



Information Sheet Residential Crossovers

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Introduction

A crossover is the extension of a driveway from the edge of the property boundary to the edge of the road. Its primary function is to provide access for vehicles across the verge which forms part of the road reserve.

The purpose of these guidelines is to provide information to residents in relation to the design and construction of a crossover. These guidelines have been developed by the Shire to ensure that each crossover:

- Is of a uniform standard.
- Ensures a safe entrance and exit to the property.
- Reduces the flow of runoff if stormwater does enter private property.
- Provides a safe and even surface for pedestrians.
- Reduces any negative impact on other infrastructure in the road reserve or surrounding area.
- Maintains and/or improves the streetscape.

Overview

This document is designed to assist property owners and contractors in the construction of a crossover that complies with Shire of Capel specifications.

All crossovers require the completion and submission of an application from, by or on behalf of the current property owner.

No crossover is to be commenced until Shire approval (with or without conditions) is granted.

The location and size of the crossover must comply with the specifications provided in this document.

Subdivision and Commercial crossovers do not require an application form, these will be reviewed through the development/subdivision application process. They may require an engineering drawing. An upgrade of an existing commercial crossover will require a written approval by the Technical Engineering Department.

Procedure

1. Read the following statement and specifications.
2. Complete the application form including a sketch/drawing and submit to Council.
3. Council will respond with their decision.
4. Construction of a crossover may commence only after approval has been granted.
5. Inform Council upon completion of your approved crossover.
6. Council will register the completed crossover on the property record. Payment of contribution may be approved in eligible cases.

Design (Planning)

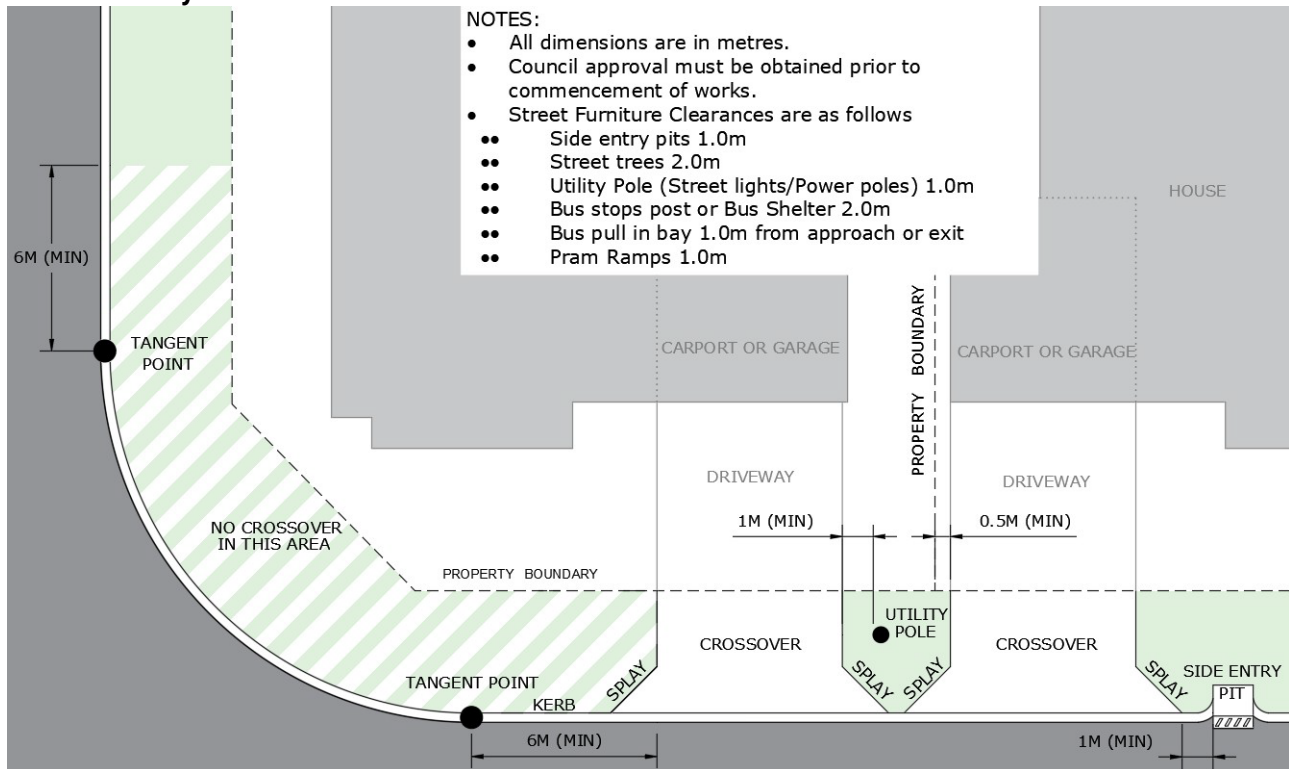
As driveways and crossovers are connected, both are subject to the requirements of the Residential Design Codes of Western Australia (R-Codes) and Residential Development Local Planning Policy.

Where a driveway and associated crossover does not comply with these requirements, a Development Application is required.

Width of Crossover

- minimum of 3.0m
- maximum width of 6.0m for residential lots (as per R-Codes)
- Multiple crossovers in total no greater than 9m for any one property.
 - o See Multiple Crossover for further details
- Road fronting highways will have to comply with Main Roads Standards and approvals.
- Rural property may be permitted to have a wider crossover for commercial use.
 - o See Non-standard Crossovers (Variations) for further details

Crossover Layout



Visual Truncation (Sight Lines)

Except with the approval of Council, no building, wall, fence or other form of visual obstruction greater than 0.75m in height, measured from the natural ground level at the boundary is permitted, within a 3m by 1.5m truncation of a vehicular access way, as per the Town Planning Scheme.

Multiple Crossovers

Except with the approval of Council, multiple crossovers for residential properties will only be approved where the R-coding is less than R30, and the crossovers would not cover more than 40% of the verge frontage of the property. The total aggregate width of multiple crossovers is to be no greater than 9m.

Storage of Caravans, Boats or Trailers

Ancillary vehicles such as caravans, boats & trailers shall be located entirely within private property.

Non-standard Crossovers (Variations)

Any non-standard crossover requires Shire approval and applications will be assessed on site specific criteria such as the existence of paths, sightlines, topography, road activity, amount of adjoining verge already paved, and impact on public amenity.

Where a driveway and associated crossover does not comply with state planning requirements, a Development Application is required. Development Application fees may apply.

Crossover Maintenance

The ongoing maintenance and upkeep of crossovers is the financial and practical responsibility of the property owner. Council does not accept any costs associated with any repairs, unless the repairs are required as a direct result of action by Council or its contractors.

References and Guidelines

This document provides a standard for crossover design that references Statutory and best-practice Guidance documentation including the following:

- Austroads Guide to Road Design
- Australian Standards AS2890.1:Off-street parking (2004)
- IPWEA Guidelines for Driveway Crossovers
- Main Roads Standard Drawings for Driveways
- Planning WA Liveable Neighbourhoods
- State Planning Policy 7.3 - Residential Design Codes (R-Codes)
- WALGA Crossover Guidelines

Appendix 1 - Technical Specifications

Important information for your contractor

During construction the contractor shall ensure no damage is caused to the Shire of Capel's roads, footpaths (footpath not to be removed unless replacing broken panels), drainage infrastructure, kerbs, pram ramps and verges. Damage may result in the repairs being carried out by the Shire of Capel at the property owner's expense.

Footpaths

During the construction of the crossover, if a footpath exists, it should be kept open to pedestrians in a safe manner and adequate signage or barricades placed to ensure pedestrian safety.

Levels

The crossover should be constructed to tie into existing verge levels, including existing footpaths. A cross-fall of 2% is desirable but up to 5% is acceptable. If unsure please contact Shire of Capel to obtain correct levels. No existing footpath shall be removed without written approval from Council.

Splays

Crossover splays are to be 1.5m wide x 1.5m long. Alternatively a radius of 1.5m for residential can be used. On request and approval splays can be reduced to an absolute minimum of 1.0m wide x 1.0m long.

Construction

Crossovers must be constructed by suitably qualified contractors to the specifications below.

The crossover must be constructed from new materials.

Base Preparation

The base material should be thoroughly moistened and compacted to 95% MMDD (Maximum Modified Dry Density), 7 blows / 300mm (per sand penetrometer).

Rural areas

In rural areas where the road is not kerbed it is recommended that asphalt seal crossovers be installed, but concrete may be approved. The concrete crossover must stop 1m away from the edge of seal and the gap between the crossover and the road must be filled with a 25mm thick asphalt strip.

Gravel Driveways in Rural Areas

Gravel driveways and crossovers are permitted in rural areas and are to be constructed to standard of the adjoining road surface and conditions as a minimum. Liaise with the Shire of Capel to ensure the correct formation is nominated for each particular site situation.

Open drains

All crossovers over an open drainage swale must have a 375mm Class 2 reinforced concrete pipe culvert and headwall installed. The property owner shall ensure the pipe culvert is maintained and kept clear of grass and debris where possible.

Kerbing

Mountable kerb need not be removed. Barrier and semi-mountable kerb can be removed at the owners cost. New kerbing is to be of equal width of the existing kerb with a 20mm water channel (lip) along the kerb line.

Stormwater

Stormwater falling on a driveway within private property shall be retained within that lot by means of soaking and/or storage with a capacity of 1m³ per 100m² of impervious surface area. Residents within the townsites of Boyanup and Capel with poorly draining soils may allow the water to flow to the road.

Street trees

Crossover are to be located so as to avoid street trees, or, where this is unavoidable, the street trees replaced at the applicant's expense or re-planting arrangements to be approved by the decision-maker/Shire of Capel.

Driveways must be 2m from existing street trees.

Appendix 2 – Schedule of requirements

Important information for your contractor

Shire of Capel Crossovers Residential	
Minimum width	3.0m
Maximum width	6.0m
Second Driveway or Driveway Widening	9.0m width in total including the first crossover, or 40% of the width of the lot frontage; whichever is less
Concrete	
Thickness	100mm
Steel Reinforcement	SL62 mesh
Concrete strength capacity at 28 days	25 Mpa / 80mm slump
Brick Paving – Kerbed Roads Only	
Paver Thickness	60mm
Sand Bedding	25mm
Limestone Sub-Base OR	150mm
Rock/gravel	100mm
Asphalt	
Asphalt Thickness	25mm
Limestone Sub-Base OR	150mm
Rock/gravel	100mm
Gravel – Rural/Special Rural Zones only	
Limestone Sub-Base or compacted Rock/gravel	150mm
Culvert – Open drain sites only	
Culvert Diameter	375mm with precast concrete headwall
Depth of top of pipe	300mm (Min)
Compacted fill	Limestone Sub-Base or compacted Rock/gravel to be compacted 150mm around the culvert
<ul style="list-style-type: none"> Liaise with the Shire of Capel to ensure the correct alignment of culvert is achieved 	

Application to Construct a Crossover

Application fee of \$50.00 payable at time of submitting the application	
Payment in advance: <input type="checkbox"/>	Deduct from refund: <input type="checkbox"/>

Crossover Property Details	
Lot Number:	House Number:
Street	
Applicant Details	
Applicant Name:	
Postal Address:	
Phone Number:	Email:

Crossover Details (Circle applicable)				
Material type:	Concrete	Brick Paving	Asphalt	Gravel (Rural only)
Is there an open drain on the verge?			Yes	No
Is this the first crossover to be constructed on this lot?			Yes	No
Is this property subject to any current building/development approvals?			Yes	No
If yes, please provide relevant numbers:				
Proposed Crossover Width:				
Constructed by: (Contractor details)				
Construction Date:				

Crossover Requirements
<ul style="list-style-type: none"> It is a legal requirement that approval for all crossover is obtained from the Shire of Capel before they are constructed. Crossovers are to be constructed in accordance with the Shires Information Sheet Residential Crossovers (available on the Shire website www.capel.wa.gov.au). No works are to commence prior to issue of approval. Building & planning approvals do not cover crossover construction. It is the responsibility of the owner to engage the services of a competent contractor. Crossover works carried out without approval will be deemed unauthorised Subsidies only apply to the first ever crossover installed to access the property or an upgrade from bitumen to concrete.

Declaration
I acknowledge the accompanying documentation and understand the Shire's requirement for this application. I acknowledge failure to complete requirements may result in legal actions from the Shire.
Signature:
Date: / /

Application for Crossover Subsidy

Conditions of Subsidy

- Crossover subsidies only apply to the first crossing installed to access the land and/or an upgrade from a bituminous to concrete or brick paved crossover.
- Crossover subsidies can only be applied for after construction of crossover.
- The crossover contribution form shall be made within 12 months of the crossover being built, with evidence of date provided.
- Tax invoices will not be accepted as supporting documentation.
Crossover subsidies payable.
 \$627.25 for the first approved crossover in an urban area; or
 \$916.75 for the first approved crossover in a rural or special rural area.
- Crossover construction must be approved. Crossover must conform to Shire of Capel Information Sheet Residential Crossovers (available on the Shire website www.capel.wa.gov.au). Nonconforming and/or unapproved crossovers are not eligible for a subsidy.
- Building & planning approvals do not cover crossover construction.
- Only the property owner may apply for Crossover Subsidies. Crossover Subsidies are only payable to the property owner.

Crossover Property Details

Lot Number:	House Number:
Street:	

Applicant Details

Applicant Name:	
Postal Address:	
Phone Number:	Email:

Declaration

I acknowledge the accompanying documentation and understand the Shire's requirement for this application. I acknowledge that council contribution is only eligible for the first crossover constructed this lot. I accept the amount of money contributed by Council is based on Shire of Capel Policy 7.2.

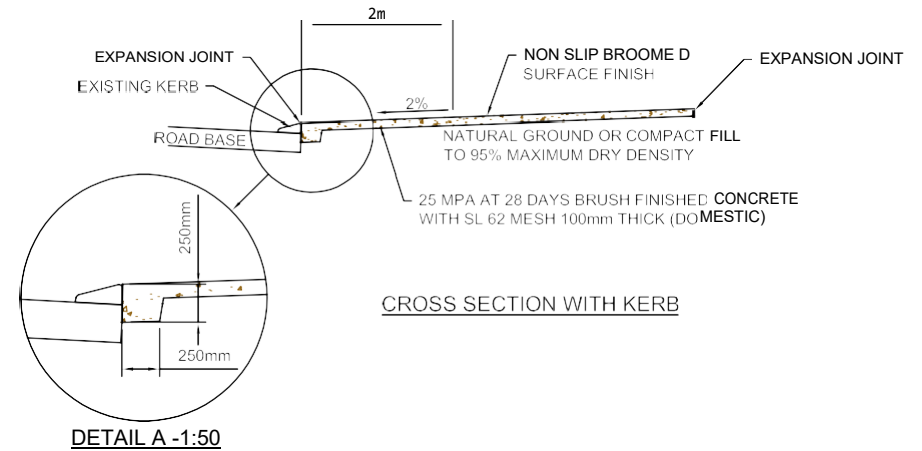
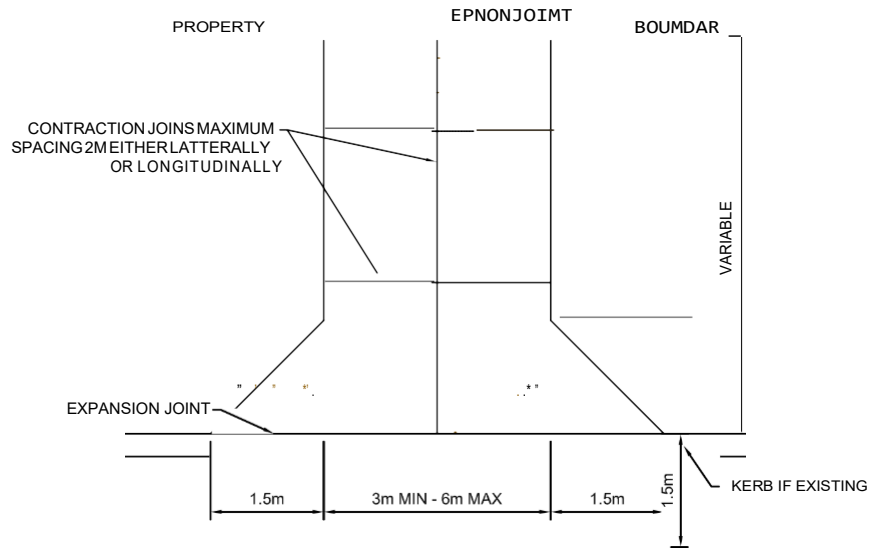
Signature:	Date: / /
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Payment Details			Office Use Only	
<i>I would like to be paid by:</i>	EFT	Cheque	Inspected By:	
Account Name:			Date Inspected: / /	
BSB:	Acc:		Records:	
Payment Approved (<i>office use</i>)		Yes		
\$	Date: / /			

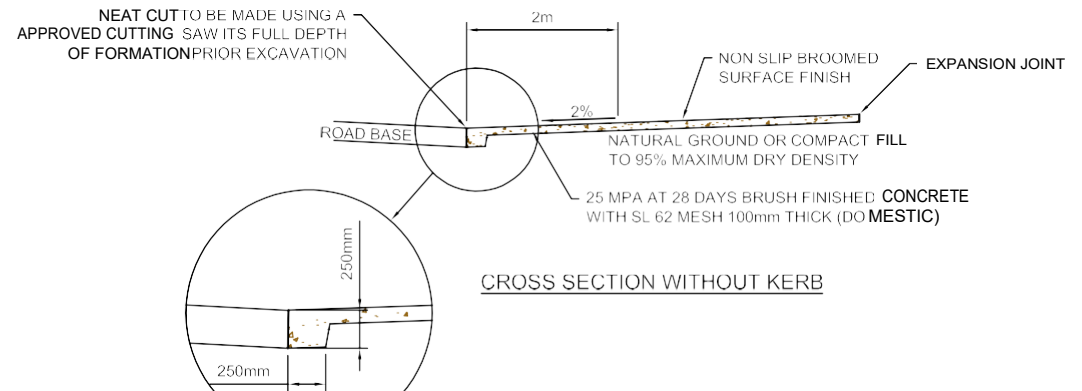
Crossover Subsidy Checklist

Documents	Further Information	Attached	
		Yes	N/A
Completed Application to construct Form	Please ensure form is filled out fully and correctly	<input type="checkbox"/>	<input type="checkbox"/>
Fees	Application fee of \$50.00 is payable at time of application	<input type="checkbox"/>	<input type="checkbox"/>
Site Plan	Please provide a plan showing the site, noting existing street trees, footpath, public utilities, signage, location, and dimensions of the crossover.	<input type="checkbox"/>	<input type="checkbox"/>

Application for subsidy form	Crossover subsidies can only be applied for after construction of crossover	<input type="checkbox"/>	<input type="checkbox"/>
Finished photograph of works	Photos to show finished works, measurements of length and width of crossover	<input type="checkbox"/>	<input type="checkbox"/>
Site Plan	Please provide a plan showing as constructed driveway location and dimensions	<input type="checkbox"/>	<input type="checkbox"/>
Invoice	Invoice provided by contractor showing value of works and details.	<input type="checkbox"/>	<input type="checkbox"/>



DETAIL A -1:50



DETAIL B -1:50

NOTES:

- ON REQUEST AND APPROVAL SPLAYS MAY BE REDUCED (TO AN ABSOLUTE MINIMUM OF 1M X 1M)
- CROSSOVERS SHALL PROVIDE A NON-SLIP BROOMED SURFACE FINISH
- NO EXCAVATED MATERIAL SHALL BE STOCKPILED ON SITE
- EXISTING CONCRETE PATHS IN GOOD CONDITION SHALL NOT BE REMOVED.
- CONCRETE PLACEMENT SHALL CONFORM TO AS1379 (1991) AND AS3600 (1988)
- EXPANSION JOINT SHALL BE USED IN THE FOLLOWING
 - AT THE LOT BOUNDARY LINE
 - BOTH SIDE OF AN ABUTTING FOOTPATH
 - ABUTTING ANY EXISTING KERBING
 - ABUTTING ANY EXISTING PUBLIC UTILITY SERVICE
 - EVERY 6M MAXIMUM SPACING ON LONG SECTIONS
- EXPANSION JOINTS TO BE 12mm CANITE STRIP
- CONTRACTION JOINTS SHALL INSTALLED A MAXIMUM OF 2M SPACING EITHER LATERALLY OR LONGITUDINALLY.
- DRAWING TO BE READ IN CONJUNCTION WITH SHIRE OF CAPEL CROSSOVER INFORMATION PACK

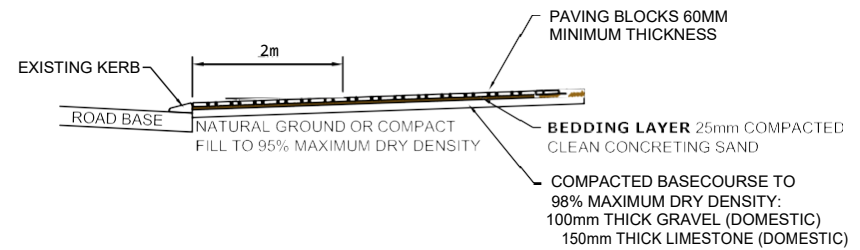
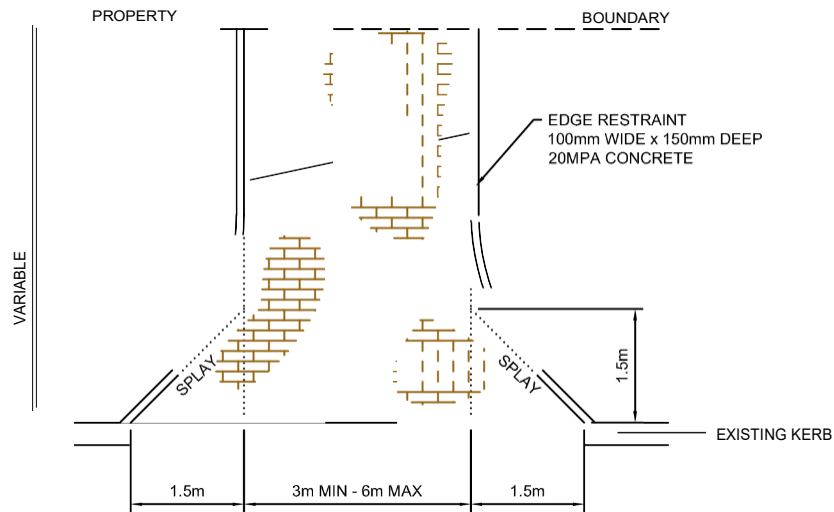
REV	DATE	APPROVED	AMENDMENT

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	DRAWN	T.GOULD
	ACCOUNT	NIL
	APPROVED	



STANDARD CROSSOVER DETAILS CONCRETE CROSSOVER
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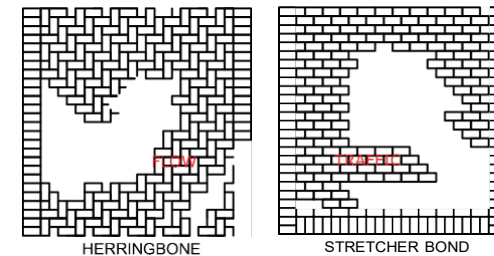
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SHEET 1 OF 4	1:100 @A4
REV.	0



CROSS SECTION WITH KERB

NOTES:

- PAVING ONLY ACCEPTABLE FOR KERBED ROADS
- ON REQUEST AND APPROVAL SPLAYS MAY BE REDUCED (TO AN ABSOLUTE MINIMUM OF 1M X 1M)
- NO EXCAVATED MATERIAL SHALL BE STOCKPILED ON SITE
- EXISTING CONCRETE PATHS IN GOOD CONDITION SHALL NOT BE REMOVED.
- BEDDING LAYER SHALL BE WELL-GRADED CONCRETING SAND, FREE FROM DELETERIOUS SOLUBLE SALTS AND OTHER CONTAMINATES, COMPLYING WITH CONCRETE MASONRY ASSOCIATION PA02 CONCRETE SEGMENTAL PAVEMENTS.
- PAVING BLOCKS TO COMPLY WITH AS4455 AND AS4456
- JOINT FILLING SAND TO BE USED AS PER CONCRETE MASONRY ASSOCIATION PA02 CONCRETE SEGMENTAL PAVEMENTS.
- DRAWING TO BE READ IN CONJUNCTION WITH SHIRE OF CAPEL CROSSOVER INFORMATION PACK



APPROVED BRICK PATTERNS

REV	DATE	APPROVED	AMENDMENT

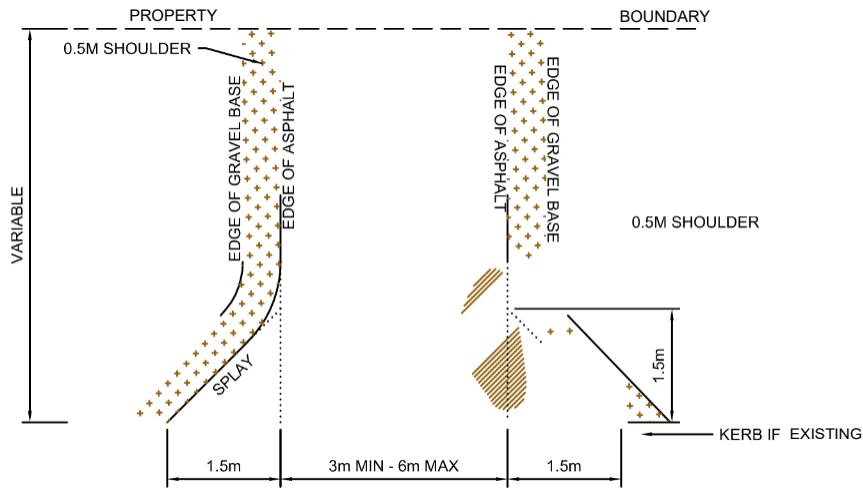
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ACCOUNT	NIL
APPROVED	

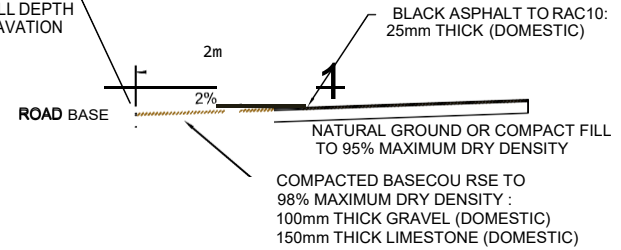


STANDARD CROSSOVER DETAILS
PAVED CROSSOVER
KERBED ROADS ONLY

DRAWING NO.	X-OVER STD2
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REV.	0



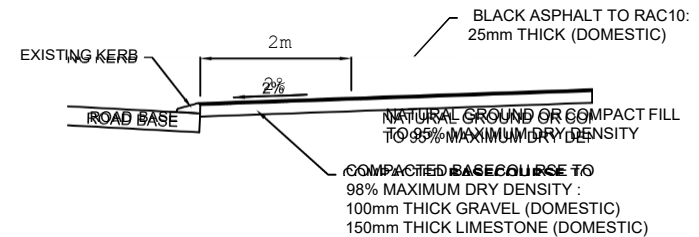
NEAT CUT TO BE MADE USING A PAN-APPROVED CUTTING SAWS ITS FULL DEPTH OF FORMATION PRIOR EXCAVATION



CROSS SECTION WITHOUT KERB

NOTES:

- ON REQUEST AND APPROVAL SPLAYS MAY BE REDUCED (TO AN ABSOLUTE MINIMUM OF 1M X 1M)
- NO EXCAVATED MATERIAL SHALL BE STOCKPILED ON SITE
- EXISTING CONCRETE PATHS IN GOOD CONDITION SHALL NOT BE REMOVED.
- ASPHALT WORK SHOULD NOT BE DONE IN COLD, WINDY OR WET CONDITIONS AS THIN LAYERS OF ASPHALT WILL NOT BE COMPACTED ADEQUATELY. THE FINISHING WORKS SHALL BE UNDERTAKEN WHILE THE MATERIAL IS HOT
- ASPHALT IN ACCORDANCE WITH IPWEA/AAPA SPECIFICATIONS FOR SUPPLY AND INSTALLATION OF ASPHALT ROAD SURFACING
- A GRAVEL SHOULDER OF 500mm WIDE AND 100mm THICK SHOULD BE PROVIDED AT THE EDGES OF THE CROSSOVER TO FINISH FLUSH WITH THE TOP OF THE ASPHALT SURFACE.
- DRAWING TO BE READ IN CONJUNCTION WITH SHIRE OF CAPEL CROSSOVER INFORMATION PACK



CROSS SECTION WITH KERB

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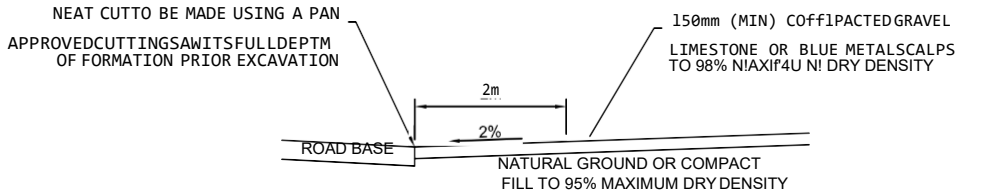
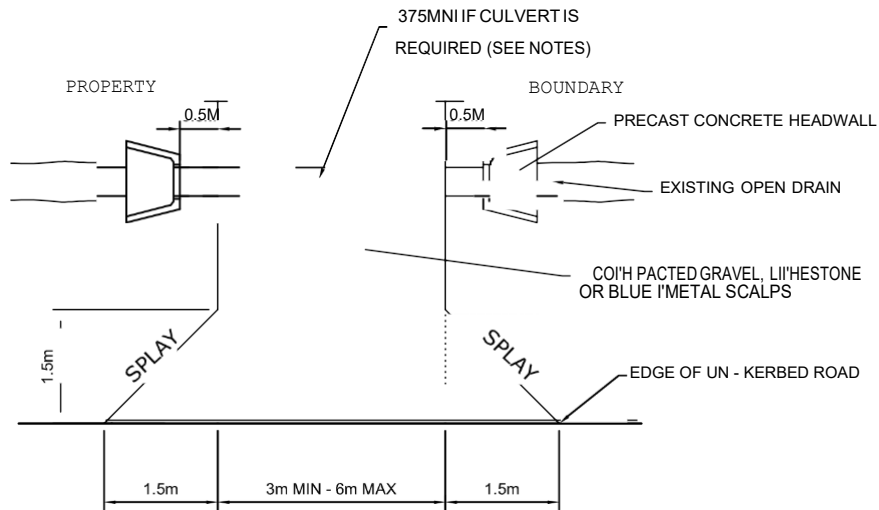
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DRAWN	T.GOULD
ACCOUNT	NIL
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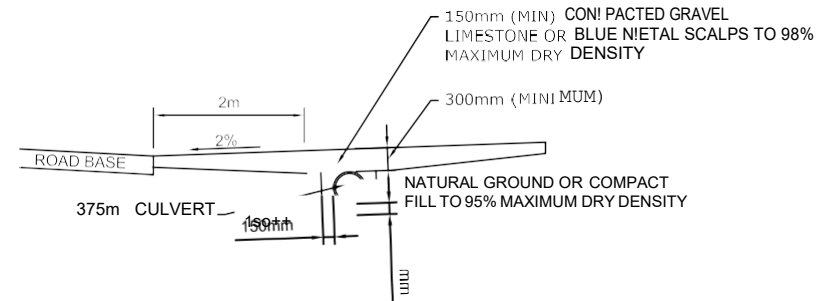
STANDARD CROSSOVER DETAILS

ASPHALT CROSSOVER

DRAWING NO.	X-OVER STD3
SHEET 3 OF 4	1:100 @A4
REV.	0



CROSS SECTION WITHOUT CULVERT



CROSS SECTION WITH CULVERT

NOTES:

- NO EXCAVATED MATERIAL SHALL BE STOCKPILED ON SITE
- CULVERTS ARE REQUIRED IF THE VERGE HAS AN EXISTING OPEN DRAIN
- CULVERTS ARE TO BE IN ALIGNMENT WITH EXISTING OPEN DRAIN
- DRAWING TO BE READ IN CONJUNCTION WITH SHIRE OF CAPEL CROSSOVER INFORMATION PACK

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<p>STANDARD RURAL CROSSOVER DETAILS</p> <p>UNSEALED CROSSOVER AND CULVERT DETAILS</p> <p>RURAL/SEMI RURAL ONLY</p>
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DRAWING NO.	X-OVER STD4
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REV.	0