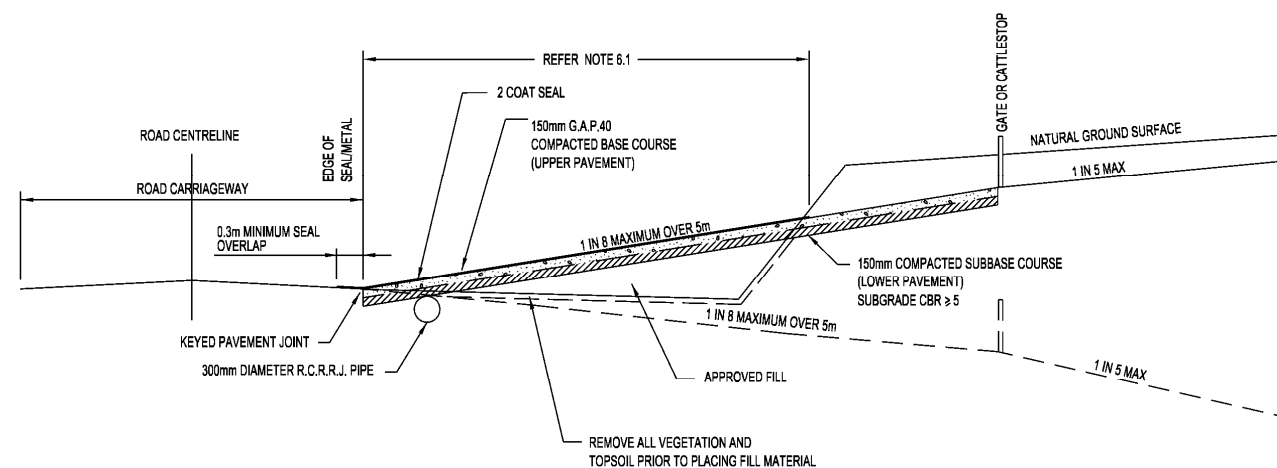


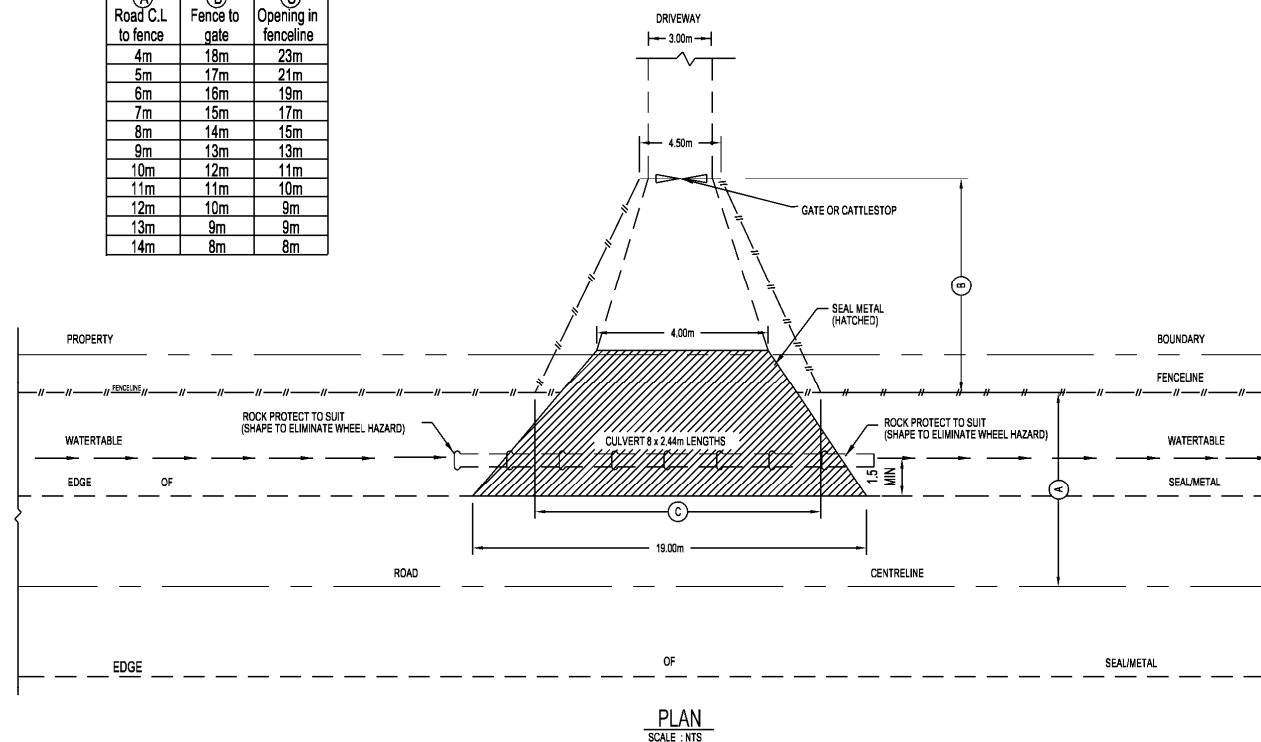
8.6.12 APPENDIX 11: DIMENSIONS, FORMATION AND CONSTRUCTION OF ACCESS POINTS



VEHICLE CROSSING LONGSECTION
SCALE: NTS

GATE & FENCE SETOUT TABLE

(A) Road C.L. to fence	(B) Fence to gate	(C) Opening in fenceline
4m	18m	23m
5m	17m	21m
6m	16m	19m
7m	15m	17m
8m	14m	15m
9m	13m	13m
10m	12m	11m
11m	11m	10m
12m	10m	9m
13m	9m	9m
14m	8m	8m



PLAN
SCALE: NTS

NOTES:

1.0 GENERAL:

- 1.1 All works shall be constructed in accordance with the following notes and to the satisfaction of the Engineering Services Manager or his representative. Additional requirements to those shown on this drawing may be necessary for a particular location and will be determined on site.
- 1.2 Any work undertaken in the road reserve will require a street opening permit and traffic management plan to be submitted for approval 10 working days before work commences. Any enquiries regarding this procedure may be directed to the Business Unit Administrator, on 07-862 8609.
- 1.3 The construction of the vehicle entrances will require a vehicle crossing permit. Please contact the Business Unit Administrator, on 07-862 8609 to proceed with the application of the permit 5 working days before commencement of any work on the entrances.
- 1.4 The constructor shall be responsible for road works signage while undertaking work on the road carriageway. All signage shall be in accordance with NZTA handbook for Temporary Traffic Control And Safety At Roadworks sites.
- 1.5 The constructor shall be responsible for the cost of repairs to any Underground Utility Service damaged during construction. Any damage shall be rectified to the satisfaction of the relevant Asset Manager.
- 1.6 A Class A Vehicle Crossing is deemed to be adequate to accommodate a 10m long vehicle with a maximum radius of 9.0m.

2.0 LOCATION:

- 2.1 Entrance locations shall be where approved by HDC or NZTA if located on a State Highway.
- 2.2 Minimum entrance sight distances are:

Speed Environment (km/h)	From vehicle entrance generating up to and including 40 vehicle movements per day	From vehicle entrance generating more than 40 vehicle movements per day
40	40m	70m
50	60m	90m
60	80m	115m
70	100m	140m
80	130m	175m
90	160m	210m
100	200m	250m
110	240m	290m
120		330m

- 2.3 Refer to HDC DM diagram HDC 306 for rural accessway minimum entrance separation distances.

3.0 CULVERT:

- 3.1 If an entrance crosses a Council drain the Contractor shall obtain written approval with culvert sizing from the Hauraki District Council Drainage Asset Manager prior to commencement of construction.
- 3.2 If an entrance crosses a natural watercourse a resource consent may be required from the Waikato Regional Council (Environment Waikato).
- 3.3 If an entrance crosses a small drain, watercourse or water table a culvert shall be installed.
- 3.4 If the entrance crosses a watertable or small drain (less than 2m wide by 1m deep) A 300mm diameter minimum Reinforced Concrete Rubber Ring Joint (RCRRJ) Class 4 or its equivalent pipe shall be installed. Concrete capping is required where cover <0.25m.
- 3.5 Any unsuitable bedding material including vegetation, topsoil and peat shall be removed and replaced with 100mm pit sand or G.A.P. 40 or its equivalent if required.
- 3.6 All culverts shall be laid straight at a constant grade between 1.5 and 8.5m from the pavement edge. Socket end shall always be uphill.

4.0 LOWER PAVEMENT:

- 4.1 150mm nominal depth approved GAP 65 subbase course. Additional undercut and backfill as required where soft spots occur. Reduce the depth to 80mm and backfill with GAP 40 if concrete surfacing is adopted.
- 4.2 Alternative subbase materials can be used (quarry strippings/brownrock) with pavement design approval by the HDC Engineering Services Manager.
- 4.3 The subbase course depth shall be increased from 80mm to 150mm within the Hauraki Plains where concrete surfacing is proposed.
- 4.4 Full depth pavement to extend to gate/cattle stop.

5.0 UPPER PAVEMENT:

- 5.1 150mm nominal depth approved GAP 40 base course constructed above the subbase course layer where a sealed/AC surface is proposed.
- 5.2 No base course installation is required if a concrete entrance is proposed. A minimum 150mm concrete depth is required.

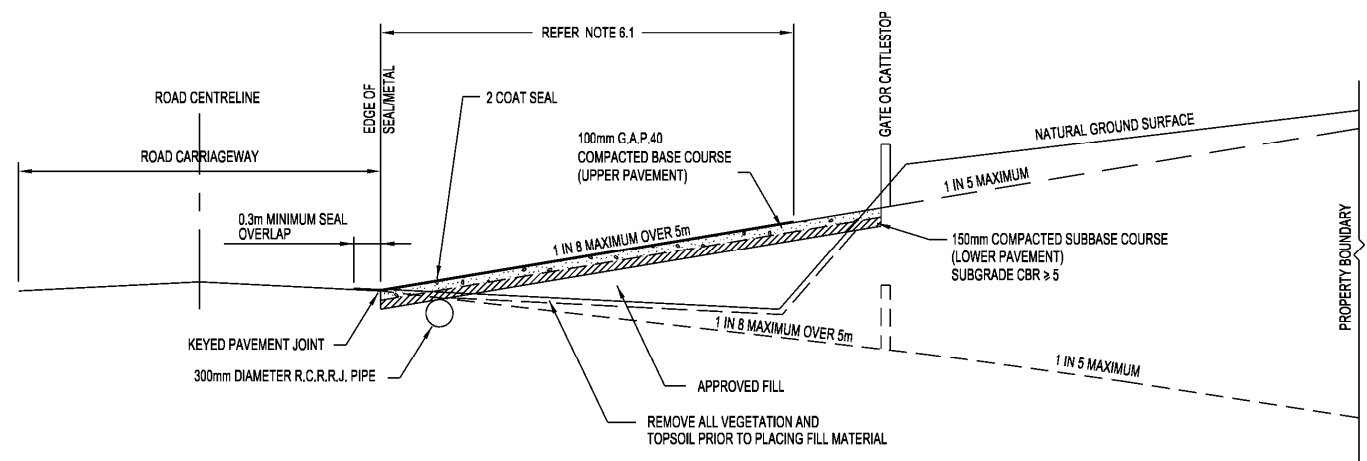
6.0 SURFACING:

- 6.1 A chip sealed pavement shall adopt a Grade 3 and 5 two coat seal.
- 6.2 A minimum of a prime coat seal is required if AC surfacing is proposed.
- 6.3 Within the Hauraki Plains all concrete surfaced entrances shall be reinforced with 665 mesh, adopting 30mm cover, within the tension zone.
- 6.4 The surfacing shall extend the lesser of the distance to the property boundary or 5m from the edge of seal.
- 6.5 No additional surfacing (sealing) over the base course material is required, if the entrance is off a metal road.

**CLASS A: STANDARD ARTICULATED VEHICLE CROSSING
IN RURAL AREA**

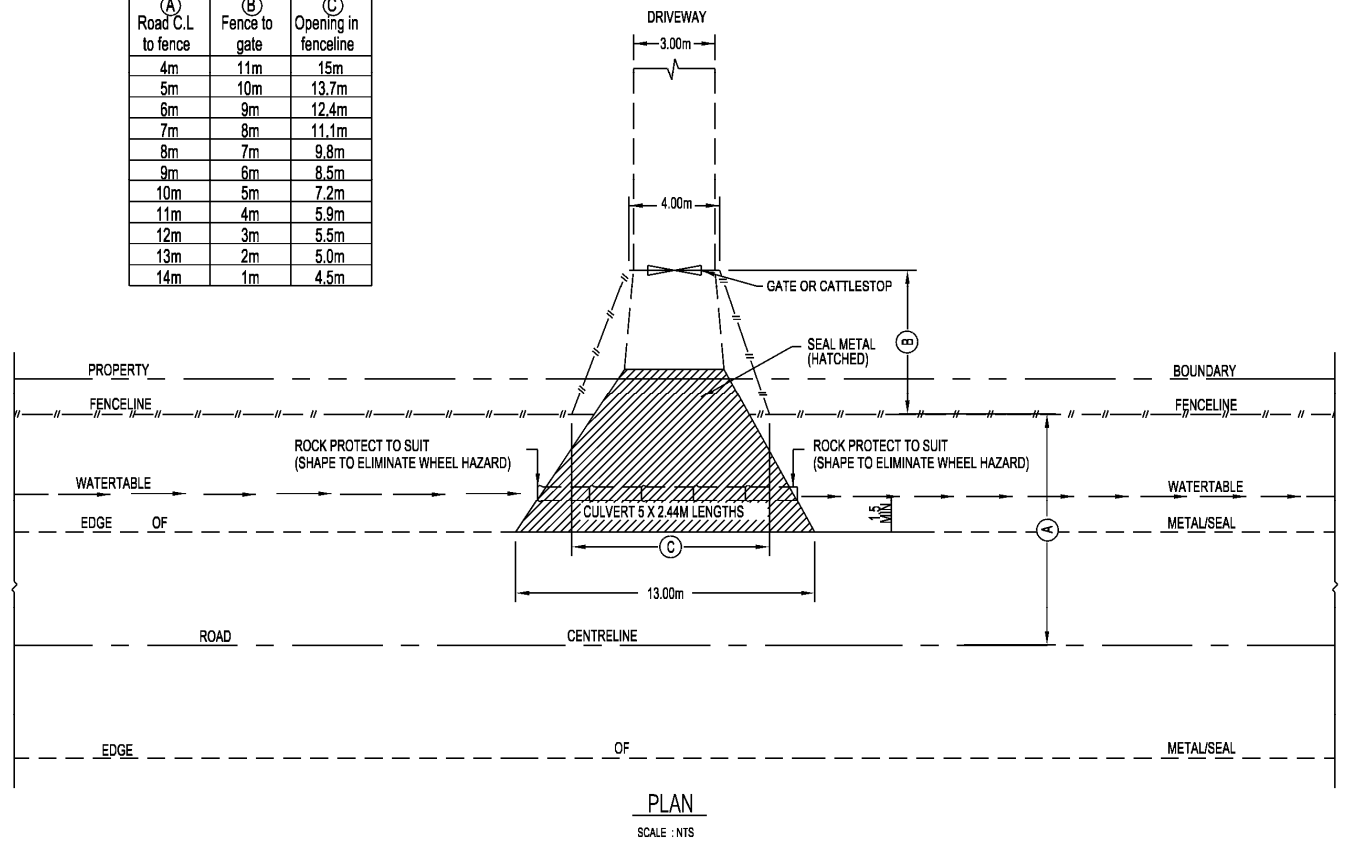
HAURAKI DISTRICT COUNCIL

HDC - 301



GATE & FENCE SETOUT TABLE

(A) Road C.L to fence	(B) Fence to gate	(C) Opening in fenceline
4m	11m	15m
5m	10m	13.7m
6m	9m	12.4m
7m	8m	11.1m
8m	7m	9.8m
9m	6m	8.5m
10m	5m	7.2m
11m	4m	5.9m
12m	3m	4.6m
13m	2m	3.3m
14m	1m	2.0m



NOTES:

- 1.0 GENERAL:
- 1.1 All works shall be constructed in accordance with the following notes and to the satisfaction of the Engineering Services Manager or his representative. Additional requirements to those shown on this drawing may be necessary for a particular location and will be determined on site.
 - 1.2 Any work undertaken in the road reserve will require a street opening permit and traffic management plan to be submitted for approval 10 working days before work commences. Any enquiries regarding this procedure may be directed to the Business Unit Administrator, on 07-862 8609.
 - 1.3 Vehicle entrances construction will require a vehicle crossing permit. Please contact the Business Unit Administrator, on 07-862 8609, to proceed with the application of the permit 5 working days before commencement of any work on the entrances.
 - 1.4 The constructor shall be responsible for road works signage while undertaking work on the road carriageway. All signage shall be in accordance with NZTA handbook for Temporary Traffic Control And Safety At Roadworks sites.
 - 1.5 The constructor shall be responsible for the cost of repairs to any Underground Utility Service damaged during construction. Any damage shall be rectified to the satisfaction of the relevant Asset Manager.
 - 1.6 A Class B Vehicle Crossing is deemed to be adequate to accommodate a 10m long vehicle with a maximum radius of 9.0m.

2.0 LOCATION:

- 2.1 Entrance locations shall be where approved by HDC or NZTA if located on a State Highway.
- 2.2 Minimum entrance sight distances are:

Speed Environment (km/h)	From vehicle entrance generating up to and including 40 vehicle movements per day	From vehicle entrance generating more than 40 vehicle movements per day
40	40m	70m
50	60m	90m
60	80m	115m
70	100m	140m
80	130m	175m
90	160m	210m
100	200m	250m
110	240m	290m
120		330m

- 2.3 Refer to HDC DM diagram HDC 306 for rural accessway minimum entrance separation distances.
- 3.0 CULVERT:

 - 3.1 If an entrance crosses a Council drain the Contractor shall obtain written approval with culvert sizing from the Hauraki District Council Drainage Asset Manager prior to commencement of construction.
 - 3.2 If an entrance crosses a natural watercourse a resource consent may be required from the Waikato Regional Council (Environment Waikato).
 - 3.3 If an entrance crosses a small drain, watercourse or water table a culvert shall be installed.
 - 3.4 If the entrance crosses a watertable or small drain (less than 2m wide by 1m deep) A 300mm diameter minimum Reinforced Concrete Rubber Ring Joint (RCRRJ) Class 4 or its equivalent pipe shall be installed. Concrete capping is required where cover < 0.25m.
 - 3.5 Any unsuitable bedding material including vegetation, topsoil and peat shall be removed and replaced with 100mm pit sand or G.A.P. 40 or its equivalent if required.
 - 3.6 All culverts shall be laid straight at a constant grade between 1.5 and 8.5m from the pavement edge. Socket end shall always be uphill.

- 4.0 LOWER PAVEMENT:

 - 4.1 150mm nominal depth approved GAP 65 subbase course. Additional undercut and backfill as required where soft spots occur. Reduce the depth to 80mm and backfill with GAP 40 if concrete surfacing is adopted.
 - 4.2 Alternative subbase materials can be used (quarry strippings/brownrock) with pavement design approval by the HDC Engineering Services Manager.
 - 4.3 The subbase depth shall be increased from 80mm to 150mm within the Hauraki Plains where concrete surfacing is proposed.
 - 4.4 Full depth pavement to extend to gate/cattle stop.

- 5.0 UPPER PAVEMENT:

 - 5.1 100mm nominal depth approved GAP 40 base course constructed above the subbase course layer where a sealed/AC surface is proposed.
 - 5.2 No base course installation is required if a concrete entrance is proposed. A minimum 150mm concrete depth is required.

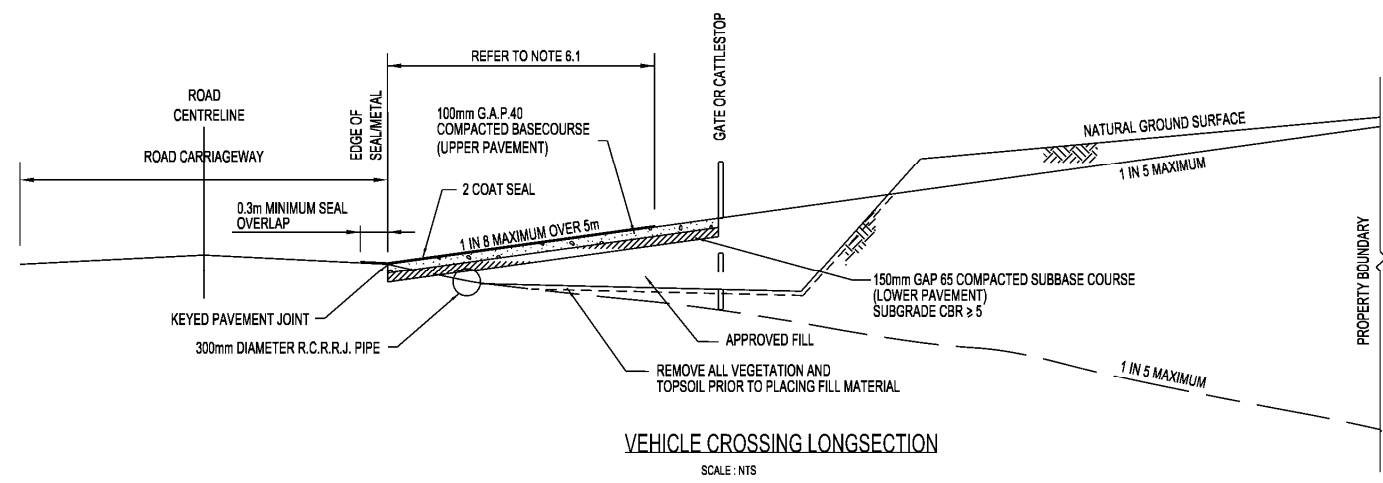
- 6.0 SURFACING:

 - 6.1 A chip sealed pavement shall adopt a Grade 3 and 5 two coat seal.
 - 6.2 A minimum of a prime coat seal is required if AC surfacing is proposed.
 - 6.3 Within the Hauraki Plains all concrete surfaced entrances shall be reinforced with 665 mesh, adopting 30mm cover, within the tension zone.
 - 6.4 The surfacing shall extend the lesser of the distance to the property boundary or 5m from the edge of seal.
 - 6.5 No additional surfacing (sealing) over the basecourse material is required, if the entrance is off a metal road.

CLASS B: STANDARD RURAL VEHICLE CROSSING FOR ALL ACTIVITIES THAT DO NOT REQUIRE A CLASS A CROSSING NOR ARE RESIDENTIAL ACTIVITIES IN THE RURAL AREA

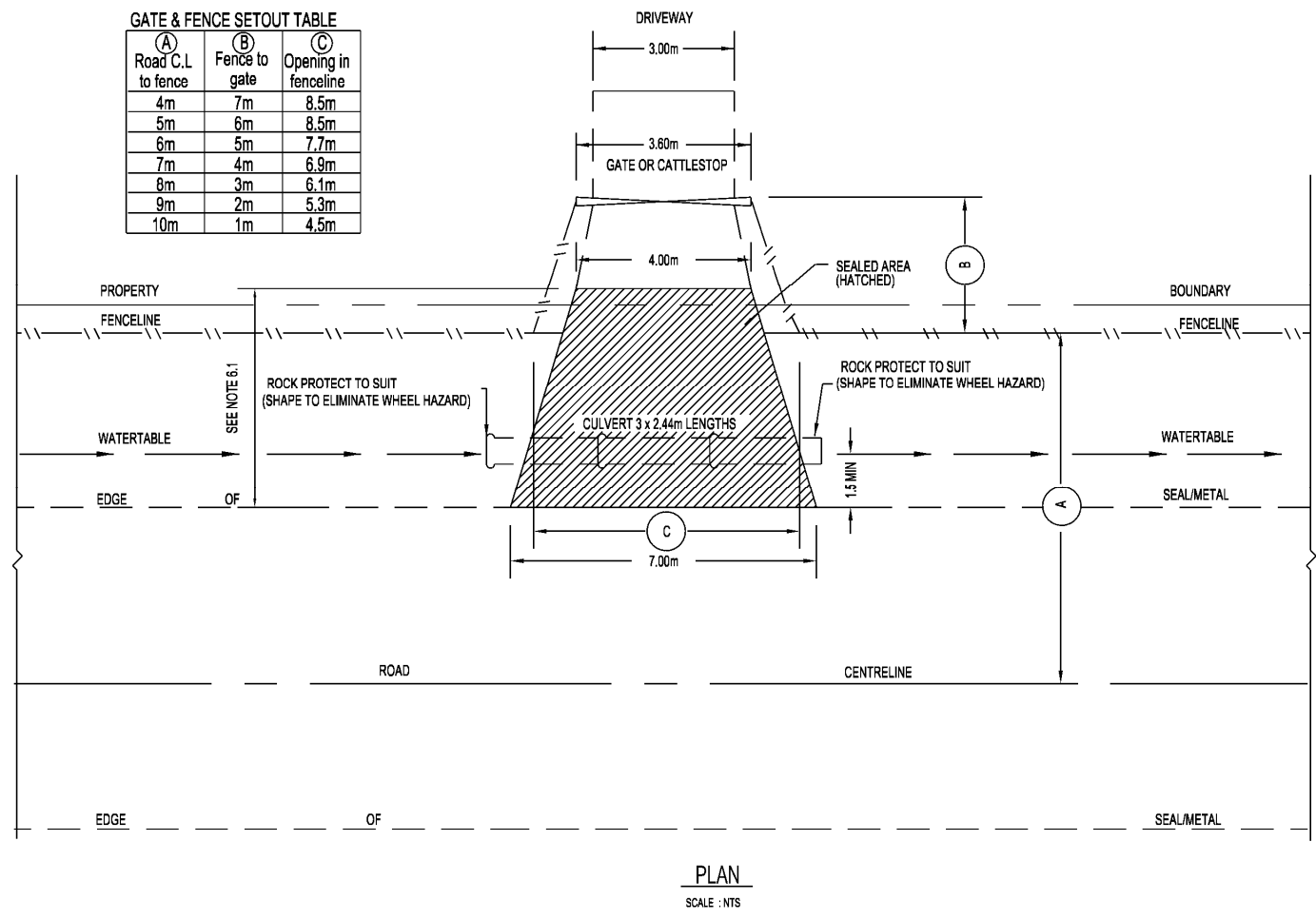
HAURAKI DISTRICT COUNCIL

HDC - 302



GATE & FENCE SETOUT TABLE

(A) Road C.L. to fence	(B) Fence to gate	(C) Opening in fenceline
4m	7m	8.5m
5m	6m	8.5m
6m	5m	7.7m
7m	4m	6.9m
8m	3m	6.1m
9m	2m	5.3m
10m	1m	4.5m



NOTES:

1.0 GENERAL:

- 1.1 All works shall be constructed in accordance with the following notes and to the satisfaction of the Engineering Services manager or his representative. Additional requirements to those shown on this drawing may be necessary for particular location and will be determined on site.
- 1.2 Any work undertaken in the road reserve will require a street opening permit and traffic management plan to be submitted for approval 10 working days before work commences. Any enquiries regarding this procedure may be directed to the Business Unit Administrator, on 07-862 8609.
- 1.3 Vehicle entrance construction will require a vehicle crossing permit. Please contact the Business Unit Administrator, on 07-862 8609 to proceed with the application of the permit 5 working days before commencement of any work on the entrances.
- 1.4 The constructor shall be responsible for road works signage while undertaking work on the road carriageway. All signage shall be in accordance with NZTA handbook for Temporary Traffic Control And Safety At Roadworks sites.
- 1.5 The constructor shall be responsible for the cost of repairs to any Underground Utility Service damaged during construction. Any damage shall be rectified to the satisfaction of the relevant Asset Manager.
- 1.6 A Class C Vehicle Crossing is deemed to be adequate to accommodate a 5m long car turning into a property at a radius of 7.5m.

2.0 LOCATION:

- 2.1 Entrance locations shall be where approved by HDC or NZTA if located on a State Highway.
- 2.2 Minimum entrance sight distances are:

Speed Environment (km/h)	From vehicle entrance generating up to and including 40 vehicle movements per day	From vehicle entrance generating more than 40 vehicle movements per day
40	40m	70m
50	60m	90m
60	80m	115m
70	100m	140m
80	130m	175m
90	160m	210m
100	200m	250m
110	240m	290m
120		330m

2.3 Refer to HDC DM diagram HDC 306 for rural accessway minimum entrance separation distances.

3.0 CULVERT:

- 3.1 If an entrance crosses a Council drain the Contractor shall obtain written approval with culvert sizing from the Hauraki District Council Drainage Asset Manager prior to commencement of construction.
- 3.2 If an entrance crosses a natural watercourse a resource consent may be required from the Waikato Regional Council (Environment Waikato).
- 3.3 If an entrance crosses a small drain, watercourse or water table a culvert shall be installed.
- 3.4 If the entrance crosses a watertable or small drain (less than 2m wide by 1m deep) A 300mm diameter minimum. Reinforced Concrete Rubber Ring Joint (RCRRJ) Class 4 or its equivalent pipe shall be installed. Concrete capping is required where cover <0.25m.
- 3.5 Any unsuitable bedding material including vegetation, topsoil and peat shall be removed and replaced with 100mm pit sand or G.A.P. 40 or its equivalent if required.
- 3.6 All culverts shall be laid straight at a constant grade between 1.5 and 8.5m from the pavement edge. Socket end shall always be uphill.

4.0 LOWER PAVEMENT:

- 4.1 150mm nominal depth approved GAP 65 subbase course. Additional undercut and backfill as required where soft spots occur. Reduce the depth to 80mm and backfill with GAP 40 if concrete surfacing is adopted.
- 4.2 Alternative subbase materials can be used (quarry strippings/brownrock) with pavement design approval by the HDC Engineering Services Manager.
- 4.3 The subbase depth shall be increased from 80mm to 150mm within the Hauraki Plains where concrete surfacing is proposed.
- 4.4 Full depth pavement to extend to gate/cattle stop.

5.0 UPPER PAVEMENT:

- 5.1 100mm nominal depth approved GAP 40 base course constructed above the subbase course layer where a sealed/AC surface is proposed.
- 5.2 No base course installation is required if a concrete entrance is proposed. A minimum 150mm concrete depth is required.

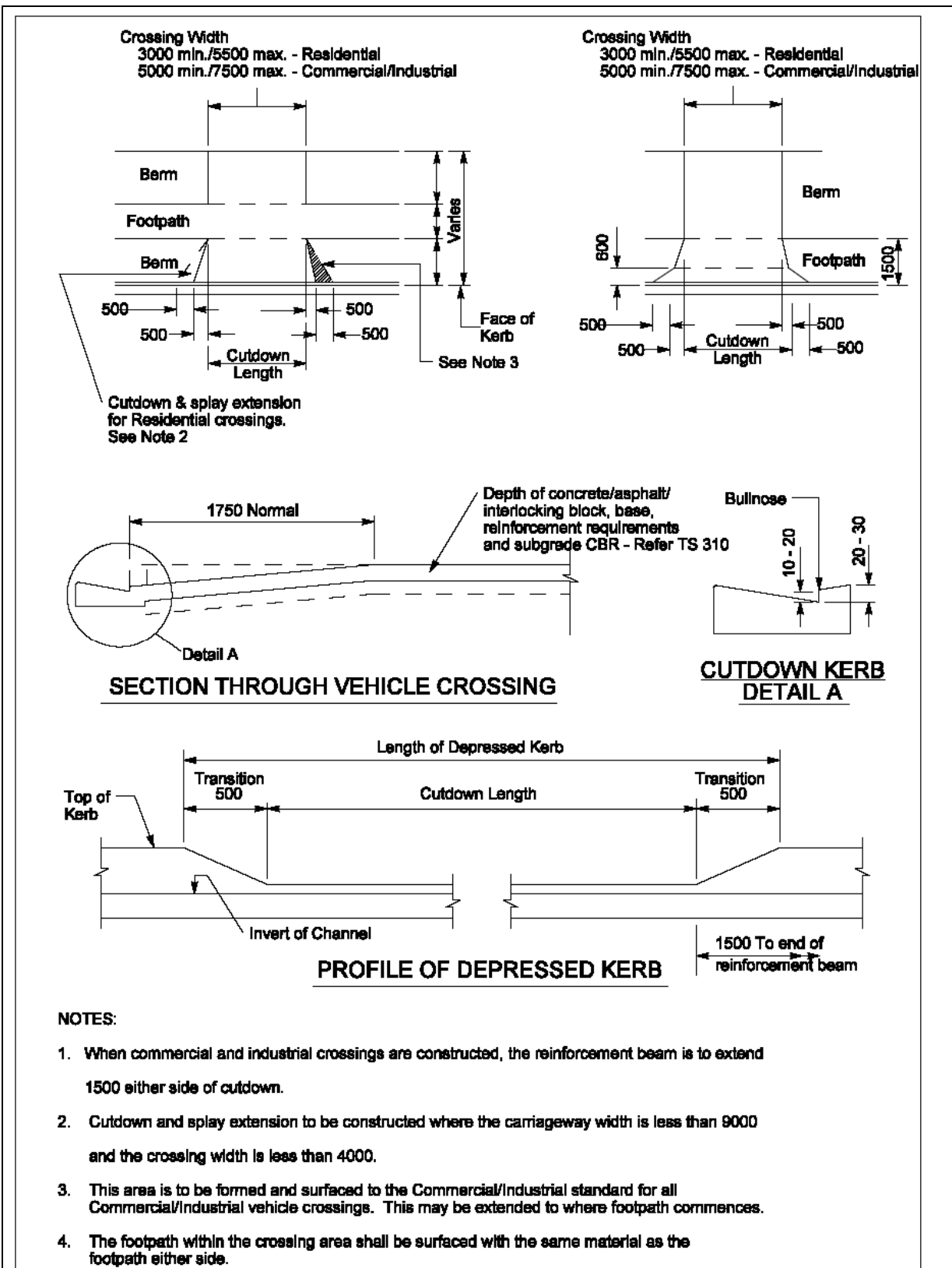
6.0 SURFACING:

- 6.1 A chip sealed pavement shall adopt a Grade 3 and 5 two coat seal.
- 6.2 A minimum of a prime coat seal is required if AC surfacing is proposed.
- 6.3 Within the Hauraki Plains all concrete surfaced entrances shall be reinforced with 665 mesh, adopting 30mm cover, within the tension zone.
- 6.4 The surfacing shall extend the lesser of the distance to the property boundary or 5m from the edge of seal.
- 6.5 No additional surfacing (sealing) over the basecourse material is required, if the entrance is off a metal road.

CLASS C: STANDARD VEHICLE CROSSING FOR RESIDENTIAL ACTIVITIES IN RURAL AREA, LOW DENSITY RESIDENTIAL, RESERVE (ACTIVE) AND RESERVE (PASSIVE) ZONES

HAURAKI DISTRICT COUNCIL

HDC - 303



Class D: Standard Commercial/Industrial Vehicle Entrance for non residential activities in the Urban Area.

Class E: Standard Residential Vehicle Entrance for residential activities in the Urban Area (excluding the Low Density Residential and Reserve (Active) zones).