# Local Government Road Hierarchy - Consultation Paper

LGAT Submission in Response

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# Introduction

The Local Government Association of Tasmania (LGAT) is the representative body of Local Government in Tasmania. Established in 1911, the LGAT is incorporated under the *Local Government Act 1993* with membership comprising all 29 Tasmanian councils.

The objectives of the Association are:-

- To promote the efficient administration and operation of Local Government in the State of Tasmania;
- To watch over and protect the interests, rights and privileges of municipal Councils in the State of Tasmania;
- To foster and promote relationships between Local Government in the State of Tasmania with both the Government of Tasmania and the Government of the Commonwealth of Australia;
- To represent the interests of the members of the Association generally, and in such particular matters as may be referred to the Association by its members; and
- To provide such support services to the members of the Association as the Association may by resolution in meeting determine.

# Context

This submission has been developed following the receipt of feedback from member councils and provides, as relevant, both specific comments made by individual councils and broader comments on behalf of the sector. Any omission of in this submission of comments that councils have made directly should not be viewed as lack of support by the Association for that specific issue.

The content of this submission is arranged in order to respond directly and respectively to the five specific questions posed within the *Local Government Road Hierarchy - Consultation* Paper. Comment and feedback of a more general nature is provided at the end.

# Specific Responses to Consultation Paper Questions

**1.Is the local road hierarchy for urban roads and the local road hierarchy for rural roads appropriate for your council?**

Given that this question seeks feedback from councils themselves, the comments made by contributing councils who responded specifically to this question are set out below.

Burnie City Council

The proposed hierarchy is similar in structure to a draft (not formally adopted) road network hierarchy that is currently in place at Burnie City Council and utilised by staff.

Derwent Valley Council

Generally the six categories of urban and rural roads makes good sense. The prospect of a standard hierarchy across Tasmanian Local Government is welcomed, however the council has some significant concerns relating to the classifications and guidance metrics which are referred to in the collective responses to questions 4 and 5.

Devonport City Council

Devonport City Council (DCC) is generally supportive of the creation of a standard road hierarchy for Local Government Roads. The proposed hierarchy matches well with the council's current road hierarchy which was established in 2009. However, the following concerns with the proposal have been outlined:

1. *Separating urban and rural councils and having different traffic volumes*

   There is a lack of understanding regarding the benefits of allowing urban and rural councils to have such different road hierarchies; in particular, this approach appears to defeat the purpose of moving to a standard hierarchy. Immediately, it halves the sample size if any comparisons are to be made on a state-wide basis. It is also somewhat confusing that a designated urban council can have both urban and rural roads, as can a designated rural council.

   It will lead to some misleading statistical comparisons if for example one is comparing maintenance cost/km as there are four possible different types of arterial road (urban arterial for an urban council, rural arterial for an urban council, rural arterial for a rural council and urban arterial for a rural council). A simplified system would appear desirable.

   The major difference in AADT bands for urban and rural councils seems unnecessary. An urban arterial should be the same, regardless of which council it is in. Additional to this, the AADT bands for rural councils are far too narrow (5 bands up to 1000vpd in urban and 5 bands up to 300 in rural). It is unlikely that any rural councils have an existing 5 tier hierarchy like this.

It should be noted that most higher AADT roads in rural areas are managed by the Department of State Growth, so that leaves the low AADT roads to Councils, which should have a low classification.

It is not a requirement that Councils have roads in every classification and I would think there are many rural councils that will not have 'urban arterials' but may have responsibility for an urban road with 1000+ vpd.

The DCC proposes that all councils use the same hierarchy. This should result in a simple (although still 12 possible categories) structure which in turn would be consistent on a state-wide basis.

Further, this approach would not restrict councils as they are still free to adopt any geometric standards and service levels for the hierarchy levels relevant to their roads.

2. *AADT bands*

There are some minor logic issues with the AADT bands for urban roads:

- The band for 'Link' is smaller than the band for 'Access';
- The upper limit of 1500 for 'Access' is too high when the function is 'Access for properties'

The DCC proposes to change the band for Collector to 3000-1000, change the band for Link to 1000-3000 and change to band for Access to 100-1000.

3. *Connectivity Description*

The connectivity description for 'Access' doesn't correlate with the function. The DCC proposes that the connectivity description for 'Access' be the same as for 'Minor' (i.e. Low – provides access to properties)

4. *Heavy Vehicles*

Heavy vehicles should not necessarily travel on 'Urban Links' – it really depends on the zoning of the area. it is suggested that the table should reflect this somehow.

5. *Running surface*

The urban road hierarchy shows the lower tiers as 'sealed/unsealed'. In accordance with Tasmanian Standard Drawing (TSD)-R06-v1, all urban roads should be sealed. The upper tiers of the rural hierarchy (Arterial, Collector, Link) should also be sealed.

<u>Glenorchy City Council</u>

In general, the Local Road Hierarchy for Urban and Rural roads (for urban medium and urban small councils) are appropriate for the Glenorchy City Council (GCC). That said, it is acknowledged that the council would need to change some names to match with the proposed hierarchy classifications.

Further, the council's current service levels are based on its current road hierarchal structure and to change would involve substantial effort.

Glenorchy City Council's current road classification data is aligned with DPIWE's road centre line road classification for GIS data. It includes the following classifications:

| GCC current road hierarchy classification | Compared to revised proposed road hierarchy classification | Compared to DPIPWE's classification based on road centrelines for GIS data (Classification based on TRAN_CLASS field) | Comments |
|---|---|---|---|
| **National/State Highway** | n/a | National/State Highway | GCC maintain some sections of footpaths and verges of Brooker Highway |
| **Arterial Road** | Arterial | Arterial Road/Sub Arterial Road | |
| **Collector Road** | Collator | Collector Road | |
| **Local Road** | Link | Access Road | |
| **Minor Road** | Access | Access Road | |
| **Vehicular Right of Way** | Minor | Access Road | |
| **Fire Trail** | Reserve/unformed | Access Road or Vehicular Track? | Suggest it would be better to continue to call this group "Other" rather than "Reserve/unformed" |

From the above table, it can be seen that the road classification currently used by the GCC is quite similar to the proposed road hierarchy classification; however, there are some minor differences. In order to match with the proposed hierarchy classification, the GCC would need to:

- Rename "Local Road" to "Link"
- Rename "Minor Road" to "Access"
- Rename "Vehicular Right of Way" to "Minor"
- Re-group Fire Trail to "Reserve/unformed"
- Add missing road reserves and unformed roads to Asset Management System if necessary

It is suggested to change the name of "Reserve/unformed" roads back to "Others".

Meander Valley Council

The hierarchy is considered appropriate in principal by Meander Valley Council, however there are concerns around the rural council AADT metrics, how these are aligned with significantly higher urban council metrics and, in turn, against a higher road classification than what Meander Valley Council currently adopts.

## 2. Are the hierarchy classifications appropriate for Tasmanian councils?

It is acknowledged that providing a clear and consistent classification model for all road assets across the state will assist with benchmarking and future funding applications; as such and on this basis there is overall support for the proposed hierarchy.

Councils that provided a response to LGAT indicated that the proposed hierarchy classifications appeared generally consistent with those classifications currently used by councils.

The hierarchy classifications appear to provide sufficient categories to effectively manage council assets; however there are further comments in relation to these categories that are relevant to the subsequent questions and should be taken into account when weighing up the feedback from councils.

A minor issue is that the proposed classes are numbered in descending order (high traffic volumes = low class number), whereas the existing classes used within the existing Tasmanian Local Government Standard Drawings (TSD-R01 and R02) are numbered in ascending order (low traffic volumes = low class number). This may cause some confusion. It is therefore important to make changes to the Drawings if indeed the proposed hierarchy is accepted in its current form.

Some councils refer to priority levels for their roads i.e. Priority 1., Priority 2. etc. and suggested that perhaps this format could be incorporated within the classification tables.

It has been suggested that there is possibility for confusion between the Class 6 "Reserve Road" and the term "Road Reserve". The proposed secondary terminology of "Unformed Road" may help to reduce this confusion. Similarly, there may be confusion between "Link Road" and "Road Link".

In a previous iteration of this proposal, it is thought that Class 3 roads were actually referred to as "Feeder" roads rather than "Link" roads; "Feeder" roads are a more accurate description of the function.

Launceston City Council has in the past used 'arterial' to refer to roads that link with the state highways, e.g. Wellington & Bathurst Streets; 'sub arterial' has been used to describe other major roads.

The term 'sub-arterial' has been a widely used and reasonably well understood term which would become obsolete under the new classification system and instead substituted with 'Collector'; it is suggested that this term could be considered before finalising the language used within the proposed hierarchy.

## 3. Are the functional criteria appropriate for each hierarchy classification?

Whilst a number of councils stated that from their perspective the functional classifications are generally consistent and appropriate, it was noted that the AADT will be difficult to measure in numerous circumstances as many councils don't have these figures for all of their road networks nor do they have the resources to review them.

## 4. Are the groupings of the council classes appropriate in the guidance metrics?

Some councils oppose the proposition of splitting councils into two categories based on population and population density; the rationale being that the hierarchy should enable straightforward comparison of roads between councils, without taking into account the nature of the council that manages the road.

As an alternative, some councils have suggested that roads should be classified based on the purpose and type of traffic that utilise the road, rather than the population of the municipal area within which they fall.

It has been observed that whilst the proposed road hierarchy may be appropriate for asset management purposes, it is not appropriate for using in a traffic and transport project/study, which could prove problematic in future if integration of data is desirable.

Furthermore, it is unclear how to determine the road classification in the circumstance where a road cannot meet all of the criterions in a specific classification.

The question has also been asked as to whether it is correct to assume that the guidance metrics would take precedence over the functional criteria when assessing the applicable classification level of the road? Clarification is sought on this matter.

## 5. Are the vehicle count numbers in the guidance metric appropriate for councils classes?

A number of councils raised concerns in their responses to this question.

A sizeable proportion of roads do not have associated traffic data available, and as a result appropriate classification in some circumstances may prove difficult.

When comparing their current traffic volumes and road classifications against the proposed hierarchy, a significant proportion of small-medium councils have suggested that their roads would need to be reclassified to at least one level higher than their current classification, which may lead to unintended/perverse outcomes.

With this in mind, councils have enquired as to whether there is the expectation from the Tasmanian Audit Office that councils would need to revalue road renewals to the higher level?

This would likely create very substantial additional depreciation expenses to a council when the actual traffic volumes do not warrant upgrading roads to a higher standard. This is clearly an undesirable outcome and one which the Association will not support.

Some rural councils noted that the proposed classification could result in a significant proportion of minor urban roads being re-classified as either Link or Collector, or even Arterial. Further, many of those that could otherwise be classified as Arterial do not meet the hierarchy classification of linking between state or other highways.

It has been suggested that perhaps the AADT ranges could be redrawn to 'smooth' or spread the hierarchy classification. e.g. for urban collector, redraw AADT to 100-1000 or similar.

Smaller urban councils noted that the upper end traffic volumes (>10000vpd urban arterial) and (>2000vpd rural arterial) are a little high when compared to traffic councils for potential arterial roads.

Notwithstanding the comments above, it is noted that the functional description allows for judgement to be used in assessing where a road may sit within the hierarchy.

Burnie City Council provided feedback which included reference to their current hierarchy, which incorporates performance criteria and design solutions.

Attached to this submission is a copy of the Burnie City Council definition of performance criteria and design solutions for reference (see Attachment 1.).

It has been suggested that it would be useful for the Local Government Road Hierarchy to provide some guidance regarding performance criteria for various classes of road; this could be in the form of a list of issues that each council should consider.

Again, acknowledging that it is important to link design criteria to the hierarchy, it could be very useful to reference the Local Government Standard Drawings and Subdivision Guidelines (these documents are available at the links provided but please note they are currently undergoing a regular review).

The drawings detail the design solutions many Councils are currently applying.

A number of councils have suggested that the Tasmanian Local Government Standard Drawings (TSDs) be referred to when finalising AADT values.

As shown in the tables below, the classes for rural roads in the proposed local road hierarchy do not match the classes outlined in the LGAT Tasmanian Standard Drawings (different highlights added to show comparisons).

Furthermore, it is felt by some that the existing (TSD) classes give a better distribution across the classes for the local road network, compared to the proposed classes.

Similarly, the existing urban class ranges (although not defined in TSD) arguably provide a slightly better distribution than the proposed local road classification and are a closer match with the rural classifications.

| **Urban Roads** | | | | | | |
|---|---|---|---|---|---|---|
| Classification | COL AADT Hierarchy | No. of COL roads | % of total roads | Proposed AADT Hierarchy | No. of COL roads | % of total roads |
| Arterial | 10000+ | 18 | 1.84 | 10000+ | 18 | 1.84 |
| Collector | 3000>10000 | 64 | 6.53 | 2500>10000 | 75 | 7.65 |
| Link | 1000>3000 | 60 | 6.12 | 1500>2500 | 23 | 2.35 |
| Access | 100>1000 | 426 | 43.47 | 100>1500 | 452 | 46.12 |
| Minor | <100 | 412 | 42.04 | <100 | 412 | 42.04 |
| Unformed | - | - | - | - | - | - |

| **Rural Roads (COL AADT numbers same as LGAT Standard Drawings)** | | | | | | |
|---|---|---|---|---|---|---|
| Classification | COL AADT Hierarchy | No. of COL roads | % of total roads | Proposed AADT Hierarchy | No. of COL roads | % of total roads |
| Arterial | 2000+ | 2 | 1.16 | 2000+ | 2 | 1.16 |
| Collector | 300>2000 | 9 | 5.23 | 500>2000 | 3 | 1.74 |
| Link | 100>300 | 19 | 11.05 | 250>500 | 6 | 3.49 |
| Access | 30>100 | 59 | 34.30 | 50>250 | 35 | 20.35 |
| Minor | <30 | 83 | 48.26 | <50 | 126 | 73.26 |
| Unformed | - | - | - | - | - | - |

Launceston City Council has indicated that in their experience, a traffic volume of vpd < 1000 retains residential amenity; however the council starts to receive complaints about traffic volumes when the value increases beyond this figure. he 'Link/Feeder' proposed range of 1500-2500 is too narrow.

Acknowledging that the rural road values are fairly subjective and, given councils across the State already have an agreed and settled hierarchy specified in the Local Government Standard Drawings, then consideration should be given to retaining the already established range.

## General Feedback and Concerns

- **State vs Local Roads**: Concerns have been raised that there is a different State hierarchy to the local hierarchy. Councils recall previous discussions acknowledging the desirability of forming 'one network'; however the distinction created in the proposed hierarchy doesn't allow for a result of that nature.

- Some state roads will essentially have the same function as local roads, but will be called something different. As an example, Lilydale Road/Golconda Road is essentially the same road but will have two classes i.e. State section = 'Category 1 Trunk'; City of Launceston section = 'Collector'.

Councils have already noted confusion regarding road classifications in the Land Use Planning space, where the Planning Scheme only refers to State roads by classifications, however it is assumed by some that these references pertain to local roads.

Perhaps in the event of retaining the proposed separate hierarchies for State-owned roads and Local Government-owned roads, the numerical reference should reflect the difference e.g. S1, S2 etc. for State Roads, and LG1, LG2 etc. for Local Government roads.

## Summary

Tasmanian Councils are very supportive of the proposal to develop a Local Road Hierarchy within the State. This in-principle support is qualified with the acknowledgement that the hierarchy itself must be a robust and useful tool that appropriately supports the asset management needs of the sector and provides for a road classification system that accurately reflects road usage.

Should you wish to discuss further or seek clarification on the comments provided within this submission, please contact Melanie Brown, Senior Policy Officer, on 03 6233 5961 or at melanie.brown@lgat.tas.gov.au.

# Attachment 1: Burnie City Council Road Network Strategy Excerpt

Please see separate electronic PDF document titled "*Attachment 1 - Local Road Hierarchy - LGAT Submission Feb 2015*"

# 3. Desirable Performance Criteria and Acceptable Design Solutions

## 3.1 Performance Criteria

Performance criteria for the various road types in the hierarchy provide a way of assessing the performance of a particular road by considering its functional, frictional and impact characteristics. That is, considering such factors as the volume of traffic it carries, types of property accesses provided, cross section, intersection treatments, adjacent land use and other traffic management treatments that may be applied.

## 3.2 Design Solutions

Design solutions nominate technical requirements for road infrastructure, such as design speeds, road reserve width and carriageway width, surface types, lighting and delineation.

## 3.3 Current Requirements

Council does not presently have performance criteria identified for the various types of road in its network. However the Institute of Public Works Engineering Australia (Tasmanian Division) has prepared the drawings "Tasmanian Council's Subdivision Standard Drawing – Urban Roads Typical Cross Section" and an equivalent for rural roads, which Council has adopted for use. These are shown in Appendix B and they provide design solutions for various road types (based on number of residential lots serviced in urban areas, but with no distinction in rural areas).

## 3.4 Potential Performance Criteria and Design Solutions

Desirable Performance Criteria and Acceptable Design Solutions were specified in the Devonport Road Network Strategy, and it is appropriate to use these as a starting point for proposed criteria and solutions for Burnie. Table 3 and Table 4 show recommended performance criteria for urban and rural road categories respectively. These are based on the Devonport Road Network Strategy (DRNS) with some minor adjustments requested by Burnie City Council staff to be more applicable to Burnie.

Table 5 - Table 14 show the Design Solutions from the Devonport Road Network Strategy (DRNS), and compare these to the standards nominated by the IPWEA (Tas). The IPWEA has produced a draft revised standard drawing for urban and rural roads, and the requirements of these are included in the comparison. Items where there is some difference between the various standards are highlighted in **bold type**.

Note that these are not intended to be prescriptive criteria, but rather are indicative of a preferred situation. It is acknowledged that there will be some departure from these, even in new works, and that this may still result in an acceptable situation. Specific assessment and evaluation should be undertaken in instances where the desirable criteria are not achievable.

It is noted that the revised IPWEA drawings refer to a further classification of road types (Class 1-4) which does not obviously correlate with any of the classifications described above, but an approximate equivalent road type has been adopted.

## Table 3 Urban Roads Potential Performance Criteria

| Criteria | Sub-Arterial Road | Major Collector | Minor Collector | Local Street | Local Place | CBD / Commercial |
|---|---|---|---|---|---|---|
| *Functional Characteristics* | | | | | | |
| Traffic carrying function | 6,000 – 10,000 vpd | 3,000 – 6,000 vpd | 750 – 3,000 vpd | 150 – 750 vpd | <150 vpd | <10,000 vpd |
| Traffic speed environment | 60 – 80 km/h | 50 - 60 km/h | 50 km/h | 50 km/h | 50 km/h | 40 - 50 km/h |
| Residential access function | Accepted with conditions | Consolidated | Individual | Individual | Individual | Site specific |
| Commercial access function | Consolidated | Direct | Individual | Individual | Individual | Site specific |
| Industrial access function | nil | Direct | Individual | Individual | Individual | Site specific |
| Heavy vehicle movement | Some through function | Access only | Access only | Access only | Access only | Access only |
| Dangerous good movement | Nominated routes only | Inappropriate except for access | Inappropriate except for access | Inappropriate except for access | Inappropriate except for access | Inappropriate except for access |
| Public transport facilities | Bus Route | Bus Route | Bus Route | Bus Route | nil | Bus Route |
| Cycle facilities | Lanes separate to road | Share with road | Share with road | Share with road | Share with road | Share with road<br>Restrictions on footpath |
| Pedestrian movement facilities | Pathways both sides | Pathways both sides | Pathways both sides | Pathway one side | Pathway one side | Pathways both sides |
| *Frictional Characteristics* | | | | | | |
| Access control | Selective access control | Selective access control | Individual sites | Individual sites | Individual sites | Selective access control |
| Parking provision | Keep clear of through lanes | Kerbside | Kerbside | No specific provision | No specific provision | Keep clear of through lanes |
| Bus stopping provision | Indented bays where appropriate | Indented bays where appropriate | Kerbside | Kerbside | No provision | Indented bays where appropriate |
| Pedestrian crossings | Controlled points | Some controlled points | Some controlled points | No provision | No provision | Controlled points |
| Preferred minimum intersection spacing | 300m | 100m | 60m | 40m | nil | Site specific |
| Intersection treatments* | Signal, RAB or priority | RAB or priority | RAB or priority | Priority | Priority | Signal, RAB or priority T |
| Cross section | 2 or 4 lanes could be divided | 2 or 4 lanes could be divided | 2 lanes | 1 or 2 lanes | 1 or 2 lanes | Generally 2 lanes |
| *Impact Characteristics* | | | | | | |
| Abutting land use types | Non-sensitive to traffic | As specified under zoning | As specified under zoning | As specified under zoning | As specified under zoning | Retail or commercial |
| Land use impact amelioration | Street-scaping setbacks | LATM street-scaping | LATM street-scaping | LATM street-scaping | LATM street-scaping | Traffic mgmt street-scaping |

## Table 4 Rural Roads Potential Performance Criteria

| Criteria | Sub-Arterial | Rural Major Collector | Rural Minor Collector | Rural Local |
|---|---|---|---|---|
| *Functional Characteristics* | | | | |
| Traffic carrying function | >1,000 | 501 - 1000 | 201 - 500 | 51 - 200 |
| Traffic speed environment | 80 - 100 km/h | 70 - 80 km/h | 60 - 50 km/h | 50 km/h |
| Residential access function | Individual | Individual | Individual | Individual |
| Commercial access function | Individual | Individual | Individual | Individual |
| Industrial access function | Individual | Individual | Individual | Individual |
| Heavy vehicle movement | Some through function | Access only | Access only | Access only |
| Dangerous good movement | Nominated routes only | Inappropriate except for access | Inappropriate except for access | Inappropriate except for access |
| Public transport facilities | Bus Route | Bus Route | Bus Route | Bus Route |
| Cycle facilities | Share with road | Share with road | Share with road | Share with road |
| Pedestrian movement facilities | No footpath | No footpath | No footpath | No footpath |
| *Frictional Characteristics* | | | | |
| Access control | Selective access control | Selective access control | Individual sites | Individual sites |
| Parking provision | No specific provision | No specific provision | No specific provision | No specific provision |
| Bus stopping provision | Indented bays where appropriate | No provision | No provision | No provision |
| Pedestrian crossings | No provision | No provision | No provision | No provision |
| Preferred minimum intersection spacing | 300m | 100m | 60m | 40m |
| Intersection treatments | Grade separation, RAB or priority | RAB or priority | RAB or priority | Priority |
| Cross section | 2 or 4 lanes could be divided | 2 lanes | 2 lanes | 1 or 2 lanes |
| *Impact Characteristics* | | | | |
| Abutting land use types | As specified under zoning | As specified under zoning | As specified under zoning | As specified under zoning |

**Table 5 Urban Sub-Arterial Design Solutions Comparison**

| | Scheme | DRNS | Current IPWEA | Draft IPWEA |
|---|---|---|---|---|
| Design speed | km/h | 60 - 80 | | |
| Reserve width | metres | 20 | Not specified | Detailed design required |
| Carriageway form | form | 2 to 4 lanes - Could be divided | | |
| Through lanes or carriageway width | metres | 3.5 m through lanes | Not specified | Detailed design required |
| Shoulder width / parking lane | metres | 2.5 | | |
| Nature strip width | metres | 4 | | |
| Median width | metres | 2 minimum | | |
| Overtaking | % of road | nil | | |
| Kerb type | type | barrier | | |
| Off-street path width | metres | Pedestrian 1.5, shared 2.5 | Not specified | Detailed design required |
| Bicycle lane width | metres | 2 to 3 (depending on usage) | | |
| Bus stop | | Clear of the carriageway | | |
| Grade – longitudinal* | % | 6% (10% max) | | |
| Wearing surface | type | Asphalt or site specific | Not specified | Detailed design required |
| Noise attenuation | | Site specific | | |
| Appropriateness of LATM | | Not appropriate | | |
| Street Lighting | Relative level of illumination and coverage | High | | |
| Signing | Clear/ consistent signing | As per relevant standard | | |
| Delineation | Centre line marking | Yes | | |
| | Edge Lines | Site specific | | |
| | Reflectors | Site specific | | |

* Subdivision guidelines allow short lengths of greater than 14%