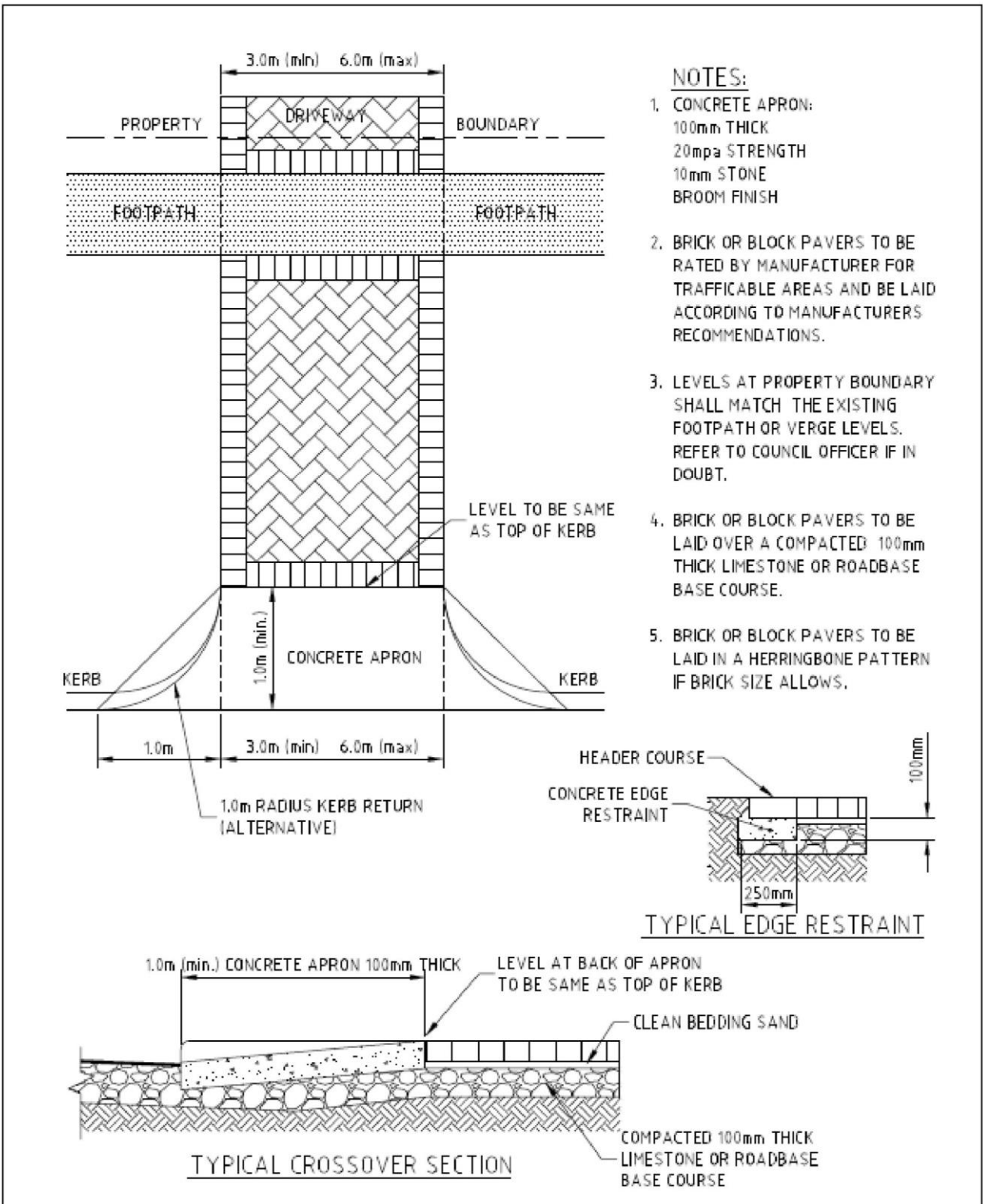
3	APRON WIDTH MODIFIED TO-FOOTPATH WIDTH	NB	DEC'10
2	SUPERSEDES PREVIOUS DRAWING	NB	SEPT 09
1	SUPERSEDES PREVIOUS DRAWING	SR	JUNE 09

NO	REVISION	DRN	DATE
TOWN OF BASSENDEAN - ASSET SERVICES 10 OLD PERTH RD BASSENDEAN WA 6054 Telephone (08) 9377 1000 Facsimile (08) 9219 5446 Email mail@bassendean.wa.gov.au www.bassendean.wa.gov.au			
SCALE AS SHOWN			
DRAWN	SR	JUNE 09	
CHECKED	JC	JUNE 09	
APPROVED			

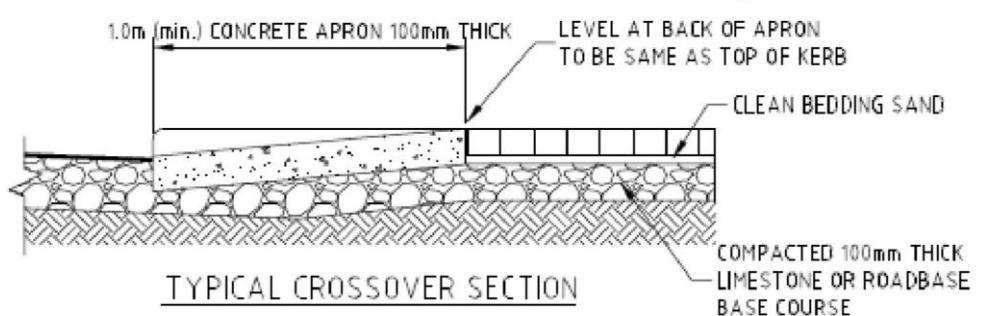
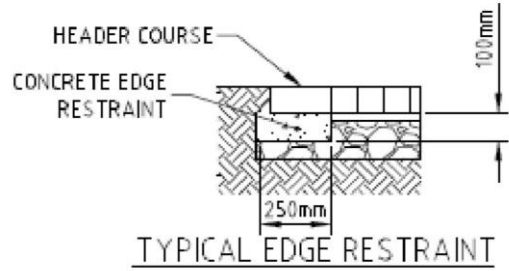
TOWN OF BASSENDEAN


CONCRETE CROSSOVER
EXISTING FOOTPATH ADJACENT TO KERB

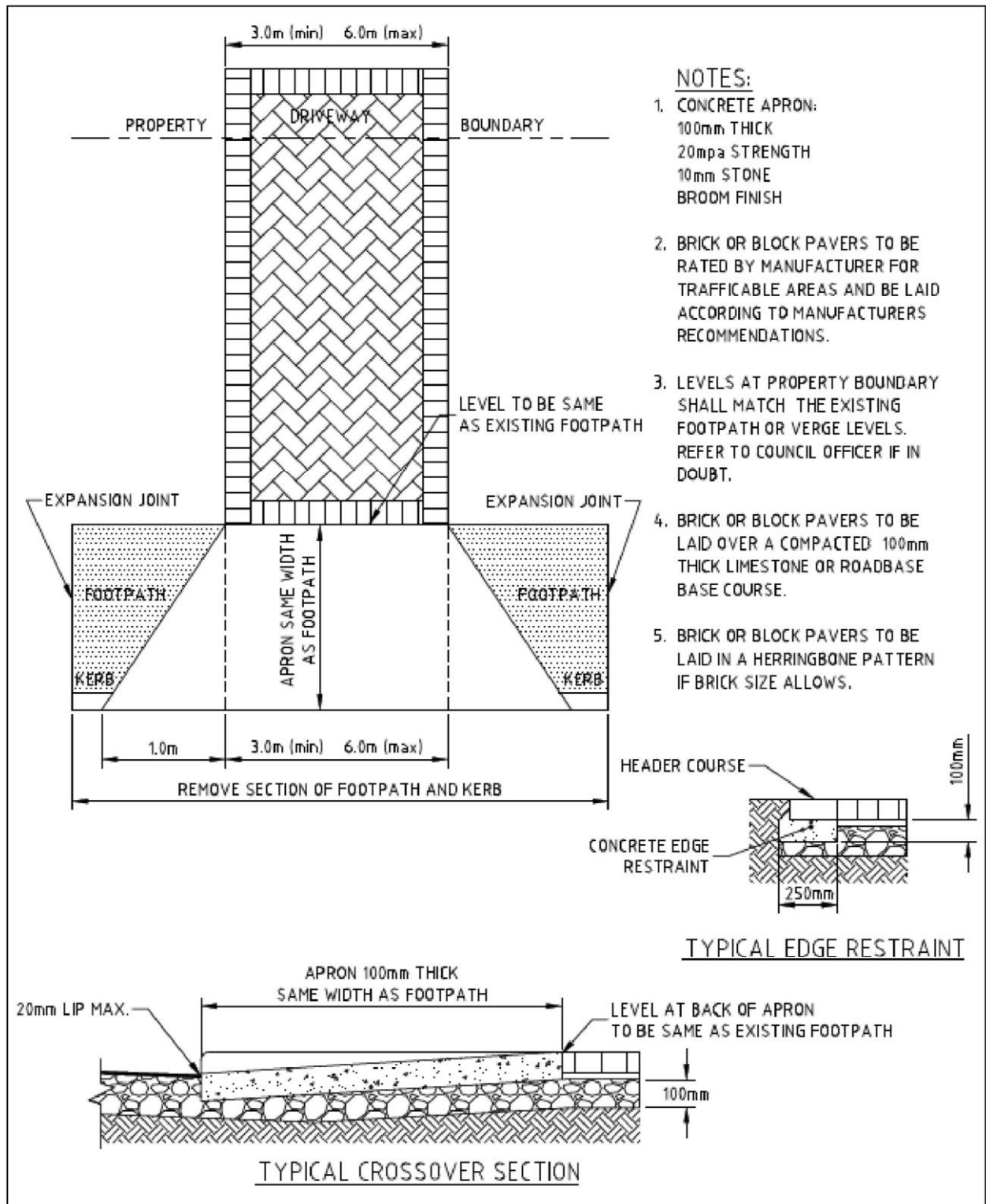
DRG. NO.	SRT.	REV.	
TOB-STD-4	3	3	A4




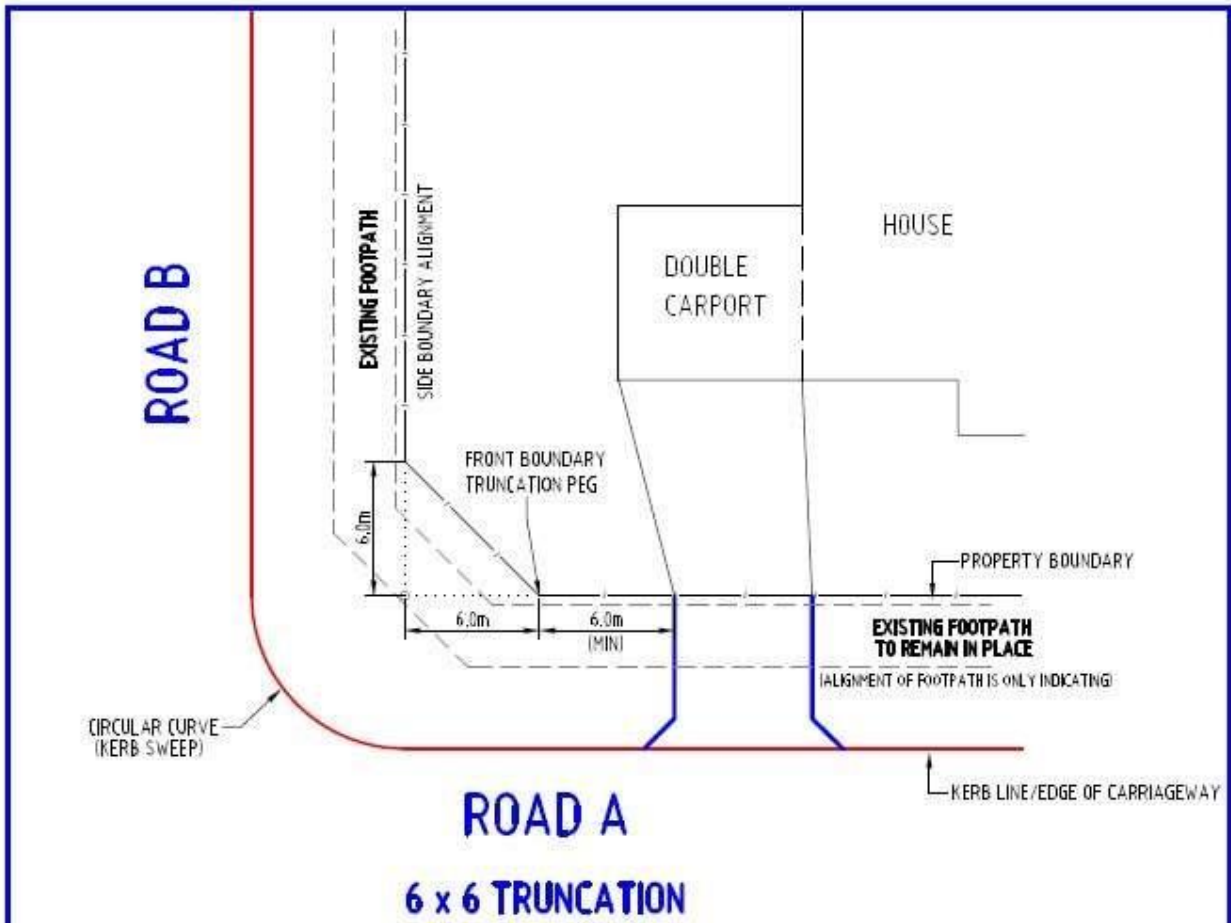
- NOTES:**
1. CONCRETE APRON:
100mm THICK
20mpa STRENGTH
10mm STONE
BROOM FINISH
 2. BRICK OR BLOCK PAVERS TO BE RATED BY MANUFACTURER FOR TRAFFICABLE AREAS AND BE LAID ACCORDING TO MANUFACTURERS RECOMMENDATIONS.
 3. LEVELS AT PROPERTY BOUNDARY SHALL MATCH THE EXISTING FOOTPATH OR VERGE LEVELS. REFER TO COUNCIL OFFICER IF IN DOUBT.
 4. BRICK OR BLOCK PAVERS TO BE LAID OVER A COMPACTED 100mm THICK LIMESTONE OR ROADBASE BASE COURSE.
 5. BRICK OR BLOCK PAVERS TO BE LAID IN A HERRINGBONE PATTERN IF BRICK SIZE ALLOWS.



		DATE	 <p>TOWN of BASSENDEAN ASSET SERVICES</p>
DRAWN	R. HEWITT	5-7-05	
CHECKED	R. HEWITT	5-7-05	
DESIGNED	R. HEWITT	5-7-05	
APPROVED	R. HEWITT	5-7-05	
ABN 84 387 702 890 Email: mail@bassendean.wa.gov.au Telephone: (08) 9377 9000 www.bassendean.wa.gov.au Facsimile: (08) 9279 5416			TITLE: RESIDENTIAL PAVED CROSSOVER WITH CONCRETE APRON AND FOOTPATH AT PROPERTY LINE SCALE: N.T.S. DRG. NO. TOB - STD-4 SHEET 4 REV. A4



		DATE	 TOWN of BASSENDEAN ASSET SERVICES
DRAWN	R. HEWITT	5-7-05	
CHECKED	R. HEWITT	5-7-05	
DESIGNED	R. HEWITT	5-7-05	
APPROVED	R. HEWITT	5-7-05	
ABN 34 387 702 890 Email: mail@bassendean.wa.gov.au Telephone: (08) 9377 9000 www.bassendean.wa.gov.au Facsimile: (08) 9279 5416			TITLE RESIDENTIAL PAVED CROSSOVER WITH CONCRETE APRON AND FOOTPATH ON KERB
SCALE:	N.T.S.	DRG. NO.	TOB -STD-4 SHEET 5 REV. . A4

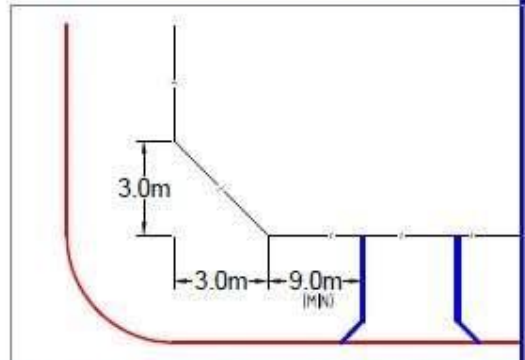


6 x 6 TRUNCATION

NOTES:

1. EDGE OF PROPOSED CROSSOVER NOT TO BE LOCATED WITHIN CIRCULAR CURVES (KERB SWEEPS) ON CORNER LOTS.
2. NO NEW CROSSOVER SHALL BE CONSTRUCTED WITHIN 6.0m FOR 6x6m TRUNCATION (or 9m for a 3mx3m truncation) OF THE FRONT BOUNDARY TRUNCATION PEG.
3. THIS DETAIL IS APPLICABLE TO LOCAL STREETS ONLY.
4. CROSSOVER MAY NEED TO BE SET BACK FURTHER FROM THE CORNER DEPENDING ON THE SITE CONDITIONS. (REFER TO ASSET SERVICES FOR DETAILS)

3 x 3 TRUNCATION

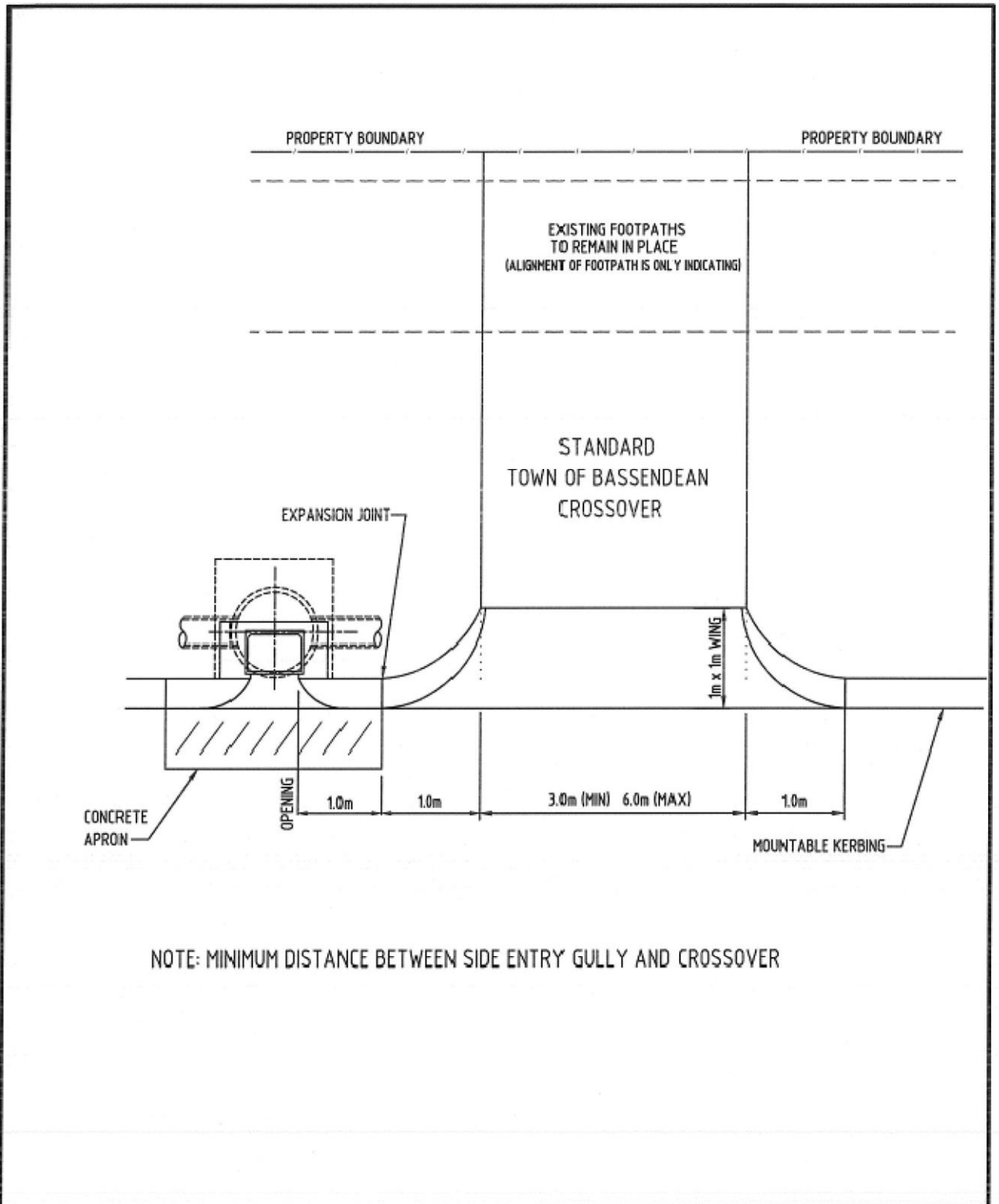


2	SUPERSEDES PREVIOUS DRAWING	NB	MAY'13
1	SUPERSEDES PREVIOUS DRAWING	NB	SEPT'09
No	REVISION	DRN	DATE
TOWN OF BASSENDEAN - ASSET SERVICES 48 OLD PERTH RD. BASSENDEAN WA 6054 Telephone: (08) 9377 9000 Facsimile: (08) 9379 5435 Email: mail@bassendean.wa.gov.au www.bassendean.wa.gov.au		SCALE	1: 200
		DRAWN	SR JUNE 09
		CHECKED	JC JUNE 09
		APPROVED	

TOWN OF BASSENDEAN

STANDARD CROSSOVER
LOCATION AT INTERSECTING STREETS
LOCAL ROADS ONLY

TOB-STD-11 SH1 1 REV. 2 **A4**



NOTE: MINIMUM DISTANCE BETWEEN SIDE ENTRY GULLY AND CROSSOVER

				TOWN OF BASSENDEAN		
1	SUPERSEDES PREVIOUS DRAWING	NB	SEPT'09	STANDARD CROSSOVER LOCATION ADJACENT TO SIDE ENTRY GULLY PLAN		
No	REVISION	DRN	DATE			
TOWN OF BASSENDEAN – ASSET SERVICES 48 OLD PERTH RD BASSENDEAN WA 6054 Telephone: (08) 9377 9000 Facsimile: (08) 9279 5416 Email: mail@bassendean.wa.gov.au www.bassendean.wa.gov.au		SCALE	1:50		DRG. NO. TOB-STD-12 SH. 1 REV. 1 A4	
		DRAWN	SR	JUNE '09		
		CHECKED	JC	JUNE '09		
		APPROVED				