

Vehicle Crossing Information Pack

Included in this pack

- Specific Conditions for Vehicle Crossings
- Application to Form a Vehicle Crossing (QD RDG Form 001)
- Standard Drawings.

Additional information that can be obtained from the Waimakariri District Council

- Standard Specifications
- District Plan
- Vehicle Crossing Bylaw.

NOTE: Traffic Management Plans can only be completed by a current Site Traffic Management Supervisor (STMS)



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ROADING

Specific Conditions for Vehicle Crossings Construction

General information

- All vehicle crossings shall be constructed in accordance to the relevant sections of WDC Engineering Code of Practice and Council District Plan Chapter 30.
- Special designs and conditions will apply to crossings across hillside channels or any other waterways. (For the ease of use the above documents have been summarised in the following information. However, an applicant may view the full documents at Council Service Centres.)
- Applications for a Vehicle Crossing Permit must be approved prior to work starting on the dwelling.
- The Vehicle Crossing Application form, included in this Pack - QD RDG Information 002 - must be used. A fee of \$225.00 is payable on application.

Type of crossing

Vehicle crossings use can be classified into the following:

Residential crossings

- In Urban Areas - crossings need to meet site requirements and match the channel and kerb type.
- In Rural Areas - crossings need to match the existing road verge and to ensure adequate drainage. (Culvert is required if a swale channel is existing.)

All crossings shall comply with the relevant following drawings:

600-211A	Typical Residential Vehicle Crossing (Flat Channel) Concrete
600-211B	Typical Residential Vehicle Crossing (Flat Channel) Hotmix
600-211C	Typical Residential Vehicle Crossing (Dish Channel) Hotmix
600-211D	Typical Vehicle Crossing Residential 3, 4, 5 Zone
600-217	Typical Rural Zone Entranceway

Commercial crossings

All commercial crossings shall comply with the relevant following drawings:

600-212A	Typical Commercial Vehicle Crossing (Flat Channel) Concrete
600-212B	Typical Commercial Vehicle Crossing (Flat Channel) Hotmix
600-212C	Typical Commercial Vehicle Crossing (Dish Channel) Hotmix
600-218	Typical Rural Zone Commercial Access

Other important drawings relevant to vehicle crossings to comply with:

600-201 B	Commercial Crossing Reinforcing Beam
600-219	Changes of Grade at Vehicle Crossing

NOTE: Vehicle crossing must comply with all relevant resource consent subdivision conditions.

Location

Location of the vehicle crossings shall take into account the following:

Distance from other crossings on the same side of the road shall comply with the table below:

Zone	Space between crossings (m) on the same side of the road
Residential and Mapleham Rural 4B	Less than 1m or greater than 7m
Business	Less than 6m or greater than 12m
Rural	Less than 10m or greater than 180m

(Waimakariri District Plan chapter 30, Rule 30.6.1.19)

Minimum sight distance from access point shall comply with the table below:

Legal speed limited	50 (Km/hr)	70 (Km/hr)	100 (Km/hr)
Site Distance in Residential Zones (m)	45	85	250
Site Distance in Business & Rural Zones (m)	80	140	250

(Waimakariri District Plan Chapter 30, Rule 30.6.1.24)

Distance from intersections shall comply with the table below:

Road type that vehicle crossing joins	Road type and posted speed limit of intersection road – distance in metres									
	Strategic		Arterial		Collector		Urban Collector		Local	
	≤ 50 km/hr	≥ 50 km/hr	≤ 50 km/hr	≥ 50 km/hr	≤ 50 km/hr	≥ 50 km/hr	≤ 50 km/hr	≥ 50 km/hr	≤ 50 km/hr	≥ 50 km/hr
Strategic	60	180	60	180	55	180	35	90	35	90
Arterial	60	180	60	180	55	180	35	90	35	90
Collector	50	75	40	75	40	60	20	60	20	60
Urban collector	40	75	25	75	25	60	20	60	10	60
Local	25	75	25	75	25	60	10	60	10	60

(Waimakariri District Plan chapter 30, Rule 30.6.1.26)

Clearance from existing services

Vehicle crossings must not be sited to interfere with any existing street works or markers, e.g. fire hydrants, water valves, storm-water outlets or sumps, trees, car-parks, beautification strips, electrical, pedestrian crossing points and telecommunication installations.

Width of crossing

All vehicle crossings shall comply in full with the Council's District Plan.

Crossing widths shall comply with the table below. For full details refer to Waimakariri District Plan, Chapter 30 Rule 30.6.1.19.

NOTE: The crossing widths below do not include the 600mm wings either side. The total minimum width will be 5.2m including the wings.

Zone	Crossing width (m)	
	Min	Max
Residential	4	6
Business	5	7
Business	5	8 for a shared crossing
Rural	3.5	6

Materials

The vehicle crossing shall be constructed using standard surfacing material as follows:

- **Urban Areas:**

Asphaltic concrete or broomed concrete.

- **Rural Areas:**

- Access off sealed roads – Asphaltic concrete or Chipseal
- Access off unsealed roads - Metal/Gravel
- Other finishes such as stamped or coloured concrete, exposed aggregate, bevelled or smooth edge cobbles, etc are considered non-standard surfaces and may only be used with written Council approval
- Any approved non-standard surfaces may only be used behind the kerb; all kerb is to be installed per Waimakariri District Council standards.

The vehicle crossing must not be constructed using the following “Prohibited Materials”:

- Any non-skid non-standard paving that does not provide a safe, firm, relatively smooth and comfortable walking surface will not be permitted
- Loose surfaces that could migrate onto adjacent footpath, roadway or nearby drainage channels and gutters will not be permitted.

If the vehicle crossing is constructed using surfacing material other than those specified above, you and all subsequent owners are accepting the following:

- That in the event of an excavation across the frontage, a non-standard surface will not necessarily be restored to its original appearance
- That should a footpath ever be built across the frontage of the property the portion of the non-standard driveway that would form part of the path may be replaced with an alternative surface.

Relocation of services

- Permission may be granted at the discretion of the Council for vehicle crossing location that conflicts with existing services under certain conditions
- No existing services are to be moved without the written permission of the service provider
- The applicant is responsible for making sure that any conditions imposed by the service provider have been met
- No water connections or valves to be within the vehicle crossing
- The cost of removing/relocating any services will be the responsibility of the applicant.

Contact details for each of the services are as below:

Type of service	Service owner	How to request for relocation of service
Stormwater outlet	Waimakariri District Council	Call the Council and make an appointment with the Roading Unit staff to discuss your alternatives. Stormwater to be sited 1m from the vehicle crossing.
Water toby	Waimakariri District Council	Call the Council and make an appointment with the 3 Waters staff to discuss your alternatives.
Street tree and street garden, irrigation line	Waimakariri District Council	Call the Council and make an appointment with the Greenspace team to discuss your alternatives. Tree to be sited 2m from the vehicle crossing.
Power pole/streetlight	Owner of the network, e.g. MainPower Network, etc	Call the service owner. Telephone number can be found in your telephone directory. Pole to be sited 1m from the vehicle crossing.

Type of service	Service owner	How to request for relocation of service
Telephone manhole tops	Owner of the telephone service, e.g. Telecom, Telstraclear, etc	Call the service owner. Telephone number can be found in your telephone directory.
Other street furniture (sign, post, street name, etc.)	Waimakariri District Council.	Call the Council and make an appointment with the Roding Unit staff to discuss your alternatives.
Pedestrian crossing	Waimakariri District Council	Call the Council and make an appointment with the Roding Unit staff to discuss your alternatives. Crossing points to be sited 1m from the vehicle crossing. Zebra crossings to be sited 7m from the vehicle crossing

Construction

Prior to any vehicle driving onto the site the following must be done:

- Saw cut the kerb and footpath at the excavation limits
- Excavate the vehicle crossing to the depths as shown on the attached construction drawing
- Backfill the excavation with sub-base as per the drawing.

Note: Prior to the backfill being placed the Council needs to inspect the excavated area.

We recommend that the concrete is not poured until the construction on site is completed.

Prior to pouring concrete or laying the asphaltic concrete, the foundations must meet the following standard. The Clegg Impact Value (CIV) for asphaltic concrete crossings shall not be less than **25** for residential crossings, and **35** for commercial vehicle crossings. The Clegg Impact Value (CIV) for concrete crossings shall not be less than **15** for residential crossings and **35** for commercial crossings.

The property owner is responsible for the reinstatement of the grass berm outside their property with topsoil and grass seed before the final vehicle crossing sign off can occur.

Inspections

The applicant must allow the council the opportunity to inspect the vehicle crossing at the following stages:

- Location inspection – Before work commences to mark out crossing location and check for services/tree relocation etc
- Excavation Inspection – When the crossing has been excavated to the correct depth and before backfilling starts
- Pre Pour/Pre Seal Inspection – When the basecourse has been sufficiently compacted and boxing is in place
- Final Inspection - All works must be completed. This includes:
 - The removal of boxing (for concrete crossings)
 - The topsoil and grass seed to be reinstated on either side of the crossing between the road and the boundary (level with the footpath and crossing) returning to its previous state before work commenced
 - Relocated SW outlets reinstated at a minimum trench width of 400mm
 - Any trees that require relocation must be relocated
 - Any cracks or damage to the existing kerb and footpath along the property frontage to be remedied
 - Site clean and tidy.

NOTE: A final inspection is important to make sure the vehicle crossing is signed off as complete for the Land Information Memorandum (LIM) for that property.

If further inspections or site supervision are necessary because of faulty workmanship, the additional costs involved may be recovered from the applicant. A vehicle entrance constructed without Council inspections will be deemed as an illegal entrance.

To book a Vehicle Crossing Inspection phone 0800 965 468.

Insurance

The Contractor shall have a minimum of \$1,000,000 Public Liability Insurance. This policy shall indemnify the Council and the Contractor for all claims arising from the work. The Contractor shall upon request provide the Council with a copy of the above insurance policies.

Safety

- A Temporary Traffic Management Plan must be lodged at least two days prior to the planned commencement of any construction work
- Approval must be gained prior to the commencement of any construction work
- You and your contractor are both responsible for the safety of the site
- Between initial construction and final surfacing, the vehicle crossing must be kept in good condition to allow for the safe passage of pedestrians. Interruption to pedestrian and vehicular traffic shall be kept to a minimum at all times
- Existing footpaths are to remain whenever practicable. A firm smooth surface without any vertical drops of 6mm or more shall be maintained at all times; if this is not possible, an appropriate detour shall be provided.

Applicant's maintenance and reinstatement obligations

As detailed in the attached Waimakariri District Vehicle Crossing Bylaw 2019.

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**APPLICATION TO FORM A VEHICLE CROSSING
(ENTRANCEWAY)**

Made under Section 335 Local Government Act/Waimakariri District Vehicle Crossings Bylaw 2007

VEHICLE CROSSING No.

NOTE: *The Council may not accept a Vehicle Crossing Application until title (224c) has been issued for your property.*

THE PROPERTY OWNER

- Owner's name:
(Company or organisation name if applicable)
- Mailing address:
- Mobile: Landline: Email:

THE AGENT

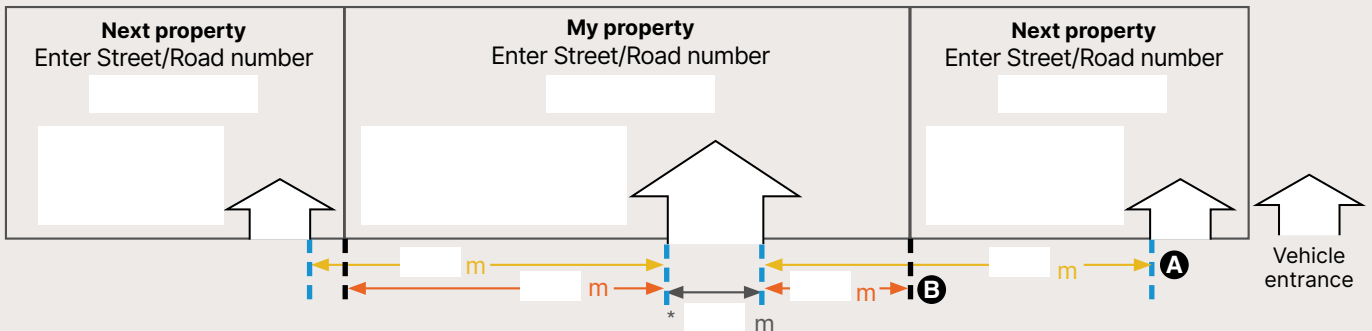
- Agent's name:
(Company or organisation name if applicable)
- Mailing address:
- Mobile: Landline: Email:

THE CONTRACTOR

- Contractor's name:
(Company or organisation name if applicable)
- Mailing address:
- Mobile: Landline: Email:

PROPERTY DETAILS OF PROPOSED VEHICLE ENTRANCE

- Site address:
(Street/Road/Township)
- Legal description: Lot: DP: Valuation Number:
- Building/Resource Consent Number: BC: RC:
- Location sketch (Please tick type of vehicle crossing): Residential Rural Commercial/industrial
Street/road name: Please provide both **A** and **B** distance figures where possible.



*** The recorded width of the crossing should only reflect the width of the cut-down portion, and exclude the tapered wings / angled edges on either side. If in doubt, please contact Customer Services.**

Using the sketch above, show the location, width of vehicle crossing and distances to the nearest vehicle crossings on the same side of the road. If more relevant (eg. when adjacent vehicle crossings have yet to be formed), please show the distance to the neighbouring boundaries/nearest intersection if beside a corner.

A = Distance to neighbouring Vehicle Crossing. **B** = Distance to boundaries.

Please also describe/show the location of any trees, services or pedestrian cut-downs on the sketch above.

NOTE: *If a Collector, Strategic or Arterial Road, on-site manoeuvring will need to be provided (District Plan Rule 30.6.1.37) and shown on the Building Consent plans. Email duty.planner@wmk.govt.nz for further information if required.*

PAYMENT

14. If sending this application via email, please do not make a payment until you receive an invoice via reply.

- Fee of \$225.00 attached
- For retrospective applications (where work has commenced before the application is made)
OR for applications that do not comply with the Vehicle Crossing Bylaw the fee is \$285.00.

VEHICLE CROSSING INSPECTIONS

- I will confirm the location from my issued permit details prior to excavation and make arrangements with Council for consequent inspections. Excavation, base course/compaction, final. When the final surface is complete, the grass berm has been reinstated, appropriate services/trees relocated and reinstated.
- Please note a fee of \$112.00 will apply for any failed inspections. To book a Vehicle Crossing Inspection phone 0800 965 468.

DECLARATION

- I will construct a vehicle crossing (entranceway) that complies with any Resource Consent and meets Council specifications from the formed roadway to my property. Between the initial construction and final surfacing of the vehicle crossing, the crossing will be kept in good condition to allow for the safe passage of pedestrians.
- I note that stamped concrete, coloured concrete, cobbles and non-standard paving blocks are NOT permitted.
- I understand that all costs are the responsibility of the property owner and that a vehicle crossing that does not meet Council specifications will be upgraded at the property owner's cost.
- I understand that I will be responsible for the costs associated with any repair work required as a result of settlement or poor workmanship during a 12 month period of maintenance.

INFORMATION

- Your permit is valid for 12 months with your vehicle entrance to be completed within that period.
- It is the property owner's responsibility to arrange and pay for the construction of a vehicle entrance.
- A vehicle entrance constructed without Council inspections will be deemed as an illegal entrance.
- A vehicle entrance must be formed to top-course stage prior to the commencement of any building work.
- Existing footpaths are to remain whenever practicable. A firm smooth surface without any vertical drops of 6mm or more shall be maintained at all times; if this is not possible, an appropriate detour shall be provided.
- You or your Contractor will need to fill in a Temporary Traffic Management Plan at least 2 working days before construction, you cannot work on the road or footpath until it has been approved. (If there is a need for public notification eg road closure, then additional notice is required).

A Vehicle Crossing Information Pack is available from Waimakariri District Council Service Centres and website:
waimakariri.govt.nz/services/roads-and-transport/driveways-and-vehicle-crossings
It contains specifications and additional information as well as plans for typical urban and rural vehicle crossings.

OWNER AUTHORISATION

NOTE: By entering your name in the box below you are giving your authority for the application to proceed.

Name: Date:

I am the Owner Agent

OFFICE USE ONLY

	Front counter	Roothing	Plan admin	CSO - PIMs
Officer	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Date	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

INSPECTION TYPE	Yes	No	Date	Comments	Inspected by
Location	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Excavation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Base Course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Final Surfacing (completed satisfactorily)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Additional inspection (completed satisfactorily)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Date payment processed: Receipt: Officer:

Fee paid on application Deposit invoice sent

Appendix 1: Standard Drawings

SHEET No.	TITLE
211A	TYPICAL RESIDENTIAL CONCRETE VEHICLE CROSSING (FLAT CHANNEL)
211B	TYPICAL RESIDENTIAL HOT MIX VEHICLE CROSSING (FLAT CHANNEL))
211C	TYPICAL RESIDENTIAL HOT MIX VEHICLE CROSSING (DISH CHANNEL)
211D	TYPICAL RESIDENTIAL VEHICLE CROSSING (ZONES 3, 4 & 5)
212A	TYPICAL COMMERCIAL CONCRETE VEHICLE CROSSING (FLAT CHANNEL)
212B	TYPICAL COMMERCIAL HOT MIX VEHICLE CROSSING (FLAT CHANNEL)
212C	TYPICAL COMMERCIAL HOT MIX VEHICLE CROSSING (DISH CHANNEL) <i>Consult with Council Roading Team prior to using this drawing</i>
217	TYPICAL RURAL ZONE ENTRANCEWAY
218	TYPICAL RURAL ZONE COMMERCIAL ACCESS
220A	PEGASUS RES6 VEHICLE CROSSING (WITH SWALE)
220B	PEGASUS RES6 VEHICLE CROSSING (WITHOUT SWALE)
220C	PEGASUS COMMERCIAL HOT MIX VEHICLE CROSSING (FLAT CHANNEL)
221A	MAPLEHAM VEHICLE CROSSING (WITH FOOTPATH)
221B	MAPLEHAM VEHICLE CROSSING (WITHOUT FOOTPATH)
224	KERB OUTLET

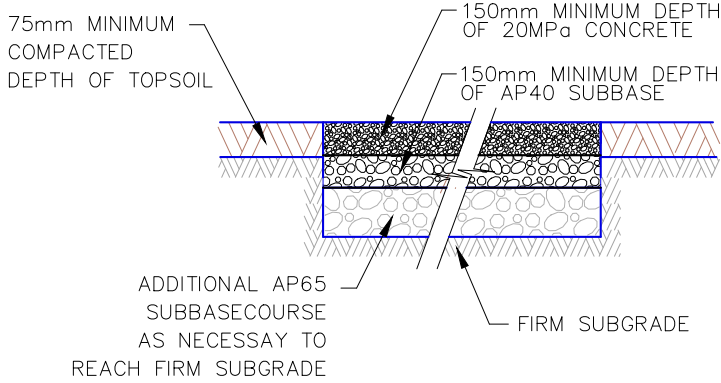
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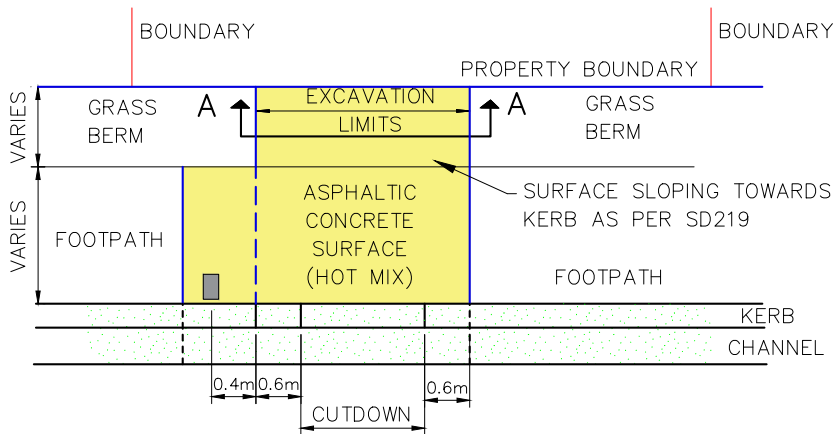
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DRAFT	SHEET INDEX	VEHICLE CROSSING INFORMATION PACKET STANDARD DRAWINGS	ISSUE	PLAN No.

NOTE

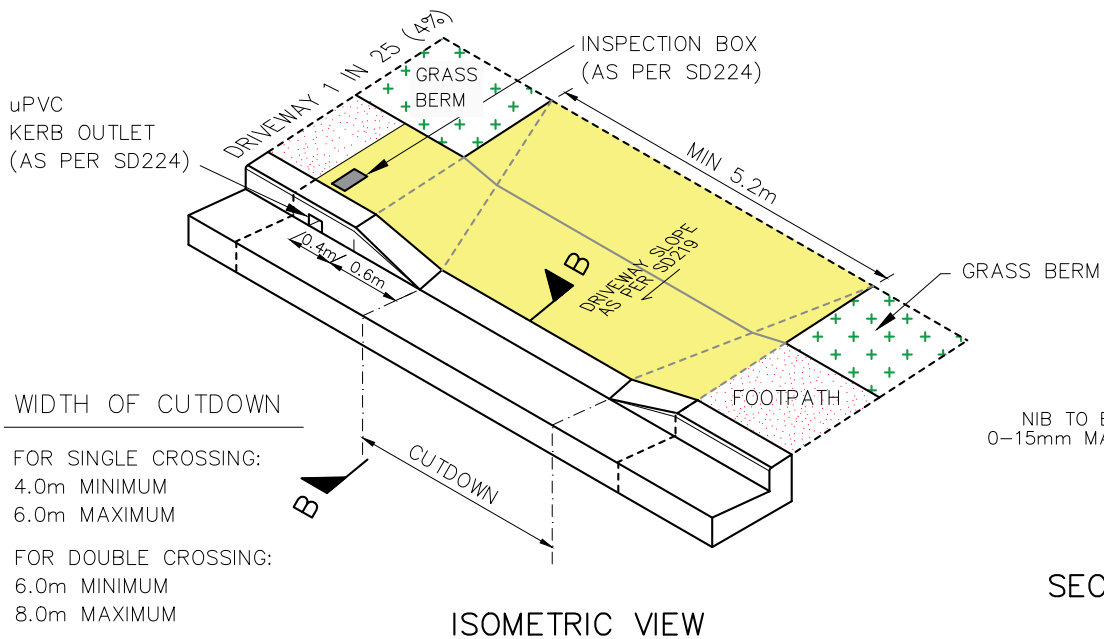
1. CLAY STABILISED BASECOURSE WILL NOT BE PERMITTED WITHIN THE ROAD RESERVE.
2. FOOTPATH PAVEMENT MATERIAL SHALL BE CONTINUOUS ACROSS DRIVEWAY TO CONVEY PRIORITY TO PATH USERS.
3. IF VEHICLE CROSSING INTERSECTS A SHARED-USE PATH, OFF-ROAD CYCLEWAY, OR ON-ROAD CYCLE LANE, CONSULT COUNCIL PRIOR TO USING THIS PLAN.
4. IF STORMWATER LATERAL IS INSTALLED OUTSIDE OF CONSTRUCTED DRIVEWAY AREA THE REINSTATEMENT OF THE AFFECTED FOOTPATH SHALL BE MINIMUM 2M WIDE.



CROSS SECTION A-A



PLAN



SECTION B-B

WIDTH OF CUTDOWN

FOR SINGLE CROSSING:
4.0m MINIMUM
6.0m MAXIMUM

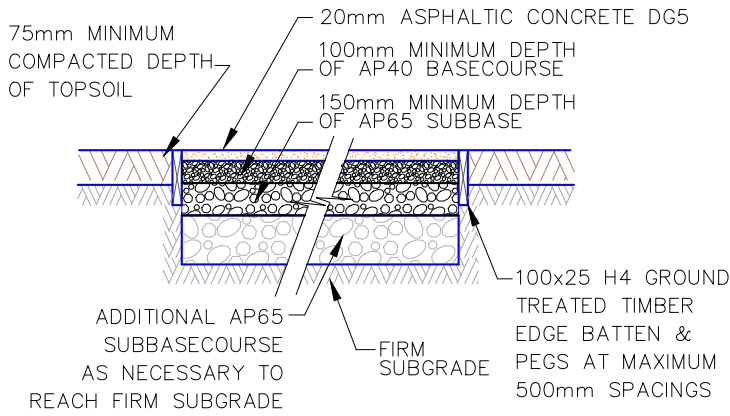
FOR DOUBLE CROSSING:
6.0m MINIMUM
8.0m MAXIMUM

ISOMETRIC VIEW

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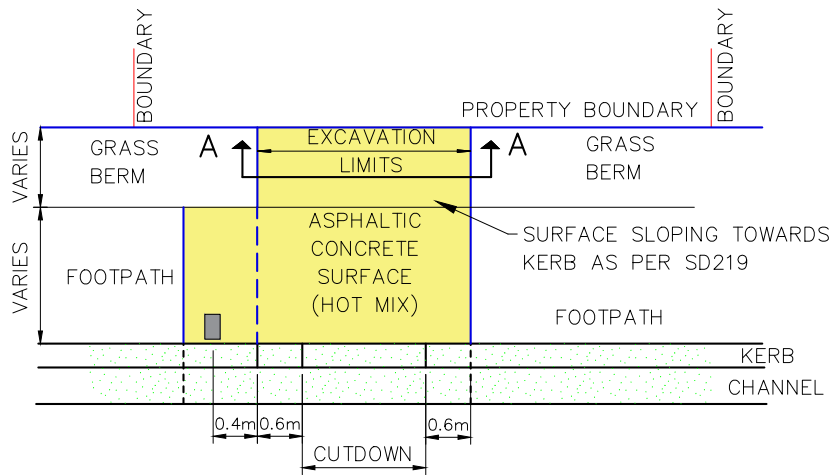
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			ISSUE G	PLAN No. 600



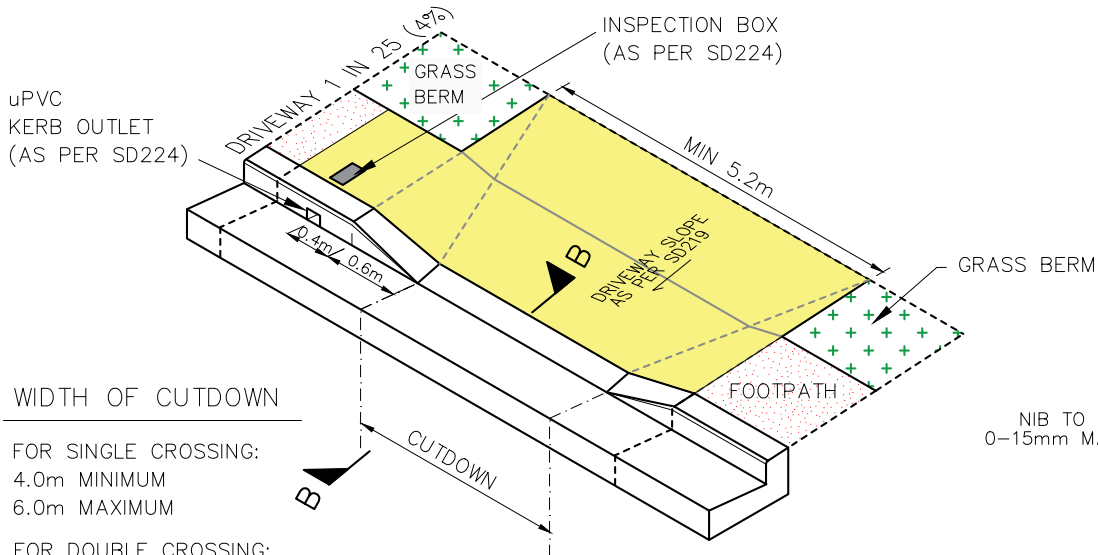
CROSS SECTION A-A

NOTE

1. CLAY STABILISED BASECOURSE WILL NOT BE PERMITTED WITHIN THE ROAD RESERVE.
2. FOOTPATH PAVEMENT MATERIAL SHALL BE CONTINUOUS ACROSS DRIVEWAY TO CONVEY PRIORITY TO PATH USERS.
3. IF VEHICLE CROSSING INTERSECTS A SHARED-USE PATH, OFF-ROAD CYCLEWAY, OR ON-ROAD CYCLE LANE, CONSULT COUNCIL PRIOR TO USING THIS PLAN.
4. IF STORMWATER LATERAL IS INSTALLED OUTSIDE OF CONSTRUCTED DRIVEWAY AREA THE REINSTATEMENT OF THE AFFECTED FOOTPATH SHALL BE MINIMUM 2M WIDE.



PLAN



WIDTH OF CUTDOWN

- FOR SINGLE CROSSING:
 4.0m MINIMUM
 6.0m MAXIMUM
- FOR DOUBLE CROSSING:
 6.0m MINIMUM
 8.0m MAXIMUM

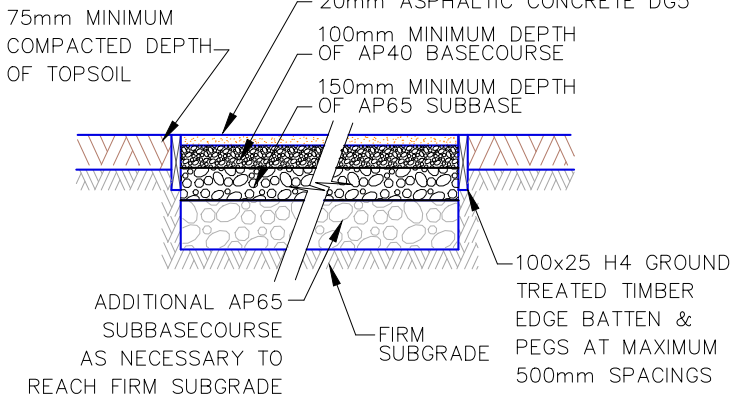
SECTION B-B

ISOMETRIC VIEW

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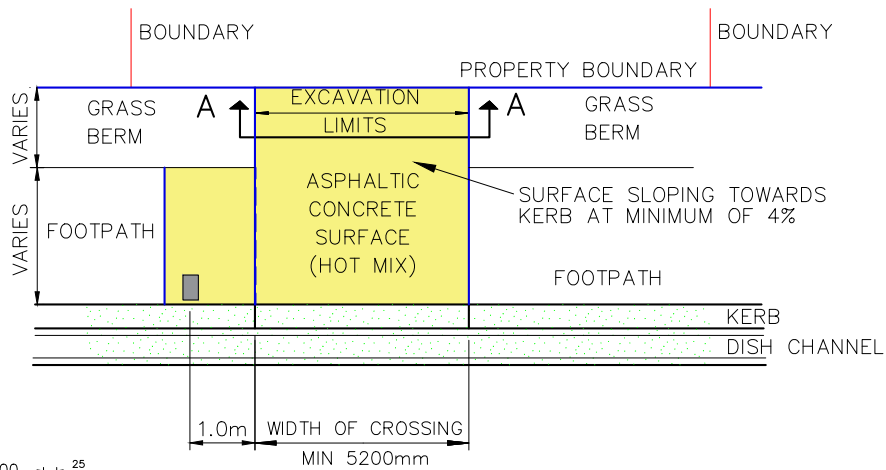
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DRAFT			ISSUE C
			PLAN No. 600



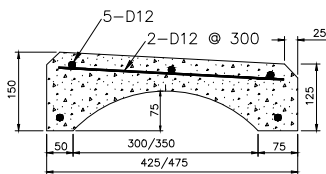
CROSS SECTION A-A

NOTE

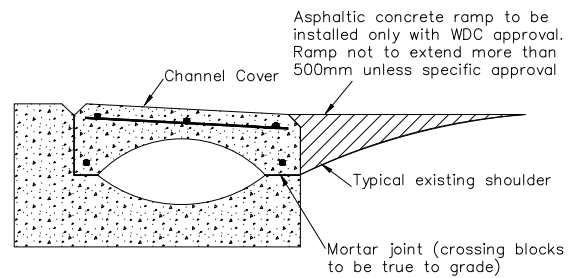
1. CLAY STABILISED BASECOURSE WILL NOT BE PERMITTED WITHIN THE ROAD RESERVE.
2. FOOTPATH PAVEMENT MATERIAL SHALL BE CONTINUOUS ACROSS DRIVEWAY TO CONVEY PRIORITY TO PATH USERS.
3. IF VEHICLE CROSSING INTERSECTS A SHARED-USE PATH, OFF-ROAD CYCLEWAY, OR ON-ROAD CYCLE LANE, CONSULT COUNCIL PRIOR TO USING THIS PLAN.
4. IF STORMWATER LATERAL IS INSTALLED OUTSIDE OF CONSTRUCTED DRIVEWAY AREA THE REINSTATEMENT OF THE AFFECTED FOOTPATH SHALL BE MINIMUM 2M WIDE.
5. CONCRETE TO BE 35MPa.



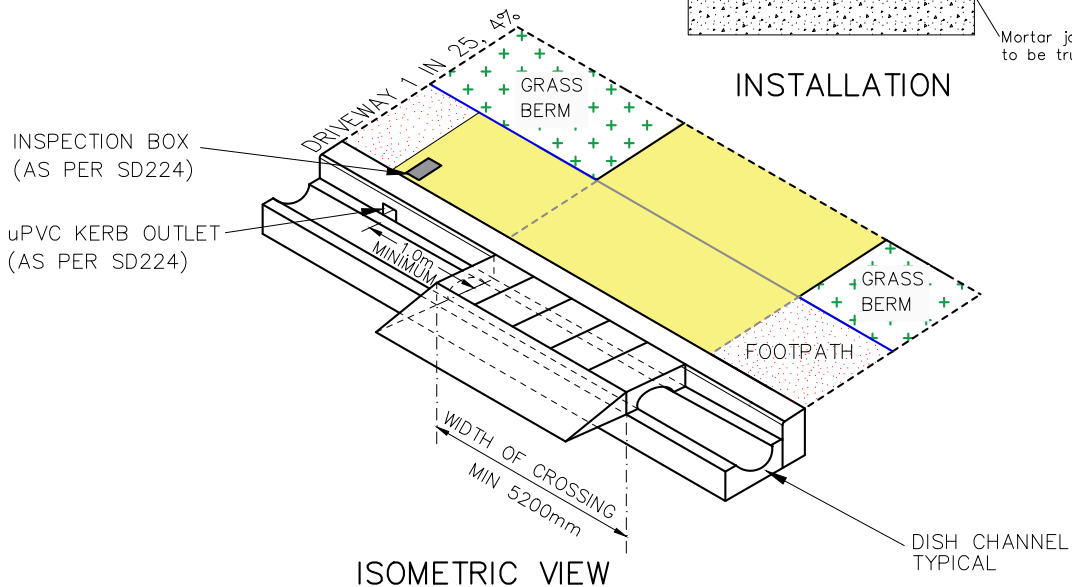
PLAN



CHANNEL COVER



INSTALLATION



ISOMETRIC VIEW

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NOT TO SCALE	SHEET TITLE	PROJECT TITLE	SHEET	
DRAFT	TYPICAL RESIDENTIAL HOT MIX CROSSING (DISH CHANNEL)	STANDARD DRAWINGS	211C	
			ISSUE E	PLAN No. 600

MINIMUM FORMATION STANDARDS

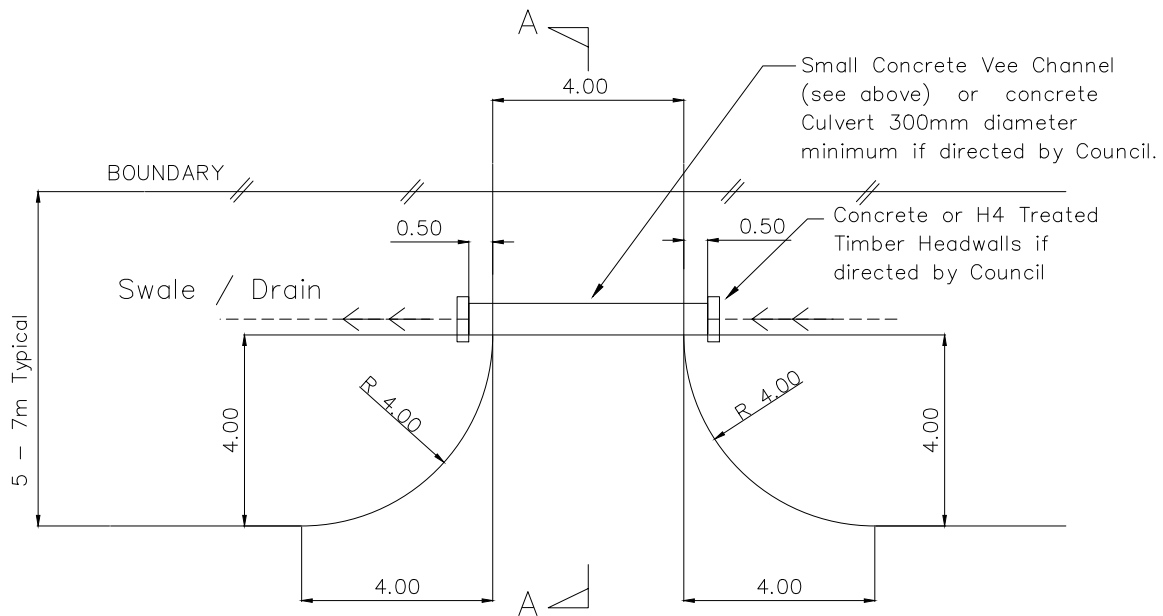
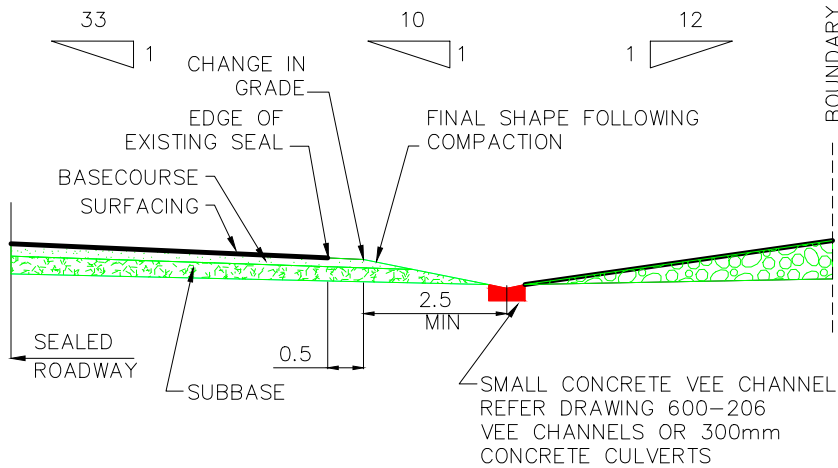
The formation shall extend down to a suitable subgrade which shall be free of organic material. As a minimum requirement, the formation shall comprise of a 150 mm compacted layer of screened river run sub base (AP65) overlaid with a 100 millimeter compacted layer of crushed base course (AP40).

The top surfacing course shall be applied as follows:

- (a) Where the adjacent road formation is sealed, the entrance formation shall be overlaid with a coat of chip seal consisting of bitumen binder and two coat Grade 4/6 chip seal.
- (b) Where the adjacent road formation is metalled, the new entrance formation shall be overlaid with AP20 running course.
- (c) Clay stabilised metalcourse will not be approved in the road reserve.

NOTES

1. IF VEHICLE CROSSING INTERSECTS A SHARED-USE PATH, OFF-ROAD CYCLEWAY, OR ON-ROAD CYCLE LANE, CONSULT COUNCIL PRIOR TO USING THIS PLAN.
2. CULVERT HEADWALL SHALL BE FORMED AS TO BE TRAVERSABLE WITH 1:6 SLOPE.



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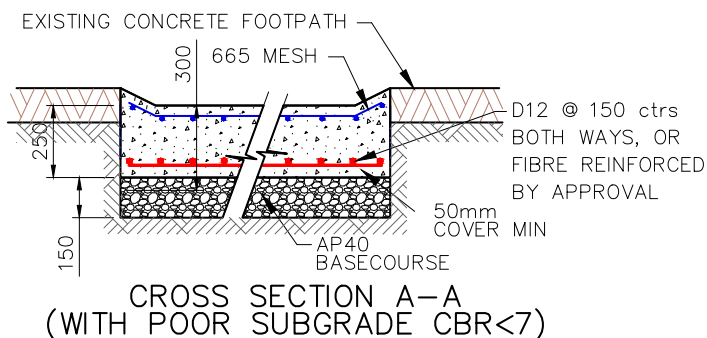
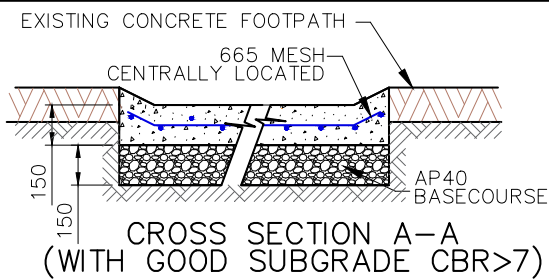


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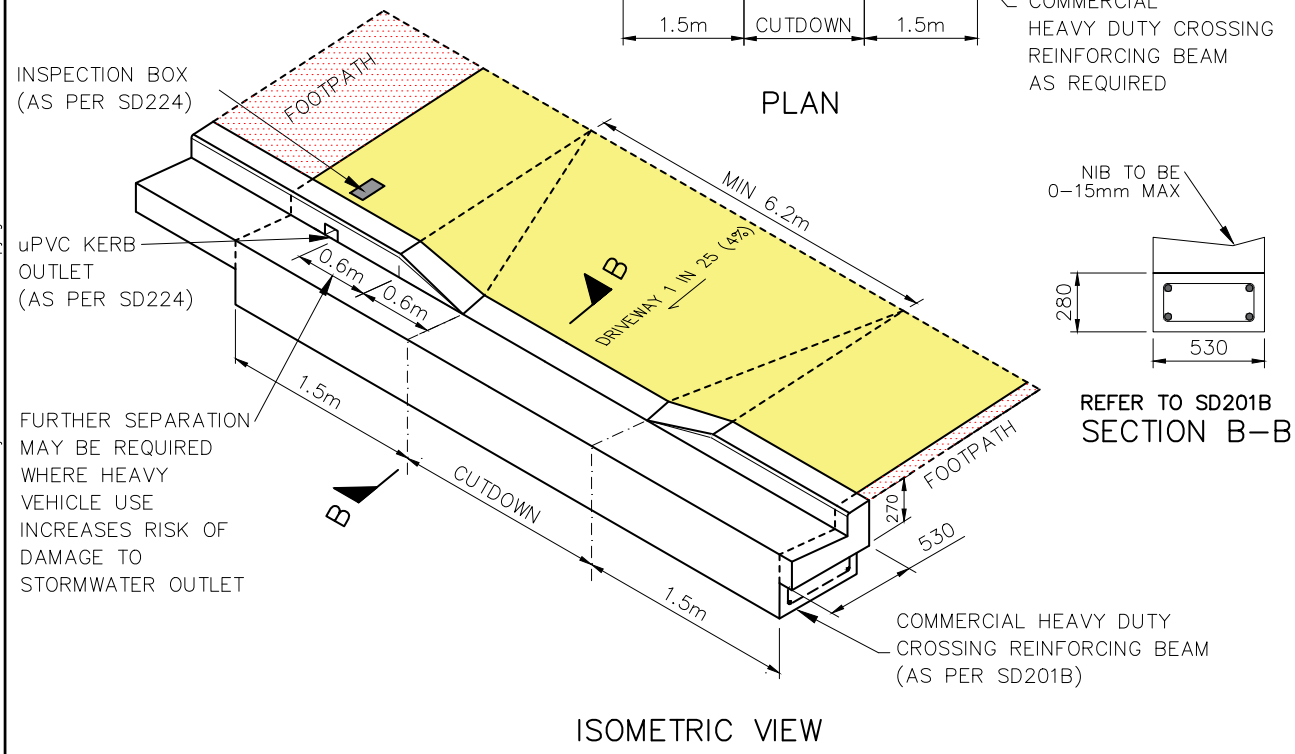
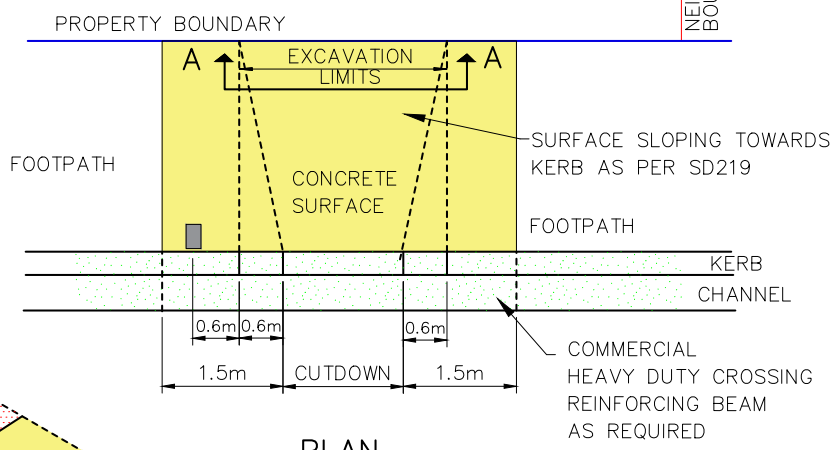
SHEET TITLE
TYPICAL RESIDENTIAL
VEHICLE CROSSING
ZONES: 3, 4 & 5

PROJECT TITLE
STANDARD
DRAWINGS

SHEET
211D
ISSUE
F
PLAN No.
600



- NOTES**
1. CONCRETE TO COMPLY WITH NZS 3109 : 1997
 2. CONCRETE TO HAVE COMPRESSIVE STRENGTH OF 20 MPa AT 28 DAYS.
 4. WIDTH OF CROSSING TO BE SUITED TO SITE BY APPROVAL OF COUNCIL
 5. FOOTPATH PAVEMENT MATERIAL SHALL BE CONTINUOUS ACROSS DRIVEWAY TO CONVEY PRIORITY TO PATH USERS.
 6. IF VEHICLE CROSSING INTERSECTS A SHARED-USE PATH, OFF-ROAD CYCLEWAY, OR ON-ROAD CYCLE LANE, CONSULT COUNCIL PRIOR TO USING THIS PLAN.
 7. IF STORMWATER LATERAL IS INSTALLED OUTSIDE OF CONSTRUCTED DRIVEWAY AREA THE REINSTATEMENT OF THE AFFECTED FOOTPATH SHALL BE MINIMUM 2M WIDE.

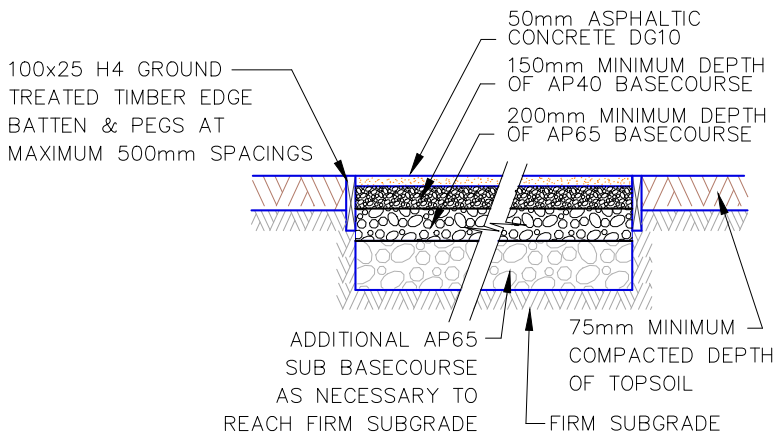


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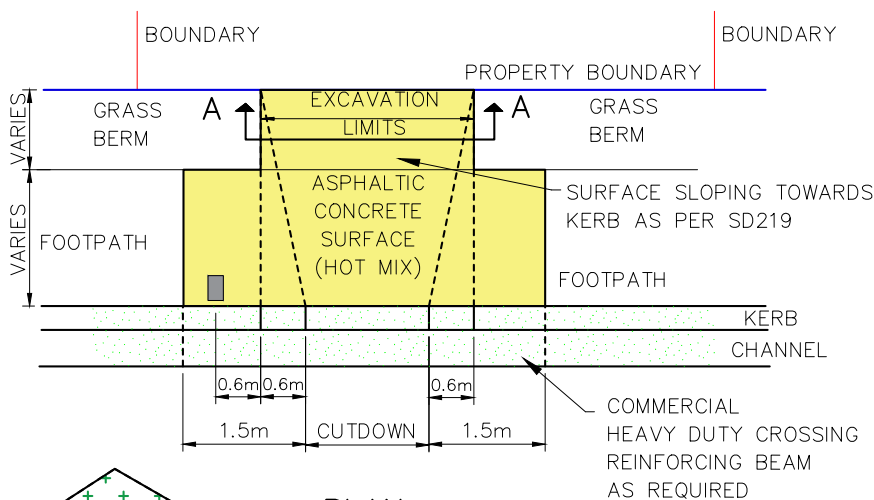
<p>WAIMAKARIRI DISTRICT COUNCIL PROJECT DELIVERY UNIT</p>	NOT TO SCALE	SHEET TITLE	PROJECT TITLE	PLAN No.	
	DRAFT	TYPICAL COMMERCIAL VEHICLE CROSSING (FLAT CHANNEL)	STANDARD DRAWINGS	212A	
				ISSUE E	SHEET 600

NOTES

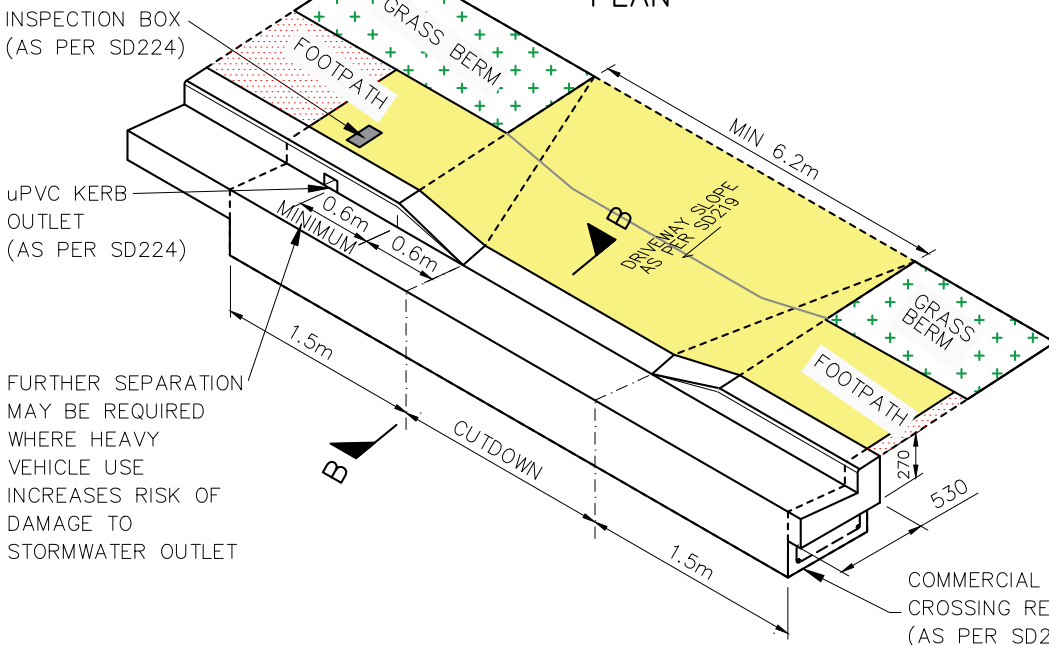
1. CLAY STABILISED BASECOURSE WILL NOT BE PERMITTED WITHIN THE ROAD RESERVE.
2. FOOTPATH PAVEMENT MATERIAL SHALL BE CONTINUOUS ACROSS DRIVEWAY TO CONVEY PRIORITY TO PATH USERS.
3. IF VEHICLE CROSSING INTERSECTS A SHARED-USE PATH, OFF-ROAD CYCLEWAY, OR ON-ROAD CYCLE LANE, CONSULT COUNCIL PRIOR TO USING THIS PLAN.
4. IF STORMWATER LATERAL IS INSTALLED OUTSIDE OF CONSTRUCTED DRIVEWAY AREA THE REINSTATEMENT OF THE AFFECTED FOOTPATH SHALL BE MINIMUM 2M WIDE.
5. BATTEN PEGS TO BE INSTALLED ONLY INTO UNDISTURBED GROUND OR COMPACTED MATERIAL.



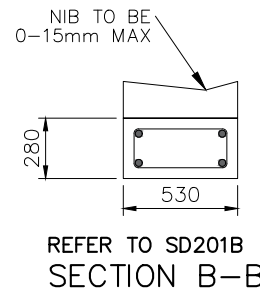
CROSS SECTION A-A



PLAN



ISOMETRIC VIEW



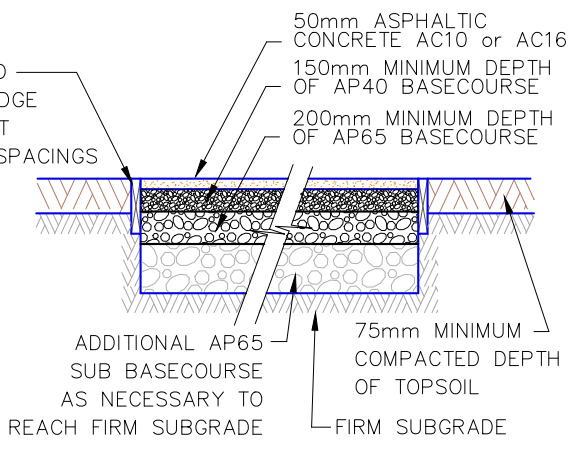
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FURTHER SEPARATION MAY BE REQUIRED WHERE HEAVY VEHICLE USE INCREASES RISK OF DAMAGE TO STORMWATER OUTLET



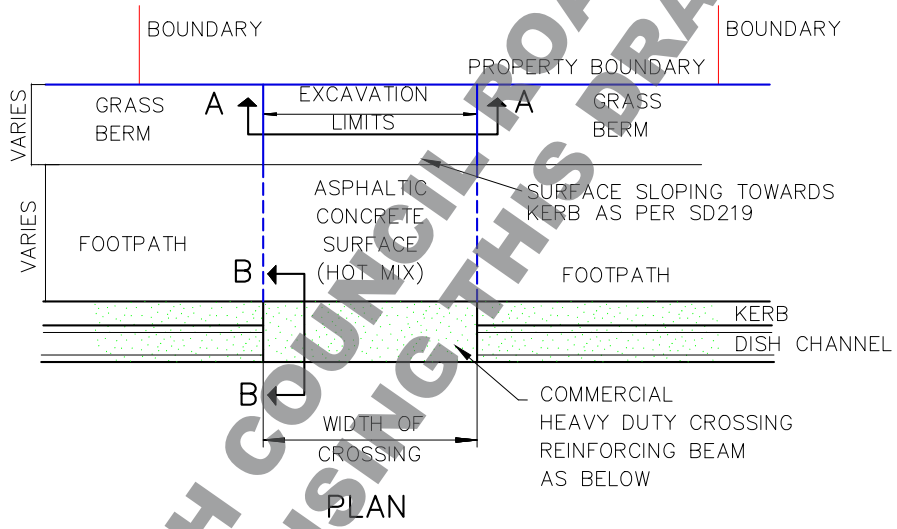
NOT TO SCALE	SHEET TITLE	PROJECT TITLE	SHEET
DRAFT	TYPICAL COMMERCIAL HOT MIX VEHICLE CROSSING (FLAT CHANNEL)	STANDARD DRAWINGS	212B
			ISSUE D PLAN No. 600

100x25 H4 GROUND TREATED TIMBER EDGE BATTEN & PEGS AT MAXIMUM 500mm SPACINGS

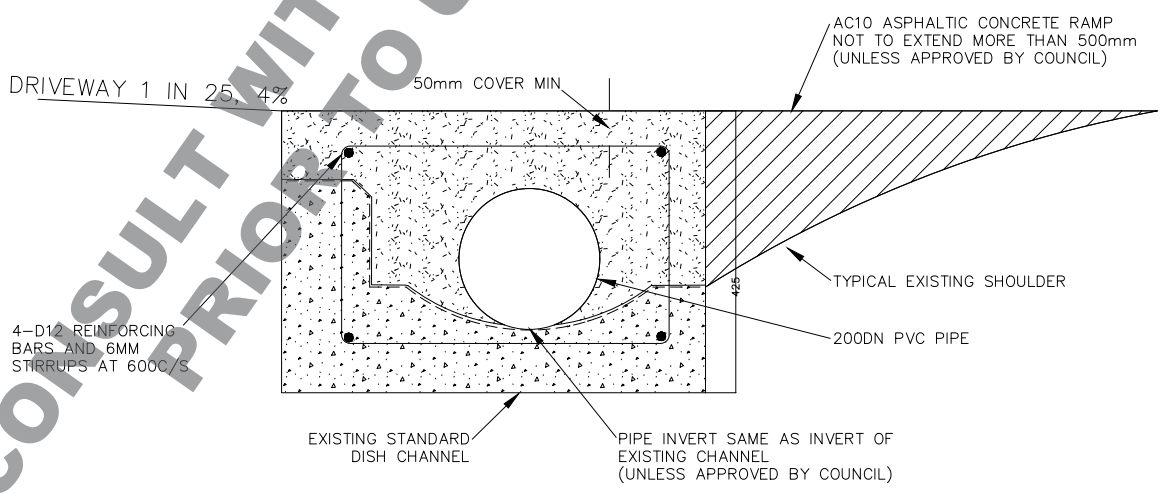


CROSS SECTION A-A

- NOTES**
1. CLAY STABILISED BASECOURSE WILL NOT BE PERMITTED WITHIN THE ROAD RESERVE.
 2. FOOTPATH PAVEMENT MATERIAL SHALL BE CONTINUOUS ACROSS DRIVEWAY TO CONVEY PRIORITY TO PATH USERS.
 3. IF VEHICLE CROSSING INTERSECTS A SHARED-USE PATH, OFF-ROAD CYCLEWAY, OR ON-ROAD CYCLE LANE, CONSULT COUNCIL PRIOR TO USING THIS PLAN.
 4. BATTEN PEGS TO BE INSTALLED ONLY INTO UNDISTURBED GROUND OR COMPACTED MATERIAL.
 5. ALL CONCRETE 20MPa AT 28 DAYS
 6. WIDTH OF CROSSING BY APPROVAL OF COUNCIL



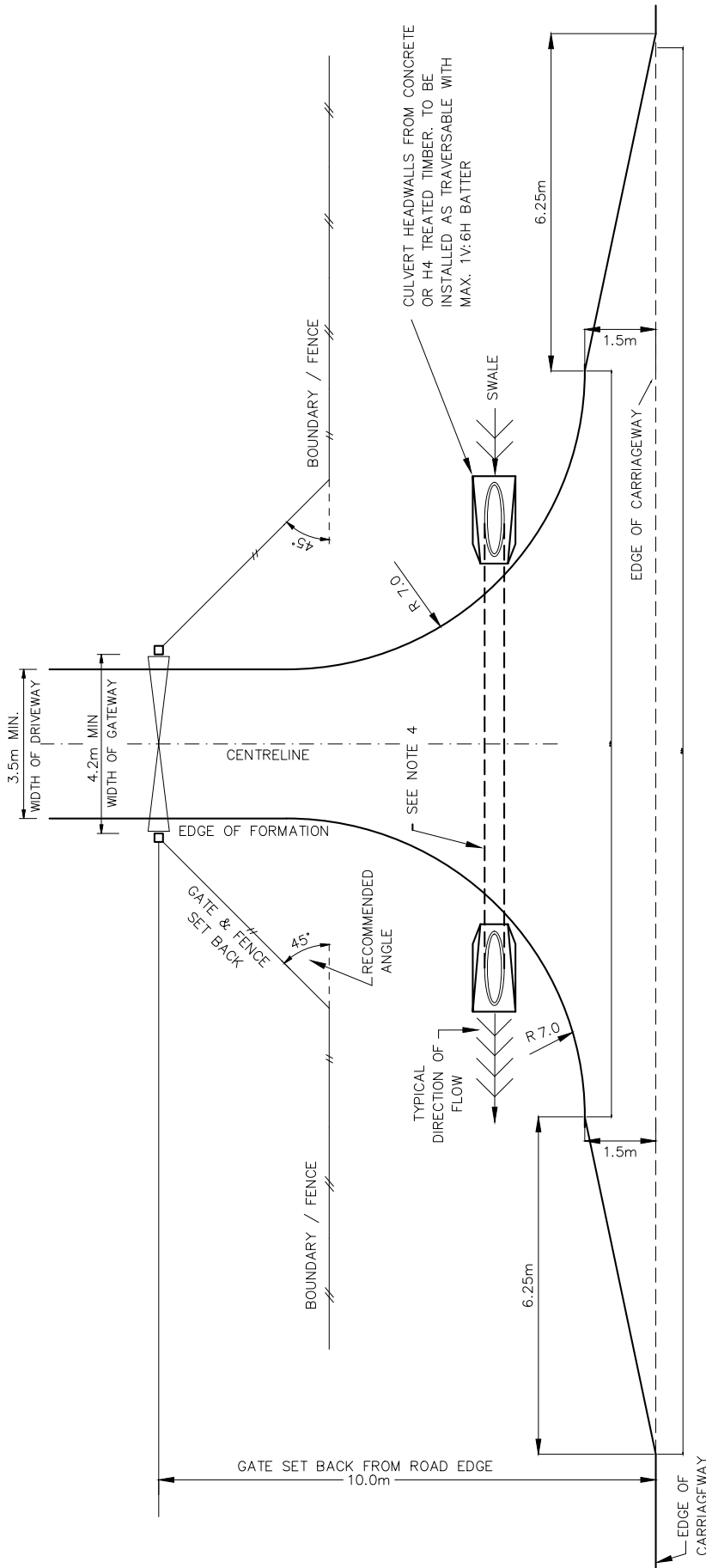
PLAN



CROSS SECTION B-B

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<p>WAIMAKARIRI DISTRICT COUNCIL PROJECT DELIVERY UNIT</p>	NOT TO SCALE	SHEET TITLE	PROJECT TITLE	SHEET	
	DRAFT	TYPICAL COMMERCIAL HOT MIX VEHICLE CROSSING (DISH CHANNEL)	STANDARD DRAWINGS	212C	
				ISSUE E	PLAN No. 600



NOTES

- IF VEHICLE CROSSING INTERSECTS A SHARED-USE PATH, OFF-ROAD CYCLEWAY, OR ON-ROAD CYCLE LANE, THEN CONSULT COUNCIL PRIOR TO USING THIS PLAN
- IF EXISTING SWALE IS WITHIN 2 METRES OF THE EDGE OF CARRIAGEWAY, REDIRECT SWALE AND LOCATE CULVERT AS CLOSE TO PROPERTY BOUNDARY AS IS PRACTICABLE.
- CLAY STABILISED METALCOURSE WILL NOT BE APPROVED IN THE ROAD RESERVE.
- DRAINAGE REQUIREMENTS TO BE DISCUSSED WITH COUNCIL. SOAK PITS TO BE AS PER SD390. WHERE REQUIRED, A CULVERT OR BRIDGE MUST BE SIZED BY A SUITABLY QUALIFIED ENGINEER AND APPROVED BY COUNCIL. CULVERTS TO BE 300mm MINIMUM.

MINIMUM FORMATION STANDARDS

The formation shall extend down to a suitable subgrade which shall be free of organic material. As a minimum requirement, the formation shall comprise of a 150 mm compacted layer of screened river run sub base (AP65) overlaid with a 100 mm compacted layer of crushed base course (AP40).

The top surfacing course shall be applied as follows:

- Where the adjacent road formation is sealed, the entrance formation shall be overlaid for a distance of 10m back from carriageway with a two coat Grade 3/5 chip seal including bitumen binder sprayed at a rate of 1.8 litres / square metre.
- Where the adjacent road formation is metalled, the new entrance formation shall be overlaid with AP20 running course.



NOT TO SCALE
DRAFT

SHEET TITLE
TYPICAL RURAL ZONE ENTRANCEWAY

PROJECT TITLE
STANDARD DRAWINGS

SHEET
217
ISSUE F PLAN No. 600

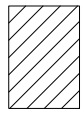
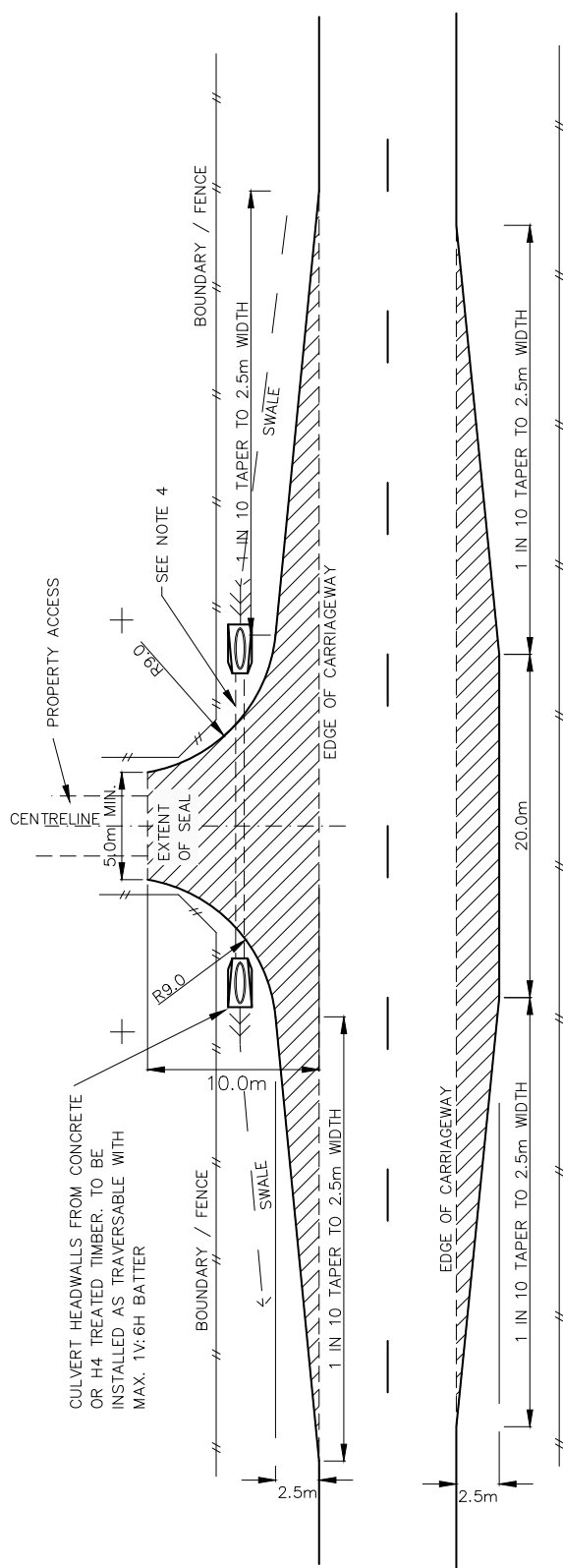


NOT TO SCALE
DRAFT

SHEET TITLE
TYPICAL RURAL
ZONE COMMERCIAL
ACCESS

PROJECT TITLE
STANDARD
DRAWINGS

SHEET
218
ISSUE
G
PLAN No.
600



SEAL WIDENING, SHOULDER RECONSTRUCTION
(& WHERE ROAD CARRIAGEWAY IS SEALED,
SEALING)

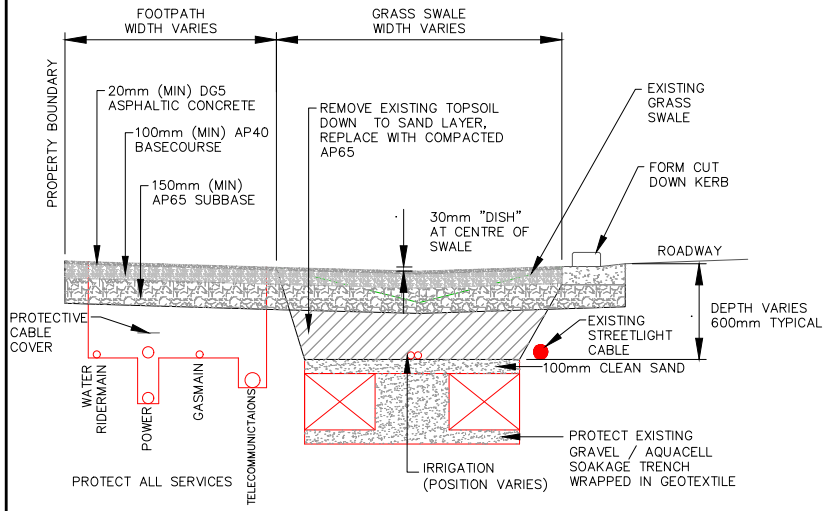
MINIMUM FORMATION STANDARDS
The formation shall extend down to a suitable subgrade which shall be free of organic material. As a minimum requirement, the formation shall comprise of a 150 mm compacted layer of screened river run sub base (AP65) overlaid with a 100 millimeter compacted layer of crushed base course (AP40). The top course shall be applied as follows:

(a) Where the adjacent road formation is sealed, the entrance formation shall be overlaid with a two coat Grade 3/5 chip seal including bitumen binder sprayed at a rate of 1.8 litres / square metre.

(b) Where the adjacent road formation is unsealed, the new entrance formation shall be overlaid with AP20 running course.

NOTES

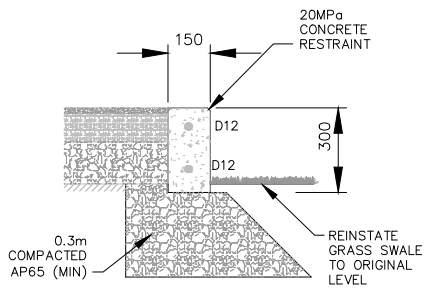
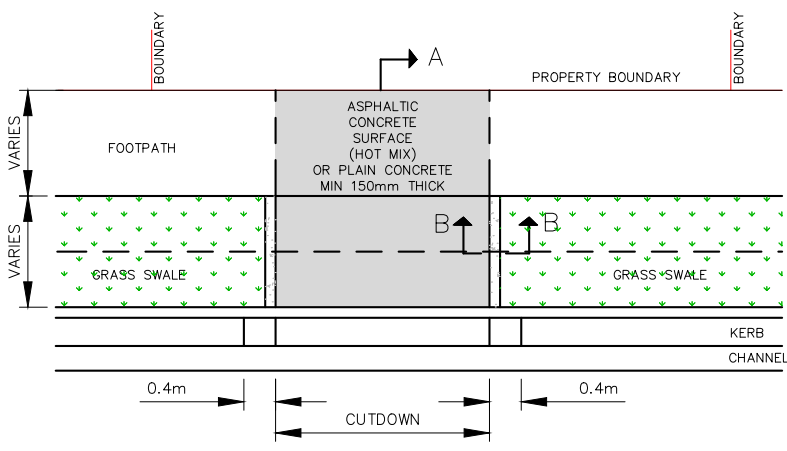
1. IF VEHICLE CROSSING INTERSECTS A SHARED-USE PATH, OFF-ROAD CYCLEWAY, OR ON-ROAD CYCLE LANE, THEN CONSULT COUNCIL PRIOR TO USING THIS PLAN
2. IF EXISTING SWALE IS WITHIN 2 METRES OF THE EDGE OF CARRIAGEWAY, REDIRECT SWALE AND LOCATE CULVERT AS CLOSE TO PROPERTY BOUNDARY AS IS PRACTICABLE.
3. CLAY STABILISED METALCOURSE WILL NOT BE APPROVED IN THE ROAD RESERVE.
4. DRAINAGE REQUIREMENTS TO BE DISCUSSED WITH COUNCIL. SOAK PITS TO BE AS PER SD390. WHERE REQUIRED, A CULVERT OR BRIDGE MUST BE SIZED BY A SUITABLY QUALIFIED ENGINEER AND APPROVED BY COUNCIL. CULVERTS TO BE 300mm MINIMUM.



CROSS SECTION A-A

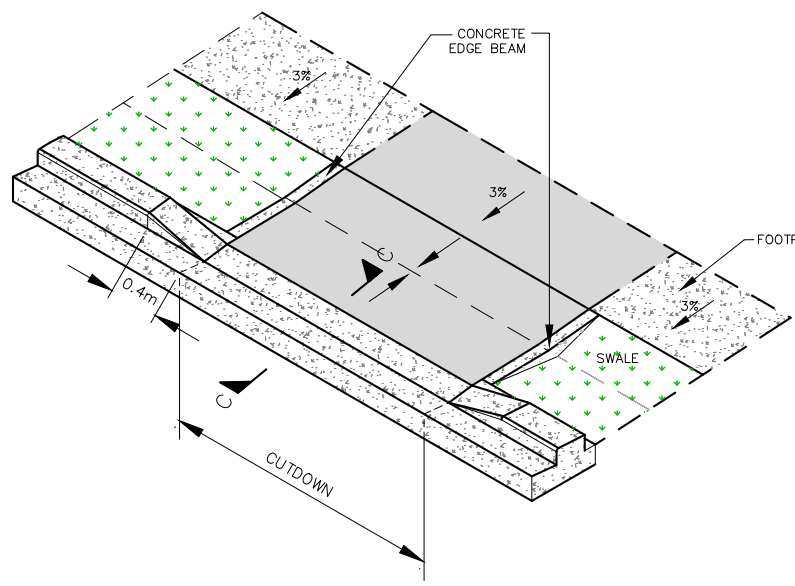
NOTES

1. CLAY STABILISED BASECOURSE WILL NOT BE PERMITTED WITHIN THE ROAD RESERVE.
2. FOR TEMPORARY BUILDERS CROSSING CONCRETE BEAM OR A TIMBER BATTEN TO BE INSTALLED BEFORE ANY VEHICLES ENTER SITE.
3. FOOTPATH PAVEMENT MATERIAL SHALL BE CONTINUOUS ACROSS DRIVEWAY TO CONVEY PRIORITY TO PATH USERS.
4. IF VEHICLE CROSSING INTERSECTS A SHARED-USE PATH, OFF-ROAD CYCLEWAY, OR ON-ROAD CYCLE LANE, CONSULT COUNCIL PRIOR TO USING THIS PLAN.
5. COUNCIL APPROVAL IS REQUIRED IF THIS DRAWING IS TO BE USED FOR A COMMERCIAL CROSSING.
6. PROTECT EXISTING UNDERGROUND AQUACELLS WHERE PRESENT.

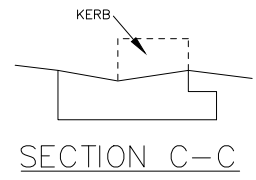


CROSS SECTION B-B
CONCRETE EDGE BEAM

PLAN



WIDTH OF CUTDOWN
4.0m MINIMUM
6.0m MAXIMUM



SECTION C-C

ISOMETRIC VIEW

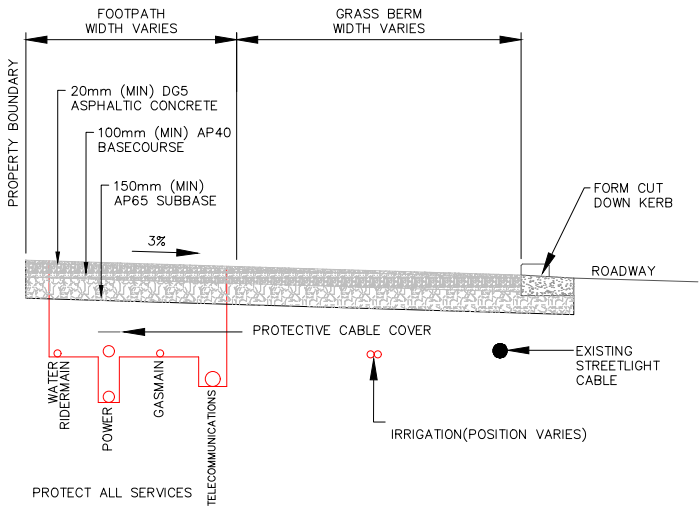
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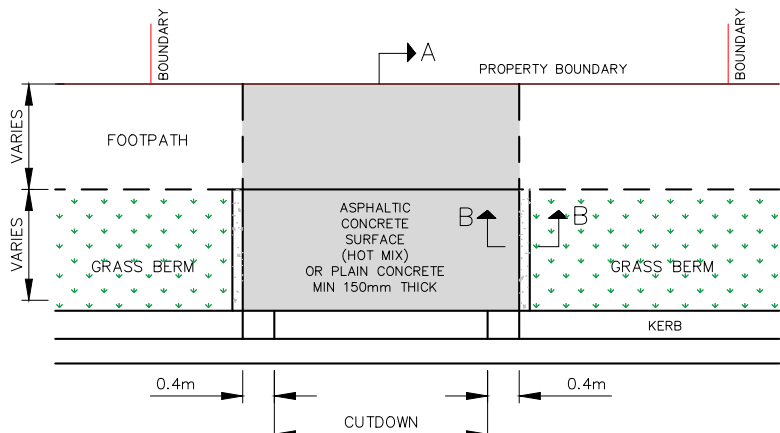
NOT TO SCALE	SHEET TITLE PEGASUS RE6 VEHICLE CROSSING (WITH SWALE)	PROJECT TITLE STANDARD DRAWINGS	SHEET 220A
DRAFT			ISSUE G
			PLAN No. 600

NOTES

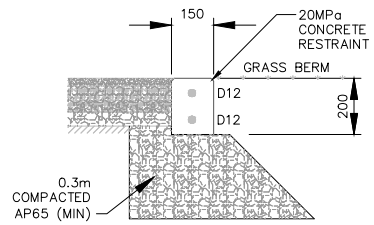
1. CLAY STABILISED BASECOURSE WILL NOT BE PERMITTED WITHIN THE ROAD RESERVE.
2. FOR TEMPORARY BUILDERS CROSSING CONCRETE BEAM OR A TIMBER BATTEN TO BE INSTALLED BEFORE ANY VEHICLES ENTER SITE.
3. FOOTPATH PAVEMENT MATERIAL SHALL BE CONTINUOUS ACROSS DRIVEWAY TO CONVEY PRIORITY TO PATH USERS.
4. IF VEHICLE CROSSING INTERSECTS A SHARED-USE PATH, OFF-ROAD CYCLEWAY, OR ON-ROAD CYCLE LANE, CONSULT COUNCIL PRIOR TO USING THIS PLAN.
5. COUNCIL APPROVAL IS REQUIRED IF THIS DRAWING IS TO BE USED FOR A COMMERCIAL CROSSING.



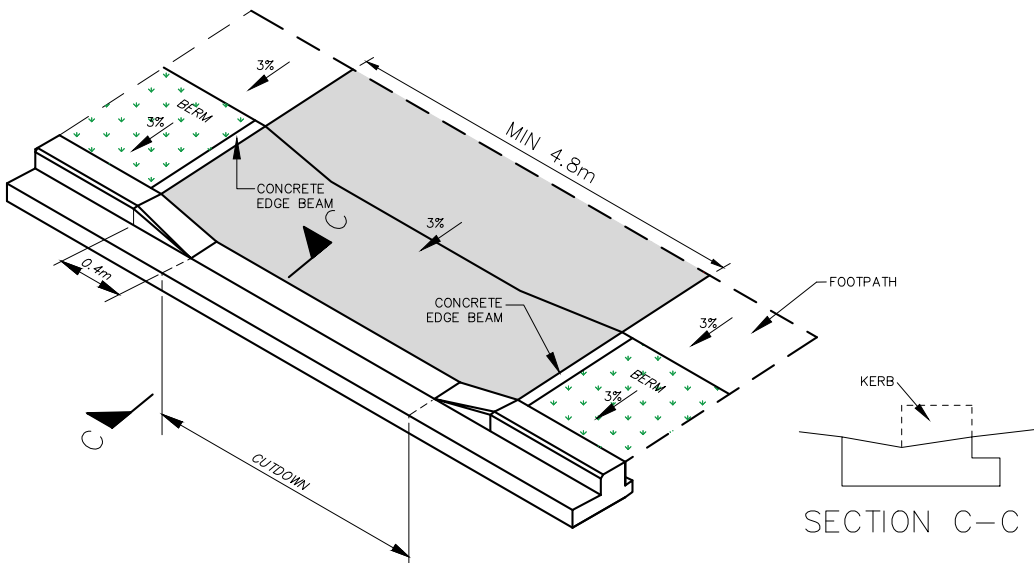
CROSS SECTION A-A



PLAN



**CROSS SECTION B-B
CONCRETE EDGE BEAM**



ISOMETRIC VIEW

WIDTH OF CUTDOWN
4.0m MINIMUM
6.0m MAXIMUM

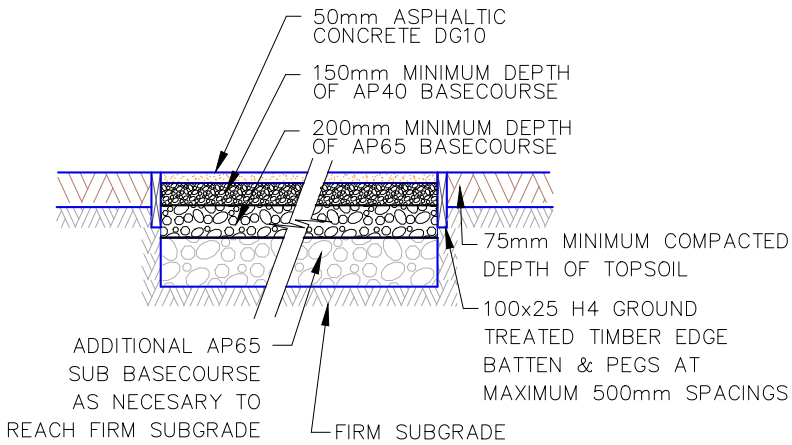
Cadastral data Supplied from LINZ's DCDB circa 1999 - Maintained by WDC thereafter. Crown Copyright reserved.



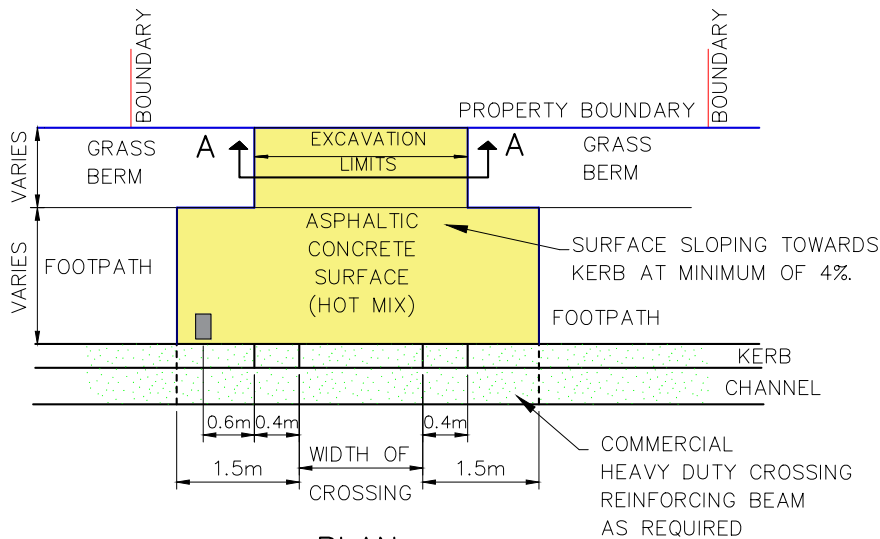
NOT TO SCALE	SHEET TITLE	PROJECT TITLE	SHEET	
DRAFT	PEGASUS RES6 VEHICLE CROSSING (WITHOUT SWALE)	STANDARD DRAWINGS	220B	
			ISSUE G	PLAN No. 600

NOTES

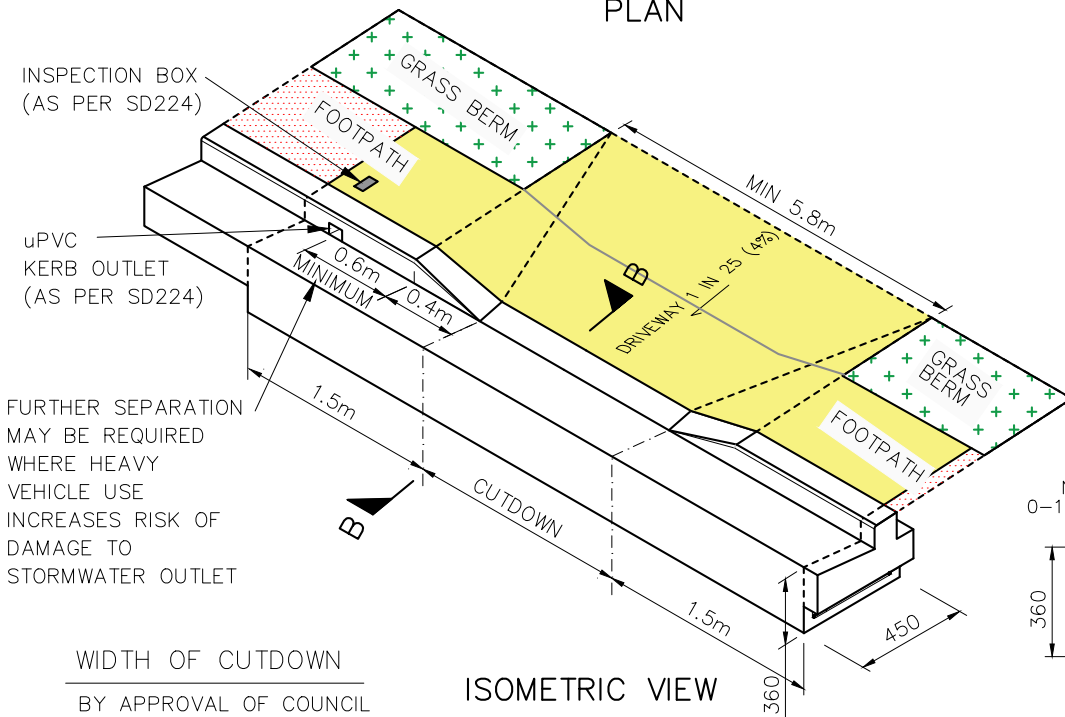
1. CLAY STABILISED BASECOURSE WILL NOT BE PERMITTED WITHIN THE ROAD RESERVE.
2. FOOTPATH PAVEMENT MATERIAL SHALL BE CONTINUOUS ACROSS DRIVEWAY TO CONVEY PRIORITY TO PATH USERS.
3. IF VEHICLE CROSSING INTERSECTS A SHARED-USE PATH, OFF-ROAD CYCLEWAY, OR ON-ROAD CYCLE LANE, CONSULT COUNCIL PRIOR TO USING THIS PLAN.
4. BATTEN PEGS TO BE INSTALLED ONLY INTO UNDISTURBED GROUND OR COMPACTED MATERIAL.



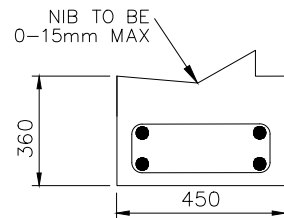
CROSS SECTION A-A



PLAN



ISOMETRIC VIEW

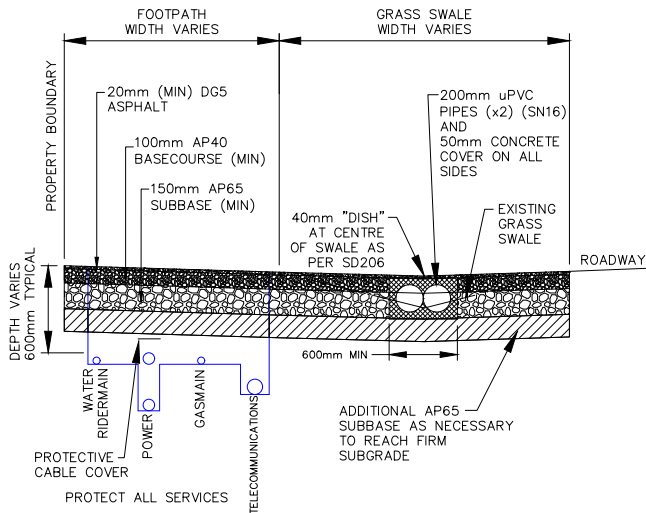


SECTION B-B

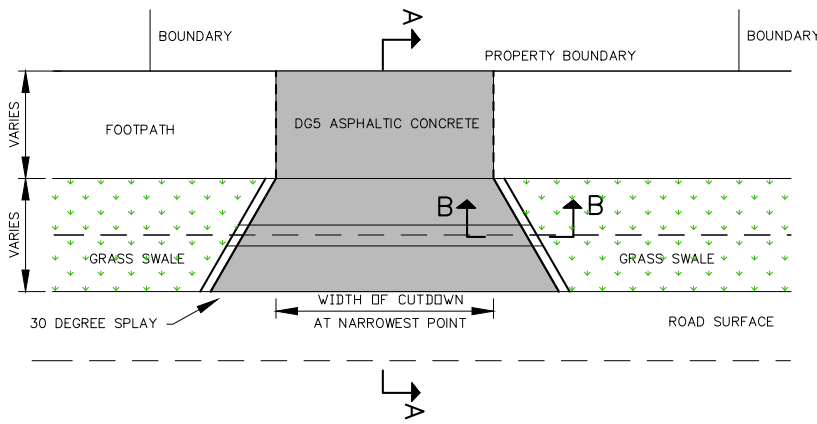
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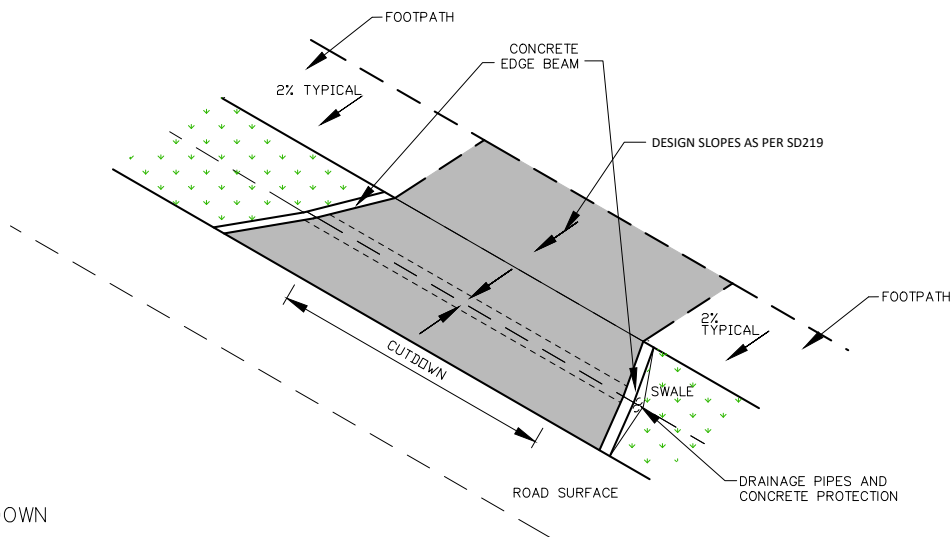
NOT TO SCALE	SHEET TITLE	PROJECT TITLE	SHEET	
DRAFT	PEGASUS COMMERCIAL HOT MIX VEHICLE CROSSING (FLAT CHANNEL)	STANDARD DRAWINGS	220C	
			ISSUE C	PLAN No. 600



CROSS SECTION A-A



PLAN



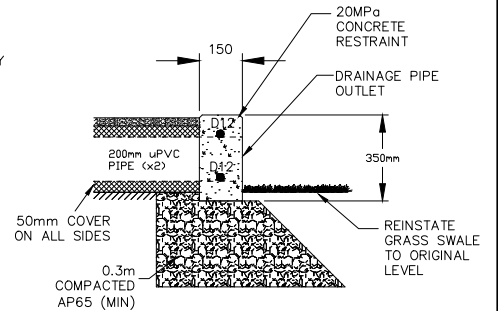
WIDTH OF CUTDOWN

- 4.0m MINIMUM
- 6.0m MAXIMUM

ISOMETRIC VIEW

NOTES

1. CLAY STABILISED BASECOURSE WILL NOT BE PERMITTED WITHIN THE ROAD RESERVE.
2. FOR TEMPORARY BUILDERS CROSSING CONCRETE BEAM OR A TIMBER BATTEN TO BE INSTALLED BEFORE ANY VEHICLES ENTER SITE.
3. FOOTPATH PAVEMENT MATERIAL SHALL BE CONTINUOUS ACROSS DRIVEWAY TO CONVEY PRIORITY TO PATH USERS.
4. IF VEHICLE CROSSING INTERSECTS A SHARED-USE PATH, OFF-ROAD CYCLEWAY, OR ON-ROAD CYCLE LANE, CONSULT COUNCIL PRIOR TO USING THIS PLAN.
5. COUNCIL APPROVAL IS REQUIRED IF THIS DRAWING IS TO BE USED FOR A COMMERCIAL CROSSING.



CROSS SECTION B-B
CONCRETE EDGE BEAM

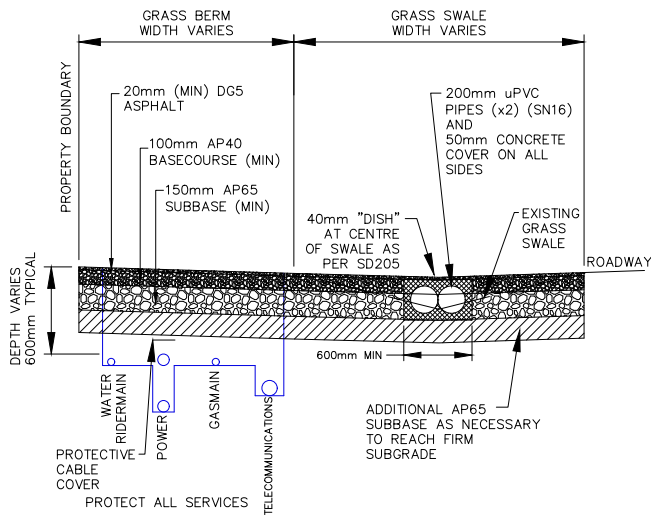
Cadastral data from LINZ's DCDB. Crown Copyright reserved.



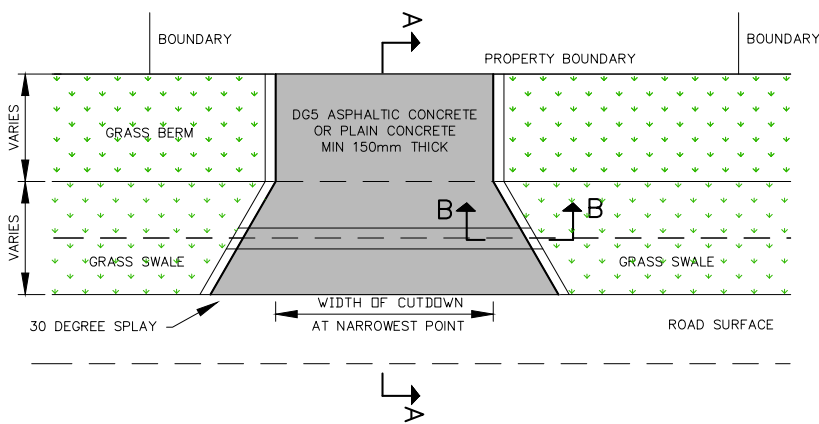
NOT TO SCALE	SHEET TITLE	PROJECT TITLE	SHEET	
			221A	
DRAFT	MAPLEHAM VEHICLE CROSSING (WITH FOOTPATH)	STANDARD DRAWINGS	ISSUE B	PLAN No. 600

NOTES

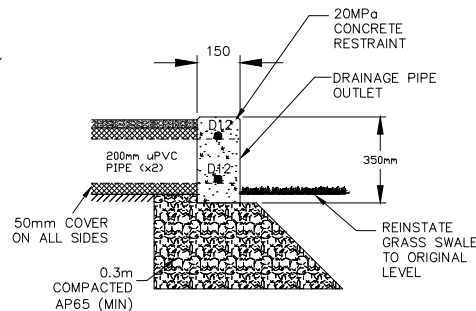
1. CLAY STABILISED BASECOURSE WILL NOT BE PERMITTED WITHIN THE ROAD RESERVE.
2. FOR TEMPORARY BUILDERS CROSSING CONCRETE BEAM OR A TIMBER BATTEN TO BE INSTALLED BEFORE ANY VEHICLES ENTER SITE.
3. COUNCIL APPROVAL IS REQUIRED IF THIS DRAWING IS TO BE USED FOR A COMMERCIAL CROSSING.



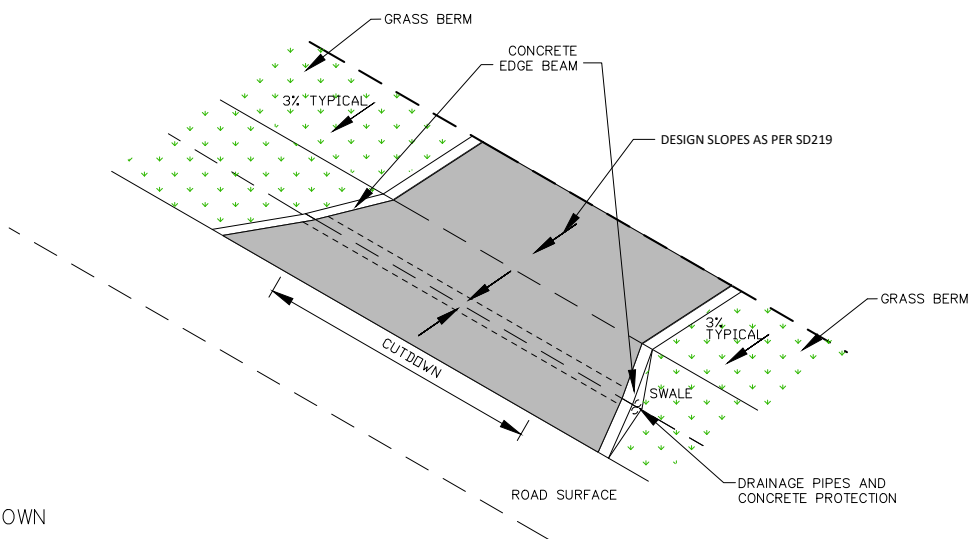
CROSS SECTION A-A



PLAN



CROSS SECTION B-B
CONCRETE EDGE BEAM



WIDTH OF CUTDOWN

- 4.0m MINIMUM
- 6.0m MAXIMUM

ISOMETRIC VIEW

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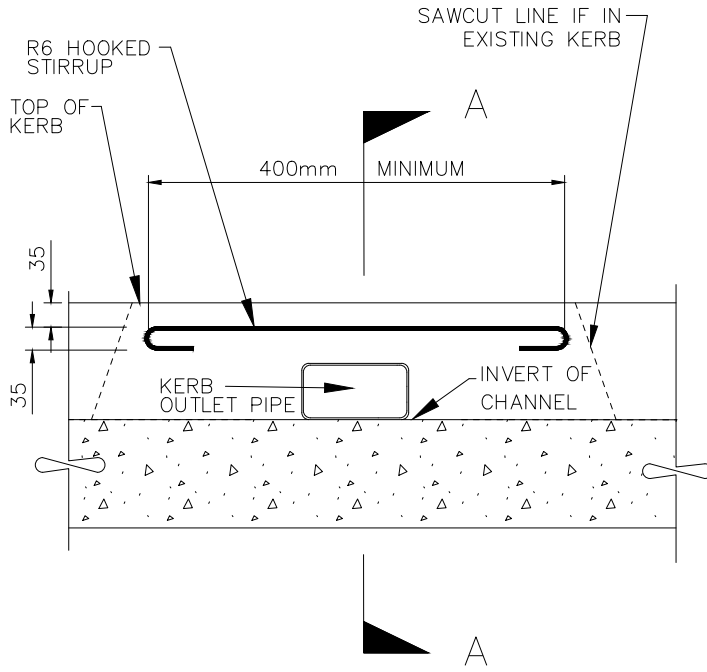


NOT TO SCALE	SHEET TITLE
DRAFT	MAPLEHAM VEHICLE CROSSING (WITHOUT FOOTPATH)

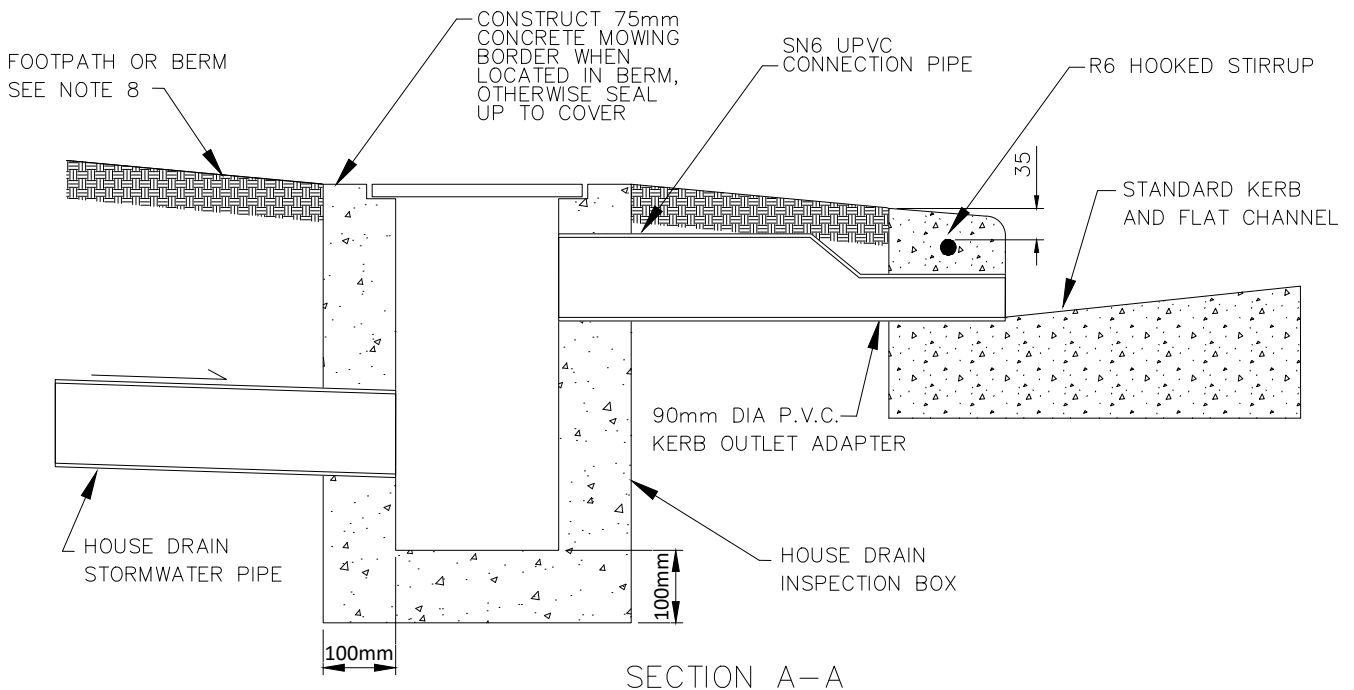
PROJECT TITLE	SHEET
STANDARD DRAWINGS	221B
ISSUE C	PLAN No. 600

NOTES

1. KERB OUTLETS SHALL NOT BE CLOSER THAN 1.0 METRE TO A KERB CUTDOWN.
2. KERB OUTLETS SHALL BE INSTALLED AT THE TIME OF POURING KERB AND CHANNEL WHENEVER POSSIBLE.
3. INVERT OF KERB OUTLET TO BE FLUSH WITH CHANNEL INVERT.
4. ALL CONCRETE TO BE 20MP_a AT 28 DAYS.
5. ALL STORMWATER PIPING TO COMPLY WITH CCC:CSS PART 3.
6. INSPECTION BOX SIZES:
225x125 BOX FOR UP TO 450mm DEPTH (INVERT OF LOWEST PIPE)
300x175 BOX FOR OVER 450mm DEPTH (INVERT OF LOWEST PIPE).
7. INSPECTION BOX TO BE SITED AS CLOSE TO KERB AND CHANNEL AS POSSIBLE. FINAL POSITION TO BE CONFIRMED ON SITE BY COUNCIL ENGINEER.
8. 50mm COVER MINIMUM BETWEEN INSPECTION BOX AND KERB; IF THIS CANNOT BE ACHIEVED, FLIP ADAPTER OVER.



FRONT ELEVATION



SECTION A-A

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NOT TO SCALE

SHEET TITLE

KERB OUTLET

PROJECT TITLE

STANDARD DRAWINGS

SHEET

224

ISSUE E

PLAN No. 600



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