



**GLADSTONE**  
REGIONAL COUNCIL

## **Road Services - Levels of Service**

- **Levels of Service Rating**
- **Road Hierarchy and Intervention Levels**
- **Maintenance Manual**



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**Road Services - Levels of Service**  
**Levels of Service Rating**

**PART 1 of 3**

# Levels of Service Rating

## URBAN



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**Level of Service rating: 1 Urban (1U)**

Arterial Road - High service standard Urban  
Typically Department of Transport and Main Roads Owned.

**Design**

- Regular use, traffic volumes not restricted;
- Speed environment typically 60 - 100 kph;
- Constructed formation;
- Designed pavement and sealed surface;
- Designed drainage structures;
- Road width typically 12 metres wide minimum.
- On Street parking typically Nil.

**Access**

- Connections between important shire centres and localities, longer distance traffic movements between towns, major distributor road, provides access to numerous commercial properties;
- All weather access, Flood immunity Urban 1 in 100yr maximum generally.

**Maintenance**

- Maintenance Inspection every month;
- Proactive and reactive maintenance to problem or issue;
- Maintain with manufactured materials;
- Funded from Road Maintenance Performance Contract "RMPC" Department of Transport and Main Roads maintenance budget "general maintenance only" (major maintenance to be reported to, funded and undertaken by DTMR);
- NDRRA funding.



Figure 1 - Example of 1 Urban (1U) Service Level

**Level of Service rating: 2 Urban (2U)**

Sub Arterial - High service standard Urban  
<20,000 VPD

**Design**

- Regular use, traffic volumes <20,000vpd;
- Speed environment typically 80 kph;
- Constructed formation;
- Designed pavement and sealed surface;
- Designed drainage structures;
- Road width typically 11 metres wide minimum;
- Bus Route;
- On Street Parking NIL;
- Off Street Path 2 x 3.0m;
- Bicycle lane marked on road.

**Access**

- Connections, longer distance traffic movements, major distributor road, provides access to numerous commercial properties;
- All weather access, Flood immunity Urban 1 in 100yr maximum generally.

**Maintenance**

- Maintenance Inspection, once every 6 months;
- Proactive and reactive maintenance to problem or issue;
- Maintain with manufactured materials;
- Funded from Road Services Operational budget (annual maintenance programme for all roads in this category);
- NDRRA funding.



**Figure 2 - Example of 2 Urban (2U) Service Level**

**Level of Service rating: 3 Urban (3U)**

Distributor 2 lane & 4 lane - High service standard Urban  
2x lane <6,000 VPD and 4 x lane < 12,000 VPD

**Design**

- Regular use, traffic volumes (<12,000vpd 4 lanes), (<6,000vpd 2 lanes);
- Speed environment typically up to 70kph (4 lanes), 60kph (2 lanes);
- Constructed formation;
- Designed pavement and sealed surface;
- Designed drainage structures;
- Road width 11.5 metres min (each carriageway- 4 lanes), 13 metres min (2 lanes);
- Bus Route;
- On-street parking 3m lane;
- Off-street path 2 x 2.5m;
- Bicycle lane marked on road.

**Access**

- Connections of local areas to Arterial Roads, access to properties (certain cases);
- All weather access, Flood immunity Urban 1 in 50yr maximum generally.

**Maintenance**

- Maintenance Inspection, once every 9 months;
- Proactive and reactive maintenance to problem or issue;
- Maintain with manufactured materials;
- Funded from Road Services Operational budget (annual maintenance programme for all roads in this category);
- NDRRA funding.



**Figure 4 - Example of 3 Urban (3U) Service Level:  
2 Lane Distributor**



**Figure 3 - Example of 3 Urban (3U) Service Level:  
4 Lane Distributor**



**Level of Service rating: 4 Urban (4U)**

Collector Street industrial & residential/commercial - High service standard Urban  
Residential/ Commercial < 3,000 VPD and Industrial < 6,000 VPD

**Design**

- Regular use, traffic volumes (<6,000vpd industrial), (<3000vpd residential / commercial);
- Speed environment typically 60kph;
- Constructed formation;
- Designed pavement and sealed surface;
- Designed drainage structures;
- Road width 13 metres minimum (Industrial), 11 metres minimum (Residential / Commercial);
- Bus Route;
- On-street parking 2.5m lane;
- Off-street path 2 x 1.5m;
- Bicycle lane on road not marked.

**Access**

- Connection of local and minor collector streets, provides access to grouped commercial properties and individual adjacent properties;
- All weather access, Flood immunity Urban 1 in 20yr maximum generally.

**Maintenance**

- Maintenance Inspection, once every 12 months;
- Proactive and reactive maintenance to problem or issue;
- Maintain with manufactured materials;
- Funded from Road Services Operational budget (annual maintenance programme for all roads in this category);
- NDRRA funding.



**Figure 6 - Example of 4 Urban (4U) Service Level:  
Collector Street Industrial**



**Figure 5 - Example of 4 Urban (4U) Service Level:  
Collector Street Residential / Commercial**

**Level of Service rating: 5 Urban (5U)**

Residential Access Street / Place - Low to Moderate service standard Urban  
Access Street <1,000 VPD and Access Place < 150 VPD

**Design**

- Regular use, traffic volumes (<1,000vpd access street), (<150vpd access place);
- Speed environment typically 50 kph;
- Constructed formation;
- Designed pavement and sealed surface
- Designed drainage structures;
- Carriageway width 9 metres minimum (access street), 8 metres minimum (access place);
- School Bus only;
- On-street parking unmarked;
- Off-street path access street only 1 x 1.5m;
- Bicycle lane on road not marked.

**Access**

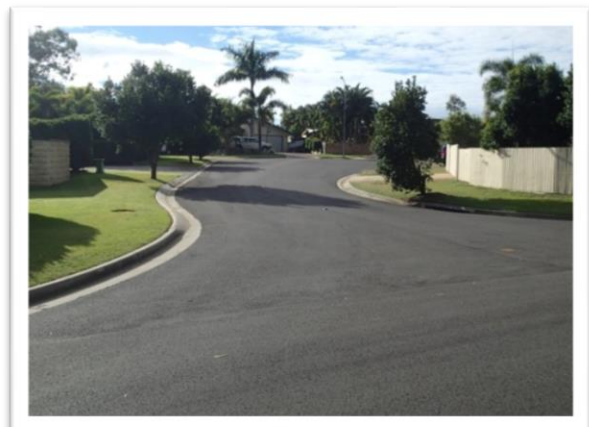
- Access to individual adjacent properties, connection to other local streets, Access Place to be "No Through Roads" typically cul-de-sacs";
- All weather access, Flood immunity 1 in 10yr maximum generally.

**Maintenance**

- Maintenance Inspection, once every 18 Months;
- Proactive and reactive maintenance to problem or issue;
- Maintain with manufactured or local materials;
- Funded from Road Services Operational budget (annual maintenance programme for all roads in this category to be determined from road asset model);
- NDRRA funding.



**Figure 7 - Example of 5 Urban (5U) Service Level:  
Access Street - Residential Street**



**Figure 8 - Example of 5 Urban (5U) Service Level:  
Access Place - Residential Street**



# Levels of Service Rating

## RURAL



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**Level of Service rating: 1 Rural (1R)**

Arterial Road - Rural High Service Standard (Sealed Surface)

NOTE: - "Rural Arterial" as per State Authority requirements.

**Design**

- Regular use, traffic volumes not restricted;
- Speed environment typically up to 100kph with some exceptions;
- Constructed formation;
- Designed pavement for Sealed Surface;
- Designed drainage structures;
- Carriageway width varies;
- Cleared Zone width" Austroads Design Part 6 Table 4.1".

**Access**

- Connection of local areas and towns to the regional road network including between important GRC centres and localities;
- Also provides access for longer distance traffic movements between towns, primary freight and dangerous goods routes and access to adjacent properties in limited cases;
- All weather access, Flood immunity 1 in 100yr maximum generally.

**Maintenance**

- Maintenance Inspection, every month;
- Proactive and reactive maintenance "sealed surface" to problem or issue, (e.g. rutting, corrugation, potholing, looseness, edge repair);
- Maintain with manufactured materials "sealed surface";
- Funded from Road Maintenance Performance Contract "RMPC" Department of Transport and Main Roads maintenance budget "general maintenance only" (major maintenance to be reported to, funded and undertaken by DTMR);
- NDRRA funding.



Figure 10 - Example of 1 Rural (1R) Unsealed Road Service Level



Figure 9 - Example of 1 Rural (1R) Sealed Road Service Level

**Level of Service rating: 2 Rural (2R)**

Sub Arterial Road (sealed & unsealed surface) Moderate service standard Rural.

NOTE: - "DTMR Rural Sub Arterial" as per State Authority requirements.

**Design**

- Regular use, traffic volumes (not restricted "sealed surface"), (<500vpd "unsealed surface");
- Speed environment typically up to 100 kph on sealed road. Gravel road not posted (drive to conditions);
- Constructed formation
- Refer design specification for pavement "Gravel Road Surface";
- Designed pavement for Sealed Surface;
- Designed drainage structures sealed surface only (as required unsealed surface)
- Carriageway width (12 metres sealed surface), Formation width (9 metres gravel surface);
- Cleared Zone width" Austroads Design Part 6 Table 4.1".

**Access**

- Connection between towns, centres, localities and generally services properties along its length;
- All weather access, Flood immunity (1 in 100yr maximum "Sealed Surface") (1 in 10yr maximum "Unsealed Surface").

**Maintenance**

- Maintenance Inspection once every 6 Months;
- Proactive and reactive maintenance "sealed surface" to problem or issue, (e.g. rutting, corrugation, potholing, looseness, edge repair);
- Proactive and reactive maintenance "unsealed surface" to significant problem or issue by assessment, (e.g. fallen tree, severe corrugation or rutting, washouts);
- Maintain with manufactured materials "sealed surface". Maintain with on-site natural or processed materials "unsealed surface";
- Funded from Road Services Operational budget (annual maintenance programme for all roads in this category);
- NDRRA funding.



Figure 12 - Example of 2 Rural (2R) Unsealed Road Service Level



Figure 11 - Example of 2 Rural (2R) Sealed Road Service Level

**FOOTNOTES:** It is usual practice not to post regulatory or advisory speeds on unsealed roads. The onus is on the driver of the vehicle to operate at a speed appropriate to the prevailing conditions present at the time).

**Level of Service rating: 3 Rural (3R)**

Distributor Road" (sealed & unsealed) Low to Moderate service standard Rural

**Design**

- Regular use, traffic volumes (<5,000vpd sealed surface), (<400vpd unsealed surface);
- Speed environment typically up to 100 kph on sealed road. Gravel road not posted (drive to conditions);
- Constructed formation;
- Refer design specification for pavement "Gravel Road Surface";
- Designed pavement for Sealed Surface;
- Designed drainage structures sealed surface only (as required unsealed surface);
- Carriageway width (9 metres sealed surface), Formation width (8 metres unsealed surface);
- Cleared Zone width "Austroads Design Part 6 Table 4.1".

**Access**

- Connection of local areas to Arterial roads ,generally services properties, multiple dwellings and/or industries along its length;
- All weather access, Flood immunity (1 in 50yr maximum Sealed Surface) (1 in 5yr maximum Unsealed Surface)

**Maintenance**

- Maintenance Inspection, once every 9 Months;
- Proactive and reactive maintenance "sealed surface" to problem or issue, (e.g. rutting, corrugation, potholing, looseness, edge repair);
- Proactive and reactive maintenance "unsealed surface" to significant problem or issue by assessment, (e.g. fallen tree, severe corrugation or rutting, washouts);
- Maintain with manufactured materials "sealed surface". Maintain with on-site natural or processed materials "unsealed surface";
- Funded from Road Services Operational budget (annual maintenance programme for all roads in this category);
- NDRRA funding.



**Figure 13 - Example of 3 Rural (3R) Unsealed Road Service Level**



**Figure 14 - Example of 3 Rural (3R) Sealed Road Service Level**

**Level of Service rating: 4 Rural (4R)**

Collector Road" (sealed & unsealed) Low service standard Rural

**Design**

- Minimal use, traffic volumes (<1,000vpd sealed surface), (<300vpd unsealed surface)
- Speed environment typically up to 100kph on sealed road. Gravel road not posted (drive to conditions);
- Constructed formation;
- Refer design specification for pavement "Gravel Road Surface";
- Designed pavement for Sealed Surface;
- Drainage structures "unsealed surface" as required;
- Designed drainage structures "sealed surface";
- Gravel surfacing with natural gravels if available on site;
- Carriageway width (8 metres sealed surface), Formation width (7 metres unsealed surface);
- Cleared Zone width" Austroads Design Part 6 Table 4.1".

**Access**

- Connection of local streets with traffic carrying roads, access to individual adjacent properties with two or more dwellings and/or industries along it's length (e.g. Dairy, National Park);
- Provides fire management protection or access.

**Maintenance**

- Maintenance Inspection, once every 12 Months;
- Proactive and reactive maintenance "sealed surface" to problem or issue, (e.g. rutting, corrugation, potholing, looseness, edge repair);
- Proactive and reactive maintenance "unsealed surface" to significant problem or issue by assessment, (e.g. fallen tree, severe corrugation or rutting, washouts);
- Maintain with manufactured materials "sealed surface". Maintain with on-site natural or processed materials if available "unsealed surface";
- Funded from Road Services Operational budget (annual maintenance programme for all roads in this category);
- NDRRA funding.



**Figure 16 - Example of 4 Rural (4R) Unsealed Road Service Level**



**Figure 15- Example of 4 Rural (4R) Sealed Road Service Level**

**FOOTNOTES:** It is usual practice not to post regulatory or advisory speeds on unsealed roads. The onus is on the driver of the vehicle to operate at a speed appropriate to the prevailing conditions present at the time).



**Level of Service rating: 5 Rural (5R)**

Local Road" (access) "unsealed" Minimal service standard Rural

**Design**

- Minimal or little use, < 150vpd (Gravel unsealed and sealed );
- Speed environment typically up to 60kph on sealed road. Gravel road not posted (drive to conditions);
- "Gravel Road" Minimal formation;
- "Gravel Road" Minimal Gravel surfacing with natural gravels if available on site;
- Designed pavement for sealed surface;
- Some drainage structures (not designed);
- Carriageway width typically for AADT<10 "4 metres", AADT<50 "5 metres", AADT<100 "6 metres";
- Cleared Zone width" Austroads Design Part 6 Table 4.1".

**Access**

- Access to individual adjacent properties, connection to other local roads including forestry;
- Provides fire management protection or access;
- Generally access possible by 2wd vehicle;
- May be seasonally closed.

**Maintenance**

- Maintenance Inspection, once every 12 Months;
- Proactive and reactive maintenance "sealed surface" to problem or issue, (e.g. rutting, corrugation, potholing, looseness, edge repair);
- Proactive and reactive maintenance "unsealed surface" to significant problem or issue by assessment, (e.g. fallen tree, severe corrugation or rutting, washouts);
- Maintain with manufactured materials "sealed surface". Maintain with on-site natural or processed materials if available "unsealed surface";
- Funded from Road Service Operational budget (annual maintenance programme for all roads in this category);
- NDRRA funding.



Figure 17 - Example of 5 Rural (5R) Unsealed Road Service Level

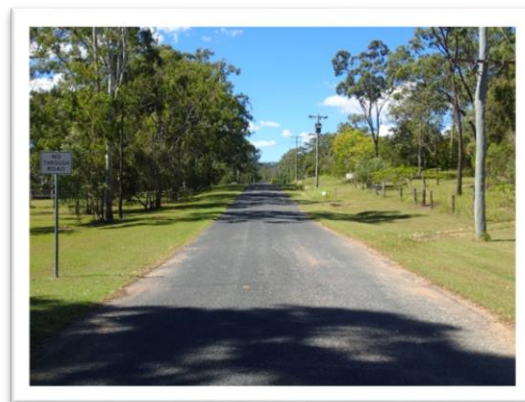


Figure 18- Example of 5 Rural (5R) Sealed Road Service Level



**Level of Service rating: 6 Rural (6R)**

Road Reserve unformed/unmade Minimal or no service standard

**Design**

- Periodic or little use, < 4vpd (Rural only unsealed);
- Speed environment typically up to 20kph;
- Rough Track, No formation;
- No surfacing;
- No drainage structures;
- Road width typically two wheel tracks if any.

**Access**

- Generally services property/ forestry only;
- Provides fire management protection or access;
- Primarily 4 wheel drive vehicles;
- May be seasonally closed.

**Maintenance**

- Nil.



**Figure 19 - Example of 6 Rural (6R) Service Level**