

CAPRICORN MUNICIPAL DEVELOPMENT GUIDELINES

MEETING MINUTES, POST AMALGAMATION MEETING 10

Version 3

Venue: Gladstone Regional Council, Calliope Training Room, Don Cameron Dr, Calliope
 Date and Time: Wed 18th October 2017
 9:30am – 3:30pm

At meeting - Scott McDonald (GRC), Phil McKone (LSC), Mike Prior (LSC), Brendan Fuller (CHRC), Grant Vaughan (RRC), Jamie McCaul (RRC), Graham Sweetlove (MRC), Chris Hegarty (Cardno). Jacinta (GRC) attended for items 12 and 13 relating to driveways.

Teleconference: Johny Purkaystha (IRC)

Apologies: Alan Heit (BSC - road cut due to flooding), Leesa Miller (BSC), Pierre Neethling (GRC), Jorge El Khouri (GRC)

No	Item	Action By
1	<u>Welcome</u>	
2	<p><u>Matters arising from previous meeting minutes</u></p> <ul style="list-style-type: none"> • Hydrant Marking – potential amendments to CMDG-W-062: Brendan is to follow up with other Councils regarding current practice for the colour of RRPMS marking valves and hydrants. It is noted advice from 2 Councils to date indicate that blue is used to mark hydrants and valves. Brendan to follow up with Queensland Fire and Emergency Services to see if they have a policy or preference regarding the matter. • Rural Property Access – potential changes to CMDG-R-040: Scott (GRC) is to send GRC policy and background requirements. Mike (LSC) to follow up and report to next meeting. • Use of pneumatic pump up bungs for sewer testing: Preference is pneumatic pump up bungs in preference to screw in bungs which have been lost down the system and caused future blockages. Mike is to investigate document changes necessary to implement this. • D5 Current Legislation References: Jamie is to provide details of current legislation to be referenced in D5.13.02 	<p><u>CHRC</u></p> <p><u>GRC</u> <u>LSC</u></p> <p><u>LSC</u></p> <p><u>RRC</u></p>
3	<p><u>CMDG Governance</u></p> <p>No change to status of the governance document as at last meeting. Cardno are to arrange for a quotation from King and Co for the legal drafting of the document.</p> <p>All Councils are to review the document after drafting by King and Co and seek advice from the CEO regarding signing.</p> <ul style="list-style-type: none"> • Jason Akers and Johny Purkaystha are now IRC Nominees • Kym Downey will no longer be MRC nominee (she is moving to CHRC) – Graham Sweetlove is the temporary Nominee – Graham is to confirm permanent replacement. 	<p><u>Cardno</u></p> <p><u>All</u></p> <p><u>MRC</u></p>

<p>4</p>	<p><u>Industry Consultation</u></p> <ul style="list-style-type: none"> The following list of industry contacts was approved for outgoing correspondence. Industry contacts to be provided with minutes of this meeting and the prior meeting regarding changes emanating from the current review process. Industry contacts are to be invited to provide feedback on the proposed changes within 2 weeks. This feedback is to be considered prior to the necessary documentation being completed. Where necessary, issues raised by industry are to be further considered by the group prior to finalising the documentation. If requested draft documentation can be provided to industry contacts. <table border="1" data-bbox="215 617 1117 1255"> <tr> <td>AECOM</td> <td></td> <td>rockhampton@aecom.com</td> </tr> <tr> <td>Aurecon</td> <td>4962 0600</td> <td>gladstone@aurecongroup.com</td> </tr> <tr> <td>Brandon and Associates</td> <td>4668 9351</td> <td>chinchilla@brandoneng.com</td> </tr> <tr> <td>Calibre Consulting</td> <td></td> <td>Graham.Scott@calibreconsulting.co</td> </tr> <tr> <td>Cardno</td> <td></td> <td>rocky.admin@cardno.com.au</td> </tr> <tr> <td>Covey Consulting Engineers</td> <td></td> <td>engineers@covey.com.au</td> </tr> <tr> <td>Davey Engineering solutions</td> <td>0419 872 040</td> <td></td> </tr> <tr> <td>Dileigh</td> <td></td> <td>admin@dileigh.com.au</td> </tr> <tr> <td>GHD</td> <td>4973 1600</td> <td></td> </tr> <tr> <td>Harrison Infrastructure Group</td> <td>4921 0606</td> <td></td> </tr> <tr> <td>Knobel Consulting</td> <td>4922 5019</td> <td>admincq@knobelconsulting.com.au</td> </tr> <tr> <td>McMurtrie Consulting Engineers</td> <td></td> <td>mail@mcmengineers.com</td> </tr> <tr> <td>Noel Gardner and Associates</td> <td></td> <td>mail@ngga.com.au</td> </tr> <tr> <td>Windress Mark</td> <td>4939 1264</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table> <ul style="list-style-type: none"> All documentation access is to be provided by using links to the website. The following website changes are to be implemented: <ul style="list-style-type: none"> Home Page – highlight box to invite industry to advise contact details if they wish to be notified of changes Industry Page – amend to be consistent with the Home Page Guidelines Page – Add at the top of the page. <i>“Where there is an inconsistency between specification and drawings then the specification will take precedence”</i> 	AECOM		rockhampton@aecom.com	Aurecon	4962 0600	gladstone@aurecongroup.com	Brandon and Associates	4668 9351	chinchilla@brandoneng.com	Calibre Consulting		Graham.Scott@calibreconsulting.co	Cardno		rocky.admin@cardno.com.au	Covey Consulting Engineers		engineers@covey.com.au	Davey Engineering solutions	0419 872 040		Dileigh		admin@dileigh.com.au	GHD	4973 1600		Harrison Infrastructure Group	4921 0606		Knobel Consulting	4922 5019	admincq@knobelconsulting.com.au	McMurtrie Consulting Engineers		mail@mcmengineers.com	Noel Gardner and Associates		mail@ngga.com.au	Windress Mark	4939 1264					<p><u>Cardno</u></p> <p><u>Cardno</u></p> <p><u>Cardno</u></p>
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<p>5.1</p>	<p><u>GRC Document reviews – Design Specs</u></p> <p>Review of D6 – Site Regrading</p> <ul style="list-style-type: none"> Hold this specification subject to review by subcommittee (Jamie RRC , Phil LSC and Chris Cardno). Review is to consider retaining wall ownership, benefitted land, easements etc. Phil (LSC) is to access the LGAQ legal site to check if there is any prior legal advice about regarding retaining wall ownership / easements. 	<p><u>RRC,LSC, Cardno</u></p> <p><u>LSC</u></p>																																													

<p>5.2</p>	<p><u>GRC Document reviews – Design Specs</u></p> <p>Review of D7 Erosion Control and Stormwater Management approved with the following significant amendments:</p> <ul style="list-style-type: none"> • D07.07.03 – amend reference documents per advice from Jamie at RRC • D07.18.02 – Delete prescriptive detail for wet basin design – refer to WSUD. • D07.21.01 – Delete prescriptive detail for Design of Constructed Stormwater Wetlands – refer to WSUD • D07.22 – New section on Bio retention systems – design to Water by Design - Bio-retention Technical Design Guidelines (2014) • D07.23 – New section on Vegetated assets – inspection and maintenance schedules required as per Water by Design - Maintaining Vegetated Stormwater Assets (2012). • Order of priority to be added 	<p><u>RRC</u></p>
<p>5.3</p>	<p><u>GRC Document reviews – Design Specs</u></p> <p>Review of D11 Water Supply Design and Construction approved with the following significant amendments:</p> <ul style="list-style-type: none"> • Number reference all purchase specifications • D11.07.01 GRC water demand parameters revised for different areas • D11.07.02 GRC maximum water reticulation network pressure reduced to 50m • D11.07.08 New table clarifying fire flow water network modelling requirements for each Council and acceptable outcomes – see below • D11.09.04 Graham and Scott to advise if the use 63OD poly in cul de sac heads is permitted. • D11.11.02 fire hydrants shall be at maximum 80m spacing for all non-trunk water supply network mains <i>and 20m from the last property frontage.</i> (RRC are to consider this change and it is to be further discussed next meeting, Also AS 2419 reference to be retained) • D11.14.02 add new clause - <i>Geotechnical investigations shall be carried out to identify the bearing capacity of the natural ground conditions, and enable correct sizing of thrust blocks</i> • D11.15.02 Point of connection location (water meter) for MRC now <i>Below ground – outside property (no greater than 500mm from the front and side boundary)</i> • D11.15.03 add new text - <i>Inspection shaft installations must be cast iron squat type boxes. Plastic boxes are not permitted.</i> • D11.20.7 Jamie to review the need for gravity trunk main • D11.25 Add Annexure E – Water Main Commissioning process applicable for GRC • D11.25.11 Bacteriological testing now required for MRC • Changes to tables or new tables as reproduced below • BSC, CHRC, IRC and MRC to advise details for the new table clarifying fire flow water network modelling requirements 	<p><u>GRC, MRC</u></p> <p><u>RRC</u></p> <p><u>RRC</u></p> <p><u>BSC, IRC, CHRC and MRC</u></p>

Table D11.09.2 Use of Ductile Iron Pipe for Road and Creek Crossings

Local Government	Ductile Iron Pipe for Road Crossing	Ductile Iron Pipe for Creek Crossing	Ductile Iron Pipe for Buried Creek Crossing
Banana Shire	Yes	Yes	
Central Highlands Regional	Yes	Yes	Yes
Gladstone Regional	Yes	Yes	Yes
Isaac Regional	Yes	Yes	No (use poly)
Livingstone Shire	No	Yes	Yes
Maranoa Regional	Yes	Yes	Yes
Rockhampton Regional	No (except where dictated by cover requirements)	Yes	Yes

Table D11.09.4 Valves and Tees Installation Arrangement

Local Government	Flanged Valves and Tees	Valves per Tee
Banana Shire	Yes	
Central Highlands Regional	Yes	
Gladstone Regional	Yes	3
Isaac Regional	Yes	3
Livingstone Shire	No	2 (both downstream legs)
Maranoa Regional	Yes	3
Rockhampton Regional	No Preference	2 (both downstream legs)

Table D11.19.1 Use of Pump Stations in Reticulation Network

Local Government	Booster Pump Stations permitted within reticulation network
Banana Shire	
Central Highlands Regional	Yes
Gladstone Regional	No
Isaac Regional	Yes
Livingstone Shire	Yes
Maranoa Regional	Yes
Rockhampton Regional	Yes

New Table

	Residual pressure at most disadvantaged hydrant (m)	Flow	When fire flow is applied
Banana Shire	TBA	TBA	TBA
Central Highlands Regional	TBA	TBA	TBA
Gladstone Regional	Refer to Planning Guidelines for Water Supply and Sewerage		
Isaac Regional	TBA	TBA	TBA
Livingstone Shire	12m	15L/s for 2h for low and medium density residential 30L/s for 4 hours for high density residential and commercial / industrial.	MHMD
Maranoa Regional	TBA	TBA	TBA
Rockhampton Regional	12m	15L/s for 2h for low and medium density residential 30L/s for 4 hours for high density residential and commercial / industrial.	MHMD

5.4 GRC Document reviews – Design Specs

Review of **D12 Sewerage Design and Construction** approved with the following significant amendments:

- Number reference all purchase specifications
- D12.04.02 Add new words - *Pipe bedding material shall be coarse bedding sand or other Local Government approved source. In the absence of any specific approval the following specifications shall apply.....*
- D12.04.08 Amend hot dip galvanising references to AS/NZS 4680:1999 and AS/NZS 4792:1999
- D12.06.02 add new clause - *The design of the sewerage non-trunk network will take into consideration all external demands that are presently acting on the system or are likely to do so in the future. The Sewerage Service Provider must be contacted to ascertain these external demands, point of connection to existing reticulation and operating parameters.*
- D12.06.05 add new clause - *Property Connection Junction Depth shall not exceed 3m unless otherwise specifically approved by the Sewerage Service Provider.*
- D12.07.02 GRC Design ADWF reduced from 250 to 225 L/d/EP

Cardno

- D12.08.14 add new clause - *Sewer shall be located no closer than 10m to any large and/or invasive plant species*
- D12.09 Add new table regarding minimum drop through access chambers

Table D12. Error! No text of specified style in document..1 **Minimum Drop Through Chamber**

Angle	Minimum Drop through Chamber (mm) *
90 - 112°	40
112 - 125°	40
125 - 140°	40
140 - 150°	20
150 - 170°	20 (Y Pattern)
Straight	20

- D12.09.17 add new clause - *Rectangular access covers and frames shall only be considered where the total chamber depths is less than 600mm.*
- D12.09.20 Add new clause - *The 3 immediate access chambers downstream of a rising main discharge are to be coated as a discharge access chamber.*
- D12.10.14 amend clause - The maximum velocity during WWF is **2.0** m/sec.....
- D12.11.02 add new clause - *Corrosion and odour study/model is to be utilised to identify proposed locations of vents.*
- D12.12.08 add new clause - *Where approved by the relevant authority under boring under paving, kerb and gutter or other improved surfaces in lieu of trenching, backfilling shall be so carried out as to restore full support to those surfaces. The Contractor shall remain responsible for the repair of the improved surfaces, if subsequently damaged due to subsidence, until the end of the Defects Liability Period.*
- D12.12.12 delete ~~-In the event of any trenching being left open for longer than one week, the Contractor shall provide erosion control measures to ensure minimal soil disturbance and material loss off the site. Some or all of these measures shall be provided immediately upon the onset of rain with an open trench~~ and replace with - *In the event of any trenching, the Contractor shall provide erosion control measures in accordance with EPA specifications and requirements.*
- Delete D12.11 Control measures shall include: (a) Provision of trench stops every 30 metres along a trench with provision for overtopping to be directed to the kerb. (b) Placement of blue metal bags along kerb and gutter at maximum 30 metre spacings. (c) Placement of blue metal bags around downstream drainage pits. (d) Construction of diversion banks to divert the uphill catchment water from entering the trench.
- Amend Table D12.20.1 – Changes highlighted yellow.

Local Government	Method of testing of Access Chambers	NATA Accreditation
Banana Shire	Hydrostatic testing in accordance with the procedure outlined below.	No
Central Highlands Regional		
Gladstone Regional	Vacuum Testing in accordance with AS 2566 OR Hydrostatic testing in accordance with the procedure outlined below. (Vacuum to be utilised in locations of high water)	Yes

		table)	
	Isaac Regional	Vacuum Testing in accordance with AS 2566 OR Hydrostatic testing in accordance with the procedure outlined below.	Yes
	Livingstone Shire		
	Maranoa Regional	Hydrostatic testing in accordance with the procedure outlined below.	No
	Rockhampton Regional	Vacuum Testing in accordance with AS 2566 OR Hydrostatic testing in accordance with the procedure outlined below. (Vacuum to be utilised in locations of high water table)	Yes
	<ul style="list-style-type: none"> • D12.32. Add new clause - <i>Pump Station Operating Condition Report must be provided to the Sewerage Service Provider during the Development Application submission phase. The report shall address all the activities and conditions referenced in Department of Environment and Heritage Protection guidelines - Model Operating Conditions ERA 63 - Sewerage Treatment. It shall have a conformance table, easy showing how the conditions have been identified and assessed.</i> • D12.32.3.4 add additional item to clause highlighted yellow. The operational works submission must be accompanied by design calculations relating to sewage pumping stations including: <ul style="list-style-type: none"> • Buoyancy calculations; • Wet well structural certification; • Design flow calculations (including plan of identified catchment area); • Pump selection including pump curve with proposed duty point and rising main characteristics; • Emergency storage calculation; • Design assumptions including wet well control volume, rising main detention time • Switchboard loadings 		
5.5	<u>GRC Document reviews – Design Specs</u> Review of D13 Small Earth Dam (NEW) approved but the documents will apply to GRC only. Note this document was populated with extracts from D3 Structures / Bridge Design. Order of priority to be added		<u>Cardno</u>
5.6	<u>GRC Document reviews – Design Specs</u> Review of D (NEW) - Floodways – Grant is to review and remove regurgitated information from other documents and reference those documents instead. Order of priority to be added		<u>RRC</u>

6	<p><u>GRC Document reviews – Design Specs</u></p> <p>The following documents have been approved subject to inclusion of order of priority for all documents. All changes were typographical corrections or clarifications only.</p> <ul style="list-style-type: none"> • C201 Control of Traffic – subject to Jamie clarifying C201.02.01 Austroads References • C222 Precast Box Culverts • C220 Drainage Structures 	<u>Cardno</u>
7	<p><u>Open Spatial addition to the As Constructed Process</u></p> <p>No action required</p>	
8	<p><u>Purchase Specifications for Roads and Drainage</u></p> <p>No action required.</p>	
9	<p><u>Rocks in medians</u></p> <p>C202 Rural Rd Clear Zones (which references Austroads) to be used for guidance regarding items in medians.</p> <p>No action required.</p>	
10	<p><u>Elster Meter Boxes</u></p> <p>The boxes are all pre assembled and are installed by the developer at development stage. Once the owner pays for a connection, the Council just go and fit the meter.</p> <p>LSC are to trial the arrangement and report back to the group.</p> 	LSC
11	<p><u>C244 and C245 - Primer Seal Under Asphalt (LSC)</u></p> <p>This item held over until next meeting</p>	

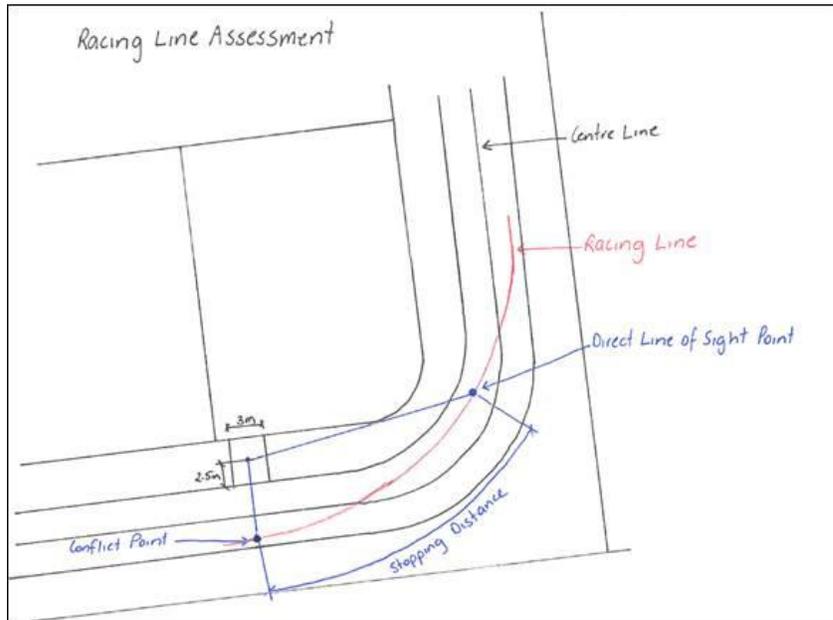
<p>12</p>	<p><u>D1 - Driveway Access for Multiple Lots (GRC)</u></p> <p>Table D1.01.1 Applicability to be deleted as the document will now apply to GRC. Table D1.06.1 is to be amended as follows for GRC to prohibit driveway access for multiple lots.</p> <table border="1" data-bbox="228 352 1081 716"> <tr> <td data-bbox="228 352 431 716"> <p>Gladstone- Regional</p> </td> <td data-bbox="431 352 643 716"> <p>5m Access- Handle-Width 3m Sealed- Carriageway</p> </td> <td data-bbox="643 352 854 716"> <p>Prohibited</p> </td> <td data-bbox="854 352 1081 716"> <p>5.5m Sealed- Carriageway OR Applicable- Commercial- Driveway for- Nominated-Design- Vehicle (Whichever is- larger)</p> </td> </tr> </table>	<p>Gladstone- Regional</p>	<p>5m Access- Handle-Width 3m Sealed- Carriageway</p>	<p>Prohibited</p>	<p>5.5m Sealed- Carriageway OR Applicable- Commercial- Driveway for- Nominated-Design- Vehicle (Whichever is- larger)</p>	<p>Cardno</p>
<p>Gladstone- Regional</p>	<p>5m Access- Handle-Width 3m Sealed- Carriageway</p>	<p>Prohibited</p>	<p>5.5m Sealed- Carriageway OR Applicable- Commercial- Driveway for- Nominated-Design- Vehicle (Whichever is- larger)</p>			
<p>13</p>	<p><u>D1 - Driveway setout adjacent to small radius bends (GRC)</u></p> <p>GRC have been investigating in to ways to control driveway setout adjacent to small radius bends in developments. The issue being related to sight distance and motorist behaviour who take a racing line through small radius bends - safety issue.</p> <p>The following text is to be reviewed and drafted as part of a “Driveways” section of D1. All Council’s are to further review whether they wish the racing line assessment to be applicable to them. A Table of Difference may be necessary.</p> <p>Definition Items:</p> <ul style="list-style-type: none"> • Small Radius Bends means any bend in Council's road network that has a design speed less than that identified for the road classification as per Council's Road Hierarchy Policy. • Council's road network means any existing or future proposed road that is controlled by Council. • Racing Line means the path a vehicle takes when manoeuvring around a bend where it starts in the outside lane crosses to the inside lane at the apex of the bend and then back to the outside lane when exiting the bend. • Racing Line Assessment means assessment of the Safe Stopping Distance (SSD) as per AUSTRROADS based on the Racing Line speed. <p>Racing Line Assessment</p> <p>The purpose of a Racing Line Assessment is to determine a safe driveway location based the Stopping Sight Distance (SSD) for a vehicle that takes the racing line when manoeuvring around a bend.</p> <p>For each small radius bend the following is to be determined and shown on a drawing:</p> <ul style="list-style-type: none"> • The alignment of the Racing Line. The racing line is based on the middle point of a B99 vehicle and any required widening of the bend in accordance with Queensland Streets Section 2.10. • Radius of the racing line • Design Speed based on the radius of the racing line as per Austroads, Guide to Road Design, Part 3, Section 7.4.1, Horizontal Curve Equation, where E+F = 0.35, • Safe Stopping Distance for design speed as per Austroads, Guide to Road 	<p>Cardno All</p>				

Design, Part 3, Section 5.3, SSD Equation where V = Design speed, $1.5s$ reaction time, $d = 0.36$,

- 'Direct Line of Sight Point' on the racing line where the driver has direct line of sight to the middle of the driveway (2.5m from the curb at 1.15m height),
- 'Conflict Point' of vehicle exiting the driveway and the vehicle on the racing line, and,
- Distance along the racing line between the 'Direct Line of Sight Point' and the 'Conflict Point'

Driveway has adequate sight distance if the distance along the racing line between the 'Direct Line of Sight Point' and the 'Conflict Point' is less than the Stopping Sight Distance (SSD) required for the Design Speed of the Racing Line. See Figure 1 for an example of a Racing Line Assessment.

Figure 1: Example of Direct Line of Sight Assessment



Other Alternatives

Where the layout of allotment prohibits the driveway being located appropriately a number of options exist:

- Relocating the driveway to an alternative appropriate frontage
- Increasing frontage length or
- Raised concrete medians imposed to enforce lane discipline.

Raised concrete medians create need to be designed to;

- not provide an obstacle to waste collection vehicles (widened road and swept paths required),
- address the articulated vehicles which will need to access the area as part of house construction (to deliver house frames etc.), and
- to ensure the driveways on the outside of the curve will have appropriate access.
- Council is not in favour of creating allotments which require driveways located opposite intersections (i.e. on kerb section Y-Y on Figure 3.1 of AS2890.1) in greenfield sites.

14	<p><u>As Constructed</u></p> <p>Grant is to review the As constructed references in CMDG and include references to ADAC where appropriate.</p>	RRC
15	<p><u>Road Type Cross Sections</u></p> <p>Phil is to review the cross sections with and view to restoring them as Standard Drawings.</p>	LSC
16	<p><u>Catering</u></p> <p>GRC to send through the catering invoice for Cardno to pay. These costs are to be distributed back to the group through the agreed cost sharing formula.</p>	GRC
	<p><u>Meeting Close</u></p>	