

Road Upgrade Criteria

Introduction

The Shire of Toodyay (Shire) recognises the need for investment in transport infrastructure that supports economic development and greater transportation choices. The Shire is currently maintaining 658 km of sealed and unsealed road network in a rural context.

Objective

To establish a transparent and quantifiable approach for the prioritisation of proposed road upgrade projects across the Shire's road network for consideration in the next financial year's budget.

Scope

This policy applies to all roads located outside the town site boundaries that are owned, controlled and managed by the Shire including:

- Non-maintained roads - unsealed with no routine grading, drainage or vegetation maintenance.
- Maintained tracks – unsealed and formed-only access ways with a low degree of maintenance.
- Unsealed roads with gravel surface and a formal pavement structure with associated drainage infrastructure.
- Sealed roads maintained by the Shire with an existing pavement and associated drainage infrastructure.

Exclusions apply to road upgrades where funding is received from external funding sources.

Policy Statement

1. Assessment Process and Decision-Making

The Council will evaluate and rank submissions based on assessment criteria scoring, cost to plan, implementation of the project, grant opportunities and available funding. Priority will be given to submissions that score highest in the key benefit criteria matrix.

Submissions received after December will not be considered for the following financial year. Funding allocations for road upgrades in the current financial year will have approval by Council in the previous financial year.

2. Key Benefit Criteria

The prioritisation and assessment of proposed road upgrades involves undertaking an evaluation against four (4) key benefit criteria:

1. Transport benefit;
2. Community Benefit;
3. Financial Benefits; and
4. Road Safety.

2.1 Transport Benefit

Each road section is assessed to determine the level of transport benefit to the community.

Table 1 summarises the various evaluation criteria and potential scores based on the assessment of each road segment.

Table 1 – Transport Evaluation Criteria

Evaluation Criteria		Score	Description
Connectivity	Is the road a through road?	5	Yes, it is a through road and principal route
		2	Yes, but not a primary route.
		0	No, it is not through road.
Hierarchy	What is the road hierarchy based on Main Roads WA Guidelines?	5	Regional Distributor
		4	Local Distributor Road
		3	Local Access Road
		2	Maintained Track
		1	Not maintained
Transport Task	What economic significance and purpose?	5	Primary producer
		4	Manufacturing and Harvest Activities
		3	Tourism
		2	Small business
		1	No or unlisted business
Primary Function	What strategic function does the road provide?	5	Regional Strategic Route (RAV, Secondary Freight Network)
		4	Local Strategic Route

Evaluation Criteria		Score	Description
		3	Tourist Destination
		2	Transport Route (Bus route, grain pastoral)
		1	Property Access
Bus Route	Is the road a designated bus route as per PTA or a school bus route?	5	Bus Route (Commercial)
		3	Bus Route (School)
		0	Not a nominated Bus Route
Traffic Volume	What is the average daily traffic volume? (Note 1)	5	Greater than 501
		4	Between 251-500
		3	Between 151-250
		2	Between 76-150
		1	Between 26-75
Commercial Vehicle Volume	What is the overall usage of commercial/heavy vehicles on this road segment? (Note 2)	5	Greater than 40% or over 50 truck movements per day
		4	Greater than 30-39% or over 50 truck movements per day
		3	Greater than 20-29% or over 35 truck movements per day
		2	Greater than 11-19% or over 20 truck movements per day

Evaluation Criteria		Score	Description
		1	Greater than 6-10% or over 12 truck movements per day
		0	Less than 5% or over 6 truck movements per day

Note 1: Where detailed traffic volume breakdowns are not available or out-of-date, volumes will be interpreted from available data in nearby segments or estimated.

Note 2: AUSTRROADS Class 3 (Two Axle Truck) and above vehicle classification.

2.2 Community Benefit

The table below summarises the various criteria and potential score based on the assessment of each road segment.

Table 2 – Community Benefit Criteria

Evaluation Criteria		Score	Description
Requests received	Was the requests received from adjoining resident?	3	Yes, requests received
		0	No requests
Number of Dwellings	What is the number of occupied dwellings located on the adjoining road section?	5	Greater than 10
		2	5 or more
		0	Less than 5
Likely Impact from future developments	What would be the possible level of impact from external future development? (Note 6)	5	Significant development impact
		2	Minor development impact
		0	No further developments
Amenity Impacts	What impacts are likely to adjoining properties?	5	Significant impact causing damage
		3	Moderate impact
		0	No impact to adjoining amenity abutting properties

Evaluation Criteria		Score	Description
Environmental Impacts to a Designated water way	What are the current environmental impacts?	5	Significant environment impact/proximity
		0	No environmental impacts
Road Condition Assessment	What is the current pavement condition rating of the section of the road from 1 to 10?	5	Equal or Greater than 8
		2	In between 5 to 7
		0	Equal or less than 4

Note 6: In general, large developments are required to pay for road upgrades. Officers will determine the likelihood of future development meeting that threshold.

2.3 Financial Benefit

The table below summarises the various financial benefit evaluation criteria and potential scores.

Table 3 – Financial Benefits

Evaluation Criteria		Score	Description
Cost of Upgrade works	What is the estimated cost of the proposed upgrade works?	5	Less than \$50,000
		3	Between \$50,000 and \$200,000
		1	Greater than \$200,000
The gap to Seal Ratio	What is the ratio of the unsealed road section relative to the entire road length?	5	Less than 10%
		4	Between 11% and 25% unsealed
		3	Between 26% and 50% unsealed
		2	Between 51% and 75% unsealed
		1	Greater than 75% unsealed

Evaluation Criteria		Score	Description
Potential external Funding Opportunity	What is the likelihood to receive external funding?	5	Almost certain
		2	Possible
		0	Unlikely (Fully municipal funding)
Ongoing maintenance Liability	What level of maintenance is required due to existing conditions? (Note 7)	10	High
		5	Medium
		0	Low

Note 7: Inputs including, historic maintenance and capital costs, longitudinal grades, drainage issue

2.4 Road Safety

Each road section is assessed to determine the level of road safety to road users. Table 4 summarises the various evaluation criteria and potential score based on the assessment of each road segment.

Table 4 – Road Safety Evaluation Criteria

Evaluation Criteria		Score	Description
Reported Crash History	Has there been any reported crashes? (Note 3) (Note 4)	5	Fatality
		3	Serious Injury
		2	Other injuries
		0	None
Road Safety and alignment (Horizontal and Vertical)	What is the overall horizontal and vertical road alignment? and What impact is this having on road safety? (Note 5)	5	Overall Poor Alignment
		3	Isolated sections with poor alignment
		0	Generally good alignment

Evaluation Criteria		Score	Description
Road Width	What is the current width of the trafficable road width?	5	Less than equal to 5.0 meters
		3	Isolated section with width below 5.0 meters
		1	Greater than 5.0 meters

Note 3: Based on Main Roads WA Crash Map Data.

Note 4: Where an area or intersection meets the criteria for the Federal Black Spot program, Council may seek external funding before consideration.

Note 5: Consideration of roadside hazards (such as trees) will not be taken into account as, in general, sealing of a road increases average speeds and has a negative effect on hazard proximity.

Definitions

Connectivity – the density of connections in path or road network and the direction of links.

Crash History – refers to road transport crashes reported by the police.

Crash Maps – GIS based crash mapping application that enables users to perform both macro and micro analysis of reported road crashes.

Federal Black Spot Program – road funding program that targets road locations where crashes are occurring.

Road Condition Assessment – a process where a road condition is monitored by taking measurements and inventories.

Road Hierarchy – categorises roads according to their functions and capabilities.

Road Widths – refers to the sealed road widths.

Reference Information

Nil.

Legislation

Nil.

Associated documents

Application Form – Road Upgrade Proposal

Version control information

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