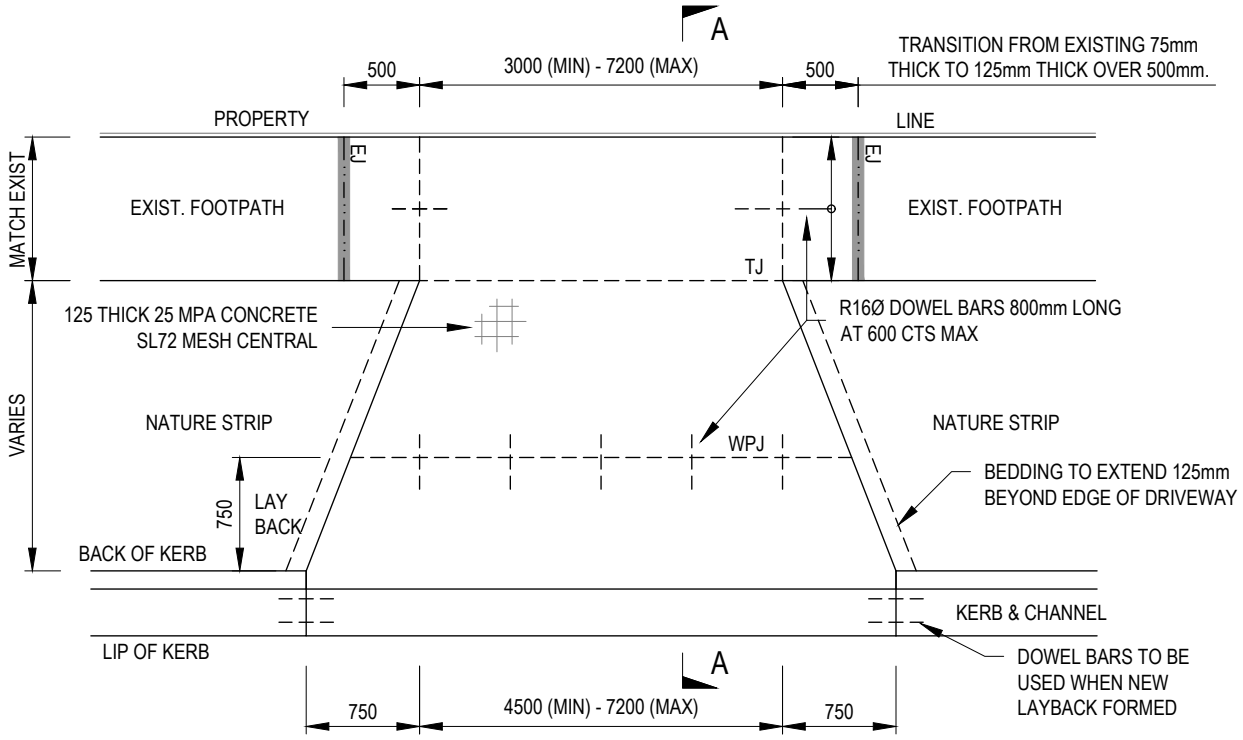

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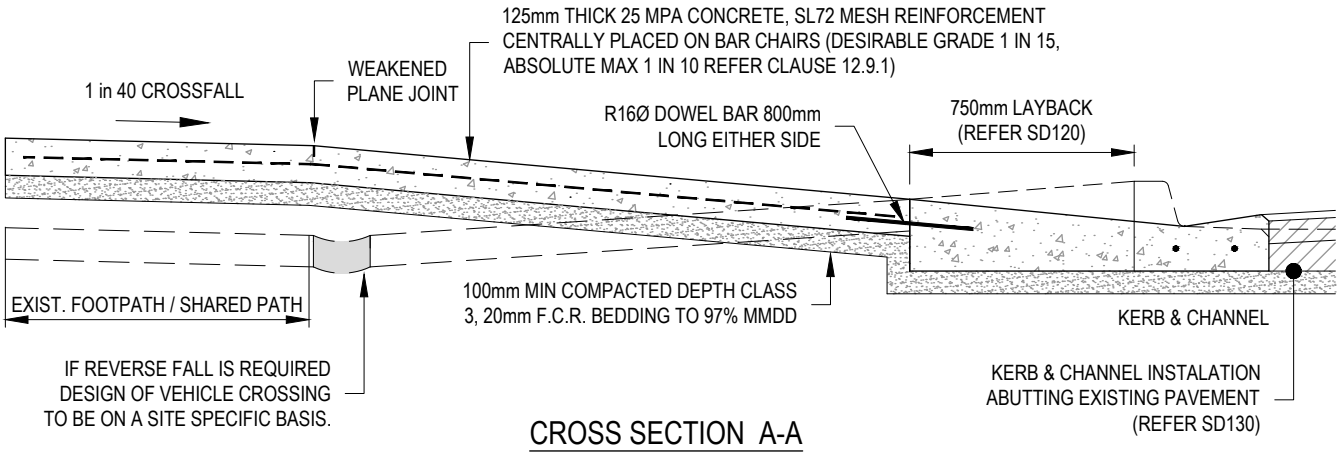

CROSS SECTION A-A

LEGEND:

EXPANSION JOINT EJ

WEAKENED PLANE JOINTS WPJ

NOTES:

1. CROSS REFERENCES:
   INDUSTRIAL CROSSINGS - SD236 / SD250
   RURAL CROSSINGS - SD255 / SD260
   IDM - SECTION 12.9.1. AND 12.9.2.
2. THIS DRAWING DETAILS DIMENSIONS FOR STANDARD RESIDENTIAL CROSSINGS ONLY.
3. CROSSING WIDTHS EXCEEDING THE MAXIMUM ALLOWABLE WILL REQUIRE APPLICATION TO COUNCIL FOR SPECIAL CONSIDERATION.
4. JOINTS AND DOWEL BARS ARE REQUIRED ON EITHER SIDE OF THE CROSSING AT THE INTERFACE WITH THE FOOTPATH. PROVISION SHALL BE MADE IN EXISTING CONCRETE SECTIONS BY DRILLING HOLES TO A MINIMUM DEPTH OF 150mm AND INSERTING R16 DOWEL BARS.
5. AN APPROVED JOINT FILLER SHALL BE PLACED ON EITHER SIDE OF THE CROSSING AGAINST FOOTPATH SLABS. DOWEL BARS ARE TO HAVE AN APPROVED BOND BREAKER APPLIED TO THE END OF THE BAR INSERTED INTO THE EXISTING CONCRETE FOOTPATH SECTIONS REFER SD220.
6. ADDITIONAL WEAKENED PLANE JOINTS REQUIRED IF DISTANCE FROM BACK OF KERB TO FOOTPATH IS GREATER THAN 3000 AND SHALL BE PLACED AT THE MIDPOINT OF THE DISTANCE.
7. THE MAXIMUM NUMBER OF CROSSINGS, WHERE ANY CROSSING EXCEEDS 3.5 METRES WIDTH, SHALL BE ONE (1) CROSSING WITH THE MAXIMUM WIDTH OF THAT CROSSING TO BE 7.2 METRES. CROSSINGS TO ADJACENT PROPERTIES SHALL BE EITHER FULLY COMBINED, AND OF MAXIMUM WIDTH OF 7.2 METRES, OR ELSE HAVE A MINIMUM SEPARATION AS APPROVED BY COUNCIL.
8. FOOTPATHS OF 75mm THICKNESS ARE ACCEPTABLE ONLY WHERE THE LOTS ARE DEVELOPED ALREADY AND THE RISK OF SITE CONSTRUCTION DAMAGE IS NEGLIGIBLE. WHERE GREENFIELD SITES AND FUTURE HOUSING IS STILL TO BE DONE, THEN THE DEPTH OF THE FOOTPATH SHALL BE 125mm THROUGHOUT.

ALL MEASUREMENTS IN MILLIMETRES

RETROFIT RESIDENTIAL VEHICLE CROSSING DETAIL

LAST UPDATED 26/02/2020

Infrastructure Design Manual Standard Drawings

SD 235

Local Government Infrastructure Design Association

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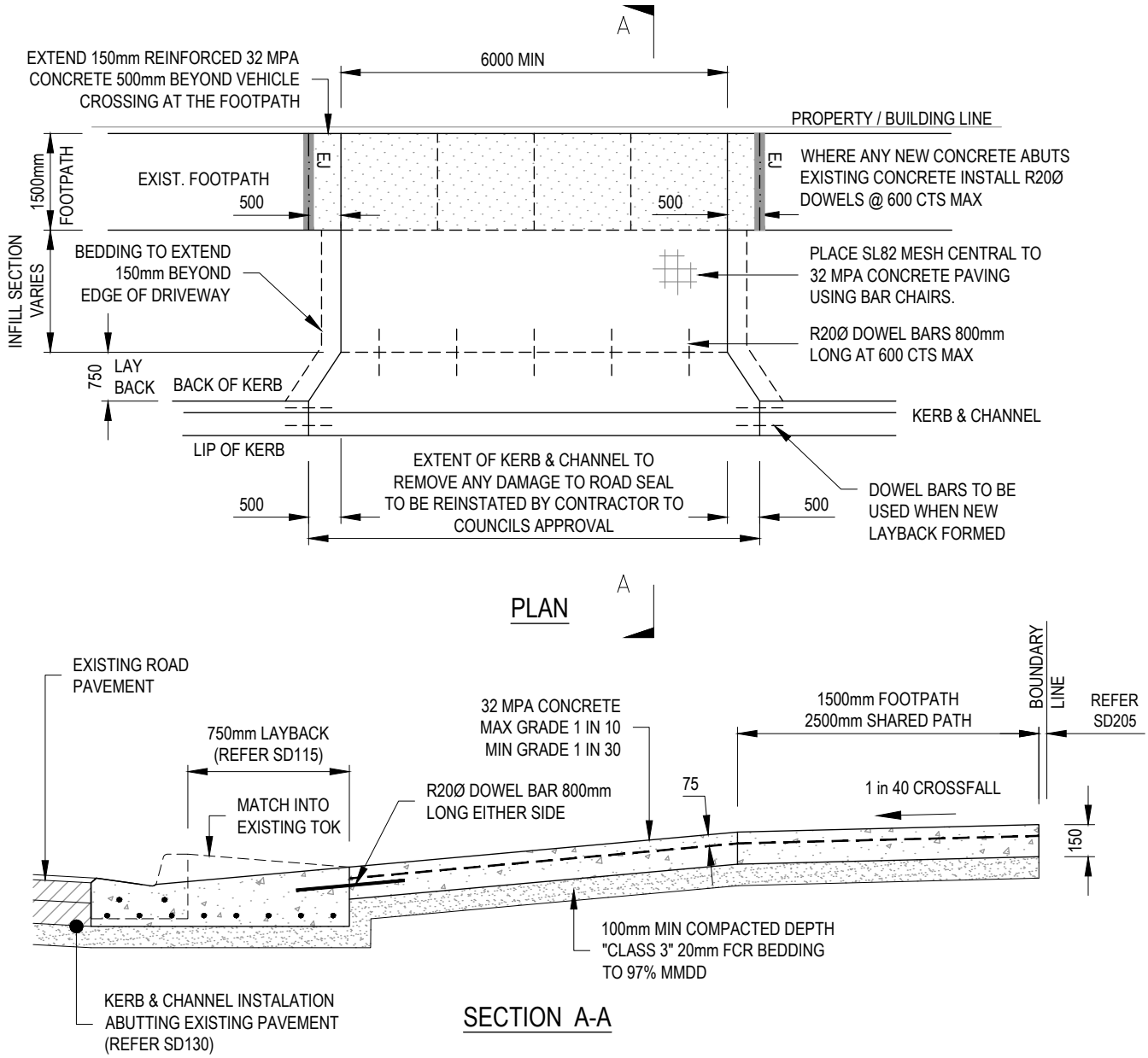
NOT TO SCALE



LEGEND:

EXPANSION JOINT — EJ

WEAKENED PLANE JOINTS — — — —

NOTES:

1. CROSS REFERENCES:
   INDUSTRIAL CROSSINGS - SD115 / SD250
   RURAL CROSSINGS - SD255 / SD260
   IDM - SECTION 12.9.1. AND 12.9.2.
2. THIS DRAWING DETAILS DIMENSIONS FOR STANDARD RESIDENTIAL CROSSINGS ONLY.
3. CROSSING WIDTHS EXCEEDING THE MAXIMUM ALLOWABLE WILL REQUIRE APPLICATION TO COUNCIL FOR SPECIAL CONSIDERATION.
4. JOINTS AND DOWEL BARS ARE REQUIRED ON EITHER SIDE OF THE CROSSING AT THE INTERFACE WITH THE FOOTPATH. PROVISION SHALL BE MADE IN EXISTING CONCRETE SECTIONS BY DRILLING HOLES TO A MINIMUM DEPTH OF 150mm AND INSERTING R16 DOWEL BARS.
5. AN APPROVED JOINT FILLER SHALL BE PLACED ON EITHER SIDE OF THE CROSSING AGAINST FOOTPATH SLABS. DOWEL BARS ARE TO HAVE AN APPROVED BOND BREAKER APPLIED TO THE END OF THE BAR INSERTED INTO THE EXISTING CONCRETE FOOTPATH SECTIONS REFER SD220.
6. ADDITIONAL WEAKENED PLANE JOINTS REQUIRED IF DISTANCE FROM BACK OF KERB TO FOOTPATH IS GREATER THAN 3000 AND SHALL BE PLACED AT THE MIDPOINT OF THE DISTANCE.
7. FOOTPATHS AFFECTED BY NEW CROSSING TO BE REPLACED WITH NEW 150mm THICK (MIN.) REINFORCED 32 MPA CONCRETE AS STATED ON DETAIL.

ALL MEASUREMENTS IN MILLIMETRES

RETROFIT INDUSTRIAL VEHICLE CROSSING DETAIL

LAST UPDATED 26/02/2020

Infrastructure Design Manual Standard Drawings

SD 236

Local Government Infrastructure Design Association

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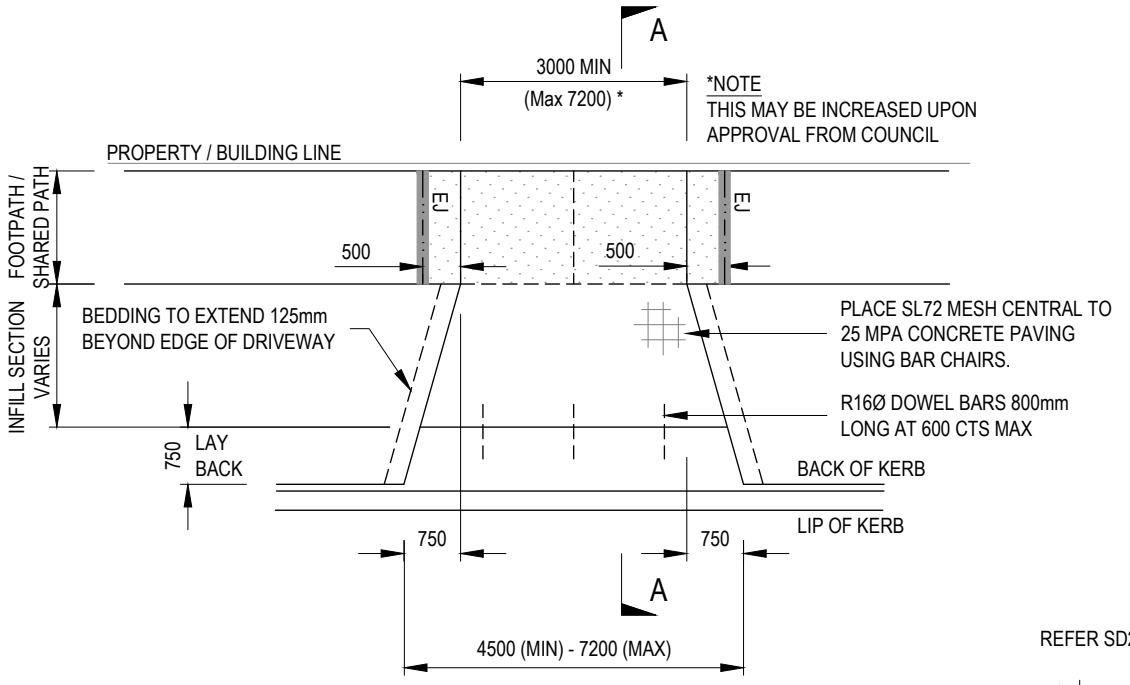
NOT TO SCALE



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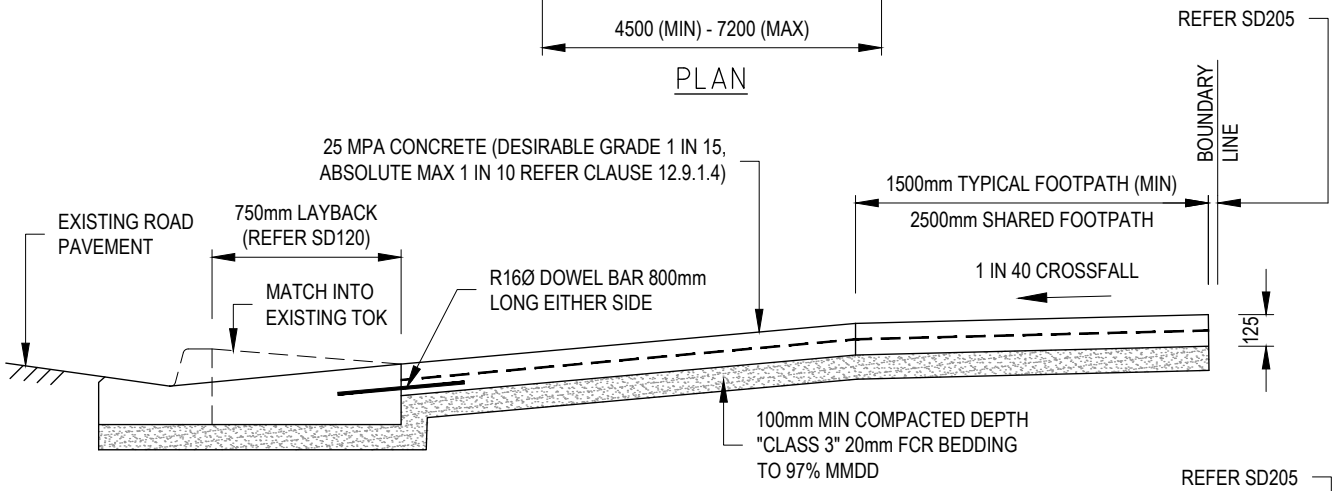
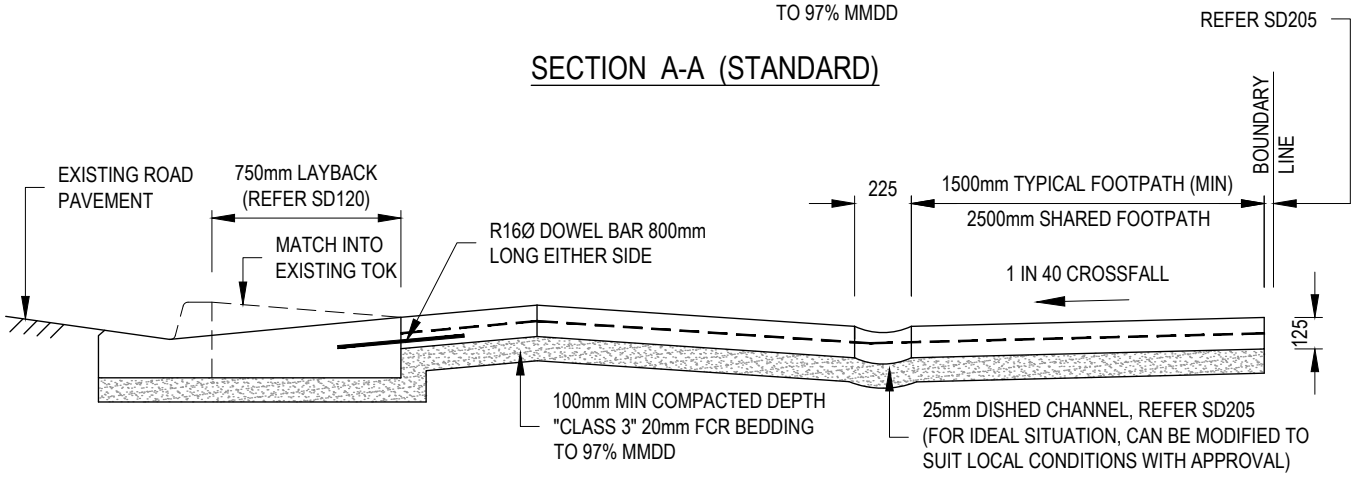


SECTION A-A (STANDARD)



SECTION A-A (REVERSE FALL)

(ONLY TO BE USED WITH COUNCIL APPROVAL)

NOTE:

1. FOR GRADES STEEPER THAN 1 IN 10 REFER CLAUSE 12.9.1.4.
   LAYBACK & CROSSOVER, TO BE CONSTRUCTED IN PLAIN CONCRETE ONLY
   (NO COLOURED CONCRETE BEYOND PROPERTY BOUNDARY)
2. T.O.K. DENOTES TOP OF KERB
3. FOR STEEP TERRAIN CONTACT THE COUNCIL FOR GUIDANCE.
4. REFER SD235 FOR DETAILS TO RETROFIT VEHICLE CROSSING INTO EXISTING.

LEGEND:

EXPANSION JOINT — EJ

WEAKENED PLANE JOINTS — — — —

ALL MEASUREMENTS IN MILLIMETRES

NEW RESIDENTIAL SINGLE VEHICLE CROSSING DETAIL

LAST UPDATED 26/02/2020

Infrastructure Design Manual Standard Drawings

SD 240

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Infrastructure Design Association

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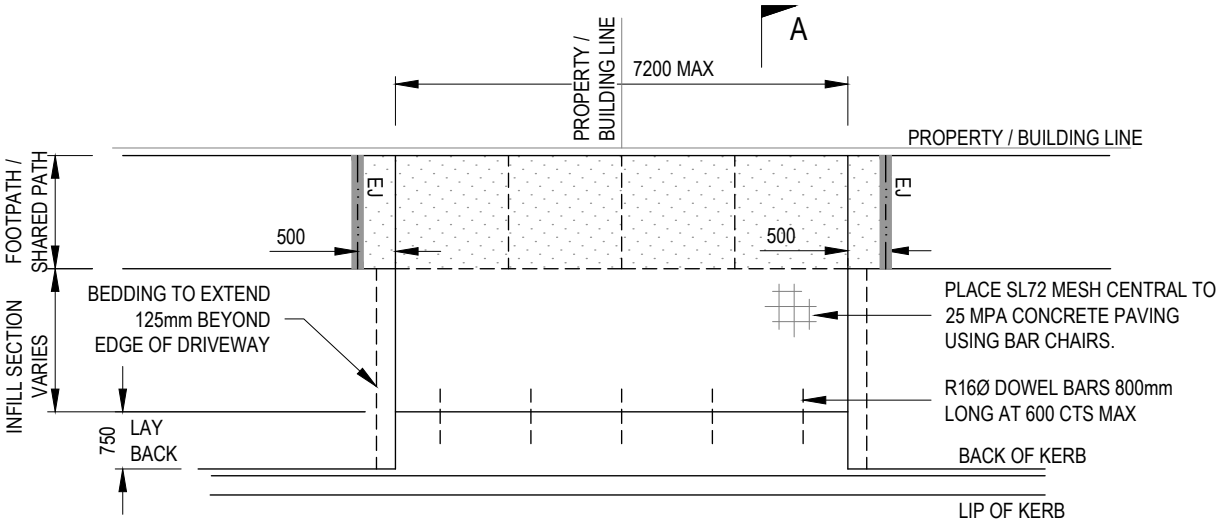
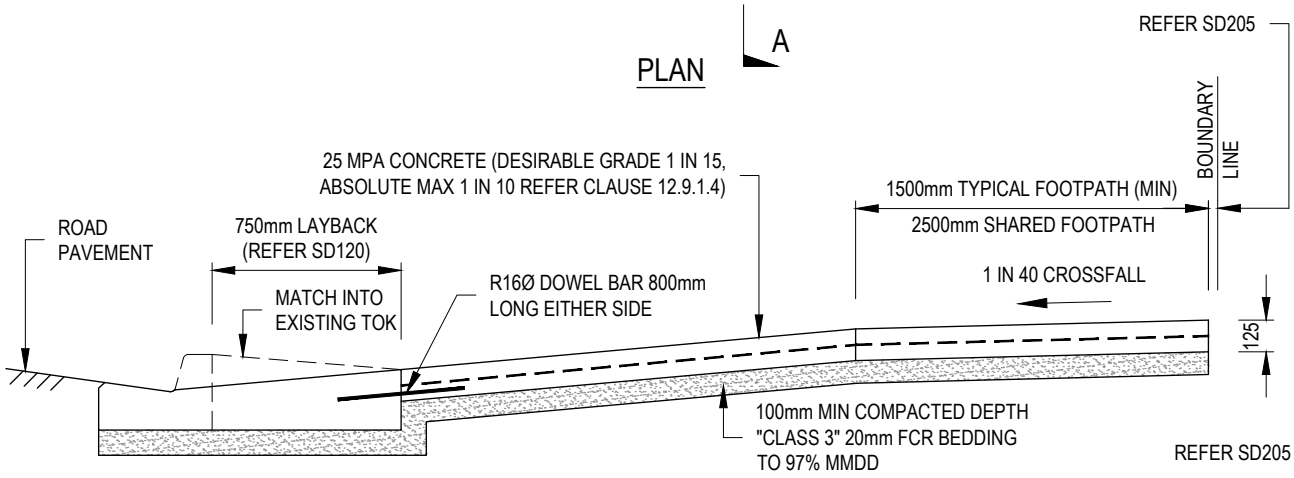
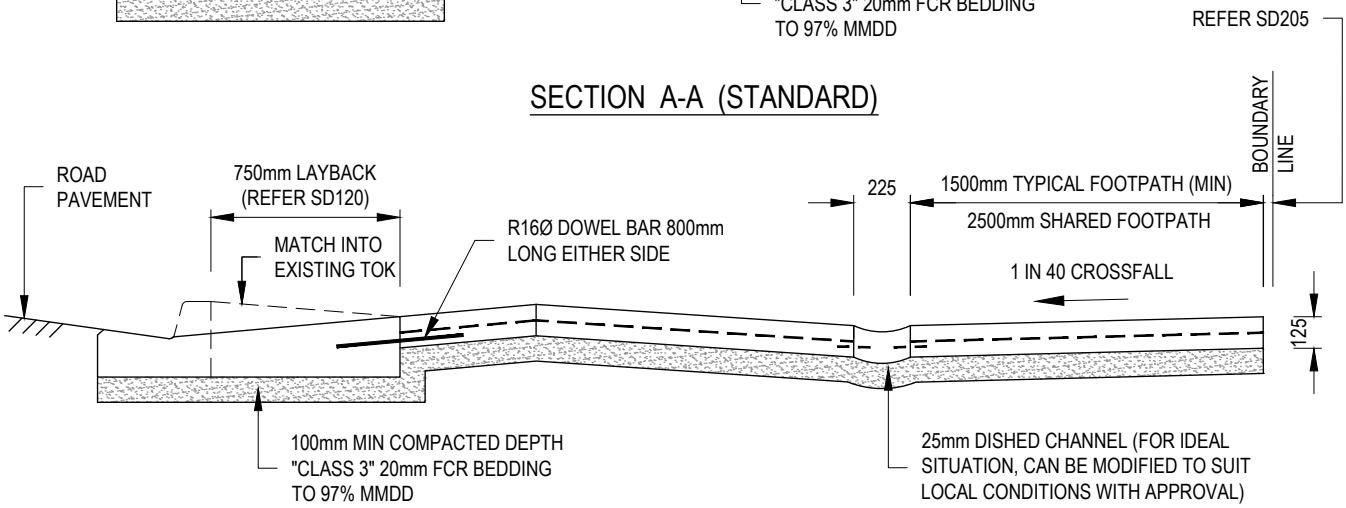


PLAN



SECTION A-A (STANDARD)



SECTION A-A (REVERSE FALL)

(ONLY TO BE USED WITH COUNCIL APPROVAL)

NOTE:

1. FOR GRADES STEEPER THAN 1 IN 10 REFER CLAUSE 12.9.1.4 LAYBACK & CROSSOVER, TO BE CONSTRUCTED IN PLAIN CONCRETE ONLY (NO COLOURED CONCRETE BEYOND PROPERTY BOUNDARY)
2. T.O.K. DENOTES TOP OF KERB
3. FOR STEEP TERRAIN CONTACT THE COUNCIL FOR GUIDANCE.
4. REFER SD235 FOR DETAILS TO RETROFIT VEHICLE CROSSING INTO EXISTING.

LEGEND:

EXPANSION JOINT — EJ

WEAKENED PLANE JOINTS — — — —

ALL MEASUREMENTS IN MILLIMETRES

NEW RESIDENTIAL SHARED / DOUBLE VEHICLE CROSSING DETAILS FOR ADJACENT PROPERTIES

LAST UPDATED 26/02/2020

Infrastructure Design Manual Standard Drawings

SD 245

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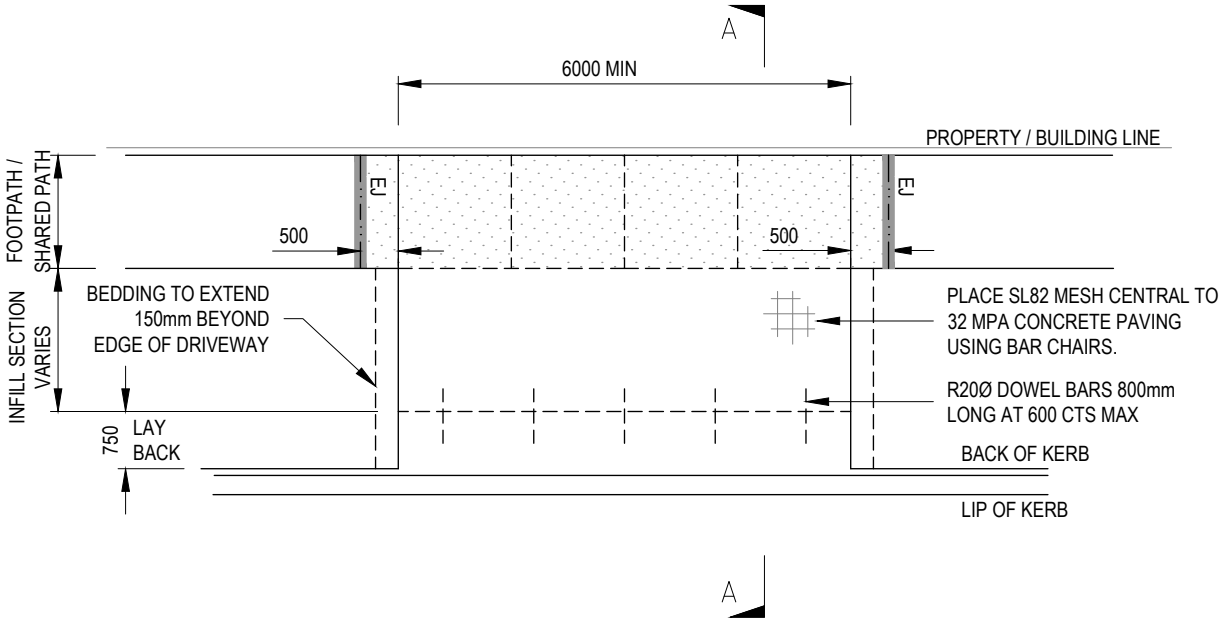

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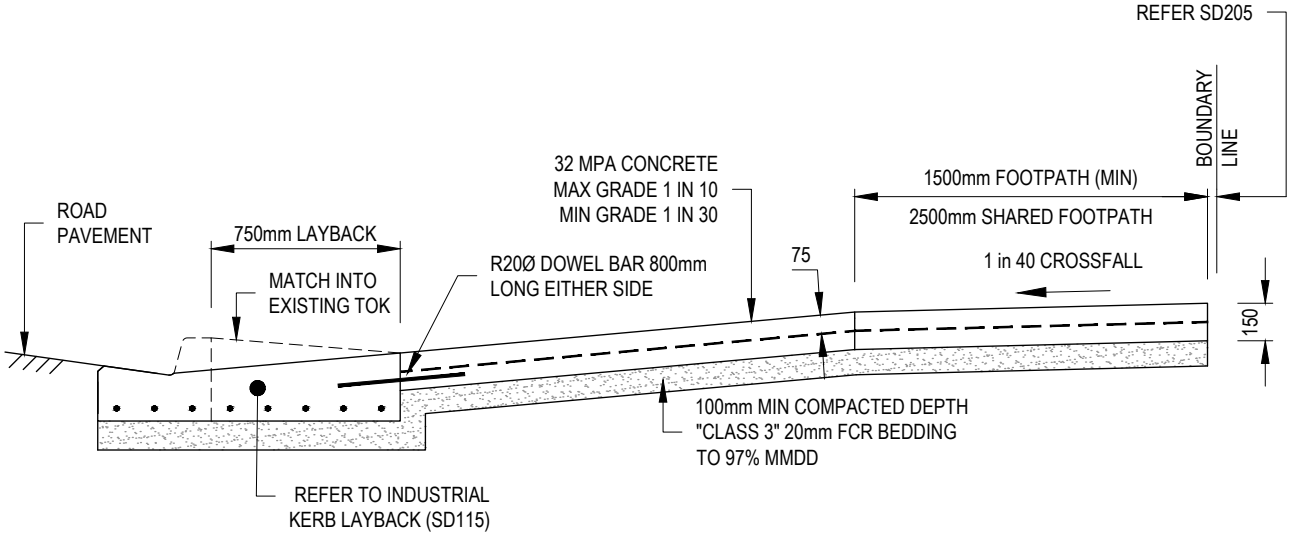

SECTION A-A

LEGEND:

EXPANSION JOINT EJ

WEAKENED PLANE JOINTS

NOTE:

1. T.O.K. DENOTES TOP OF KERB
2. WHERE THERE ARE EXPANSIVE SOILS AN ADDITIONAL LAYER OF REINFORCEMENT MAY BE REQUIRED AT 60mm COVER FROM THE BOTTOM OF THE SLAB.
3. FOR STEEP TERRAIN CONTACT THE COUNCIL FOR GUIDANCE.
4. FOR GRADES STEEPER THAN 1 IN 10 REFER TO CLAUSE 12.9.1.4.
5. REFER SD236 FOR DETAILS TO RETROFIT INDUSTRIAL VEHICLE CROSSING INTO EXISTING.

ALL MEASUREMENTS IN MILLIMETRES

NEW INDUSTRIAL VEHICLE CROSSING DETAIL

LAST UPDATED 26/02/2020

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SD 250

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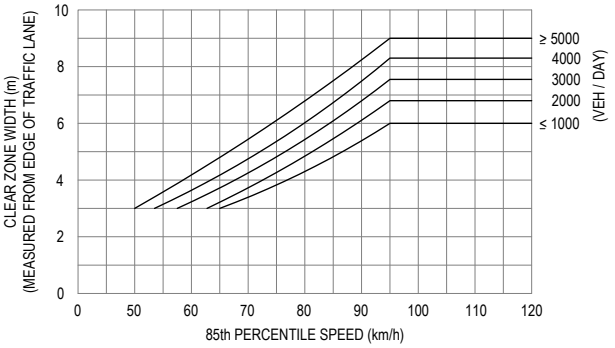
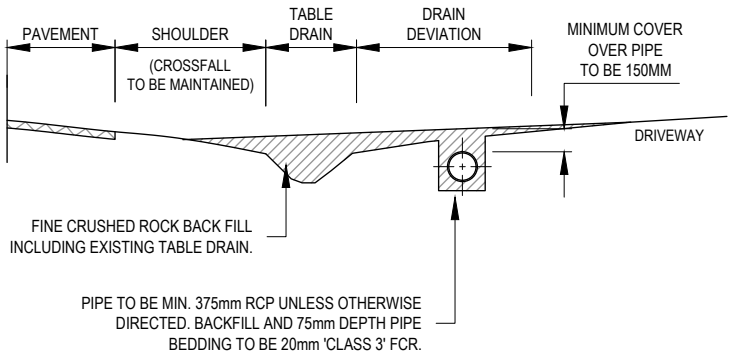


TYPICAL CLEAR ZONE WIDTHS

(REFER NOTE 8)

PLAN



SECTION A-A

NOTES:

1. THIS ARRANGEMENT IS INTENDED FOR RURAL LOW DENSITY RESIDENTIAL& FARMING ACCESS WAYS.
2. COUNCIL RESERVES THE RIGHT TO DIRECT THE USE OF CULVERT END WALL TYPE.
3. THIS IS A TYPICAL CROSSING PLAN. SLIGHT VARIATIONS MAY OCCUR AFTER INSPECTION AND APPROVAL OF LOCATION BY COUNCIL.
4. PRIOR TO THE CONSTRUCTION, THE CROSSING LOCATION SHALL BE APPROVED BY COUNCIL.
5. ALL WORKS TO BE COMPLETED TO THE SATISFACTION OF COUNCIL.
6. MAINTENANCE OF THE CROSSOVER REMAINS THE RESPONSIBILITY OF THE LAND OWNER.
7. INSTALL LOW PROFILE HEAD WALLS OUTSIDE CLEAR ZONE & DRIVEABLE END WALLS WITHIN CLEAR ZONE. NO CULVERT TO BE WITHIN 3m OF EDGE OF SEAL.
8. THE CLEAR ZONE TABLE SHOWN IS A GUIDE ONLY AND FOR FURTHER ACCURATE CLEAR ZONE GUIDELINES REFER TO AUSTROADS 'GUIDE TO ROAD DESIGN - PART 6: ROADSIDE DESIGN, SAFETY AND BARRIERS' TABLE 4.1: 'CLEAR ZONES DISTANCES FROM EDGE OF THROUGH TRAVELLED WAY'
9. TABLE DRAINS ARE NOT TO BE CLOSER THAN 1.0m FROM FENCE LINES OR SERVICES.
10. CROSSING PAVEMENT TO BE SEALED WHERE ABUTS A SEALED ROAD.
11. GATE OFFSET DIMENSIONS:

STANDARD VEHICLE TYPE	MINIMUM GATE OFFSET FROM EDGE OF THROUGH LANE (m)
CAR (5.0m)	8.2
RIGID TRUCK (12.0m)	12.5
SEMI (19.0m)	22
B-DOUBLE (25.0m)	28

ALL MEASUREMENTS IN MILLIMETRES

TYPICAL SWALE DRAIN VEHICLE CROSSING (RURAL ENTRANCE)

LAST UPDATED 26/02/2020

Infrastructure Design Manual Standard Drawings

SD 255

Local Government Infrastructure Design Association

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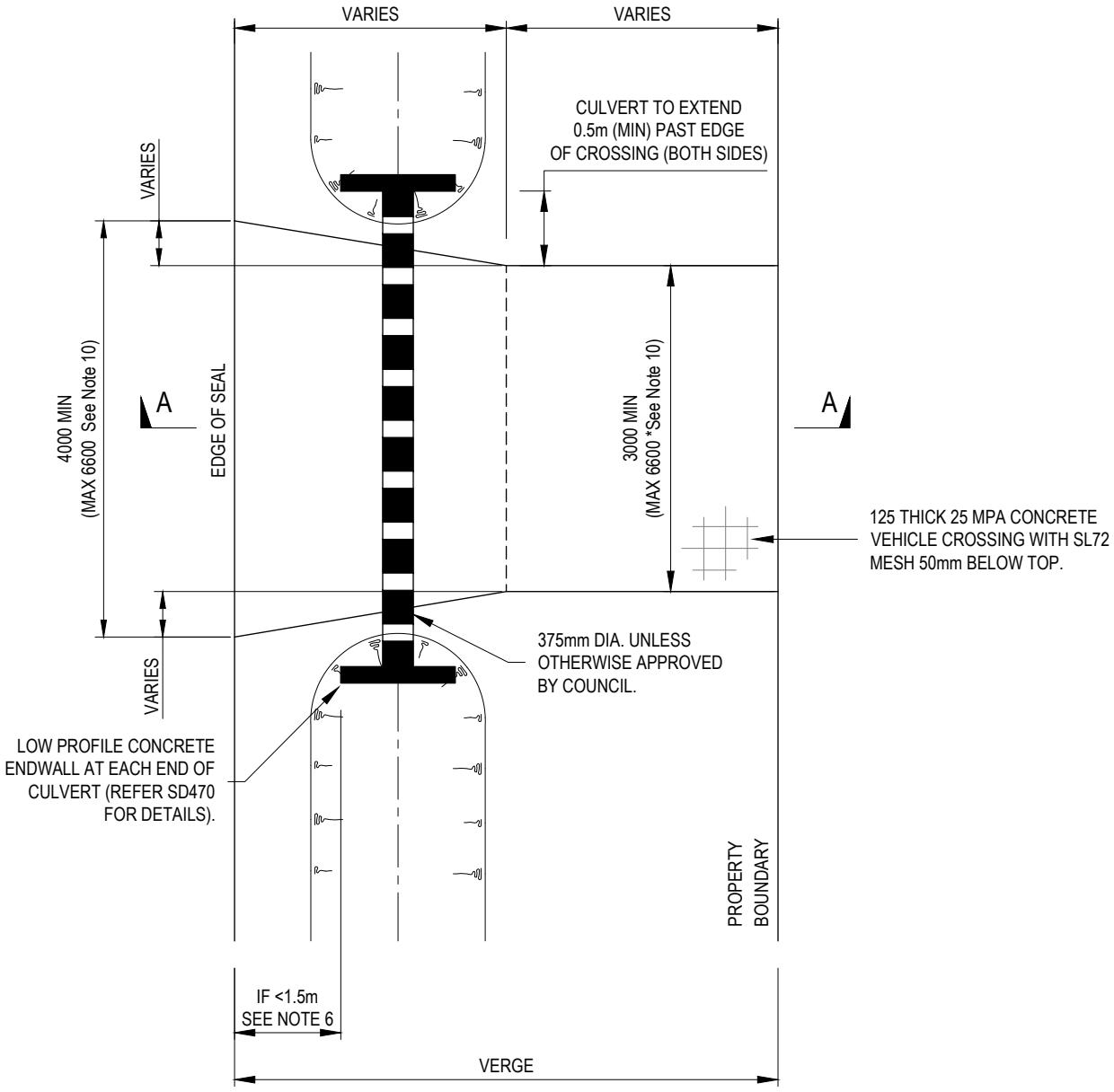
NOT TO SCALE



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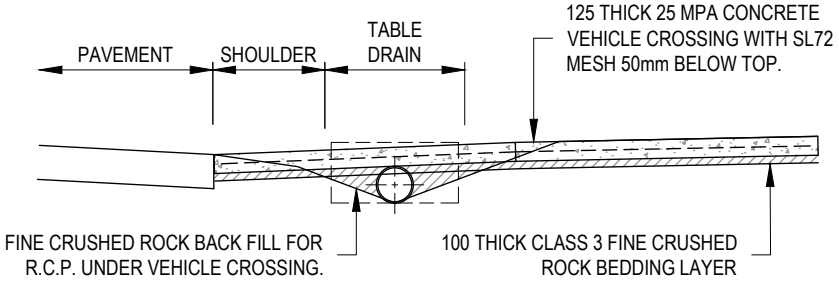

SECTION A-A

NOTES:

1. COUNCIL RESERVES THE RIGHT TO DIRECT THE USE OF CULVERT END WALL TYPE.
2. THIS IS A TYPICAL CROSSING PLAN. SLIGHT VARIATIONS MAY OCCUR AFTER INSPECTION AND APPROVAL OF LOCATION BY COUNCIL.
3. PRIOR TO THE CONSTRUCTION, THE CROSSING LOCATION SHALL BE APPROVED BY COUNCIL.
4. ALL WORKS TO BE COMPLETED TO THE SATISFACTION OF COUNCIL.
5. MAINTENANCE OF THE CROSSOVER REMAINS THE RESPONSIBILITY OF THE LAND OWNER.
6. DRIVEABLE ENDWALLS TO BE USED WITHIN 1.5m OF THE EDGE OF SEAL OR IF DESIGN SPEED IS GREATER THAN 60KM/H
7. REFER SD255 FOR ADDITIONAL CLEAR ZONE DETAILS
8. TABLE DRAINS ARE NOT TO BE CLOSER THAN 1.0m FROM FENCE LINES OR SERVICES.
9. CULVERT TO BE LOCATED AT LEAST 600mm FROM EDGE OF SEAL
10. MAXIMUM DRIVEWAY WIDTH MAYBE INCREASED UPON COUNCIL APPROVAL

ALL MEASUREMENTS IN MILLIMETRES

TYPICAL SWALE DRAIN VEHICLE CROSSING
(FRINGE URBAN OR RURAL RESIDENTIAL ENTRANCE)

LAST UPDATED 12/03/2020

Infrastructure Design Manual Standard Drawings

SD 260

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Infrastructure Design Association

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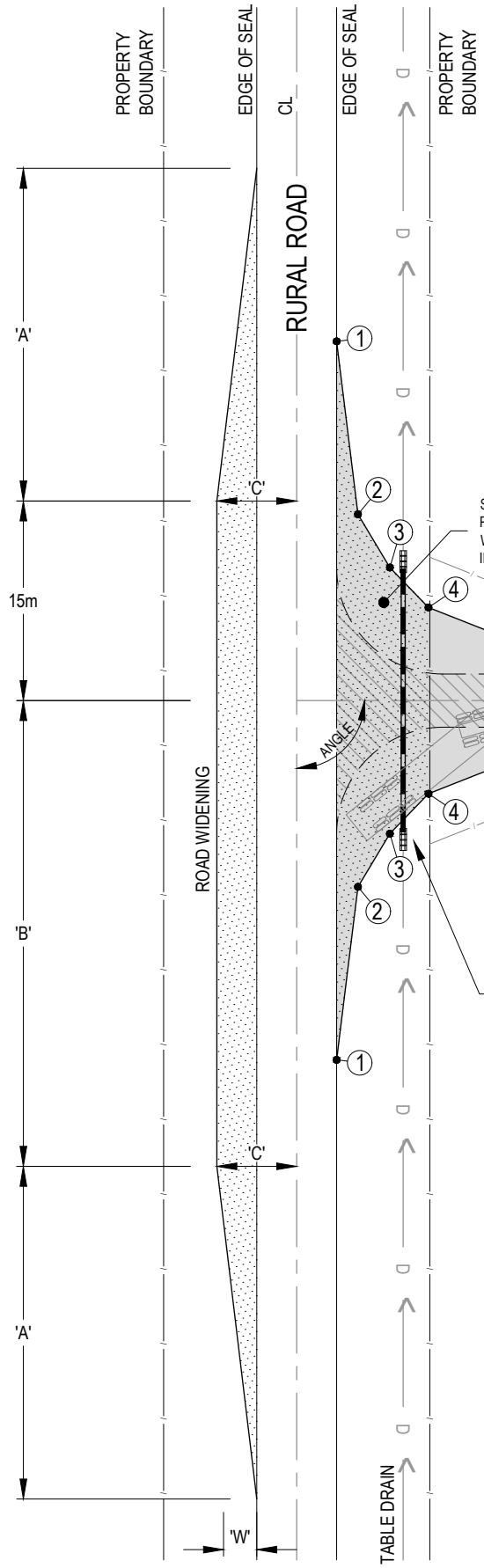

SETOUT TABLE:

POINT No.	OFFSET DISTANCE FROM EDGE OF SEAL (m)	OFFSET DISTANCE FROM ACCESS CENTRELINE (m)
1	0.0	27.0
2	1.6	14.0
3	4.0	10.0
4	6.9	7.0
5	18.3	2.5
6	22.0	2.0

ROAD WIDENING:

A = $\frac{0.5 \times \text{SPEED (km/h)} \times W\text{ (m)}}{3.6}$

B =

ANGLE:	70°	90°	110°
LENGTH (m):	40	35	30

C = ON STRAIGHT: 6.0m (MIN)

ON CURVE: 2 x (3.0m + CORRESPONDING WIDENING FOR CURVE RADIUS)

W = FORMATION WIDENING (IF REQUIRED BY COUNCIL)

LEGEND:

TYPICAL EXISTING ACCESS =

RECOMENDED ACCESS SPLAY =

AREA TO BE SEALED=

NOTES:

1. THIS ARRANGEMENT IS INTENDED FOR RURAL / FARMING ACCESS WAYS THAT REQUIRE SEMI / B DOUBLE ACCESS.
2. PAVED AREAS TO BE A MINIMUM OF 150mm DEPTH COMPACTED GRAVEL. PAVEMENT AREAS & TYPE TO BE APPROVED BY COUNCIL.
3. COUNCIL RESERVES THE RIGHT TO DIRECT THE USE OF CULVERT END WALL TYPE.
4. THIS IS A TYPICAL CROSSING PLAN. SLIGHT VARIATIONS MAY OCCUR AFTER INSPECTION AND APPROVAL OF LOCATION BY COUNCIL.
5. PRIOR TO THE CONSTRUCTION, THE CROSSING LOCATION SHALL BE APPROVED BY COUNCIL.
6. ALL WORKS TO BE COMPLETED TO THE SATISFACTION OF COUNCIL.
7. MAINTENANCE OF THE CROSSOVER REMAINS THE RESPONSIBILITY OF THE LAND OWNER.
8. REFER SD 255 FOR CLEAR ZONE OFFSET DETAILS.
9. DRIVEABLE ENDWALLS TO BE USED INSIDE CLEARZONE.
10. TABLE DRAINS ARE NOT TO BE CLOSER THAN 1.0m FROM FENCE LINES OR SERVICES.
11. COUNCIL MAY REQUIRE THAT CROSSING PAVEMENT BE SEALED DEPENDING ON SITE LOCATION AND SPECIFICS.
12. GATE OFFSET DIMENSIONS:

STANDARD VEHICLE TYPE	MINIMUM GATE OFFSET FROM EDGE OF THROUGH LANE (m)
SEMI (19.0m)	22
B-DOUBLE (25.0m)	28

ALL MEASUREMENTS IN MILLIMETRES

TYPICAL SEMI OR B DOUBLE VEHICLE CROSSING (RURAL ENTRANCE)

LAST UPDATED 26/02/2020

Infrastructure Design Manual Standard Drawings

SD 265

Local Government Infrastructure Design Association

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NOT TO SCALE