



Shire of Dowerin Road Strategy 2025

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1. Executive Summary

The primary function of a road is to allow the transportation of people and goods from one place to another. At one end of the scale, regional roads provide a high degree of mobility, by safely and efficiently moving high volumes of traffic, often at high speeds, over relatively long distances. The function of these roads is consistent with the function of 'highways' and 'main roads' as described in the *Main Roads Act 1930* and this type of road is accepted as the responsibility of the State Government.

At the other end of the scale, the function of local streets and rural roads is primarily to provide access to abutting properties and land uses and connectivity between local districts and to main roads. They are characterised by a lower speed environment with closely spaced driveway access. These types of roads are accepted as the responsibility of Local Government.

With the introduction of legislation, Local Governments are now required to have Asset Management Plans to openly manage their infrastructure. These plans are to ensure that Councils are planning to maintain their assets adequately for the future, particularly the road network. This strategy is part of the Council's overall policy to introduce 'best practice' techniques in the routine maintenance of its infrastructure.

The report has been written to provide the reader with information that will allow them to effectively understand and manage the road network in the Shire of Dowerin. It focuses on the Road Hierarchy and the need to classify roads to a function and to assign a reasonable 'level of service' to maintain these roads to a level of customer satisfaction. It outlines the importance to align these levels of service to annual budgets and to source funding for the continuous ongoing preservation and upgrade.

2. Objectives

The intent of the road hierarchy is to provide minimum standards for construction and maintenance of roads within the Shire and to prioritise the same. The standards of maintenance and construction will represent the adopted Levels of Service (LOS) for each road within the Shire. Specifically, the road hierarchy will provide the following:

- a) A guidance to staff in preparing annual budgets and allocating resources to road maintenance.
- b) To define minimum standards for construction that balance the cost of construction and maintenance against community expectations.

3. Road Hierarchy

The Shire of Dowerin has 937 kilometres of roads (see Appendix D) of which approximately 765 kilometres are unsealed. A road hierarchy has been developed for these roads to classify them by function to provide a standard of service that the Shire can sustainably maintain into the future. The Roads Hierarchy System is based upon the Main Roads National Association of Australian State Road Authorities (NAASRA) Functional Classification System (refer to the MRWA Guidelines for Determining and Assigning Responsibility for Roads in Western Australia), but has been significantly altered to suit the smaller sized Shire Road Network. This has been implemented to create a fit for purpose road hierarchical system.

The NAASRA system was adapted for use in WA by developing a set of principles relating to the predominant role (function of roads) based on the NAASRA definitions and the requirements of the *Main Roads Act*. These principles were supplemented by a supporting set of assessment criteria that are used to quantitatively determine the function a road performs (see Appendix A). This assessment allows roads to be grouped into one of nine classes according to their function and administrative responsibility is assigned according to these classes.

Council has recently (March 2026) adopted an overlapping hierarchy system numbered from 1 to 5 which are selected road classes, comprising the lower end of the NAASRA road classes. This type of hierarchy suits smaller rural shires with lower volume roads. These include:

- Tier 1:** Regional Distributor Rural
- Tier 2:** Local Distributor Rural
- Tier 3:** Access Road Rural
- Tier 4:** Minor Access Road Rural
- Tier 5:** Urban Road (Town Streets)

A level of service (LOS) for the management of these roads is determined as a guide to the standard that the Shire wishes to achieve with the road network. This LOS is flexible and can change according to customer satisfaction. Regular condition surveys conducted by the Shire will determine the LOS rating and any 'gap' that may result. This in turn is linked to the Asset Management Plan.

4. Road Users

As stated, roads are to allow transportation of people and goods. The type and volume is dependent on the area, local needs and industry. In general, the roads are built to cater for regular vehicular traffic. Many roads are designed and built to cater for other vehicles such as road train trucks, buses and in some cases agricultural machinery.

The road users can be categorised as the following;

- Ordinary vehicle users (standard sedans, 4-wheel drives);
- Standard trucks (4/6/8 wheelers and semi-trailers);
- Restricted Access Vehicles (RAV) (road trains, over width/length tractors, etc.); and
- School buses.

These users have different needs, so the network is classified as per these needs and all the roads rated and registered for that user. Ordinary and standard trucks can use all the Shire roads (unless a weight, or other, restriction has been imposed). Details of school bus routes are updated regularly and are available from the Coordinator Asset & Works. Details of which roads are designated for the RAV network can be found on the Main Roads Heavy Vehicle Services website (Google "RAV Mapping Tool").

5. Level of Service (LOS)

The hierarchy is defined by the prescribed functions of the transport asset and in turn the LOS that the Shire can deliver. To provide a uniform standard across the board, typical criteria guidelines have been created to ensure that all transport assets will conform to the minimum LOS. At present many roads are not constructed to the standard that has been set. The aim of the Asset Management Plan is to over time source funding to either renew or upgrade the infrastructure to meet the required LOS.

A table (Appendix B & C) shows the LOS for each transport asset function. The LOS is a flexible criterion and subject to change to suit either customer satisfaction or funding restraints.

6. Funding

There are several sources of funding available to the Shire to maintain and/or upgrade Council Roads and associated infrastructure. These funds vary depending on many factors such as Road Asset Value, rate base, planning ability, traffic count values, political influence, and policy. State and Federal Governments are now requesting evidence of good asset management strategies to be in place by Local Government to manage their assets. Funding bodies require ever increasing detailed submissions from the Local Government

to support their funding application with robust reasoning and planning.

The different types of funding available for road infrastructure maintenance, preservation and upgrade works are:

- **Shire Rates – Local Government**
 - Set by Council, a portion of the collected rates revenue is allocated to fund Renewal, Upgrade (Improvement) Road projects (often as matching funding to Federal and State Government Road Funding Programs) and Road Maintenance Works.
- **Financial Assistance Grants (FAG) – Federal Government**
 - These funds are allocated by the Federal Government.
 - Council receives two (2) lots of this type of Funding per annum. These are for Roadworks and General Funding. The Roadworks FAGs component should be expended on Road maintenance, preservation and/or upgrade works.
 - Can be utilised to fund Renewal, Upgrade (Improvement) Road projects and Road Maintenance Works.
 - Is expected to be an ongoing Program in which Council receives an allocation of funding each financial year. Is 100% funded by the Federal Government (ie no matching funding).
- **Direct Grants – State Government**
 - This Program is managed via Main Roads WA in consultation with Local Governments and is funded via the State Road Funds to Local Government Agreement (SRFLGA) – rolling five (5) year agreements that commenced in the late 1990's. The current agreement expires at the end of the 2027/28 Financial Year.
 - Can be utilised to fund Renewal, Upgrade (Improvement) Road projects and Road Maintenance Works.
 - Is expected to be an ongoing Program in which Council receives an allocation of funding each financial year. Is 100% funded by the State Government (ie no matching funding).
- **Road Project Grants – State & Local Government**
 - This Program is managed via Main Roads WA in consultation with Local Governments and is funded via the State Road Funds to Local Government Agreement (SRFLGA) – rolling five (5) year agreements that commenced in the late 1990's. The current agreement expires at the end of the 2027/28 Financial Year.
 - Can be utilised to fund Renewal and / or Upgrade (Improvement) Road projects (not maintenance works) on 2040 Roads ONLY.
 - Is expected to be an ongoing Program in which Council receives an allocation of funding each financial year. This funding is to be matched maximum 2 : minimum 1 with Municipal Funding. Is allocated via five (5) year Programs. The current Program is due to expire at the end of the 2027/28 financial Yr.
 - This funding is derived from a percentage of WA vehicle licencing fees collected by the State Government;
- **Commodity Route Funding (CRF) – State & Local Government**
 - This Program is managed via Main Roads WA in consultation with Local Governments and is funded via the State Road Funds to Local Government Agreement (SRFLGA) – rolling five (5) year agreements that commenced in the late 1990's. The current agreement expires at the end of the 2027/28 Financial Year.
 - This Funding Stream has been developed to Fund Roadworks on Roads NOT listed in the Roads 2040 Program and yet has a significantly high priority transport task associated with the transport of a commodity such as grain, timber, agricultural lime, iron ore, etc. Please note that while LGs apply for this funding for Projects on 2040 Roads, one of the criteria that reduces the Prioritisation Score is the fact that the road is a 2040 Road and as such these Project applications are generally unsuccessful.
 - Is opportunistic funding. Funding has to be applied for, a year in advance of the expected construction year. This funding is to be matched 2:1 with Municipal Funding. This funding is currently capped at a maximum \$350,000 per annum

(so with matching funding the total available CRF funding per annum is \$525,000. This funding stream is expected to be funded into the foreseeable future.

- **Nation Building Program (National Black Spot) – Federal Government**
 - This Program is managed via Main Roads WA in consultation with Local Governments and is funded via the Federal Government. This funding stream is expected to be funded into the foreseeable future.
 - Is opportunistic funding. Funding is 100% funded (no matching funding) but is allocated on a priority basis, and is only eligible on a road section or intersection with either sufficient road crash data or a Road Safety Audit (in which the Cost to benefit analysis meets a stringent minimum requirement), and that shows a significantly high safety risk.
- **State Black Spot Program – State & Local Government**
 - This Program is managed via Main Roads WA in consultation with Local Governments and is funded via the State Road Funds to Local Government Agreement (SRFLGA) – rolling five (5) year agreements that commenced in the late 1990's. The current agreement expires at the end of the 2027/28 Financial Year.
 - Is opportunistic funding. Funding has to be applied for, a year in advance of the expected construction year. This funding is to be matched maximum 2 : minimum 1 with Municipal Funding. This funding stream is expected to be funded into the foreseeable future.
 - Funding is allocated on a priority basis, and is only eligible on a road section or intersection with either sufficient road crash data or a Road Safety Audit that shows a reasonably high safety risk.
- **Roads to Recovery (R2R) – Federal Government**
 - Can be utilised to fund Renewal and / or Upgrade (Improvement) Road projects (not maintenance works).
 - Is expected to be an ongoing Program in which Council receives an allocation of funding each financial year. Is 100% funded by the Federal Government (ie no matching funding). Is allocated via five (5) year Programs. The current Program is due to expire at the end of the 2028/29 financial Yr.
 - LGs must expend more Own Revenue (Municipal monies) on Roadworks each year than that LGs R2R Reference Amount to continue receiving this funding. This Reference Amount is based upon the average Own Resource (Municipal monies) expended on Road related Works, over the previous five (5) year period.
- **Disaster Recovery Funding Arrangements (DRFAWA) – Federal & Local Government**
 - Commenced as of 1 November 2018. The new arrangements replace the Western Australia Natural Disaster Relief and Recovery Arrangements (WANDRRA). Funding through DRFAWA is now administered by the Department of Fire & Emergency Services (DFES). These funds are for emergency and immediate reconstruction works and essential public asset reconstruction following a natural disaster event example bushfire, storm, earthquake etc. Costs for the event must exceed \$240,000, with Council matching funding to comprise 25% of the total cost of restoration works - to a contribution limit of approximately \$154,300;
- **Wheatbelt Secondary Freight Network (WSFN) – Federal, State & Local Government**
 - The WSFN is a Wheatbelt Region strategy to improve road freight safety and efficiency across the key transport routes that support the Wheatbelt Region's major industries. There are currently 4,400km of freight routes across the Wheatbelt and these Routes connect to MRWA Highways.
 - Is opportunistic funding. It is a jointly funded program between the 42 Wheatbelt LGs (1/15 of Total Funding), and the Federal (12/15 of Total Funding) and State Governments (2/15 of Total Funding). Future funding is reliant on Political means, and as such is difficult to gage whether it may continue.
 - Funding is prioritised via an Multi Criteria Assessment (MCA) Model, and is competitive. The current total \$187.5 Million Funding is expected to expire in the

2026/27 Yr.

- This Program is managed via Main Roads WA in consultation with the 42 Wheatbelt Local Governments.
- **Safer Local Roads & Infrastructure Program (SLRIP) Funding – Federal Government**
 - Funding is prioritised via a number of criteria (including Road Counts and Commodity and Freight Value), and is highly competitive and not guaranteed.
 - Is opportunistic funding. Funding has to be applied for, a year in advance of the expected construction year. This funding is to be matched maximum 80% : minimum 20% with Municipal Funding. Is difficult to know if this funding will continue into the foreseeable future.
 - Can be utilised for various types of Road, Bridge and Off Road Parking Bay Upgrade / Renewal Projects.
 - Has superseded the previous Heavy Vehicle, Safety and Productivity Program (HVSPP).
- **Bridge Funding Grants – State & Local Government**
 - This Program is managed via Main Roads WA in consultation with Local Governments and is funded via the State Road Funds to Local Government Agreement (SRFLGA) – rolling five (5) year agreements that commenced in the late 1990's. The current agreement expires at the end of the 2027/28 Financial Year.
 - Is opportunistic funding. Funding has to be applied for, a year in advance of the expected construction year. This funding is to be matched 2:1 with Municipal Funding. This funding stream is expected to be funded into the foreseeable future.
 - It can be sourced to fund Specific Maintenance and Bridge Replacement Works – significant preservation works, both as a result of Level 2 (MRWA) Bridge Inspection Reports. Will only be funded if the LG can prove they have an ongoing 5 Yr Bridge Maintenance Program, carry out Level 1 Bridge Inspections each year (including providing copies of these to the MRWA Structures section), and expend considerable sums of their own source funding on Routine and Periodic Maintenance each year (as a result of the Level 1 Bridge Inspections findings - \$5000 / Bridge / Annum as a suggested target range). LG's are required to have separate GL accounts for Bridge Maintenance in order to prove this expenditure to MRWA.

7. Regional Road Group

Regional Road Groups (RRGs) are responsible for assessing Local Government Road funding needs; prioritising Road Projects and Black Spot Projects; developing long-term plans for the distribution of Road Project funding; monitoring and reporting program effectiveness; monitoring expenditure on approved local roads projects; raising relevant issues; and the development of regional funding prioritisation guidelines based on recommended standards.

There are ten RRGs in WA, established under the State Road Funds to Local Government Agreement which is overseen by a State Advisory Committee (SAC). The RRGs make recommendations to the SAC regarding the Annual Local Government Roads Program for their Region and any other relevant issues.

The RRGs comprise elected representatives from each LG within the road group. Most RRGs are supported by a number of sub regional road groups (SRRG) also comprising elected representatives from each LG. LG Staff attend both SRRG and RRG Meetings. RRGs also have technical committee's comprising LG staff. Administrative support is provided by Main Roads WA. RRGs importantly provide Local Government with a voice in how the State Government's contribution to Local Roads is spent. RRG members serve a vital and

valuable role in ensuring road funding decisions maximise community benefits and preserve and improve the LG Road Network across Western Australia. The Shire of Dowerin is a Member Council of the Kellerberrin SRRG and the Wheatbelt North RRG (WBN RRG).

Endorsed by the WN RRG, the 'Roads 2040 Strategy' is a document that lists all of the Regionally Significant Roads on the WN RRG LG Road Network. Only the 2040 roads listed in the WN RRG Regional Road Development Strategy are eligible for Road Project Grant funding. The road list is reviewed every five years by the WN RRG, with the 2040 update being completed in the 2021 year.

8. Roads 2040 Regional Road Development Strategy

The Roads 2020 Regional Road Development Strategies, released during 1997 and 1998, were an initiative of the 1992 Memorandum of Understanding between the State Government and the Western Australian Local Government Association, then known as the Western Australian Municipal Association. The Memorandum of Understanding required that the road development strategies be reviewed at five yearly intervals to assess the effects of changing circumstances.

The Roads 2040 Regional Road Development Strategy, for the Wheatbelt Region constitutes the third review of these WN RRG regionally Significant LG Roads. LGs within the WN RRG were consulted and engaged in the process of reviewing and updating the WN RRG Roads 2040 Development Strategy document. This document is available on the WA Local Government Association (WALGA) website.

The Roads of Regional Significance located within the Shire of Dowerin as listed in the Roads 2040 Development Strategy document, are;

- 1) Cunderdin - Minnivale Road
- 2) Dowerin - Kalannie Road
- 3) Dowerin - Konnongorring Road
- 4) Dowerin - Meckering Road
- 5) Koombarkine North Road
- 6) Manmanning Road
- 7) Redding Road
- 8) Uberin Road
- 9) Wongan Hills - Koorda Road

Each LG's Road of Significance listed in the Roads 2040 WN RRG Development Strategy document defines the road function, road development need and a road development strategy outlining treatments linked to funding eligibility.

In 2024, WALGA organised the ARRB High Speed Road Condition Assessment Bus to run over all of the 2040 roads in the WN RRG. Thinkproject (who manage Asset and Works Manager - formerly RAMM) were tasked to add this condition data into each LGs Data Inventory. The condition data collected was mainly for pavement roughness, rutting, cracking, surface deformations (no deflection data was collected). Additionally, the WSFN organised the ARRB High Speed Road Condition Assessment Bus to run over all of the WSFN routes in the WN RRG and Wheatbelt South RRG (WS RRG) in early 2020 and again in early 2024. This condition data collected each time, included pavement deflection, roughness, rutting, cracking, surface deformations.

9. Construction Resources (Gravel)

Most of the material used for the construction of roads is locally sourced natural gravel. A large percentage of this is sourced through landholder agreements and the Shire now pays royalties for each cubic metre extracted. The agreement form is completed before work commences and is an agreement signed by the property owner for the volume of gravel being extracted, conditions set out by the property owner while doing so and the

rehabilitation of the pit.

A Gravel Pit Policy (see Appendix E) and Procedure has been developed and implemented which documents both old and existing gravel pits with a clear and concise process outlined for management of both sourcing gravel and the final rehabilitation.

10. Construction Materials (Bitumen & Blue Metal Aggregate)

Both bitumen and aggregate materials used for road upgrade or renewal works are generally supplied by contractors from outside of the Shire of Dowerin. These materials are to meet the MRWA specification for use on the Shire's sealed road network.

11. Maintenance Practices

The maintenance of Shire roads to an acceptable standard is a part of the daily routine for the Work's crew. Maintenance is carried out in accordance with Council's Road Engineering and Subdivision Policy (Appendix H). Regular services include;

- maintenance grading;
- patching of bitumen surfacing potholes
- reconstruction of bitumen and unsurfaced road blow-outs (shoving, rutting, surface deformations, etc);
- repair/replacement of guideposts & signs;
- verge slashing or spraying with chemical treatments and removal; and
- drainage maintenance.
- storm damage cleanup
- street and footpath sweeping, pest spraying, etc

Maintenance grading is the regular grading of the existing gravel pavement to help maintain a trafficable surface for 'reasonable' vehicle ride. The amount of grading carried out depends on the road hierarchy and the condition of the pavement. As the pavement thickness reduces over time then the maintenance cost gets higher. Eventually the road is re-sheeted with 150-200mm of gravel and formed and shaped with a crown and 4% cross-fall on straight road sections and superelevation (one way fall) on road curves.

Note: This practice is only effective on roads that have adequate gravel depth and shape. If the road is uneven or has serious rutting, then other techniques such as scarifying the existing pavement and reshaping (when suitable moisture conditions permit), or re-sheeting are advisable.

Patching of blowouts on unsealed road sections, is generally carried out by the maintenance grader, multi tyred roller and water truck following the importation of a quantity of strong boney gravel to mix into the existing poor insitu soil material (which has resulted in the blowout), and then wetmix to Optimum Moisture Content (OMC – usually from 7-12% of the Material by weight) and compact and level. Should this method fail, then remove all of the poor insitu material that has resulted in the blowout and import gravel pavement material and wetmix to OMC and spread and compact.

The roads should be inspected every 12 months and any guideposts or signs that need replacing are to be undertaken by the work's crew.

Note: The activity should be carried out during the less demanding periods of the year.

Verge treatments are to be programmed annually and these activities are usually carried out by the Works crew, but can be completed by a Specialist Verge Clearing Contractor if funding permits. All verge vegetation should be removed from roadside drains and back-slope (within the "Maintenance Zone" which is included in the Exemptions to the Clearing of Native Vegetation Regulations, providing the vegetation is less than ten (10) years of age).

Note: Once completed, verge maintenance will be placed on an annual schedule and aligned to the maintenance grading activity. It is considered good practice to grade road table drains and backcuts during the drier summer periods and also clean out side (mitre) drains at the same time. A comprehensive summer grading program with one (1) grader every year (or once per two years if every year is unaffordable) will be much more affordable than letting verge vegetation grow to the point where it takes the whole crew and/or a specialist contractor to remove more mature vegetation (often verge vegetation > 3 years old could be considered mature vegetation that cannot easily be removed by a Maintenance Grader and/or not leave a mess along the side of the road).

The above activities are some of the key maintenance works that the Works crew carry out. Other activities include sealed pavement patching, culvert cleaning, drain clearing and floodway maintenance.

12. Environmental

Council is committed to sustainable management and complying to environmental policy. In particular, the conservation of native vegetation on roadside verges and reserves where there are threatened species and the requirement for flora and fauna surveys when required.

At various times, the Department of Water and Environmental Regulation (DWER) may carry out surveys of roads to determine if the area has any significant rare native vegetation (sensitive vegetation). Council will then be requested to declare these roads floraroads and sign them; accordingly, signs are provided by DWER.

The Shire also programs their maintenance practices around these roads to ensure that sensitive vegetation remains intact, and the road is maintained as safe as is practicably possible for the public to utilise

13. Future Planning

Long term, 5- and 10-year programs for re-sheeting, resurfacing and rehabilitation plans have been developed and adopted by Council.

A 10 Year Road Renewal Program (roads, culverts and footpaths) has recently (March 2026) been developed and adopted by Council.

Traffic counters are being used to record traffic volumes to assist with road planning and funding. Council has five traffic counters, and they will be utilised to collect information for both low and peak period traffic volumes to formulate a full road inventory based on traffic counts. Careful planning by programming traffic counters for every road within the Shire will help quantify and qualify existing road classifications. However, in the peak eight (8) week harvest period from mid October to late December each year, it is imperative that all five (5) of Council's Road Counters are strategically set out on higher tiered roads for leveraging future RRG, Commodity Route, potential SLRIP, and potential Blackspot road funding. It is strongly recommended that during these peak eight (8) week harvest periods from mid October to late December each year, that Council hires additional Road Counters if required (currently it costs approximately \$200 / week / counter to hire plus additional road tubes and cleats and screws will be required – however, these road tubes and cleats and screws can be utilised as spares for Councils Road Counters).

Staff are to inspect the roads regularly to determine their condition and using the hierarchy format will define a more robust forwards works program that will detail roads that require preservation/upgrading and associated costs to ensure that a balanced budget is maintain in the future.

14. Further information

Main Roads WA website for:

- RAV Routes (Google “RAV Mapping Tool”)
- Road Hierarchy Guidelines
- Funding

DFES Website for:

- Disaster Relief Funding Arrangements

WALGA website for:

- WN RRG Roads 2040 Development Strategy
- Cost Recovery from Extraordinary Freight Damage to Sealed and Unsealed Roads Guidelines
- WALGA Road Visual Condition Assessment Manual

15. Relevant Legislation

- Bush Fires Act 1954
- Environmental Protection Act 2003
- Environmental Protection and Biodiversity Conservation Act 1999
- Local Government Act 1995
- Main Roads Act 1930
- Planning and Development Act 2005
- Soil and Conservation Act 1945
- Wildlife Conservation Act 1950-1979

16. Monitoring, Review and Reporting

- Action Plan Progress Report will be reviewed quarterly
- Annual program review

APPENDIX A - NAASRA Road Types and Criteria

Criteria	Primary Distributor * (PD)	District Distributor A * Urban (DA)	District Distributor B * Urban (DB)	Regional Distributor * Rural (RD)	Local Distributor* Urban (LD)	Local Distributor* Rural (LD)	Access * Urban (A)	Local Access Rural (LA)	Minor Access Rural (MA)
Description	Provide for major regional and inter- regional traffic movement and carry large volumes of generally fast-moving traffic.	Carry traffic between industrial, commercial and residential areas connect to primary Distance	These roads have reduced capacity due to flow restrictions from access to and roadside.	These roads link significant destinations and are designed for efficient movement of traffic.	Roads that carry traffic within a cell and link District or Regional Distributors.	Roads that carry traffic within a cell and link Rural District and to Rural Access roads.	Provide access to abutting properties with amenity, safety and aesthetic aspects given priority	Provide access to abutting rural properties and connecting to distributor roads	Provide access to abutting rural properties (<i>usually no through roads</i>)
<i>Primary Criteria*</i>									
1. Location	All of WA, incl. BUA	Only Built Up Area (BUA)	Only BUA	Only BUA	All of WA incl. BUA	All of WA incl. BUA	All of WA incl. BUA	Shire of Dowerin	Shire of Dowerin
2. Responsibility	Main Roads WA	Local Govt	Local Govt	Local Govt	Local Govt	Local Govt	Local Govt	Local Govt	Local Govt
3. Degree of Connectivity	High. Connects to other Primary and Distributor roads	High. Connects to Primary and/or other Distributor roads	High. Connects to Primary and/or other Distributor roads	High. Connects to Primary and/or other Distributor roads	Medium. Minor Network Role. Connects to Distributors and Access Roads	Medium. Minor Network Role. Connects to Distributors and Access Roads	Low Provides mainly for property access.	Low Provides mainly for property access. Connect to local Distributor.	None, generally dead end
4. Predominant Purpose	Movement of inter - regional and/or cross town/city traffic, e.g., freeways, highways, and main roads.	High-capacity traffic movements between industrial, commercial and residential areas.	Reduced capacity but high traffic volumes travelling between industrial, commercial and residential areas.	Roads linking significant destinations and designed for efficient movement of traffic within regions.	Movement of traffic within local areas and connect access roads to higher order Distributors.	Movement of traffic within local areas and connect access roads to higher order districts.	Provision of vehicle access to abutting properties.	Provision of vehicle access to abutting properties.	Provision of vehicle access to abutting properties.
<i>Secondary Criteria*</i>									
5. Indicative Traffic Volume (AADT)	In accordance with Classification Asses. Guidelines.	Above 8 000 vpd	Above 6 000 vpd	Above 100 vpd	BUA – Max. 6 000 vpd. Non-BUA - < 100	50 – 100 vpd	BUA- Max 3 000 vpd. Non-BUA – < 75	< 50 vpd	< 10 vpd
6. Recommended Operating Speed	60-110km/h	60-80km/h	60-70 km/h	60-110 km/h	BUA – 50-60 km/h Non-BUA – 60-110	< 80 km/h	BUA– 50 km/h non-BUA – 50-110	< 80 km/h	<60 km/h
7. Heavy Vehicles permitted (RAV)	Yes	Yes	Yes	Yes	Yes,	Only to service properties.	Only to service properties.	Only to service properties.	N/R

Criteria	Primary Distributor * (PD)	District Distributor A * Urban (DA)	District Distributor B * Urban (DB)	Regional Distributor * Rural (RD)	Local Distributor* Urban (LD)	Local Distributor* Rural (LD)	Access * Urban (A)	Access Rural (LA)	Minor Access Rural (MA)
8. Intersection treatments	Controlled with appropriate measures	Controlled with appropriate measures e.g. traffic signals.	Controlled with appropriate Local Area Traffic Management.	Controlled with measures such as assigning and line marking of intersections.	Controlled with minor Local Area Traffic Management	No	Self-controlling with minor measurements.	Self-controlling with minor measurements.	No
9. Frontage Access	None on Controlled Access Roads.	Prefer not to have residential access. Limited commercial.	Residential and commercial access due to its historic status.	Prefer not to have property access.	Yes, for property and commercial.	Yes	Yes.	Yes	Yes
10. Pedestrians	Preferably none. Crossing should be controlled where possible.	With positive measures for control and safety	With appropriate measures for control and safety	With appropriate measures for control and safety	Yes, with minor safety measures where necessary.	Yes	Yes.	No	No
11. Buses	Yes	Yes	Yes	Yes	Yes	School buses.	School buses.	School buses.	No
12. On-Road Parking	No. (emergency parking on shoulders only)	Generally no. Clearways where necessary.	Not preferred. Clearways where necessary.	No. Emergency parking on shoulders.	BUA - yes, where sufficient width, etc Non-BUA - No. Emergency parking on shoulders.	Yes, where sufficient width and sight distance allow safe passing.	Yes, where sufficient width and sight distance allow safe passing.	Yes, where sufficient width and sight distance allow safe passing.	N/R
13. Signs & Line marking	Centre lines, speed signs, guide and service signs to highway standard.	Centre lines, speed signs, guide and service signs.	Centre lines, speed signs, guide and service signs.	Centre lines, speed signs and guide signs.	Speed and guide signs.	Rural areas - guide signs.	Urban areas - generally not applicable.	Rural areas - guide signs.	Guide signs as required
14. Rest Areas & Parking Bays	In accordance with "Roadside Stopping Places Policy".	Not Applicable.	Not Applicable.	Parking Bays/Rest Areas. Desired at 60km spacing.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.

APPENDIX B - Council's Road Hierarchy Level of Service (LOS)

Criteria	Primary Distributor * (PD)	District Distributor A * Urban (DA)	District Distributor B * Urban (DB)	Regional Distributor * Rural (RD)	Local Distributor* Urban (LD)	Local Distributor* Rural (LD)	Access * Urban (A)	Access* Rural (LA)	Minor Access Rural (MA)
1. Funding Source	Not Applicable	2040/R2R	2040/R2R	2040/ R2R	2040/R2R	2040/R2R	Council	Council	Council
2. Road Pavement Width minimum		7.4m seal	7.4m seal	10m formation 7.0m seal	7.0m seal	10.0m formation 7.0m surface	6.0m seal	8.0m formation 6.0m width	6.0m formation
3. Surface Type		Asphalt, Bitumen/ Stone	Asphalt, Bitumen / Stone	Bitumen/Stone, Gravel	Asphalt Bitumen/ Stone	Bitumen/ Stone, Gravel	Bitumen/ Stone	Gravel	Earth/Gravel
4. Verge Treatments		Kerbing	Kerbing	Gravel Shoulders, grade back-slopes, weed spraying	Kerbing	Gravel Shoulders, Slash back-slopes, weed spraying	Kerbing – Gravel shoulders	Earth shoulders,	Not Applicable.
5. Drainage		Pipe	Pipe	Pipe / Open drains	Pipe	Open drains	Pipe / Table drains	Open drains	Not Applicable.
6. Road Inspections		Bi-Annual or as requested via road complaint	Bi-Annual or as requested via road complaint	Annual or as requested via road complaint	Annual or as requested via road complaint	Annual or as requested via road complaint	Annual or as requested via road complaint	Annual or as requested via road complaint	Annual or as requested via road complaint
7. Required Routine - Grading		Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Annual Grade	Not Applicable.	Annual Grade.	Every 24 Months
8. Required Routine - Pavement Surface		Pothole patching, cracking sealing	Pothole patching, cracking sealing	Pothole patching, cracking sealing, gravel re-sheeting	Pothole patching, cracking sealing	Pothole patching, cracking sealing, gravel re-sheeting	Pothole patching, cracking sealing	Minor gravel patching	Not Applicable.
9. Required Routine - Verges		Mowing of Council reserve Verges	Mowing of Council reserve Verges	Vegetation mulching, weed spraying when required	Mowing of Council reserve verges as per schedule	Vegetation mulching, shoulder and back-slope grading (annually)	N/A	Vegetation mulching shoulders and back-slope grading when required	N/A

APPENDIX C - Councils Road Maintenance Levels of Service

Road Resealing	20 years or as funding permits
Unsealed Road Re-Sheeting	To be determined by Council based on condition assessment, traffic volumes and funding availability. 30 years is generally when a road will require to be re-sheeted.
Maintenance Grading	As per table above in winter/spring as conditions allow. At other times as determined by AWC based on condition assessment. For example - school bus routes, unsealed local distributor roads of significance etc.
Shoulder Grading	Prior to drop off reaching a depth of 50 mm.
Potholes / Edge Break	Pothole or Edge Break patching as notified and as required, based on size, location, and hazard. Large Potholes generally exceeding 200mm's which are in a vehicle wheel path is to be repaired within 5 days of notification. Warning signage is to be in place within 4 hours.
Vegetation Management	Spraying / slashing / mechanical removal when required or as per schedule.
Drainage	Clear known problems annually. Respond to culvert pipe blockages causing road flooding within 1 day of notification. Town site gully pits to be cleared once per annum. Town site open drainage channels to be cleared once per annum.
Guideposts	As per Australian Standards within 4 weeks of notification
Signage	As per Australian Standards within 4 weeks of notification, regulatory signage to be referred to MRWA within 4 hours of notification.
Trees over Road	Attend / make safe within 4 hours of notification, removed from road within 3 days (subject to weather & emergency response).
Other Infrastructure – Street Sweeping	Sweeping of town streets up to 4 times per annum.

APPENDIX D – Shire of Dowerin 5 Tier Road Hierarchy List

Road ID	Road	Start	End	Length
Tier 1 – Regional Distributor Rural (RRG 2040)			Total	137.81 km
1	Cunderdin – Minnivale Road	0	27230	27230
182	Dowerin – Kalannie Road	0	48770	48770
25	Dowerin – Koorda Road	0	22170	22170
183	Dowerin – Meckering Road	0	25640	25640
112	Jones Street	0	1480	1480
23	Koorda – Wongan Hills Road	13920	23430	9510
91	Metcalf Street	0	1290	1290
2	Redding Road	0	900	900
101812	Stewart Street (560)	620	1440	820
Tier 2 – Local Distributor Rural			Total	180.43 km
8	Amery – Benjaberring Road	0	8810	8810
64	Dowerin – Konnongorring Road	0	4350	4350
10	Ejanding West Road	0	12410	12410
11	Fifty-Four Gate West Road	0	2650	2650
4	Hindmarsh Road	0	13150	13150
3	Koombekine North Road	0	18850	18850
164	Manmanning Road	0	5670	5670
26	Minnivale Northeast Road	0	6290	6290
41	Moonijin East Road	0	2680	2680
41	Moonijin West Road	0	11080	11080
162	Nambling South Road	0	22520	22520
9	Old Koorda Road	0	20450	20450
5	Rabbit Proof Fence Road	20360	43140	22780
45	Rifle Range Road	0	3130	3130
46	Sanders Road	0	7190	7190
19	Uberin Road	0	18420	18420
Tier 3 – Access Road Rural			Total	365.15 km
8	Amery – Benjaberring Road	8810	14470	5660
142	Amery South Road	0	4350	4350
77	Bailey East West Road	0	5340	5340
13	Berring East Road	0	4950	4950
134	Berry Road	0	890	890
40	Booralaming West Road	0	14860	14860
130	Bothering East Road	0	4190	4190
12	Cemetery Road	0	11610	11610
82	Clinic Road	0	17480	17480
101	Couper Road	0	1850	1850
60	Eaton Road	0	2090	2090
49	Eaton Sand Hole Road	0	3320	3320

Road ID	Road	Start	End	Length
28	Ejanding East Road	0	9700	9700
161	Fairlie Road	0	1380	1380
11	Fifty-Four Gate West Road	2650	17260	14610
170	Gangell Road	0	3720	3720
51	Griffith - Whaley Road	0	4200	4200
48	Hagboom Road	0	2980	2980
20	Hale Road	0	2150	2150
52	Harris East Road	0	6160	6160
21	Haywood West Road	0	7720	7720
27	Hesford Road	0	5430	5430
15	Hindmarsh Back Road	0	15110	15110
124	Hudson Road	0	5630	5630
31	King Road	0	6710	6710
23	Koorda - Wongan Hills Road	0	13920	13920
55	Maisey Road	0	4210	4210
36	Manmanning Town Road	0	3310	3310
58	McMorran Road	0	2220	2220
42	McHugh Road	0	8590	8590
79	Metcalf East Road	0	3190	3190
62	Nambling North Road	0	2100	2100
6	Nambling Road	0	2230	2230
165	Old Nalkain Road	0	3510	3510
30	Parker Road	0	7700	7700
16	Pickering Road	0	5410	5410
56	Quelagetting West Road	0	4800	4800
5	Rabbit Proof Fence Road	0	20240	20240
5	Rabbit Proof Fence Road	43140	52720	9580
17	Robinson Road	0	8540	8540
185	Shara Road	0	920	920
18	Spark Road	0	8320	8320
129	Thomas Road	0	5880	5880
14	Thornett Road	0	11110	11110
47	Twenty Six Gate Road	0	7200	7200
19	Uberin Road	18420	24090	5670
57	Ucarty Rock Road	0	1770	1770
7	Ucarty South Road	0	18040	18040
37	Ward Road	0	11060	11060
169	Watercarrin Bin Road	0	5950	5950
76	Wilkins Road	0	8450	8450
50	Williams North Road	0	7240	7240
35	Williams Road	0	8150	8150
32	Windsor Road	0	7060	7060

Road ID	Road	Start	End	Length
Tier 4 - Minor Access Road Rural			Total	246.63 km
167	Air Street	0	110	110
68	Amery North Road	0	8340	8340
68	Avery Road	0	1810	1810
38	Bailey Road	0	8120	8120
153	Bear Road	0	1840	1840
133	Bebbington Road	0	2980	2980
128	Berring - Nambling Road	0	3220	3220
132	Borgward East Road	0	1660	1660
78	Borgward Road	0	1050	1050
99	Borgward Street	0	320	320
135	Bradley Road	0	400	400
70	Bruce Road	0	5400	5400
151	Bywater Road	0	1170	1170
152	Cadoux Pump Road	0	900	900
120	Campbell Road	0	300	300
173	Clinic West Road	0	700	700
33	Cook Road	0	5570	5570
109	Culbarting Rock Road	0	2490	2490
107	Dam Road	0	4300	4300
168	Devine Road	0	1845	1845
98	Dowall Street	0	770	770
97	Eddy Street	0	800	800
147	Ejanding School Road	0	480	480
148	Ejanding Siding Road	0	900	900
149	Ejanding South Road	0	1940	1940
136	Fraser Road	0	4080	4080
29	Gaskin Road	0	7120	7120
66	George Road	0	3940	3940
144	Goddard Siding Road	0	1140	1140
176	Golf Course Road	0	400	400
127	Hagboom South Road	0	2120	2120
174	Hagboom West Road	0	3000	3000
117	Halliday Street	0	400	400
39	Harris Road	0	4700	4700
138	Hatwell Road	0	440	440
125	Hennessey Road	0	1770	1770
154	Henning North Road	0	2800	2800
73	Henning Road	0	7990	7990
140	Hollins Road	0	3570	3570
131	Hughes Road	0	1800	1800

Road ID	Road	Start	End	Length
100	Hughes Street	0	220	220
67	Irvine Road	0	2660	2660
22	Jones Road	0	7230	7230
72	Jones Road D:2	0	5670	5670
159	Kalguddering East Road	0	1900	1900
63	Kalguddering Road	0	3910	3910
178	Lake Koombekine Road	0	1180	1180
81	Lawrence Road	0	4050	4050
108	Lawrence South Road	0	1560	1560
122	Lee Road	0	1530	1530
175	Lowndes Road	0	1450	1450
123	Lynn Road	0	2250	2250
156	Mains Road	0	2460	2460
36	Manmanning Town Road	0	3310	3310
104	McKay Road	0	9690	9690
139	McKinnon Road	0	2420	2420
71	McPherson Road	0	2610	2610
59	Melvin Road	0	2410	2410
79	Metcalf Road	0	5280	5280
145	Miles Road	0	480	480
172	Mitchell Road	0	3650	3650
83	Montague Road	0	2820	2820
44	Morrell North Road	0	3860	3860
62	Nambling North Road	2100	5670	3570
74	Norman Road	0	3780	3780
137	Norris Road	0	970	970
141	Old Kalannie Road	0	1340	1340
84	Peters Road	0	1610	1610
43	Phillips Road	0	5950	5950
34	Pulford Road	0	500	500
106	Railway Road	0	5140	5140
102	Richards Road	0	1850	1850
103	Schell Road	0	2250	2250
155	Shankland Road	0	5670	5670
157	Sharman Road	0	2170	2170
166	Smith Road	0	760	760
75	Stacy Road	0	2110	2110
105	Stout Road	0	1690	1690
121	Thomas Street	0	310	310
54	Todd Road	0	3220	3220
150	Turriff Road	0	2180	2180
61	Twine Road	0	3440	3440

Road ID	Road	Start	End	Length
126	Ucarty Road	0	2850	2850
171	Ucarty Rock East Road	0	5600	5600
53	Underwood Flat Road	0	4190	4190
119	Ward Street	0	880	880
65	Webb Road	0	3200	3200
160	Wheat Bin Road	0	900	900
69	Whitsed Road	0	3060	3060
180	Woods Road	0	2150	2150
Tier 5 – Urban Road (Town Streets)			Total	9.55 km
85	Anderson Street	0	480	480
94	Cottrell Street	0	1060	1060
116	Couper Street	0	160	160
87	Dudley Street	0	340	340
86	East Street	0	640	640
114	Erhardt Street	0	130	130
92	Fraser Street	0	260	260
115	Griffith Street	0	150	150
90	Hayter Street	0	90	90
95	Hilda Street	0	320	320
96	Jackson Street	0	130	130
89	Maisey Street	0	1130	1130
184	Meckering Road	0	850	850
88	Memorial Avenue	0	840	840
110	Norris Street	0	360	360
177	O’Loghlen Street	0	250	250
111	Place Street	0	210	210
93	Stacy Street	0	970	970
101812	Stewart Street (560)	560	620	60
101811	Stewart Street Left	0	560	560
101813	Stewart Street Right	0	560	560

