

NUMBER: STRAT0028 / INFRASTRUCTURE SERVICES

ACT: LOCAL GOVERNMENT ACT 2009

POLICY TITLE: ROAD MANAGEMENT

1. PURPOSE AND SCOPE

- 1.1 This Road Management Policy has been developed to manage Council's local roads. This policy will:
- encompass road user needs and expectations within an economic framework based on meeting reasonable maintenance operation targets relative to the road network function;
 - balance economic, social and safety expectations of the community, who rely on Council roads for access to homes, commercial and industrial areas;
 - consider the affordability, available resources and management of risks to determine service intervention levels;
 - provide supporting documents that have been developed to establish a management system for the local road functions that are the responsibility of Council; and
 - be a dynamic document, subject to continuous improvement, changing legislative requirements and economic, social, environmental and climatic impacts.

2. COMMENCEMENT OF POLICY

- 2.1 This Policy will commence from 20 April 2016. It replaces all other policies relating to Road Management.

3. APPLICATION OF POLICY

- 3.1 This Policy applies to all roads within the Charters Towers Regional Council area and is in place to:
- apply the risk management principles of identification, evaluation, and treatment of risks to road maintenance;
 - implement a formal system of road inspections which record defined defects;
 - develop and maintain a risk register for roads through inspections which incorporates reports of road hazards received from external users;
 - implement a method of prioritising the risks identified by the various sources;
 - establish reasonably practical response times, in which to effect repairs, or provide temporary warnings; and
 - establish a system to allow ongoing review and to provide evidence to defend road related claims against Council.

4. DEFINITIONS

- 4.1 "Defect" means a fault within the road that requires repair and/or maintenance. This is expressed as a parameter reached as identified at inspection.
- 4.2 "Road hierarchy" means the classes of roads within the network, developed through function and use of each road including analysis of traffic count data and local knowledge.
- 4.3 "Service intervention level" means the level at which work on an asset is required to be undertaken. This is expressed as a parameter reached as identified at inspection.
- 4.4 "Primary response" refers to business days (exclude weekends and public holidays) to install warning signs, temporary barriers and/or advertise via various media outlets to alert road users of the potential hazard that exists.

4.5 “Secondary response” refers to business days (exclude weekends and public holidays) to effect repair of the damaged area and/or capital works programing.

4.6 “Urban (extended) Roadside/Verge” is defined by road system not supported with kerb and channelling.

5. POLICY PROVISIONS

5.1 Road Hierarchy

The primary rationale for Council managing roads is to facilitate the movement of vehicular traffic for the local community, businesses, agricultural enterprises and visitors, both within the Region and to adjoining areas.

The purpose of developing hierarchy categories is to enable works to be prioritised and programmed in a rational manner when undertaking maintenance and defect remedial work. It provides a framework in which data is collected, information reported and decisions made.

Table 1 – Road hierarchy

Hierarchy	Description	Asset Function	Design Parameters
R4 (Value = 9)	Rural Arterial	<ul style="list-style-type: none"> Linkage between areas of significance or points of interest not served by Main Roads Typically have the highest traffic volumes Cater for through traffic and heavy vehicles 	<ul style="list-style-type: none"> Typical formation width 7m gravel on 8m formation or 6m seal on 8m formation Trafficable shoulders where possible Table drains Guideposts at bends
R3 (Value = 6)	Rural Collector	<ul style="list-style-type: none"> Important local roads which functions as a link between arterial roads Limited through traffic, generally from the surrounding area 	<ul style="list-style-type: none"> Shoulders (desirable) Table drains Guideposts at bends (desirable)
R2 (Value = 3)	Rural Feeder	<ul style="list-style-type: none"> Connector of access roads to collector roads (mostly in Environs area) Access to multiple access roads 	<ul style="list-style-type: none"> Shoulders (desirable) Table drains Guideposts at bends (desirable)
R1 (Value = 1)	Rural Access	<ul style="list-style-type: none"> Provides direct access for owners or occupiers Intended for predominately local traffic Typically have 1-2 access points 	<ul style="list-style-type: none"> Typical formation width 4m gravel on 5m formation Table drains
U4 (Value = 9)	Urban Arterial	<ul style="list-style-type: none"> Streets that supplement the declared Main Road network Primary routes for through traffic and heavy vehicles Typically have the higher traffic volumes 	<ul style="list-style-type: none"> Two lanes, preferably with turning lanes provided for intersections Sealed pavement, with smooth surface and continuity of condition Trafficable shoulders or kerb and channel Lined marked and signed appropriate for speed limit
U3 (Value = 6)	Urban Collector	<ul style="list-style-type: none"> Important local roads whose function is to distribute 	<ul style="list-style-type: none"> Two lanes Sealed pavement

		<ul style="list-style-type: none"> traffic between arterial roads Linkage between points of interest Limited through traffic generally from the surrounding area 	<ul style="list-style-type: none"> Kerb and channel or table drains Line marked and signed appropriately
U2 (Value = 3)	Urban Feeder	<ul style="list-style-type: none"> Connector of access streets Provides direct access for residents Majority of city streets 	<ul style="list-style-type: none"> Two lanes Sealed pavement Kerb and channel or table drains Line marked and signed appropriately
U1 (Value = 1)	Urban Access	<ul style="list-style-type: none"> Provides direct access for local residents Low speed Minimal through traffic Few heavy vehicles 	<ul style="list-style-type: none"> Sealed pavement (desirable) Kerb and channel or table drain
Nil	Private Road	<ul style="list-style-type: none"> Provides access for adjacent properties May be on private land or road reserve Not maintained by Council 	<ul style="list-style-type: none"> No Council involvement

5.2 Inspections

Inspections are a formalised assessment of the road network, looking for defects that may require repair and maintenance and to ensure that to the extent of resources, road pavements are maintained in a sound and safe condition for the safety and wellbeing of the general road user.

An inspection program has been developed (refer table 2), and the information gathered by this program will be used as the main method of identifying all the known hazards and risks associated with roads. The frequency of inspections is determined by the function of the road. For example, High Street in the CBD is an arterial road, and is inspected at a higher frequency than Melville Street, being an access road.

Table 2 – Programed road inspection

Road Type	Inspection Interval
Rural Arterial (R4)	6 monthly
Rural Collector (R3)	12 monthly
Rural Feeder (R2)	18 monthly
Rural Access (R1)	24 monthly
Urban Arterial (U4)	3 monthly
Urban Collector (U3)	6 monthly
Urban Feeder (U2)	9 monthly
Urban Access (U1)	12 monthly

Information from road users is received through Councillors, Council Employees, Customer Requests, Snap Send Solve and Council’s annual budget processes. This information is then used by Infrastructure Services to arrange for inspection, repair and/or scheduling for future works programs. All of the above requests will initiate an inspection of reported defects within 10 working days (Urban) and 15 working days (Rural). The inspection data then calculates the appropriate response times (refer 5.4).

Other road components inspected include drainage, furniture, bridge and grid inspections. These inspections are programed as per table 3 - 6 below.

Table 3 - Programed road drainage inspections

Road Hierarchy	Inspection Interval	Asset Details
Arterial (Rural and Urban)	2 years	Culverts, pipes, stormwater pits/structures, table drains, rock protection, open earth and concrete drains
Collector (Rural and Urban)	4 years	
Feeder (Rural and Urban)	6 years	
Access (Rural and Urban)	8 years	

Table 4 - Programed road furniture inspections

Road Hierarchy	Inspection Interval	Asset Details
Arterial (Rural and Urban)	2 years	Signage, guideposts, guard rails, vegetation and line marking
Collector (Rural and Urban)	4 years	
Feeder (Rural and Urban)	6 years	
Access (Rural and Urban)	8 years	

Table 5 - Programed bridge inspections

Inspection Type	Inspection Interval	Asset Details
Level 1 - All Bridges	Annually	Grid bridges, wooden bridges and concrete bridges
Level 2	As determined by inspection	
Level 3	As determined by inspection	

Table 6 - Programed grid inspections

Road Hierarchy	Inspection Interval	Asset Details
All	2 years	All landholder owned grids

5.3 Service Intervention Levels

5.3.1 Defect Parameters

Inspections identify defects and impacted area. These factors are then scored in addition to hierarchy and defect location within the roadway. Defects are scored as:

Table 7 - 26 Defect parameters scores

Vertical Movement		Pot Hole	
Height	Area	Depth	Area
75mm = 1	<1 m2 = 1	50-100mm = 2	<0.5m2 = 2
75-150mm = 2	>1 m2 = 2	>100mm = 3	>0.5m2 = 3
>150mm = 3	>4 m2 = 3		

Edge Drop Off	
Depth	Length
75mm = 1	<10m = 1
75-150mm = 2	>10m = 2
>150mm = 3	>50m = 3

Corrugations	
Depth	Area
30mm-60mm = 1	< 900m ² = 1
>60mm = 2	> 1800m ² = 2
>100mm = 3	>3000m ² = 3

Wash Outs
50mm-100mm = 1
100mm-150mm = 2
150mm-200mm = 3
>200mm = 4

Edge Break (width)
75mm = 2
75-150mm = 4
>150mm = 6

Debris (height)
<200 = 3
>200 = 6

Kerb & Channel Movement	
Vertical	Horizontal
<60mm = 2	<50mm = 3
60-80mm = 4	>50mm = 6
>80mm = 6	
Missing stone = 2	

Culverts & Pipes
Blocked = 2
Ineffective = 2
Headwall = 2
Collapse = 6
Separation = 4

Signage
Obstructed = 4
Missing = 6
Insecure Mounting = 2
Illegible = 6
Facing incorrect way = 6

Uneven Surface
<100m = 2
>100m = 4
>1000m = 6

Rock Protection	
Depth	Area
<250mm = 1	<10 m ² = 1
>250mm = 2	>10 m ² = 2

Storm Water Pits
Missing Parts = 2
Blocked = 6
Ineffective = 2

Open Drain Concrete
Movement
<30mm = 2
>30mm = 4
>70mm = 6

Open Drain Earth
Ponding
0-200mm = 2
200-300mm = 4
>300mm = 6

Table Drains
Blocked = 4
Ineffective = 6
Scour = 2

Obstructions (i.e. vegetation)
Obstructs visibility = 4
Growing into roadway = 2

Guideposts
Damaged = 2
Missing = 4

Guard Rail
Damaged = 2
Creates obstruction = 4

Line Marking
Reflectivity loss = 4

5.3.2 Location within Road

Other data collected and assessed in addition to the hierarchy and defects includes the defect location within the road (refer table 7).

Table 27 - Damage location within the road

Score	Description
5	Traffic Lane/ Running Surface
3	Shoulder/ Batter
1	Table Drain

Following collection of all information the risk rating will be calculated (refer 5.4 Risk equation).

5.4 Risk Rating & Response Times

Calculation of inspection data gives a risk rating using the equation below.

Risk equation

(Hierarchy value + Position within road value) x (Sum of defect score) = Risk rating

Table 28 - Example of inspection data

Hierarchy	Position	Washout	Priority
Myola Road - Arterial (9)	Shoulder (3)	Depth <150mm = 1 + Area <3m ² = 1	24 = High

$(9 + 3) \times (1 + 1) = 24 = \text{High Priority}$

The risk rating then determines response times. Primary response refers to inspection to allow for assessment of primary repair e.g. makes safe repairs, temporary barricading, signage or advertising. Secondary response refers to the appropriate engineering repair or capital works programing.

Table 29 - Urban response times

Risk Rating	Priority	Primary Response	Secondary Response
>28	Urgent	2 days	15 days
>21	High	2 days	20 days
>14	Medium	5 days	25 days
>7	Low	5 days	40 days
<7	Very Low	Monitor only	Monitor only

Table 30 - Rural response times

Risk Rating	Priority	Primary Response	Secondary Response
>28	Urgent	10 days	30 days
>21	High	20 days	40 days
>14	Medium	30 days	60 days
>7	Low	40 days	s Monitor only
<7	Very Low	Monitor only	Monitor only

Service intervention levels and response times allow Council to prioritise the corrective action it intends to take, or allows the control measure to be scheduled.

Unsealed roads are maintained in accordance with Council's Annual Maintenance Program. The program can be viewed on Council's website www.charterstowers.qld.gov.au

In order to meet the considerable challenges of responsible asset management with a view to continuous improvement service intervention levels and response times will be reviewed following 12-month inception of this Policy.

Council will make every effort to meet its commitments under its Road Maintenance Programs. However, there may be situations or circumstances that affect Council's business activities to the extent that it cannot deliver on the service levels of this Policy. These include but are not limited to; natural disasters, such as fires, floods, storms or drought conditions, or a prolonged labour or resource shortage, due to a need to commit or redeploy Council staff and/or equipment elsewhere.

- 5.5 Urban (extended) Roadside Slashing (refer to Appendix C for map)
Council will mow roadside verges according to the following intervention levels (for whole of road scenario not individual areas):

Table 31 – Roadside slashing intervention levels

Arterial	Collector	Feeder	Access
600 mm	600 mm	900 mm	900 mm

A schedule of roads to be assessed and completed as per the above intervention levels is formulated following receipt of customer requests.

The following exception will apply (increased interventions):

- (a) Intersections where the area between the road edge and property boundary is to be slashed to ensure adequate sight distance for motorists and pedestrian safety.
- (b) The main entrances to Charters Towers (state-controlled roads) receive a higher level of treatment including maintenance of tree lines to aid in beautification of these entrances. Refer Appendix F-H.

Slashing will be undertaken to a width of six (6) metres, where possible.

- 5.6 Street Cleaning & Litter Control
The central business district (CBD) area of Charters Towers receives a higher level of treatment in relation to street cleaning and litter control in order to aid the visual amenity of the area. In addition to this, Council undertakes weed spraying within the CBD. Refer Appendix I.
- 5.7 Vehicular Access
Council will maintain all weather access for each rateable property serviced by an urban category road.
- 5.8 Legal Road Openings
All costs associated with the opening of a legal road access to a property that does not access an existing Council Road Asset as identified in Council's Road Register is the responsibility of the owner of the land parcel accessed. The responsibility for provision of legal access is also transferred with the sale of the land.

This does not override development conditions imposed for a particular development.

Private persons will be required to:

- Apply to carry out works on a road or interfere with a road or its operation as per section 75 (2) of the Local Government Act 2009 (Form F0227);
- Carry out standard of work in accordance with Council's Drawings and Specifications;

- Pay costs associated with Council gaining cultural heritage clearance; and
- Pay costs associated with survey.

These roads will be included as an “unmaintained” class in the road register to allow for rural addressing.

6. POLICY REVIEW

The policy is to be reviewed whenever legislation changes, OR every two years if no changes have been required to be enacted, at the direction of the Chief Executive Officer.

Variations

The Council reserves the right to vary, replace or terminate this policy from time to time.

Associated Documents

- Charters Towers Regional Council Corporate Plan
- Charters Towers Regional Council Operational Plan
- Charters Towers Regional Council Budget
- Public Roads Register
- Roads Asset Management Plan
- LGM Road Maintenance Guide 2013
- Asset Edge Inspection Data

Appended Documents

- Appendix A – System Flowchart
- Appendix B – Road Hierarchy Map - Region
- Appendix C - Road Hierarchy Map – Extended Urban Area
- Appendix D – Road Hierarchy Map – Urban
- Appendix E – Road Hierarchy Map – Townships
- Appendix F – Roadside Slashing Higher Treatment Areas – Charters Towers East
- Appendix G – Roadside Slashing Higher Treatment Area – Charters Towers North
- Appendix H – Roadside Slashing Higher Treatment Area – Charters Towers West
- Appendix I – Roadside Cleaning & Litter Control Higher Treatment Areas – Charters Towers

Official Use Only:

POLICY VERSION AND REVISION INFORMATION

Policy Authorised by: Council
Title: Road Management
Policy Maintained by: Cameron Scott
Title: Director Infrastructure Services
Review date: 17 October 2018

Original issue: 21 November 2011

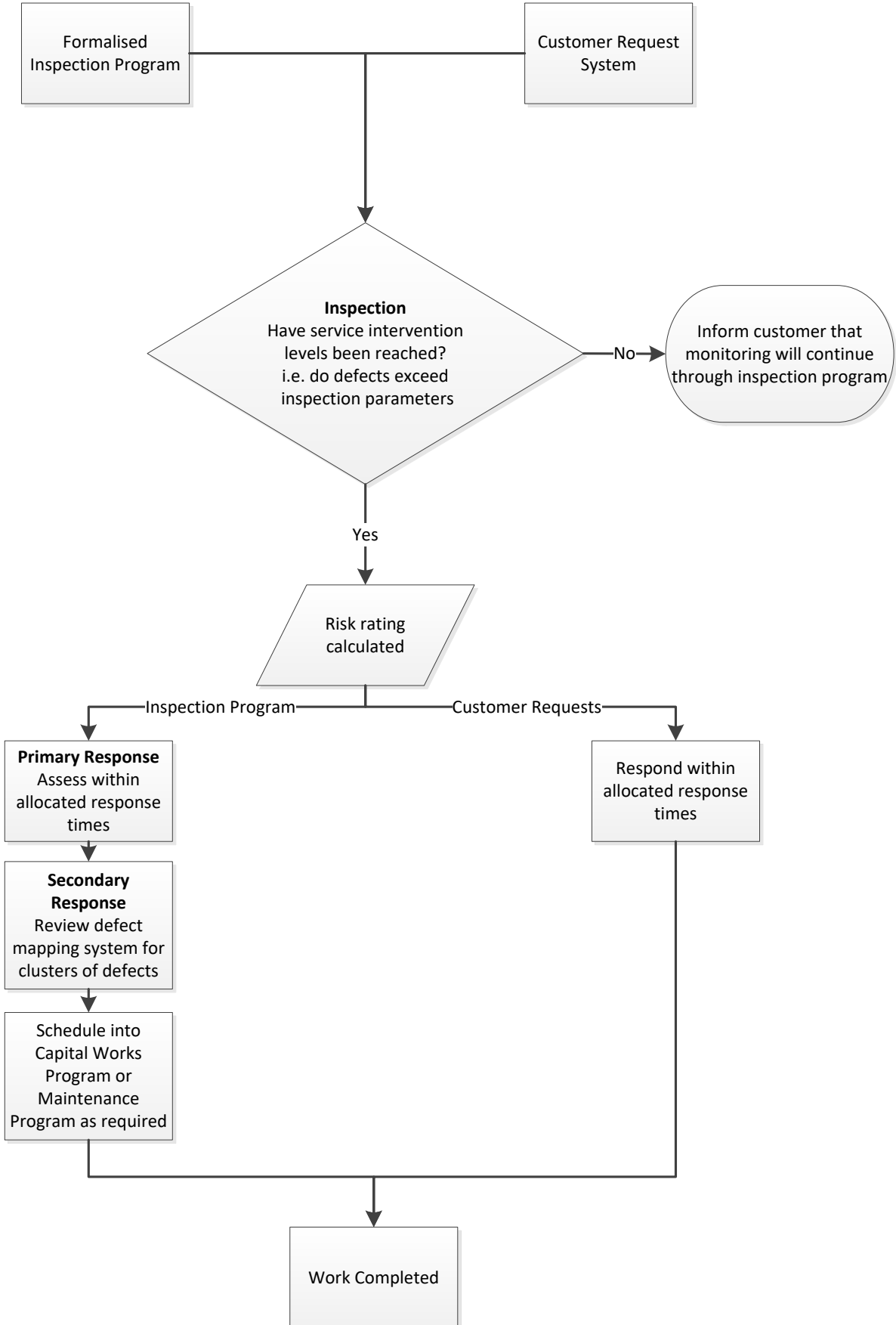
Current version: 4
Adopted 17 October 2018

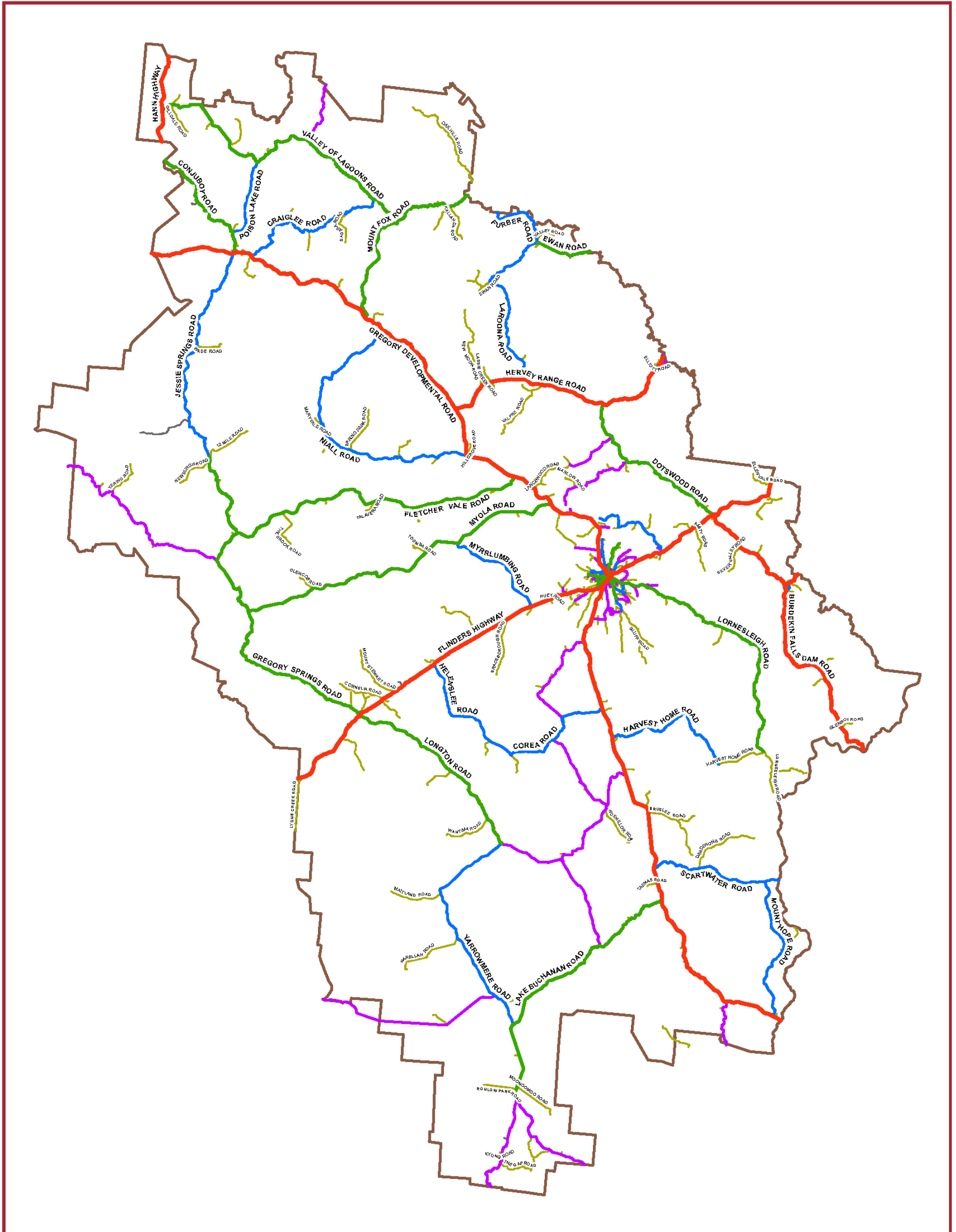
CEO Signature:

Aaron Johansson

17 October 2018

Appendix A – System Flowchart

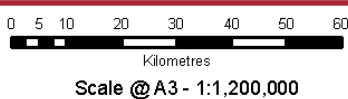




LEGEND

- Road Hierarchy**
-  Main Road
 -  Arterial
 -  Collector
 -  Feeder
 -  Access
 -  Private

**Road Hierarchy
Region**

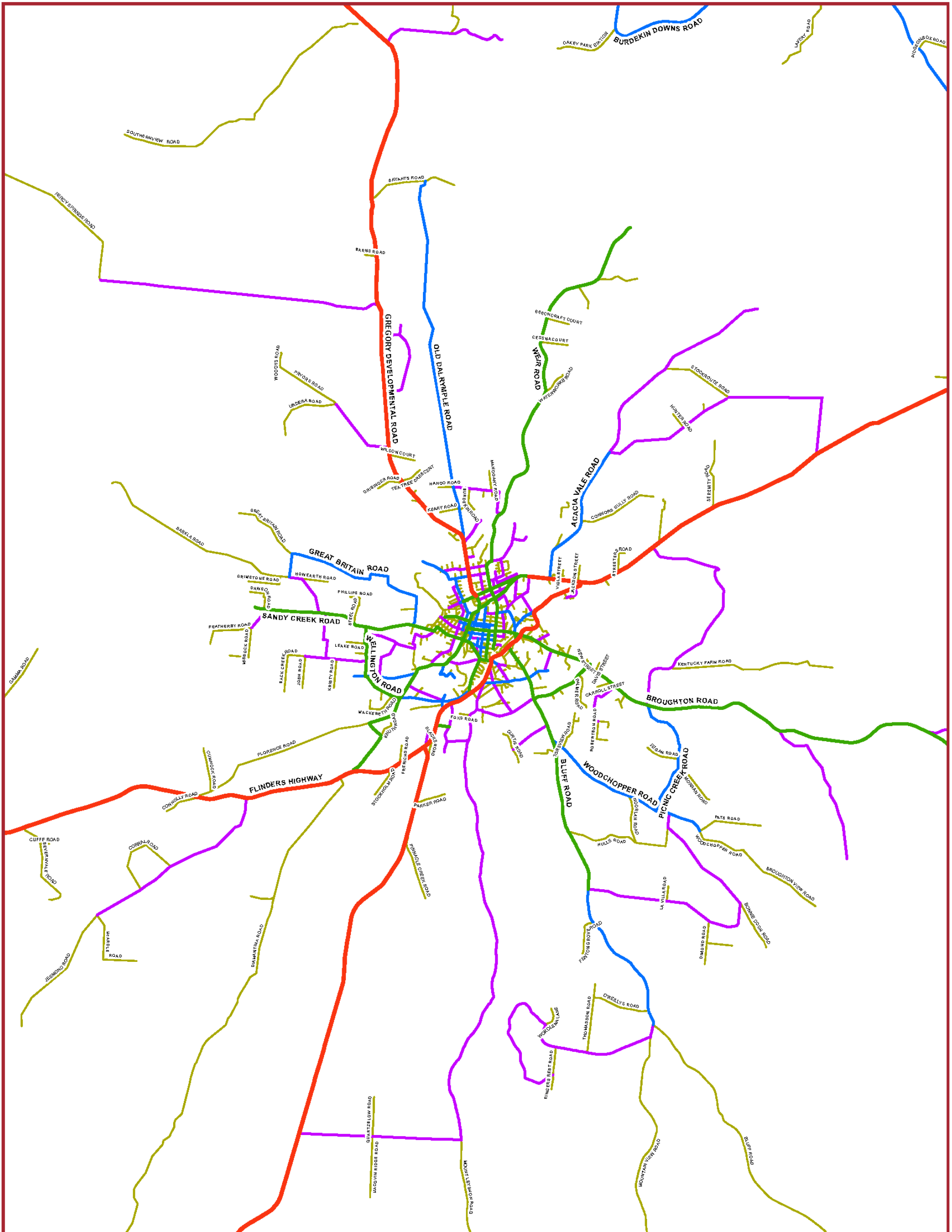




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Date: 3/07/2015
Drawn By: Ihickey
Document: road_hierarchy_maps

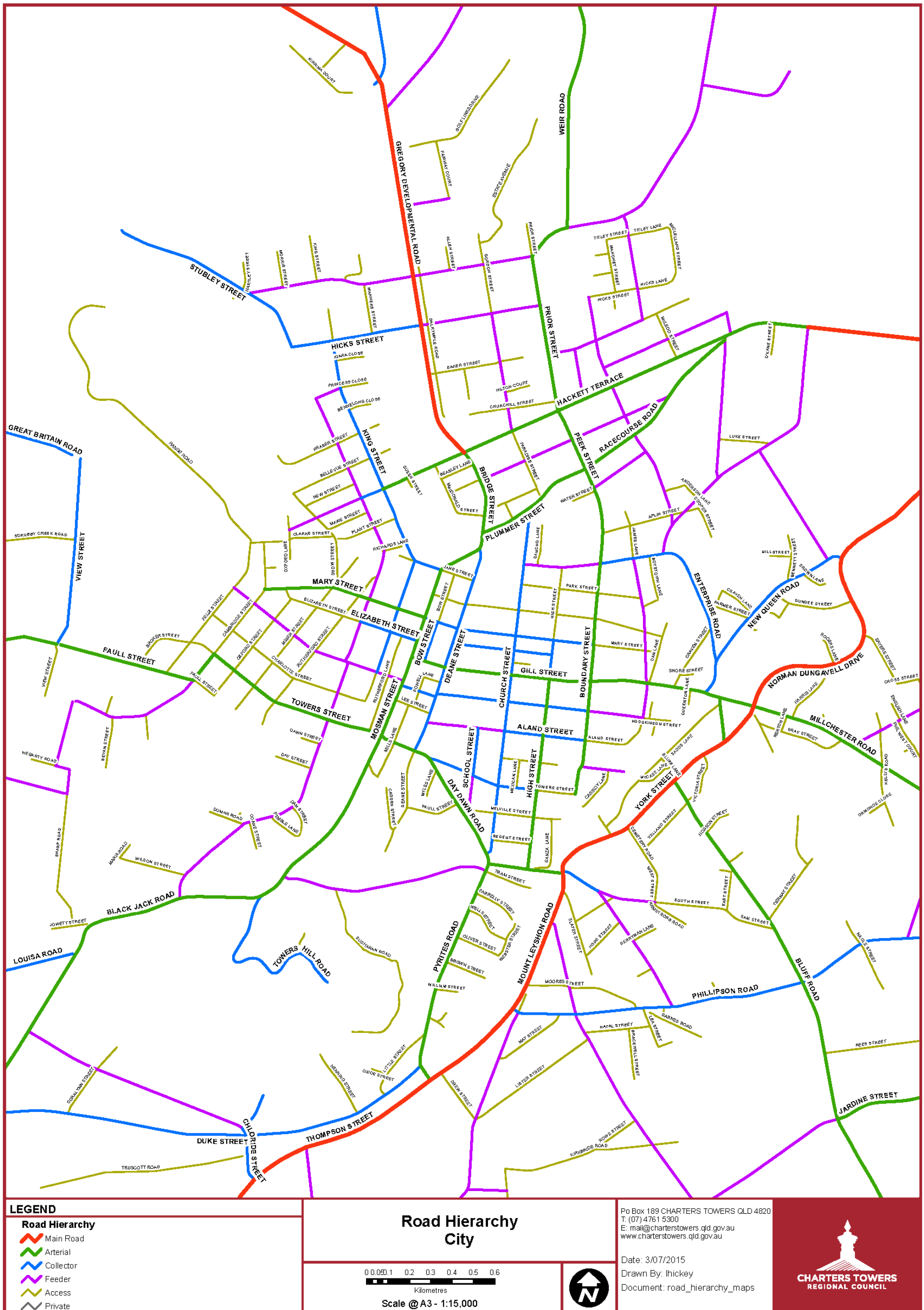


Appendix C - Road Hierarchy Map - Extended Urban Area

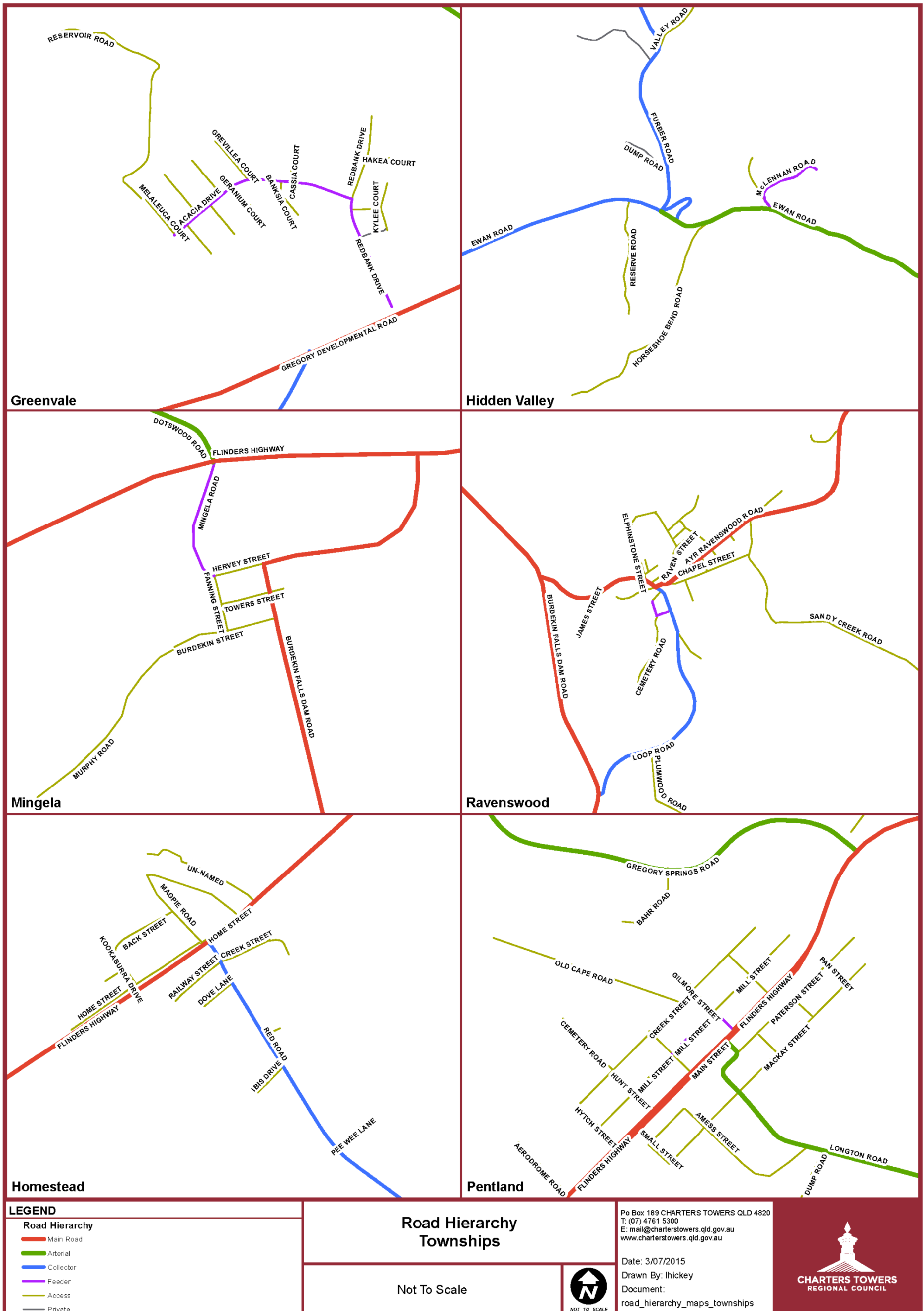


<p>LEGEND</p> <p>Road Hierarchy</p> <ul style="list-style-type: none"> — Main Road — Arterial — Collector — Feeder — Access — Private 	<p>Road Hierarchy Extended Environs</p>  <p>Kilometres</p> <p>Scale @ A3 - 1:100,000</p>	<p>Po Box 189 CHARTERS TOWERS QLD 4820 T: (07) 4761 5300 E: mail@charters-towers.qld.gov.au www.charters-towers.qld.gov.au</p> <p>Date: 3/07/2015 Drawn By: Ilickey Document: road_hierarchy_maps</p>	 <p>CHARTERS TOWERS REGIONAL COUNCIL</p>
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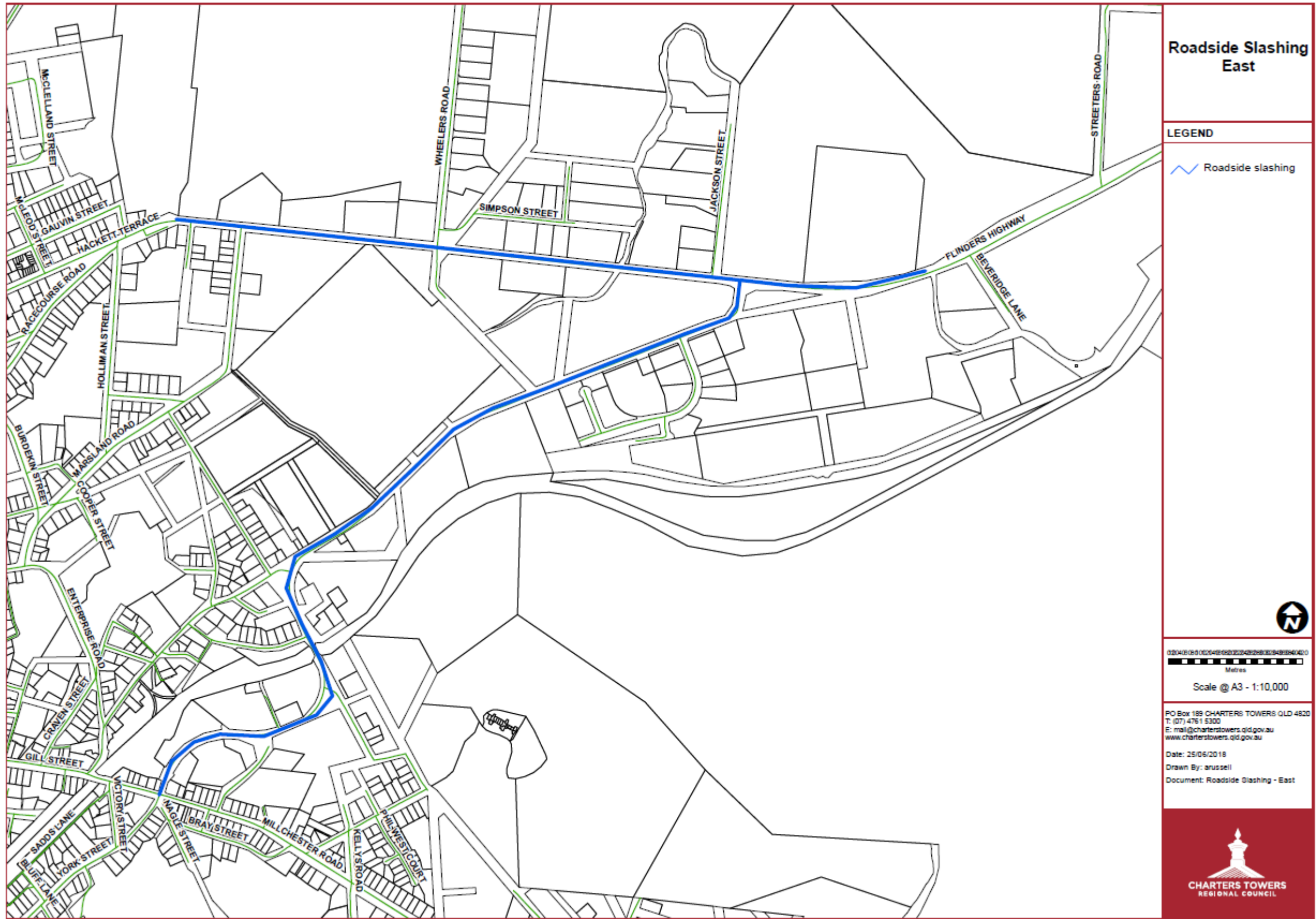
Appendix D - Road Hierarchy Map - Urban



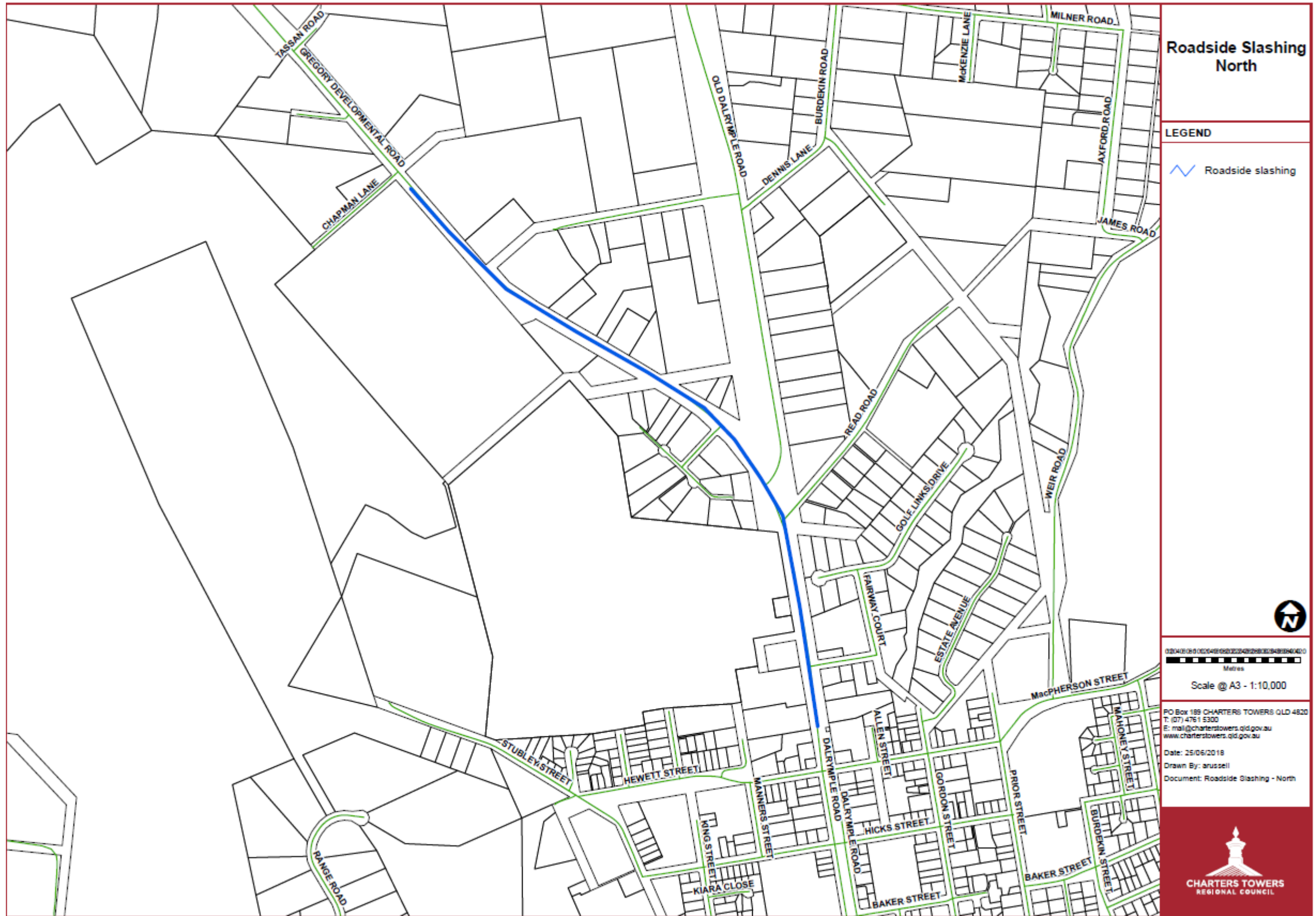
Appendix E - Road Hierarchy Map - Townships



Appendix F – Roadside Slashing Higher Treatment Areas – Charters Towers East



Appendix G - Roadside Slashing Higher Treatment Areas - Charters Towers North



Appendix I – Roadside Cleaning & Litter Control Higher Treatment Areas – Charters Towers

