

Road Service Levels

District Council of Orroroo Carrieton

May 2015

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a better approach

Document History and Status

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A	Draft for Council Comment	TJF/RKE	RKE	RKE	27 April 2015
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Contents

1	Service Levels	1
1.1	Introduction	1
1.2	Township Seal High Use	2
1.2.1	Actual Service Level	2
1.3	Township Seal Standard Use	3
1.3.1	Actual Service Level	3
1.4	Town Sheeted	4
1.4.1	Actual Service Level	4
1.5	Rural Seal	5
1.5.1	Desired Service Level	5
1.5.2	Actual Service Level	5
1.6	Rural Class B Sheeted	6
1.6.1	Desired Service Level	6
1.6.2	Actual Service Level	6
1.7	Rural Class C1 Sheeted	7
1.7.1	Desired Service Level	7
1.7.2	Actual Service Level	7
1.8	Rural Class C2 Sheeted	8
1.8.1	Desired Service Level	8
1.8.2	Actual Service Level	8
1.9	Rural Class C3 Sheeted	9
1.9.1	Desired Service Level	9
1.9.2	Actual Service Level	9
1.10	Rural Class D Natural Formation	10
1.10.1	Actual Service Level	10

1 Service Levels

1.1 Introduction

The purpose of this document is to articulate the construction standards being applied to the road network in order to inform the valuation process to ensure that the assumptions made in determining depreciation are clearly defined and to ensure actual service levels are achievable and not aspirational.

In order to develop the road register the following road surface types have been developed:

- Township Seal (High Use & Standard Use)
- Township Sheeted
- Rural Seal
- Rural Class B Sheeted
- Rural Class C1 Sheeted
- Rural Class C2 Sheeted
- Rural Class C3 Sheeted
- Rural Class D Natural Formation

A key factor affecting Councils forward works program is the Condition at End of Life (CEoL) which is selected based on a condition assessment score from 0 (as new) to 100 (total deterioration). The useful life that is applied to each surface type reflects the assigned CEoL. The higher the CEoL the longer the useful life, however the poorer the condition of the road at time of treatment.

The assumptions made are reflected in this document, which are then intended to be reflected in Councils Valuation and Asset Plan.

1.2 Township Seal High Use

1.2.1 Actual Service Level

Current Replacement Cost Assumptions

Seal Width: Average 7.9m

Seal Type: 14/7mm spray seal

Pavement Width: Average 12.1m (including shoulder)

Pavement Depth: 250mm

Formation: Included

Renewal Method

Reseal: Single 14/7mm seal (assume too late intervention), add polymer for heavily cracked surfaces.

Surface CEoL: 60

Surface Life: 30 years

Pavement: Remove 100mm, rework existing sub-base, import 100mm granular material, water and roll and assume additional pavement rehabilitation for poor pavements.

Pavement CEoL: 80

Pavement Life: 60 years

Formation: Assume have indefinite life hence no cost incurred at renewal

Maintenance Method

Road inspections

Pothole and edge repairs

1.3 Township Seal Standard Use

1.3.1 Actual Service Level

Current Replacement Cost Assumptions

Seal Width: Average 7.9m

Seal Type: 14/7mm spray seal

Pavement Width: Average 12.1m (including shoulder)

Pavement Depth: 250mm

Formation: Included

Renewal Method

Reseal: Single 14/7mm seal (assume too late intervention), add polymer for heavily cracked surfaces.

Surface CEoL: 60

Surface Life: 40 years

Pavement: Remove 100mm, rework existing sub-base, import 100mm granular material, water and roll and assume additional pavement rehabilitation for poor pavements.

Pavement CEoL: 80

Pavement Life: 90 years

Formation: Assume have indefinite life hence no cost incurred at renewal

Maintenance Method

Road inspections

Pothole and edge repairs

1.4 Town Sheeted

1.4.1 Actual Service Level

Current Replacement Cost Assumptions

Sheeting Width: 6.0m (actual average is 6.8m) *Formation:* Included

Sheeting Depth: 100mm

Renewal Method

Resheet: 100mm

Surface CEoL: 100

Surface Life: 20 years

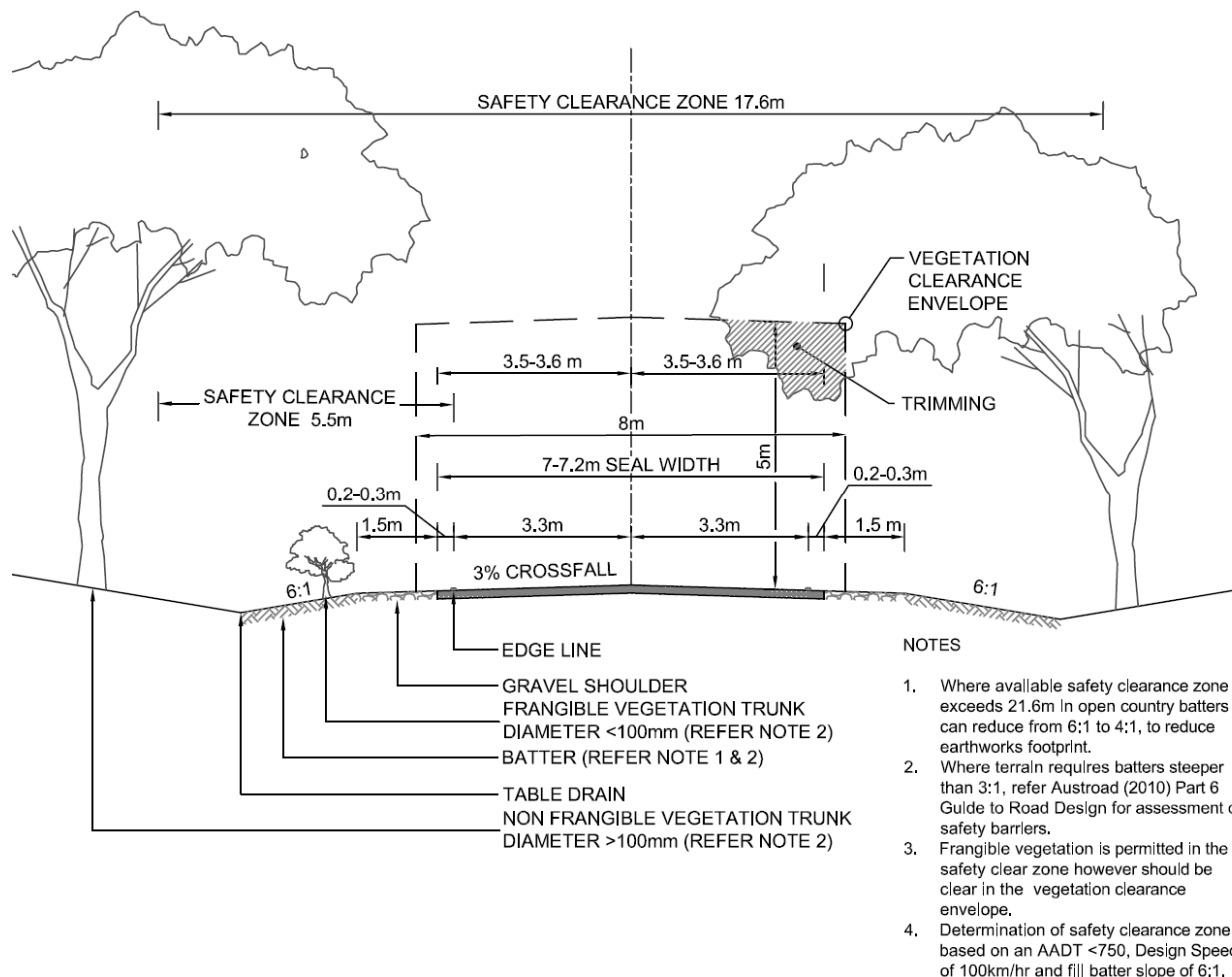
Formation: Assume have indefinite life hence no cost incurred at renewal

Maintenance Method

Grading Frequency: as required and subject to budget.

1.5 Rural Seal

1.5.1 Desired Service Level



1.5.2 Actual Service Level

Current Replacement Cost Assumptions

Seal Width: 8.0m

Pavement Width: **Average 11.5m (including shoulder)**

Seal Type: 14/7mm spray seal

Pavement Depth: 200mm

Formation: Included

Renewal Method

Reseal: Single 7mm seal (optimum intervention)

Pavement: Pulverise, top up 100mm, granular material, mix, water and roll

Surface CEoL: 65

Pavement CEoL: 80

Surface Life: 25 years

Pavement Life: 80 years

Formation: Assume have indefinite life hence no cost incurred at renewal

Maintenance Method

Road inspections

Weed control in shoulder and verge

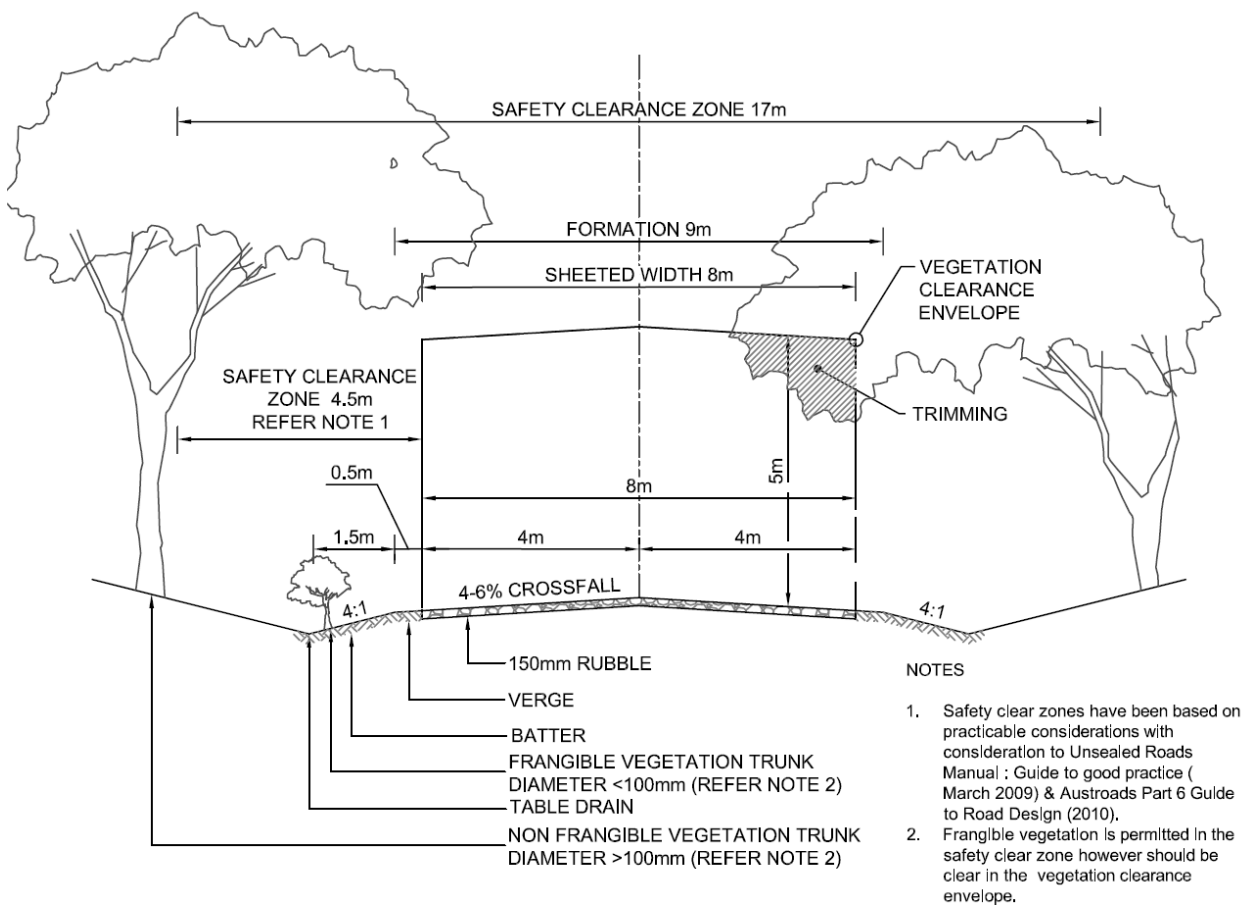
Pothole and edge repairs

1.6 Rural Class B Sheeted

Rural Class B Roads are categorised based on:

- Linking Towns
- Significant and major tourist route
- Commodity route based on ESA (Axle movements)

1.6.1 Desired Service Level



1.6.2 Actual Service Level

Current Replacement Cost Assumptions

Sheeting Width: 8.0m (actual average is 9.4m)

Formation: Included

Sheeting Depth: 150mm (plus remaining material from previous resheets)

Renewal Method

Resheet: 100mm (8.0m wide)

Formation: Assume have indefinite life hence no cost incurred at renewal

Surface CEoL: 65 (assumes 50mm rubble left prior to resheeting with no subgrade break through)

Surface Life: Poor material 18 years; Average material 20 years; Good material 22 years

Maintenance Method

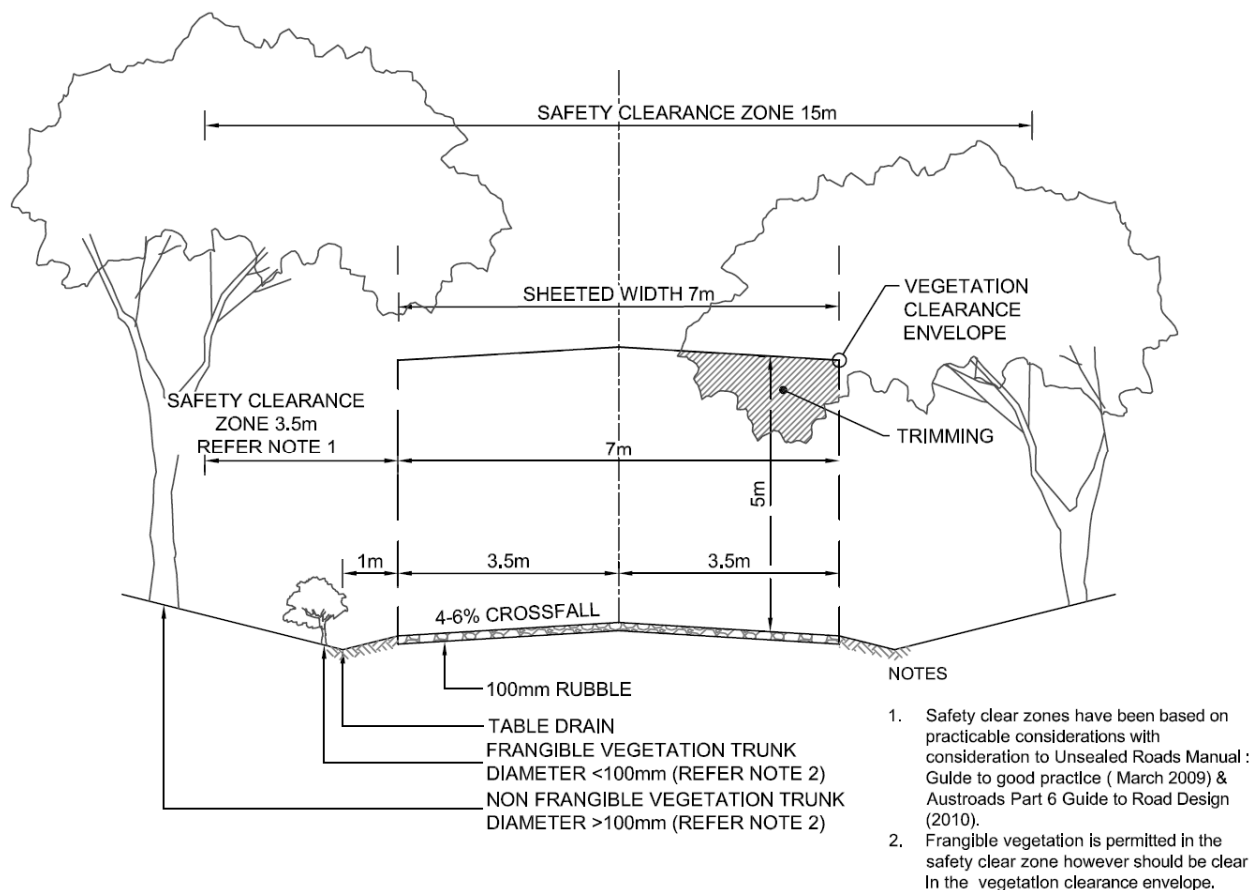
Grading Frequency: 2-3 per year

1.7 Rural Class C1 Sheeted

Rural Class C1 Roads are categorised based on:

- Linking Settlements
- Secondary tourist route
- Commodity route based on ESA axle movements (may be seasonal)

1.7.1 Desired Service Level



1.7.2 Actual Service Level

Current Replacement Cost Assumptions

Sheeting Width: 7.0m (actual average is 8.0m)

Formation: Included

Sheeting Depth: 100mm (plus remaining material from previous resheets)

Renewal Method

Resheet: 100mm (7.0m wide)

Formation: Assume have indefinite life hence no cost incurred at renewal

Surface CEoL: 70 (assumes 50mm rubble left prior to resheeting with some subgrade break through)

Surface Life: Poor material 15 years; Average material 17 years; Good material 20 years

Maintenance Method

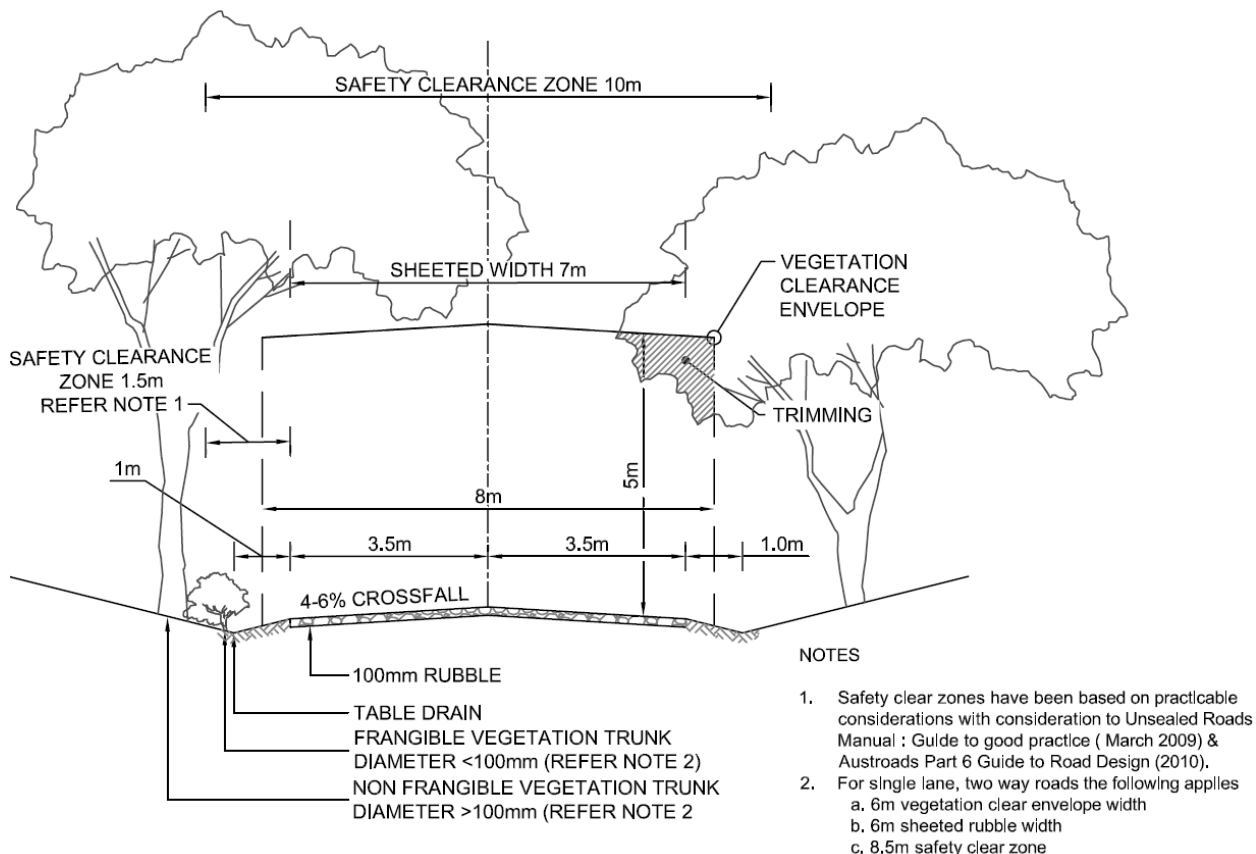
Grading Frequency: 2 per year

1.8 Rural Class C2 Sheeted

Rural Class C2 Roads are categorised based on:

- Farm Gate to Transport route

1.8.1 Desired Service Level



1.8.2 Actual Service Level

Requires all weather access

Current Replacement Cost Assumptions

Sheeting Width: 6.0m (actual average is 7.8m)

Formation: Included

Sheeting Depth: 100mm (plus remaining material from previous resheets)

Renewal Method

Resheet: 100mm (6.0m wide)

Formation: Assume have indefinite life hence no cost incurred at renewal

Surface CEoL: 75 (assumes 30mm rubble left prior to resheeting with some subgrade break through)

Surface Life: Poor material 17 years; Average material 19 years; Good material 21 years

Maintenance Method

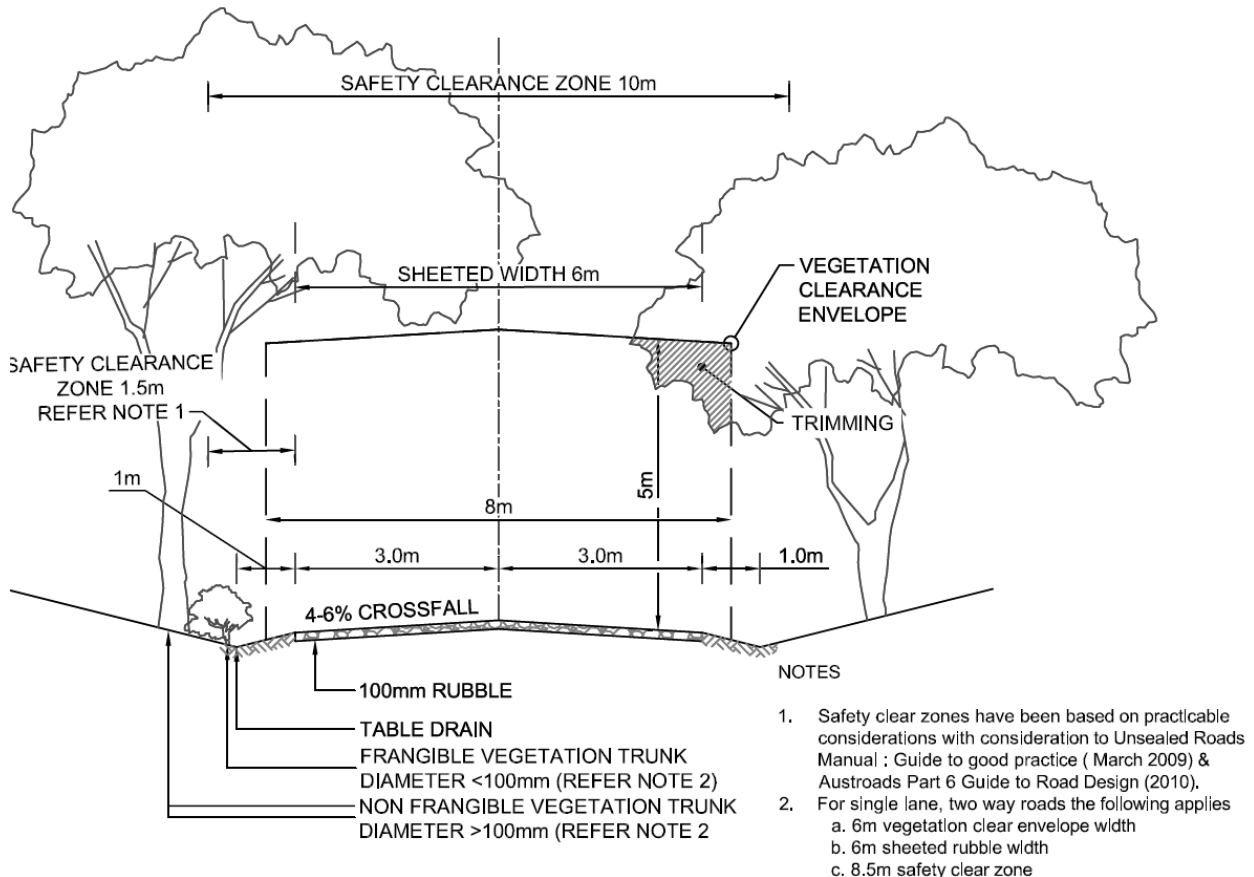
Grading Frequency: 1-2 per year

1.9 Rural Class C3 Sheeted

Class C3 roads are categorised based on:

- Farm Gate to Transport route

1.9.1 Desired Service Level



1.9.2 Actual Service Level

Requires all weather access

Current Replacement Cost Assumptions

Sheeting Width: 4.0-5.0m (actual average is 6.9m)

Formation: Included

Sheeting Depth: 100mm (plus remaining material from previous resheets)

Renewal Method

Resheet: 100mm (4.0-5.0m wide)

Formation: Assume have indefinite life hence no cost incurred at renewal

Surface CEoL: 80 (assumes 25mm rubble left prior to resheeting with some subgrade break through)

Surface Life: Poor material 21 years; Average material 23 years; Good material 25 years

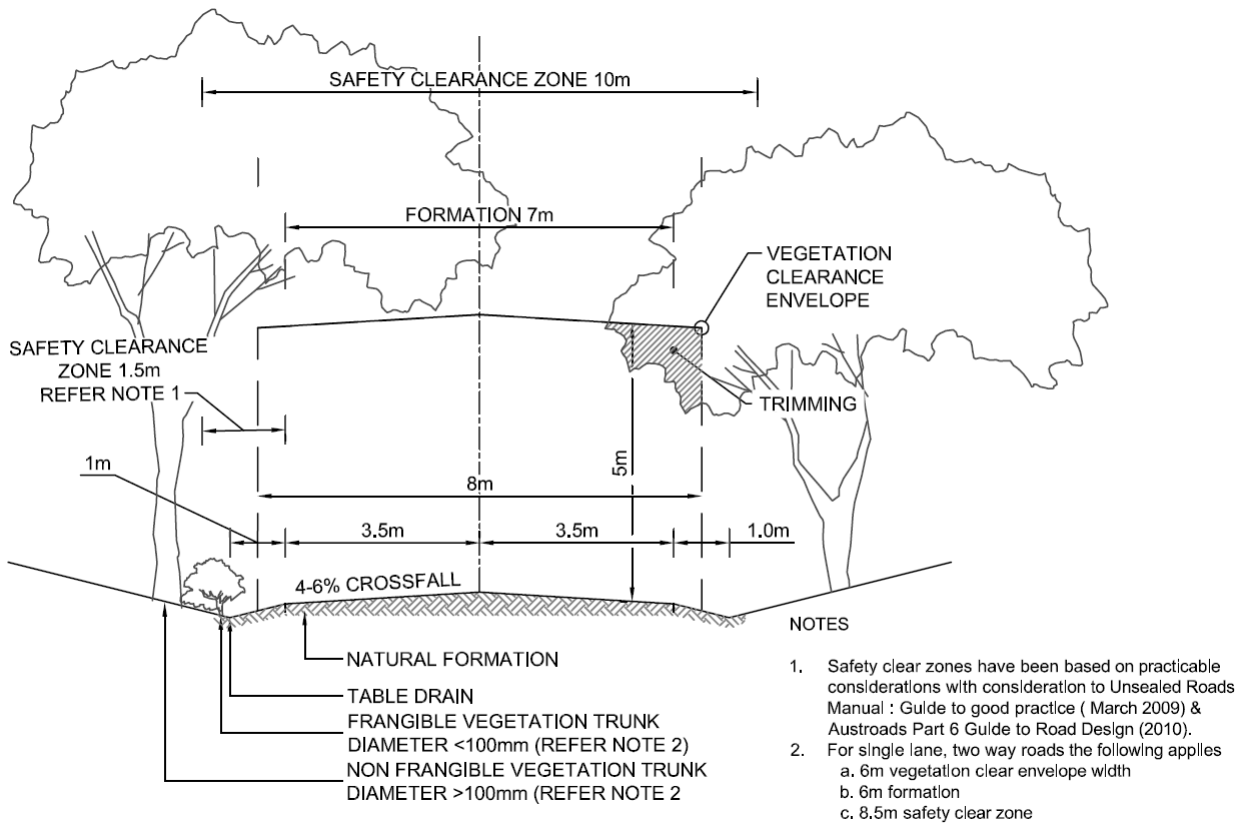
Maintenance Method

Grading Frequency: 1 per year

1.10 Rural Class D Natural Formation

Formed Graded are categorised based on:

- Farm Gate to Transport route
- All weather access not required



1.10.1 Actual Service Level

Does not require all weather access

Current Replacement Cost Assumptions

Not a valued asset

Renewal Method

Not a valued asset, maintain by grading

Maintenance Method

Grading Frequency: As required
