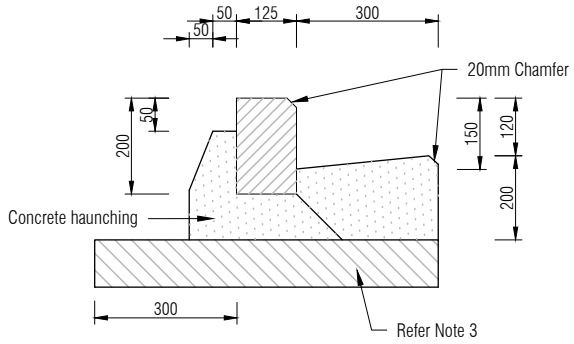
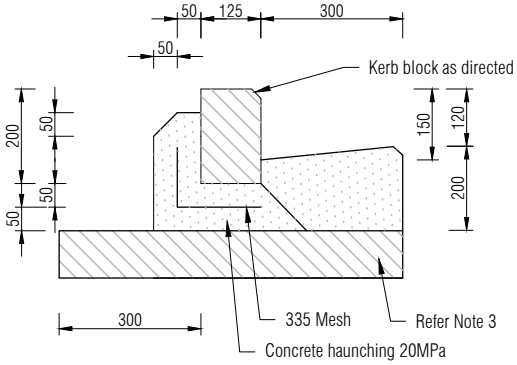
Kerb Design drawing index

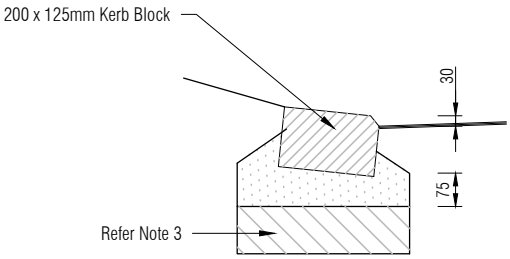
SED_NO	SED_Version	Title	Last Published	Comments
KC0000	D	Kerb design Index	29/07/2022	Minor changes
KC0001	B	Kerb and channel - Type 1 - 2	29/07/2022	No changes
KC0002	B	Kerb and channel - Type 3 - 8	29/07/2022	No changes
KC0003	B	Kerb and channel - Type 9 - 15	29/07/2022	No changes
KC0004	D	V-Dish Channel - Type 16 to 18	29/07/2022	Minor changes
KC0005	D	Round Dish Channel - Type 19 & 21	29/07/2022	Minor changes
KC0006	D	Kerb & channel replacement detail	29/07/2022	No changes
KC0007	D	Kerb & Channel replacement with Subsoil	29/07/2022	No changes
KC0030	D	Kassel Kerb and Channel Transition (Sheet 1 of 2)	29/07/2022	No changes
KC0031	C	Kassel Kerb and Channel Transition (Sheet 2 of 2)	29/07/2022	Minor changes



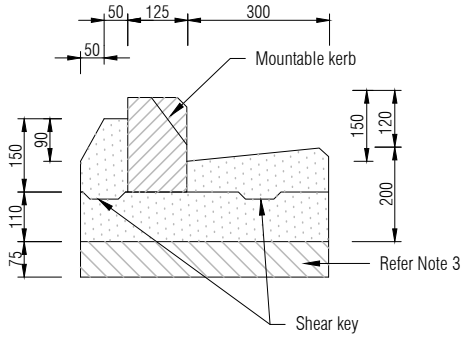
TYPE 1 STANDARD KERB AND CHANNEL



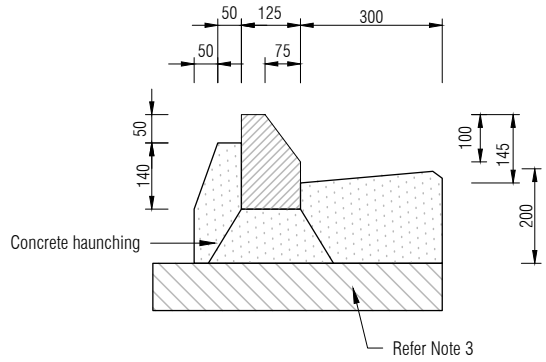
TYPE 1A KERB WITH REINFORCED HAUNCHING DETAIL



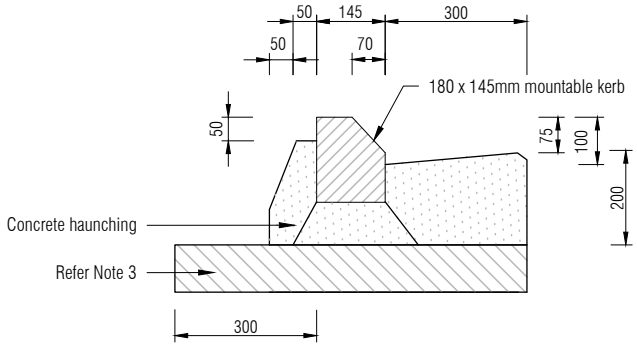
TYPE 1C ON SIDE VEHICLE CROSSING



TYPE 1S AND 2S WITH SHEAR KEY WHERE HIGH LATERAL LOADS ARE EXPECTED



TYPE 2A MOUNTABLE KERB AND CHANNEL



TYPE 2B MOUNTABLE KERB AND CHANNEL

NOTES:

1. Concrete grades:
2. Precast kerb blocks: 20MPa. In-situ channel and haunching 20MPa. 25 MPa fibre reinforced concrete for slip-form.
3. Bedding:
   Kerbing must be laid on 300mm (min.) GAP65 subbase in roads and 100mm GAP40 in footpaths (where subgrade CBR>5). If the subgrade CBR<5 then roads and footpaths must be undercut and backfilled with an approved filling material.
4. Jointing:
   Precast kerbs to be neatly pointed with 10mm (min.) cement mortar. Extruded kerbs cracking control joints formed or saw cut to a minimum depth of 30mm at max. 3.0m intervals. If footpath is adjacent to kerb the saw cuts must coincide with the concrete footpath joints. Joints between bluestone kerb blocks must be approximately 20mm wide (measured at the top and front faces) with neat square jointing 2 to 4mm proud. Crack control joints must be located either side of vehicle crossings.
5. Basalt kerb blocks must not extend across vehicle or pram crossing.
6. All chamfers to be 20mm.
7. Selection and use of kerb and channel types must comply with standards in the Transport Design Manual or Auckland Code of Practice for Land Development and Subdivision – Chapter 3: Transport

CHIEF APPROVED ENGINEER

TDM TECHNICAL STANDARDS

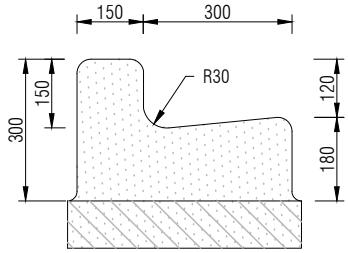
Kerb and channel - Type 1 - 2

Date: 15/11/2024

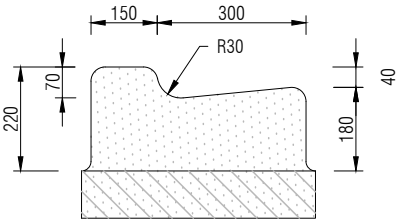
SED No. KC0001

Version B

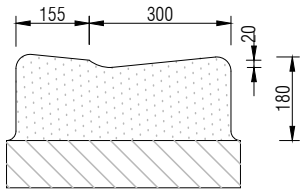
KC0002



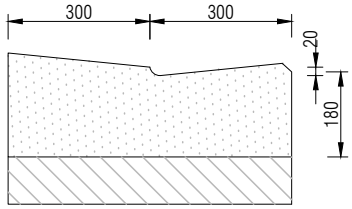
TYPE 3 EXTRUDED STANDARD KERB AND CHANNEL



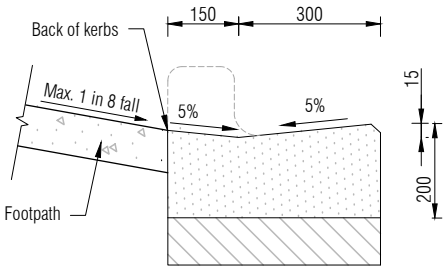
TYPE 3 EXTRUDED STANDARD KERB AND CHANNEL (OPTIONAL)



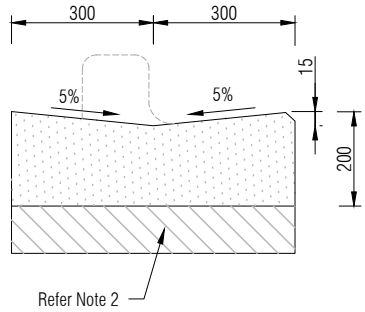
TYPE 4 EXTRUDED VEHICLE CROSSING



TYPE 4 IN-SITU VEHICLE CROSSING



TYPE 5 EXTRUDED PRAM CROSSING



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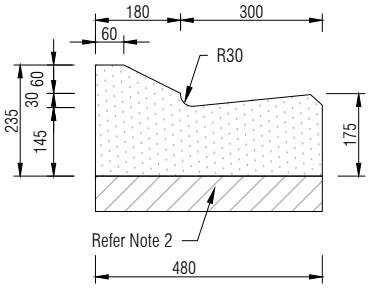
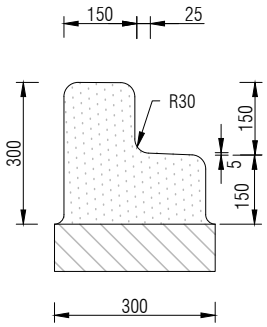
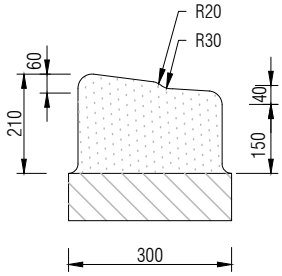


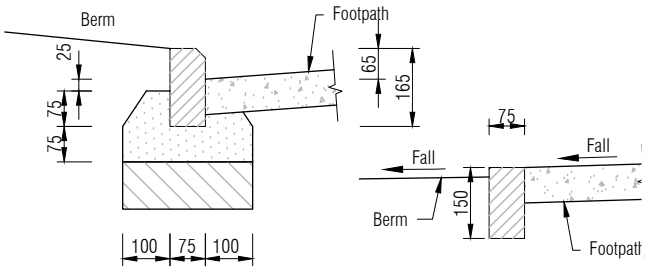
TYPE 6 EXTRUDED MOUNTABLE KERB AND CHANNEL



TYPE 7 EXTRUDED STANDARD KERB ONLY



TYPE 7C EXTRUDED KERB ONLY AT VEHICLE CROSSING



TYPE 8 BASALT OR PRE-CAST KERB EDGING (75x150mm)

NOTES :

1. Jointing:
   Precast kerb neatly pointed with 10mm min. cement mortar. Extruded kerbs cracking control joints formed or saw cut to a minimum depth of 30mm at max. 3.00m. intervals to coincide with concrete footpath joints (where the kerb is adjacent to the footpath). Crack control joints between bluestone kerb blocks shall be approximately 20mm wide (measured at the top and front faces) with neat square jointing 2 to 4 mm proud. Joints must located either side of vehicle crossings.
2. Bedding:
   Kerbing must be laid on 300mm. min. GAP65 subbase in roads and 100mm GAP40 in footpaths (where subgrade CBR>5). If the subgrade CBR<5 then roads and footpaths must be undercut and backfilled with appropriate backfill material.
3. Concrete Grades:
   Precast kerb blocks 20 MPa. In-Situ channel and haunching 20 MPa. Extruded concrete 25 MPa fibre reinforced.
4. All chamfers 20mm
5. Selection and use of kerb and channel types must comply with standards in the Transport Design Manual or Auckland Code of Practice for Land Development and Subdivision – Chapter 3: Transport

CHIEF ENGINEER APPROVED

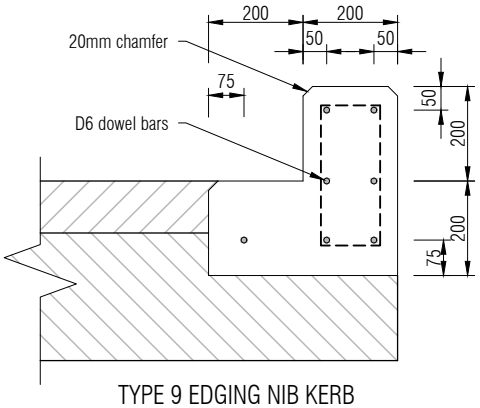
TDM TECHNICAL STANDARDS

Kerb and channel - Type 3 - 8

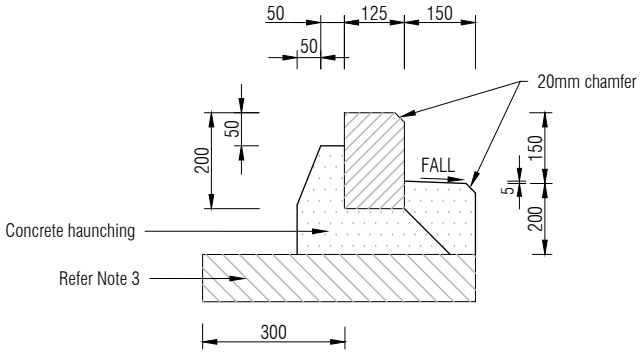
Date: 15/11/2024

SED No. KC0002

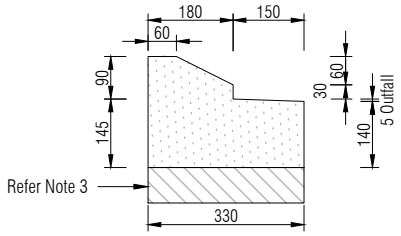
Version B



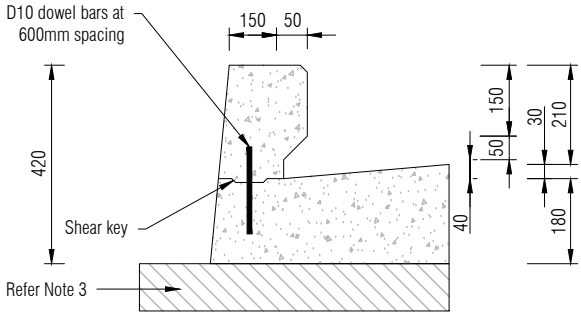
TYPE 9 EDGING NIB KERB



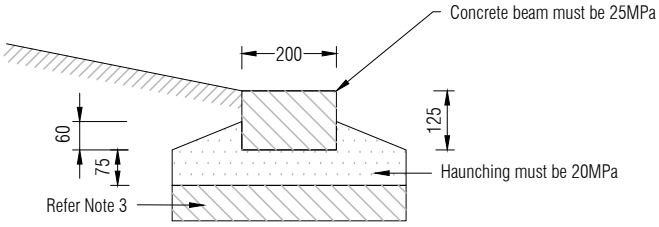
TYPE 10 KERB AND STUB



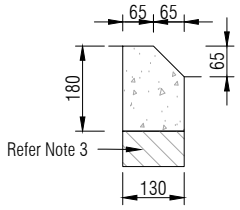
TYPE 11 MOUNTABLE NIB KERB



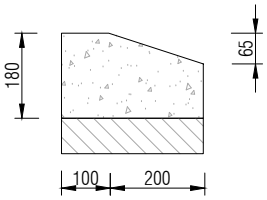
TYPE 12 RAISED NON-MOUNTABLE SAFETY KERB AND CHANNEL NIB



TYPE 13 FLAT EDGE BEAMS



TYPE 14 EXTRUDED CYCLE PATH BEVEL KERB



TYPE 15 EXTRUDED CYCLE MOUNTABLE KERB

NOTES:

1. Concrete grades:
2. Precast kerb blocks 20MPa. In-Situ channel and haunching 20MPa. 25 MPa fibre reinforced concrete for slip-form.
3. Bedding:
   Kerbing must be laid on 300mm. min. GAP65 subbase in roads and 100mm GAP40 in footpaths (where subgrade CBR>5).
   If the subgrade CBR<5 then roads and footpaths must be undercut and backfilled with an approved filling material
4. Jointing:
   Precast and blue stone kerb to be neatly pointed with 10mm (min) cement mortar. No preshaped mortar products shall be used.
   Extruded kerbs cracking control joints formed or saw cut to aminimum depth of 30mm at max. 3.00m intervals. If footpath is adjacent to kerb the saw cuts must coincide with the concrete footpath joints. Joints between bluestone kerb blocks must be approximately 20mm wide (measured at the top and front faces) with neat square jointing 2 to 4 mm proud. Crack control joints must located either side of vehicle crossings.
5. Basalt kerb blocks must not extend across vehicle or pram crossings.
6. Selection and use of kerb and channel types must comply with standards in the Transport Design Manual or Auckland Code of Practice for Land Development and Subdivision – Chapter 3: Transport

CHIEF APPROVED ENGINEER

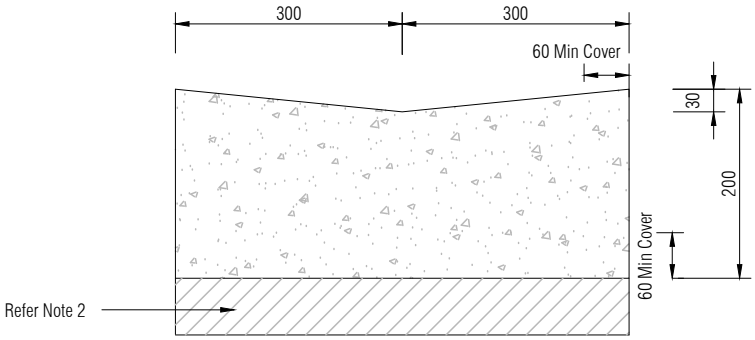
TDM TECHNICAL STANDARDS

Kerb and channel - Type 9 - 15

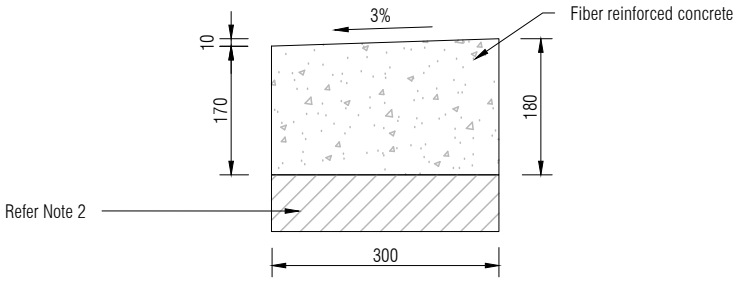
Date: 15/11/2024

SED No. KC0003

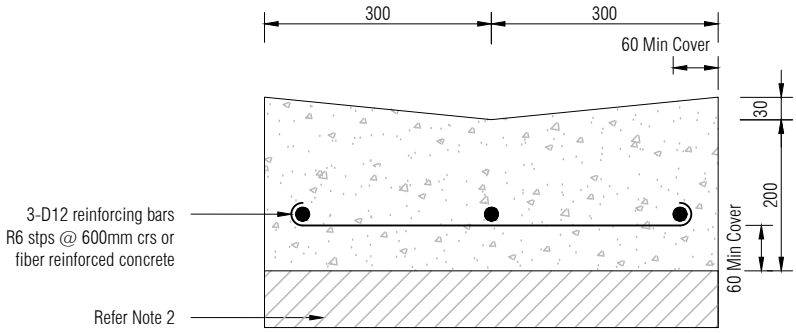
Version B



TYPE 17 V-DISH CHANNEL INSITU NOT UNDER TRAFFIC



TYPE 16 FLAT EDGE BEAM



TYPE 18 V-DISH CHANNEL UNDER TRAFFIC

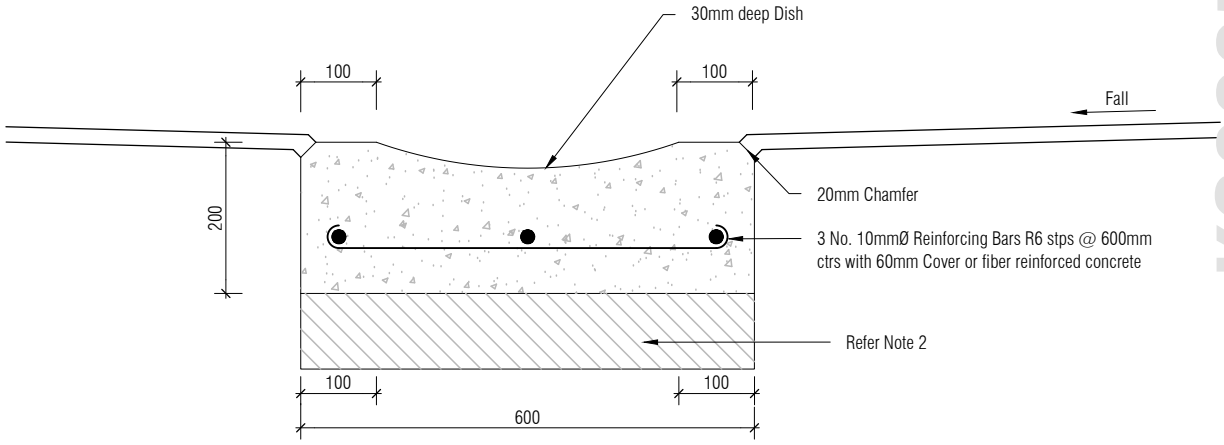
NOTES

1. Concrete Grades:
   - Insitu concrete 20MPa
   - Extruded concrete 20MPa, fiber reinforced
   - 25 MPa fibre reinforced concrete for slip-form.

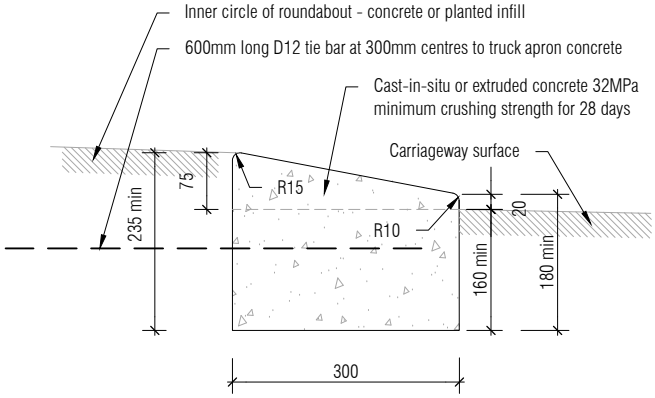
2. Bedding:
   To consist of 300mm (min) GAP65 subbase in roads (where CBR>5).

3. Jointing:
   Extruded channels cracking control joints formed or saw cut to a minimum depth of 30mm at max 3.00m intervals for unreinforced channels and 3.00m (max) for reinforced channels/nib. If there is a footpath adjacent to the channel/nib the sawcut must coincide with the concrete footpath joint.

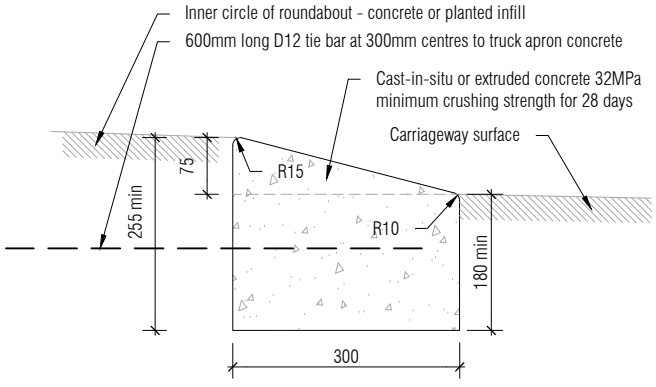
4. Selection and use of kerb and channel types must comply with standards in the Transport Design Manual or Auckland Code of Practice for Land Development and Subdivision – Chapter 3: Transport



TYPE 19 STANDARD CONCRETE ROUND DISH CHANNEL



TYPE 20 KERB PROFILE FOR TRAFFIC ISLANDS AND ROUNDABOUT FOR OVER - DIMENSION ROUTES



TYPE 21 EDGING TO OVER-RUN PAVEMENT

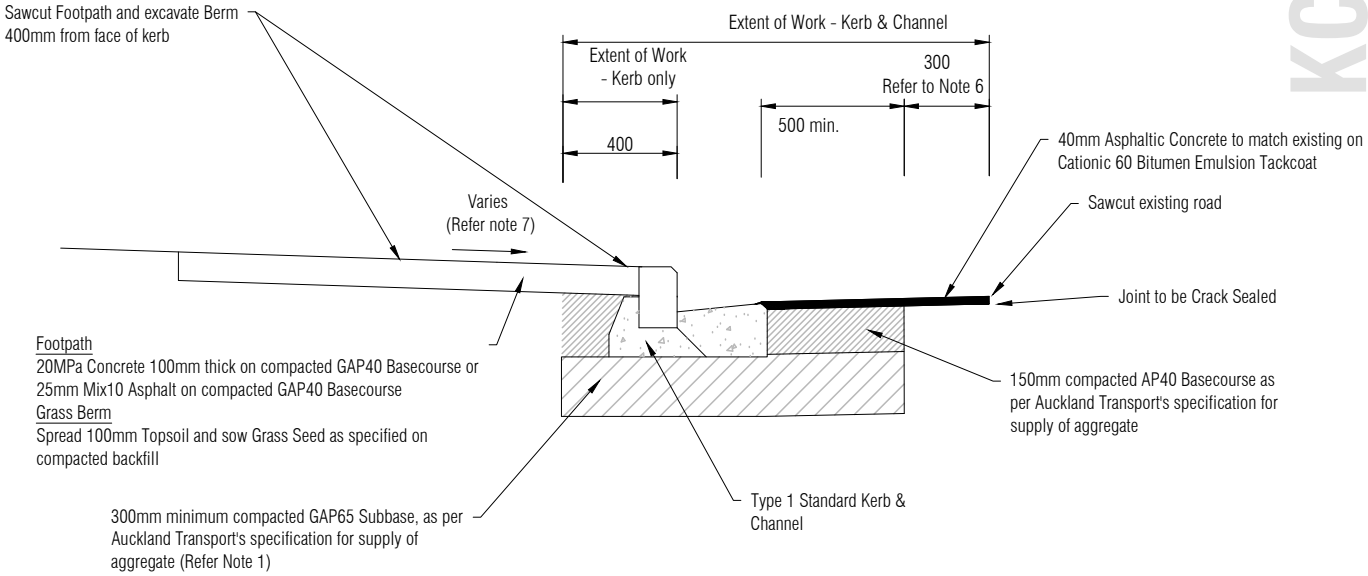
NOTES:

1. 25 MPa fibre reinforced concrete for slip-form.

2. Bedding:
   To consist of 300mm (min) GAP65 subbase in roads (where CBR>5).

3. Jointing:
   Extruded channels cracking control joints formed or saw cut to a minimum depth of 30mm at max 3.00m intervals for unreinforced channels and 3.00m (max) for reinforced channels/nib. If there is a footpath adjacent to the channel/nib the sawcut must coincide with the concrete footpath joint.

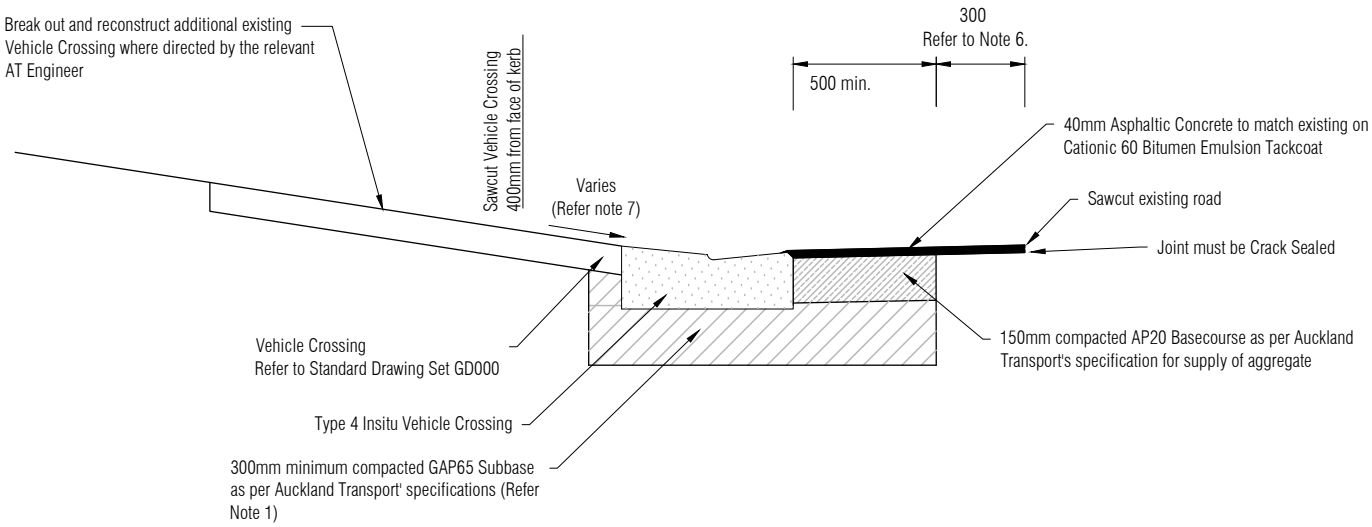
4. Selection and use of kerb and channel types must comply with standards in the Transport Design Manual or Auckland Code of Practice for Land Development and Subdivision – Chapter 3: Transport



TYPICAL SECTION FOR KERB & CHANNEL AND KERB ONLY REPLACEMENT

NOTES:

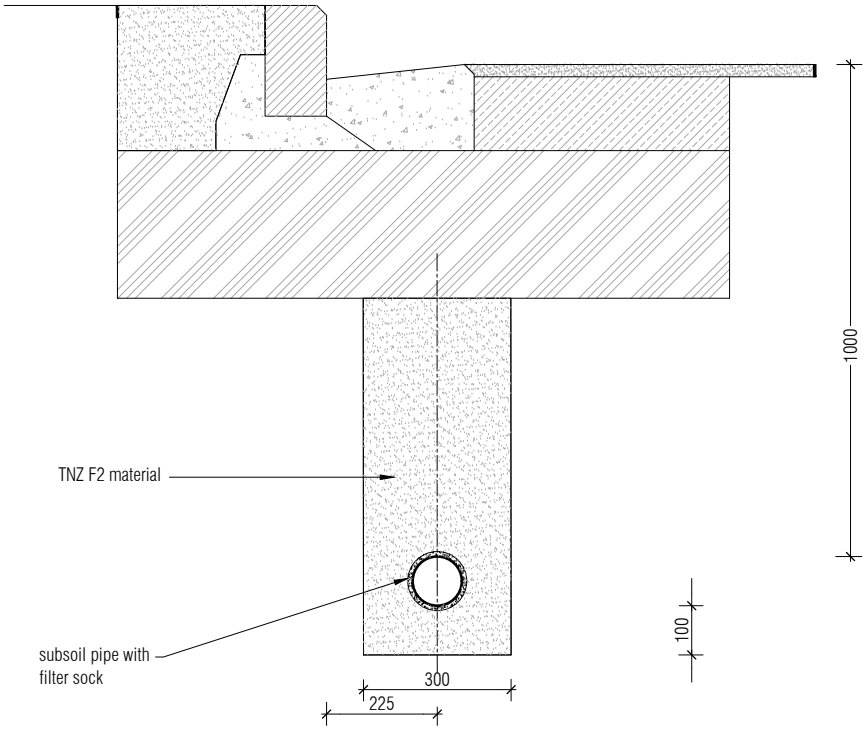
1. Increase depth to match adjacent Pavement depth where required.
2. Break out and reconstruct existing Kerb and Channel. Salvage Basalt Kerb Blocks.
3. For Type 1 Kerb and Channel refer Auckland Transport Standard Plan No. KC0001.
4. For Kerb only replacement some trimming of channel edge may be required and channel / kerb joint grouted to provide a water tight connection.
5. Footpaths to be constructed in accordance with Auckland Transport Standard Drawing Set FP0000.
6. Increase width where required to achieve positive fall to the channel.(+2% to +3% preferred)
7. Positive fall to the kerb and channel must be achieved unless otherwise approved by the relevant AT Engineer.
8. 25 MPa fibre reinforced concrete for slip-form.
9. Selection and use of kerb and channel types must comply with standards in the Transport Design Manual or Auckland Code of Practice for Land Development and Subdivision – Chapter 3: Transport



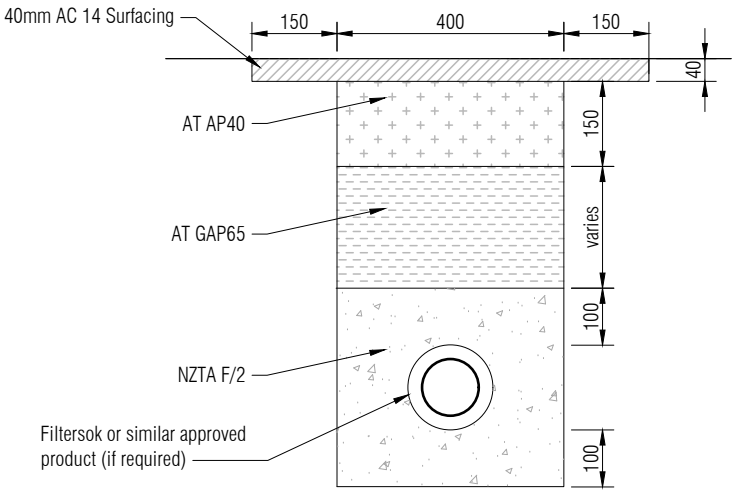
TYPICAL SECTION FOR VEHICLE CROSSING REPLACEMENT

NOTES:

1. For Type 4 Vehicle Crossing Channel details refer to Auckland Transport Standard Plan No. VX0000
2. 25 MPa fibre reinforced concrete for slip-form.
3. Selection and use of kerb and channel types must comply with standards in the Transport Design Manual or Auckland Code of Practice for Land Development and Subdivision – Chapter 3: Transport



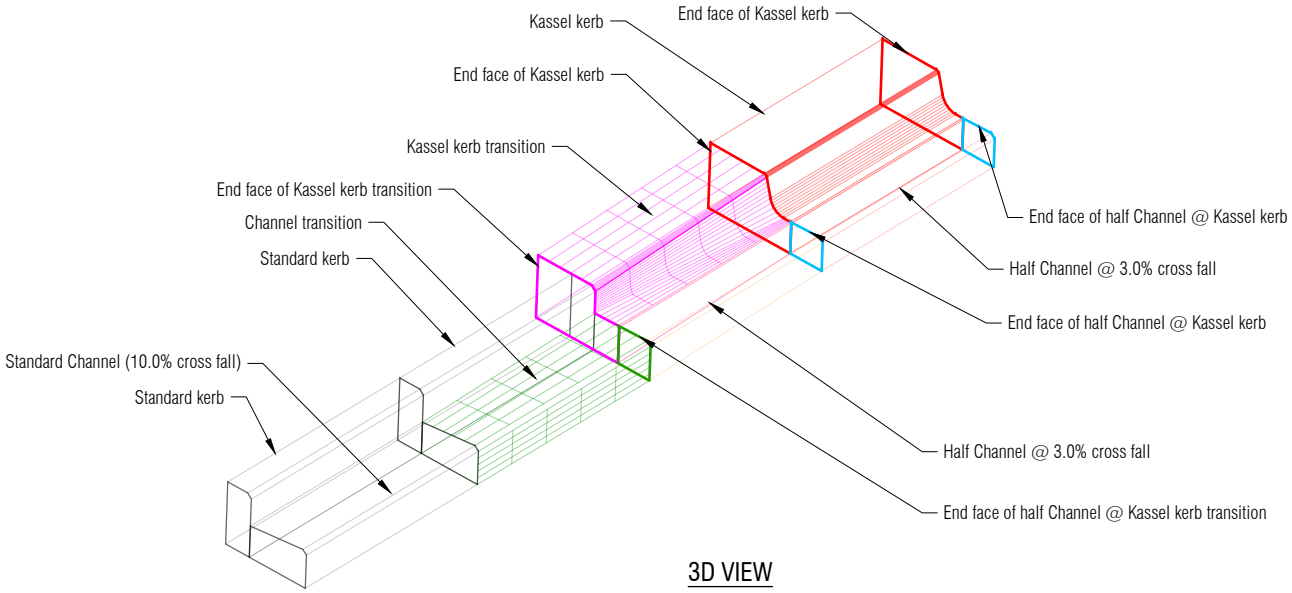
UNDER KERB AND CHANNEL



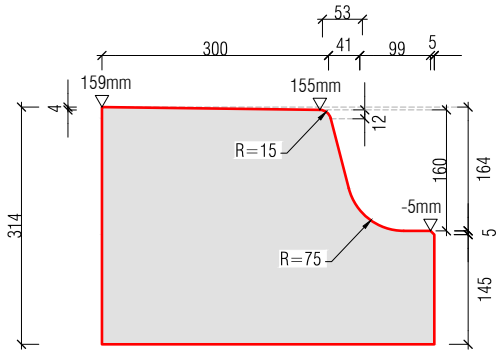
IN CARRIAGEWAY

NOTES:

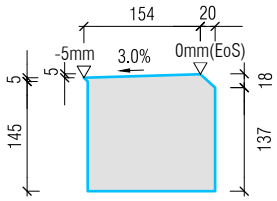
1. Kerb and channel installed as per KC0000
2. The subsoil drain is to connect to a downstream street catchpit above the soffit level of the outlet pipe. Subsoil depth can be adjusted to meet this criteria.
3. Increase depth to match adjacent pavement depth where required.
4. Increase width where required to achieve positive fall to the channel.
5. Positive fall to the kerb and channel must be achieved unless otherwise approved by the relevant AT Engineer.
6. 25 MPa fibre reinforced concrete for slip-form.
7. Selection and use of kerb and channel types must comply with standards in the Transport Design Manual or Auckland Code of Practice for Land Development and Subdivision – Chapter 3: Transport



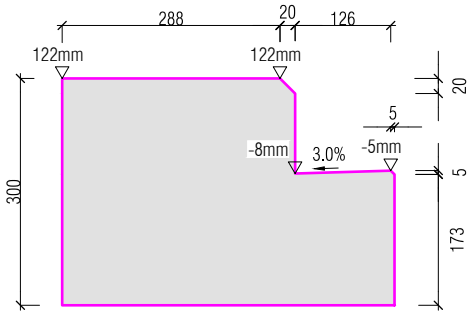
3D VIEW



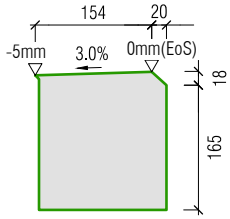
KASSEL KERB



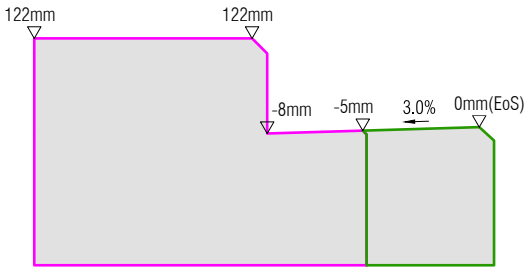
HALF CHANNEL @ KASSEL KERB



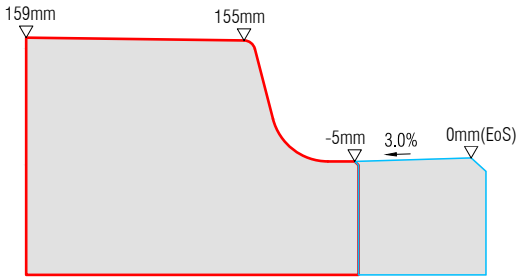
KASSEL KERB TRANSITION



HALF CHANNEL @ KASSEL KERB TRANSITION



KASSEL KERB TRANSITION AND HALF CHANNEL



KASSEL KERB AND HALF CHANNEL

NOTES

1. Selection and use of kerb and channel types must comply with standards in the Transport Design Manual or Auckland Code of Practice for Land Development and Subdivision – Chapter 3: Transport

CHIEF ENGINEER APPROVED

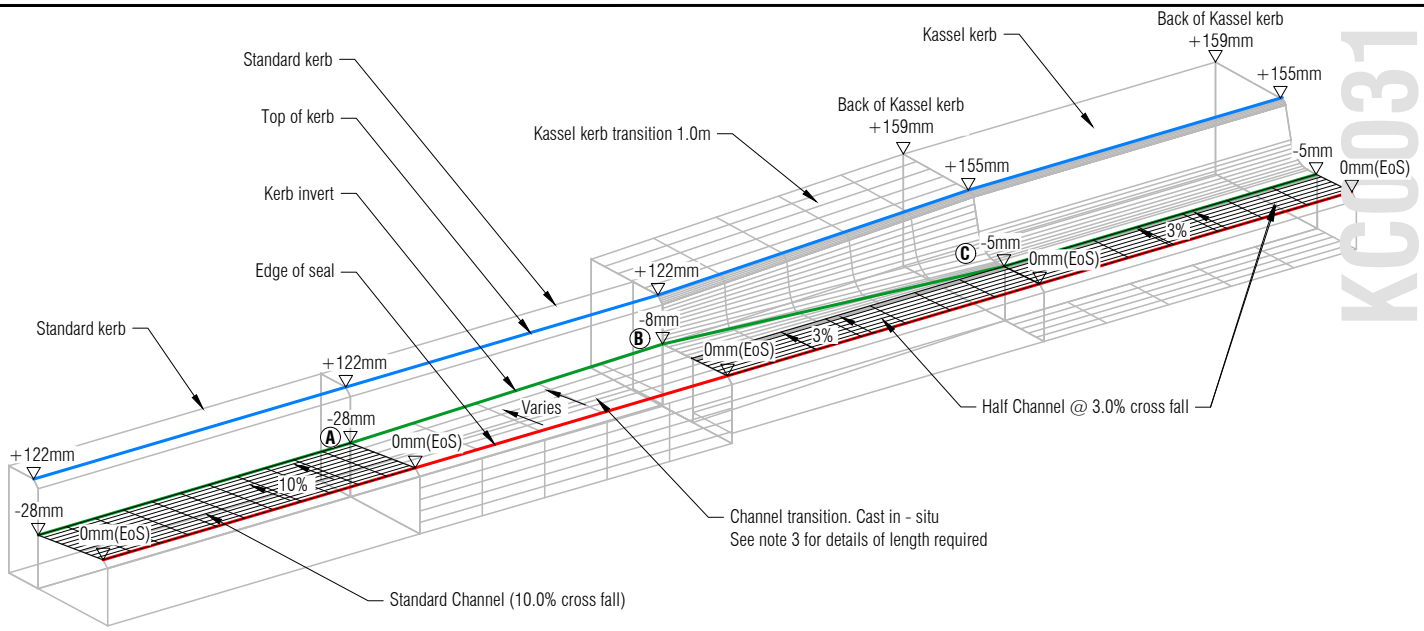
TDM TECHNICAL STANDARDS

Kassel Kerb and Channel (Sheet 1 of 2)

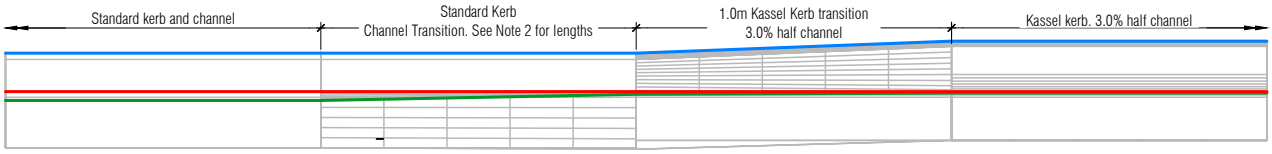
Date: 15/11/2024

SED No. KC0030

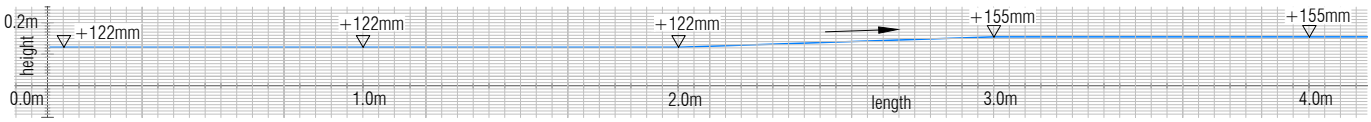
Version D



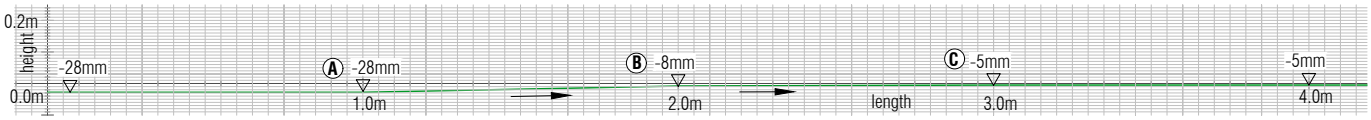
3D VIEW



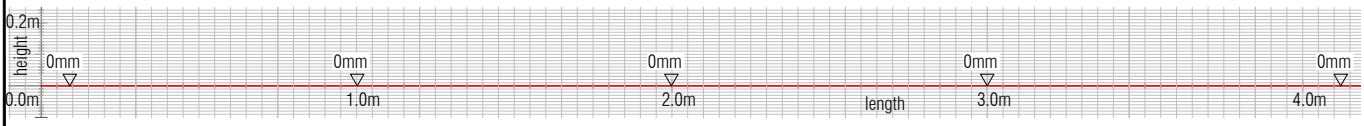
FRONT VIEW



PROFILE TOP OF KERB



PROFILE KERB INVERT



PROFILE EDGE OF SEAL

NOTES

1. A catchpit at upstream is desirable to avoid large volumes of water flow across 3% half channel which can result in water spreading on carriageway and causing splashing.
2. Uphill Kassel kerb and channel transition may need to be increased where ponding may occur on site due to near flat grades
3. Channel profile transition:
   - Flow from Kassel to standard kerb & channel will not pond.
   - Flow from standard kerb & channel to Kassel:
     * For road gradient < 2.5%, increase channel transition to 2.0 m or install catchpit upstream of Kassel kerbs.
     * For Road gradient < 1.5%, install catchpit upstream of Kassel kerbs or provide specific design of transition to avoid ponding. Specific design could include changing edge of seal level over the length of the transition, but this must not be abrupt for approaching bus
4. Selection and use of kerb and channel types must comply with standards in the Transport Design Manual or Auckland Code of Practice for Land Development and Subdivision – Chapter 3: Transport