

CAPRICORN MUNICIPAL DEVELOPMENT GUIDELINES

2022 MEETING 07 MINUTES

Venue: GRC Offices at Calliope

Date and Time: 4 August 2022 10:00 am

Item	Item																														
1	<p>Welcome</p> <p>Attendance:</p> <p>In person: Chris Hegarty (MCE), Richard Bywater (MCE), Grant Vaughan (RRC), Mohit Paudyal (RRC), Scott McDonald (GRC), Brendan Fuller (GRC), Graham Sweetlove (MRC), Jon Ashman (LSC), Daniel Price (BSC)</p> <p>Teams: Michael Stanton (IRC), Kym Downey (CHRC), Sarah Banda (CHRC)</p>																														
2	<p>Apologies</p> <p>Jamie McCaul (RRC), Anthony Lipsys (BSC), Greg Abbotts (LSC)</p> <p>Joel Kuczynski (IRC), Allan Heit (BSC), Tony Lau (LSC)</p>																														
3	<p>True and correct record of minutes from previous meeting</p> <p>Refer Attachment A</p> <p><u>Resolution:</u> That the minutes of the meeting held on Teams on 24 June 2022 be formally adopted.</p>																														
4	<p>Terms of reference and Budget</p> <p>Next invoice to be week commencing 08/08/2022. Currently tracking to be over the estimated spend - budget update to be provided following issue of the invoice.</p>																														
5	<p>Outstanding items from the previous meeting</p> <p>This includes items which were not fully resolved at the previous meeting or items not considered due to time constraints.</p> <table border="1"> <thead> <tr> <th>Item number</th> <th>Item</th> <th>Proponent</th> </tr> </thead> <tbody> <tr> <td>M22.01.01</td> <td>Website Update</td> <td>All</td> </tr> <tr> <td>M15.5</td> <td>D1 Geometric Road Design – finalise new tables</td> <td>All</td> </tr> <tr> <td>M15.8</td> <td>D1 Geometric Road Design – Rural Heavy Industry Access Road</td> <td>IRC</td> </tr> <tr> <td>M22.04.02</td> <td>D1 – Road Truncations</td> <td>GRC</td> </tr> <tr> <td>M22.04.03</td> <td>D1 - National Light Pollution Guidelines for wildlife</td> <td>GRC</td> </tr> <tr> <td>M15.7</td> <td>D2 Pavement Design – amend APRG Report 21 as outdated reference and LSC to review design procedure and references</td> <td>LSC</td> </tr> <tr> <td>M15.15</td> <td>D9 Cycleway and Pathway Design revision</td> <td></td> </tr> <tr> <td>M15.16</td> <td>Draft underbore detail</td> <td></td> </tr> <tr> <td>M16.11</td> <td>C273 Landscaping – amend hydromulch spec</td> <td>GRC</td> </tr> </tbody> </table>	Item number	Item	Proponent	M22.01.01	Website Update	All	M15.5	D1 Geometric Road Design – finalise new tables	All	M15.8	D1 Geometric Road Design – Rural Heavy Industry Access Road	IRC	M22.04.02	D1 – Road Truncations	GRC	M22.04.03	D1 - National Light Pollution Guidelines for wildlife	GRC	M15.7	D2 Pavement Design – amend APRG Report 21 as outdated reference and LSC to review design procedure and references	LSC	M15.15	D9 Cycleway and Pathway Design revision		M15.16	Draft underbore detail		M16.11	C273 Landscaping – amend hydromulch spec	GRC
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Item	Item		
	M15.20	PS26 Marker Posts	GRC
	M15.21	PS28 Gaskets	GRC
	M15.22	C242 Pavements – Amend references as advised by GRC	GRC
	M22.01.08	CMDG-S-030 Type C Vertical H.C.	RRC
	M22.02.07	CMDG-W-040 and S-090 Trenching Detail	
	M22.02.04	CMDG-R-050 Drawing review	LSC
	M22.02.05	Use of Corrugated polypropylene drainage pipes	LSC
	M22.02.06	CMDG-D-033 Use of Precast Square roof water pits	LSC
	M10.5.1	D6 Site regrading – consider retaining wall issue	LSC
	M22.03.01	Lockrail park access	
	M22.03.03	D2, C242 & C221 Use of Recycled Glass	GRC
	M13.10	D11 and D12 -Removal of "Trunk" and "Non-Trunk" wording from scope section. D11.01.01 and D12.01.01	GRC
	M22.03.05	CP1.28 Bonding of uncompleted works. Amendments to document.	GRC
	M22.04.01	Review of Reference documents in all Specifications	BSC
6	New Agenda Items		
	Item number	Item	Proponent
	M22.07.01	Roofwater drainage beneath footpaths	Hartec
	M22.07.02	Road Typical Cross Section Drawings (D1)	MCE
	M22.07.03	Corrugated plastic subsoil pipe	MCE
	M22.07.04	RRC grated crossover drawings	RRC
	M22.07.05	W-061 and W-061A – Hydrant and Valve Boxes	GRC
7	General Business		
	•		
8	Next Meeting		
	Next meeting to be via Teams on 2 nd September 2022 at 11am.		
	Next meeting in Calliope to be on 17 th November at 10am.		
9	CMDG Action Register		
	The latest register is Attachment B		
	CMDG Trial Register		
	The latest register is Attachment C		
10	Meeting Closed at 15:20		

Agenda Items Detail

Item No.	Item Details
M22.01.01	<p>Website Update</p> <p><u>Previous Resolution on 24 June 2022</u></p> <p>MCE to request a quotation from LGAQ for the new website.</p> <p>Grant to confirm with RRC procurement whether 3 quotes are required or LGAQ can be engaged directly (maybe via local buy). MCE to request additional quotes if advised by Grant.</p> <p>Grant confirmed that if the website is procured through LGAQ then they can be engaged directly following receiving a quotation.</p> <p>Richard has since had a meeting with the Digital Business Lead from LGAQ to discuss the CMDG website requirements. There may be some issues with procurement due to LGAQ policy only allowing work for local governments. An exemption may need to be negotiated. Further information is due to be received during the week commencing 18th July 2022.</p> <p>Potentially LGAQ would be able to design the new website, populate the content, and provide development, maintenance and training as required. A conservative 6 month timeline should be allowed from initial engagement to use of the new website.</p> <p>MCE have not received any update following the meeting on 13th July. Brief discussion on potential purchasing issues.</p> <p>Mention of Denis from CQIT may be retiring.</p> <p><u>Resolution</u></p> <p>Richard to follow up with LGAQ to chase information for presenting to committee. Richard to review emails and find mention of potential end of domain hosting service from CQIT.</p> <p><u>Action By</u></p> <p>MCE</p>
M15.5	<p>D1 Geometric Road Design – finalise new tables</p> <p>Proposed D1 Document ver 10C is at Attachment D1</p> <p><u>Actions since last meeting</u></p> <ul style="list-style-type: none"> • Industry consultation was carried out for RRC and CHRC. Response received from Hartecs (Dan Toon). One internal response received from Scott at GRC relating to the provision of a footpath for an access Place for CHRC. This is being discussed with CHRC. • D1 Ver 10C has been amended to reflect changes from the last meeting and additional content (highlighted turquoise) from the original document GRC prepared when the D1 review process kicked off. New solar lighting wording suggested by Jamie highlighted Yellow. • Rural Road Type section drawing amended in an attempt to reflect new table requirements. <p><u>Current Status of D1 Urban and Rural Tables</u></p> <ul style="list-style-type: none"> • RRC – Completed • CHRC – Completed. • GRC – Completed. • MRC –Graham getting confirmation. • LSC – Completed. • IRC – awaiting feedback on prepared drafts of urban and rural tables – No issues noted – will confirm soon • BSC – Completed – Format to be adjusted to align with other LGAs <p><u>Previous Resolution on 24 June 2022</u></p>

	<ul style="list-style-type: none"> • MCE to prepare a response to the Hartecs feedback in a document that will be distributed to the committee for comment prior to the next meeting. • D1 Ver 10C draft to be discussed at next meeting in conjunction with the feedback responses. • Rural road cross section drawing to be discussed and approved at next meeting. <p>Draft response to Hartecs' comments (Attachment D2) has been prepared and sent to Jamie (RRC) and committee for comment. Further discussion required.</p> <p><u>Meeting discussion 4 Aug 2022</u></p> <p>Changes/ additional wording to the Hartec response document:</p> <p>1.0 The CMDG committee have committed to seek to align standards wherever possible and will review areas where there are differences between LGAs moving forward.</p> <p>1.2 A path is required on all roads to comply with the planning regulations. However, the committee accepts that there are situations where a path may not be necessary and individual LGAs may accept this on a case by case basis with suitable justification.</p> <p>3.1 Mohit to provide additional information. 2 parking lanes + 1 through lane vs 1 parking and 2 through lanes.</p> <p>5.3 Carriageway widths below the minimums will be considered on a case by case basis with justifications from the consulting engineers and accepted at the discretion of the LGA. Note to be added beneath table - At the discretion of the LGA, pavement width reductions to 5.5m may be acceptable in certain circumstances.</p> <p>5.4 Remove text "Consideration can be given to a lesser width with appropriate justification" Add "LGAs are reviewing rural residential requirements in this regard."</p> <p>6.2 A potential solution is the provision of a 100mm pipe at 1.0% grade extending to the front property boundary where a kerb adapter is located at the time of subdivision. However, the Steering Committee was reluctant to mandate this.</p> <p><u>Resolution</u></p> <p>Update response document with above comments and respond to Hartecs.</p> <p>The following resolutions were made in relation to document changes</p> <ul style="list-style-type: none"> • CHRC D1 Urban Table - amend to require a pathway for an Access Place • All LGA's D1 Urban Table – add a note to indicate Pathway for a Local Access/Access Place is Desirable but that there are situations where a path may not be necessary and individual LGAs may delete the path requirement on a case by case basis with suitable justification • RRC D1 Urban Table - to add note to Local Access hierarchy indicating that at the discretion of the LGA, pavement width reductions to 5.5m may be acceptable in certain circumstances • CMDG-R-051 – add note to clarify that landings are to be provided only where this can be practically achieved. <p><u>Action By</u> MCE</p>
M15.7	<p>D1 Geometric Road Design – Rural Heavy Industry Access Road</p> <ul style="list-style-type: none"> • Attachment G is the previous information provided on this matter referred to in the resolution below. • The following resolution was made in late 2020.

	<p><i>Question raised by IRC for the consideration of the inclusion of a “Rural Heavy Industry Access Road” (Mine Access) or similar wording with appropriate associated elements within the Road hierarchy.</i></p> <ul style="list-style-type: none"> - <i>GRC to provide the TMR drawing for Industrial Collector that was presented in the meeting. This will be distributed to the other council’s.</i> - <i>Street Type to be added to table D2.08.1 “Resource Access Road”</i> - <i>IRC to provide proposal for inclusion into CMDG.</i> - <i>SD1807 provided for information</i> - <i>GRC Standard Drawings attached for information</i> <p><u>The resolution from the 1 April 2022 meeting was</u></p> <ul style="list-style-type: none"> • Further information required from IRC • Committee to review GRC drawings to determine if they should be added to CMDG standard drawings. • Need to discuss the status of this item and any proposed changes to D1 and D2. <p>Michael confirmed that this item can be removed. No further action required.</p> <p><u>Resolution</u> Remove this item from future agenda</p> <p><u>Action By</u></p>
M22.04.02	<p>D1 – Road Truncations</p> <p><u>Previous Resolution was:</u></p> <p>Mohit to review.</p> <p>MCE to proceed with including the truncations clause into D1. Mohit/ RRC to advise if changes are required. Inclusion of a clause in D1 for truncation of the real property boundary to provide this guidance for development applications and internal design works where new road reserves are being created / land is being purchased or resumed. The wording of this section to be consistent with section 6.3.2 Calliope Shire Council and Gladstone City Council 2005, Roads and Transport Standard 2005</p> <p>Action By MCE/ RRC</p> <p><u>Resolution</u> None at this stage – awaiting approval of D1 document and RRC review. Remove from agenda.</p>
M22.04.03	<p>D1 - National Light Pollution Guidelines for wildlife</p> <ul style="list-style-type: none"> • This has been actioned and line items included in Draft D1 document under Urban and Rural sections. <p><u>Resolution</u> None at this stage – awaiting approval of D1 document. Remove from agenda.</p> <p><u>Action By</u></p>

M22.07.01	<p>D1 - Roofwater drainage beneath footpaths</p> <ul style="list-style-type: none"> • Now that footpaths are required on all streets there are potential issues with roof water drainage. • Hartecs comment: <ul style="list-style-type: none"> ○ The kerb on layback k&c is 100mm high to accommodate a 100mm dia roofwater pipe. Theoretically kerb adaptors solve this issue except they are often not used because invariably the roofwater adaptor connections are not used by plumbers/builders when the houses are built; the paths are cut wherever the plumber decides is convenient to dig his trenches. Little thought is given before commencing this work as to the location of the kerb adaptors. • A potential solution is the provision of a 100mm pipe at 1.0% grade extending to the front property boundary where a kerb adapter is proposed at the time of subdivision. <p><u>Resolution</u> Discussed and no further action required. Potential solution given to Hartecs within feedback response document.</p> <p><u>Action By</u></p>
M22.07.02	<p>D1 – Typical Road Cross Section Drawings</p> <ul style="list-style-type: none"> • Drawings have been updated/ recreated refer to Attachment E. <p><u>Resolution</u> Minor changes:</p> <ul style="list-style-type: none"> • Add note to all drawings referring back to D1 document for key dimensions • Remove dimensions to streetlights • Add kerb note – kerb treatment to be as per D1 tables for the specific LGA requirements • Pathway to be shown on Industrial Access and Local Access/Access Place <p>Upload to website with D1 document once changes have been made.</p> <p><u>Action By</u> MCE</p>
M15.7	<p>D2 Pavement Design – amend APRG Report 21 as outdated reference and LSC to review design procedure and references</p> <p><u>Previous Resolution at 1 April 2022 was</u> Grant to review document and construction specification (e.g. C242)</p> <p><u>Action By</u> RRC</p> <p><u>Resolution</u> This item is to be parked in the short term. Remove from next agenda and add to action list.</p> <p><u>Action By</u> MCE</p>
M15.15	<p>D9 Cycleway and Pathway Design revision</p> <ul style="list-style-type: none"> • Previous resolution was <i>Cardno to check D9 and check where we are at with the changes</i>

	<ul style="list-style-type: none"> MCE have completed a review of the document and are in the process of updating the document for review by the committee <p><u>Resolution</u> Discussed and agreed to minimise level of detail and refer to Austroads. MCE to complete draft and forward to committee for review.</p> <p><u>Action By</u> MCE</p>																
M15.16	<p>Draft Underbore Detail</p> <ul style="list-style-type: none"> The previous resolution was <i>Cardno to provide draft underbore detail for consideration.</i> MCE intend to progress this item with a draft drawing based on SEQ – any examples or advice on content from members would be appreciated. <p><u>Previous Resolution 24 June 2022</u> MCE to commence investigation into underbore detail.</p> <p>Proposed new underbore drawing is currently in progress Attachment F to be provided prior to meeting if completed.</p> <p><u>Resolution</u> MCE to cross check new drawing with other Councils and TMR standard drawings then send to committee for review with commentary/ background information.</p> <p><u>Action By</u> MCE</p>																
M16.11	<p>C273 Landscaping – amend hydromulch spec</p> <ul style="list-style-type: none"> The current hydro mulch specification uses seed varieties that are more suited to colder climates. See Attachment J for example seed mix used by Dennis Contracting Services <p><u>Previous Resolution 24 June 2022</u> GRC, MRC, LSC are happy with the revised specification. RRC, IRC, CHRC, BSC to review and provide feedback/ acceptance.</p> <p>Proposed spec acceptable - responses received so far:</p> <table border="1" data-bbox="276 1512 1067 1787"> <thead> <tr> <th>Local Government</th> <th>Acceptance</th> </tr> </thead> <tbody> <tr> <td>Banana Shire</td> <td>? Daniel to check</td> </tr> <tr> <td>Central Highlands Regional</td> <td>Yes</td> </tr> <tr> <td>Gladstone Regional</td> <td>Yes</td> </tr> <tr> <td>Isaac Regional</td> <td>Yes</td> </tr> <tr> <td>Maranoa Regional</td> <td>Yes</td> </tr> <tr> <td>Livingstone Regional</td> <td>Yes</td> </tr> <tr> <td>Rockhampton Regional</td> <td>Yes</td> </tr> </tbody> </table> <p><u>Resolution</u> Make changes to specification based on the feedback provided by Dennis Contracting Services and send to committee for final review.</p> <p><u>Action By</u> MCE</p>	Local Government	Acceptance	Banana Shire	? Daniel to check	Central Highlands Regional	Yes	Gladstone Regional	Yes	Isaac Regional	Yes	Maranoa Regional	Yes	Livingstone Regional	Yes	Rockhampton Regional	Yes
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Central Highlands Regional	Yes																
Gladstone Regional	Yes																
Isaac Regional	Yes																
Maranoa Regional	Yes																
Livingstone Regional	Yes																
Rockhampton Regional	Yes																

M15.20

PS26 Marker Posts

- **Attachment K** is draft PS26 provided by GRC
- The previous resolution was:

Amended Purchase Spec PS26 provided by GRC.

- *All Councils to confirm if they use timber marker posts or not*
 - *If no Councils use timber posts this will be replaced on CMDG-W-060 with Flat posts*
 - *Councils to confirm which colours for which applications*
-
- Need guidance on the above dot points so that PS26 can be finalised.

Timber posts responses received:

Local Government	Timber posts permitted
Banana Shire	No
Central Highlands Regional	Yes
Gladstone Regional	No
Isaac Regional	Yes
Maranoa Regional	Yes
Livingstone Regional	No
Rockhampton Regional	No

Resolution

MCE to research and check IPWEAQ and SEQ specifications, then update PS26 based on the findings. Drawing required updating to have post 900/1200 above ground (not total length) in urban areas, 1800 in rural areas.

Action By

MCE

M15.21

PS28 Gaskets

- **Attachment L** is draft specification provided by GRC.
- The previous resolution was

Councils happy to include on website.

LSC had previously sent a purchase specification to Cardno. Cardno to locate this document.

- Need clarification on the LSC specification to finalise.

Previous Resolution 24 June 2022

Committee members to review draft purchase specification and provide comment at next meeting

Resolution

Applicability is Yes to all LGAs. Adopt amended gasket spec and upload to website

Action By

MCE

M15.22

C242 Pavements – Amend references as advised by GRC

	<p>M15.22. C242 Pavements</p> <p>Recommended actions from Brendan at GRC are:</p> <ul style="list-style-type: none"> • Add highlighted Australian standards • Delete reference to Main Roads documents totally (they were all upgraded to AS1289 reference in 2018) <p>C242.03 REFERENCE DOCUMENTS</p> <p>C242.03.01 Documents referenced in this Specification are listed in full below whilst being cited in the text in the abbreviated form or code indicated.</p> <p>(a) Council Specifications</p> <p>C241 - Stabilisation C244 - Sprayed Bituminous Surfacing</p> <p>(b) Australian Standards</p> <p>AS 1141 Set: Methods for sampling and testing aggregates As 1289 Set: Methods of testing soils for engineering purposes</p> <p>AS 1141.14 - Particle shape, by proportional calliper. AS 1141.22 - Wet/dry strength variation. AS 1289.3.1.1 - Determination of the liquid limit of a soil - Four point Casagrande method. AS 1289.3.3.1 - Calculation of the plasticity index of a soil. AS 1289.3.6.1 - Determination of the particle size distribution of a soil - Standard method of analysis by sieving. AS 1289.3.6.3 - Determination of the particle size distribution of a soil - Standard method of fine analysis using a hydrometer. AS 1289.5.1.1 - Determination of the dry density/moisture content relation of a soil using standard compaction effort. AS 1289.5.3.1 - Determination of the field density of a soil - Sand replacement method using a sand cone pouring apparatus. AS 1289.5.4.1 - Compaction control test - Dry density ratio, moisture variation and moisture ratio. AS 1289.5.4.2 - Determination of field density and field moisture content of a soil using a nuclear surface moisture - density gauge - Direct transmission mode. AS 1289.6.1.1 - Determination of the California bearing ratio of a soil - Standard laboratory method for a remoulded specimen. AS 5101.4</p> <p>(c) </p> <p>- Cardno to action the above recommendations from GRC. M13.8</p>	Cardno
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Resolution

This change to be adopted with current review underway by RRC (Grant). It may be a number of months before this is completed. Remove from agenda and add to action register.

Action By:

M22.01.08

CMDG-S-030 Type C Vertical H.C.

- background.

General acceptance regarding the use of connections directly above main. Discussion regarding removal of the house drain and Y branch in the Pre Site Development details. Agreement reached that it should be removed. Jamie (RRC) to provide markups to drawing CMDG-S-030 for MCE to complete.

- An amended drawing has been prepared based on mark-ups from RRC

Previous Resolution 24 June 2022

Provide updated drawing for discussion at next meeting

Drawing CMDG-S-030 rev G is provided in **Attachment H**

Resolution

Pre-development Type 2 detail to be removed (MRC no longer require this detail and will use Type1) and applicability table amended to align all LGAs to same detail. Updated S-030 Rev G drawing be uploaded to website.

Action By

MCE

	<ul style="list-style-type: none"> • Tooled joint note has been added and additional minor changes made. Richard mentioned that it would be worth considering the inclusion of information or reference to the TMR standard drawings KGR1 and KGR2. <p><u>Previous Resolution 1 April 2022</u></p> <p>Revised drawing and TMR drawings KGR1/ KGR2 to be sent to committee for further discussion/ consideration.</p> <ul style="list-style-type: none"> • Attachment M1 is the revised R-050 drawing and Attachment M2 is the TMR drawings KGR1/ KGR2 <p><u>Action By</u> MCE</p> <p><u>Previous Resolution 24 June 2022</u></p> <p>Discussion on use of TMR drawings vs reference to Australian standard for TGSIs. General agreement that it may be better to leave Australian Standard reference and not refer to the TMR drawings. Further discussion required prior to adopting CMDG-R-050 rev F.</p> <p><u>Resolution</u></p> <p>Following discussion especially on TGSIs the following minor changes are required:</p> <ul style="list-style-type: none"> • Adjusted leaded in detail plan view • Remove “preferably yellow” on the TGSi contract note • Change references for “Footpath” to “Pathway” • Adjust broom finish leader on plan view. <p>Updated R-050 rev F drawing to be uploaded to the website.</p> <p><u>Action By</u> MCE</p>					
M22.02.05	<p>D5 – Use of corrugated polypropylene drainage pipes</p> <ul style="list-style-type: none"> • LSC is suggesting use of corrugated polypropylene drainage pipes. <table border="1" data-bbox="276 1285 1345 1664"> <tr> <td data-bbox="276 1285 355 1664">6-2021</td> <td data-bbox="355 1285 595 1664">CMDG-D, CMDG-D5, C221.</td> <td data-bbox="595 1285 799 1664"></td> <td data-bbox="799 1285 1062 1664">Addition of corrugated polypropylene drainage pipes.</td> <td data-bbox="1062 1285 1345 1664"> <p>Twin wall corrugated polypropylene drainage pipes offer many benefits compared to reinforced concrete pipes. Benefits include:</p> <ul style="list-style-type: none"> • Excellent corrosion and chemical resistance • Can be cut to length with no detriment to corrosion resistance • Excellent rubber ring joint sealing system • Smooth bore providing optimum hydraulic performance • Available in 6 metre lengths • Lighter to handle with a lower risk rating for those handling the pipes • Smaller diameter pipes can be man handled • Lower transport costs • Large and diverse range of fitting available <p>1.1 CMDG-D, CMDG-D5, C221. Addition of corrugated polypropylene drainage pipes.</p> </td> </tr> </table> <ul style="list-style-type: none"> • C221 Section C221.04 mentions FRC and RCP pipes but not Plastic. • Current Section D05.18 reads as follows. 	6-2021	CMDG-D, CMDG-D5, C221.		Addition of corrugated polypropylene drainage pipes.	<p>Twin wall corrugated polypropylene drainage pipes offer many benefits compared to reinforced concrete pipes. Benefits include:</p> <ul style="list-style-type: none"> • Excellent corrosion and chemical resistance • Can be cut to length with no detriment to corrosion resistance • Excellent rubber ring joint sealing system • Smooth bore providing optimum hydraulic performance • Available in 6 metre lengths • Lighter to handle with a lower risk rating for those handling the pipes • Smaller diameter pipes can be man handled • Lower transport costs • Large and diverse range of fitting available <p>1.1 CMDG-D, CMDG-D5, C221. Addition of corrugated polypropylene drainage pipes.</p>
6-2021	CMDG-D, CMDG-D5, C221.		Addition of corrugated polypropylene drainage pipes.	<p>Twin wall corrugated polypropylene drainage pipes offer many benefits compared to reinforced concrete pipes. Benefits include:</p> <ul style="list-style-type: none"> • Excellent corrosion and chemical resistance • Can be cut to length with no detriment to corrosion resistance • Excellent rubber ring joint sealing system • Smooth bore providing optimum hydraulic performance • Available in 6 metre lengths • Lighter to handle with a lower risk rating for those handling the pipes • Smaller diameter pipes can be man handled • Lower transport costs • Large and diverse range of fitting available <p>1.1 CMDG-D, CMDG-D5, C221. Addition of corrugated polypropylene drainage pipes.</p>		

D05.18. PIPE MATERIAL

D05.18.01. The following pipe materials are approved subject to minimum cover and installation requirements stated by the manufacturer:

- Steel reinforced concrete pipe and culverts to AS4058; and
- Fibre Reinforced pipes to AS4139.; and
- Other pipes will be considered subject to individual Council approval.

D05.18.02. All joints between pipes shall be Rubber Ring Joints (RRJ).

- It is noted that Hydra Storm supplies pipe as follows:
 - Manufactured in accordance to AS – NZS 5065
 - Available from Diameter Nominal (DN) 225mm to 600mm
 - Manufactured from recycled HDPE



- C221 will need to be updated at the same time as D5.
- Richard mentioned that he is meeting with a representative from Iplex next week where he will get additional information and specifications.

Previous Resolution

Richard to collate information and specifications and send to committee for further discussion at next meeting with proposed changes to D5 and C221 to permit use of corrugated polypropylene drainage pipes.

Action By MCE

- Richard has met with the sales Rep but proposed changes to D5 and C221 are still being considered. It is recommended that Polypropylene pipes with classification SN8 are approved up to a diameter of 600mm.
- The technical guide for Blackmax (Iplex) is included as **Attachment N**.

Use of polypropylene drainage pipes up to 600mm diameter in urban areas only - responses received:

Local Government	Acceptance
Banana Shire	Yes
Central Highlands Regional	Yes
Gladstone Regional	Yes
Isaac Regional	Yes
Maranoa Regional	Yes
Livingstone Regional	Yes
Rockhampton Regional	Yes

Commentary around impact on plastic pipes due to grass fires etc in rural areas.

Resolution

Update D5 and C221 to permit polypropylene pipes (SN8) in urban areas only up to 600mm diameter. Add notes around to be installed as per manufacturers specifications. Revised documents to be sent to committee for review.

Action By MCE

M22.02.06

CMDG-D-033 Use of Precast Square roofwater pits

- LSC propose use of proprietary precast square roofwater pits.
- Note 5 to CMDG-D-033 permits use of precast chambers but Note 6 says covers and frames must be circular

2-2021	CMDG Request for amendment - Roofwater inspection chambers CMDG-D-0(D)	Roofwater inspection chambers CMDG-D-0(D)	change drawing to include drawing of 600x600 precast pit with galvanised lid.	<p>Comments from Waste: Nil input is required.</p> <p>Comments from Water: Nil comments as drawing is related to stormwater drainage access chamber not sewerage access chamber.</p> <p>Comments from Infra Design: Roofwater inspection chamber drawing to show a square pit detail (600x600 Field Inlet type) as this is the most commonly used on site.</p> <p>Comments from Infra Planning: No comment provided</p> <p>Comments from Infra DET: No comment provided</p> <p>Comments from Facilities – Assets / GIS: No comment provided</p> <p>Comments from Construction / Maintenance Hi Ellen, I support the proposal as it will be easier to procure these products. If you have any queries regarding the above, please contact me. Thanks. Darren Hines</p>
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Rocla pit left – Holcim pit right

Use of precast concrete square roofwater pits - responses received so far:

Local Government	Acceptance
Banana Shire	?
Central Highlands Regional	?
Gladstone Regional	Yes
Isaac Regional	?
Maranoa Regional	Yes
Livingstone Regional	Yes
Rockhampton Regional	?

Within the meeting commentary was raised to concrete lids and safety concerns with weight and greater possibility for square lids to fall inside chambers to that of circular.

Resolution

CMDG-D-033 - Revise note 6 to remove words “must be circular”

Action By

MCE

M10.5.1

D6 Site Regrading – consider retaining wall issue

- The previous resolution was

- Meeting 10 – Sub Committee of Amal Meegahawattage (LSC), Jamie McCaul (RRC), and Chris Hegarty to review the document and advise. Phil McKone to check LGAQ legal site for any retaining wall related advice
- Meeting 13. This item was not discussed. Chris, Jamie and Dev to meet to progress further.
- No progress on this issue yet – need to discuss its priority and resources to progress the matter

Resolution

Jamie and Chris to discuss further and determine a potential resolution.

Action By

MCE/RRC

M22.03.01

CMDG-G-013 Locking Rail

- The previous resolution was *Some interest from committee regarding removable bollards/lockrails. Existing lockrail drawing (not part of standard drawings set) to be discussed at next meeting.*
- Discussions at the previous meeting centred on a new Lockrail drawing presented by LSC some time ago (along with a suite of Parks drawings). However, there already is a lockrail drawing included in CMDG. Both drawings are at **Attachment O**.
- RRC Parks have advised that they are heading away from the lockable pole insert type given the manual handling associated with it. They are actually replacing these types across the region with the swing gates as shown in the attached picture.



Scott has provided the IPWEAQ drawings which have slightly different details to the CMDG drawings as well as some swinging gate details, refer to **Attachment O**.

MCE have created a CMDG swing gate drawing using a combination of the IPWEAQ drawing example and the existing RRC gate shown in the photo above. The drawing is also in **Attachment O**.

Drawing applicability

Local Government	Rail drawing – G-013	Gate drawing – G-021
Banana Shire	Yes	Yes
Central Highlands Regional	Yes	Yes
Gladstone Regional	Yes	?
Isaac Regional	Yes	Yes
Maranoa Regional	Yes	Yes
Livingstone Regional	Yes	Yes
Rockhampton Regional	No	Yes

Resolution

RRC to consider and confirm whether a single gate option is required. GRC to confirm applicability for new gate drawing G-021. Drawing to be uploaded to website once feedback is received.

Action By

MCE/GRC/RRC

M22.03.03

D2, C242 & C221 Use of Recycled Glass

- GRC are seeking to amend CMDG to allow use of Recycled Glass in line with the TMR specs for pavement design – reference to be considered in either (D2 - Pavement Design) or (C242 - Flexible Pavement).
- In addition to pavement, having Recycle Glass as a suitable material for stormwater bedding/trenching material around concrete pipes (C221 Pipe Drainage).
Proposal:
- In C242 - Recycle glass aggregate may be considered as an alternative to a quarry or natural sand material for unbound pavements when used in accordance with TMR specifications.
- References Materials: MTRS05 Unbound Pavements, MTRS36 Recycle Glass Aggregate.
- In C242 - Recycle glass aggregate may be considered as an alternative to a quarry or natural sand material for bedding material of reinforced concrete and fibre reinforced concrete pipes in accordance with bedding material grading limits.
- There are other alternative recycle materials that may be considered by the group.
- **Attachment Q** is the Current TMR Spec for recycled glass.

Table 7.2.1 – Constituents in Type 2 materials

Subtype	Maximum Limit of each Constituent (percent by mass)				
	Natural gravel or quarried material	Recycled materials			
		Recycled concrete	RAP	Recycled brick	Recycled glass ^
2.1	100	100	0	0	0
2.2	100	100	15	15	0
2.3	100	100	20	20	20
2.4	100	100	20	45	20
2.5	100	100	45	45	20

[^] Recycled glass shall comply with the requirements of MRTS36 *Recycled Glass Aggregate*.

- For discussion at this stage – if there is appetite for its use we can investigate what document changes may be necessary to make it happen

Use of recycled glass - responses received so far:

Local Government	Pavements	Stormwater Bedding/ surround
Banana Shire	?	?
Central Highlands Regional	Yes?	No?
Gladstone Regional	Yes	Yes
Isaac Regional	?	?
Maranoa Regional	Yes	?
Livingstone Regional	?	?
Rockhampton Regional	?	?

Resolution

Applicability to be confirmed by BSC, CHRC, IRC, MRC, LSC and RRC.

D2 and C242 to be updated following responses.

Action By

All

M13.10

D11 and D12 -Removal of "Trunk" and "Non-Trunk" wording from scope section. D11.01.01 and D12.01.01

- The resolution at Meeting 13 was - *After a short discussion it was agreed that the CMDG documentation remain unchanged and relate to Non-Trunk items only. In general, specific design requirements for Trunk infrastructure would be dealt with in the LGIP's.*
- GRC has requested further discussion of the matter.
- Agenda text from meeting 13 follows for further background.
- *The current wording in D11.01.01 is as follows – D12 is similar.*

This Guideline sets out the requirements for the design of the NON-TRUNK infrastructure water supply network to achieve the Desirable Standards of Service in accordance with requirements of the Planning Act, the Water Supply (Safety and Reliability) Act and the Plumbing and Drainage Act. For any TRUNK infrastructure, refer to the Water Service Provider.

10	<p>CMDG Guidelines D11 and D12 - amendments to suit trunk (LSC - Phil McKone)</p> <p>The following advice has been received from Phil McKone (for discussion)</p> <p><i>The introduction paragraph that states the Guideline is intended for non-trunk works can be changed ONLY if the trunk design parameters are included in the document.</i></p> <p><i>The trunk design parameters are listed in the LGIP and AICR.</i></p> <p><i>The risk profile is different and is focused on the bulk transfer of water and no access to individual properties.</i></p> <p><i>The important water supply differences are:</i></p> <ul style="list-style-type: none">. <i>no pressure limitations, both minimum and maximum.</i>. <i>no velocity limitations</i>. <i>no fluctuation limitations</i> <p><i>For sewerage,</i></p> <ul style="list-style-type: none">. <i>the ADWF flow patterns will be significantly different from the reticulation flow patterns due to system attenuation and pumped flow rates. This effects scouring velocities.</i>. <i>trunk gravity mains are basically a hydraulic head design, as the grades are so flat compared to the diameter of the pipe</i>. <i>branch main connections should be obvert consistent, not invert level based. A high water level in large trunk main may cause a continuous surcharge a small branch lateral</i>. <i>trunk sewage pump stations will be more sophisticated and greater equipment.</i>
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Meeting date: 14 March 2019
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Prepared by M Borg & C Hegarty

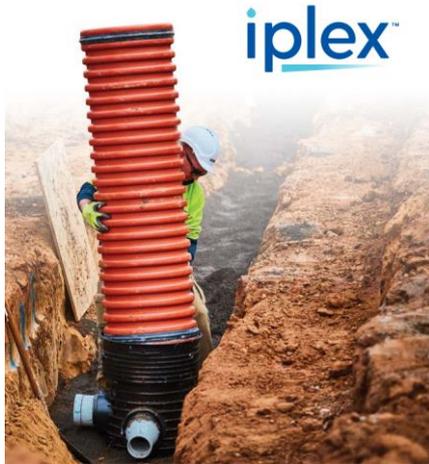
Resolution

Revised wording to be used in D11 and D12:

This Guideline sets out the requirements for the design of the infrastructure water supply network to achieve the Desirable Standards of Service in accordance with requirements of the Planning Act, the Water Supply (Safety and Reliability) Act and the Plumbing and Drainage Act. For any TRUNK infrastructure, the service provider reserves the right to nominate a design standard for the specific circumstances.

Action By MCE

M22.03.05	<p>CP1.28 Bonding of uncompleted works. Amendments to document – Not discussed</p> <ul style="list-style-type: none"> • The meeting 15 resolution on this was “Take out of agenda for now. GRC will provide additional information and commentary for clarity”. • GRC have provided a marked up version of CP1 with proposed changes mainly around the use of bonding deeds but also other issues – refer to comments in Right hand column.. • Attachment R1 is the CP1 Ver 4 Draft document and Attachment R2 is an example bonding deed used by RRC. • Attachment R3 is the existing CP1B Security Lodgement Form. It is suggested that this form be retained as it has value in calculating the bond amount based on information provided by the RPEQ Engineer. The bonding deed is then the agreement between the Council and the developer which quotes the calculated bond amount. <p><u>Suggested Resolution</u></p> <p>The CP1 Version 4 draft be adopted and loaded up to the website. The bonding deed be provided in MS Word format on the website</p> <p><u>Action By</u> MCE</p>
M22.04.01	<p>Review of Reference documents in all Specifications – Not discussed</p> <ul style="list-style-type: none"> • BSC (Daniel) suggests the group consider a Design Specification review and revising the referencing to current standards/guidelines. These references should provide the same or better information that was originally referred to by the CMDG Design Specs. • Whilst GRC conducted a review of many of the specs when joining the group there has been only ad hoc review of standards and references since. For discussion at this stage – the question is when should reviews take place and what resources should be assigned to it? <p><u>Suggested Resolution</u></p> <p>For discussion</p> <p><u>Action By</u></p>
M22.04.04	<p>D5 – Polypropylene maintenance structures for gravity sewers – Not discussed</p> <ul style="list-style-type: none"> • Iplex has requested that CMDG D5 be updated to allow for the use of 1000mm dia polypropylene maintenance shafts. • The Iplex Ezipit technical guide is included as Attachment S • EZI pit, in all the sizes (MS (DN425), MC(DN600) and MH(DN1000)) are approved by the majority of the water Authorities in Melbourne, approved by Unity Water, Gold Coast Council, Logan Council, and Redlands Council in the SEQ water grid. • The EZIpit has been around for a number of years - with about 15 years of use in Australia and 35 years use in Europe.



Use of polypropylene maintenance structures - responses received so far:

Local Government	Acceptance
Banana Shire	?
Central Highlands Regional	?
Gladstone Regional	No
Isaac Regional	?
Maranoa Regional	Yes
Livingstone Regional	?
Rockhampton Regional	?

Suggested Resolution

For discussion

Action By

M22.07.03

Corrugated plastic subsoil pipe – Not discussed

Following a query from a contractor regarding subsoil pipe alternatives, the question around the acceptability of 100mm corrugated plastic subsoil pipes has arisen. Currently CMDG C230 specifically excludes the use of corrugated plastic subsoil drainage pipes.

MATERIALS

C230.12 APPROVED PLASTIC MATERIALS

C230.12.01 Strip filter drains are approved. Strip Filter Drains are a proprietary product, deep-fin plastic core, 120kPa minimum crush strength, 40mm minimum thickness, fully enclosed by a non-woven geotextile and shall be in accordance with MRTS03 - Drainage, Retaining Structure and Protective Treatments.

Specification

C230.12.02 Corrugated plastic subsoil drainage pipe is not approved for use.

100mm corrugated plastic subsoil pipes are still the standard in the industry and are currently getting installed all over the region by multiple different contractors. Corrugated plastic subsoil pipe is on the design drawings submitted by different consultants and approved by councils. It is also not getting flagged on council inspections. It is shown on the standard drawings D-040 and D-041 (subsoil drainage details). Even though the specs override the drawings, drawings are the main thing that people seem to refer to.

For discussion

	<p><u>Suggested resolution</u></p> <p>TBC</p> <p><u>Action By</u></p>
M22.07.04	<p>RRC grated crossover drawings – Not discussed</p> <p>Rockhampton Regional Council (RRC) have developed two standard drawings for grated overhead crossings at driveway crossovers, with RRC-R05 applicable for pedestrian and residential applications, and RRC-R06 applicable for commercial and laneway applications. Refer to Attachment T for details. These drawings have been in use in the RRC LGA since 2017 and are routinely referred to for the issue of works in road reserve permits as well as Council projects.</p> <p>RRC have requested, via Grant, that these two drawings be included in CMDG.</p> <p>Comments have been received regarding potential sharp transitions at the edges, a minor update to the drawing may be required to show a small wedge of asphalt either side of the grates. GRC and RRC have also noted that these should only be used when there is no other alternative and would not generally apply to greenfield sites.</p> <p><u>Suggested resolution</u></p> <p>Create two new CMDG drawings that replicate/ replace the RRC standard drawings (with minor amendments) but ensure that it is noted on the drawings that these are only for use in exceptional circumstances as directed or approved by local government.</p> <p><u>Action By</u></p> <p>MCE</p>
M22.07.05	<p>W-061 and W-061A – Hydrant and Valve Boxes – Not discussed</p> <p>Scott noted that there was a drafting error on drawing W-061. As part of the review process it was noted that the drawings contain significant levels of information for products that are off the shelf. There is widespread use of the polypropylene boxes within the roadway in many locations around Rockhampton, this may be due to the interpretation around the note on drawing W-061A:</p> <p style="text-align: center;"><u>POLYETHYLENE SURFACE BOX – HYDRANT/VALVE</u> NOTE: BOX NOT RECOMENDED FOR HEAVY, FAST MOVING TRAFFICABLE AREAS</p> <p>For discussion</p> <p>The proposed drawings removes many of the redundant dimensions but still retains key information and combines both drawings W-061 and W-061A Attachment U.</p> <p><u>Suggested resolution</u></p> <p>Adopt the updated drawing W-061 which combines the polypropylene detail from W-061A and remove W-061A.</p> <p><u>Action by</u></p> <p>MCE</p>