INFRASTRUCTURE COMMITTEE MEETING

AGENDA

2 JULY 2014

Your attendance is required at a meeting of the Infrastructure Committee to be held in the Council Chambers, 232 Bolsover Street, Rockhampton on 2 July 2014 commencing at 3.00pm for transaction of the enclosed business.

CHIEF EXECUTIVE OFFICER
25 June 2014

Next Meeting Date: 06.08.14

Please note:

In accordance with the *Local Government Regulation 2012*, please be advised that all discussion held during the meeting is recorded for the purpose of verifying the minutes. This will include any discussion involving a Councillor, staff member or a member of the public.

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1 OPENING

2 PRESENT

Members Present:

The Mayor, Councillor M F Strelow
Councillor N K Fisher
Councillor S J Schwarten
Councillor C E Smith

In Attendance:

Mr E Pardon – Chief Executive Officer
Mr R Holmes – General Manager Regional Services

3 APOLOGIES AND LEAVE OF ABSENCE

Councillor Tony Williams - Leave of Absence from 30 June 2014 to 18 July 2014
Councillor Greg Belz - Leave of Absence from 30 June 2014 to 8 August 2014

4 CONFIRMATION OF MINUTES

Minutes of the Infrastructure Committee held 4 June 2014

5 DECLARATIONS OF INTEREST IN MATTERS ON THE AGENDA

6 BUSINESS OUTSTANDING

6.1 BUSINESS OUTSTANDING TABLE FOR INFRASTRUCTURE COMMITTEE

File No:	**10097**
Attachments:	**1. Business Outstanding Table for Infrastructure Committee Meeting**
Responsible Officer:	**Evan Pardon - Chief Executive Officer**
Author:	**Evan Pardon - Chief Executive Officer**

SUMMARY

The Business Outstanding table is used as a tool to monitor outstanding items resolved at previous Council or Committee Meetings. The current Business Outstanding table for the Infrastructure Committee is presented for Councillors' information.

OFFICER'S RECOMMENDATION

THAT the Business Outstanding Table for the Infrastructure Committee be received.

BUSINESS OUTSTANDING TABLE FOR INFRASTRUCTURE COMMITTEE

Business Outstanding Table for Infrastructure Committee Meeting

Meeting Date: 2 July 2014

Attachment No: 1

Date	Report Title	Resolution	Responsible Officer	Due Date	Notes
06 March 2013	Cooper Street Rail Bridge	THAT Council make contact with the adjoining property owners to seek their support and assistance in having the road reserve closed adjacent to the bridge and that Queensland Rail be advised accordingly.	Martin Crow	20/03/2013	Teys have contacted Council to clarify contents of follow up letter and have advised that they will provide a response in due course.
08 May 2013	Vallis Street - Proposed Traffic and Parking changes	THAT the matter of proposed traffic and parking changes in Vallis Street, North Rockhampton lay on the table pending community consultation and return to the Infrastructure Committee Meeting in July 2013.	Martin Crow	01/02/2014	No response from IGA Management to date.
30 April 2014	Lawrie Street Footpath Condition	1. THAT the renewal of the footpath in Lawrie Street, Gracemere be placed in the future works program for consideration during budget deliberations; 2. THAT the Department of Transport and Main Roads be consulted with regards to impacts on streetscaping plans as a result of the future upgrade planning for Lawrie Street between the Capricorn Highway and Ranger Street.	Martin Crow	21/05/2014	

7 PUBLIC FORUMS/DEPUTATIONS

Nil

8 OFFICERS' REPORTS

8.1 ROAD SAFETY AUDIT OF STEWART STREET AND MIDDLE ROAD-MACQUARIE STREET INTERSECTION

File No:	**9718**
Attachments:	**1. Road Safety Audit Report and Speed Limit Review**
Authorising Officer:	**Martin Crow - Manager Engineering Services** **Robert Holmes - General Manager Regional Services**
Author:	**Angus Russell - Coordinator Strategic Infrastructure**

SUMMARY

In October 2013, a road safety audit of the intersection of Middle Road and Macquarie Street and the full length of Stewart Street was completed to address several safety concerns raised by members of the community. This report presents the findings and recommends priority actions from this road safety audit.

OFFICER'S RECOMMENDATION

1. THAT the Road Safety Audit be received by Council.
2. THAT the following be implemented to address the Priority A recommendations of the audit report.
   a) Reinforce intersection priority at Middle Road and Macquarie Street through the construction of medians on Macquarie Street legs during the reconstruction of Middle Road.
   b) Leave the major road/minor road priority control at the Middle Road and Macquarie Street intersection under its current configuration.
   c) Regularly maintain vegetation around the Middle Road and Macquarie Street intersection, specifically on the Middle Road legs to increase driver's sight distance on approach to the intersection.
   d) Widen the shoulder of the northbound lane on Stewart Street at Middle Road to allow vehicles travelling northbound to pass a vehicle that is turning right into or has turned right out of Middle Road.
   e) Install an advisory 60km/hr sign (W8-2) underneath the Side Road Intersection (W2-4 R) sign on the Stewart Street approach to Middle Road.
   f) Review the slope of the batter at the southern end of Stewart Street and if table drain has a slope of 1:4 or greater then remove any vegetation within the clear zone.
3. THAT the Priority B and C recommendations be corrected through Council's regular maintenance and signage program for implementation when funds permit.

COMMENTARY

The Road Safety Audit performed was an existing stage audit, where auditors review an existing section of road, by conducting two site investigations (day and night). Both inspections were conducted on 19 August 2013. The audit team, led by Mr Jeff Van Nunen, Senior Road Safety Designer, from the Department of Transport and Main Roads, consisted of two officers from the Department of Transport and Main Roads Road Safety section and two Council Officers from the Strategic Infrastructure unit

A total of twenty three (23) issues were identified as a part of the audit and each issue was categorised by a level of risk before a possible treatment was specified. The following table shows the risk ranking, associated level of risk and treatment approach. The Road Safety Audit report detailing all of the identified issues is attached to this report.

AUSTROADS (2009) Risk Ranking and Treatment Approach

Risk Ranking	Level of Risk	Treatment Approach
AA	Intolerable	Must be corrected.
A	High	Should be corrected or the risk significantly reduced even if the cost is high.
B	Medium	Should be corrected or the risk significantly reduced if the treatment cost is moderate, but not high.
C	Low	Should be corrected or the risk reduced if the treatment cost is low.

The report did not find any "AA" rated issues however 4 "A" rated issues, 4 "B" rated issues and 15 "C" rated issues were identified. The "B" and "C" rated issues can be corrected through Council's regular maintenance and signage program and are not addressed further in this report. These issues will be forwarded to Civil Operations for staged implementation when funds are available.

The "A" rated issues, their proposed treatments and Council officer's recommended treatments are addressed in this report.

Middle Road and Macquarie Street Intersection

Issue A1: The approaches to the Middle Road and Macquarie Street intersection make it difficult to distinguish the difference between major and minor roads. Despite having STOP signage on Macquarie Street (minor leg), there have been a number of crashes caused by a failure to give way. Traffic volumes on Middle Road and Macquarie Street are comparable and the layout of the intersection creates a driver perception that the Macquarie Street is the major road.

The audit proposed treatment to reinforce the intersection priority with the construction of medians on the minor leg. On the southern leg of Macquarie Street a raised median could be used and on the northern leg a painted median could be used to allow articulated vehicles to track the intersection. The option of changing the priority to make Macquarie Street the major road was considered, however as Middle Road is the major road at all intersections, from Johnson Road to Stewart Street, there may be an issue with driver compliance. This problem is exacerbated by the low volumes on both roads.

Recommended Treatment: Council officers agree with the proposed treatment to construct medians on the Macquarie Street legs. This work can be included in the Middle Road reconstruction project (from Capricorn Street to Macquarie Street) of which $2,000,000 is budgeted for in 2014-2015 year in the draft budget.

Council officers support the recommendation to leave Middle Road as the major road at the intersection with Macquarie Street. Traffic volumes on Middle Road and Macquarie Street legs are all within the range of 18-38 vehicles in the AM and PM peak hours. Neither road has significantly greater volumes than the other and, as the volumes on each leg of the intersection are low, there isn't a noticeable presence of traffic on each leg to remind drivers of the priority at the intersection.

There are several intersections along Middle Road that are similar in nature to Middle Road and Macquarie Street in both configuration and traffic volumes. It is believed that a change in priority at this intersection would increase the risk of accident at this intersection as there would be a change in road priority without any noticeable change in road environment. Furthermore a change in intersection priority to make Macquarie Street the major road would encourage heavy vehicles travelling south to use Macquarie Street and the Gracemere urban residential area as a passage to the south rather than Johnson Road and Gavial Gracemere Road.

Issue A2: The sight distance on the Macquarie Street legs is restricted by overgrown vegetation around the intersection.

The proposed treatment is to regularly maintain vegetation around the intersection, specifically on the Middle Road legs. The removal of a flea tree on the south western leg of the intersection may be required.

Recommended Treatment: Council officers agree with the proposed treatment and a works order to trim the grass and vegetation around the intersection has been raised to mitigate this safety issue.

Stewart Street (from Boongary Road to Somerset Road)

Issue A10: The intersection of Stewart Street and Middle Road has insufficient Safe Intersection Sight Distance (SISD) for the current intersection configuration and posted speed limit. The required SISD for the current speed environment (80km/hr posted speed) is 214m (AUSTROADS, AGRD04A) and the intersection can only achieve 150m.

The road safety audit gave three treatment options for this particular safety issue.

Option 1: Widen the shoulder of the northbound lane on Stewart Street to allow vehicles travelling northbound to pass a vehicle that is turning right into or has turned right out of Middle Road. This would involve widening the lane to provide an Auxiliary Right Turn (AUR) on Stewart Street.

Option 2: An advisory 60km/hr sign (W8-2) could be installed underneath the Side Road Intersection (W2-4 R) sign. This could lower the speed at the intersection and decrease the required SISD to 151m making the speed acceptable for the available SISD. A likely outcome is that the combined advisory speed sign (W8-2) and the side road intersection sign (W2-4R) could make drivers more alert of the approaching intersection.

Option 3: Reduce the speed limit on Stewart Street to provide the appropriate SISD. An SISD of 151m is acceptable in a 60km/hr posted speed environment. An analysis of the speed limit along Stewart Street was performed using Q-Limits speed review software. The prevailing speed of vehicles, along with the number of accesses along Stewart Street warranted a speed limit of 80km/hr. The Q-Limits speed limit review is also attached to this report.

Recommended Treatment: Council Officers have reviewed the possible treatments and have recommended that a combination of Options 1 and 2 be implemented. A road widening at this intersection will allow vehicles travelling north along Stewart Street to pass a vehicle turning right into Middle Road or similarly a vehicle turning right from Middle Road into Stewart Street. This will reduce the chance of conflict between vehicles at this intersection. In addition to this treatment, an advisory 60km/hr sign will inform drivers of the desired speed through the approaching intersection.

A change in speed limit was not considered necessary due to the speed limit analysis performed in Q-Limits. Q-Limits arrived with a posted speed limit of 80km/hr for Stewart Street due to its rural nature and long straight alignment. A copy of the speed limit review is attached to the Road Safety Audit. Of the two traffic counts performed in September 2013, the 85th percentile speeds (the speed at which 85% of vehicles are travelling) were 77km/hr and 73km/hr which indicates current compliance with the posted speed limit of 80km/hr. The percentage of vehicles exceeding 80km/hr was 11% in one location and 7% in the other. In comparison with the traffic counts performed in March 2013 at these same locations, there has been a decrease in speed.

Council officers believe that a decrease in posted speed limit to 60km/hr will not see a change in driver behavior and vehicles will continue to travel 80km/hr along this street. The reason for this is that there has been no change to the function of the road or speed environment. If drivers cannot see a change in conditions they will continue to travel at the same speed as before, despite a change in posted speed. An existing example of this is Middle Road in Gracemere; the speed limit from Macquarie Street to Stewart Street was decreased from 80km/hr to 60km/hr in 2009.

The speed limit was decreased to slow vehicles, even though no change to the function of the road or road environment had occurred. Despite regular police enforcement, the 85% percentile speed along Middle Road is 81km/hr. This indicates no change from the original 80km/hr posted speed limit.

If the speed limit on Stewart Street were to be decreased to 60km/hr it is unlikely that it would receive regular police enforcement due to its rural nature and its low Average Annual Daily Traffic (AADT) of between 160 and 250 vehicles per day (Sept 2013).

Issue A11: There are several trees that may be located within the clear zone on Stewart Street. For an 80km/hr speed environment the clear zone width should be 5m for a 1:4 batter. The batter on the table drain at the Southern End of Stewart Street seemed steeper than 1:4 however it was difficult to be sure due to vegetation growth in the drain.

The proposed treatment is to review the slope of the batter at the southern end of Stewart Street and if table drain has a slope of 1:4 or greater then remove any vegetation within the clear zone.

Recommended Treatment: Council officers agree with the proposed treatment and will refer this matter to the Design Services team for review. If necessary the appropriate vegetation clearing will be implemented.

BACKGROUND

After presenting a report to Council in May 2013 regarding the Gracemere Industrial Area Traffic Survey, a resolution to further investigate the speed limit on Stewart Street and the configuration of stop signs on the intersection of Middle Road and Macquarie Street was made. This investigation was subsequently undertaken through the process of a road safety audit. This audit method has provided a review, led by an independent third party, to highlight possible safety risks throughout the audit area.

The Road Safety Audit was conducted in accordance with the procedures set out in the Austroads Guide to Road Safety, Part 6: Road Safety Audit. The auditor cannot guarantee that every issue that affects road user safety has been identified. Although the adoption of the audit recommendations will improve the level of safety of the site it will not, however eliminate all the road user safety risks.

Road Safety Audits are a formal process and the audit findings and recommendations should be responded to by the client (Council) in writing. If recommendations are not accepted by the client then reasons should be included within the written response. A client is under no obligation to accept all the audit findings and recommendations and should consider these in conjunction with all other project considerations. Council is not limited to the proposed treatments in the audit and can provide additional treatments to address a safety issue. It is not the role of the auditor to approve the client's response to an audit.

The process of the associated speed limit review utilises a state wide approach, defined in the Department of Transport and Main Roads Manual of Uniform Traffic Control Devices. This process looks at the road function, prevailing speed limit, and the QLIMITS recommended speed limit. The QLIMITS speed limit assesses the physical attributes, the road geometry and the crash data along the nominated stretch of road. If a correlation exists between the road function, prevailing speed and Q-Limits speed, then the correlating speed becomes the recommended speed limit.

PREVIOUS DECISIONS

In response to a Council Report in relation to the proposed Major Amendment of the Fitzroy Planning Scheme 2005 on 13 November 2012, Council requested a traffic assessment of the area bounded by Somerset Road, Capricorn Street, Middle Road, and Stewart Street.

The requested report was made to the Council Meeting on 12 February 2013 and recommended adoption of speed limits and multi-combination vehicle route. At that time Council resolved that the matter lay on the table until the April Council Meeting pending constructive input from residents, business people and other stakeholders.

A Gracemere Industrial Area Truck and Heavy Vehicle Survey was subsequently undertaken and the results were presented to a Council workshop on 29 April 2013 for discussion.

On 14 May 2013, another report was issued to Council providing options and recommending responses to the Gracemere Industrial Area Truck and Heavy Vehicle Survey findings, including the adoption of multi-combination vehicle routes and speed limits and associated traffic management treatments. As a result of this report, the multi-combination vehicle route and proposed speed limits (with the exception of Stewart Street) were adopted.

Council also resolved that two additional reports would be presented to Council; one reviewing potential safety issues in Stewart Street and the Stop signs at Middle Road and Macquarie Street, and the other report presenting the results of consultation with property owners regarding Local Area Traffic Management devices. This report is the first of the two, addressing the possible safety issues with Stewart Street and the intersection of Middle Road and Macquarie Street.

BUDGET IMPLICATIONS

The majority of recommendations that arise from the Road Safety Audit can be accommodated within existing maintenance and signage budgets. The recommendation for medians at the intersection of Middle and Macquarie Street will require capital funding, but could be addressed within the project scope for the reconstruction of Middle Road from Capricorn Street to Macquarie Street. This project is in the draft 2014-15 budget for construction of Stage 1 in 2014-2015 ($2,000,000) and Stage 2 in 2015-2016 ($2,200,000)

The widening of Stewart Street, at the intersection of Middle Road, will require capital funding from Council. The estimated cost is $32,000. In 2006 as a part of the Granite Subdivision, encompassing Latimer Avenue and Hewill Drive, a contribution was taken by Fitzroy Shire Council from the developer for widening works at the intersections of Latimer Avenue and Stewart Street, and Middle Road and Stewart Street. This contribution was not spent and may now be able to contribute towards these widening works at Stewart Street and Middle Road.

The remaining “B” and “C” rated issues can be corrected through Council’s regular maintenance and signage program. These issues will be forwarded to Civil Operations for staged implementation when funds are available.

LEGAL IMPLICATIONS

There are no known legal implications arising from this report. There is a potential for liability if a safety issue identified in the audit is not addressed and an incident occurs.

Council have a duty of care to provide a safe road system for all road users. A road authority which has a road condition which has developed without any action on the part of the authority, such as a pothole, aggregate on the road, or a deteriorating shoulder will not be held liable if the condition causes or contributes to an injury suffered by a road user. If however the road authority knows of the condition, through a customer request or a road safety audit, then a duty of care is owed.

A response to the issues identified in the road safety audit is required as a record of the client (Councils) decision to remedy the safety issues through the proposed treatment or other identified treatment. The endorsement of this report serves as this response to the road safety audit. Current legislation recognises the multiple responsibilities and limited funds of the road authority and extends a level of protection to road authorities when considering prioritisation of tasks and when deciding which projects to undertake.

RISK ASSESSMENT

There is a risk that any one of the safety issues identified in the audit could cause an incident. If not treated, Council could be liable for damages. The proposed treatments reduce the risk of any future incidents by making the road and road reserve safer for all road users. The issues identified in the report have already been assessed based on a level of risk and prioritised accordingly.

CORPORATE/OPERATIONAL PLAN

Council's key economic outcomes include—

- Effective Infrastructure Management – A community with sufficient, appropriate, cost effective resources, to deliver ongoing growth to the Region to meet community needs and aspirations; and,
- Regional Development – Increased investment in the Region, through the attraction of new and diverse industry and the creation of long-term employment opportunities.

CONCLUSION

Development of the Gracemere Industrial Area has been identified as a Council priority for some time and significant investment has already been made in infrastructure to support development. Traffic issues have however been raised by residents in adjacent areas and the road safety audit and this report form part of a wider response to those issues.

An independently led audit team has conducted a road safety audit to ensure that infrastructure in the subject area is safe for all road users. Council officers have acknowledged the road safety issues identified in the audit, reviewed the audit's proposed treatments and recommended appropriate treatments for each identified safety issue. The recommendations are now presented to Council for consideration and adoption, prior to implementation.

ROAD SAFETY AUDIT OF STEWART STREET AND MIDDLE ROAD-MACQUARIE STREET INTERSECTION

Road Safety Audit Report and Speed Limit Review

Meeting Date: 2 July 2014

Attachment No: 1

Road Safety Audit

Rockhampton Regional Council
Gracemere Industrial Area
Existing Road Safety Audit
Stewart Street, Middle Road/Macquarie Intersection

September 2013

Road Safety Audit

Rockhampton Regional Council
Gracemere Industrial Area
Existing Road Safety Audit
Stewart Street, Middle Road/Macquarie Street Intersection

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Scope
Rockhampton Regional Council's Strategic Infrastructure Department have been commissioned to carry out Existing Road Safety Audit throughout the length of Stewart Street and at the intersection of Middle Road/Macquarie Street.

Audit Team
The audit team consists of:
Jeff Van Nunen, Senior Road Safety Auditor under Department of Transport and Main Roads (Queensland) registration, Senior Designer Road Safety *(DTMR)*;
Stuart Harvey, Road Safety Auditor under Department of Transport and Main Roads (Queensland) registration, Traffic Engineer, Strategic Infrastructure *(Rockhampton Regional Council)*;
Ruwan Weerakoon, Senior Infrastructure Planning Engineer *(Rockhampton Regional Council)*;
Kath Ferguson, Program Support Coordinator *(DTMR)*.

Methodology
The methodology adopted for the project includes:

- Examination of relevant design/ construction drawings over the subject section;
- Day and night time site inspection of the subject section on Monday 19 August 2013 (Weather fine);
- Presentation of findings and recommended remedial action in report format (including supporting photographs) and Action Plan spreadsheet (**Attachment 2**).
- Supporting/ Explanatory documents where necessary (**Attachment 3**).

Recipients of this report should also be familiar with Chapter 2 (An Explanation of a Road Safety Audit) and Chapter 3 (Legal Issues) of Reference 1.

This Road Safety Audit was conducted in accordance with the procedures set out in the Austroads Guide to Road Safety, Part 6: Road Safety Audit. The auditor cannot guarantee that every issue that affects road user safety has been identified. Although the adoption of the audit recommendations will improve the level of safety of the site it will not, however eliminate all the road user safety risks.

Road Safety Audits are a formal process and the audit findings and recommendations should be responded to by the client in writing. If recommendations are not accepted by the client then reasons should be included within the written response. A client is under no obligation to accept all the audit findings and recommendations and should consider these in conjunction with all other project considerations. It is not the role of the auditor to approve the client's response to an audit.

Road Safety Audit Gracemere Industrial Area
Stewart Street, Middle Road/Macquarie Street

Summary of Audit Findings and Recommendations
The summary below is in order of priority, represented by:

Risk Ranking	Level of Risk	Treatment Approach
AA (Nil)	Intolerable	Must be corrected.
A (4 Issues)	High	Should be corrected or the risk significantly reduced even if the cost is high.
B (4 Issues)	Medium	Should be corrected or the risk significantly reduced if the treatment cost is moderate, but not high.
C (15 Issues)	Low	Should be corrected or the risk reduced if the treatment cost is low.

(Extracted from Reference 1)

Risk Ranking is based on Tables 4.1 to 4.3 of Reference 1. Cost and assessed effectiveness of proposed remedial action are also considered when assigning risk rankings.

Orientation: For the purpose of this report, Middle Road is referenced as having an East – West orientation and Macquarie Street has a North – South orientation

Middle Road / Macquarie Street
Priority A

A1
The approaches to the intersection make it very difficult to distinguish the difference between major and minor roads.

Despite having STOP signage on the Macquarie Street (minor leg), there have been a significant number of crashes caused by a failure to give way. Volumes on Middle Road and Macquarie Street are comparable and the layout of the intersection creates a driver perception that the Macquarie Street is the major road.

Photo 5: Middle Road (Western Approach)

Photo 43: Macquarie St (Southern Approach)

Recommendation: *Reinforce intersection priority with construction of medians on the minor leg. On the southern leg of Macquarie Street a raised median could be used and on the northern leg a painted median could be used to allow heavy vehicles to track the intersection.*

The option of changing the priority to make Macquarie Street the major road was considered however as Middle Road is the major road at all intersections from Johnson Road to Stewart Street there may be an issue with driver compliance. This problem is exacerbated by the low volumes on both roads.

The addition of centreline marking on Middle Road may reinforce Middle Road as the major road at the intersection.

A2
The sight distance on the Macquarie Street legs are restricted by overgrown vegetation around the intersection.

Photo 6: Macquarie Street (Northern Leg) Looking West down Middle Road

Photo 7: Macquarie Street (Southern Leg) looking East down Middle Road

Recommendation: *Regularly maintain vegetation around the intersection specifically on the Middle road legs. Removal of a flea tree in Photo 7 may be required.*

Priority B

B3
The culverts one side of the southern leg of Macquarie Street are not delineated by guideposts. There is no warning of the steep drain and culvert for motorists.

Photo 1: Macquarie Street culvert.

Recommendation: *Install guideposts to properly delineate the location of the culvert.*

Priority C

C4
There is no Crossroad sign (W2-1) on the east leg of Middle Road. Also the existing Crossroad sign (on the western leg of Middle Road) is not designed to the current MUTCD design standard.

Recommendation: *As it is difficult to discern the cross roads, install W2-1 sign on eastern leg of Middle Road to the current MUTCD design standards. Replace existing W2-1 sign with a new MUTCD standard W2-1 Crossroad Sign.*

C5
There are no regulatory speed signs (R4-1) on either of the Middle Road approaches.

Recommendation: *As drivers may assess the road as faster speed environment then it is, install R4-1 regulatory speed limit signs on both legs of the Middle Road at a sufficient distance from the intersection to MUTCD design standards.*

C6
The existing G5-1 signs are incorrect. Since the closure of the Somerset Road crossing, access to the Capricorn Highway cannot be gained from Macquarie Street. Furthermore there is no G5-1 sign for Middle Road.

Photo 7: G5-1 Signs at Middle Road / Macquarie Street intersection

Recommendation: *Remove "TO CAPRICORN HIGHWAY" G5-1 sign and install a "MIDDLE ROAD" G5-1 on the existing pole and to MUTCD design standards.*

C7
The existing line marking on Macquarie Street is faded and covered in loose gravel.

Photo 3: Existing Line Marking and loose gravel at intersection

Recommendation: *Clear gravel from the intersection and reinstate the existing line marking.*

Night observations

C8
The Crossroad sign (W2-1) on Middle Road has poor reflectivity.

Recommendation: *Replace Crossroad sign (W2-1).*

C9
The G5-1 fingerboards for Middle Road and Macquarie Street have poor reflectivity.

Recommendation: *Replace G5-1 fingerboards.*

Stewart Street
Priority A

A10

The intersection of Stewart Street and Middle Road has insufficient Safe Intersection Sight Distance (SISD) for the current intersection configuration and posted speed limit. The required SISD for the current speed environment (80km/hr posted speed limit) is 214m (AUSTROADS, AGRD04A) and the intersection can only achieve 150m.

Photo 45: Stewart Street / Middle Road Intersection (Middle Road Leg)

Recommendation:

Option 1:
Widen the shoulder of the northbound lane on Stewart Street to allow vehicles travelling northbound to pass a vehicle that has turned right out of Middle Road. This would involve widening the lane to provide an Auxiliary Right Turn (AUR) on Stewart Street.

Option 2:
Alternatively, an advisory 60km/hr sign (W8-2) could be installed underneath the Side Road Intersection (W2-4 R) sign. This could lower the speed at the intersection and decrease the required SISD to 151m making the speed acceptable for the available SISD. A more likely outcome is that the combined advisory speed sign (W8-2) and the side road intersection sign (W2-4R) could make drivers more alert of the approaching intersection.

Option 3:
Reduce the speed limit on Stewart Street to provide the appropriate SISD. An SISD of 151m is acceptable in a 60km/hr speed environment. An analysis of the speed limit

along Stewart Street was performed using Q-Limits speed review software. The prevailing speed of vehicles, along with the number of accesses along Stewart Street warranted a speed limit of 80km/hr. The Q-Limits speed limit review is attached to this report.

A11
There are several trees that may be located within the clear zone on Stewart Street. For an 80km/hr speed environment the clear zone width should be 5m for a 1:4 batter. The batter on the table drain at the Southern End of Stewart Street seemed steeper than 1:4 however it was difficult to be sure due to vegetation growth in the drain.

Photo 13: Possible vegetation in clear zone at Southern end of Stewart Street.

Recommendation:

Review the slope of the batter at the southern end of Stewart Street and if table drain has a slope of 1:4 or greater then remove any vegetation within the clear zone.

Priority B

B12

Several culverts along Stewart Street are not delineated by guideposts. Culverts at Chainage 740, 820, 910, 1680 and at the intersection of Latimer Avenue and Stewart Street are not properly delineated. There is no warning of the steep drain and culvert for motorists.

Photo 34: Culvert at CH 820

Photo 16: Culvert at CH 1681

Photo 23: Culvert at Latimer Avenue.

Recommendation: *Install guideposts to properly delineate the location of the culverts.*

B13
Sight distance at the intersection of Stewart Street and Somerset Road is restricted by location of steel mesh fence. Vehicles on Stewart Street wishing to look right along Somerset Road have a restricted view.

Photo 39: Steel Fence on Somerset Road

Recommendation: *Trim vegetation in table drain and establish a maintenance regime to ensure the visibility envelope is maintained. Possibly remove some of the panels of fencing If the removal of panels is carried out, further works may be required to ensure a safe passage for pedestrians on Somerset Road. .*

B14
There is a Flea Tree within the 80km/hr clearzone at the intersection of Middle Road and Stewart Street.

Photo 24: Flea Tree on Stewart Street

Recommendation: *Remove Tree*

Priority C

C15
There are no Hazard Boards (D4-2-3) on any of the T-Intersections along Stewart Street. Latimer Avenue, Douglas Street and Foster Street have guideposts opposite the minor leg approach rather than the standard Hazard Board (Photo below).

Photo 20: Stewart Street / Latimer Avenue intersection

Recommendation: *Install D4-2-3 sign opposite minor leg on Latimer Avenue, Douglas Street and Foster Street intersections as per MUTCD standards.*

C16
At the Stewart Street / Middle Road intersection, the driveway access for 253 Middle Road enters the roadway 10m from the hold line at the Middle Road Intersection.

Photo 28: Driveway access onto Middle Road / Stewart Street Intersection

Recommendation: *Relocate driveway away from intersection of Middle Rd / Stewart Street.*

C17
The existing G5-1 signs at Middle Road, Latimer Avenue, Douglas Street and Foster Street have lettering that is too small for the speed environment. At 80km/hr it is difficult to read the small lettering on the fingerboard signs.

Photo 38: G5-1 Sign at Foster Street / Stewart Street intersection

Recommendation: *Install a appropriately sized G5-1 fingerboard street sign with 130mm high lettering on it as per Table 2.1 of Part 5 of the MUTCD.*

C18
The existing line marking at the intersections of Middle Rd/Stewart St, Foster Street/Stewart St and Douglas St/Stewart Street are faded and covered in loose gravel.

Photo 25: Existing Line Marking and loose gravel at Middle Road / Stewart Street intersection

Recommendation: *Clear gravel from the intersection and reinstate the existing line marking.*

C19
There are several guideposts missing from the intersections of Middle Rd/Stewart St, Foster Street/Stewart St and Douglas St/Stewart Street.

Recommendation: *Reinstate guideposts at intersections.*

C20
There are several places along Stewart Street (CH1040, CH540-650, CH1350) that show signs of edge wear. This is a sign of the carriageway not being wide enough and vehicles using the shoulder.

Photo 21: Edge wear at CH1350

Recommendation: *Perform shoulder widening works along Stewart Street to increase carriageway width.*

C21
There are several pavement failures along Stewart Street

Photo 41 and Photo 18: Pavement failures along Stewart Street

Recommendation: *Fix pavement failures*

C22
Particular focus was placed on pedestrians and pedestrian connectivity throughout the road length. As the verge width was an average of 10-15m wide, there was sufficient room for pedestrians to safely walk the length of Stewart Street, however in several locations pedestrians would be forced to walk on the road due to the location of culverts and overgrown vegetation.
Throughout the entire time of the audit (2.00pm – 4.30pm) there were no pedestrians observed walking on Stewart Street.

Recommendation: *As the road has an AADT of 550 vehicles per day, it did not seem unreasonable for pedestrians to walk on the road for these short sections. When funds become available, provide appropriate off road pedestrian facilities along Stewart Street..*

Night Observations

C23
All signage along Stewart Street has little or no reflectivity.

Recommendation: *Replace signage on Stewart Street.*

Attachments

Action Plans;
Speed Limit Review for Stewart Street;
Photographs;

References

1. Guide to Road Safety Part 6: Road Safety Audit: Austroads 3rd Ed. 2009.
2. Manual of Uniform Traffic Control Devices: Department of Transport and Main Roads 1999.
3. AGRD04A – AUSTROADS Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (Austroads Inc. 2009)
4. Road Planning and Design Manual: Department of Main Roads 2000.
5. Austroads Road Safety Engineering Toolkit: www.engtoolkit.com.au

29.10.2013
Jeff Van Nunen
Senior Road Safety Auditor

29.10.13
Stuart Harvey
Road Safety Auditor

30.10.2013
Ruwan Weerakoon
Assistant Road Safety Auditor

29.10.13
Kath Ferguson
Assistant Road Safety Auditor

Rockhampton Regional Council: Gracemere Industrial Area Project
RSA Risk Table: Existing Stage Audit, Middle Road/Macquarie Street, Stewart Street

Risk Assessment

F – Frequency — **F**requent, **P**robable, **O**ccasional, **I**mprobable (Tables 4.1 – 4.4, Guide to Road Safety Part 6: Road Safety Audit
S – Severity — **C**atastrophic, **S**erious, **M**inor, **L**imited (Tables 4.1 – 4.4, Guide to Road Safety Part 6: Road Safety Audit
C – Cost — **L** low, **M** medium, **H** high
E – Effectiveness — **L** low, **M** medium, **H** high

No	Risk				Deficiency/ Observation	Photo No.	Recommendation/ Comment
	F	S	C	E			
A1	O	S	M	M	The approaches to the intersection make it very difficult to distinguish the difference between major and minor roads.	**4 5 42 43 44**	*Reinforce intersection priority with construction of medians on the minor leg. On the southern leg of Macquarie Street a raised median could be used and on the northern leg a painted median could be used to allow heavy vehicles to track the intersection. The addition of centreline marking on Middle Road may reinforce Middle Road as the major road at the intersection.*
A2	P	S	L	H	The sight distance on the Macquarie Street legs are restricted by overgrown vegetation around the intersection.	**6 7**	*Regularly maintain vegetation around the intersection specifically on the Middle road legs. Removal of a flea tree in Photo 6 may be required.*
B3	O	S	L	H	The culverts one side of the southern leg of Macquarie Street are not delineated by guideposts. There is no warning of the steep drain and culvert for motorists.	**1**	*Install guideposts to properly delineate the location of the culvert*
C4	Regulatory requirement				There is no Crossroad sign (W2-1) on the east leg of Middle Road. Also the existing Crossroad sign (on the western leg of Middle Road) is not designed to the current MUTCD design standard.	**3**	*Install W2-1 sign on eastern leg of Middle Road to the current MUTCD design standards. Replace existing W2-1 sign with a new MUTCD standard W2-1 Crossroad Sign.*
C5	Regulatory requirement				There are no regulatory speed signs (R4-1) on either of the Middle Road approaches.		*Install R4-1 regulatory speed limit signs on both legs of the Middle Road at a sufficient distance from the intersection to MUTCD design standards.*

No	Risk				Deficiency/ Observation	Photo No.	Recommendation/ Comment
	F	S	C	E			
C7	Maintenance issue				The existing line marking on Macquarie Street is faded and covered in loose gravel.	3 4	*Clear gravel from the intersection and reinstate the existing line marking.*
C8	Maintenance issue				The Crossroad sign (W2-1) on Middle Road has poor rellectivity.		*Replace Crossroad sign (W2-1).*
C9	Maintenance issue				The G5-1 fingerboards for Middle Road and Macquarie Street have poor rellectivity.	7	*Replace G5-1 fingerboards.*
A10	P	C	M	M	The intersection of Stewart Street and Middle Road has insufficient Safe Intersection Sight Distance (SISD) for the current intersection configuration and posted speed limit. The required SISD for the current speed environment (80km/hr) is 214m and the intersection can only achieve 150m.	25 26 27 28 30 31 32	*Option 1: Widen the shoulder of the northbound lane on Stewart Street to allow vehicles travelling northbound to pass a vehicle that has turned right out of Middle Road. This would involve widening the lane to provide an Auxiliary Right Turn (AUR) on Stewart Street.* *Option 2: Alternatively, an advisory 60km/hr sign (W8-2) could be installed underneath the Side Road Intersection (W2-4 R) sign. This could lower the speed at the intersection and decrease the required SISD to 151m making the speed acceptable for the available SISD.* *Option 3: Reduce the speed limit on Stewart Street to provide SISD*
A11	O	S	L	H	There are several trees that may be located within the clear zone on Stewart Street. For an 80km/hr speed environment the clear zone width should be 5m for a 1:4 batter. The batter on the table drain at the Southern End of Stewart Street seemed steeper than 1:4 however it was difficult to be sure due to vegetation growth in the drain.	12 13	*Review the slope of the batter at the southern end of Stewart Street and if table drain has a slope of 1:4 or greater than remove any vegetation within the clear zone.*
B12	O	M	L	M	Several culverts along Stewart Street are not delineated by guideposts. Culverts at Chainage 740, 820, 910, 1680 and at the intersection of Latimer Avenue and Stewart Street are not properly delineated. There is no warning of the steep drain and culvert for motorists.	16 23 34	*Install guideposts to properly delineate the location of the culverts.*

No	Risk				Deficiency/ Observation	Photo No.	Recommendation/ Comment
	F	S	C	E			
B13	O	M	M	M	Sight distance at the intersection of Stewart Street and Somerset Road is restricted by location of steel mesh fence. Vehicles on Stewart Street wishing to look right along Somerset Road have a restricted view.	39	*Trim vegetation in table drain and possibly remove some of the panels of fencing.*
B14	O	M	L	H	There is a Flea Tree within the 80km/hr clearzone at the intersection of Middle Road and Stewart Street.	24	*Remove Tree.*
C15	Regulatory Requirement				There are no Hazard Boards (D4-2-3) on any of the T-Intersections along Stewart Street. Latimer Avenue, Douglas Street and Foster Street have guideposts opposite the minor leg approach rather than the standard Hazard Board	20 38	*Install D4-2-3 sign opposite minor leg on Latimer Avenue, Douglas Street and Foster Street intersections as per MUTCD standards.*
C16	I	L	M	M	At the Stewart Street / Middle Road intersection, the driveway access for 253 Middle Road enters the roadway 10m from the hold line at the Middle Road Intersection.	27 28	*Relocate driveway away from intersection of Middle Rd / Stewart Street.*
C17	Regulatory Requirement				The existing G5-1 signs at Middle Road, Latimer Avenue, Douglas Street and Foster Street have lettering that is too small for the speed environment. At 80km/hr it is difficult to read the small lettering on the fingerboard signs.	20 29 38	*Install a appropriately sized G5-1 fingerbboard street sign with 130mm high lettering on it as per Table 2.1 of Part 5 of the MUTCD.*
C18	Maintenance requirement				The existing line marking at the intersections of Middle Rd/Stewart St, Foster Street/Stewart St and Douglas St/Stewart Street are faded and covered in loose gravel.		*Clear gravel from the intersection and reinstate the existing line marking.*
C19	Regulatory Requirement				There are several guideposts missing from the intersections of Middle Rd/Stewart St, Foster Street/Stewart St and Douglas St/Stewart Street.	47	*Reinstate guideposts at intersections.*
C20	Maintenance Requirement				There are several places along Stewart Street (CH1040, CH540-650, CH1350) that show signs of edge wear. This is a sign of the carriageway not being wide enough and vehicles using the shoulder.	21 33	*Perform shoulder widening works along Stewart Street to increase carriageway width.*

No	Risk				Deficiency/ Observation	Photo No.	Recommendation/ Comment
	F	S	C	E			
C21	Maintenance issue				There are several pavement failures along Stewart Street	**14 18 19 41**	*Fix pavement failures*
C22	I	L	M	L	Minimal Pedestrian facilities along Stewart Street. At culvert locations and locations of overgrown vegetation, pedestrians are forced to walk along the road.		*Consider constructing appropriate off road pedestrian facilities as funds become available..*
C23	Regulatory Requirement				All signage along Stewart Street has little or no rellectivity.		*Replace signage on Stewart Street*

Speed Limit Review – Queensland (SLR-QLD)
Detailed Assessment Report

Background Information

Analysed By: Stuart Harvey.
User Reference: Stewart Street (GIAP), Rev. 1
Road Name: Stewart Street.
Road Location: Between Boongary Road and Somerset Road.
Suburb: Gracemere.
GPS Start Point : .
GPS Finish Point: .
TMR Road Number: .
Local Government: 258, Rockhampton Regional Council
Main Roads District: 6, Central
The need to review the speed limit on this road has occurred due to altered speed environment.
The length of the road section being assessed is 1.9 km
AADT on this road section is 415 vpd
The existing speed limit is 80 km/h.

Adjacent Speed Zones
Approach 1: 60 km/h - Nothern Approach from Somerset Road
Approach 2: 100 km/h - Southern Approach from Boongary Road

Authorised Speed Limit:

Stage 1: Road function

This section of Stewart Street being assessed is located in a rural settlement area.
The road type is: Trunk Collector Roads and Collector Roads.
The Typical Speed Limit is: 80 km/h.
The Existing Speed Limit **does** equal the Typical Speed Limit

Stage 2: Prevailing Traffic speed

Sample data on 2243 vehicles was analysed using ' '
The upper limit of 15 km/h pace is 75
The mean speed is 62 km/h
The 85th percentile speed is 77 km/h
Hence, the prevailing traffic speed data **does not** correlate with the existing Speed Limit

Stage 3: QLIMITS

The suggested speed limit based on the speed environment analysis was **80 km/h** after allowing for site specific issues.

Additional issues considered:

- Note: A Road safety audit has been conducted to assess roadside activities or hazards

- Adverse road conditions have been identified along the section of road. Targeted advisory signing, remedial works or lower limits should be considered if appropriate. The issues include:

Sub-standard sight distance at the intersection of Middle Road and Stewart Street. Vehicles travelling north along Stewart Street do not have sufficient Safe Intersection Sight Distance (SISD).

- Speed environment was assessed (Stage 3 was completed).Answers to the Speed Environment questions were as follows:
  - Has a comprehensive road safety audit been completed? NO
  - Did the road safety audit highlight deficiencies that have not been corrected? NO
  - Was the road safety audit conducted more than 3 years ago? NO
  - Is there a concern for pedestrian or cyclist safety along the road segment? NO
  - Are there high risk intersections in the road segment? NO

Frequency of Roadside Accesses

	Type of access	Number
A	Residences, small commercial establishments, small public buildings and other units which generate light and/or occasional activity. (The weighting for this type of access is 1).	18
B	Average commercial establishment, local schools, caravan parks, light industries, public buildings and units generating activity which is either: 1. Continuous light. 2. Moderate at certain times, such as commuting hours. 3. Substantial at infrequent intervals. (The weighting for this type of access is 2).	0
C	Heavy industry, schools, shopping centres and other units generating continuous moderate activity or substantial activity at certain regular times. (The weighting for this type of access is 3).	0
D	Large shopping centres and other units generating substantial and continuous activity. Some large industries which are tourist attractions or for some other reason generate substantial traffic volumes would be included in this activity. (The weighting for this type of access is 4).	0
E	Unsignalised intersecting roads of substantially lesser importance than the road being assessed, or intersecting roads where side traffic and turning movements have little effect on the traffic flow pattern of the road being considered. (The weighting for this type of access is 1).	4
F	Unsignalised intersecting roads of lesser importance than the road being assessed but where the side road traffic and turning movements are such that the intersection has appreciable effect on the traffic flow pattern of the road being considered. (The weighting for this type of access is 2).	0
G	Unsignalised intersecting roads of comparable or greater significance than the road being assessed. Intersections which have pronounced effect on the traffic flow pattern of the road being considered. (The weighting for this type of access is 3).	0
H	Roundabouts and signalised intersecting roads. (The weighting for this type of access is 3).	0
	Average number of accesses per 100 m	1.15

Freeway
This road is not a freeway

Road Geometry and Congestion
Adverse road conditions have been identified along the section of road. Targeted advisory signing, remedial works or lower limits should be considered if appropriate. The issues include: Sub-standard sight distance at the intersection of Middle Road and Stewart Street. Vehicles travelling north along Stewart Street do not have sufficient Safe Intersection Sight Distance (SISD).

Special Roadside Activities

Note: A Road safety audit has been conducted to assess roadside activities or hazards

Number of crashes in the past 6 years:

Description	No. of crashes
Head-on	0
Rear-end	0
Lane change	0
Parallel lanes, turning	0
U-turn	0
Entering roadway	0
Overtaking, same direction	0
Hit parked vehicle	0
Hit railway train	0
Pedestrian	0
Permanent obstruction on carriageway	0
Hit animal	0
Off carriageway, on straight	0
Off carriageway, on straight, hit object	0
Out of control, on straight	0
Off carriageway on curve	0
Off carriageway, on curve, hit object	0
Out of control, on curve	0

The average annual equivalent crash risk is 0.00 (10^{-4})

Stage 4: Speed correlation check & recommendations

The speed limit based on road function is **80 km/h.**

The speed limit suggested by current speed data is **70 km/h.**
The speed limit suggested by the speed environment (QLIMITS) is **80 km/h.**

Recommendations and authorisation

THE RECOMMENDED SPEED LIMIT IS 80 km/h

The final speed limit authorised for installation is 80 km/h

Recommended By: Stuart Harvey
Authorised By:

8.2 SPEED LIMIT REVIEWS - LUCAS STREET AND CHERRYFIELD ROAD

File No:	**7127**
Attachments:	**1. Lucas Street Proposed Speed Limits Plan** **2. Cherryfield Road Proposed Speed Limit Plan** **3. Lucas Street Existing Speed Limit Plan** **4. Cherryfield Road Existing Speed Limit Plan** **5. Lucas Street Speed Limit Review** **6. Cherryfield Road Speed Limit Review** **7. 3E Committee Minutes 3 April 2014**
Authorising Officer:	**Martin Crow - Manager Engineering Services** **Robert Holmes - General Manager Regional Services**
Author:	**Angus Russell - Coordinator Strategic Infrastructure**

SUMMARY
Several requests for speed limit reviews have been received from community members in the Lucas Street and Cherryfield Road area. This report provides a recommendation on these speed limit reviews.

OFFICER'S RECOMMENDATION

THAT the following new speed limits be adopted:

a) An amended speed zone of 60km/h for the length of Lucas Street as shown on Plan 2014-147-02;

b) An amended speed zone of 60km/h for the length of Cherryfield Road, between Johnson Road and Glover Street, as shown on Plan 2014-166-02.

COMMENTARY

The request for a speed limit review was received from members of the Gracemere community. This report provides a recommendation on this speed limit reviews. A summary of the request that was recently investigated is as follows:

1. Request to reduce speed limit on Lucas Street from 70km/h (as shown on Plan 2014-147-01) to 60km/h throughout the length of Lucas Street.
2. Request to reduce speed limit on Cherryfield Road from 80km/h (as shown on Plan 2014-147-01) to 60km/h between Johnson Road and Glover Street.

Residents in the Gracemere Community have expressed their concern that the speed limit of 70km/hr along Lucas Street is not safe for the current road conditions. Lucas Street was posted at 70km/hr before a large amount of residential development occurred in Gracemere. Since then, the number of properties fronting Lucas Street, and the number of intersections along Lucas Street have increased significantly. Due to this change in speed environment, a change to the speed limit was requested.

As a part of the investigation into the Lucas Street speed limit review, officers noticed that Cherryfield Road had also experienced significant residential development since the speed limit was posted at 80km/hr. Several roads intersect Cherryfield Road between Johnson Road and Glover Street and many houses now have direct access onto this road. Further development has also been proposed along Washpool Road. There has been a noticeable change to the speed environment as a direct result of residential development. For this reason, the Cherryfield Road speed limit was reviewed as well.

Speed limit reviews were carried out at these locations in accordance with the Manual of Uniform Traffic Control Devices (Part 4 – Speed Controls) and utilising the QLIMITS Speed Environment Analysis software. QLIMITS is a web based software application provided by the Department of Transport and Main Roads (DTMR) for the analysis of road environments in the process of setting safe speed limits.

The recommendations of the analysis were discussed and approved by the Rockhampton Region Speed Management Committee, which consists of representatives from the Queensland Police, Rockhampton Regional Council and the Department of Transport and Main Roads, at their monthly road safety meeting. Details of each of the assessments and meeting minutes from the Rockhampton Region Speed Management Committee have been included in the appendices. Due to the timing of the meetings, the Cherryfield Road speed limit review was approved via email correspondence.

The recommended new speed limit is the outcome of the analysis and evaluation process conducted by Council and is supported by the Queensland Police Service and Department of Transport and Main Roads. Due to the significant change in speed environment, the roads changed function and the road users current speed characteristics, a proposed speed limit of 60km/hr was recommended for both Lucas Street and Cherryfield Road.

The recommendations are now presented to Council for adoption, prior to implementation. Queensland Police have agreed to enforce the new speed limits after their introduction.

BACKGROUND

Council often receives requests for changes to speed limits in both urban and rural areas. The Manual of Uniform Traffic Control Devices published by the Department of Transport and Main Roads provides a standardised methodology to conduct a technical assessment of an appropriate speed limit based on the road function, prevailing traffic speeds and speed environment.

The methodology also requires the endorsement of a local Speed Management Committee made up of representatives of Council, Department of Transport and Main Roads and Queensland Police.

The purpose of the Rockhampton Region Speed Management Committee is to ensure that the interests of all road users are considered before a speed zone is established and to ensure that speed zones throughout the region are consistent and credible.

BUDGET IMPLICATIONS

Signage costs are currently allocated in the Budget.

RISK ASSESSMENT

Transport and Main Roads support these changes and the Police have agreed to enforce the new speed limit after its introduction. The likelihood and severity of crashes in these locations should reduce as a result of the reduced speed limit.

Analysis indicated the majority of motorists on Lucas Street are currently complying with the lower proposed speed limit (60km/hr). Reducing the speed limit may result in adverse comments from residents / motorists who drive through the area, however their compliance with the existing speed limits indicate an understanding of the importance of a reduced speed in the area. Adequate enforcement will be required to reinforce this change in speed through the area.

CORPORATE/OPERATIONAL PLAN

3.1.1 Consult on, advocate, plan, deliver and maintain a range of safe urban and rural public infrastructure appropriate to the Region's needs, both present and into the future.

CONCLUSION

Council Officers have followed a standardised methodology to conduct speed limit reviews at a number of locations in Gracemere. The result of the speed limit review has received the endorsement of the Rockhampton Region Speed Management Committee. The recommendations are now presented to Council for consideration and adoption, prior to implementation.

SPEED LIMIT REVIEWS - LUCAS STREET AND CHERRYFIELD ROAD

Lucas Street Proposed Speed Limits Plan

Meeting Date: 2 July 2014

Attachment No: 1


LUCAS STREET
GRACEMERE
TRAFFIC MANAGEMENT
PROPOSED SIGNAGE PLAN
R2014-147-02
Sheet No. 2 of 2
APPROVED
DATE
Rockhampton Regional Council
60
60
60
60
280m
230m
50m

SPEED LIMIT REVIEWS - LUCAS STREET AND CHERRYFIELD ROAD

Cherryfield Road Proposed Speed Limit Plan

Meeting Date: 2 July 2014

Attachment No: 2


N
CHERRYFIELD ROAD
WASHPOOL ROAD
80
60
60
60
50m
175m
REMOVE EXISTING SIGNS
REMOVE EXISTING SIGNS
CHERRYFIELD ROAD
GRACEMERE
TRAFFIC MANAGEMENT
PROPOSED SIGNAGE PLAN
APPROVED
R2014-166-02
Rockhampton

SPEED LIMIT REVIEWS - LUCAS STREET AND CHERRYFIELD ROAD

Lucas Street Existing Speed Limit Plan

Meeting Date: 2 July 2014

Attachment No: 3

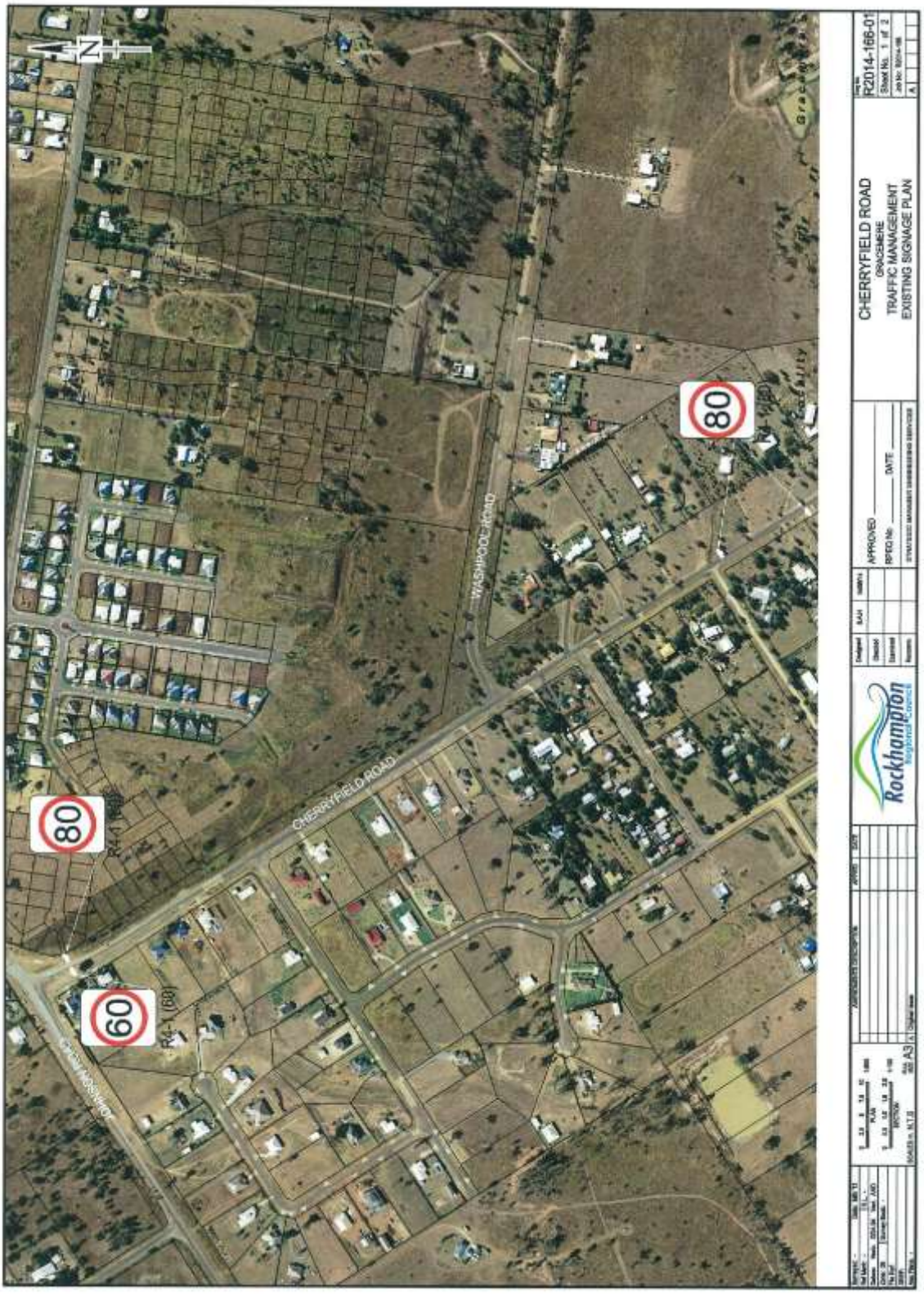

N
70
70
LUCAS STREET
GRACEMERE
TRAFFIC MANAGEMENT
EXISTING SIGNAGE PLAN
R2014-147-01
Rockhampton Regional Council

SPEED LIMIT REVIEWS - LUCAS STREET AND CHERRYFIELD ROAD

Cherryfield Road
Existing Speed Limit Plan

Meeting Date: 2 July 2014

Attachment No: 4


N
80
80
60
CHERRYFIELD ROAD
WASHPOOL ROAD
R4-1 (60)
CHERRYFIELD ROAD
APPROVED
DATE
RPEQ No.
CHERRYFIELD ROAD
GRACEMERE
TRAFFIC MANAGEMENT
EXISTING SIGNAGE PLAN
R2014-166-01
Sheet No. 1 of 2
Rockhampton Regional Council

SPEED LIMIT REVIEWS - LUCAS STREET AND CHERRYFIELD ROAD

Lucas Street Speed Limit Review

Meeting Date: 2 July 2014

Attachment No: 5

FORM F1 QLIMITS FIELD DATA FORM

If saving this form for use at a later date, please ensure that it is the most current version. See http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/Manual-of-uniform-traffic-control-devices.aspx

LOCAL GOVERNMENT/DISTRICT Rockhampton Regional Council **ROAD:** Lucas Street

LOCATION: Between Johnson Road and Allen Road

RECORDER: Stuart Harvey **DATE:** 1/4/14

Tick (✓) the appropriate box to respond

1. LOCATION OF ROAD

The area in which this road section is located is generally:

(i)	Urban:	Fully built-up area with consolidated residential, commercial and industrial land uses.	☑
(ii)	Urban Fringe:	Less developed area typically containing low-density residential, small scale farming, future urban and other 'developing' land uses.	☐
(iii)	Rural Settlement:	Small settlements or townships located in rural areas which are typically located on through roads, and where all or most land development is concentrated on, or has direct access to, those through roads.	☐
(iv)	Rural:	Areas that are rural in nature, with large property or farm holdings. The only residential properties in these areas will be scattered homesteads and farmhouses.	☐

2. LENGTH OF ROAD

The length of road section is 2.55 km

3. UPPER LIMIT OF THE 15 km/h PACE

The upper limit of the 15km/h pace of free vehicles on this road section is 64 km/h

4. DEVELOPMENT (for divided roads only)

The development on both sides of the road is:

balanced	☑
unbalanced	☐

5. FREQUENCY OF ROADSIDE ACCESSES (for both sides of the road combined)

Note: (i) Abutting development on service roads is not considered and therefore only the points of access to the through traffic lanes are counted.
(ii) Crossroads are counted once each side of the road.

Abutting properties

(a) Residences, small commercial establishments, small public buildings and other units which generate light and/or occasional activity.

Number of this type: Side 1 = 16 Side 2 = 33

(b) Average commercial establishments, local schools, caravan parks, light industries, public buildings and other units generating activity that is:

(i) continuous light

(ii) moderate at certain regular times, such as commuting hours

(iii) substantial at infrequent intervals

Number of this type: Side 1 = 1 Side 2 = 1

1

(c) Heavy industry, schools, shopping centres and other units generating
   (i) continuous moderate activity or
   (ii) substantial activity at certain regular times.

Number of this type: Side 1 = 0 Side 2 = 0

(d) Large shopping centres and other units generating substantial and continuous activity. Some large industries that are tourist attractions or for some other reason generate substantial traffic volumes would be included in this activity.

Number of this type: Side 1 = 0 Side 2 = 0

Intersections

(a) Intersecting roads of substantially lesser importance than the road being studied, or intersecting roads where side road traffic and turning movements have little effect on the traffic flow pattern of the road being studied.

Number of this type: Side 1 = 3 Side 2 = 5

(b) Intersecting roads of lesser importance than the road being studied but where side road traffic and turning movements are such that the intersection has appreciable effect on the traffic flow pattern of the road being studied.

Number of this type: Side 1 = 0 Side 2 = 0

(c) Signalised intersections, roundabouts and intersections with roads comparable to or of greater significance than the road being studied. Intersections which have a pronounced effect on the traffic flow pattern of the road being studied.

Number of this type: Side 1 = 0 Side 2 = 0

Note: (i) Abutting development on service roads is not considered and therefore only the points of access to the through traffic lanes are counted.
(ii) Crossroads are counted once each side of the road.

6. DIVIDED OR UNDIVIDED

The section of road being studied is:

- undivided ☑
- divided ☐

Note: (i) Double barrier lines do not constitute a median.
(ii) A painted median is sufficient to constitute a divided road if it extends for the full length of the section under consideration (excepting median breaks for turns, etc).

7. RESTRICTION OF ACCESS

The major part of this road has restriction of direct vehicular access on:

- neither side ☐
- one side ☐
- both sides ☑

Note: (i) This restriction may include service roads, river or railway line alongside the road or a large fenced-off area e.g. golf course, airport.

8. SETBACK

The setback of the through traffic lanes to the property boundary line is:

- less than 4 metres ☐
- 4-10 metres ☑
- more than 10 metres ☐

Note: (i) If development is balanced, the lower setback value should be used.
(ii) If development is unbalanced, the setback value for the more developed side should be used.

9. MEDIAN

The central median has a width of _____ metres

FORM F1: QLIMITS Field Data Form 2

10. PROTECTION OF TURNING/CROSSING VEHICLES

The median protects turning vehicles:

- fully ☐
- only partially or not at all ☑

11. NUMBER OF LANES

The total number of traffic lanes is 2 lanes

Note: (i) include through lanes in both directions.
(ii) do not include service roads or exclusive parking lanes.
(iii) if lanes are not clearly marked, count the number of lanes normally used by drivers during busy traffic periods.

12. FUNCTION OF ROAD

The main reason that vehicles use this section of road is:

- traffic movement ☑
- access to abutting properties ☐

13. ADJACENT ROAD SECTIONS

The speed limits on the adjoining road sections are: 80 km/h 70 km/h

14. FREEWAY

Is this road a freeway? NO ☑ YES ☐

15. LOW SPEED AREA

Is this road a low speed area?

- NO ☑
- YES (LATM area) ☐
- YES (shared-use zone) ☐

16. OTHER FACTORS

Is the road predominantly winding or hilly? NO ☑ YES ☐

Is the road unusually congested? NO ☑ YES ☐

17. SPECIAL ROADSIDE ACTIVITIES

Are there any schools along this road section? NO ☑ YES ☐

18. CASUALTY CRASH RATES

Compared to other similar road sections the casualty crash rate is:

- average or lower than average ☑
- a little higher than average ☐
- significantly higher than average ☐

Note: Care should be exercised when using historical crash rate data. Only use relevant data pertaining to crashes that have occurred whilst the road is in its current state, e.g. if an intersection has been signalised or a road recently reconstructed, only use crash data from the period following these changes.

19. TRAFFIC SIGNALS/ROUNDABOUTS

Are there any traffic signals or roundabouts along this road section? NO ☑ YES ☐

Speed Limit Review – Queensland (SLR-QLD)
Detailed Assessment Report

Background Information

Analysed By: Stuart Harvey.
User Reference: Lucas Street - Gracemere, Rev. 1
Road Name: Lucas Street.
Road Location: Johnson Rd / Lucas St - Allen Rd / Lucas St.
Suburb: Gracemere.
GPS Start Point : .
GPS Finish Point: .
TMR Road Number: .
Local Government: 258, Rockhampton Regional Council
Main Roads District: 6. Central
The need to review the speed limit on this road has occurred due to community request.
The length of the road section being assessed is 2.55 km
AADT on this road section is 1912 vpd
The existing speed limit is 70 km/h.

Adjacent Speed Zones
Approach 1: 60 km/h - Johnson Road / Lucas Street Intersection
Approach 2: 70 km/h - Allen Road / Lucas Street Intersection

Recommended Speed Limit:

60

Stage 1: Road function

This section of Lucas Street being assessed is located in a urban area.
The road type is: Trunk Collector Roads and Collector Roads.
The Typical Speed Limit is: 60 km/h.
The Existing Speed Limit **does not** equal the Typical Speed Limit

Stage 2: Prevailing Traffic speed

Sample data on 21032 vehicles was analysed using ' '
The upper limit of 15 km/h pace is 64
The mean speed is 57 km/h
The 85th percentile speed is 66 km/h
Hence, the prevailing traffic speed data **does not** correlate with the existing Speed Limit

Stage 3: QLIMITS

The suggested speed limit based on the speed environment analysis was **60 km/h** after allowing for site specific issues.

Additional issues considered:

- A lower speed limit may be appropriate due to the presence of special roadside activities in the area. These include:
  - Schools or school crossings
  - Narrow traffic lane width

Note: A Road safety audit has NOT been conducted to assess roadside activities or hazards

- Speed environment was assessed (Stage 3 was completed).Answers to the Speed Environment questions were as follows:
  - Has a comprehensive road safety audit been completed? NO
  - Did the road safety audit highlight deficiencies that have not been corrected? NO
  - Was the road safety audit conducted more than 3 years ago? NO
  - Is there a concern for pedestrian or cyclist safety along the road segment? NO
  - Are there high risk intersections in the road segment? NO

Frequency of Roadside Accesses

	Type of access	Number
A	Residences, small commercial establishments, small public buildings and other units which generate light and/or occasional activity. (The weighting for this type of access is 1).	49
B	Average commercial establishment, local schools, caravan parks, light industries, public buildings and units generating activity which is either: 1. Continuous light. 2. Moderate at certain times, such as commuting hours. 3. Substantial at infrequent intervals. (The weighting for this type of access is 2).	2
C	Heavy industry, schools, shopping centres and other units generating continuous moderate activity or substantial activity at certain regular times. (The weighting for this type of access is 3).	0
D	Large shopping centres and other units generating substantial and continuous activity. Some large industries which are tourist attractions or for some other reason generate substantial traffic volumes would be included in this activity. (The weighting for this type of access is 4).	0
E	Unsignalised intersecting roads of substantially lesser importance than the road being assessed, or intersecting roads where side traffic and turning movements have little effect on the traffic flow pattern of the road being considered. (The weighting for this type of access is 1).	8
F	Unsignalised intersecting roads of lesser importance than the road being assessed but where the side road traffic and turning movements are such that the intersection has appreciable effect on the traffic flow pattern of the road being considered. (The weighting for this type of access is 2).	0
G	Unsignalised intersecting roads of comparable or greater significance than the road being assessed. Intersections which have pronounced effect on the traffic flow pattern of the road being considered. (The weighting for this type of access is 3).	0
H	Roundabouts and signalised intersecting roads. (The weighting for this type of access is 3).	0
	Average number of accesses per 100 m	2.39

Road Cross Section
The road is **Undivided**

Number of Lanes
The total number of traffic lanes on this section of road is **2**

Function of Road
The road is primarily used for **Traffic movement (freeway/arterial/sub arterial/trunk collector)**

Restrictions of Access
There are **no restrictions.**

Special Roadside Activities
A lower speed limit may be appropriate due to the presence of special roadside activities in the area. These include:

- Schools or school crossings
- Narrow traffic lane width

Note: A Road safety audit has NOT been conducted to assess roadside activities or hazards

Number of crashes in the past 5 years:

Description	No. of crashes
Head-on	1
Rear-end	0
Lane change	0
Parallel lanes, turning	0
U-turn	0
Entering roadway	0
Overtaking, same direction	0
Hit parked vehicle	0
Hit railway train	0
Pedestrian	0
Permanent obstruction on carriageway	0
Hit animal	0
Off carriageway, on straight	0
Off carriageway, on straight, hit object	0
Out of control, on straight	0
Off carriageway on curve	0
Off carriageway, on curve, hit object	0
Out of control, on curve	0

The average annual equivalent crash risk is 11.00 (10^4)

Crash Rate
The crash rate is 618 (10^4 ERUs per 10^8 VKT)

Stage 4: Speed correlation check & recommendations

The speed limit based on road function is **60 km/h.**

The speed limit suggested by current speed data is **60 km/h.**
The speed limit suggested by the speed environment (QLIMITS) is **60 km/h.**

Recommendations and authorisation

THE RECOMMENDED SPEED LIMIT IS 60 km/h

FORM F3 CHECKLIST FOR REVIEW OF EXISTING SPEED LIMIT

Not required for setting speed limits on roads in rural residential areas. See MUTCD Part 4 Section 3.4.

LOCATION IDENTIFICATION

Road Owner: ☐ MRD ☒ LGA

District Number:

LGA Number:

LGA Name: Rockhampton Regional Council

Town/City: Gracemere

Suburb: Gracemere

Road Name: Lucas Street

Road Section:

Road Number: 006510

Road Segment:

	Location or Reference Point	Chainage or Distance	GPS Coordinates (decimal degrees)	
			Latitude	Longitude
Start	Lucas St / Jonhson Road Intersection		150.449	-23.457
End	Lucas St / Allen Road Intersection		150.474	-23.461

Existing Speed Limit: 70 km/h

AADT: 1912 VPD (2012)

REVIEWING OFFICER

Name: Stuart Harvey

Employer: Rockhampton Regional Council

Address: PO BOX 1860, Rockhampton, QLD 4700

Phone No: 4936 8914

Date of Review: 01/04/14

Have you undertaken appropriate training in the application of Part 4? Yes ☒ No ☐

Notes:

1. The numbering convention used for the Checklist coincides with that used in MUTCD Part 4 Figure F1.
2. References to Figures and Tables are to those in Part 4 of the Manual of Uniform Traffic Control Devices.
3. Mark following selections with a tick.

1

SPEED LIMIT REVIEW

1. The need to review the speed limit on this road has occurred due to:
   - ☐ General Limit no longer applicable
   - ☒ Altered speed environment
   - ☐ Evidence of speed limit/vehicle speed discrepancies
   - ☐ Need to adjust speed zone lengths
   - ☒ Community request
   - ☐ Other (specify) .....

Stage 1 – Road Function Analysis

2. Road Function

   If the road is in a rural environment, go to Step 3.

   For a road in an urban environment, the function of the road has been identified as:
   - ☐ Access / Local street
   - ☒ Collector street
   - ☐ Trunk collector road
   - ☐ Sub-arterial road
   - ☐ Arterial road
   - ☐ Controlled access arterial road, Freeway

   If rural, go to Step 3

3. From Table B1 (Urban) or B2 (Rural), the typical speed limit is: 60 km/h
4. The existing speed limit equals the typical speed limit?
   - ☐ Yes - go to Step 6
   - ☒ No - go to Step 5
5. Is it proposed to alter the road function to align the typical speed limit with the existing speed limit speed?
   - ☐ Yes - go to Step 18
   - ☒ No - go to Step 6

Stage 2 – Prevailing Vehicle Speed Analysis

6. Prevailing Vehicle Speed Data

(a) Collected using:
   - ☐ Manual methods
   - ☒ Automatic device (specify type) METROCOUNT TUBE COUNTER
   - ☐ Other (specify) METROCOUNT REPORT

(b) Collected according to guidelines:
   - ☒ Specified in Appendix G
   - ☐ Other (specify) METROCOUNT REPORT

(c) Analysed using:
   - ☐ EsdeeMan version 3.0
   - ☐ Manual methods
   - ☒ Other (specify) METROCOUNT REPORT

(d) Results from analysis:

No. of vehicles in sample 21032

Upper limit of 15 km/h pace: 64 km/h

% vehicles in the 15 km/h pace: 62 %

85th %ile speed: 66 km/h

Mean speed: 57

7. Speed data correlates with existing speed limit? (see Table C1)
   - ☐ Yes - go to Step 11
   - ☒ No - go to Step 7a

7a. From Table C2,

Suggested speed limit is: 60 km/h

Go to Step 8.

Stage 3 – Speed Environment Analysis

8. QLIMITS

(a) Field Data Form F1 (Appendix D):
   - ☐ Completed
   - ☒ Copy attached

FORM F3: Checklist for review of existing speed limit 2

(b) Analysis Report Form F2 (Appendix D):

- ☐ Completed
- ☒ Copy attached

(c) QLIMITS recommended speed limit

60 ..... km/h

(d) QLIMITS flagged considerations?

- ☐ No
- ☒ Yes (see Report Form F2 (Appendix D))

Stage 4 – Correlation Check

9. Correlation check

(a) Outputs from each stage are:

Stage 1

Typical speed limit 60 ..... km/h

Stage 2

From Table C2

Suggested speed limit 60 ..... km/h

Stage 3

QLIMITS recommendation 60 ..... km/h

(b) Is there a correlation between two of the three outputs from Stages 1, 2 and 3 above?

- ☒ Yes 60 ..... km/h - go to Step 11
- ☐ No - go to Step 10

10. Have all data, QLIMITS input/output and road function been checked?

- ☐ No - go to Step 2
- ☐ Yes - go to Step 24

Other Criteria

11. (From Steps 7 and 9)

(a) The calculated casualty crash rate is:

641 ..... * 10^4 ERUs per 10^8 VKT

(b) The typical casualty crash rates are:

Average: 769 ..... * 10^4 ERUs per 10^8 VKT

Critical: 830 ..... * 10^4 ERUs per 10^8 VKT

(c) The casualty crash rate / potential risk factor is comparatively:

- ☒ Low (=< Average)
- ☐ Medium (Between average and critical)
- ☐ High (>= Critical)

(d) Is casualty crash rate / potential risk factor high?

- ☐ Yes - go to Step 12
- ☒ No - Figure F1 leads to:
- ☐ Step 19
- ☐ Step 13

12. Crash investigation / road safety review or audit conducted by:

Name: .....

Date: .....

File/Report No: .....

Go to Step 15

13. Has the review process suggested an increase in the speed limit?

- ☐ Yes - go to Step 14
- ☒ No - go to Step 23

14. Has a safety review (or road safety audit) identified any risk factors?

- ☐ Yes - go to Step 16
- ☐ No - go to Step 23

15. Has a crash investigation or safety review identified causal or risk factors?

- ☐ Yes - go to Step 16
- ☐ No - go to Step 22

16. Is treatment feasible?

- ☐ Yes - go to Step 17
- ☐ No - go to Step 21

17. (From Step 16)

Proposed treatments / works have been listed for the financial year: .....

Go to Step 20

18. (From Step 5)

See Figure F1, Note 18

Go to Step 17

19. (From Step 11 via Step 7)

Retain existing limit - go to Step 25

20. Consider whether an interim alteration to the speed limit is necessary.

Go to Step 25

21. (From Step 16)

Subject to Figure F1 (Note 21), it is considered appropriate to:

☐ Increase

☐ Decrease

the existing speed limit by ..... km/h

Go to Step 25

22. (From Step 15)

Retain existing speed limit with enhanced enforcement.

Go to Step 25

23. (From Step 13 or 14)

Adopt speed limit noted at 9(b).

Go to Step 25

24. (From Step 10)

The review of speed limits according to the process described in Figure F1 has failed to determine an appropriate speed limit. Action taken is as follows:

(a) ☐ The Checklist, together with all relevant data and information, has been referred to the responsible officer for consideration.

Referred to: .....

By: .....

RPEQ No: .....

Date: .....

The responsible officer now has responsibility for providing recommendations at Step 25.

(b) ☐ Input to the review requested from the Traffic Advisory Committee (TAC)

Committee meeting of ...../...../..... offered the following information:

.....

.....

.....

.....

.....

and/or advised a preferred speed limit of:

..... km/h

(c) Has information provided by the committee assisted in determining an appropriate limit?

☐ Yes - it is..... km/h

Go to Step 25

☐ No - (a) I concur the following speed limit for the section of road under consideration: ..... km/h

Concurred by (TAC Chair): .....

.....

Date: .....

25. Recommendation by Engineer

Following the completion of this checklist, which documents the process for the review of speed limits according to Figure F1 of Part 4 of the MUTCD, I submit the following:

Recommended Speed Limit: 50..... km/h

Recommended by:

Name: .....

Position: .....

RPEQ No: .....

Date: .....

Authorisation for Deliberation

☒ The recommended speed limit is approved for deliberation in the SMC.

☐ The recommended speed limit is not approved for deliberation by the SMC for the following reasons:

.....

.....

.....

.....

.....

☐ The alternative speed limit to be discussed or retained is: ..... km/h

Reasons for the alternative speed limit are:

.....

.....

.....

.....

Authorised by: .....

Position:.....

(Responsible officer/Regional Director)

Date:.....

Endorsement by Speed Management Committee (SMC)

☒ The recommended speed limit has been endorsed by the SMC.

☐ The recommended speed limit has not been endorsed by the SMC and will now be sent back to the responsible officer for referral to the Speed Limit Review Panel (SLRP).

Recommendation by Speed Limit Review Panel (SLRP)

Following the deliberation by the SLRP, the chairperson will forward its recommendation to the responsible officer for consideration:

Recommended speed limit:..... km/h

Recommended by:

Name:.....

(Chairperson SLRP)

Position:.....

RPEQ No:.....

Date:.....

Authorisation for Installation

☒ The recommended speed limit is authorised for installation according to the provisions of MUTCD Part 1, Appendix C.

☐ The recommended speed limit is not authorised for the following reasons:

.....

.....

.....

.....

.....

☐ The alternative speed limit to be installed or retained is: ..... km/h

Reasons for the alternative speed limit are:

.....

.....

.....

.....

.....

Authorised by: .....

Position:.....

(Responsible officer/Regional Director)

Date:.....

☐ Form M994 or equivalent local government Form completed by authorising officer and copy filed with this Checklist.

(Failure to complete this task could compromise the legality of the Speed Limit.)

26. Review / Evaluation

Will the existing speed limit be altered?

☐ Yes - program assessment to occur 1-4 weeks after installation.

☐ No - program for review in 5 years or sooner if required.

Where Steps 21, 22 or 23 have indicated that enhanced enforcement is required, complete the following:

Enhanced enforcement of this site by QPS has been requested by reporting the outcome for this speed limit review to:

☐ Local TAC (Traffic Advisory Committee)

☐ Regional Speed Management Advisory Committee

☐ Regional QPS Traffic Co-ordinator

Reported by: .....

Position:.....

Date:.....

☐ Written advice

☐ Other (specify).....

.....

.....

SPEED LIMIT REVIEWS - LUCAS STREET AND CHERRYFIELD ROAD

Cherryfield Road Speed Limit Review

Meeting Date: 2 July 2014

Attachment No: 6

FORM F1 QLIMITS FIELD DATA FORM

If saving this form for use at a later date, please ensure that it is the most current version. See http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/Manual-of-uniform-traffic-control-devices.aspx

LOCAL GOVERNMENT/DISTRICT Rockhampton Regional Council **ROAD:** Cherryfield Road

LOCATION: Gracemere

RECORDER: Stuart Harvey **DATE:** 14/05/14

Tick (✓) the appropriate box to respond

1. LOCATION OF ROAD

The area in which this road section is located is generally:

(i)	Urban:	Fully built-up area with consolidated residential, commercial and industrial land uses.	☐
(ii)	Urban Fringe:	Less developed area typically containing low-density residential, small scale farming, future urban and other 'developing' land uses.	☑
(iii)	Rural Settlement:	Small settlements or townships located in rural areas which are typically located on through roads, and where all or most land development is concentrated on, or has direct access to, those through roads.	☐
(iv)	Rural:	Areas that are rural in nature, with large property or farm holdings. The only residential properties in these areas will be scattered homesteads and farmhouses.	☐

2. LENGTH OF ROAD

The length of road section is 0.85 km

3. UPPER LIMIT OF THE 15 km/h PACE

The upper limit of the 15km/h pace of free vehicles on this road section is 72 km/h

4. DEVELOPMENT (for divided roads only)

The development on both sides of the road is:

balanced	☑
unbalanced	☐

5. FREQUENCY OF ROADSIDE ACCESSES (for both sides of the road combined)

Note: (i) Abutting development on service roads is not considered and therefore only the points of access to the through traffic lanes are counted.
(ii) Cross-roads are counted once each side of the road.

Abutting properties

(a) Residences, small commercial establishments, small public buildings and other units which generate light and/or occasional activity.

Number of this type: Side 1 = 1 Side 2 = 16

(b) Average commercial establishments, local schools, caravan parks, light industries, public buildings and other units generating activity that is:

(i) continuous light

(ii) moderate at certain regular times, such as commuting hours

(iii) substantial at infrequent intervals

Number of this type: Side 1 = 0 Side 2 = 0

1

(c) Heavy industry, schools, shopping centres and other units generating
   (i) continuous moderate activity or
   (ii) substantial activity at certain regular times.

Number of this type: Side 1 = 0 Side 2 = 0

(d) Large shopping centres and other units generating substantial and continuous activity. Some large industries that are tourist attractions or for some other reason generate substantial traffic volumes would be included in this activity.

Number of this type: Side 1 = 0 Side 2 = 0

Intersections

(a) Intersecting roads of substantially lesser importance than the road being studied, or intersecting roads where side road traffic and turning movements have little effect on the traffic flow pattern of the road being studied.

Number of this type: Side 1 = 1 Side 2 = 4

(b) Intersecting roads of lesser importance than the road being studied but where side road traffic and turning movements are such that the intersection has appreciable effect on the traffic flow pattern of the road being studied.

Number of this type: Side 1 = 0 Side 2 = 1

(c) Signalised intersections, roundabouts and intersections with roads comparable to or of greater significance than the road being studied. Intersections which have a pronounced effect on the traffic flow pattern of the road being studied.

Number of this type: Side 1 = 0 Side 2 = 0

Note: (i) Abutting development on service roads is not considered and therefore only the points of access to the through traffic lanes are counted.
(ii) Crossroads are counted once each side of the road.

6. DIVIDED OR UNDIVIDED

The section of road being studied is:

- undivided ☑
- divided ☐

Note: (i) Double barrier lines do not constitute a median.
(ii) A painted median is sufficient to constitute a divided road if it extends for the full length of the section under consideration (excepting median breaks for turns, etc).

7. RESTRICTION OF ACCESS

The major part of this road has restriction of direct vehicular access on:

- neither side ☐
- one side ☑
- both sides ☐

Note: (i) This restriction may include service roads, river or railway line alongside the road or a large fenced-off area e.g. golf course, airport.

8. SETBACK

The setback of the through traffic lanes to the property boundary line is:

- less than 4 metres ☐
- 4-10 metres ☑
- more than 10 metres ☐

Note: (i) If development is balanced, the lower setback value should be used.
(ii) If development is unbalanced, the setback value for the more developed side should be used.

9. MEDIAN

The central median has a width of 0 metres

FORM F1: QLIMITS Field Data Form 2

10. PROTECTION OF TURNING/CROSSING VEHICLES

The median protects turning vehicles:

- fully ☐
- only partially or not at all ☑

11. NUMBER OF LANES

The total number of traffic lanes is 2 lanes

Note: (i) include through lanes in both directions.
(ii) do not include service roads or exclusive parking lanes.
(iii) if lanes are not clearly marked, count the number of lanes normally used by drivers during busy traffic periods.

12. FUNCTION OF ROAD

The main reason that vehicles use this section of road is:

- traffic movement ☐
- access to abutting properties ☑

13. ADJACENT ROAD SECTIONS

The speed limits on the adjoining road sections are: 60 km/h 60 km/h

14. FREEWAY

Is this road a motorway, freeway or expressway? NO ☑ YES ☐

15. LOW SPEED AREA

Is this road a low speed area?

- NO ☑
- YES (LATM area) ☐
- YES (shared-use zone) ☐

16. OTHER FACTORS

Is the road predominantly winding or hilly? NO ☑ YES ☐

Is the road unusually congested? NO ☑ YES ☐

17. SPECIAL ROADSIDE ACTIVITIES

Are there any schools along this road section? NO ☑ YES ☐

18. CASUALTY CRASH RATES

Compared to other similar road sections the casualty crash rate is:

- average or lower than average ☑
- a little higher than average ☐
- significantly higher than average ☐

Note: Care should be exercised when using historical crash rate data. Only use relevant data pertaining to crashes that have occurred whilst the road is in its current state. e.g. if an intersection has been signalised or a road recently reconstructed, only use crash data from the period following these changes.

19. TRAFFIC SIGNALS/ROUNDABOUTS

Are there any traffic signals or roundabouts along this road section? NO ☑ YES ☐

FORM F1: QLIMITS Field Data Form 3

Speed Limit Review – Queensland (SLR-QLD)
Detailed Assessment Report

Background Information

Analysed By: Stuart Harvey.
User Reference: Cherryfield Road, Rev. 1
Road Name: Cherryfield Road.
Road Location: Johnson Road to Glover Street.
Suburb: Gracemere.
GPS Start Point : 150.449, -23.458.
GPS Finish Point: 150.453, -23.465.
TMR Road Number:
Local Government: 258, Rockhampton Regional Council
Main Roads District: 6, Central
The need to review the speed limit on this road has occurred due to altered speed environment.
The length of the road section being assessed is 0.85 km
AADT on this road section is 843 vpd
The existing speed limit is 80 km/h.

Adjacent Speed Zones
Approach 1: 60 km/h - Johnson Road
Approach 2: 80 km/h - Cherryfield Road

Recommended Speed Limit:

60

Stage 1: Road function

This section of Cherryfield Road being assessed is located in a urban fringe area.
The road type is: Trunk Collector Roads and Collector Roads.
The Typical Speed Limit is: 60 km/h.
The Existing Speed Limit **does not** equal the Typical Speed Limit

Stage 2: Prevailing Traffic speed

Sample data on 9258 vehicles was analysed using ' '
The upper limit of 15 km/h pace is 72
The mean speed is 63 km/h
The 85th percentile speed is 76 km/h
Hence, the prevailing traffic speed data **does not** correlate with the existing Speed Limit

Stage 3: QLIMITS

The suggested speed limit based on the speed environment analysis was **60 km/h** after allowing for site specific issues.

Additional issues considered:

- The upper limit of pace speed of 72 km/h is significantly higher than the recommended speed limit of 60 km/h. This represents a significant difference between the current behaviour of drivers and the recommended limit. Further investigation should be undertaken.
- Speed environment was assessed (Stage 3 was completed).Answers to the Speed Environment questions were as follows:
  - Has a comprehensive road safety audit been completed? NO
  - Did the road safety audit highlight deficiencies that have not been corrected? NO
  - Was the road safety audit conducted more than 3 years ago? NO

- Is there a concern for pedestrian or cyclist safety along the road segment? NO
- Are there high risk intersections in the road segment? NO

Frequency of Roadside Accesses

	Type of access	Number
A	Residences, small commercial establishments, small public buildings and other units which generate light and/or occasional activity. (The weighting for this type of access is 1).	17
B	Average commercial establishment, local schools, caravan parks, light industries, public buildings and units generating activity which is either: 1. Continuous light. 2. Moderate at certain times, such as commuting hours. 3. Substantial at infrequent intervals. (The weighting for this type of access is 2).	0
C	Heavy industry, schools, shopping centres and other units generating continuous moderate activity or substantial activity at certain regular times. (The weighting for this type of access is 3).	0
D	Large shopping centres and other units generating substantial and continuous activity. Some large industries which are tourist attractions or for some other reason generate substantial traffic volumes would be included in this activity. (The weighting for this type of access is 4).	0
E	Unsignalised intersecting roads of substantially lesser importance than the road being assessed, or intersecting roads where side traffic and turning movements have little effect on the traffic flow pattern of the road being considered. (The weighting for this type of access is 1).	5
F	Unsignalised intersecting roads of lesser importance than the road being assessed but where the side road traffic and turning movements are such that the intersection has appreciable effect on the traffic flow pattern of the road being considered. (The weighting for this type of access is 2).	1
G	Unsignalised intersecting roads of comparable or greater significance than the road being assessed. Intersections which have pronounced effect on the traffic flow pattern of the road being considered. (The weighting for this type of access is 3).	0
H	Roundabouts and signalised intersecting roads. (The weighting for this type of access is 3).	0
	Average number of accesses per 100 m	2.82

Road Cross Section
The road is **Undivided**

Function of Road
The road is primarily used for **Access to abutting properties (Traffic carrying)**

Low Speed Area
There is no reason why this should be a low speed area.

Stage 4: Speed correlation check & recommendations

The speed limit based on road function is **60 km/h.**

The speed limit suggested by current speed data is **70 km/h.**
The speed limit suggested by the speed environment (QLIMITS) is **60 km/h.**

Recommendations and authorisation

THE RECOMMENDED SPEED LIMIT IS 60 km/h

FORM F3 CHECKLIST FOR REVIEW OF EXISTING SPEED LIMIT

Not required for setting speed limits on roads in rural residential areas. See MUTCD Part 4 Section 3.4.

LOCATION IDENTIFICATION

Road Owner: ☐ MRD ☒ LGA

District Number: 6 Central

LGA Number: 258

LGA Name: Rockhampton Regional Council

Town/City: Gracemere

Suburb: Gracemere

Road Name: Cherryfield Road

Road Section: Johnson Road to Glover St

Road Number: 006354

Road Segment:

	Location or Reference Point	Chainage or Distance	GPS Coordinates (decimal degrees)	
			Latitude	Longitude
Start	Johnson Road Intersection		150.449	-23.458
End	Glover St Intersection		150.453	-23.465

Existing Speed Limit: 80 km/h

AADT: 843vpd

REVIEWING OFFICER

Name: Stuart Harvey

Employer: Rockhampton Regional Council

Address: P.O. BOX 1860, Rockhampton City, 4700

Phone No: (07) 49368914

Date of Review: 14/05/14

Have you undertaken appropriate training in the application of Part 4? Yes ■ No ☐

Notes:

1. The numbering convention used for the Checklist coincides with that used in MUTCD Part 4 Figure F1.
2. References to Figures and Tables are to those in Part 4 of the Manual of Uniform Traffic Control Devices.
3. Mark following selections with a tick.

1

SPEED LIMIT REVIEW

1. The need to review the speed limit on this road has occurred due to:
   - ☐ General Limit no longer applicable
   - ☒ Altered speed environment
   - ☐ Evidence of speed limit/vehicle speed discrepancies
   - ☐ Need to adjust speed zone lengths
   - ☒ Community request
   - ☐ Other (specify) .....

Stage 1 – Road Function Analysis

2. Road Function

   If the road is in a rural environment, go to Step 3.

   For a road in an urban environment, the function of the road has been identified as:
   - ☒ Access / Local street
   - ☐ Collector street
   - ☐ Trunk collector road
   - ☐ Sub-arterial road
   - ☐ Arterial road
   - ☐ Controlled access arterial road, Freeway

   If rural, go to Step 3

3. From Table B1 (Urban) or B2 (Rural), the typical speed limit is: 60 km/h
4. The existing speed limit equals the typical speed limit?
   - ☐ Yes - go to Step 6
   - ☒ No - go to Step 5
5. Is it proposed to alter the road function to align the typical speed limit with the existing speed limit speed?
   - ☐ Yes - go to Step 18
   - ☒ No - go to Step 6

Stage 2 – Prevailing Vehicle Speed Analysis

6. Prevailing Vehicle Speed Data

(a) Collected using:
   - ☐ Manual methods
   - ☒ Automatic device (specify type) METROCOUNT ROAD COUNTER
   - ☐ Other (specify) METROCOUNT REPORT SOFTWARE

(b) Collected according to guidelines:
   - ☒ Specified in Appendix G
   - ☐ Other (specify) METROCOUNT REPORT SOFTWARE

(c) Analysed using:
   - ☐ EsdeeMan version 3.0
   - ☐ Manual methods
   - ☒ Other (specify) METROCOUNT REPORT SOFTWARE

(d) Results from analysis:

   No. of vehicles in sample 9258

   Upper limit of 15 km/h pace: 72 km/h

   % vehicles in the 15 km/h pace: 47.25 %

   85th %ile speed: 75.6 km/h

   Mean speed: 63

7. Speed data correlates with existing speed limit? (see Table C1)
   - ☐ Yes - go to Step 11
   - ☒ No - go to Step 7a

7a. From Table C2,

Suggested speed limit is: 70 km/h

Go to Step 8.

Stage 3 – Speed Environment Analysis

8. QLIMITS

(a) Field Data Form F1 (Appendix D):
   - ☐ Completed
   - ☒ Copy attached

FORM F3: Checklist for review of existing speed limit 2

(b) Analysis Report Form F2 (Appendix D):

☐ Completed

☒ Copy attached

(c) QLIMITS recommended speed limit

60 km/h

(d) QLIMITS flagged considerations?

☐ No

☒ Yes (see Report Form F2 (Appendix D))

Stage 4 – Correlation Check

9. Correlation check

(a) Outputs from each stage are:

Stage 1

Typical speed limit 60 km/h

Stage 2

From Table C2

Suggested speed limit 70 km/h

Stage 3

QLIMITS recommendation 60 km/h

(b) Is there a correlation between two of the three outputs from Stages 1, 2 and 3 above?

☒ Yes 60 km/h - go to Step 11

☐ No - go to Step 10

10. Have all data, QLIMITS input/output and road function been checked?

☐ No - go to Step 2

☐ Yes - go to Step 24

Other Criteria

11. (From Steps 7 and 9)

(a) The calculated casualty crash rate is:

0 * 10^4 ERUs per 10^8 VKT

(b) The typical casualty crash rates are:

Average: 1956.5 * 10^4 ERUs per 10^8 VKT

Critical: 2234.7 * 10^4 ERUs per 10^8 VKT

(c) The casualty crash rate / potential risk factor is comparatively:

☒ Low (=< Average)

☐ Medium (Between average and critical)

☐ High (>= Critical)

(d) Is casualty crash rate / potential risk factor high?

☐ Yes - go to Step 12

☒ No - Figure F1 leads to:

☐ Step 19

☒ Step 13

12. Crash investigation / road safety review or audit conducted by:

Name:.....

Date:.....

File/Report No: .....

Go to Step 15

13. Has the review process suggested an increase in the speed limit?

☐ Yes - go to Step 14

☒ No - go to Step 23

14. Has a safety review (or road safety audit) identified any risk factors?

☐ Yes - go to Step 16

☐ No - go to Step 23

15. Has a crash investigation or safety review identified causal or risk factors?

☐ Yes - go to Step 16

☐ No - go to Step 22

16. Is treatment feasible?

☐ Yes - go to Step 17

☐ No - go to Step 21

17. (From Step 16)

Proposed treatments / works have been listed for the financial year:.....

Go to Step 20

18. (From Step 5)

See Figure F1, Note 18

Go to Step 17

19. (From Step 11 via Step 7)

Retain existing limit - go to Step 25

20. Consider whether an interim alteration to the speed limit is necessary.

Go to Step 25

21. (From Step 16)

Subject to Figure F1 (Note 21), it is considered appropriate to:

☐ Increase

☐ Decrease

the existing speed limit by ..... km/h

Go to Step 25

22. (From Step 15)

Retain existing speed limit with enhanced enforcement.

Go to Step 25

23. (From Step 13 or 14)

Adopt speed limit noted at 9(b).

Go to Step 25

24. (From Step 10)

The review of speed limits according to the process described in Figure F1 has failed to determine an appropriate speed limit. Action taken is as follows:

(a) ☐ The Checklist, together with all relevant data and information, has been referred to the responsible officer for consideration.

Referred to: .....

By: .....

RPEQ No: .....

Date: .....

The responsible officer now has responsibility for providing recommendations at Step 25.

(b) ☐ Input to the review requested from the Traffic Advisory Committee (TAC)

Committee meeting of ...../...../..... offered the following information:

.....

.....

.....

.....

.....

and/or advised a preferred speed limit of:

..... km/h

(c) Has information provided by the committee assisted in determining an appropriate limit?

☐ Yes - it is..... km/h

Go to Step 25

☐ No - (a) I concur the following speed limit for the section of road under consideration: ..... km/h

Concurred by (TAC Chair): .....

.....

Date: .....

25. Recommendation by Engineer

Following the completion of this checklist, which documents the process for the review of speed limits according to Figure F1 of Part 4 of the MUTCD, I submit the following:

Recommended Speed Limit: 60..... km/h

Recommended by:

Name: .....

Position: .....

RPEQ No: .....

Date: .....

Authorisation for Deliberation

☐ The recommended speed limit is approved for deliberation in the SMC.

☐ The recommended speed limit is not approved for deliberation by the SMC for the following reasons:

.....

.....

.....

.....

.....

☐ The alternative speed limit to be discussed or retained is: ..... km/h

Reasons for the alternative speed limit are:

.....

.....

.....

.....

Authorised by: .....

Position:.....

(Responsible officer/Regional Director)

Date: .....

Endorsement by Speed Management Committee (SMC)

☐ The recommended speed limit has been endorsed by the SMC.

☐ The recommended speed limit has not been endorsed by the SMC and will now be sent back to the responsible officer for referral to the Speed Limit Review Panel (SLRP).

Recommendation by Speed Limit Review Panel (SLRP)

Following the deliberation by the SLRP, the chairperson will forward its recommendation to the responsible officer for consideration:

Recommended speed limit: ..... km/h

Recommended by:

Name:.....

(Chairperson SLRP)

Position:.....

RPEQ No:.....

Date:.....

Authorisation for Installation

☐ The recommended speed limit is authorised for installation according to the provisions of MUTCD Part 1, Appendix C.

☐ The recommended speed limit is not authorised for the following reasons:

.....

.....

.....

.....

.....

☐ The alternative speed limit to be installed or retained is: ..... km/h

Reasons for the alternative speed limit are:

.....

.....

.....

.....

.....

Authorised by: .....

Position:.....

(Responsible officer/Regional Director)

Date:.....

☐ Form M994 or equivalent local government Form completed by authorising officer and copy filed with this Checklist.

(Failure to complete this task could compromise the legality of the Speed Limit.)

26. Review / Evaluation

Will the existing speed limit be altered?

☐ Yes - program assessment to occur 1-4 weeks after installation.

☐ No - program for review in 5 years or sooner if required.

Where Steps 21, 22 or 23 have indicated that enhanced enforcement is required, complete the following:

Enhanced enforcement of this site by QPS has been requested by reporting the outcome for this speed limit review to:

☐ Local TAC (Traffic Advisory Committee)

☐ Regional Speed Management Advisory Committee

☐ Regional QPS Traffic Co-ordinator

Reported by: .....

Position:.....

Date:.....

☐ Written advice

☐ Other (specify).....

.....

.....

SPEED LIMIT REVIEWS - LUCAS STREET AND CHERRYFIELD ROAD

3E Committee Minutes 3 April 2014

Meeting Date: 2 July 2014

Attachment No: 7

Queensland Government

Minutes

Rockhampton Region 3E Committee meeting, Operational April 2014

Date Thursday, 3 April 2014 **Time** 10:40am – 11:40

Place DTMR Office, 31 Knight Street, Ground Floor Conference Room

Chair Jeff Van Nunen **Minute taker** Kath Ferguson

Attendees

DTMR	Jeff Van Nunen (JVN)	QPS	Ewan Findlater (EF)
DTMR	Colin Edmonston (CJE)	LSC	Deanna Robbie (DR)
DTMR	Simon Ross (SPR)	RRC	Stuart Harvey (SH)
DTMR	Pam Thomas (PT)	RRC	Corrie Claassen (CC)

Safety 2 minutes

- Jeff went through the evacuation procedure and building amenities

Apologies 2 minutes

- DTMR – Dave Grosse, Tracy Davis
- QPS – Ray Pimm
- RRC – Russell Collins, Ruwan Weerakoon, Jonathan Herron
- LSC – Phil McKone, Lorna Oliver

Approval of minutes from last meeting 2 minutes

- Approved via email

Outstanding actions from last meeting 5 minutes

Officer	Action
Deanne Robbie (LSC)	DR: **Barmaryee Road, Yeppoon**: a request has been received to move 80km/hr zone 200m so that the new Rail Trail is within the 60km/hr zone. **ACTION:** DR to send an email to committee members to request endorsement this change **Update:** As this speed zone change was discussed at the last meeting, LSC has implemented this change **Close out**

Officer	Action
Jeff Van Nunen (DTMR)	CJE: A person contacted CJE regarding Emmaus Collage, raising concerns regarding increase in students next year and currently traffic queuing up Yaamba Road. This has previously been discussed. If the school does not implement staggered finish times, there is nothing else that can be done. **ACTION:** JVN to give a copy to CJE of previous correspondence **Update 3/04/14:** JVN completed this action. **Close out.** CJE: The school has contacted CJE regarding capacity of school next year due to year 7 students starting at the school. **ACTION:** CJE to organise a follow-up meeting with the school

Agenda item 1 Speed Management 10 minutes

- *Action from 04/12/13*: Funding for "50 in My Street" Wheelie Bin stickers: **ACTION:** Request for members to email Lorna a suggestion of any streets for these stickers. *Update 6/3/14:* RRC have not ordered the stickers yet. CJE to discuss with LO to progress and handover to SH. **Update:** SH has investigated where this is at and RRC will purchase the stickers shortly and 20% of the purchase will go to Livingstone Shire for their distribution. RRC will be contacting residents of the nominated streets to see if they want to be involved. **Close out**

Agenda item 2 Speed Limit Reviews 5 minutes

- **Svendsen Road, Zilzie:**
  - **Background:** RRC recommends changing current 80km/h & 100 km/h speed zones to 80km/h from Seaspray residential development to Barrier Reef Drive. Draft Speed Limit Review submitted – no crashes identified. EF identified 5 crashes between 2008 and now, speed wasn't a contributing factor in any of them. JVN: Advised to not put a lot of emphasis on 85th percentile (existing speed) as the latest studies show that reducing speed regardless does improve safety. The 100km is too short and DTMR supports reducing the speed to 80km. **ACTION:** LO to progress **Update:** Progress to next meeting

- **Dairy Inn & Mt Chalmers Roads, Cawarral:**
  - **Background:** Residents seeking reduction of speed limit from 80km/hr to 60km/hr. Draft Speed Limit Review submitted. **ACTION:** LO to progress **Update:** Discussion on recent traffic crash on this road. Progress to next meeting

- **Park Street, Yeppoon:**
  - **Background:** Proposal by RRC to reduce speed limit to 40km/h from the intersection of Tanby Road/Park Street to the intersection of James Street/Braithwaite Street. **Committee decision**: supports this proposal. **ACTION:** LO will provide to the committee members the QLimits details and proposed signage plan. **Update:** Progress to next meeting

- **Gracemere Overpass Road**:
  - **Background:** Letter received from the Gracemere Industrial Committee requesting an increase from 60km/hr to 80km/hr. RRC has put the data through QLimits and recommendation is 80km/hr. SH to investigate why it was designed at 60km/hr. **ACTION:** If no issues come out of investigation into history of the current speed zone, SH will provide the new signage layout to committee members via email for endorsement. **Update 3/04/14:** SH provided a QLimits assessment which nominated a speed of 80km/hr. Charlie Lloyd-Jones (former DTMR project manager) advised SH that this section has been designed at 70km/hr with a posted speed of 60km/hr due to use by Road Trains. CJE advises this issue was raised at a recent community meeting. **Committee Decision:** Due to the use of the road by road trains and the speed the road was designed at, the speed zone should remain at 60km/hr. **Close out ACTION:** Joint response by DTMR & RRC to be arranged by CJE & SH

Agenda item 3 Media Profile 5 minutes

- Central Region Road Safety Week is now complete. Discussion on the police activity. EF advised that QPS will have to wait several months to see what the flow-on effects of the operation are. CJE advised that DTMR received positive media during this week. During the Truckie Reviver events a survey was provided to drivers and CJE is working on pulling this information together.
- Fatality Free Friday will be on the last Friday in May 2014. CJE is planning to make this a week long event.

Agenda item 4 Use of Webcrash for Blackspot Nomination 5 minutes

- **Background:** DTMR Blackspot Nominations rely on data outputs from Webcrash (previous 5 years required) however, Webcrash has not been updated since December 2009. Can DTMR provide guidance on the best way to proceed and provide advice on what crash data will be accepted? **ACTION:** This agenda item to remain and CJE will keep committee updated.
- Road Safety Interactive Map (Mapping tool) is now in use and CJE has held training workshops **ACTION**: For the next meeting, CJE and LO will develop a profile for each Council using the Road Safety Interactive Mapping tool. **Update:** Progress to next meeting
- SH to give some information to DR how to use Webcrash to get the information required. **ACTION:** CJE to discuss with DTMR officer Jarrath Ford regarding upcoming training and getting Council representatives to attend. **Update:** This training was held and SH gave some feedback on this. **Close out**
- Discussion on using the Globe function in Google Earth. **ACTION**: CJE & JVN to work out how DTMR staff can use this and then provide the opportunity to council staff to use
- Discussion on ARRB training **ACTION:** CJE to investigate

Agenda item 5 Active Signage (flashing lights) 5 minutes

- Remove this action from the standard agenda

Agenda item 6 Intersection of East & Fitzroy Streets 15 minutes

- **Background:** EF advised complaints received re: lengthy waits for traffic in East St and confusion as to who has right of way – pedestrians or vehicles.
- *Update 12/06/13:* Meeting was held with DTMR and RRC representatives. Outcomes: 1. change phasing of northern end of East Street to allow vehicles travelling straight through to mall to begin travelling first 2. Remove right turn lane from northern end of East Street as well 3. DTMR design to look at alignment of merge lanes onto the bridge 4. Reduce northern end of East Street to single lane from Archer Street to intersection
- *Update 12/06/13:* RRC consultation with property occupants has been completed. They suggested that DTMR look at changing lanes out of the mall: inside lane only turn right and outer lane through and left turn. Discussion on this suggested treatment identified issues, eg through lane would not line up and current traffic signal arrangement would not support this treatment.
- **ACTION:** LO to send to SPR a draft advice to councillors *Update 21/08/13:* Will be done nearer to the time of change
- **ACTION:** JVN to brief DTMR Design unit on alignment of merge lanes onto the bridge *Update 6/3/14:* DTMR Design Unit are now looking at the alignment of merge lanes onto the bridge
- *Update 6/3/14:* JVN gave an update. DTMR will trial the removal of the right turn from East Street (north) and then follow-up with altering the traffic light phasing to release the through vehicles from East Street (north) a couple of seconds before the vehicles travelling from East Street (south). DTMR will look at options for the slip lane but no action will be taken until if/when RRC changes the lane arrangements in East Street (north).
- *Update 3/04/14:* JVN is progress this, however, he believes that before we go ahead with this there is a need for public consultation. **ACTION:** JVN to discuss with DTMR Communications officer

Agenda item 7 Grammer School, South Rockhampton – traffic behaviours during pickup times at Quarry Street 10 minutes

- **Background:** Discussion on traffic behaviours along Quarry Street. The current arrangement on Archer Street does not work, as the gate where the children wait does not line up with the start of the car line queue. *Update 6/3/14:* SH has received 4 complaints regarding the intersection of Quarry Street and Archer Street. CJE has met with the Principal of Grammer School. The real issue is with cars queuing down Archer Street to try and turn left into Quarry Street and blocking vehicles travelling up Archer Street. **ACTION:** CJE to email SH (c/c Russell Collins) to request yellow lines to be placed on Archer Street to stop vehicles parking on the left hand side (facing up Archer Street). **Update:** SH advised that RRC will be starting a Road Reconstruction project in this area and he has ensured that this yellow line will be incorporated as part of this project. **Close out**

Agenda item 8 Road Safety Strategy 2012-2022 10 minutes

- Impact of deamalgamation of Rockhampton Regional Council & Livingstone Regional Council. Suggested that this document incorporates both Councils. **Decision:** Agreement **ACTION:** LO to create a draft document to present to this Committee at the next meeting **Update:** Progress to next meeting

Agenda item 9 Emu Park & Yeppoon 40km/hr signage 5 minutes

- Emu Park signage plan
  i. Committee reviewed the proposed drawing. **Committee Decision:** Endorse this signage plan *Update 4/12/13:* Will need be submitted to the new Council. **Update:** Progress to next meeting
- Yeppoon signage plan
  - LO: CR 208466 **Anzac Parade –** 40km/h area signage plan **Committee Decision:** Endorse the signage plan **Committee recommendation:** Anzac Parade near the skate park down to Ross Creek be included in the 40km/hr area *Update 4/12/13:* Will need be submitted to the new Council. **Update:** Progress to next meeting

Agenda item 10 Various items for Stuart/Ruwan to progress 5 minutes

- **Drop off to large culvert on Bajool-Port Alma Road:** Background: RSA 3036 identified a drop off to a large culvert on the outside of the horizontal approach curve on Bills Road which is concealed from traffic. For RRC action. **ACTION:** SH to discuss with Jeff Carter of RRC **Update 3/04/14:** RRC rural west crew have delineated the sides of the culvert **Close out**
- **Stay pole obstruction on Bajool-Port Alma Road:** Background: RSA 3036 identified a stay pole obstruction on the outside of the horizontal approach curve on Bills Road. For RRC action. **ACTION:** SH to discuss with Jeff Carter of RRC **Update:** The curve will be delineated with guide posts **Close out**
- **Locality Signs at Stanwell Weighpad:** Background: Unauthorised locality signs at Stanwell Weighpad installed by the RRC Communications Unit. These signs will be removed as part of a revamp of the weighpad signage. DTMR Design insists that these signs need to be removed and disposed of. **ACTION:** SH to take back to Michael Prior of RRC to investigate and to provide feedback to DTMR **Update:** SH progressing. These locality signs have probably already been removed as this agenda item has been here for a while. **Close out**

Agenda item 11 General Business 15 minutes

- SH: Speed Limit Review of Lucas Street between Johnson Road and Allen Road. QLimits review recommends 60km/hr and SH provided signage layout plans for this change. Discussion about the speed on Bland Street, Gracemere as well. **Committee Decision:** Committee endorsed this speed change from 70km/hr to 60km/hr **ACTION:** CJE & SH to organise a joint response to complainants

- SH: FYI: Toonda Road is currently sealed, however both approaches are gravel roads. RRC received a request for the sealed section to be signed at 50km/hr. SH reviewed RRC records and found that council proposed that this section of Toonda Road should be posted at 60km/hr as a consequence of the Limestone Operation. SH to raise works order to install 60km/hr signage
- CJE: Received a request to review the location of the 50km/hr sign on the Gavial-Gracemere Road near Conaghan Street due to a crest – move the sign it to the other side of the crest. **Committee Decision:** Leave the sign in its current location. **ACTION:** CJE to advise complainant
- CJE: Has been in discussions with Karen Peut of DTMR about the progress of the Bridge upgrade finding. Karen advised that a meeting with Federal officers regarding this funding will be held tomorrow and Karen will let CJE know of the outcomes.
- CC: FYI: QR will be working on the Glenmore Road crossing on 13 April 2014.
- PT: complaint received regarding School Zone in the St Ursula's College, Yeppoon. DR advised that LSC has already reviewed this site and there is sufficient signage at this location. **ACTION:** CJE to advise the complainant

Date of next meeting 2 minutes

The next meeting will take place on Thursday 1 May 2014 at the DTMR North Rockhampton office. It will be a Strategic focus meeting

8.3 POTENTIAL TRAFFIC MANAGEMENT DEVICES IN FOSTER STREET, DOUGLAS STREET AND MIDDLE ROAD GRACEMERE

File No:	**9718**
Attachments:	**1. Community Engagement Report - Potential Gracemere LATM**
Authorising Officer:	**Martin Crow - Manager Engineering Services** **Robert Holmes - General Manager Regional Services**
Author:	**Bruce Russell - Senior Infrastructure Planning Engineer** **Ruwan Weerakoon - Senior Infrastructure Planning Engineer**

SUMMARY

In May 2013 Council resolved to consult with residents and property owners in the rural residential area to the west of the Gracemere Industrial Area about the need for Local Area Traffic Management and possible Local Area Traffic Management treatments and locations of these treatments. This report presents the findings of this consultation and gives recommendations on the installation of Local Area Traffic Management devices.

OFFICER'S RECOMMENDATION

1. THAT Council receive the report titled *Potential Traffic Management Devices in Foster Street, Douglas Street and Middle Road Gracemere* and the attached *Community Engagement Report*.
2. THAT no traffic management devices be installed at Foster Street, Douglas Street or Middle Road (between Oxley Street and Stewart Street) as the 75% support required for a Local Area Traffic Management (LATM) device was not reached from the community survey.
3. That Council continue to regularly monitor traffic for possible speed violations and heavy vehicle misuses and notify the Queensland Police and the Department of Transport and Main Roads, as necessary, to take enforcement action.

COMMENTARY

Following the implementation of new multi-combination vehicle (MCV) routes in the area, a number of community complaints have been received from residents about MCV route violations at the western end of Foster Street between Oxley Street and Stewart Street. In May 2013 Council resolved to undertake community engagement regarding the possible implementation of Local Area Traffic Management (LATM) devices.

The objective of the engagement was to fully understand the concerns of residents and property owners about the traffic in the area and determine whether they saw a need for the installation of traffic management devices. Council sought responses from the owners and tenants of 31 properties on Douglas Street, Middle Road, and Foster Street. Figure 1 below shows the properties that were targeted as part of the consultation.

Figure 1: Map of consultation area.

A letter was sent to residents and property owners on 17 March 2014 outlining the issue and inviting them to book in a time for a one-on-one consultation. Only 14 people representing 16 properties took up that opportunity in the first instance. Council sent follow up letters and hard copy surveys to those remaining residents and owners in mid-April and follow up calls were made. Many of the residents contacted during the follow up remarked they did not respond because they had no real issues. While most were happy to talk, their responses were considerably varied. In total, 19 respondents completed the survey through one on one interviews, 4 completed the survey over the phone and 3 completed the survey in paper based copy.

The total response for the consultation was 26 respondents out of 31 which represent an 83.8% response rate. Of those who responded, only 42.3% of respondents indicated that the installation of traffic management devices were the best solution. This is significantly less than the 75% support required for Local Area Traffic Management devices as per Council's Local Area Traffic Management Procedure (No. PRO.12.2).

Of the responses received by Council, there was not a general consensus on the activities that demonstrated the need for LATM devices. The three main activities that concerned residents were speeding vehicles, movements from B-Doubles or larger and movements from semi-trailers or smaller heavy vehicles. Figure 2 below shows the spread of responses from all respondents regarding the activities that, in their opinion, demonstrate the need for LATM devices.

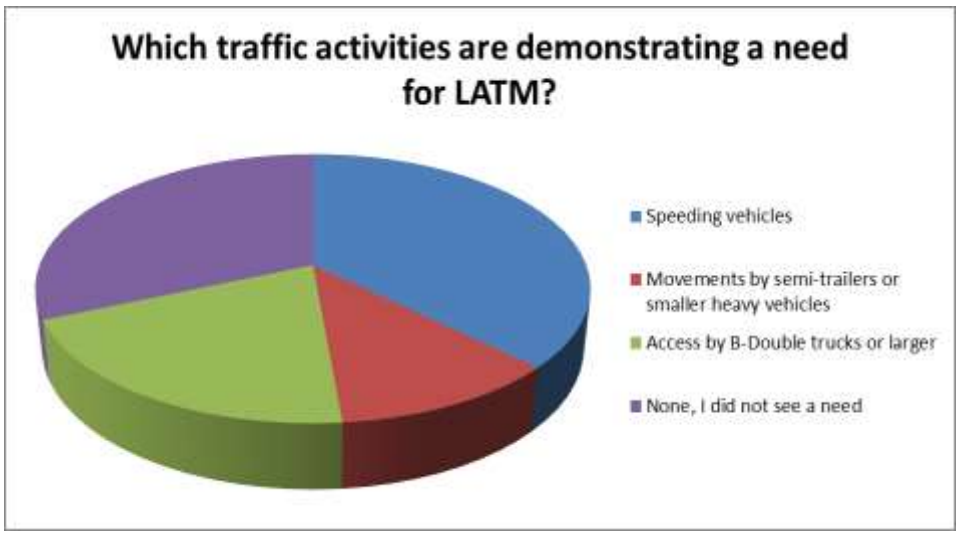


Figure 2: Respondents responses regarding activities demonstrating the need for LATM

Speeding Vehicles

Speeding vehicles was the most prominent traffic issue identified by respondents. Traffic counters have been installed several times in Foster Street, Douglas Street and Middle Road to gain a reliable measure of traffic volumes and speeds in the area. A summary of the data collected is found in Table 1.

Road	Count Location	Count Date	Posted Speed (km/h)	% Vehicles Exceeding 10% of the Speed limit	85th% Speed (km/h)
Foster St	Opposite 63 Foster St	7/05/14 – 13/06/14	60	29.2%	70.9
Douglas St	Opposite 53 Douglas St	21/05/14 – 13/06/14	60	26.1%	70.2
Middle Rd	Opposite 217 Middle Rd	21/05/14 – 13/06/14	60	44.7%	74.5

Table 1: Speed Data for Foster St, Douglas St and Middle Road

A percentage of vehicles exceeding the speed limit greater than 20% would be considered as high in a built-up urban environment, however in a rural or industrial area this is not considered excessive. Figure 3 compares the percentage of vehicles exceeding the speed limit on Foster Street, Douglas Street and Middle Road with 15 similar rural and industrial type roads in the region. The figure shows Foster Street and Douglas Street are slightly less than the average recorded for the region. Middle Road is slightly higher than the average however this is believed to be associated with the previous reduction in speed limit from 80 km/hr. The speed limit and speeding issues in Middle Road is also discussed in a separate Road Safety Audit report to the Infrastructure Committee.

The reasons for exceedance of the speed limit in these rural and industrial areas is mainly due to prevailing conditions of low traffic volumes, small numbers of property accesses, generally good road geometry and low levels of policing.

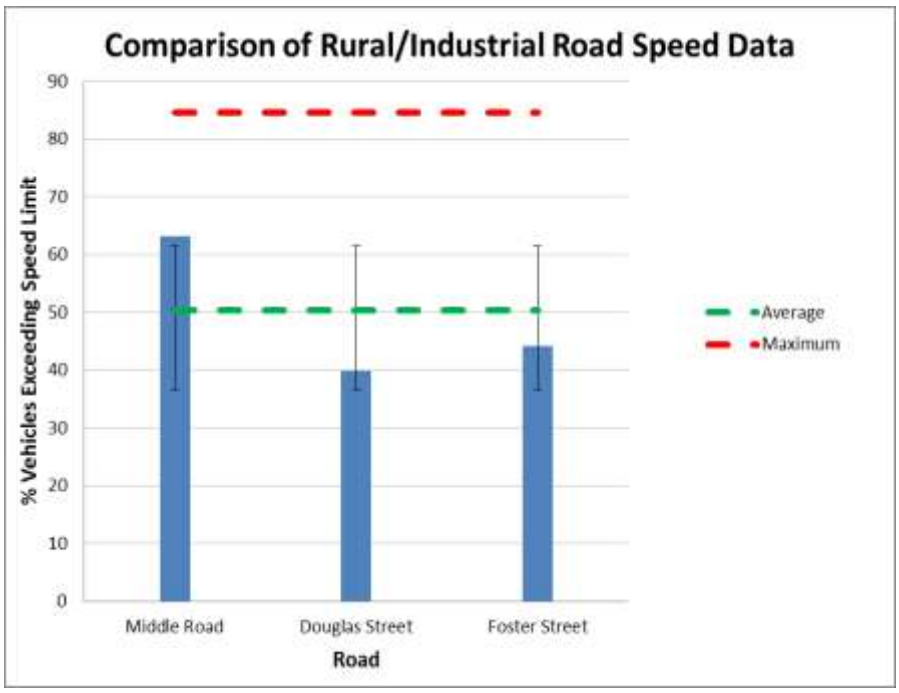


Figure 3: Speed data comparison for rural/ industrial roads in Rockhampton Region against surveyed roads.

Council receives a large number of customer requests relating to speeding vehicles every year. As speeding is a widespread issue, roads are generally monitored after a complaint and action is not taken until several complaints are made from residents.

The speed limit in Stewart Street was raised by several respondents in the survey as seen in the attached consultation report. There was a request to decrease the speed along Stewart Street to 60km/hr or 70km/hr. This matter has been reviewed as a part of the separate Road Safety Audit Report.

Access by B-Doubles or Larger

Since the alteration of the multi-combination vehicle routes in the Gracemere Industrial Area in May 2013, Council have received complaints that heavy vehicles are still disobeying the new routes and continuing to use Foster Street, Douglas Street and Middle Road as a multi-combination vehicle route. Part of the traffic data collected during counts includes vehicle class. This allows analysis of the percentage of B-Double or longer vehicles on these roads. This data is summarised in Table 2 below and it is evident that the volume of B-Double and longer vehicles using these roads is very low.

Road	Count Location	Count Date	% B-Double and Larger Vehicles
Foster St	Opposite 63 Foster St	7/05/14 – 13/06/14	0.4%
Douglas St	Opposite 53 Douglas St	21/05/14 – 13/06/14	0%
Middle Rd	Opposite 217 Middle Rd	21/05/14 – 13/06/14	0.02%

Table 2: Percentage of B-Double and Larger Vehicles

There is a common public misconception that a truck with a short trailer, known as a dog, is a B-double. The general rule enforced by Department of Transport and Main Roads is any vehicle larger than a 19m semi-trailer is required to adhere to the multi-combination vehicle routes. There are cases where heavy vehicles larger than 19m can operate outside a multi-combination route however these are usually only if permitted by the road authority.

Movements of Semi-Trailers or Smaller Heavy Vehicles

Several respondents stated that a contributing issue to the need for LATM devices is the movement of semi-trailer and smaller heavy vehicles. Of those surveyed in the May consultations, one resident from Douglas Street, one resident from Stewart Street and two residents from Foster Street claimed that movements by semi-trailers or smaller heavy vehicles were a contributing factor to their request for LATM devices.

The *Guideline for Multi-Combination Vehicles in Queensland* (Version 11 July 2013) states that vehicles up to 19m are allowed to travel on any road in Queensland. Due to the close proximity to the Gracemere Industrial Area and rural nature of the area, heavy vehicles (up to 19m long) are more prevalent in Foster Street, Douglas Street and Middle Road.

Table 3 shows the proportion of commercial vehicles on each street, from the recent traffic counts performed in May-June.

Road	Count Location	Count Date	AADT	% Commercial Vehicles
Foster St	Opposite 63 Foster St	7/05/14 – 13/06/14	104.3	29.70%
Douglas St	Opposite 53 Douglas St	21/05/14 – 13/06/14	76.8	9.10%
Middle Rd	Opposite 217 Middle Rd	21/05/14 – 13/06/14	227.1	4.90%

Table 3: Percentage of Commercial Vehicles (Including B-Double and Larger Vehicles)

These values are not significantly different from other rural roads or roads adjacent to an industrial area in the Rockhampton Region.

Installation of Local Area Traffic Management Devices

As part of the Council resolution from May 2013 it was stipulated that Council prepare preliminary design and layouts for potential traffic management devices to reduce speeds and restrict any access by B-Double or longer vehicle configurations. Consultation with residents asked several questions about the respondent's opinion of the purpose of traffic calming devices in the Gracemere area.

Survey participants were asked "Should a traffic management device be installed in your street the aim will be to restrict access by B-Double or larger vehicle configurations. Do you believe these vehicles are currently causing problems in your street?" Table 4 shows the responses to this question, and it is apparent that B-Double or larger vehicle configurations are not seen as the main cause of problems in each street.

This data combined with the data shown in Figure 2 indicate that majority of residents either do not see a need for LATM devises or see a need for LATM devices to slow passenger vehicles and restrict heavy vehicles up to 19m long.

Response	Response %	Response Count
Yes, they are the only types	0.0%	0
No, there is not a problem	61.5%	16
Yes, however other types of vehicles are causing problems too	26.9%	7
No, other types of vehicles are causing problems	11.5%	3

Table 4: Response to Question: "Should a traffic management device be installed in your street the aim will be to restrict access by B-Double or larger vehicle configurations. Do you believe these vehicles are currently causing problems in your street?"

When questioned about a possible location for traffic management devices in Foster Street, Douglas Street and Middle Road, 56.5% of respondents thought it should be installed closer to Stewart Street and 30.4% stated that LATM devices should be located closer to Oxley Street. 13% of respondents thought any LATM devices constructed should align with a property side boundary, however 0% of respondents stated that they would be happy to have a LATM device at the front of their property.

LATM devices installed to address the issue of speeding vehicles in Foster Street, Douglas Street and Middle Road would need to allow vehicles of up to 19m in length to travel along these roads. 46.2% of respondents indicated that traffic management devices may impact vehicles requiring access to properties in these streets. Furthermore, in line with the Department of Transport and Main Roads *Manual of Uniform Traffic Control Devices* (MUTCD), speed humps should not be installed in isolation but at a spacing of 80m to 120m.

Foster Street, Douglas Street and Middle Road all have a minimum seal and a deteriorating road condition. Due to these road conditions, the installation of any temporary traffic calming devices would prove problematic as the hold down bolts used to position the speed humps are not likely to grip into the road base. As a result, concrete footings would be required to be constructed before any temporary speed humps can be installed. This is likely to add significant labour and materials to the construction costs.

Recommendation

Council officers recommend that no further action be taken on the matter of LATM devices at this time. However, regular monitoring of heavy vehicle movements and speed should continue with violations reported to the relevant authority for enforcement action.

Overall, the percentage of B-Double or longer vehicles violating the MCV routes is less than 1% and the percentage of commercial vehicles on these streets is no greater than would be expected in any rural or industrial area.

The occurrence of vehicles exceeding the speed limit in this area is below the average percentage recorded for similar road types in the Rockhampton Region. The average volumes of traffic on Foster Street, Douglas Street and Middle Road are low at 104, 77 and 227 vehicles per day respectively.

In the comments from the public consultation, several respondents suggested that the money allocated to LATM devices would be better spent on improving the quality of the roads in the area.

BACKGROUND

Foster Street and Douglas Street conform approximately to the *Capricorn Municipal Development Guidelines* (CMDG) standard for a rural access standard. This road configuration has a 6.5m pavement width and is not required to be sealed under CMDG standards. This is due to the low volumes, of less than 150 vehicles per day, on these streets.

Foster Street and Douglas Street were sealed under the former Fitzroy Shire Council after 2003 as a maintenance response to several dust and corrugation complaints. Foster Street experiences a daily traffic volume of 104 vehicles per day with a peak hour volume of 9 vehicles per hour and Douglas Street has a daily traffic volume of 77 vehicles per day with a peak hour volume of 7 vehicles per hour.

Middle Road conforms approximately to a Rural Minor Collector standard under the CMDG guidelines and has a 6.0m seal and approximately an 8m pavement width. Middle Road has a daily traffic volume of 227 vehicles per day with a peak hour volume of 20 vehicles per hour.

The Gracemere Overpass project was opened on the 27 May 2013, providing a Multi-combination vehicle route over the Capricorn Highway. Earlier in May 2013 Council resolved to alter the multi-combination vehicle routes in the Gracemere Industrial Area after the completion of the Gracemere Overpass project to remove the existing B-double routes in Foster Street and Douglas Street between Oxley Street and Stewart Street.

In October 2013, a series of signs were installed at the end of the MCV routes indicating the end of the B-Double or Road Train Route. Since then Council has continued to receive complaints regarding heavy vehicles disobeying the proposed MCV routes and further reports of speeding vehicles.

The *Manual of Uniform Traffic Control Devices* (MUTCD) Part 15 Section 3.2 indicates that Local Area Traffic Management Schemes can only be applied where the speed limit is 50 km/h or less and are generally only applied in urban areas. The 50 km/h threshold is likely to relate to potential damage to vehicles at higher speeds. Local Area Traffic Management Schemes can include speed humps, spaced at between 80 and 120 metres, and horizontal displacement treatments such as chicanes or slow points spaced at around 300 metres. In all instances, these traffic calming devices need to be lit and appropriately signed.

PREVIOUS DECISIONS

As a result of the Gracemere Industrial Area Traffic Survey, on 12 May 2013 Council made a resolution on the following matters:

1. THAT Council adopt the proposed multi-combination vehicle routes identified as Option A in the Gracemere Industrial Area Truck and Heavy Vehicle Survey and attached to this report.
2. THAT Council adopt the proposed speed limits in the Gracemere Industrial Area Truck and Heavy Vehicle Survey and attached to this report, with localised speed zones around any approved traffic management devices with the exception of Stewart Street and a further report be presented.
3. THAT Council include the construction of a crushed granite pedestrian pathway on the eastern side of Stewart Street from Somerset Road to Boongary Road at an estimated cost of $75,000 in the 2013-14 capital budget.
4. THAT Council prepare preliminary design and conceptual layouts of potential traffic management devices at the western end of Foster Street, Douglas Street and Middle Road, that seek to reduce speeds and restrict any access by B-Double or longer vehicle configurations.
5. THAT Council **consult with property owners on the need and preferred location of these devices, on the basis of the preliminary design and conceptual layouts**.
6. THAT Council allocate $150,000 in its 2013-14 capital budget for works associated with this matter.
7. THAT a review of the stop signs of Macquarie Street and Middle Road be conducted.

BUDGET IMPLICATIONS

After the Gracemere Industrial Area Traffic Survey report was presented to council, a Council resolution was moved to allocate $150,000 in the 2013-14 capital budget for works associated with traffic management devices in the western end of Foster Street, Douglas Street and Middle Road.

The cost of the installation of traffic management devices can range from $15,000 to more than $100,000 depending of the treatment type, available lighting and other design consideration.

RISK ASSESSMENT

There is a risk that any one of the safety issues identified in the public consultation could cause an incident.

CORPORATE/OPERATIONAL PLAN

3.1.1 Consult on, advocate, plan, deliver and maintain a range of safe urban and rural public infrastructure appropriate to the Region’s needs, both present and into the future.

CONCLUSION

Foster Street, Douglas Street and Middle Road have relatively low levels of traffic of between 75 and 230 vehicles per day. Between Oxley and Stewart Street they generally function as rural access roads.

The public consultation has shown there is a wide variation of views on heavy vehicles and speeding within the area bounded by Stewart Street, Somerset Road, Oxley Street and Middle Road. The results indicate there is insufficient support for the installation of traffic management devices to restrict B-Doubles and larger vehicles. There was some agreement the prevailing traffic speed is of concern, however the figures do not indicate the problem is sufficiently higher than the average exceedance elsewhere to warrant LATM installations in the three rural access roads at this time.

The recommendations are now presented to Council for consideration and adoption.

POTENTIAL TRAFFIC MANAGEMENT DEVICES IN FOSTER STREET, DOUGLAS STREET AND MIDDLE ROAD GRACEMERE

Community Engagement Report - Potential Gracemere LATM

Meeting Date: 2 July 2014

Attachment No: 1

Potential Traffic Management Devices in Gracemere

Community Engagement Report

May 2014

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Background

Rockhampton Regional Council has recently undertaken community consultation with property owners on Foster Street, Douglas Street, and Middle Road, Gracemere in regards to potential installation of Traffic Management Devices in their streets. The intent of these devices is to reduce speeds and physically restrict access by B-Doubles or longer vehicle configurations in the above mentioned streets. Community consultation was undertaken as a result of a Council resolution on 12 May 2013 depicting:

THAT Council prepare preliminary design and conceptual layouts of potential traffic management devices at the western end of Foster Street, Douglas Street and Middle Road, that seek to reduce speeds and restrict any access by B-Double or longer vehicle configurations.

THAT Council consult with property owners on the need and preferred location of these devices, on the basis of preliminary design and conceptual layouts.

Moved by: Mayor Strelow
Seconded by: Councillor Fisher

The objective of the engagement was to determine whether property owners saw a need for the installation of traffic management devices at the western end of Foster Street, Douglas Street and Middle Road in accordance with Council's Local Area Traffic Management Procedure (No.PRO.12.2).

Target Audience

The target audience for the consultation was property owners located on the western end of Foster Street, Douglas Street, and Middle Road, Gracemere. The red border in the map below depicts the 31 targeted properties.

Executive Summary

A letter was sent to all affected residents and property owners on 17 March 2014 outlining the issue and inviting them to book in a time for a one-on-one consultation. As a result, 14 property owners booked in a time and took part in a one-on-one consultation with Council officers, and either Councillor Tony Williams or Councillor Ellen Smith during late March and early April.

Council sent follow up letters and hard copy surveys to those remaining residents who did not book in a consultation session in mid-April and follow up calls were made. A further six surveys were completed through the initial follow up actions. Additional follow up actions were carried out in early May to as there were indication that some had not responded due to the Easter break, resulting in a further 6 survey responses. Upon finalisation of the consultation, 19 respondents completed the survey through one on one interviews, 4 completed the survey over the phone and 3 completed the survey in paper based copy.

Total response for the consultation was 26 respondents out of 31 which represent an 83.8% response rate. When considering the statistical confidence, this represents a 95% confidence level with a confidence interval 7.5 (based on the remaining Regional population of approx 80,000).

Main Messages from respondents

- The 75% support required for a Local Area Traffic Management (LATM) device was not reached.
    - 42.3% of all respondents indicated that the installation of a traffic management device is the best solution.

- There is a mixed response to what traffic activities demonstrate the need for traffic management devices in the area.
    - Speed is a concern for residents in the identified area
        - 13 out of 31 respondents indicated speeding as the traffic activity requiring the need for potential installation of traffic management devices in the respondent's street last year.
        - 13 out of 31 respondents indicated speeding is still occurring in the respondent's street.
    - However, 11 out of 31 respondents indicated that they did not see a need for traffic management devices.

- B-Double or larger vehicles are not believed to be causing traffic problems.
    - 61.5% of all respondents indicated that they do not believe B-Double or larger vehicles are causing the problems in their street.
    -

- Should a traffic management device be installed, the majority believe it should be delayed until after forecasted road works and just over half of respondents indicated it should be located closer to Stewart Street.
    - 56.5% of all respondents indicated that they believe a traffic management device should be located closer to Stewart Street.
    - 80.8% of all respondents indicated that should a traffic management device be installed it should be delayed until forecasted road works are completed.

- Many respondents supplied additional comments in relation to the survey.

Survey - Overall Responses

Question 1 - In 2013, Council resolved to consult with property owners on the need and preferred location of potential traffic management devices at the western end of Foster Street, Douglas Street and Middle Road to reduce speeds and restrict access by B-Double or longer vehicle configurations.

What traffic activities demonstrated the need for potential installation devices in your street last year? (Multiple choice – more than one option could be selected)

	Response %	Response Count
Speeding vehicles	50.0%	13
Movements by semi-trailers or smaller heavy vehicles	7.7%	2
Access by B-Double trucks or larger	26.9%	7
None, I did not see a need	42.3%	11
Other (please specify)		5
• Vehicles using street as racetrack and testing.		
• 80km/hr Stewart Street. Street isn't wide enough for heavy vehicle (B-Double. 40m wide affects shed.		
• I did not see a need.		
• Owner has not noticed an increase in activities in the past 1-2 years (between Oxley St and Stewart St).		
• Vehicles from 45 Douglas St using Street as racetrack and vehicle testing.		

Question 2 – Which traffic activities are still occurring in your street?
(Multiple choice – more than one option could be selected)

	Response %	Response Count
Speeding vehicles	50.0%	13
Movements by semi-trailers or smaller heavy vehicles	15.4%	4
Access by B-Double trucks or larger	26.9%	7
None, I do not see a need	42.3%	11
Other (please specify)		6
• Owner notes a few speeding vehicles from time to time but not a significant issue.		
• Speed along Stewart St is still an issue (70km/hr)		
• Prime movers driving backwards and forwards to hitch up or leave their trailers at the truck yards in the industrial area.		
• Irregular hooning		
• Increase in traffic since overpass.		

Question 3 – How frequently do these traffic activities occur?

	Response %	Response Count
Less frequently this year	38.5%	10
The same as last year	19.2%	5
More frequently this year	11.5%	3
Occur irregularly or not at all	30.8%	8
Other (please specify)		3
• Foster St is used by many large trucks and trailers as a convenient short cut to access the west and/or to fuel up at the Caltex Service Station on corner of Somerset Rd and Macquarie St.		
• Less since routes implemented.		

Question 4 – What hours of the day do these traffic activities occur?

	Response %	Response Count
During the day	11.5%	3
Late at night/early morning	26.9%	7
Both	38.5%	10
They do not occur	23.1%	6
Comments:		6
• Trucks - late at night/early morning.		
• Irregular - speeding.		
• All this heavy vehicle traffic use this street 24/7. The noise of big engines, air and exhaust breaks is deafening. Also diesel and exhaust fumes are definitely an unpleasant pollutant for residents.		
• Mostly 5-7am out and 3-5pm back in.		
• Early morning, late afternoon servo traffic.		
• Trucks - late at night/early morning.		

Question 5 – Do you believe there was an increase in these activities during the time of works on Somerset Road?

	Response %	Response Count
Yes	53.8%	14
No	46.2%	12

Question 6 – Should a traffic management device be installed in your street, the aim will be to restrict access by B-Double or larger vehicle configurations. Do you believe these vehicles are currently causing the problems in your street?

	Response %	Response Count
Yes, they are the only types	0.0%	0
No, there is not a problem	61.5%	16
Yes, however other types of vehicles are causing problems too	26.9%	7
No, other types of vehicles are causing problems	11.5%	3
Other (please specify)		5
• Semi-trailers and smaller heavy vehicles		
• If road was wider, not much of issue (sealed)		
• Semi-trailers at intersection. They are slowing down. Not really a problem.		
• Large anti-elated (sp) low-loaders of up to 40-50 wheels carrying large machinery. Gravel and soil trucks and trailers - tankers - scrap metal trucks - cattle trucks - prime movers.		
• If road was sealed wider, issue is not a problem.		

Question 7 – Should a traffic management device be installed in your street, where do you believe it should be situated?

	Response %	Response Count
Closer to Stewart Street	56.5%	13
Aligned with a property side boundary	13.0%	3
Closer to Oxley Street	30.4%	7
In front of my property	0.0%	0
Other (please specify)		8
• Entry statement preferred treatment.		

• Having a traffic management device close to these two streets will prevent trucks entering the residential street, which is what residents, such as ourselves, want done as drivers are only using this road as a convenient shortcut, all day - every day! Wording on road signs should be changed to include all large trucks.
• Can turn at Cedar Street
• Between 30 and the corner. Long speed hump. Better use of money.
• Definitely not in front of our property! This is a rural residential area. Trucks, tractors, school buses, work buses and others need to use Middle Road. We also need clear access to our property.
• ALL of the above

Question 8 – Should a traffic management device be installed in your street, do you believe installation should be delayed until forecasted road works in your area are complete?

	Response %	Response Count
Yes	80.8%	21
No	19.2%	4
Comments:		3
• We are not aware of any forecasted road works.		
• Traffic from industrial doesn't impact here. So traffic management wouldn't be impacted by works.		
• There will, no doubt, be an increase of trucks down Foster St during the proposed road works, but once finished, all trucks should then use the designated route down Somerset Rd and be denied access to these residential streets at all times.		
• We do not believe a traffic management device is necessary at any time.		

Question 9 – Should a traffic management device be installed in your street, will any impact be made to vehicles requiring access to your property?

	Response %	Response Count
Yes	46.2%	12
No	53.8%	14
Comments:		9
• Horse floats etc		
• Horse float usage and tandem tipper.		
• Not if it is installed at one end only of street (Stewart and Douglas)		
• Long horse floats and trailers.		
• Traffic management devices will only impact those residents who are currently operating businesses with trucks in a residential area, or want to continue parking working trucks in a private property in the residential area.		
• Low loader to property. Slow point will stop it.		
• We, living on a rural residential property, we own 14m long vehicle which we use regularly and this proposal would impact greatly on us.		
• Has gooseneck trailer however he realises larger vehicles [for eg. renovation trucks] will need access so his trailer probably won't be affected.		
• Not if it's positioned to give good clearance from gates		

Question 10 – Do you believe the installation of a traffic management device in your street is the best solution to the problem?

	Response %	Response Count
Yes	42.3%	11
No	23.1%	6
There is no problem	34.6%	9
Comments:		4
• The installation of entry statement would stop B-Doubles.		
• Money needs to be spent on road maintenance and upgrades.		
• No (Speeding) (No for slow point). Long speed hump would solve problems, allow access but stop speeding.		
• Spend the money elsewhere, improve the condition of the road.		

Break down of Question 10 responses by street groupings:

Douglas Street

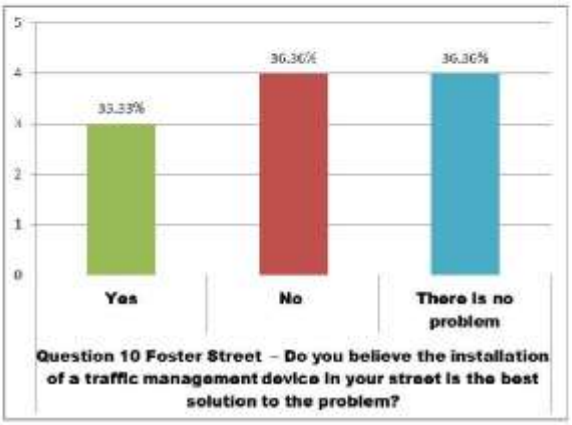
Question 10 – Do you believe the installation of a traffic management device in your street is the best solution to the problem?

	Response %	Response Count
Yes	44.44%	4
No	22.22%	2
There is no problem	33.33%	3

Foster Street

Question 10 – Do you believe the installation of a traffic management device in your street is the best solution to the problem?

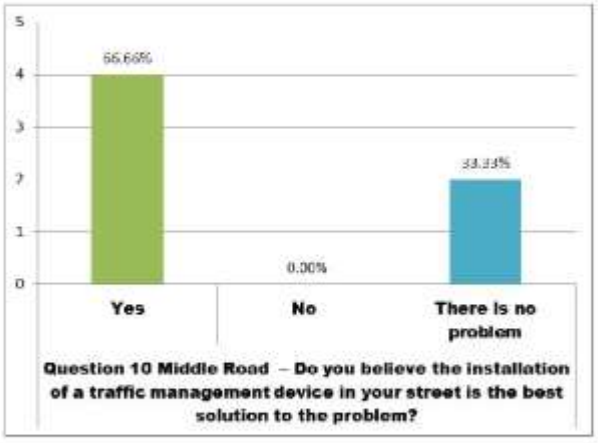
	Response %	Response Count
Yes	33.33%	3
No	36.36%	4
There is no problem	36.36%	4



Middle Road

Question 10 – Do you believe the installation of a traffic management device in your street is the best solution to the problem?

	Response %	Response Count
Yes	66.66%	4
No	0%	0
There is no problem	33.33%	2



Question 11 – Do you have any other comments or suggestions?

- Wider road although road is reasonable at present; not too many shoulder problems.
- Occasional speeding from young people in adjacent property. Potholes on shoulder of the road. Dirt on road at Macquarie / Douglas intersection. 60km sign missing Middle Road should be fixed (Capricorn to Macquarie).
- No issues. The reason no consultation was requested was there was no perceived problem that needed to be addressed.
- *Picture was drawn*. Traffic management device suggestions. Small concrete island with KEEP LEFT sign at each end. On Douglas Street and the Stewart Street end.
- Uniforms in same place in each street - keep pathway - 60km/ph speed on Stewart St
- Stress a 70km/hr speed zone on Stewart Street. Ideally 60km/hr.
- Move signs to other side of intersection.
- The property is vacant and owners lives elsewhere. It is an investment property. Overall response was 'don't want any traffic devices' but questionnaire not answered.
- The trucks that comes down the residential end of Foster St do so because it is a convenient shortcut for the drivers. They have no need what so ever as they have their designated truck route on Somerset Rd. This street is not suitable for heavy vehicle traffic, having a narrow bitumen strip with a thin dirt verge. It is unsafe having such big trucks coming down the road as sometimes speeds well over the safe level, not to mention the noise and fumes from the exhausts and diesel. The wording on the signs should include other large trucks, well only B-doubles. A physical detour such as the one in Port Curtis is needed at the junction of Foster and Stewart St and Oxley St so as to physically deter large trucks as the signs alone are and will be ignored by drivers.
- Low loaders - large ones with dolly - Speed (trucks) *Mentioned company names*.
- Long extended speed hump - still allow heavies. Works on Foster/Macquarie intersection should be closed to allow quicker construction, rather than 1 lane.
- The response was received on 22/4/14 after returning from leave. He has noticed no change in traffic in the past 1-2 years outside his property. Yes, there are speeding vehicles from time to time and the occasional heavy vehicles, but no significant or noticeable change. The biggest change in traffic has been the increase in volume in Middle Road up to Macquarie Street where most traffic turns right into GIA.
- Corner Macquarie and Middle Road intersection - on Macquarie St (Johnson leg) - often pothole and slippery bitumen Maintenance issue.
- Kangaroo sign on Middle Rd - both ends - near Oxley & Stewart. Stop signs - swap Middle/Macquarie.
- Against footpath construction.
- Keep pathing in Stewart St - Uniform location in each street - 60kph in Stewart St.

8.4 MALONEY STREET BUS SET-DOWN PROPOSAL

File No:	**8054**
Attachments:	**1. Maloney Street Concept Plan** **2. DEET Letter**
Authorising Officer:	**Robert Holmes - General Manager Regional Services**
Author:	**Martin Crow - Manager Engineering Services**

SUMMARY

Council has been approached by the Department of Education and Training requesting Council to fund as a matter of urgency the construction of a new bus set-down area and interchange in a proposed road corridor extending Maloney Street from McLaughlin Street to Yaamba Road. This report provides a brief history of the issue to date and seeks the Committee's endorsement to seek State Government support to progress this matter.

OFFICER'S RECOMMENDATION

1. THAT all stakeholders previously involved in discussions regarding the proposed bus set-down area be advised that the Maloney street Bus set-down solution is not considered an affordable or cost effective solution to the issues raised and is unlikely to proceed without significant funding support from the State Government and other major stakeholders;
2. THAT the State Government through the Department of Education and Training and the Department of Transport and Main Roads and other major stakeholders be requested to advise their willingness to commit significant funds towards the proposed Maloney Street bus set-down solution;
3. THAT Council continue to work with the State Government and major stakeholders on determining whether there are other more cost effective solutions to the issues raised.

BACKGROUND

The Maloney Street connection was first considered by Council in 2006 after Main Roads had agreed to the installation of a set of traffic lights on Yaamba Road to facilitate the commercial / high density residential portion of the Forest Park Estate Development.

Two options were considered at that time, one being a connection from Alexandra Street to Yaamba Road following the Maloney Street alignment and the second option used the existing Maloney Street road reserve between Yaamba Road and McLaughlin Street and then connecting to Alexandra Street via McLaughlin Street and an overbridge at Werribee Street.

The objectives of the link were to provide an improved Heavy Vehicle access into the Parkhurst Industrial areas and to reduce Heavy Vehicle traffic on Carlton and Farm Streets past the existing schools. This link was first being considered around the time that the Edenbrook development was being mooted and Council did not have the benefit of any traffic modelling at that time. It was thought at that time that the link had the potential to attract in the order of 5000vpd and would cost in the order of $5M.

Subsequent to that, the Rockhampton Traffic Study 2008 was completed and the study identified that the link in 2026 would attract in the order of 3000vpd all of which principally would come off Farm Street with no benefit to Carlton Street. This would reduce Farm Street from a predicted 8300vpd without the link down to 5300vpd with the link. The study cited a number of advantages as follows:

a) The link might make it possible to remove the Farm Street OLC and close the road.

b) Coupled with River Rose Drive, provided an additional sub-arterial corridor between Alexandra Street and Norman Road.

c) Provided an opportunity to take traffic away from sensitive land uses ie Glenmore State School.

The report also cited a disadvantage in that the closure of the Farm Street OLC would likely divert more traffic to Richardson Road resulting in improvement works on that link particularly at the Yaamba Road intersection. It was suggested that the closure of the Farm Street OLC would be unlikely. The report concluded that the traffic volumes would unlikely support a business case for the link (at a cost of about $10M) but the advantages outweighed the disadvantages and therefore the link should be given further consideration. The link was subsequently included in the recommended network within the report.

A proposed sale of a Council owned parcel of land in the Parkhurst Industrial Area in 2010 prompted a re-examination of the proposed Maloney Street strategic link. The re-examination focused on its effectiveness, feasibility and acceptability.

The assessment concluded that the proposed link was only moderately effective, was buildable but not cost effective and had only low levels of acceptability within the impacted communities. As a result it was considered that Council's limited road funding would be better directed to other strategic links. The Maloney Street strategic link was not pursued further and the stakeholders previously engaged in discussions with Council on this proposal were advised accordingly.

In mid-2013, through working with the Glenmore State School's SafeST committee, Council Officers responded to concerns in relation to traffic congestion, pedestrian safety and bus services on Farm Street by resurrecting a portion of the Maloney Street proposal with the inclusion of a dedicated bus set down and interchange area.

In October 2013, a meeting was held between representatives of the Department of Education and Training, Glenmore State School, Glenmore State High School, Heights College, Department of Transport and Main Roads and Council Officers to further discuss and consider the proposal to construct Maloney Street between Yaamba Road and McLaughlin Street with the inclusion of a dedicated bus set-down area for the students of the Glenmore State Schools, Heights College and provide an interchange facility for students required to changes buses to continue onto a number of independent schools on the south side of Rockhampton. It was evident from this meeting that the schools would be looking to Council and DTMR to fund this project. Officers of Council and DTMR indicated that whereas they would be prepared to provide "in-principle" support to the project, neither Council nor DTMR had funding available for this project and therefore it would be likely that significant external funding would be required for the project to proceed.

More recently, a campaign of form letters has been sent to Council, the Federal Member for Capricornia and the State Member for Rockhampton seeking support for the proposal to construct Maloney Street and provide a bus set-down and interchange facility.

COMMENTARY

When Council re-examined the proposed Maloney Street strategic link in 2010, the discussion focused on its effectiveness, feasibility and acceptability as an alternative heavy vehicle route to service the Parkhurst Industrial Area.

The assessment at that time concluded that the proposed link was only moderately effective in improving Heavy Vehicle access into the Parkhurst industrial areas and reducing Heavy Vehicle numbers on Carlton and Farm Streets past the schools, was buildable but not cost effective and had only low levels of acceptability as a heavy vehicle route within the impacted communities. As a result it was considered that Council's limited road funding would be better directed to other strategic links and so the Maloney Street strategic link was not pursued any further.

The proposal currently being put forward is similar in some respects but is more focused on relieving traffic congestion on Farm and Carlton Streets and relocating the school bus interchange. An assessment of it's effectiveness, feasibility and acceptability as an alternative route servicing the schools is as follows.

Effectiveness - Will the link meet the objectives?

The objectives were considered to be relieving traffic congestion along and diversion of Heavy Vehicles away from the school frontages on Farm and Carlton Streets and provision of a dedicated bus set-down and interchange to service the Glenmore State Schools, Heights College and schools on the south side of Rockhampton.

As the current proposal is to link between Yaamba Road and McLaughlin Street only, the ability to draw significant amounts of through traffic away from Farm Street and Carlton Street is limited. There simply does not appear to be any through traffic distance or time savings that would make the route more desirable to the general public. Benefit would be derived during morning and afternoon drop off and pick up times if parking and pedestrian facilities were provided on Maloney Street which would alleviate some of the pressure on the Farm and Carlton Street parking. Controls would need to be put in place to dissuade parents from parking on the opposite side of the road generating numerous random crossings by the students.

The proposal as it currently stands would be unlikely to draw any significant amounts of heavy vehicle movements away from Farm and Carlton Streets for reasons similar to the through traffic. It may be possible to force closure of sections of Farm and Carlton Streets to certain types of heavy vehicles however in the absence of a physical barrier, it's success would be reliant on enforcement. The ability to cater for increased heavy vehicle turning movements through the Mclaughlin Street, Farm Street, Scott Street intersection is also highly questionable. The relocation of bus services away from the current frontages of the schools would have obvious benefits in relation to traffic and pedestrian congestion and safety however provision would need to be made for the safe crossing of Heights College students. Given that there would be limited reduction in through traffic and heavy vehicle movements, some benefit to school traffic during morning and afternoon drop off and pick up periods and benefits derived from relocating the bus set-downs and interchange, it is considered that the link would be moderately effective.

Feasibility - Will the link be buildable and cost effective?

There are some constraints within the proposed corridor and intersections that would need to be overcome. Land acquisition would be required from Heights College, Glenmore State Schools, Council and a number of private interests to facilitate the road. There is some drainage and flooding problems associated Splitters Creek to overcome, constraints with regards to services located adjacent to the Mclaughlin Street and Maloney Street intersection and building across the above ground water main along Yaamba Road may be an issue. These issues are not insurmountable however will impact on cost estimates and project delivery times. It is very difficult to prepare a cost estimate for the concept plan given the pre-project and construction issues to be addressed however indicatively the proposal could cost in the order of $5M to $6M. At these budget levels, cost effectiveness is considered a real issue in that $6M to deliver a moderately effective solution is questionable. It is considered that the link would be buildable with some risks but is not cost effective.

Acceptability - Will the scheme be acceptable to the community?

The road section that runs along the back boundary of the Glenmore State Schools and through the Heights College land did not attract great levels of acceptability at the time that Council were proposing it as a heavy vehicle route. Queensland Education were originally indicating support for the proposal but changed their view substantially when both Parents &Citizens committees started strongly opposing it. The Heights College representatives were indicating a willingness to work with Council on the proposal.

The residents of the Cant Street area were strongly opposed to the proposal on the basis of impact on their amenity ie noise, light, visual and also safety of the children currently wandering through Council's land to access the schools given that they would now have to cross a road.

In more recent times, general support for the proposal has been indicated by the Department of Education and Training, officers of the Department of Transport and Main Roads, Heights College and through the distribution of a form letter, the support of a number of residents who presumably have a relationship with the schools. It is difficult to gauge overall community acceptance as many of the perceived issues previously raised by the Glenmore State School's P&C's and the residents of the Cant Street area remain under this proposal.

The issues that have been raised in relation to traffic congestion and pedestrian safety in relation to the Glenmore State Schools and Heights College are common to the majority of schools within the built up urban areas. The issue with regards to the presence of heavy vehicles on Farm and Carlton Streets does exacerbate the problem. These issues are likely to increase with the introduction of Year 7 classes to the High School campuses in 2015.

To place some context around the level of investment being requested of Council to resolve these issues, the State Government has a $10 million program to install flashing school zone signs in over 300 zones over four years which commenced in 2013. The program was aimed at increasing the visibility of school zones, particularly in relation to schools with a split campus or on multi-lane roads. Schools are being selected based on a risk analysis of all school zones in Queensland. The risk analysis takes into consideration a number of factors including: previous crash history; the amount of vehicle and pedestrian traffic; current speed limit and compliance with the limit (when known); visibility; and support from the relevant State member.

Given that this is the State Government's response to issues surrounding traffic at schools, it would be unreasonable to suggest that Council alone invest in the order of $5M to $6M to address the traffic related issues at the three schools located on Farm Street and Carlton Street and issues associated with the State Government's school bus service.

In the absence of any significant majority funding commitment from the State Government and other Stakeholders, more cost effective solutions are needed to be found. Council should approach the various stakeholders to determine their willingness to provide funding towards the proposed solution and in the likely absence of any funding support, Council should continue to work with the various Stakeholders to explore any further cost effective solutions.

BUDGET IMPLICATIONS

It is very difficult to prepare a cost estimate for the concept plan given the pre-project and construction issues to be addressed however indicatively the proposal could cost in the order of $5M to $6M. This project does not appear in the forward works program for construction within the next 10 year time period or beyond. It may be possible to attract some funding towards the project through government grants.

RISK ASSESSMENT

There is always potential for accidents involving students to occur in the vicinity of schools. This is often as a result of poor behaviour of students crossing the roads at inappropriate locations and times, poor behaviour of parents or carers requiring students to cross to where they have parked and poor behaviour of motorists often travelling too fast and without care along the frontages of our schools.

CORPORATE/OPERATIONAL PLAN

Consult on, advocate, plan, deliver and maintain a range of safe urban and rural public infrastructure appropriate to the Region's needs, both present and into the future.

CONCLUSION

The objectives of the proposed Maloney Street Bus set-down were considered to be relieving traffic congestion along and diversion of Heavy Vehicles away from the school frontages on Farm and Carlton Streets and provision of a dedicated bus set-down and interchange to service the Glenmore State Schools, Heights College and schools on the south side of Rockhampton. It is considered that the proposed solution would be moderately effective in achieving this, would be buildable with some risks but not cost effective.

It would be unreasonable to suggest that Council alone invest in the order of $5M to $6M to address the traffic related issues at the three schools located on Farm Street and Carlton Street and issues associated with the State Government's school bus service.

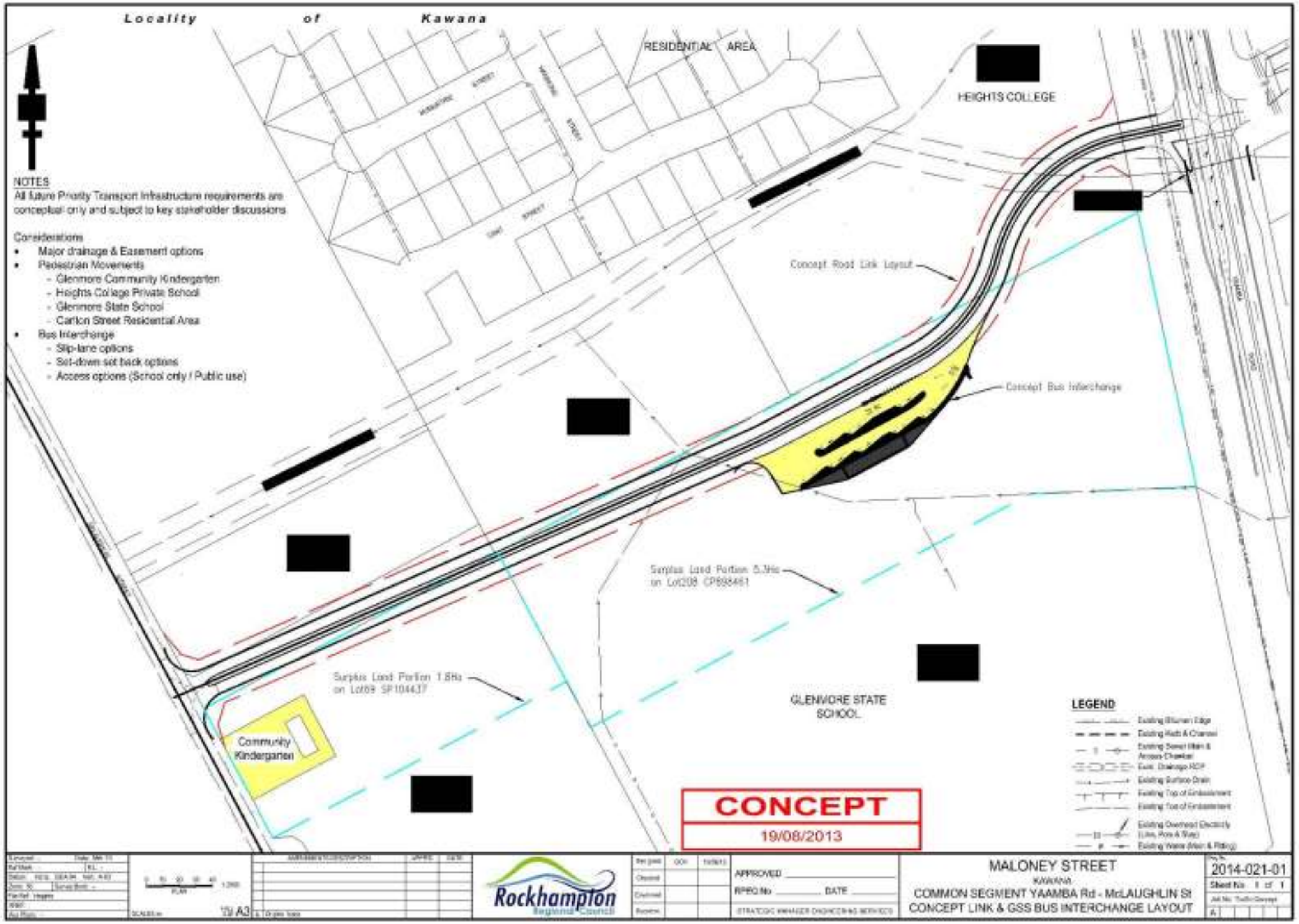
In the absence of any significant majority funding commitment from the State Government and other Stakeholders, more cost effective solutions are needed to be found. Council should approach the various stakeholders to determine their willingness to provide funding towards the proposed solution and in the likely absence of any funding support, Council should continue to work with the various Stakeholders to explore any further cost effective solutions.

MALONEY STREET
BUS SET-DOWN PROPOSAL

Maloney Street Concept Plan

Meeting Date: 2 July 2014

Attachment No: 1


Locality of Kawana
RESIDENTIAL AREA
HEIGHTS COLLEGE
NOTES
All future Priority Transport Infrastructure requirements are conceptual only and subject to key stakeholder discussions.
Considerations
• Major drainage & Easement options
• Pedestrian Movements
- Glenmore Community Kindergarten
- Heights College Private School
- Glenmore State School
- Carlton Street Residential Area
• Bus Interchange
- Slip-lane options
- Set-down set back options
- Access options (School only / Public use)
Concept Road Link Layout
Concept Bus Interchange
Surplus Land Portion 5.3Ha on Lot208 CP898461
Surplus Land Portion 1.8Ha on Lot69 SP104437
Community Kindergarten
GLENMORE STATE SCHOOL
LEGEND
CONCEPT
19/08/2013
Rockhampton Regional Council
APPROVED
RPEQ No
DATE
MALONEY STREET
KAWANA
COMMON SEGMENT YAAMBA Rd - McLAUGHLIN St
CONCEPT LINK & GSS BUS INTERCHANGE LAYOUT
2014-021-01

MALONEY STREET
BUS SET-DOWN PROPOSAL

DEET Letter

Meeting Date: 2 July 2014

Attachment No: 2

4 JUN 2014

ROCKHAMPTON REGIONAL COUNCIL
File No: 600H Doc No:
Links:
Action Officer: PARDON, EEO
12 JUN 2014
Task to: ECDEOSUP
3. 4.
QDAN: 249 v: 7 Ref: 1103
Box No: Yrs: 2

QUEENSLAND GOVERNMENT

Department of
Education, Training and Employment

Mr Evan Pardon
Chief Executive Officer
Rockhampton Regional Council
232 Bolsover Street
ROCKHAMPTON QLD 4700

Dear Mr Pardon

I am writing to confirm my support for Rockhampton Regional Council's (RRC) proposal for a bus interchange on Maloney Street, Kawana between Glenmore Educational Precinct and Heights College (see attached initial concept).

On 17 October 2013, a combined stakeholder group met to discuss the need to reduce traffic and pedestrian congestion on Farm and Carlton Streets, Kawana. These streets run past the entrances to Glenmore state schools and Heights College respectively, and have very high traffic flow including heavy transport vehicles intermixed with buses, parents and students from these schools.

This meeting, which included representatives from Glenmore State High School, Glenmore State School, Heights College, Department of Transport and Main Roads (DTMR) (Translink and Road Safety), and RRC, was presented with a proposal by RRC for a bus interchange in between the two educational areas on a road which is not currently gazetted. The proposal was unanimously supported.

The meeting also heard anecdotal evidence of students being involved in near-miss situations with vehicular traffic on a daily basis, with one student being hit and injured in an accident last year. Since the local bus company is using the front of the Glenmore schools as a bus interchange, this situation also endangers students from the Grammar schools and Cathedral College. Furthermore, the number of students changing buses on Farm Street is predicted to rise sharply at the beginning of 2015 due to the transition of Year 7 students to high school.

The Department of Education, Training and Employment (DETE) is prepared to set aside the surplus land in order to enable RRC to progress this project. In order to enable a subdivision of the surplus land, DETE requests RRC in collaboration with DTMR, to refine and provide the requirements for the bus interchange as soon as possible.

With traffic flow increasing at 2% per annum, and the predicted growth in student numbers, the risk to students on the street in front of these schools will increase significantly. As this is a matter of student safety, I am seeking RRC to provide funding and support to progress this bus interchange proposal as a priority.

Yours sincerely

DR JIM WATTERSTON
Director-General

Ref: 13/447027

Enc

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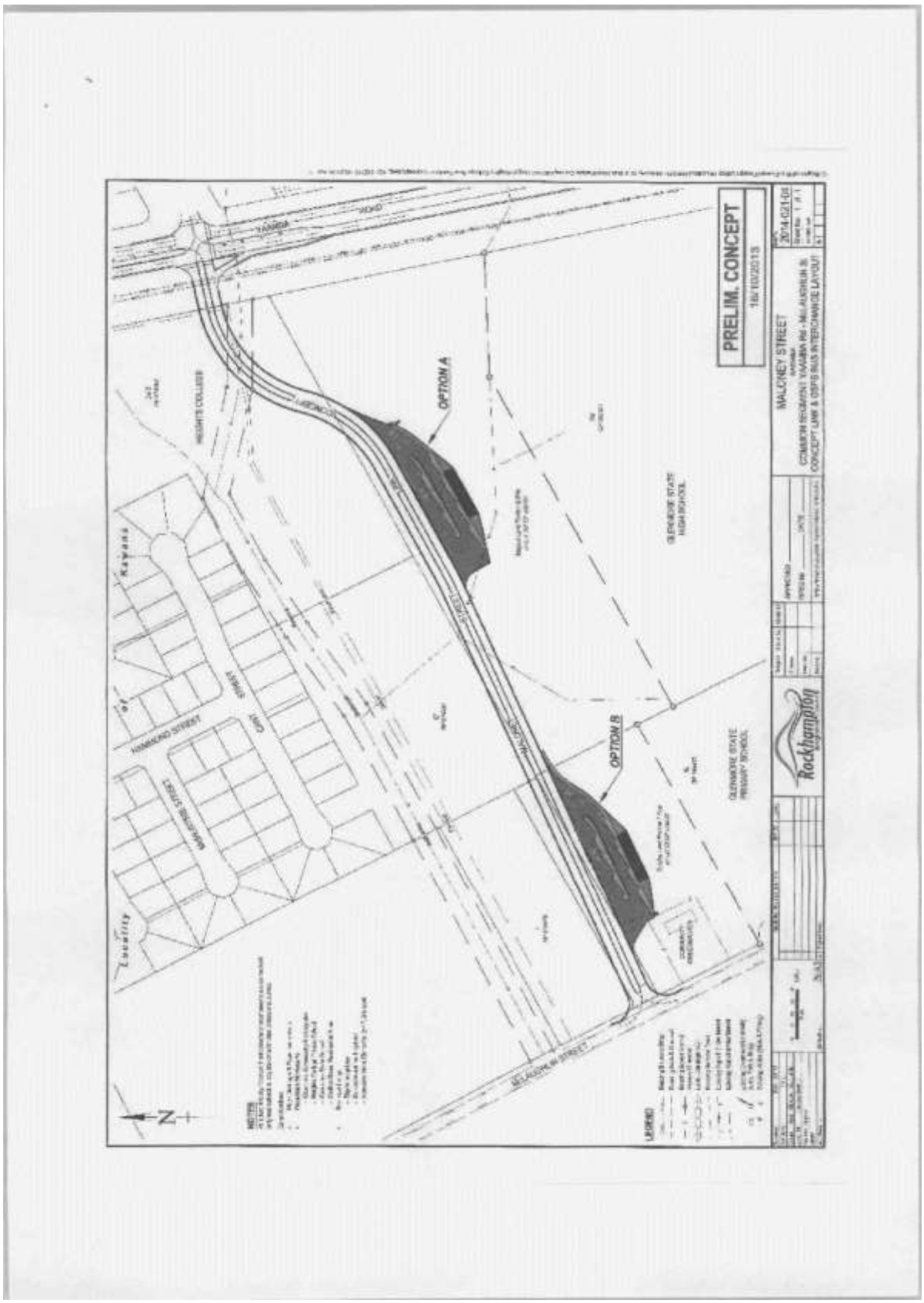

PRELIM. CONCEPT
MALONEY STREET
OPTION A
OPTION B
GLENMORE STATE HIGH SCHOOL
GLENMORE STATE PRIMARY SCHOOL
HAMMOND STREET
MELROSE ST
Rockhampton

8.5 DIPLOCK STREET LOCAL AREA TRAFFIC MANAGEMENT TRIAL

File No:	**7127**
Attachments:	**Nil**
Authorising Officer:	**Robert Holmes - General Manager Regional Services**
Author:	**Martin Crow - Manager Engineering Services**

SUMMARY

Council Officers and Councillor Williams and Councillor Fisher have completed community consultation in relation to Local Area Traffic Management Devices on Diplock Street. A trial of a limited number of LATM devices is proposed and the Committee's endorsement of those trials is sought..

OFFICER'S RECOMMENDATION

THAT preliminary plans and cost estimates for Local Area Traffic Management Devices generally be prepared in accordance with the recommendations of the 2012 MRCagney report for the intersection of Diplock and Honour Streets and the intersection of Diplock and Wooster Streets.

COMMENTARY

According to the Community Engagement Report written for the consultation on Local Area Traffic Devices for Diplock Street, 69% of all residents surveyed commented that speed was a major concern and 75.3% of all surveyed residents indicated that they were open to LATM type devices. As a result of the consultation and with the majority support of residents indicated in accordance with the Local Area Traffic Management Policy, a trial has been proposed for two locations along Diplock Street, namely at the Honour Street and Wooster Street intersections.

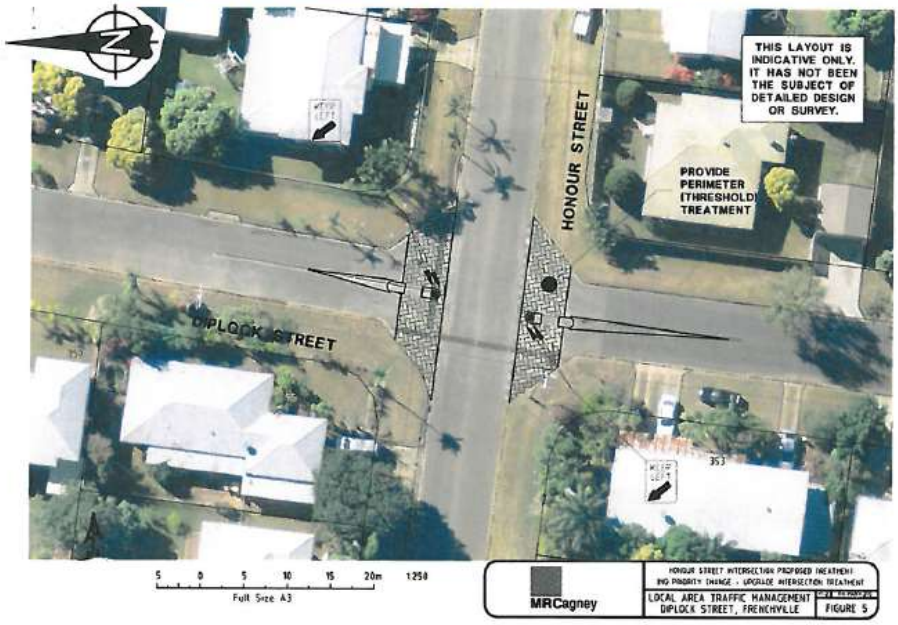
The Honour Street and Wooster Street intersections with Diplock Street were amongst a list of intersections on Diplock Street that achieved over 75% approval in relation to where the LATM devices could proceed. The full list if intersections that achieved a level of support greater than 75% is as follows.

1) Coome and Diplock (83%)
2) Vallis and Diplock (80%)
3) Honour and Diplock (88%)
4) Adair and Diplock (100%)
5) Wooster and Diplock (90%)

The recommended treatments at the Honour Street and Wooster Street intersections taken from the MRCagney report of 2012 are as shown below.

- Device 4 – Intersection of Diplock Street and Honour Street (figure 4)
  - The scheme technically requires no change at this intersection as the priority is already with Honour Street, and Diplock Street traffic must give way. It would be a reasonable option however to consider reinforcing this priority by installing some landscaped additions, either a splitter island as suggested at device 3 or removing the large truncations to give the intersection a more traditional form.

Figure 4: Intersection of Diplock Street and Honour Street

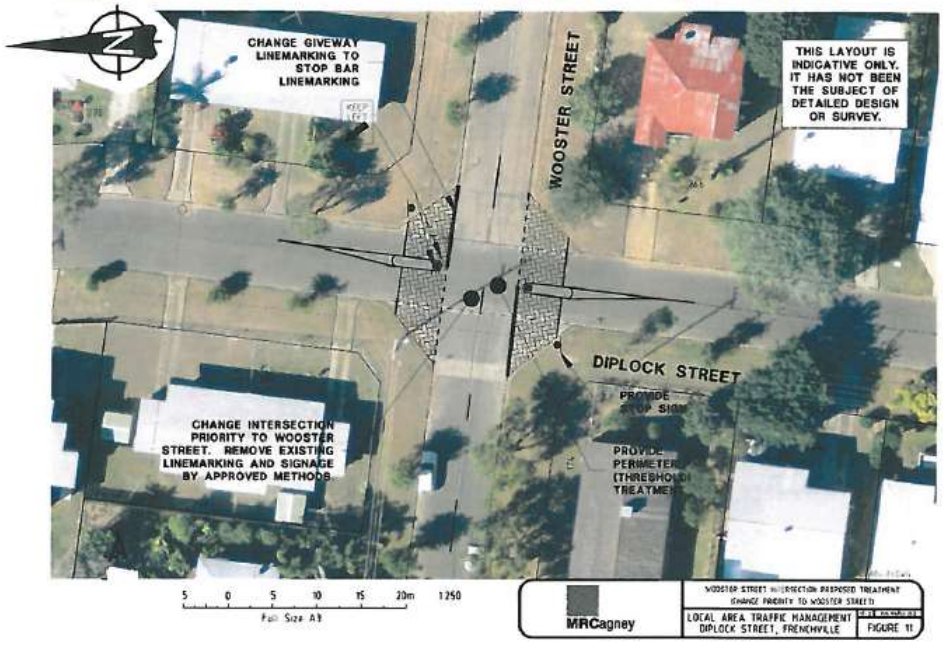


- Device 10 – Intersection of Wooster Street and Diplock Street (Figure 10)

  - This device changes priority from Diplock Street to Wooster Street. This is a relatively significant device. The concept technically provides the necessary road marking and warning to indicate to vehicles on Diplock Street that they are the yielding traffic. However MRCagney would recommend additional consideration to removing the kerb truncations to provide a more traditional intersection form and deliver better signals to drivers about appropriate speed. Alternatively install a larger landscaped splitter island to reinforce the fact that Diplock Street is now the minor leg.

    It is noted that both vehicles parked kerbside in Wooster Street in this aerial are parked illegally. (Rule 208 (7))

Figure 10: Intersection of Wooster Street and Diplock Street



In order to proceed with the proposed trial, preliminary designs and cost estimates will need to be prepared so that consultation with residents adjacent to the proposed locations can be undertaken and the necessary funding can be sought.

BACKGROUND

Diplock Street has had a long history of residents' complaints in relation to driver behaviour, mainly speeding vehicles. As Dean Street is an urban arterial road with several signalised intersections, anecdotal reports from complainants suggest that drivers "rat run" along Diplock Street in an attempt to avoid these intersections. A concept LATM Scheme was prepared in July 2012 resulting in Council resolving to undertake consultation based on the two alternative conceptual treatments in the MRCagney report in accordance with Council's Local Area Traffic Management Policy. Consultation was undertaken by Council Officers and Councillors Williams and Fisher between February and September 2013.

Council's policy on speed management devices outlines that an area must obtain over 75% for it to be considered further. Council officers have undertaken this analysis and the results indicate that many of the intersections along Diplock Street have obtained this mark as has the street overall.

In December 2013, Councillors Williams and Fisher advised the residents that a report is being prepared for Council's Infrastructure Committee to recommend that a staged approach be undertaken to slow traffic and discourage non local drivers from using this street. This correspondence indicated that a trial is being recommended for firstly the Wooster Street and Diplock Street" and Honour Street and Diplock Street intersections. Further to this, the residents were advised that Council would discuss the actual speed management device with residents that live close to those intersections

BUDGET IMPLICATIONS

Local Area Traffic Management Devices on Diplock Street do not currently appear in the 2014/15 capital budget. If LATM devices are to proceed on Diplock Street in the 2014/15 financial year, funding will either have to be provided within the capital budget or sourced from the Traffic and Road Safety Minor Capital Works Program.

CORPORATE/OPERATIONAL PLAN

Consult on, advocate, plan, deliver and maintain a range of safe urban and rural public infrastructure appropriate to the Region's needs, both present and into the future.

CONCLUSION

Consultation in relation to Local Area Traffic Management Devices on Diplock Street was undertaken by Council Officers and Councillors Williams and Fisher between February and September 2013.As a result of the consultation and with the majority support of residents indicated in accordance with the Local Area Traffic Management Policy, a trial has been proposed for two locations along Diplock Street, namely at the Honour Street and Wooster Street intersections.

In order to proceed with the proposed trial, preliminary designs and cost estimates will need to be prepared so that consultation with residents adjacent to the proposed locations can be undertaken and the necessary funding can be sought.

9 STRATEGIC REPORTS

9.1 PROGRESS REPORT – FLOODING INVESTIGATIONS AT THE INTERSECTION OF DENHAM AND WEST STREETS

File No:	**2479**
Attachments:	**1. Option 4 - Stage 1** **2. Option 4 - Stage 2** **3. Option 4 - Stage 3**
Authorising Officer:	**Robert Holmes - General Manager Regional Services**
Author:	**Martin Crow - Manager Engineering Services**

SUMMARY

Issues have been raised for some time regarding the flooding that occurs in the vicinity of the intersection of Denham and West Streets and investigations are ongoing into this matter. This report provides a progress report to the Committee on those investigations.

OFFICER'S RECOMMENDATION

THAT the Progress Report – Flooding Investigations at the Intersection of Denham and West Streets be received.

COMMENTARY

As is normally the case in the older parts of the City, the intersection of Denham and West Street and the surrounding stormwater catchment is lacking in piped drainage capacity in comparison to current drainage design standards. The problem at this intersection is exacerbated by the lack of an overland flow path that can cater for the surface flows in excess of the existing piped drainage system. It appears that the road crown levels at the intersection control the surface level of the flow and prevent the surface flow from continuing along either Denham Street or West Street towards the main drain.

Options Analysis

During the investigation, 5 options have been explored at a concept level to resolve the issue. These options include:

Option 1A: Box culvert at Denham St and West St combined with lowering of road crown.

The model suggests that 2 x1200x1200 box culvert will still generate excessive ponding of about 290mm at the Denham Street and West Street intersection during ARI 100 rainfall event. This option also causes excessive ponding at downstream residential areas around Denham Lane due to the limited capacity of the existing 450mm diameter pipe.

Option 1B: This option involves Option 1A with only one barrel of the box culvert plus upgrading upstream and downstream piping in West Street from Fitzroy Street to William Street.

A 900mm diameter stormwater pipe from Fitzroy Street to Oxford Street, 1050mm diameter from Oxford Street to 148 West Street and 1200mm diameter pipe to the connection point at William Street have been modelled to meet the level of service for the minor drainage system. As expected, most of the nodes commence to flood from ARI 5 and above. In the absence of an overland flow path, excess flows are still trapped at the Denham Street and West Street intersection.

Option 2: Diversion of flow from Northern sub-catchment bounded by Talford Street, Archer Street, West Street and Fitzroy Street.

An existing 900 mm diameter stormwater pipe runs along Murray Street from Fitzroy Street intersection to Archer Street. This line commands an area of about 6 ha.

Initial calculation of peak flows suggests that the existing 900 mm pipe is just sufficient for the current catchment. Any further loading from diversion of runoff from other sub-catchments may worsen the flooding issues at Murray Street and in the CBD area of Archer Street or Fitzroy Street. Therefore this option has not been considered viable and has not been modelled.

Option 3: Diversion of flow along Denham Street to George Street.

This option involves installation of a proposed 1200mm piping along Denham Street from West Street and Denham Street intersection to George Street. An additional 40m of the proposed 1200 mm diameter piping is required to be installed compared to option 1B. This option involves the construction and maintenance along the higher road category, Denham Street being the major urban collector. Essentially, this option does not provide any hydraulic advantages in relation to existing pipe size at George Street. This arrangement may also significantly reduce the capacity of 600 diameter pipe from Campbell Street leading to worsening of flooding issues in the CBD area. Therefore this option is also not considered viable and has not been modelled.

Option 4: Option 1B with the added diversion of surface runoff along Denham Street to the park at the corner of Murray Street and Denham Street.

This option involves the installation of piping along West Street from William Street to Fitzroy Street to cater for minor ARI rainfall events and the lowering of the intersection to let the kerb flow pass along Denham Street towards Murray Street. This option would also require the improvement of the kerb and channel grade along Denham Street from West Street to Murray Street and the lowering Denham Street at the intersection of Murray Street and Denham Street to direct the surface runoff across to Murray Street or to Central Park. The extension of the 375 mm pipe from the eastern side of the Murray Street and Denham Street intersection may also be required to capture the kerb flow and limit the depth of kerb flow during ARI5 storm event.

Option 4 offers a hydraulically preferred solution but potentially could be quite expensive. The proposed layout for the underground piping and surface flow arrangements lower the potential ponding extent and duration around the Denham Lane area. The proposed works could be implemented in stages that will provide opportunities for monitoring the effectiveness of the staged construction. A possible staging scenario (refer attachments) could be as follows.

Stage 1:

a) Lower the road crown on the northern side of West Street at the West Street and Denham Street intersection.
b) Install a 1200 (W) x1200(H) box culvert across Denham Street and extend the existing 1200mm diameter RCP pipe from William Street to 148 West Street.
c) Install a short section of 600 mm pipe along Denham Street to the West Street and Denham Street intersection.

Stage 2:

a) Regrade the kerb and channel along Denham Street to Murray St to maintain a falling grade.
b) Lower the road crown at the Denham Street and Murray Street intersection to discharge surface runoff to Murray St or together with Murray St footpath to discharge to Central Park.
c) Extend the existing 375 mm piping at Murray Street to the Denham Street and West Street intersection along northern side of Denham Street to capture additional surface runoff and maintain the flow depth along kerb and channel within road reserve.

Stage 3:

a) Install a 1050mm diameter pipe along West Street from 148 West Street to Oxford Street.

b) Install a 900 mm diameter pipe along West Street from Oxford Street through to and across Fitzroy Street.

Current Investigations

In order for the overall concept to work, it needs to be determined whether the lowering of road crowns at the Denham Street and West Street intersection and the Denham Street and Murray Street intersection is feasible without compromising the safety or function of the road itself or misdirecting flows into adjacent properties. A detailed survey of this section of road has been commissioned and a preliminary design project will need to be added to the design program. This work will also enable an investigation into whether the lowering of the road crowns without any additional piping as an early stage works package would provide any tangible benefit.

Preliminary cost estimates will need to be prepared for each of the work items within each of the stages to determine whether the overall scheme is affordable and whether there are particular work items within each stage where greater benefit is gained for the money invested.

More recently, Council Officers became aware of an abandoned 375mm diameter water main running along Denham Street which may be able to be utilised to some benefit at minimal cost. This is currently being investigated.

BACKGROUND

In 2013, Council was contacted by the owners of the Red Lion Hotel requesting that action be taken in regards to the regular flooding of the Hotel resulting from the back-up of stormwater at the intersection of Denham Street and West Street.

Council Officers have undertaken an investigation and reviewed a number of options to alleviate flooding at this intersection. Significant constraints including the capacity of the existing stormwater network, the lack of a defined major flow path and the function of Denham Street has resulted in this issue being very difficult to resolve.

PREVIOUS DECISIONS

The following resolution was adopted by Council in February 2014.

That a report be provided to this Committee with respect to a solution and costing for an upgraded stormwater drainage program in the Denham-West Street area to reduce the constant flash flooding and damage to businesses in the Denham-West Street area.

Moved by: Councillor Belz
Seconded by: Mayor Strelow
MOTION CARRIED

BUDGET IMPLICATIONS

At present, no project or staged program of works has been included in the forward works program. Once a clear path has been identified to resolve this issue the forward works program will be updated and the works can be considered for future capital funding.

CORPORATE/OPERATIONAL PLAN

Consult on, advocate, plan, deliver and maintain the range of urban and rural public infrastructure appropriate to the region's needs, both present and future.

CONCLUSION

Council Officers have undertaken an investigation and reviewed a number of options to alleviate flooding at the Denham Street and West Street intersection. Significant constraints including the capacity of the existing stormwater network, the lack of a defined major flow path and the function of Denham Street has resulted in this issue being very difficult to resolve.

A hydraulically preferred solution has been arrived at but this solution potentially could be quite expensive. In order for the overall concept to work, it needs to be determined whether the lowering of road crowns at the Denham Street and West Street intersection and the Denham Street and Murray Street intersection is feasible without compromising the safety or function of the road itself or misdirecting flows into adjacent properties.

Preliminary cost estimates will need to be prepared for each of the work items within each of the stages to determine whether the overall scheme is affordable or whether particular work items provide greater benefit in relation to cost.

PROGRESS REPORT – FLOODING INVESTIGATIONS AT THE INTERSECTION OF DENHAM AND WEST STREETS

Option 4 - Stage 1

Meeting Date: 2 July 2014

Attachment No: 1


N
Archer St
Murray L
Fitzroy St
West L
Arnold St
George L
Campbell St
ROCKHAMPTON CITY
Oxford St
Proposed 1200mm
Proposed 375mm
Proposed crown covering
Proposed box culvert (1200 X 1200)
Proposed 600mm
ALLENSTOWN
Talford St
Denham St
Wenholt St
William St
Connolly St
Proposed 1200mm
Existing 1200mm
Derby St
Annex D- Proposed Stormwater Piping- Stage 1
1:2,135
Rockhampton Regional Council

PROGRESS REPORT – FLOODING INVESTIGATIONS AT THE INTERSECTION OF DENHAM AND WEST STREETS

Option 4 - Stage 2

Meeting Date: 2 July 2014

Attachment No: 2


N
ANGE
Archer St
Murray L
Fitzroy St
West L
Arnelet St
Murray St
George L
Bridge St
Bridge St
Kent L
Campbell St
Campbell L
ROCKHAMPTON QTY
Proposed K&C improvement
375mm Proposed extension
Proposed Catch Pit/Lintel
Existing system
George St
Oxford St
West St
ALLENSTOWN
Denham St
Denham L
Wenthort St
Wenthort L
William St
Bolsover St
Connolly St
The Catholic College
Derby St
Annex D- Proposed Stormwater Piping- Stage 2
1:2,136
Rockhampton Regional Council

PROGRESS REPORT – FLOODING INVESTIGATIONS AT THE INTERSECTION OF DENHAM AND WEST STREETS

Option 4 - Stage 3

Meeting Date: 2 July 2014

Attachment No: 3

Annex D- Proposed Stormwater Piping- Stage 3

9.2 CARIBEA ESTATE DRAINAGE

File No:	**8055**
Attachments:	**Nil**
Authorising Officer:	**Robert Holmes - General Manager Regional Services**
Author:	**Grant Vaughan - Coordinator Civil Design**

SUMMARY

At the May 2014 meeting of the Infrastructure Committee, Councillor Schwarten requested a report addressing drainage issues at No 54 Kershaw Street be presented to the Committee as soon as practicable. This report summarises the actions taken at Kershaw Street to resolve flooding issues, and provides an update on the status of the Caribea Estate drainage upgrades.

OFFICER'S RECOMMENDATION

THAT the report on Caribea Estate Drainage be received.

COMMENTARY

Kershaw Street Drainage:

In March 2014, Cr Schwarten responded to a resident's enquiry regarding flooding at No.54 Kershaw Street. He observed floodwaters covering the roadway, and debris that indicated a significant flooding problem.

A recent drainage investigation at this catchment (February 2011) did not identify deficiencies in the stormwater network consistent with the observed flooding. Council's Civil Operations Unit arranged for a remote camera to traverse the pipework downstream of No.54 Kershaw Street, which identified significant intrusion of tree roots causing blockages at several locations. The tree roots have since been removed, and it is expected the drainage system will perform within the limitations of the network as summarised in the 2011 drainage investigation.

Caribea Estate Drainage Investigation:

In February 2011, a drainage investigation was completed for Caribea Estate, which is primarily the area bounded by Richardson Road, Alexandra Street, Main Street, and Yaamba Road. The recommended improvements are listed below:

1. Installation of a pipe network and associated inlets at Rice Street and Buzacott Street.
2. Installation of a pipe segment and associated inlets at Menzies Street, Davidson Street, and Boland Street.
3. Upgrade of the pipe network in Calder Street and Henderson Street.
4. Modification of the detention basin in Jack Allenby Park.
5. Inlet replacement through the entire catchment.

The main finding was that the trunk main along Alexandra Street contained spare capacity in both the minor storm event (5 year ARI) and the major storm event (100 year ARI). The recommendations are methods to increase the capture of stormwater by supplementing the existing pipe network, installing more efficient inlets, and better utilising the existing detention basin.

The following comments from the report are noted:

- The pipe network is augmented only where it would be able to assist the major storm road flows.
- The downstream end of the system has sufficient capacity under the highway, without the need for additional detention storage.

- The pit surface levels adopted were taken from topographical information provided, and are not considered significantly accurate to achieve a high level of confidence from the drainage model.
- Improvement of the drainage model through additional survey is recommended during the detailed design of Stage 1.
- Once more accurate survey information is added to the model, it may be necessary to alter some of the proposed upgrades identified in the report, however it is not anticipated that the general findings of the study will change.

The provision of the extra survey resulted in substantial variations to the report recommendations, particularly for the major storm event (100 year ARI). An addendum to the report was issued in August 2012. The changes to the recommendations in the original report are listed below:

1. Installation of a pipe network and associated inlets at Rice Street and Buzacott Street generally unchanged.
2. Installation of a pipe segment and associated inlets at Menzies Street, Davidson Street, and Boland Street generally unchanged.
3. Upgrade of the pipe network in Calder Street and Henderson Street significantly changed (increased from 1/1050 dia. pipe to 2/1050 dia. pipes).
4. Modifications to the detention basin in Jack Allenby Park generally unchanged.
5. Inlet replacement through the entire catchment still required.

The addendum to the original report also recommended additional items to be included in the catchment upgrades. These items are listed below:

1. Pipe duplication at Alexandra Street - Rice Street to Menzies Street ($240,000).
2. Drainage upgrade at Alexandra Street / Gray Street intersection ($75,000).
3. Drainage upgrade at Calder Street / Buzacott Street intersection ($120,000).
4. Pipe duplication at Henderson Street ($225,000).
5. Drainage upgrade at Alexandra Street - Henderson Street to Park Street ($1,500,000).
6. Drainage upgrade at Medcraf Street / Rodger Street intersection ($55,000).
7. Drainage upgrade at Boland Street (Rodger Street to Twigg Street) ($270,000).
8. Drainage upgrade at Twigg Street (Boland Street to Sheehy Street) ($275,000).
9. The land between Moores Creek Road and Park Street to be utilised as a detention basin.

Implementation:

Of the recommendations from the original drainage investigation (February 2011), the following have been completed:

- Modifications to the detention basin in Jack Allenby Park ($297,000).
- Inlet replacements (38 of 57) ($267,000).

It is recommended the outstanding works from the February 2011 drainage investigation be staged for construction over the next three years. The works are listed below:

1. Rice Street pipe network and inlets ($210,000).
2. Buzacott Street pipe network and inlets ($110,000).
3. Installation of a pipe segment and associated inlets at Menzies Street, Davidson Street, and Boland Street ($60,000).
4. Calder Street and Henderson Street pipe network upgrade ($290,000).
5. Completion of the inlet replacement program ($155,000).

It is recommended the additional works proposed in the addendum to the drainage investigation (August 2012) be placed on hold until the works proposed in the original report are completed. The reasoning for this is:

(a) Cost of implementing the additional recommendations is prohibitive ($2,760,000),
(b) The original upgrades will relieve concerns for the minor storm event (5 year ARI),

(c) As the drainage model was very sensitive to the level of information adopted, it will provide time to calibrate the model against future storms to determine if the additional works are required.

BACKGROUND

The stormwater investigation carried out by Council in 2011 revealed a number of deficiencies within the existing stormwater catchment within Caribea Estate.

The principal deficiencies related to an underutilisation of the existing detention basin in Jack Allenby Park and a significant under supply of inlet capacity across the network which prevented the existing pipework from being fully utilised. A small number of pipe runs were also identified as being undersize and required upgrade or duplication.

A staged approach was proposed over a number of financial years to resolve flooding issues in this catchment. This proposal is being progressively implemented as funds allow.

BUDGET IMPLICATIONS

Subsequent stages of the Caribea Estate drainage program have been included in the forward works program for consideration at budget time.

CORPORATE/OPERATIONAL PLAN

Consult on, advocate, plan, deliver and maintain the range of urban and rural public infrastructure appropriate to the region's needs, both present and future.

CONCLUSION

A drainage investigation has been received for the Caribea Estate catchment. An addendum to this report has also been received that significantly increases the recommendations of the original report.

An implementation strategy that improves residents flooding immunity and best utilises existing infrastructure has been detailed.

Flooding experienced at Kershaw Street in March 2014 is not due to deficiencies with the drainage network, although implementation of the drainage strategies will improve flooding immunity in this area. Maintenance has been completed to ensure the network performs to its capacity.

9.3 CIVIL OPERATIONS SECTION'S WORKS PROGRAM FOR JULY 2014

File No:	**7028**
Attachments:	**1. Civil Operations Section's Works Program June - July 2014** **2. Customer Requests received by Civil Operations and Engineering Services Sections - May 2014** **3. Urban and Rural Capital Projects Report Financial Year to Date - May 2014**
Authorising Officer:	**Robert Holmes - General Manager Regional Services**
Author:	**Russell Collins - Manager Civil Operations**

SUMMARY

This report outlines Civil Operations Section's Works Program of planned projects for the months June-July 2014, Customer Requests received and completed in May 2014 and also Urban and Rural Operations Capital Projects Report Financial Year to Date – May 2014.

OFFICER'S RECOMMENDATION

THAT the Civil Operations Section's Works Program for July 2014 report be received.

COMMENTARY

The Civil Operations Section submits a monthly report outlining the details of the programmed works for the upcoming month to assist Councillors and senior managers when they receive enquiries from their constituents in relation to road and associated road reserve works.

BACKGROUND

In May, 339 customer requests were received and of those 181 requests were completed. A total of 370 requests were completed for May and those received in previous months.

In May there were 244 requests for inspections received with 309 inspections completed in the month; 450 works orders were issued for staff to conduct action, with 401 works orders being completed in May.

BUDGET IMPLICATIONS

All works specified in this report are included in Council's current approved budget.

LEGISLATIVE CONTEXT

All works outlined in this report will be conducted in a manner to comply with all legislation.

STAFFING IMPLICATIONS

The works specified in this report have been programmed whilst taking into consideration current staffing levels.

RISK ASSESSMENT

Civil Operations and Engineering Services Section's staff conduct a risk assessment of their job site before work commences to ensure they have identified assessed and controlled any possible hazards to ensure the safety of themselves and others.

CONCLUSION

This report outlines the planned works program and the customer requests received for Civil Operations and Engineering Services Sections and Urban and Rural Operations Capital Projects Report Financial Year to Date and are for the information of Councillors.

CIVIL OPERATIONS SECTION'S WORKS PROGRAM FOR JULY 2014

Civil Operations Section's Works Program June - July 2014

Meeting Date: 2 July 2014

Attachment No: 1

Construction and Works Program – June - July 2014

Council's Civil Operations Section advises the proposed road and associated road reserve network works and other planned projects to be conducted throughout the Region in May - June 2014, subject to weather conditions and other competing priorities. Please note that the information listed in the Potential Interruptions section is general information and does not override the information that is provided to the Emergency Services Personnel and Bus Company's etc.

Urban West Area

Work Location	Work Description	Start Date	Expected Completion Date	Potential Interruptions
Foster St-Macquarie St to east	New Construction	Late June	Mid October	Traffic Controllers & speed restrictions
Stewart St -Somerset Rd to Boongary Rd Granite	Footpath	Early July	Early July	Traffic Controllers & speed restrictions

Rural West Area

Work Location	Work Description	Start Date	Expected Completion Date	Potential Interruptions
Stanwell Waroula Road	Culvert	Late June	Early September	Traffic Controllers & speed restrictions

Urban Central Area

Work Location	Work Description	Start Date	Expected Completion Date	Potential Interruptions
14 Miles St to Park Street	Stormwater	Early July	Early September	Traffic Controllers & speed restrictions
Alma St-Archer St to Cambridge St	Footpath	Mid July	End July	Traffic Controllers & speed restrictions
Archer St-Canning St to Quarry St	Reconstruction	Mid July	Mid August	Traffic Controllers & speed restrictions
Archer St-George St to Murray St	Footpath	Early August	Mid August	Traffic Controllers & speed restrictions
Archer St-Kent St to Campbell St	Footpath	Mid August	Mid September	Traffic Controllers & speed restrictions
Campbell St-Denham St to William St	Reconstruction	Mid July	Late August	Traffic Controllers & speed restrictions

CIVIL OPERATIONS SECTION'S WORKS PROGRAM FOR JULY 2014

Customer Requests received by Civil Operations and Engineering Services Sections - May 2014

Meeting Date: 2 July 2014

Attachment No: 2

Pathways Customer Requests		Month 31/05/2014		
Regional Services		Received	Completed	Completed
Request	Issue	In May 2014	Received May 2014	Received May & Prior Months
Bridges BRIDGE	Bridge Maintenance	1	1	1
	Bridge Vandalism	0	0	0
	sub - total	1	1	1
Council Drainage DRAINA	Drainage Miscellaneous	13	6	29
	Drainage Inundation (Flooding Issue)	0	0	4
	Drainage Kerb and Channel	8	1	12
	Drainage - Gully Pits	1	1	2
	Drainage Pipes and Culverts	2	2	9
	Drainage Vandalism	0	0	0
	sub - total	24	10	56
Operation Works (Sub-divisions) etc Infrastructure OPERAT	Development Dust	1	0	0
	Development Erosion	0	0	0
	Development Miscellaneous	1	0	3
	Development Noise	1	1	1
	Development Drainage	0	0	0
	Infra Operations - General Enquiries	26	18	23
	IOU - Water & Sewerage	0	0	0
	sub - total	29	19	27
Roads ROADRE (Road Maintenance Issues)	Burn Off Advice - Reduction Burning	2	2	4
	Bus Stops/Seating & Bus Shelters	2	0	0
	Disaster Management - Gen Enquiry	1	1	1
	Engineering - General Enquiry	5	3	4
	FRW Reinstatements	0	0	0
	Grading-Unsealed Road Maintenance	10	6	17
	Guard Rails	1	0	0
	Guide Posts	1	0	0
	Illegal Dumping	8	7	10
	Lime Spraying	0	0	0
	Miscellaneous	49	23	59
	Infrastructure - General Enquiry	19	16	22
	Petition	0	0	0
	Footpath & Offroad Cycle ways Maintenance	23	7	23
	Potholes / Sealed Roads	66	39	58
	Property Accesses	3	1	2
	Railway Crossings	0	0	0
	Rural Roadside Vegetation/Slashing	10	6	8
	Rural Property Addressing - Existing	1	0	0
	Rural Property Addressing - New	2	0	0
	Urban Addressing	2	1	1
	Signs & Lines (Already Existing)	36	20	41
	Street Lighting - OTHER	5	3	3
	Street Lighting - MAINTENANCE	5	3	3
	Street Sweeping - Cleaning	13	7	9
	Traffic Lights	3	1	2
	sub - total	268	146	266
Traffic Management TRAFFI (Not related to Maintenance	Heavy Vehicles	0	0	0
	Roundabout/Medians	0	0	0
	Speed Limits/Traffic Volumes	2	0	0
	Signs & Lines (New)	15	5	18
	Traffic Signals (Stop Lights)	0	0	0
	Traffic Counts	0	0	0
	sub - total	17	5	18
VEHICL	Abandoned Vehicles (Asset)	0	0	2
	sub - total	0	0	2
Watercourse WCOURS	Boat Ramps	0	0	0
	Jetties/Wharves	0	0	0
	Miscellaneous	0	0	0
	Vandalism	0	0	0
	sub - total	0	0	0
TOTALS		339	181	370

CIVIL OPERATIONS SECTION'S WORKS PROGRAM FOR JULY 2014

Urban and Rural Capital Projects Report Financial Year to Date - May 2014

Meeting Date: 2 July 2014

Attachment No: 3

Revised Budget	Feb Revised Budget	Expenditure to Date	Completed (Y/N)	Status
DCC-RC-Alick Street-Glenmore Road t		2,417		Design only
0RWC-GR-Connors Road Ch 01 to Ch0.9	0	29,214		Commenced
0RWC-GR-StanwellWaroula Rd Ch 1.4km	0	21,155		Commenced
NC-Frenchville Rd/Pilbeam Dr Carpark	10,000	4,055	Y	Completed
RWC-BR-Bowlin Road-Timber bridge on	50,000	33,532		Commenced
RWC-BR-Mount Hopeful Road-Six Mile C	400,000	438,002	Y	Completed
RWC-BR-Stanwell Waroula Road-Deep Cr	600,000	301,286		Commenced
RWC-GR Six Mile RoadBajool CH: 0.51Km	26,300	26,248	Y	Completed
RWC-GR North Langmorn Road 4.8 5.3	13,000	12,645	Y	Completed
RWC-GR-Aremby Road Bouldercombe CH 3.69-	31,800	31,772	Y	Completed
RWC-GR-Boulder Creek Road Boulder Creek	37,700	37,695	Y	Completed
RWC-GR-Boys Road Ch0.98km 2.2km Al	30,000	18,296	Y	Completed
RWC-GR-Calmorin Road Ridgelands Ch3.8 to	21,700	21,605	Y	Completed
RWC-GR-Comanche Rd Glenroy Ch 2.42-2.8 &	12,700	12,638	Y	Completed
RWC-GR-Craignaught Rd Morinish Ch: 0.38	17,100	17,022	Y	Completed
RWC-GR-Dalma-Ridgelands Rd Ridgelands C	15,300	15,294	Y	Completed
RWC-GR-Deep Creek Rd Ch 0.075 to 0.575	0	16,417	Y	Completed
RWC-GR-Garnant Road Ch 7.2km-8.7km R	35,000	46,888	Y	Completed
RWC-GR-Glenroy Rd Ch 21.12	0	65,625		Commenced
RWC-GR-Grantleigh Rd Gogango Ch: 0.475km	12,100	12,046	Y	Completed
RWC-GR-Gravel Resheet Program A	0	0		Commenced
RWC-GR-Gravel Resheet Program B	500,000	0		Commenced
RWC-GR-Half Penny Rd Gracemere Ch 1.53	(2,834)	(2,834)	Y	Completed
RWC-GR-Harding Rd Ch 1.29-1.39 to Ch 2.6	0	27,063	Y	Completed
RWC-GR-Hunter Gully Rd Morinish Ch: 0.49	21,000	20,710	Y	Completed
RWC-GR-Jackson Rd Gogango Ch: 0.0 0.2k	13,000	12,957	Y	Completed
RWC-GR-Morinish Rd Morininsh Ch: 0.0 -	56,200	56,141	Y	Completed
RWC-GR-Moses Road Ch 2.85-2.95 Ch3.0	25,000	38,774	Y	Completed
RWC-GR-Munns Rd Gogango Ch 2.17 2.75km	19,800	19,738	Y	Completed
RWC-GR-Port Curtis River Road Chai	20,000	12,701	Y	Completed
RWC-GR-Reid Road Alton Down Ch3.31 to 5	43,850	43,811	Y	Completed
RWC-GR-Riverslea Rd Gogango Ch 4.61 5	0	25,360	Y	Completed
RWC-GR-Rosewood Road Morrish south Vario	81,040	81,040	Y	Completed
RWC-GR-San Jose Road Marmor CH: 6.8 7	26,100	26,084	Y	Completed
RWC-GR-Smith Rd Gogango Ch 1.4 2.2 km	46,600	46,629	Y	Completed
RWC-GR-Thirsty Creek Rd Gogango Ch 0.1 -	37,000	36,900	Y	Completed
RWC-GRWarren Rd Ch0.5 to Ch 1035	0	17,360		Commenced
RWC-GR-Yarra Rd Gogango Ch 0.0 1.4 km	40,400	40,416	Y	Completed
RWC-NC-Albert Street-Stanwell-Ch 0-0	31,000	77,808	Y	Completed
RWC-NC-Blackspot-Razorback Road	370,000	247,441		Commenced
RWC-NC-Bower Street-Stanwell-Ch 0.24	40,000	47,006	Y	Completed
RWC-NC-Bruce Highway-Roopes Road Int	1,500	1,229		Commenced
RWC-NC-Bruce Street Bajool	0	0		Deferred 2014/15
RWC-NC-Earl Street-Stanwell-Ch 0-0.2	145,000	66,206	Y	Completed
RWC-NC-John Street Bajool	0	0		Deferred 2014/15
RWC-NC-Roopes Crossing floodway upgr	85,000	99,256	Y	Completed
RWC-PW South Ulam Road Bajool Ch 3.165-5	363,800	363,799	Y	Completed
RWC-RF-Signage & GP upgrades	20,000	23,913		Commenced
RWC-RS-Bower St Stanwell CH: 0.00 -	3,900	3,904	Y	Completed
RWC-RS-Bucholz Rd	11,700	11,659	Y	Completed
RWC-RS-Cange Ave-Bouldercombe	22,000	19,059	Y	Completed
RWC-RS-Cecil St Kabra Ch 0.00-0.1	4,000	3,979	Y	Completed
RWC-RS-Dalma-Ridgelands Rd	19,000	19,008	Y	Completed
RWC-RSGlenroy Road Ch 13.35-13.75		9,071		
RWC-RS-Goodson Rd-Bouldercombe	28,600	27,536	Y	Completed
RWC-RS-Hewill Drive	15,050	11,219	Y	Completed

Revised Budget	Feb Revised Budget	Expenditure to Date	Completed (Y/N)	Status
RWC-RS-Isabella St Stanwell CH: 0.00	3,300	3,289	Y	Completed
RWC-RS-Kahl Rd Pink Lily	3,500	3,491	Y	Completed
RWC-RS-Laurel Bank Rd	73,600	73,593	Y	Completed
RWC-RS-Macpherson Rd	11,700	11,659	Y	Completed
RWC-RS-Main St Stanwell CH: 0.00 0	13,700	13,653	Y	Completed
RWC-RSMarble Ridge Road Ch 0.74-1.		7,879		
RWC-RS-Marion St Stanwell CH 0.00 -	5,900	5,901	Y	Completed
RWC-RS-Mt Usher Rd-Bouldercombe	23,800	18,496	Y	Completed
RWC-RS-Nugget Ave Bouldercombe	4,200	4,133	Y	Completed
RWC-RS-Petersen Rd	1,150	1,123	Y	Completed
RWC-RS-Poison Ck Rd	40,200	40,137	Y	Completed
RWC-RS-Riverslea Road Formation Wide	0	0		Deferred 2014/15
RWC-RS-Sandy Creek Rd CH: 2.28 2.5	5,500	5,446	Y	Completed
RWC-RS-Six Mile Rd Pink Lily	55,000	55,021	Y	Completed
RWC-RS-Stewart Park Rd	1,800	1,749	Y	Completed
RWC-RSWebb Rd Bouldercombe	7,500	7,535	Y	Completed
RWC-RSWiseman St Kabra CH: 0.00 0	7,300	7,300	Y	Completed
RWC-SS-Reseal Program Spray Seal R	0	0		Commenced
RWC-SW-Alton Downs Nine Mile Road-Ch	0	0		Deferred 2015/16
RWC-SW-Dee River Swinging Bridge upg	106,000	103,695	Y	Completed
RWC-SW-Glenroy Road-Ch 22.62	0	0		Deferred 2014/15
RWC-SW-Harding Road-Ch 5.92	0	0		Deferred 2014/15
RWC-SW-Sisalana Road-Ch 1.05	44,000	44,122	Y	Completed
RWC-SW-South Yaamba Road-Ch 5.56	60,000	17,696		Commenced
RWC-TM-QRN interface Agreement	2,700	5,720	Y	Completed
SS-Norman Road-Nagle Dr to CQU entrance	4,924	4,924	Y	Completed
SW-Pilbeam Dr Inlet Grates	15,000	23,323	Y	Completed
UCC-ALL-Preproject planning and desi	308,757	0		Not started
UCC-AS-Annual Asphalt Resurfacing Program	729,484	0		Total Forecast cost = $
UCC-AS-Balaclava Street-#336/#334 to Robinson St	0	17,769	Y	Completed
UCC-AS-Blossom St-Thozet Rd to Wiltshire St	160,000	157,918	Y	Completed
UCC-AS-Bolsover Street-Derby Street	85,376	85,376	Y	Completed
UCC-AS-Brecknell Street-Jessie Stree	53,651	54,338	Y	Completed
UCC-AS-Canning St-Voss St to south	(54)	(52)	Y	Completed
UCC-AS-Connor St-Stenhouse St to Rhodes St		42,188	Y	Completed
UCC-AS-Cowap St-#17 Cowap St to Alexandra St centre only		36,437	Y	Completed
UCC-AS-Earl Street-Dean Street to Ge	122,784	122,784	Y	Completed
UCC-AS-Eton Street-Denham Street Ext	379,867	384,616	Y	Completed
UCC-AS-Farm Street-Haynes Street to	6,203	6,203	Y	Completed
UCC-AS-Feez St Service Rd to #406 Norman		15,508	Y	Completed
UCC-AS-Geordie St-Frenchville Rd to Gill	14,700	15,702	Y	Completed
UCC-AS-Huet St-Lion Creek Rd to Ramsden St		80,595	Y	Completed
UCC-AS-Inkerman St-Balaclave St Intersection only		6,491	Y	Completed
UCC-AS-Jaggrad St-Farm St to Mackinlay St	130,000	128,087	Y	Completed
UCC-AS-Kent Lane Fitzroy St to Denham St		26,922	Y	Completed
UCC-AS-Lucas St-Berserker St to Nobbs St		51,502	Y	Completed
UCC-AS-Mansfield St-Herbert St to Jackson St		56,850	Y	Completed
UCC-AS-Meade St-Jardine St to Oakley St		63,482	Y	Completed
UCC-AS-Moores Ck Road Feez St to Bruigom		202,842	Y	Completed
UCC-AS-Part St-Elphinstone St to Burnett St		69,481	Y	Completed
UCC-AS-Quarry St-#124 Quarry to Kidston St		28,430	Y	Completed
UCC-AS-Quarry Street-Denham St to Willia	279,028	310,196	Y	Completed
UCC-AS-Rhodes St-Stack St to Dee Stt		58,826	Y	Completed
UCC-AS-Richardson Road-MacNevin Stre	304,439	304,439	Y	Completed
UCC-AS-Robinson St-Dean St to Diplock St	32,516	32,516	Y	Completed

Revised Budget	Feb Revised Budget	Expenditure to Date	Completed (Y/N)	Status
UCC-AS-Samuel Crescent-Belmont Road	130,109	130,109	Y	Completed
UCC-AS-Suthers Ave-Philp St to Marsh St		38,159	Y	Completed
UCC-ASWeatherall St Norman Rd to cul-de		21,014	Y	Completed
UCC-BS-Bus set down upgrading progra	0			Old Program
UCC-BS-New Bus Shelters	80,000	38,913		Designed
UCC-F82-High Street Bridge Repairs	215,000	185,279	Y	Completed
UCC-FP-Alma Street-Archer St to Camb	40,000	406		Not started
UCC-FP-Archer Street-George St to Mu	0	0	No	Deferred 2015/16
UCC-FP-Archer Street-Kent St to Camp	0	0	No	Deferred 2015/16
UCC-FP-Berserker StHigh St to Learn	60,000	25,894	No	Commenced
UCC-FP-Bruigom Street	0	88,126	Y	Completed see Job No C 1017235
UCC-FP-Bruigom Street-Moores Creek R	84,188	0	Y	Completed see Job No C 0892766
UCC-FP-Kerrigan Street	0	8,285	No	Design only-Deferred 2014/15
UCC-FP-McLaughlin St-Carlton St to S	28,125	42,879	Y	Completed
UCC-FP-Moyle Street-Kerrigan Street	0	0	No	Deferred 2014/15
UCC-FPUpper Dawson Road-King St to	0	0	No	Deferred 2014/15
UCC-LA-Land acquisition costs associ	70,000	2,505	No	Not started
UCC-Misc Traffic Light Upgrades(PAPL t	25,000	10,997	Y	Completed
UCC-Misc-Moores Creek Rd Roundabout Pede	5,443	5,741	Y	Completed
UCC-NC-Blackspot-Intersection of Can	275,000	276,586	Y	Completed
UCC-NC-Dean Street-High Street Inter	1,000,000	739,387	No	Commenced
UCC-NC-Lion Creek Road Exhibition		1,978	No	Not started
UCC-NC-Moores Ck Rd Kerrigan Stree		1,083	No	Not started
UCC-NC-Norman Road-Springfield Drive	2,262,434	2,311,703	Y	Completed
UCC-NCWembee St	(12,539)	(12,539)	Y	Completed
UCC-PM-RPMs on 80 km/h roads	20,000	10,986	No	Commenced
UCC-RC-Archer St	630,000	703,049	Y	Completed
UCC-RC-Archer Street-Canning Street	506,000	31,946	No	In design
UCC-RC-Archer Street-Murray Street t	360,000	159,076	No	Commenced
UCC-RC-Bean Street-Haynes Street to	0	0	No	Not started
UCC-RC-Berserker Street-Learmington S	745,000	756,397	Y	Completed
UCC-RC-Campbell Street_Denham Street to	830,000	21,423	No	Commenced
UCC-RC-Cavell Street-New Exhibition	0	3,962	No	Deferred 2014/15
UCC-RC-Dean Street / Elphinstone Street	22,739	22,739	Y	Completed
UCC-RC-Glenmore Road_Neville Hewitt Brid	0	2,401	No	Deferred 2014/15
UCC-RC-Kent Street Archer Street to	0	0	Y	Completed
UCC-RC-Kent Street-Albert Street to	700,000	350,677	Y	Completed
UCC-RC-Kent Street-Albert Street to		748	No	Design only
UCC-RC-Lion Creek Road-Luck Avenue t	480,000	537,107	Y	Completed
UCC-RC-McLaughlin St-Splitters Creek to	434,000	448,523	Y	Completed
UCC-RC-Musgrave Street-Outside centr	50,000	0	No	Not started
UCC-RC-North Street-Campbell Street	665,000	217,736	No	Commenced
UCC-RC-Quay Street_ Denham St to Wil	11,250	12,053	No	In design
UCC-RC-Quay Street-Derby to William	0	0	No	Deferred 2014/15
UCC-RC-Quay Street-Fitzroy St to Den	800,000	5,586	No	On Hold
UCC-RC-Sedborough Street	250,000	269,324	Y	Completed
UCC-RC-Talford Street (Derby Street	616,000	587,810	Y	Completed
UCC-RF-Enhanced School Zone Signage		535	No	Commenced
UCC-RF-Moores Creek Road_Kerrigan St Signs	20,000	32,445	Y	Completed
UCC-RF-Replace guardrail at various	50,000	1,285	No	Not started
UCC-RF-Richardson Rd	20,000	17,923	Y	Completed
UCC-RS-Road Safety Minor Works Progr	60,000	12,989	No	Commenced
UCC-SL-Replace old light fittings at	10,000	5,105	Y	Completed
UCC-SL-Street Lighting Improvement Program	20,000	1,964	No	Not started
UCC-SW-Highway Street-Renshaw St to	5,000	2,601	No	Deferred 2014/15

Revised Budget	Feb Revised Budget	Expenditure to Date	Completed (Y/N)	Status
UCC-SW-Inlets replacement	50,000	45,591	Y	Completed
UCC-SW-Miles Street-14 Miles Street	200,000	187	No	Designed
UCC-SW-Oakley Street-Dibden Street t	0	0	No	Deferred 2014/15
UCC-SW-Park Street Stage 2-Glenmore	380,000	249,775	No	Commenced
UCC-SW-Rigalsford Park Flood Levy		3,562	No	Design only
UCC-SW-Rodboro St-Dean St to Water St		748	No	Design only
UCC-TL-Dean Street_Kemgan Street Inter	165,000	81,676	Y	Completed
UCC-TM-Fitzroy Street_Murray Street Inte	170,000	165,048	No	Commenced
UCC-TM-Pilbeam Dr	10,000	0	No	Commenced
UWC-AS/SS/SLS-Annual Road Resurfacin	398,500	0	No	TAW Forecast cost = £
UWC-AS-Johnson Rd seal Floodway		19,286	Y	Completed
UWC-AS-Lawrie St east shoulder Ranger St		51,072	Y	Completed
UWC-AS-Racecourse Rd at Usher Street-Mt Morgan	11,102	11,423	Y	Completed
UWC-AS-Rosewood Avenue-Ash Court to	20,000	17,097	Y	Completed
UWC-AS-Zamia Way-Lillypilly Ave to R	25,000	17,806	Y	Completed
UWC-FP_ Stewart Street Somerset Road to Bo	0	0	No	Not started
UWC-FP-Johnson Road-End of Existing	226,000	220,037	Y	Completed
UWC-NC-Elizabeth Street-Gracemere	16,000	15,089	Y	Completed
UWC-NC-Macquarie Street-Foster Stree	To be updated	642,840	No	Commenced
UWC-NC-Middle Road-Capricorn Street	100,000	91,324	No	Design only-Deferred 2014/15
UWC-RC-Old Baree Road	0	0	No	Not required
UWC-RC-Shell Crescent-Thompson Ave t	35,000	9,857	Y	Completed
UWC-RC-Somerset Road-Stewart Street	1,260,000	1,258,631	Y	Completed
UWC-SLS-Capricorn St Middle Rd to Johnso	28,500	24,095	Y	Completed
UWC-SLS-Lucas St #140 Lucas St to #184/1		14,045	Y	Completed
UWC-SLS-Lucas St Buxton Drive to #103 Lu		18,885	Y	Completed
UWC-SL-Streetlighting Improvement Pr	10,000	0	No	Not started
UWC-SS-Byrnes Parade Piddicks Crossing t		24,322	Y	Completed
UWC-SS-Chenery St Shell Cresc to Thompso		16,310	Y	Completed
UWC-SS-Coronation Drive-Davis Street	22,000	9,934	Y	Completed
UWC-SS-Dobbs St Byrnes Parade to east St		3,944	Y	Completed
UWC-SS-East St-Darcy St to Hall St	0	0	Y	Completed
UWC-SS-Ian Besch Drive east & west car p		3,904	Y	Completed
UWC-SS-Mt Morgan Pool Rd to Mt Morgan	0	16,608	Y	Completed
UWC-SS-Railway Parade Central St to Rail	0	2,742	Y	Completed
UWC-SS-Scott St Neil St to Dalley St Mt	0	2,198	Y	Completed
UWC-SS-Thompson Avenue Shell Cresc to Th		12,385	Y	Completed
UWC-SW-11 River Street	80,000	1,772	No	In design
UWC-SW-22 River Street-River St to D	0	1,546	No	Deferred 2014/15
UWC-SWEast Street Mount MorganWor	0	3,445	No	Deferred 2014/15
UWC-SW-Inlets replacement	30,000	41,189	Y	Completed
UWC-SW-Sydney King Close	1,600	14,200	Y	Completed
UWCW & S-Lucas St Allen St to #197 Lucas		59,546	Y	Completed
UWCW&SChenery St Shell Cresc to Thompso		54,024	Y	Completed
UWCW&S-Stewart St Somerset Rd to Dougla		53,458	Y	Completed
UWCWiden shoulders-Johnson Rd-Floodway to Gracemere Creek		52,418	Y	Completed
WOU Parks Kele Park Softball Electrical	(2,484)	(2,484)	Y	Completed
Heavy Vehicle Detour-Sand Creek Brid		230	No	
Heavy Vehicle Detour-Louisa Creek CH		3,293	No	

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10 NOTICES OF MOTION

Nil

11 URGENT BUSINESS/QUESTIONS

Urgent Business is a provision in the Agenda for members to raise questions or matters of a genuinely urgent or emergent nature, that are not a change to Council Policy and can not be delayed until the next scheduled Council or Committee Meeting.

12 CLOSURE OF MEETING