From: Anton Z De Klerk
To: Carl Porter
Subject: 1710-2243 SRA - Please confirm the latest version of SARA Conditions to this development
Date: Wednesday, 12 October 2022 1:49:00 PM
Attachments: RA15LProposedcontentforchangedreferrala (1).pdf
D1172017Referral (4).pdf

Hi Carl,

I'm getting confused with the assessment of this application (too many different documentations and emails)…

Please see attached copies of SARA Conditions regarding the Stockland Development (Elidda Estate) at William Palfrey Drive, Parkhurst.
Could you please confirm which version of the two attachments is the most recent / set of conditions to be used.

Kind regards,

Anton DeKlerk
Principal Town Planner (Project Planning and Corridor Management) | Fitzroy District | Central Queensland Region
Program Delivery & Operations Branch | Infrastructure Management and Delivery Division | Department of Transport and Main Roads

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PO Box 5096 | Red Hill Rockhampton Qld 4701
(07) 49311545 |
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Our reference: 1710-2243 SRA
Your reference: PR109116-3

Proposed content of changed referral agency response with conditions

The changes agreed to are:

- the table of approved plans/specifications only includes plans relevant to SARA's interests/conditions and updated version of the stormwater management plan is included
- condition 6 includes an additional standard/requirement in lieu of approving the noise assessment report and open space cross-section
- condition 7 has been revised to a performance-based outcome rather than approving the noise assessment report
- general administrative corrections

Conditions

Under section 56(1)(b)(i) of the *Planning Act 2016* (the Act), the conditions set out in Attachment 1 must be attached to any development approval.

Reasons for decision to impose conditions

The department must provide reasons for the decision to impose conditions. These reasons are set out in Attachment 2.

Advice to the applicant

The department offers advice about the application to the assessment manager—see Attachment 3.

Approved plans and specifications

The department requires that the plans and specifications set out below and enclosed must be attached to any development approval.

Drawing/report title	Prepared by	Date	Reference no.	Version/issue
Aspect of development: Reconfiguring a lot (1 lot into 129 lots)				
Proposed Subdivision Stages 1-3 Allotment Layout, as amended in red to show the potential future bus route	RPS	19 February 2018	109116-90	I
Olive Street 4 Way Signalised Intersection Concept	Calibre	25 February 2018	SK01 General Arrangement Plan, Sheet 1 of 2	C
Flood Investigation & Concept Stormwater Quantity Management Plan	Calibre Consulting (Qld) Pty Ltd	27 March 2018	17-002720-WER02	C
Design of Noise Barriers Adjacent to Railways	Queensland Rail	30 May 2011	CIVIL-SR-014	C
Layout of Yellow Cross Hatch markings and Keep	Road Safety and Systems Management	13 October 2009	TC1248	G

Fitzroy/Central regional office
Level 2, 209 Bolsover Street,
Rockhampton
PO Box 113, Rockhampton QLD 4700

Clear Signs at Railway Level Crossings	Division Road Safety Unit			
Pedestrian Level Crossings – Asphaltic Concrete (A.C) Pathway	Queensland Rail – Civil Engineering	22 August 2007	10698	C
Standard – Fencing – 1.8m High Chain Link Security Fence – Without Rails Using 50mm Diamond Mesh General Arrangement	Queensland Rail – Civil Engineering	27 August 2015	QR-C-S3230	-
Standard – Level Crossings – Details of Public Road Grading and Sign Posting	Queensland Rail – Civil Engineering	17 March 2009	2586	B
Standard – Level Crossings – Incident Reporting Signs	Queensland Rail – Civil Engineering	16 February 2006	2622	-
Standard – Level Crossings – Removal of Private & Public Crossings	Queensland Rail – Civil Engineering	16 February 2006	2623	-
Standard – Pedestrian Track Crossing – Active Gated Enclosures (Electrically Operated) Layout Details (Sheet 1 of 2)	Queensland Rail – Civil Engineering	14 September 2009	2644	E
Standard – Pedestrian Track Crossing – Active Gated Enclosures (Electrically Operated) Typical Details (Sheet 2 of 2)	Queensland Rail – Civil Engineering	5 March 2008	2645	D
Whistle Board – General Arrangement & Locating Details	Queensland Rail – Civil Engineering	25 May 2007	10732	-

enc Attachment 1—Changed conditions to be imposed
Attachment 2—Reasons for decision to impose conditions
Attachment 3—Advice to the applicant
Approved plans and specifications

Attachment 1—Changed conditions to be imposed

No.	Conditions	Condition timing
Reconfiguring a lot (1 lot into 129 lots)		
State transport infrastructure, State transport corridors and future State transport corridors—The chief executive administering the *Planning Act 2016* nominates the Director-General of Department of Transport and Main Roads to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
1.	The development, including the minimum setback of the residential allotments from the railway corridor, must be carried out generally in accordance with the following plan: • Proposed Subdivision Stage 1-3 Allotment Layout prepared by RPS dated 19 February 2018, reference 109116-90 and revision I, as amended in red to show the potential future bus route.	Prior to submitting the Plan of Survey to the local government for approval.
2.	(a) Road works comprising: i. signalised dual slip lanes from the Bruce Highway (Yaamba Road) into Olive Street (west) providing a minimum 120 metres storage and an allowance for diverge / deceleration for a minimum of 100 metres and lighting; ii. the fourth leg (Olive Street (west) of the signalised intersection of the Bruce Highway (Yaamba Road) / Olive Street, forming part of Stage 3a and 3b on Proposed Subdivision Stage 1-3 Allotment Layout, prepared by RPS, dated 19 February 2018, reference 109116-90 and revision I, as amended in red to show the potential future bus route; must be provided generally in accordance with Olive Street 4 Way Signalised Intersection Concept, prepared by Calibre, dated 25 February 2018, reference SK01 General Arrangement Plan, Sheet 1 of 2 and revision C. (b) The road works (and lighting) must be designed and constructed in accordance with the Department of Transport and Main Roads' *Road Planning and Design Manual (2nd Edition)*.	(a) & (b) Prior to submitting the Plan of Survey to the local government for approval
3.	(a) Road works comprising an internal road connection between the fourth leg (Olive Street (west)), forming part of Stage 3a on Proposed Subdivision Stage 1-3 Allotment Layout prepared by RPS, dated 19 February 2018, reference 109116-90 and revision I, as amended in red to show the potential future bus route, must be connected to William Palfrey Road at the same time when condition 2 and 14 is completed. (b) The road works must be designed and constructed in accordance with Rockhampton Regional Council requirements.	(a) & (b) Prior to submitting the Plan of Survey to the local government for approval.
4.	(a) A Construction Management Plan must be prepared by Registered Professional Engineer of Queensland and given to the Program Delivery and Operations Unit	(a) & (b) Prior to obtaining development approval

	(Central.Queensland.IDAS@tmr.qld.gov.au) within the Department of Transport and Main Roads. (b) The Construction Management Plan must demonstrate that the Bruce Highway (Yaamba Road) / William Palfrey Road intersection is to be limited to a left-in and left-out during the construction of the development. (c) The construction of the development must be undertaken in accordance with the Construction Management Plan.	for operational work (c) At all times during the construction of the development
5.	The 'potential future bus route' shown on the Proposed Subdivision Stages 1-3 Allotment Layout, prepared by RPS, dated 19 February 2018, plan reference 109116-90 and revision I, as amended in red to show the potential future bus route, must be designed and constructed to be in accordance with the Department of Transport and Main Roads' *Road Planning and Design Manual, Edition 2: Volume 3, Supplement to Austroads Guide to Road Design, Part 3: Geometric Design* (March 2016) and the *Austroads Guide to Road Design Part 3, Geometric Design* (2016) to accommodate a single unit rigid bus of 12.5m in length.	Prior to submitting the Plan of Survey to the local government for approval.
6.	Fencing must be provided along the site boundary with the railway corridor in accordance with Queensland Rail standard fencing drawing number QR-C-S3230 '1.8m High Chain Link Security Fence (without rails using 50mm diamond mesh general arrangement)' or Queensland Rail Civil Engineering Technical Requirement CIVIL-SR-014 – Design of Noise Barriers.	Prior to submitting the Plan of Survey to the local government for approval.
7.	Noise attenuation measures to achieve the following noise criteria must be provided: External noise criteria, at all facades of buildings located along the rail corridor: • ≤ 87dB(A) for single event maximum sound pressure level.	At all times for Stages 2a, 2e and 2f
8.	(a) The development must be carried out generally in accordance of the Flood Investigation & Concept Stormwater Quantity Management Plan prepared by Calibre Consulting (Qld) Pty Ltd dated 27 March 2018, reference 17-002720-WER02 and revision C; in particular Appendix D – Concept Plans & Details (b) RPEQ certification with supporting documentation must be provided to Program Delivery and Operations Unit (Central.Queensland.IDAS@tmr.qld.gov.au) within the Department of Transport and Main Roads, confirming that the development has been constructed in accordance with part (a) of this condition.	(a) At all times (b) Prior to submitting the Plan of Survey to the local government for approval.
9.	(a) Any excavation, filling/backfilling/compaction, retaining structures, batters, earth mounds, stormwater management measures and other works involving ground disturbance must not encroach or de-stabilise the railway corridor, including all transport infrastructure or the land supporting this infrastructure, or cause similar adverse impacts.	(a) At all times (b) Prior to submitting the Plan of Survey to the local government for

	(b) RPEQ certification with supporting documentation must be provided to the Program Delivery and Operations Unit (Central.Queensland.IDAS@tmr.qld.gov.au) within the Department of Transport and Main Roads, confirming that the development has been constructed in accordance with part (a) of this condition.	approval (for the relevant stages).
10.	The railway level crossing of the North Coast Line at William Palfrey Road (ID: 5412) must be: (a) widened to accommodate two passing semi-trailers over the crossing and for a distance of 20m from the outer rail track (edge running rail) on each side of the crossing; and (b) sealed with asphaltic concrete or similar material which must extend over the crossing and for a minimum distance of 20 metres from the outer rail track (edge running rail) on each side of the crossing, in accordance with Queensland Rail Standard Drawing No. 2586 – 'Level Crossings, Details of Public Road Grading and Sign Posting'.	Prior to the commencement of operational work or building work, whichever occurs first
11.	(a) The railway level crossing of the North Coast Line at William Palfrey Road (ID: 5412) must be upgraded at the applicant's expense to include the following on each side of the crossing: i. Maintain the flashing light controls in accordance with clause 2.3.1 'Railway crossing flashing signal assembly (RX-5)' of AS1742.7:2016 *Manual of uniform traffic control devices, Part 7: Railway crossings;* ii. Install advanced warning signage in accordance with Figure 4.6 'Railway crossing with straight approach controlled by flashing lights (Active control)' of AS1742.7:2016 *Manual of uniform traffic control devices, Part 7: Railway crossings;* iii. Install cross-hatching and "Keep Tracks Clear" signs in accordance with Section 3.6 and Figure 3.2 'Yellow Box Markings' of AS1742.7:2016 *Manual of uniform traffic control devices, Part 7: Railway crossings* and Department of Transport and Main Roads Drawing number TC1248 'Layout of Yellow Cross Hatch Markings and Keep Clear Signs at Railway Level Crossings'. (b) The applicant must provide to the Program Delivery and Operations Unit, Department of Transport and Main Roads, Central Queensland Region (Central.Queensland.IDAS@tmr.qld.gov.au) written evidence from the railway manager that the required works have been designed and constructed in accordance with part (a) of this condition.	(a) & (b) Prior to the commencement of operational work or building work, whichever occurs first
12.	(a) The railway level crossing of the North Coast Line at William Palfrey Road (ID: 5412) must be relocated to Olive Street in accordance with the location shown on the Olive Street 4 Way Signalised Intersection Concept, prepared by Calibre, dated 25 February 2018, reference SK01 General Arrangement Plan,	(a) & (b) Upon decommissioning the existing rail level crossing located on William Palfrey Road

	Sheet 1 of 2, and revision C; (b) The Olive Street railway level crossing must be upgraded at the applicant's expense to include the following: i. On each side of the crossing install flashing lights and boom barriers in accordance with clause 2.3.1 'Railway crossing flashing signal assembly (RX-5)', clause 2.3.8 'Boom barrier' and Figure 4.6 'Railway crossing with straight approach controlled by flashing lights (Active control)' of AS1742.7:2016 Manual of uniform traffic control devices, Part 7: Railway crossings; ii. Install cantilevered overhead flashing light signal assembly to cover all traffic lanes in accordance with clause 2.3.1 'Railway crossing flashing signal assembly (RX-5)', Figure 2.1 'Overhead flashing signal assembly' and Figure 4.6 'Railway crossing with straight approach controlled by flashing lights (Active control)' of AS1742.7:2016 *Manual of uniform traffic control devices, Part 7: Railway crossings*; iii. On each side of the crossing install cross-hatching and "Keep Tracks Clear" signs in accordance with Section 3.6 and Figure 3.2 'Yellow Box Markings' of AS1742.7:2016 *Manual of uniform traffic control devices, Part 7: Railway crossings* and Department of Transport and Main Roads Drawing number TC1248 'Layout of Yellow Cross Hatch Markings and Keep Clear Signs at Railway Level Crossings' iv. In vehicle lanes on the western approach to the crossing install all advanced warning signage and road markings in accordance with Figure 4.7 'Railway crossing with straight approach controlled by flashing lights and half-boom barrier (Active control)' of AS1742.7:2016 *Manual of uniform traffic control devices, Part 7: Railway crossings*; v. In vehicle lanes on the eastern approach to the crossing install all advanced warning signage and road markings in accordance with Figure 4.11 'Railway level crossing on a side road controlled by flashing lights (Active control)' of AS1742.7:2016 *Manual of uniform traffic control devices, Part 7: Railway crossings*; vi. Install whistle boards at 360 metres on both Up and Down sides of the crossing in accordance with Queensland Rail drawing number 10732 – 'Whistle Board, General Arrangement & Locating Details'; vii. On each side of the crossing install Incident Reporting Signage (crossing ID 7426) at the crossing in accordance with Queensland Rail standard drawing number 2622 – 'Level crossings, Incident Reporting Signage'; viii. Upgrade the existing relay interlocking at Parkhurst to a Processor Based Interlocking (including a new power supply/ circuitry); ix. The railway level crossing active controls (flashing signals and boom barriers) must be coordinated with the traffic light system at the Olive Street / Bruce Highway intersection. The	and prior to submitting the Plan of Survey to the local government for approval (c) Prior to submitting the Plan of Survey to the local government for approval

	coordinated flashing signals and traffic light system must minimise vehicle queueing between the railway level crossing and intersection, and hold traffic west of the railway level crossing; x. Install overhead lighting for the road crossing of the railway corridor in accordance with the Department of Transport and Main Roads' *Road Planning and Design Manual (2nd Edition)*. xi. On each side of the crossing construct a pedestrian pathway and install Tactile Ground Surface Indicator pads in accordance with Queensland Rail drawing number 10698 – 'Pedestrian Level Crossings'; xii. On each side of the crossing install active gated enclosures with tapping rails and all warning signage in accordance with Queensland Rail standard drawing numbers 2644 – 'Pedestrian Track crossing' and 2645 – 'Pedestrian Track crossing'; xiii. Install guide fencing on the funnel pathway on both approaches to the crossing; xiv. Install overhead lighting for the pedestrian crossings in accordance with clause 6.3.3 (g) 'Footpath requirements' of AS1742.7:2016 Manual of uniform traffic control devices, Part 7: Railway crossings (c) The applicant must provide to the Program Delivery and Operations Unit, Department of Transport and Main Roads, Central Queensland Region (Central.Queensland.IDAS@tmr.qld.gov.au) written evidence from the railway manager that the required works have been designed and constructed in accordance with parts (a) and (b) of this condition.	
13.	The railway level crossing of the North Coast Line at Olive Street must be sealed with asphaltic concrete or similar material which must extend over the crossing and to the railway corridor boundary on each side of the crossing, in accordance with Queensland Rail Standard Drawing No. 2586 – 'Level Crossings, Details of Public Road Grading and Sign Posting'.	Upon decommissioning the existing rail level crossing located on William Palfrey Road and prior to submitting the Plan of Survey to the local government for approval
14.	(a) The railway level crossing of the North Coast Line at William Palfrey Road (ID: 5412) must be decommissioned in accordance with Queensland Rail Standard Drawing number 2623 – 'Level Crossings, Removal of Private and Public crossings' and closed in conjunction with the opening of the fourth leg (Olive Street (west)) as detailed in condition 2. (b) Written evidence from the railway manager (Queensland Rail) must be provided to the Program Delivery and Operations Unit, Department of Transport and Main Roads, Central Queensland Region (Central.Queensland.IDAS@tmr.qld.gov.au), confirming that the public level crossing has been decommissioned and	(a) & (b) Prior to submitting the Plan of Survey to the local government for approval and prior to the commencement of use of the Olive Street railway level crossing

	closed in accordance with part (a) of this condition.	

Attachment 2—Reasons for decision to impose conditions

The reasons for this decision are to ensure:

- the development is carried out generally in accordance with the plans of development submitted with the application
- the road works on, or associated with, the state-controlled road network are undertaken in accordance with applicable standards
- the deliverance, as far as practicable, of public passenger transport infrastructure to support public passenger services
- that there is no unauthorised access onto the transport corridor and to protect impacts on the transport corridor
- noise intrusions are minimised on the development from the state-controlled transport corridor
- that the impacts of stormwater events associated with development are minimised and managed to avoid creating any adverse impacts on the state transport corridor
- the development and its construction does not cause adverse structural impacts on state-transport infrastructure
- the safety and operational integrity of railway level crossings where development generated traffic may adversely impact on the track formation and structure

Attachment 3—Advice to the applicant

General advice	
1.	Traffic calming devices should not be incorporated into the design and construction of potential future bus routes in accordance with Chapter 2 - Planning and Design, Section 2.3.2 Bus Route Infrastructure (page 6) of the Department of Transport and Main Roads, TransLink *Public Transport Infrastructure Manual (PTIM) 2015*. The Department of Transport and Main Roads' TransLink *Public Transport Infrastructure Manual 2015* is available at: http://translink.com.au/about-translink/reports-and-publications.
2.	The existing bus route 410 is likely to be impacted on by the construction of the development. This bus route and its associated bus stops, including pedestrian access to these bus stops, must be maintained during construction. Accordingly, if any temporary bus stop and pedestrian access arrangements are required, the applicant must reach agreement on suitable arrangements with the Department of Transport and Main Roads' TransLink Division (bus_stops@translink.com.au or on 3851 8700) and Sunbus (4936 2133) prior to any construction or works commencing.
3.	Pursuant to section 255 of the *Transport Infrastructure Act 1994*, the railway manager's written approval is required to carry out works in or on a railway corridor or otherwise interfere with the railway or its operations. In particular, the applicant should consult with Queensland Rail regarding the following: • the applicant is responsible for obtaining any necessary approvals, contract arrangements, and/or other agreements from the railway manager (Queensland Rail) for the design and construction of the upgraded level crossing at William Parfrey Road and the relocated and upgraded level crossing at Olive Street. In particular, the applicant is required to reach agreement with the railway manager regarding the design and construction of the control devices and/or treatments detailed in the relevant concurrence agency condition; • the decommissioning and closure of the William Palfrey Road crossing of the North Coast Line; • utility and service connections involving the railway corridor; • the installation of fencing adjacent to the railway corridor boundary; • any works in the railway corridor noting that works for the earthmound/acoustic barrier, fencing and stormwater drainage are not supported in the railway corridor. Please be advised that this concurrence agency response does not constitute an approval under section 255 of the *Transport Infrastructure Act 1994* and that such approvals need to be separately obtained from the relevant railway manager. The applicant should contact Queensland Rail Property Team at developmentenquiries@qr.com.au or on telephone number (07) 3072 1068 in relation to this matter.
4.	Under section 33 of the *Transport Infrastructure Act 1994,* written approval is required from the Department of Transport and Main Roads to carry out road works on a state-controlled road. Please contact the Department of Transport and Main Roads' on (07) 4931 1500 at FitzroyDistrict@tmr.qld.gov.au to make an application for road works approval. This approval must be obtained prior to commencing any works on the state-controlled road reserve. The approval process may require the approval of engineering designs of the proposed works, certified by a Registered Professional Engineer of Queensland (RPEQ). Please contact the Department of Transport and Main Roads' as soon as possible to ensure that gaining approval does not delay construction.

Technical Specialist Response – Assessment – Minor Change – further issues

Technical agency (TA)—Transport and Main Roads
Technical Specialist - RAPTTA

PD&O Requested Date:	17 Oct
PD&O Due Date:	
PD&O DAO:	
TA reference:	TMR17-022950
DILGP reference:	1710-2243 SRA
DILGP regional office:	SARA Fitzroy Central
DILGP email:	RockhamptonSARA@dilgp.qld.gov.au

1.0 Endorsement

Officer	Approver
Victoria Stavar	Rebecca Kalianiotis
Principal Planner	Manager
3066 1580	3066 1456
13/10/2022	17/10/2022

2.0 Application details

Street address:	23-27 William Palfrey Road, Parkhurst QLD 4701
Real property description:	22SP134380, 23SP134380, 41SP226571, 49SP129857, 5SP238731
Local government area:	Rockhampton Regional Council
Applicant name:	Stockland Development Pty Ltd
Applicant contact details:	c/-RPS PO Box 977 Townsville QLD 4810

3.0 Aspects of development and type of approval being sought

Aspect Of Development	Type Of Approval	Description
Reconfiguration of a Lot	Development Permit	1 lot into 129 lots - 124 residential lots, 2 management lots, 1 active open space lot, 1 linear open space lot, and 1 balance lot

4.0 Matters of interest to the state

The development application has the following matters of interest to the state under the provisions of the Planning Regulation 2017:

Trigger Mode	Trigger Number	Trigger Description
All Modes	10.9.4.1.1.1	Development application for an aspect of development stated in schedule 20 that is assessable development under a local categorising instrument or section 21, if—(a) the development is for a purpose stated in schedule 20, column 1 for the aspect; and (b) the development meets or exceeds the threshold— (i) for development in local government area

		1—stated in schedule 20, column 2 for the purpose; or (ii) for development in local government area 2—stated in
Railways	10.9.4.2.1.1	Development application for reconfiguring a lot that is assessable development under section 21, if— (a) all or part of the premises are within 25m of a State transport corridor; and (b) 1 or more of the following apply— (i) the total number of lots is increased; (ii) the total number of lots adjacent to the State transport corridor is increased; (iii) there is a new or changed access between the premises and the State transport corridor; (iv) an easement is created adjacent to a railway as defined under the Transport Infrastructure Act, schedule 6; and (c) the reconfiguration does not relate to government supported transport infrastructure
State-Controlled Roads	10.9.4.2.3.1	Development application for reconfiguring a lot that is assessable development under section 21, if— (a) all or part of the premises are— (i) adjacent to a road (the relevant road) that intersects with a State-controlled road; and (ii) within 100m of the intersection; and (b) 1 or more of the following apply— (i) the total number of lots is increased; (ii) the total number of lots adjacent to the relevant road is increased; (iii) there is a new or changed access between the premises and the relevant road; and (c) the reconfiguration does not relate to government supported transport infrastructure

5.0 Assessment

5.1 Evidence or other material

Background

- In 2011, Stockland advised TMR of a proposed integrated residential and commercial development 'Ellida' at Parkhurst, north of Rockhampton.

Previous development application (TMR Ref: TMR13-005882, Rockhampton Regional Council Ref: D/36-2013)

- A development application was made on 11 March 2013 to Rockhampton Regional Council (Ref: D/36-2013) seeking a preliminary approval for a master planned residential estate of 2350 allotments and a development permit for reconfiguring a lot for stages 1 – 3 of 199 lots at Yaamba Road, Parkhurst. The site was adjacent to the North Coast Line railway and triggered referral to the Department of Transport and Main Roads as a concurrence agency for railways and state-controlled roads.
- Access to the development from the Bruce Highway was proposed via a four way intersection at Olive Street which would involve a new railway crossing of the North Coast Line railway.
- The development was facilitated as a 'major project' under the previous Department of State Development Infrastructure Planning (DSDIP) Industry Support Unit.
- There were a number of workshops and pre-lodgement meetings with the applicant, Department of Transport and Main Roads, Queensland Rail and the Minister's office from November 2012 regarding the proposal for a new railway level crossing for the development.
- The *Queensland Level Crossing Safety Strategy 2012-2021* seeks to eliminate level crossings where appropriate. In particular, Strategy 9 seeks to:
  'Explore opportunities for grade separation or closing level crossings and seek to minimise any proposals to construct a public level crossing on a greenfield site, with a clear objective to add no further open level crossings to the network.'
- Consequently, any proposed level crossings require Minister endorsement.
- To overcome the Government's position of 'no new level crossings', Stockland proposed to relocate the William Palfrey Road level crossing approximately 700m north to Olive Street. Grade separation was considered unviable due to cost and land constraints.

- In March 2013, the Minister advised that the new Olive Road level crossing was supported as a replacement for the William Palfrey Road level crossing based on it being assessed as 'medium risk'.
- TMR provided a letter dated 15 April 2013 to Stockland which advised that '*TMR supports the proposed at-grade level crossing solution to Olive Street, noting no further crossings will be added to the network as the existing level crossing at William Palfrey Road will be relocated and upgraded.'*
- TMR issued an information request dated 7 May 2013 which requested further information in relation to state-controlled road traffic, conceptual engineering drawings for the Olive Street level crossing and railway noise.
- The existing William Palfrey Drive level crossing was intended to be utilised for construction purposes, then decommissioned and closed upon the opening of the replacement Olive Street level crossing.
- Queensland Rail provided approval in principle to replace the William Palfrey Road level crossing with the Olive Street level crossing via letters dated 12 April 2013 and 28 August 2013 including specific requirements and conditional upon further consultation at detailed design stages.
- TMR issued a concurrence agency response with conditions on 17 October 2013. This included requirements regarding the new Olive Street level crossing and closure and decommissioning of the William Palfrey Road level crossing, amongst other railway conditions concerning stormwater, fencing, noise and earthworks. Additional conditions were applied in relation to state-controlled road intersection works and future potential bus routes.
- Rockhampton Regional Council issued a Decision Notice dated 11 December 2013 giving approval for a Preliminary Approval to vary the effect of the Planning Scheme for a Material Change of Use for a Master Planned Community and a Development Permit for Reconfiguring a Lot (five lots into 127 lots, public use land and balance lots).
- The approval was subsequently appealed and withdrawn. As such, there is no prior approval.
- The current Rockhampton City Plan 2015 now designates the 'Ellida' site as residential and as such future residential development on the site does not require a preliminary approval for a material change of use to change the levels of assessment for the land.
- A number of prelodgement meetings have been held between TMR, QR, DILGP and the applicant:

  <u>Prelodgement Meeting – 16 September 2015</u> (TMR ref: TMR15-014875; DILGP Ref: SPL-0815-023596)

  - A prelodgement meeting was held on 16 September 2015, and a prelodgement meeting record dated 2 October 2015 was provided regarding a forthcoming 128 lot subdivision and sales office generally corresponding to the previously assessed stages 1-3.
  - the applicant was advised that all previous reporting for the development application needed to be revised and updated and the relevant SDAP criteria would need to be addressed for state-controlled roads and railways.
  - The applicant advised that the intention of closing the William Palfrey Road railway level crossing remained and requested in-principle agreement that the replacement railway level crossing was still valid. TMR was to check the process required for this with senior management and advised updated traffic data would be required regarding the revised development proposal and arrangements, background traffic, design horizon and the like as this would affect the design / safety controls.
  - The applicant was requested to provide formal written correspondence to TMR clarifying the nature of the proposed development and requesting written confirmation regarding the validity of the replacement railway level crossing.

- Since this meeting, TMR confirmed that the replacement level crossing approved by the Minister in 2013 remains valid in principle. This was the direction given by the Executive Director, of Transport System Management within TMR.

Prelodgement Meeting – 29 May 2017 (TMR ref: TMR17-021315; DILGP Ref: SPL-0517-039320)

- A prelodgement meeting was held on 29 May 2017 (SPL-0517-039320) and a prelodgement meeting record dated 8 June 2017 was provided regarding a forthcoming 126 lot subdivision generally corresponding to the previously assessed stages 1-3. The intent was to provide information for the entire development.
- Access for the initial stages of the development (construction, display village and initial lot releases of approximately 200 allotments) was proposed through Edenbrook estate, subject to receiving approval from Rockhampton City Council. The intersection of William Palfrey Road and the Bruce Highway was not intended to be used to access the site during construction and at commencement, provided the applicant could reach agreement to use the road connection from the Edenbrook estate. The applicant wished to achieve primary access to the estate via Olive Street.
- At this meeting it was conveyed that the issues raised at the prelodgement meeting of October 2015 were still required to be addressed, in particular all reports should be updated.
- TMR is upgrading the Bruce Highway at this location, however would not be designing or funding the fourth leg of Olive Street which includes the replacement railway level crossing.
- The meeting specifically discussed traffic information, and in relation to railway level crossings TMR identified that information would be required in relation to proposed access arrangements and development generated traffic for all aspects and stages of the development, and only one level crossing could be operational at one time.
- Queensland Rail and TMR advised that it was preferred for access to the development (namely, construction and the initial stages) to be gained from the road connection via the Edenbrook estate rather than via the existing railway level crossing at William Palfrey Road.

Current development application

- The development application is seeking a development permit for Reconfiguring a Lot (1 lot into 129 lots - 124 residential lots, 2 management lots, 1 active open space lot, 1 linear open space lot, and 1 balance lot).
- The proposed development is for the initial stages 1-3 of the 'Ellida' development, adjacent to the railway corridor. The overall development will include up to approximately 2,350 residential allotments as part of the master planned community.
- Access to the development is proposed via a four-way signalised intersection on the Bruce Highway at Olive Street which includes a replacement at-grade crossing of the railway corridor on the (western) fourth leg of this intersection.
- The existing level crossing on William Palfrey Road is proposed to be relocated to align with the proposed principal access point of the development.
- The proposed development is adjacent to the North Coast Line on its eastern boundary.
- The development application is made partly over rail corridor land, namely Lots 22 and 23 on SP134380 and Lot 49 on SP129857. These lots include the existing railway level crossing of William Palfrey Road and the proposed Olive Street extension and new level crossing. The referral material includes a land owner's consent letter (reference 485/00165, E46413) from the Department of Transport and Main Roads in relation to the rail corridor land to enable the development application to be made over Lots 22 and 23 on SP134380 and Lot 49 on SP129857.
- The applicant has agreed to receive an information request as per DA Form 1, Part 6 – Information Request, item 19.
- Other than the Traffic Impact Assessment, the reports submitted with the current development

application have generally not been updated since 2013.

- The development was deemed properly made by Rockhampton Regional Council on 16 October 2017.
- Therefore, the development application is triggered for assessment under the following state code of the State Development Assessment Provisions, version 2.1, effective from 11 August 2017, in relation to railways.

Minor Change

- By letter dated 17 August 2022, the applicant made a minor change application pursuant to section 78 of the *Planning Act 2016* to DSDMIP as a responsible entity.
- The applicant requested a change to the existing referral agency conditions, dated 21 March 2018, reference 1710-2243 SRA, particularly conditions 2, 3, 4, 6, 7, 10, 11, 12, 13, and 14.
- The changes requested relate mostly to condition timing and are as follows:
    - *Condition 2 - Condition Timing be amended to add the words "for the appropriate stage"*
    - *Condition 3 - Be amended to allow for the first stage to access direct from William Palfrey Road as per application made to Council (if required) as attached, removing the requirement for Conditions 2 and 14 to complied with at the same time.*
    - *Condition 4 Item (b) - To be deleted as roadworks have made the intersection left in left out already.*
    - *Condition 6 - We request that this condition specify which boundary is to be fenced.*
    - *Condition 7 - Be amended as per DRAFT conditions dated 29 June 2018 to reference the updated Noise Report by MWA as attached.*
    - *Condition 10 - We seek removal of this condition given access will be provided along William Palfrey Road from the west.*
    - *Condition 11 - We seek removal of this condition given access will be provided along William Palfrey Road from the west.*
    - *Condition 12 - We seek the removal of timing requirements (a) and (b) and replaced with: 'Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing'*
    - *Condition 13 - Condition Timing be amended to state: 'Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing'*
    - *Condition 14 - Condition Timing be amended to state: 'Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing'*
- Specifically, the proposed change to conditions is to enable the development to use William Palfrey Road from the west as access to the subject site prior to having to complete the railway level crossing relocation to Olive Street due to expected 2.5 year delays associated with scheduled railway line closures in this location.
- The applicant also wants to clarify the location and extend of the fencing required along the rail corridor (as per condition 6).

Assessment:

- Section 81(2) of the *Planning Act 2016*, states that when assessing a change application, the responsible entity must consider:
    - *'(da) …all matters the responsible entity would or may assess against or have regard to, if the change application were a development application; and*
    - *(e) another matter that the responsible entity considers relevant.'*

- For sub-section 81(2)(da), provision 81(3) provides that the responsible entity:
    - *'(a) must assess against, or have regard to, the matters that applied when the development application was made; and*
    - *(b) may assess against, or have regard to, the matters that applied when the change application was made.'*

- Since the development application was made, the following have come into effect:-
  - *Planning Act 2016*;
  - *Planning Regulation 2017*; and
  - *State Development Assessment Provisions*, version 3.0.

5.2 SDAP Assessment

The following is an assessment of the application against each applicable codes in:

State Code 2: Development in a railway environment

Performance outcomes	Acceptable outcomes	Response
Buildings and structures		
PO1 The location of buildings, structures, infrastructure, services and utilities does not create a safety hazard in a railway corridor or cause damage to, or obstruct, rail transport infrastructure or other rail infrastructure.	AO1.1 Buildings, structures, infrastructure, services and utilities are not located in a railway corridor. AND AO1.2 Buildings, structures, infrastructure, services and utilities can be maintained without requiring access to a railway corridor. **AND**	<u>Development setbacks/clearances</u> • The Proposed Subdivision Stages 1-3 Allotment Layout (revision I) shows a linear open space lot approximately 20m wide and balance lot 5007 adjacent to the railway corridor. The linear open space is to accommodate a noise mound and the balance lot accommodates future SCR planning. • This plan also shows Stage 3b will include a new road across the railway corridor. This will be addressed under PO23 in relation to railway level crossings. • Therefore the development is unlikely to compromise this aspect of PO1. <u>Pipework, services and utilities</u> • Electricity is currently available to the site and a future electrical easement lot is proposed adjacent to the railway corridor. • The planning report indicates that new sewer and water connections will be required to service the development from Yaamba Road. These will be required to cross the railway corridor. • These connections across the railway corridor are conceptually shown on the Wastewater Master Plan Service Strategy and Concept Water Reticulation Layout Plan. They appear to align with the new location of Olive Street and will likely be co-located with the new road. • Therefore an advice statement should be provided regarding the approval requirements under section 255 of the *Transport Infrastructure Act 1994* to ensure compliance with this aspect of PO1. *Minor Change*

Performance outcomes	Acceptable outcomes	Response
		• The proposed changes do not alter the original assessment.
	AO1.3 Buildings, structures and infrastructure are set back horizontally a minimum of 3 metres from the outermost projection of overhead line equipment. Note: Section 2.3 of the Guide to Development in a Transport Environment: Rail, TMR, 2015 provides guidance on how to comply with this acceptable outcome. **AND**	N/A – There is no OHLE in this section of the railway corridor.
	AO1.4 The lowest part of development in or over a railway is a minimum of: 1. 7.9 metres above the railway track where the proposed development extends along the railway for a distance of less than 40 metres 2. 9 metres above the railway track where the development extends along the railway for a distance of between 40 and 80 metres. **AND**	N/A – The development is not in or above the railway corridor.
	AO1.5 Pipe work, services and utilities: 1. are not attached to rail transport infrastructure or other rail infrastructure 2. do not penetrate through the side of any proposed building element or structure where built to boundary in, over or abutting a railway corridor.	Refer to the assessment under AO1.1 and AO1.2.
PO2 Buildings and structures are located to not interfere with, or impede access to, a railway bridge.	AO2.1 Buildings and structures are set back horizontally a minimum of 3 metres from a railway bridge. **AND**	N/A – there are no railway bridges at this location.
	AO2.2 Permanent structures are not located below or abutting a railway bridge. **AND**	
	AO2.3 Temporary activities below or abutting a railway bridge do not impede access to a railway corridor.	

Performance outcomes	Acceptable outcomes	Response
	Note: Temporary activities below or abutting a railway bridge could include, for example, car parking or outdoor storage.	
PO3 Development does not add or remove loading that will cause damage to rail transport infrastructure or a railway corridor. Note: To demonstrate compliance with this performance outcome, it is recommended a RPEQ certified geotechnical assessment, prepared in accordance with the Guide to Development in a Transport Environment: Rail, TMR 2015 is provided.	No acceptable outcome is prescribed.	Refer to the assessment under PO10-PO14.
PO4 Development above a railway is designed to enable natural ventilation and smoke dispersion in the event of a fire emergency. Note: Section 5.1 – Development over a railway of the Guide to Development in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with this acceptable outcome.	No acceptable outcome is prescribed.	N/A – The development is not proposed above the railway corridor.
PO5 Construction activities do not cause ground movement or vibration impacts in a railway corridor. Note: Recommended a RPEQ certified geotechnical assessment, prepared in accordance with section 2.7 of the Guide to Development in a Transport Environment: Rail, TMR, 2015 is provided.	No acceptable outcome is prescribed.	Refer to the assessment under PO10-PO14.

Performance outcomes	Acceptable outcomes	Response
PO6 Buildings and structures in a railway corridor are designed and constructed to remain structurally sound in the event of a derailed train.	AO6.1 Buildings and structures, in a railway corridor including piers or supporting elements, are designed and constructed in accordance with Civil Engineering Technical Requirement – CIVIL-SR-012 Collision protection of supporting elements adjacent to railways, Queensland Rail, 2011, AS5100 Bridge design and AS1170 Structural design actions. Note: Section 3.2 of the Guide to Development in a Transport Environment: Rail, TMR, 2015 provides guidance on how to comply with this acceptable outcome.	N/A – The proposed development is not located within a railway corridor and is located more than 20m from the nearest railway track. The proposed development relates to a reconfiguration.
PO7 Buildings and structures in high risk locations and where also located within 10 metres of the centreline of the nearest railway track are designed and constructed to remain structurally sound in the event of a derailed train.	AO7.1 Buildings and structures, in a railway corridor including piers or supporting elements, are designed and constructed in accordance with Civil Engineering Technical Requirement CIVIL-SR-012 Collision protection of supporting elements adjacent to railways, Queensland Rail, 2011, AS5100 Bridge design and AS1170 Structural design actions. Note: Section 3.2 of the Guide to Development in a Transport Environment: Rail, TMR, 2015 provides guidance on how to comply with this acceptable outcome.	
PO8 Buildings and structures in a railway corridor are designed and constructed to prevent projectiles from being thrown onto a railway.	AO8.1 Buildings and structures in a railway corridor include throw protection screens in accordance with the relevant provisions of the Civil Engineering Technical Requirement – CIVIL-SR-005 Design of buildings over or near railways, Queensland Rail, 2011, and the Civil Engineering Technical Requirement – CIVIL-SR-008 Protection screens, Queensland Rail. AND	
	AO8.2 Road, pedestrian and bikeway bridges over a railway include throw protection screens in accordance with the	

Performance outcomes	Acceptable outcomes	Response
	relevant provisions of the Civil Engineering Technical Requirement – CIVIL-SR-005 Design of buildings over or near railways, Queensland Rail, 2011, and the Civil Engineering Technical Requirement – CIVIL-SR-008 Protection screens, Queensland Rail. Note: Section 2.4 of the Guide to Development in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with this outcome.	
PO9 Buildings, and structures, other than accommodation activities, are designed and constructed to prevent projectiles from being thrown onto a railway from any publicly accessible areas located within 20 metres from the centreline of the nearest railway track.	AO9.1 Publically accessible areas located within 20 metres from the centreline of the nearest railway track do not directly overlook a railway. **OR** AO9.2 Buildings and structures are designed to ensure publically accessible areas located within 20 metres of the centreline of the nearest railway track and that overlook the railway include throw protection screens in accordance with the relevant provisions of the Civil Engineering Technical Requirement – CIVIL-SR-005 Design of buildings over or near railways, Queensland Rail, 2011, and the Civil Engineering Technical Requirement – CIVIL-SR-008 Protection screens, Queensland Rail. Note: Section 2.4 of the Guide to Development in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with this outcome.	
Filling, excavation and retaining structures		
PO10 Filling, excavation and retaining structure do not interfere with, or result in damage to, infrastructure or services in a railway corridor. Note: Where development will impact on an existing or future	No acceptable outcome is prescribed.	<u>Earthworks, Retaining and Ground Disturbance</u> • The proposed subdivision will involve road works and is likely to involve bulk earthworks to achieve level building pads. • The Proposed Subdivision Stages 1-3 Allotment Layout (revision H) shows a linear open space lot (Stage 3b)

Performance outcomes	Acceptable outcomes	Response
service or public utility plant in a railway corridor, the alternative alignment must comply with the standards and design specifications of the relevant service or public utility provider, and any costs of relocation are to be borne by the developer.		approximately 25m wide extending along the length of the railway corridor. The planning report indicates the intent of this lot is to accommodate a future electrical easement. • This plan also shows Stage 3a will include a new road across the railway corridor. • The Civil Engineering and Services Report (Appendix G), prepared by Brown Consulting and dated 05/03/2013, includes Preliminary Bulk Earthworks and Retaining Wall Plans and Preliminary Bulk Earthworks Cut/Fill Depths Plans. These plans show earthworks will be setback approximately 25m from the railway corridor except for works associated with the construction of the Olive Street extension over the railway corridor. • The works on the railway corridor associated with this new road and level crossing will be assessed under PO23 in relation to railway level crossings and require railway manager approval under section 255 of the *Transport Infrastructure Act*. *Response to information request* • A new staging plan has been submitted and the road extension across the railway corridor will occur in Stage 3b. • The works on the railway corridor associated with this new road and level crossing will be assessed under PO23 in relation to railway level crossings and require railway manager approval under section 255 of the *Transport Infrastructure Act*. • The Proposed Subdivision Stages 1-3 Allotment Layout (revision I) shows a linear open space lot (to accommodate noise mound) approximately 20m in width and new balance Lot 5007 (to accommodate future SCR planning) adjacent to the railway corridor. • The QR Linear Open Space Cross-Section (drawing 109116-114) shows a 2.5m high acoustic earthmound will be provided within the linear open space corridor and within the railway corridor. This includes a 1:3 batter to
PO11 Filling, excavation, building foundations and retaining structures do not undermine, or cause subsidence of, a railway corridor. Note: To demonstrate compliance with this performance outcome, it is recommended a RPEQ certified geotechnical assessment is provided, prepared in accordance with section 2.7 of the Guide to Development in a Transport Environment: Rail, TMR, 2015.	No acceptable outcome is prescribed.	
PO12 Filling and excavation, building foundations and retaining structures do not cause ground water disturbance in a railway corridor. Note: To demonstrate compliance with this performance outcome, it is recommended a RPEQ certified geotechnical assessment is provided, prepared in accordance with section 2.7 of the Guide to Development in a Transport Environment: Rail, TMR, 2015.	No acceptable solution is prescribed.	
PO13 Excavation, boring, piling, blasting or fill compaction during construction of a development does not result in ground	No acceptable outcome is prescribed.	

Performance outcomes	Acceptable outcomes	Response
movement or vibration impacts that would cause damage or nuisance to a railway corridor, rail transport infrastructure or railway works. Note: Recommended a RPEQ certified geotechnical assessment is provided, prepared in accordance with section 2.7 of the Guide to Development in a Transport Environment: Rail, TMR, 2015.		the railway corridor existing ground level. • The exact location of these works within the railway corridor is not shown on the submitted plans. • The railway manager (QR) has advised that earthworks not associated with the new proposed road are not permitted within the railway corridor. • No new earthworks details or plans have been provided to support the new staging plan. • Retaining structures, including earth mounds in excess of an overall height of 1m abutting a railway corridor are to be designed and certified by a structural RPEQ. • The proposed earthworks therefore have the potential to adversely impact on the safety and operational integrity of the railway. • It is assumed that a subsequent operational works application will be forthcoming, however DSDMIP will not be triggered as a concurrence agency if these works are 'associated with' the subject application for a material change of use and reconfiguring a lot. • Given the above, a condition is required to be imposed, including RPEQ certification and advice statement regarding approval under section 255 of the *Transport Infrastructure Act* to ensure compliance with PO10 PO14. *Minor Change* • Referral agency condition 9 relates to earthworks • The proposed changes do not request alteration to referral agency condition 9. • The proposed change does not alter the original assessment.
PO14 Filling and excavation material does not cause an obstruction or nuisance in a railway corridor.	AO14.1 Development does not store fill, spoil or any other material in, or adjacent to, a railway corridor.	
Stormwater and drainage		
PO15 Development does not result in an actionable nuisance or worsening of stormwater, flooding or drainage impacts in a railway corridor. Note: Section 2.8 of the Guide to Development	No acceptable outcome is prescribed.	• *Refer to response below for PO15 and PO16.*

Performance outcomes	Acceptable outcomes	Response
in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with this performance outcome.		
PO16 Run-off from the development site during construction of development does not cause siltation of stormwater infrastructure affecting a railway corridor.	AO16.1 Run-off from the development site during construction of development is not discharged to stormwater infrastructure in a railway corridor.	

- The site is currently undeveloped rural land and adjoins the railway corridor on its eastern boundary.
- The first stages (1 to 3) of the development directly adjoin the railway corridor.
- The railway corridor is located upstream of the site.
- The proposed residential subdivision will increase the impervious area on the site and therefore peak discharge.
- Proposed bulk earthworks also have the potential to alter the existing drainage and flooding characteristics of the site which may adversely impact on the railway corridor.
- The site is subject to flooding from Ramsay Creek according to Rockhampton Regional Council online mapping from 2014.
- The applicant has resubmitted the Stormwater Quality Management Plan prepared by DesignFlow and Flood Management Report prepared by Brown Smart Consulting, both from 2013 relating to the previous development application over the site (TMR Ref: TMR13-005882, Council Ref: D/36-2013).
- TMR's Engineering and Technology (Hydraulics) Branch has reviewed the material and advised:

  We refer Brown Consulting (Qld) Pty Ltd's Version C Jan 2013 Flood Management Report.
  The proposed development is on Ramsey Creek, downstream of the North Coast Railway (Glen Geddes to Parkhurst) and the state-controlled 10F Bruce Highway.
  A small portion of the site in the north receives tributary discharge from the railway reserve. The site layout shows that this portion will not be developed and hence will not impede runoff from state controlled infrastructure.
  All other parts of the site runoff away from the state-controlled network and have no external catchment crossing that network. Flood modelling of Ramsey Creek for a range of ARIs from 5 to 100 years, results in flood levels at the upstream cross-section (some 75m downstream of the railway crossing) in the developed case being equal to that for the existing case. Hence there is no worsening of flood level at the state-controlled network.
  Hence TMR should have no objection to this development on stormwater drainage grounds.

  With regards to stormwater management of stages 1 to 3, a report has been prepared by Design Flow in October 2013. The conceptual stormwater management plan appears to show that stormwater runoff from a railway crossing to the east of the development will be conveyed via an open drain along the boundary between the development site and the state controlled railway corridor before discharging into a gully within the development site. TMR records and aerial photos show that there are potentially 2 railway culvert crossings in the vicinity of Stages 1 to 3 of the development. While TMR support this concept in principle, we should request details of the proposed drainage configuration including a hydraulic assessment showing that the proposed drainage configuration will not worsen flood levels and velocities within the state controlled corridor for events up to the 1% AEP.
- Given the above, further information was requested to demonstrate compliance with PO15 and PO16.

Response to information request

Performance outcomes	Acceptable outcomes	Response

- A revised Flood Investigation and Concept Stormwater Quantity Management Plan for stages 1 to 3, prepared by Calibre Consulting has been submitted.
- Section 3.2.3 concludes that:

  "The results demonstrate that the proposed development will result in negligible increases in peak flows downstream of the site.
  The maximum predicted increase in peak flow of 3% occurs during the minor storm events, with only a 1% increase experienced at all critical analysis points for the 1% AEP storm event. These increases in peak flow are not expected to result in any perceivable change in flood conditions, let alone an adverse impact. Therefore peak flow mitigation is neither required nor proposed as part of the Stag 1 to 3 development.
- Additionally the submitted Proposed Subdivision Stages 1-3 Allotment Layout indicates that a Noise Mound is proposed adjacent to the railway boundary.
- The revised report has taken this into consideration during hydraulic analysis.
- Section 4.1 of the report outlines a drainage strategy and hydraulic analysis for the stormwater management measures for stages 1-3:

  Proposed swale and culvert/inlet system adjacent acoustic mound/ berm structure to cater for locally contributing catchment from the east;
  District park overland flow path to cater for some internally generated development flows and eastern flows conveyed from the proposed culvert/inlet system adjacent eastern property boundary and acoustic berm;
  Proposed internal arterial road culvert crossing to cater for district park flows, some internally generated development flows and flows contributing to the site form the east.
- TMR's Engineering and Technology (Hydraulics) Branch has reviewed the material and advised:

  This development is located downstream of the North Coast Line and Bruce Highway. Therefore runoff from this site flows away from the state controlled transport corridor, so there will be no increase in runoff due to proposed development.

  However, currently runoff from a local upstream catchment of 13.69 hectares, east of the site drains into this site. This catchment is largely made up of low density residential allotments and the reminder made up of road and railway corridor. Runoff from this catchment currently enters the site as concentrated overland flow traverses the Bruce Highway (Yamba Road) and North Coast railway corridor via minor stormwater pipe drainage infrastructure. They need to manage this runoff without causing any flooding impact to TMR transport corridors (both rail and road).

  The SMP proposes to implement drainage swales adjacent the acoustic mound/berm within their property to direct flows from upstream catchment east of the site to the proposed inlet structure and then to discharge to the onsite District Park. The report has the details of an assessment of hydraulic capacity of these swale drains and has shown that these swales have been designed to convey 1% AEP runoff from the local upstream catchment east of the site.

  Since the runoff from eastern catchment up to 1% AEP convey through the proposed swale drains and into District Park, it seems unlikely that there will be any impact on flooding on any state controlled transport infrastructure.

  We also requested applicant to provide a confirmation that approval has been given to locate the proposed drainage within an electrical easement. This has not been provided in the report, so TMR should ask applicant to provide relevant documents to confirm it. This should be a condition for approval of this DA.
  I recommend that TMR can accept the new Flood Investigation and Concept Stormwater Quantity Management Plan subject to the condition regarding no worsening of flooding to state controlled rail and road transport corridors.

  In addition, TMR should ask for a documents to confirm that approval has been given to locate the proposed drainage within an electrical easement.
- Given the above the proposed development should be conditioned in accordance with the submitted report, including RPEQ certification to achieve compliance with PO15 and PO16.

Performance outcomes	Acceptable outcomes	Response
Minor Change • Referral agency condition 8 addresses stormwater by requiring the development must be carried out generally in accordance with Section 4 – Hydraulic Investigation and Appendix C – Concept Plans & Details of the Flood Investigation & Concept Stormwater Quantity Management Plan prepared by Calibre Consulting (Qld) Pty Ltd dated 19 February 2018, reference 17- 002720-WER02 and revision A. • The proposed changes do not alter the original assessment.		
Access		
PO17 Development prevents unauthorised access to a railway corridor.	AO17.1 Where development is abutting a railway corridor fencing is provided along the property boundary with the railway corridor in accordance with the railway manager's standards. Note: It is recommended the applicant contact the railway manager for advice regarding applicable fencing standards. **AND**	• The site is currently vacant rural land. • The proposed development involves the creation of residential allotments on a site adjacent to the railway corridor. • The proposed development will be changing the existing use of the site and increasing the risk of trespass onto the railway corridor. • It is unclear where the location of the acoustic mound/fence are proposed in relation to the railway corridor boundary. • Therefore, fencing to the railway manager's (QR) standards is required on the railway corridor boundary. Security fencing is accordance with QR-C-S3230 (without rails) is required in this location. • Fencing is required to be conditioned to achieve compliance with PO17. *Minor Change* • Referral agency condition 6 requires *'Fencing sufficient to prevent unauthorised access by people, vehicles and projectiles must be provided along the site boundary with the railway corridor in accordance with Queensland Rail standard fencing drawing number QR-C-S3230 '1.8m High Chain Link Security Fence (without rails using 50mm diamond mesh general arrangement)".* • The correspondence entitled ' RE: Minor Change to Referral Agency Conditions 1710-2243 SRA Reconfiguring a Lot - 1 Lot into 126 Lots William Palfrey Road, Parkhurst', prepared by Capricorn Survey Group, dated 17 August 2022 and reference number 8666 requests specification of which boundary is required to be fenced. • The condition can be altered to refer to a plan amended in red to show the location of the fence.

Performance outcomes	Acceptable outcomes	Response
		• The proposed changes do not alter the original assessment.
	AO17.2 A road barrier designed in accordance with Civil Engineering Technical Requirement – CIVIL-SR-007 Design and selection criteria for road/rail interface barriers, Queensland Rail 2011, and certified by an RPEQ, is installed along any roads abutting a railway corridor. **AND**	N/A – The proposed development does not involve a new road abutting a railway corridor.
	AO17.3 Proposed vehicle manoeuvring areas, driveways, loading areas or carparks abutting a railway corridor include rail interface barriers. Note: Section 2.4 of the Guide to Development in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with acceptable outcome 16.3.	N/A – The proposed development does not involve vehicle manoeuvring areas, driveways, loading areas or carparks abutting a railway corridor.
PO18 Development does not obstruct existing access to a railway corridor.	AO18.1 Development is sited and designed to ensure existing authorised access points and access routes for maintenance and emergency works to a railway corridor are clear from obstructions at all times.	N/A – The development does not obstruct existing authorised access points and access routes for maintenance and emergency works to a railway corridor.
PO19 Access to a railway corridor does not create a safety hazard for users of a railway, or result in a worsening of operating conditions on a railway.	AO19.1 Development does not require a new railway crossing. **AND**	Refer to the assessment against PO23.
	AO19.2 Development does not propose new or temporary structures or works connecting to rail transport infrastructure or other rail infrastructure. **AND**	
	AO19.3 Vehicle access points achieve sufficient clearance from a railway level crossing in accordance with AS1742.7:2016 – Manual of uniform traffic control devices, Part 7: Railway crossings, by providing minimum 5 metres clearance from the edge running rail (outer rail), plus the length of the largest vehicle anticipated on-site. Note: Section 2.2 of the Guide to Development in a Transport	

Performance outcomes	Acceptable outcomes	Response
	Environment: Rail, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this acceptable outcome.	
PO20 Development does not damage or interfere with public passenger transport infrastructure, public passenger services or pedestrian and cycle access to public passenger transport infrastructure and public passenger services.	AO20.1 Development does not necessitate the relocation of existing public passenger transport infrastructure. **AND**	N/A – Interference with public passenger transport will be addressed under the assessment against State Code 6.
	AO20.2 Vehicular access and associated road access works for a development is not located within 5 metres of existing public passenger transport infrastructure. **AND**	
	AO20.3 On-site vehicle circulation is designed give priority to entering vehicles at all times so vehicles using a vehicular access do not obstruct public passenger transport infrastructure and public passenger services or obstruct pedestrian or cyclist access to public passenger transport infrastructure and public passenger services. **AND**	
	AO20.4 The normal operation of public passenger transport infrastructure or public passenger services is not interrupted during construction of the development.	
Planned upgrades		
PO21 Development does not impede delivery of planned upgrades of rail transport infrastructure.	AO21.1 Development is not located on land identified by the Department of Transport and Main Roads as land required for planned upgrades to rail transport infrastructure. Note: Land required for the planned upgrade of rail transport infrastructure is identified in the DA mapping system. **OR**	N/A - Development is not located on land identified by the Department of Transport and Main Roads as land required for planned upgrades to rail transport infrastructure.
	AO21.2 Development is sited and designed so that permanent buildings, structures, infrastructure, services or utilities are not located on land identified by the Department of Transport and Main Roads as land	

Performance outcomes	Acceptable outcomes	Response
	required for the planned upgrade of rail transport infrastructure. **OR** all of the following acceptable outcomes apply: AO21.3 Structures and infrastructure located on land identified by the Department of Transport and Main Roads as land required for the planned upgrade of a of rail transport infrastructure are able to be readily relocated or removed without materially affecting the viability or functionality of the development. **AND** AO21.4 Development does not involve filling and excavation of, or material changes to, land required for a planned upgrade of rail transport infrastructure. **AND** AO21.5 Land is able to be reinstated to the pre-development condition at the completion of the use.	
Network safety		
PO22 Development involving dangerous goods adjacent to a railway corridor does not adversely impact on the safety or operations of a railway. Note: Development involving dangerous goods, or hazardous chemicals above the threshold quantities listed in table 5.2 of the Model Planning Scheme Development Code for Hazardous Industries and Chemicals, Office of Industrial Relations, Department of Justice and Attorney-General, 2016, should demonstrate that impacts on a railway from a fire, explosion, spill, gas emission or dangerous goods	AO22.1 Development does not involve handling or storage of hazardous chemicals above the threshold quantities listed in table 5.2 of the Model Planning Scheme Development Code for Hazardous Industries and Chemicals, Office of Industrial Relations, Department of Justice and Attorney-General, 2016.	N/A – The proposed development does not involve the handling or storage of dangerous goods or hazardous chemicals.

Performance outcomes	Acceptable outcomes	Response
incident can be appropriately mitigated. Section 2.6 – Dangerous goods and fire safety of the Guide to Development in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with this performance outcome.		
PO23 Development does not adversely impact on the safety of a railway crossing. Note: It is recommended a traffic impact assessment be prepared to demonstrate compliance with this performance outcome. An impact on a level crossing may require an Australian Level Crossing Assessment Model (ALCAM) assessment to be undertaken. Section 2.2 – Railway crossing safety of the Guide to Development in a Transport Environment: Rail, Department of TMR, 2015, provides guidance on how to comply with this performance outcome.	AO23.1 Development does not require a new railway crossing. OR AO23.2 A new railway crossing is grade separated. Note: It is recommended a traffic impact assessment be prepared to demonstrate compliance with this acceptable outcome. An impact on a level crossing may require an Australian Level Crossing Assessment Model (ALCAM) assessment to be undertaken. Section 2.2 – Railway crossing safety of the Guide to Development in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with this acceptable outcome. **OR** all of the following acceptable outcomes apply: AO23.3 Upgrades to a level crossing are designed and constructed in accordance with AS1742.7 – Manual of uniform traffic control devices, Part 7: Railway crossings and applicable railway manager's standard drawings. **AND** AO23.4 Vehicle access points achieve sufficient clearance from a level crossing in accordance with AS1742.7 – Manual of uniform traffic control devices, Part 7: Railway crossings by providing a minimum clearance of 5 metres from the edge running rail (outer rail) plus the length	Refer to the response below under PO23.

Performance outcomes	Acceptable outcomes	Response
	of the largest vehicle anticipated on-site. **AND**	
	AO23.5 On-site vehicle circulation is designed to give priority to entering vehicles at all times to ensure vehicles do not queue in a railway crossing.	

Railway Level Crossing Safety

- The proposed stage 1-3 subdivision plan indicates that the development will gain access to the road network across the railway corridor via an extension of Olive Street to the Bruce Highway. This plan shows that this road forms Stage 3a of the current application and will be 36.0m wide (half constructed).
- The applicant has submitted a Traffic Impact Assessment (TIA) prepared by SLR and dated 5 September 2017. This report references AECOM's Rockhampton Northern Access Upgrade (RNAU) project commissioned by TMR and the previously submitted Cambray Consulting Traffic Report from 2013 relating to the previous development application over the site (TMR Ref: TMR13-005882, Council Ref: D/36-2013).
- The Traffic Impact Assessment identifies the following:
  - The current reconfiguration application has not been considered in isolation, instead the report is based on the ultimate development of 2,300+ residential dwellings;
  - The Cambray report indicates a second connection to the external network would be required beyond 1,895 dwellings through to McLaughlin Street/Alexandra Street to the west/south;
  - The RNAU considered the ultimate development of 1,575 lots – 70% accessing the external road network via Olive Street and 30% using the secondary McLaughlin Street access;
  - Olive Street will form the main access road to the proposed development from the Bruce Highway and is intended to be a 4 lane urban arterial road 36.0m wide;
  - The report acknowledges that the William Palfrey Road crossing will need to be closed prior to the use of the replacement railway level crossing at Olive Street;
  - Section 7.2 indicates the intersection of Olive Street and the Bruce Highway will include an at-grade crossing of the North Coast Line approximately 70m west of the Bruce Highway – 2 traffic lanes are proposed to cross the railway corridor both eastbound and westbound;
  - Table 1 indicates that with 1,900 dwellings the intersection is anticipated to cause queuing in the AM peak onto Ellida (west) leg towards the level crossing;
  - Based on anticipated traffic distribution, the intersection of Olive Street should just be adequate to accommodate the traffic generated from approximately 1,575 dwellings within the development at the 2038 horizon.
- TMR's PD&O Central Region has reviewed the TIA and advised that there is insufficient traffic data and inaccurate assumptions and consequently the traffic data is not reliable.
- The staged development of the Olive Street level crossing must be appropriately designed to ensure the safety and operational integrity of the North Coast Line.
- Conceptual engineering plans and associated documents should be provided for the Olive Street level crossing for both the initial and ultimate designs of the Olive Street/Bruce Highway intersection.
- The TIA does not indicate access arrangements for construction traffic, and each stage in terms of where access will be taken from and anticipated development generated traffic. Should the applicant be proposing to use the William Palfrey railway level crossing to access the site for construction or at the completion of the allotments, then the railway level crossing will need to be upgraded as per prelodgement advice.
- The TIA has not considered how the proposed new level crossing of Olive Street will function as part of the new 4-way signalised intersection with the Bruce Highway or the conceptual design or function of the level crossing given the pedestrian, cyclist and bus functions.
- Additionally, it is not clear which level crossing of the railway corridor (existing or replacement) is proposed to be used, and at what stages.
- The proposed development and traffic data used to determine the level crossing upgrade requirements has changed since the previous 2013 development application. Therefore, a full set

Performance outcomes	Acceptable outcomes	Response

of updated traffic data considering current standards, studies and planning context is required to enable an assessment of level crossing impacts.

- The railway manager (Queensland Rail) has reviewed the material and advised:

  Initially, if the overall development has not altered from the previous application, the conditions and requirements for the proposed crossing at Olive Street and existing crossing at William Palfrey Road remain as per the original application, which included on opening of Olive Street, William Palfrey Road crossing is to be closed, additional road traffic lights co-ordinated with the crossing flashing lights on the western approach to the crossing, active pedestrian crossing.

  If the road and intersection designed has changed for Olive St it will have to be reviewed with respect to the crossing requirements. Current design drawing are required for QR Civil to review for the crossing construction.

  Current Traffic Impact Assessment with traffic volumes required to compare with previous estimates.

  Details of construction traffic required – routes, vehicles types, daily volume, operation times, duration etc need to be provided as it would seem they would intend using William Palfrey Road for access.

  It is noted that Alexandra Road is listed as another feeder road to be developed. This road currently does not go over the rail line. Rockhampton Council has made some initial enquiries about installing an at-grade level crossing. The Council has been advised by Rockhampton office that QR could not support installation of an at grade crossing at this location.

- Given the above, further information is required demonstrate compliance with PO19 and PO23.

<u>Response to information request</u>

- A revised traffic assessment report, prepared by SLR Consulting Australia Pty Ltd (dated 23/2/18) has been submitted. The revised report provides conceptual engineering plans for the new Olive Street 4 way signalised intersection, proposed staging and construction, development and traffic data for the existing and relocated railway level crossings.
- A revised staging plan has also been submitted. The Proposed Subdivision Stage 1-3 Allotment Layout indicates that the development will gain access to the road network across the railway corridor via an extension of Olive Street to the Bruce Highway. This plan shows that this road forms Stage 3b of the current application and will include 4 lanes, bike lane and pedestrian paths.
- The report also states: *In terms of construction of the new at-grade crossing of Olive Street and the North Coast Rail Line, it is our understanding that this will be initially constructed as a 4 lane crossing, but would only operate (and be line marked) as a 2 lane crossing until such time as a 4 lane crossing is needed. Timing of the latter will be subject to traffic monitoring and the development rate, but it is likely that the 4 lane crossing will not be needed until approximately 1,000 – 1,500 dwellings are occupied in Ellida.*

<u>Staging</u>

- Section 8 of the report provides indicative timings of the proposed road and rail infrastructure. This is supported by an Indicative Stage Plan, prepared by RPS.
- This staging information is summarised below regarding the use of the existing level crossing at William Palfrey Road (ID:5412) and relocated railway level crossing (Olive Street).

Until Dec 2018	- William Palfrey Road retained as existing (gravel formation) including at-grade crossing of the North Coast Rail Line. - Construction traffic access for Ellida via existing William Palfrey Road/Bruce Highway unsignalised intersection.
Jan 2019 – Dec 2019	- New Olive Street at-grade crossing of the North Coast Rail Line under construction. - William Palfrey Road retained as existing (gravel formation) including at-grade crossing of the North Coast Rail Line.

Performance outcomes	Acceptable outcomes	Response

	- Construction traffic access for Ellida via existing William Palfrey Road / Bruce Highway unsignalised intersection
Jan 2020	- William Palfrey Road retained as existing (gravel formation) west of Ellida. - Existing William Palfrey Road / Bruce Highway unsignalised intersection closed. - Existing William Palfrey Road at-grade crossing of the North Coast Rail Line closed. - New Olive Street at-grade crossing of the North Coast Rail Line open. - Traffic access for Ellida via existing new Olive Street / Bruce Highway signalised intersection. - New road link (via easement through Ellida) in place between Olive Street and the existing gravel section of William Palfrey Road

Railway level crossing safety

- Construction traffic will utilise the existing railway level crossing of the North Coast Line on William Palfrey Road (ID:5412) until the relocated crossing (Olive Street is opened in early 2020).
- Table 5 indicates the AADT figures at the William Palfrey Road railway level crossing (ID:5412) until 2020.

AADT Over Railway Level Crossing (Existing WILLIAM PALFREY ROAD)			
Year	*Without Development (Background Growth)*	*With Development*	*No. and Dimensions/Type of Heavy Vehicles and Buses*
2018	*85vpd (75 light + 10 heavy)*	*185vpd (135 light + 50 heavy)*	*Construction trucks (rigid body – semi trailer)*
2019	*90vpd (79 light + 11 heavy)*	*295vpd (214 light + 81 heavy)*	*Construction trucks (rigid body – semi trailer)*
2020	*94vpd (83 light + 11 heavy)*	*NIL – crossing closed*	*-*
2021	*98vpd (86 light + 12 heavy)*	*NIL – crossing closed*	*-*
2022	*102vpd (90 light + 12 heavy)*	*NIL – crossing closed*	*-*
2037	*166vpd (146 light + 20 heavy)*	*NIL – crossing closed*	*-*
2038	*170vpd (150 light + 20 heavy)*	*NIL – crossing closed*	*-*

- Table 6 indicates the AADT figures at the relocated Olive Street railway level crossing until 2038.

AADT Over Railway Level Crossing (Proposed OLIVE STREET)			
Year	*Without Development (Background Growth)*	*With Development*	*No. and Dimensions/Type of Heavy Vehicles and Buses*
2018	*NIL – crossing does not exist*	*NIL – crossing does not exist*	*-*
2019	*NIL – crossing does not exist*	*NIL – crossing does not exist*	*-*
2020	*NIL – crossing does not exist*	*404vpd (293 light + 111 heavy)*	*Construction trucks (rigid body – semi trailer)*
2021	*NIL – crossing does not exist*	*1,158vpd (1,009 light + 149 heavy)*	*Construction trucks (rigid body – semi trailer) + refuse trucks + delivery trucks*
2022	*NIL – crossing does not exist*	*1,912vpd (1,725 light + 187 heavy)*	*Construction trucks (rigid body – semi trailer) + refuse trucks + delivery trucks*
2037	*NIL – crossing does not exist*	*14,476vpd (13,656 light + 820 heavy)*	*Construction trucks (rigid body – semi trailer) + refuse trucks + delivery trucks + buses*
2038	*NIL – crossing does not exist*	*16,480vpd (15,560 light + 920 heavy)*	*Construction trucks (rigid body – semi trailer) + refuse trucks + delivery trucks + buses*

- An assessment of the safety of the level crossings (ID:5412 and relocated Olive Street railway level crossing) using the Australian level Crossing Assessment Model (ALCAM) has been undertaken by the railway manager (QR) based on the anticipated traffic generated by the development provided in the revised report. The ALCAM concluded the following:

  In essence the development proposals presented in the traffic assessment as the previous traffic assessment Proposed Master Planned Community North Parkhurst (November 2012) prepared by Cambray Consulting. The main different being it is confirmed that Olive Street will be a bus route.

Performance outcomes	Acceptable outcomes	Response

This characteristic significantly increases the ALCAM risk score for the Olive street level crossing, placing it in the High Risk Band (previously Medium Risk Band). As per previous discussions, it was desired that the development design includes grade separation of Olive Street and the North Coast Rail Line.

Olive Street Road Crossing 2038 Design Horizon

- *Install RX-5 Flashing Signals and Boom Gates (Active control) at crossing in accordance with Clauses 2.3.1 and 2.3.9 and Figure 4.6 of AS 1742.7 – 2016.*
- *Install cantilevered overhead flashing light signal assembly at crossing in accordance with Clauses 2.3.1 4.6 of AS 1742.7 – 2016 to cover multiple traffic lanes*
- *Upgrade the existing relay interlocking at Parkhurst to a Processor Based Interlocking (including a new power supply / circuitry) in order to accommodate the level crossing and required signalling interlocking changes*
- *The level crossing active controls are to be coordinated with the proposed traffic light system at the intersection of Olive Street and the Bruce Highway*
- *Proposed traffic light system for the intersection of Olive Street and the Bruce Highway is to hold road traffic on the western side of the rail level crossing and <u>not</u> between the rail and highway intersection.*
- *Seal crossing surface in accordance with QR Standard Drawing No. 2586.*
- *Install cross-hatching and "Keep Tracks Clear" signs in accordance with Clause 3.6 of AS 1742.7 – 2016 and TMR Drawing TC1248.*
- *Install advance warning signage and road markings in accordance with AS 1742.7 – 2016:*
  - *Figure 4.7 for two vehicle lanes on western approach to crossing.*
  - *Figure 4.11 on eastern approach (to be confirmed when detailed drawings are available).*
- *Install whistle boards at 360m on both UP and DN sides of crossing in accordance with QR Standard Drawing No. 10732.*
- *Install Incident Reporting Signage (crossing ID 7426) at crossing in accordance with QR Standard Drawing No. 2622.*
- *It is desirable to install overhead lighting for road crossing in accordance with relevant main roads standards.*
- *In the vicinity of the proposed level crossing, it should be noted that the rail infrastructure is on a 1165m (approx.) radius curve and the track has an approx. 50mm cant which will impact the road design.*
- *In relation to the proposed works within the rail corridor, Queensland Rail requires an Interface Agreement to be entered into.*
- *Olive Street is not to be an approved B-Double route.*

Olive Street Pedestrian Crossings 2038 Design Horizon

- *Construct crossing pathway and install TGSI pads in accordance with QR Standard Drawing No. 10698.*
- *Install active gated enclosures with tapping rails and all warning signage in accordance with QR Standard Drawings Nos. 2644 and 2645.*
- *Install guide fencing on funnel pathway on both approaches to the crossing so as to encourage pedestrians to use the crossing.*
- *Install Incident Reporting Signage (crossing ID 7426) at crossing in accordance with QR Standard Drawing No. 2622.*
- *It is desirable to install overhead lighting for pedestrians in accordance with Clause 6.3.3 (g) of AS 1742.7 - 2016.*
- *In relation to the proposed works within the rail corridor, Queensland Rail requires an Interface Agreement to be entered into.*

William Palfrey Road Upgrade for Construction Traffic

- *Maintain existing RX-5 Flashing Light control at crossing and ensure all advance waring signage is in place in accordance with Figure 4.6 of AS 1742.7 – 2016.*
- *Roadway on approaches for 20m either side of crossing and over crossing to be widened as necessary to accommodate two passing semi-trailers.*

Performance outcomes	Acceptable outcomes	Response

- *If existing bitumen seal over crossing surface and for a minimum distance of 15m from each outer rail is in average or poor condition, reseal in accordance with QR Standard Drawing No. 2586 to protect rail and for safety of users.*
- *Install cross-hatching and "Keep Tracks Clear" signs in accordance with Clause 3.6 of AS 1742.7 – 2016 and TMR Drawing TC1248.*
- *Ensure advance warning signage is in place in accordance with Figure 4.6 of AS1742.7 – 2016.*
- *Decommission crossing in accordance with QR Standard Drawing No. 2623 on opening of Olive Street crossing.*
- *In relation to the proposed works within the rail corridor, Queensland Rail requires an Interface Agreement to be entered into.*

- To ensure compliance with PO19 and PO23, conditions should be imposed to ensure the safety of the railway level crossing as a result of the development. This would require the developer to:
  - upgrade the William Palfrey Road level crossing for construction traffic in accordance with Queensland Rail requirements;
  - relocate the William Palfrey Road railway level crossing to Olive Street and upgrade the crossing;
  - close the William Palfrey Road level crossing at the completion of the Olive Street railway level crossing prior to the commencement of use. Only one level crossing must be operational at any point in time.
- Additionally, an advice statement should be provided regarding the approval requirements under section 255 of the *Transport Infrastructure Act 1994* to ensure compliance with this aspect of PO19 and PO23.

Minor Change

- Conditions 10, 11, 12, 13 and 14 relate to railway level crossing requirements for the development.
- The minor change seeks the following amendments to these conditions:
  - *Condition 10 - We seek removal of this condition given access will be provided along William Palfrey Road from the west.*
  - *Condition 11 - We seek removal of this condition given access will be provided along William Palfrey Road from the west.*
  - *Condition 12 - We seek the removal of timing requirements (a) and (b) and replaced with: 'Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing'*
  - *Condition 13 - Condition Timing be amended to state: 'Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing'*
  - *Condition 14 - Condition Timing be amended to state: 'Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing'*
- Specifically, the proposed changes to conditions is to enable the development to use William Palfrey Road from the west as access to the subject site prior to having to complete the railway level crossing relocation to Olive Street due to expected 2.5 year delays associated with scheduled railway line closures in this location.
- To achieve this, the applicant proposes to seal the access from the west (William Palfrey Road) and leave the eastern of William Palfrey Road (containing the rail level crossing) to remain unsealed to discourage the general public in using this portion of William Palfrey Road when wanting to access the state-controlled road (Yaamba Road).
- RAPTTA does not object to allowing the Olive Street intersection to be constructed at a later stage, provided that access to the subject site is only obtained from the west via William Palfrey Road, without crossing the existing open level crossing.
- However, the proposal to leave the eastern leg of William Palfrey Road unsealed to discourage access is not considered sufficient to prevent access over the railway level crossing.

Performance outcomes	Acceptable outcomes	Response
• The closure of William Palfrey Road level crossing would require detailed consideration of access arrangements for all properties using this crossing, public consultation and adherence to Queensland Rail processes. • Additionally, by redirecting traffic west on William Palfrey Drive it is likely that access to the State-controlled road will be obtained via another railway level crossing that was not previously subjected to an ALCAM assessment. • For example, it is likely that this crossing would be the Boundary Road crossing of the North Coast Line (ID: LXR_05411). This crossing is protected by flashing lights, pavement marking and signage. • The alternative access arrangements would need to be endorsed by the City of Rockhampton Council. • An amended traffic assessment is required to determine the impacts on other level crossings. • The requested alterations to timing for the construction of the Olive Street level crossing and the decommissioning of the William Palfrey Road level crossing cannot be supported as they are inherently tied to the Queensland Government's Queensland Level Crossing Safety Strategy policy which enforces a no new level crossings policy for safety. • Further information is required to determine compliance with PO19 and PO23.		
Noise		
Accommodation activities		
PO24 Development involving: 1. an accommodation activity; or 2. land for a future accommodation activity minimises noise intrusion from a railway or type 2 multi-modal corridor in habitable rooms.	**AO24.1** A noise barrier or earth mound is provided which is designed, sited and constructed: 1. to meet the following external noise criteria at all facades of the building envelope: a. ≤65 dB(A) L_{eq} (24 hour) façade corrected b. ≤87 dB(A) (single event maximum sound pressure level) façade corrected 2. in accordance with the Civil Engineering Technical Requirement – CIVIL-SR-014 Design of noise barriers adjacent to railways, Queensland Rail, 2011. Note: To demonstrate compliance with the acceptable outcome, it is recommended a RPEQ certified noise assessment report be provided. The noise assessment report should be prepared in accordance with the State Development Assessment Provisions Supporting Information – Community Amenity (Noise), Department of Transport and Main Roads, 2013.	• The site adjoins the railway corridor on the eastern boundary. • The proposed development involves accommodation activities. • The North Coast Line carries more than 15 passenger and freight services per day. • Transport Noise Corridors were gazetted for railways on 8 July 2015 and therefore Mandatory Part 4.4 of the Queensland Development Code would apply to the development. The development's compliance with the internal railway noise criterion will therefore be dealt with through the subsequent building works approval process. • The submitted Proposed Subdivision Stages 1-3 Allotment Layout (revision I) indicates that the proposed single dwelling residential allotments will be setback approximately 30m from the railway corridor boundary. At this location the railway track is setback a minimum of approximately 20m from the railway corridor boundary which indicates allotments will be setback in the order of 50m from the railway tracks. • Stage 2e includes a 'super lot' of 1.55 hectares approximately 11.5m from the railway corridor. It is not clear what future uses are proposed on this lot, however would likely entail residential purposes.

Performance outcomes	Acceptable outcomes	Response
	If the building envelope is unknown, the deemed-to-comply setback distances for buildings stipulated by the local planning instrument or relevant building regulations should be used. In some instances, the design of noise barriers and mounds to achieve the noise criteria above the ground floor may not be reasonable or practicable. In these instances, any relaxation of the criteria is at the discretion of the Department of Transport and Main Roads.	• The plan indicates that a Noise Mound is proposed to be located between the 'super lot' and railway corridor boundary. • The referral material includes a Noise Amenity Report, prepared by MWA Environmental, dated 31 October 2013. • This report has not been updated since 2013 prior to Transport Noise Corridors being gazetted for railways and relies on noise logging from 2011. • While the report and noise measurements are not current, the outcomes are still likely to be consistent. • The report concludes that no acoustic barrier is required to comply with the relevant external railway noise criteria for residential allotments within Stages 1 to 3. • The report also indicates the potential to construct an earth mound / acoustic barrier generally along the 'optional acoustic barrier alignment' illustrated within Figure 5. This option will reduce the standard of acoustic treatment required for future residential dwellings under QDC MP4.4. • TMR's Engineering and Technology Branch (Acoustics) has reviewed the noise assessment and the proposed plan of development and provided the following comments: *The report reproduction is not the best and the modelling methodology for rail is very basic, but it is sufficient to demonstrate that the noise impact for both road and rail is below our criteria for facade and open space for Stage 1 without the need for acoustic conditions.* *The report considers the construction requirements for dwellings for rail noise since the report came out before the rail corridors were gazetted, but that is now covered by QDC.* • It is not clear whether the acoustic barrier will be provided in the form of a 5.5m earthmound as stated in the report or via a 2.5m earthmound with 1.8m acoustic fence on top (as shown in submitted subdivision plan – drawing number 109116-114). However, the linear open space cross
	OR all of the following acceptable outcomes apply: **AO24.2** Buildings which include a habitable room are setback the maximum distance possible from a railway or type 2 multi-modal corridor. **AND**	
	AO24.3 Buildings are designed and oriented so that habitable rooms are located furthest from a railway or type 2 multi-modal corridor. **AND**	
	AO24.4 Buildings (other than a relevant residential building or relocated building) are designed and constructed using materials which ensure that habitable rooms meet the following internal noise criteria: 1. ≤45 dB(A) single event maximum sound pressure level. Statutory note: Noise levels from railways or type 2 multi-modal corridors are to be measured in accordance with AS1055.1–1997 Acoustics – Description and measurement of environmental noise. Note: To demonstrate compliance with the acceptable outcome, it is recommended that a RPEQ certified noise assessment	

Performance outcomes	Acceptable outcomes	Response
	report be provided. The noise assessment report should be prepared in accordance with the State Development Assessment Provisions Supporting Information – Community Amenity (Noise), Department of Transport and Main Roads, 2013. Habitable rooms of relevant residential buildings located within a transport noise corridor must comply with the Queensland Development Code MP4.4 Buildings in a transport noise corridor, Queensland Government, 2015. Transport noise corridors are mapped on the State Planning Policy Interactive Mapping System.	sections are not based on acoustic modelling. • The Noise Amenity Report is inconsistent with the latest proposal plans and the revised Flood Investigation and Concept Stormwater Quantity Management Plan. • The applicant is proposing railway noise attenuation to reduce the internal noise railway criterion. • An earthmound and/or acoustic barrier adjacent to the railway corridor will need to be conditioned to be in accordance with the relevant standards (TMR and railway manager), including RPEQ certification. • The minimum setback of residential allotments from the railway corridor should also be conditioned.
PO25 Development involving an accommodation activity minimises noise intrusion from a railway or type 2 multi-modal corridor in outdoor spaces for passive recreation.	**AO25.1** A noise barrier or earth mound is provided which is designed, sited and constructed: 1. to meet the following external noise criteria in outdoor spaces for passive recreation: a. ≤62 dB(A) L_{eq} (24 hour) free field b. ≤84 dB(A) (single event maximum sound pressure level) free field 2. in accordance with the Civil Engineering Technical Requirement – CIVIL-SR-014 Design of noise barriers adjacent to railways, Queensland Rail, 2011. **OR** **AO25.2** Each dwelling has access to an outdoor space for passive recreation which is shielded from a railway or type 2 multi-modal corridor by a building, a solid gap-free fence, or other solid gap-free structure. **AND** **AO25.3** Each dwelling with a balcony directly exposed to noise from a railway or type 2 multi-modal corridor has a continuous solid gap-free balustrade (other than gaps	*Minor Change* • Referral agency condition 7 requires the development be in accordance with the Noise Amenity Assessment, prepared by MWA Environmental dated 31 October 2013, and given Job Number 11-007, version 2 and construct a 5.5 metre noise barrier. • The minor change requests that referral agency condition 7 be amended as per DRAFT conditions dated 29 June 2018 to reference the updated Noise Report by MWA. • This report has not been provided with the request and has not been previously reviewed by RAPTTA. • Moreover, an updated noise report dated 27 February 2018 is now 5 years old. • Therefore further information is required. • This would need to include updated on site rail and road traffic noise measurements and modelling considering a 10-year planning horizon.

Performance outcomes	Acceptable outcomes	Response
	required for drainage purposes to comply with the Building Code of Australia).	
Child care centres and educational establishments N/A		
Hospitals N/A		
Vibration N/A		
Hospitals N/A		
Air and light N/A		

6.0 Recommendations

Information Request/ Further Advice

RAPTTA:

(a) recommends the following further information be requested from the applicant to enable the assessment to be finalised:

Item	Information requested
Railway level crossing safety	
1.	*Issue:* The redirection of traffic west on William Palfrey Drive will result in the development generated traffic implicating other level crossings of the North Coast Line that were not previously assessed. The railway level crossing assessment of William Palfrey Road was for construction traffic only (conditions 10 and 11). The proposal to leave the eastern leg of William Palfrey Road unsealed to discourage access is not supported as it is not considered sufficient to prevent access over the railway level crossing. *Action:* The applicant is therefore requested to provide a revised RPEQ certified Transport Impact Assessment demonstrating how the proposed development will comply with Table 2.3, PO35-PO38 of State Code 2: Development in a Railway Environment of the State Development Assessment Provisions. In particular, the revised Traffic Impact Assessment will be required to address the following: • Revised reconfiguration and staging plans showing the current proposal, including the proposed vehicular access arrangements. Written confirmation from Rockhampton City Council should be obtained confirming that the proposed road access via the western portion of William Palfrey Road is supported in-principle; • The expected traffic distribution on the road network as a result of the proposed development. This should identify the roads intended to be used by development generated traffic (including the likely origin and destination of vehicles accessing the development); • Identification of any railway level crossing/s likely to be impacted on by development generated traffic (including construction and operational traffic and staff movements). The proportion of development generated traffic that is likely to use the identified railway level crossing/s should be identified. In particular, the report will need to address the impacts on railway level crossing (LXR_05411) at Boundary Road, amongst any other relevant railway level crossings that will be impacted; • The expected timeframe for the delivery of the proposed development including the commencement of construction and the completion of the development (including any stages);

<table>
<tr><th>Item</th><th>Information requested</th></tr>
<tr><td></td><td>

Existing traffic flows (expressed as vehicles per day) over the impacted railway level crossing/s, including daily (peak hour) fluctuations, and number and percentage of heavy vehicles;
The expected background traffic growth (expressed as vehicles per day) over the impacted railway level crossing/s, including the number and percentage of heavy vehicles. This should include background traffic growth from the anticipated commencement of construction and each development stage to a ten-year design horizon;
The expected development generated traffic (expressed as vehicles per day), including daily fluctuations (peak hour) and percentage of heavy vehicles, that will pass over the impacted railway level crossing/s from the commencement of construction, and each development stage to a ten-year design horizon;
The maximum size and type of vehicle (including length, width, height and weight) anticipated over the impacted railway level crossings as a result of the development during construction and on-going operation (including any stages).
The following data table is required to be populated for each impacted railway level crossing:
<table>
<tr><td colspan="4">AADT over railway level crossing
(Prepare table for each impacted railway level crossing)</td></tr>
<tr><td>Year</td><td>Without development (background growth)</td><td>With development</td><td>No. and dimensions/type of heavy vehicles</td></tr>
<tr><td>2022 (current scenario)</td><td></td><td></td><td></td></tr>
<tr><td>Commencement of Construction (prepare for each stage)</td><td></td><td></td><td></td></tr>
<tr><td>Commencement of the use (prepare for each stage)</td><td></td><td></td><td></td></tr>
<tr><td>Ten year design horizon</td><td></td><td></td><td></td></tr>
</table>

Demonstrate how the development generated traffic will not worsen vehicular queuing (short stacking) issues over the impacted railway level crossing/s. In particular, demonstrate that there is sufficient clearance between the railway level crossing and the relevant intersection to allow the maximum size of vehicle used in the operation to queue. The minimum clearance should be 5m from the edge running rail (of the closest railway track) as per Section 5.4 – Short Stacking and Figure 3.2 – Yellow Box Marking of AS1742.7:2016 Manual of Uniform Traffic Control Devices, Part 7: Railway plus the length of the maximum design vehicle.
Demonstrate how the development will adequately prevent development generated traffic from using the level crossing of William Palfrey Road (ID: LXR_05412) prior to the relocation of the level crossing to Olive Street.

</td></tr>
<tr><td>2.</td><td>Railway Noise
Issue
The minor change application did not include a copy of the updated noise report, dated 27 February 2018, prepared by MWA. This report is now 5 years old and is likely based on outdated noise monitoring and modelling. The timing of the development in relation to the future railway corridor is unclear.</td></tr>
</table>

Item	Information requested
	Action: The applicant is therefore required to provide an amended Railway Noise Impact Assessment which addresses the following: (a) in accordance with the Queensland Rail Code of Practice – Railway Noise Management, calculate the single event maximum sound pressure level as the arithmetic average of maximum levels from the highest 15 single events over a given 24 hour period. Any assumptions regarding the L_{Amax} must be clearly stated including the height of the main noise source above ground, actual source noise level, location and strength assumptions; (b) noise measurements and monitoring should be conducted over a two day period, preferably on highest trafficked days. Timetable information for passenger rail can be obtained from the railway manager (Queensland Rail); (c) state the rail traffic movements (passenger, freight) used to generate the L_{eq} (24hr) and L_{Amax} level predictions; (d) describe the modelling methodology used to prepare the assessment, including the choice of model, how the L_{Amax} noise levels have been calculated, the number of assumed train pass-bys per day and verification of the accuracy of the model, including whether measured data was used; (a) demonstrate that the development can achieve all the relevant noise criteria set out in PO40 and Reference Table 2 of State Code 2 – Development in a Railway Environment of the State development Assessment Provisions. (b) Re-assess the noise mitigation measures required to meet the relevant railway noise criteria in light of the above requirements. Demonstrate that any proposed noise barriers will comply with Queensland Rail Civil Engineering Technical Specification – QR-CTS-Part 41 – *Design and Construction of Noise Fences/Barriers* and Transport and Main Roads Specifications *MRTS15 Noise Fences.* For specifications regarding earth mounds please refer to the Department of Transport and Main Roads technical publications at: Category 3 - Roadworks, Drainage, Culverts and Geotechnical (Department of Transport and Main Roads) (tmr.qld.gov.au). The location and height of any proposed noise barriers should be clearly shown on a proposal plan. The height of any proposed noise barrier should take into account the varying topography of the land and the proposed finished levels of the development. Noise mitigation measures should be located outside the existing and future railway corridors.

Technical Specialist Response – Assessment – Advice on draft response to minor change IR

Technical agency (TA)—Transport and Main Roads
Technical Specialist - RAPTTA

PD&O Requested Date:	10 March
PD&O Due Date:	
PD&O DAO:	
TA reference:	TMR17-022950
DILGP reference:	1710-2243 SRA
DILGP regional office:	SARA Fitzroy Central
DILGP email:	RockhamptonSARA@dilgp.qld.gov.au

1.0 Endorsement

Officer	Approver
Victoria Stavar	Emma Martin
Principal Planner	A/Manager
3066 1580	3066 5865
09/03/2023	13/03/2023

2.0 Application details

Street address:	23-27 William Palfrey Road, Parkhurst QLD 4701
Real property description:	22SP134380, 23SP134380, 41SP226571, 49SP129857, 5SP238731
Local government area:	Rockhampton Regional Council
Applicant name:	Stockland Development Pty Ltd
Applicant contact details:	c/-RPS PO Box 977 Townsville QLD 4810

3.0 Aspects of development and type of approval being sought

Aspect Of Development	Type Of Approval	Description
Reconfiguration of a Lot	Development Permit	1 lot into 129 lots - 124 residential lots, 2 management lots, 1 active open space lot, 1 linear open space lot, and 1 balance lot

4.0 Matters of interest to the state

The development application has the following matters of interest to the state under the provisions of the Planning Regulation 2017:

Trigger Mode	Trigger Number	Trigger Description
All Modes	10.9.4.1.1.1	Development application for an aspect of development stated in schedule 20 that is assessable development under a local categorising instrument or section 21, if—(a) the development is for a purpose stated in schedule 20, column 1 for the aspect; and (b) the development meets

		or exceeds the threshold— (i) for development in local government area 1—stated in schedule 20, column 2 for the purpose; or (ii) for development in local government area 2—stated in
Railways	10.9.4.2.1.1	Development application for reconfiguring a lot that is assessable development under section 21, if— (a) all or part of the premises are within 25m of a State transport corridor; and (b) 1 or more of the following apply— (i) the total number of lots is increased; (ii) the total number of lots adjacent to the State transport corridor is increased; (iii) there is a new or changed access between the premises and the State transport corridor; (iv) an easement is created adjacent to a railway as defined under the Transport Infrastructure Act, schedule 6; and (c) the reconfiguration does not relate to government supported transport infrastructure
State-Controlled Roads	10.9.4.2.3.1	Development application for reconfiguring a lot that is assessable development under section 21, if— (a) all or part of the premises are— (i) adjacent to a road (the relevant road) that intersects with a State-controlled road; and (ii) within 100m of the intersection; and (b) 1 or more of the following apply— (i) the total number of lots is increased; (ii) the total number of lots adjacent to the relevant road is increased; (iii) there is a new or changed access between the premises and the relevant road; and (c) the reconfiguration does not relate to government supported transport infrastructure

5.0 Assessment

5.1 Evidence or other material

Background

- In 2011, Stockland advised TMR of a proposed integrated residential and commercial development 'Ellida' at Parkhurst, north of Rockhampton.

Previous development application (TMR Ref: TMR13-005882, Rockhampton Regional Council Ref: D/36-2013)

- A development application was made on 11 March 2013 to Rockhampton Regional Council (Ref: D/36-2013) seeking a preliminary approval for a master planned residential estate of 2350 allotments and a development permit for reconfiguring a lot for stages 1 – 3 of 199 lots at Yaamba Road, Parkhurst. The site was adjacent to the North Coast Line railway and triggered referral to the Department of Transport and Main Roads as a concurrence agency for railways and state-controlled roads.
- Access to the development from the Bruce Highway was proposed via a four way intersection at Olive Street which would involve a new railway crossing of the North Coast Line railway.
- The development was facilitated as a 'major project' under the previous Department of State Development Infrastructure Planning (DSDIP) Industry Support Unit.
- There were a number of workshops and pre-lodgement meetings with the applicant, Department of Transport and Main Roads, Queensland Rail and the Minister's office from November 2012 regarding the proposal for a new railway level crossing for the development.
- The *Queensland Level Crossing Safety Strategy 2012-2021* seeks to eliminate level crossings where appropriate. In particular, Strategy 9 seeks to:
  'Explore opportunities for grade separation or closing level crossings and seek to minimise any proposals to construct a public level crossing on a greenfield site, with a clear objective to add no further open level crossings to the network.'
- Consequently, any proposed level crossings require Minister endorsement.
- To overcome the Government's position of 'no new level crossings', Stockland proposed to relocate the William Palfrey Road level crossing approximately 700m north to Olive Street. Grade

separation was considered unviable due to cost and land constraints.

- In March 2013, the Minister advised that the new Olive Road level crossing was supported as a replacement for the William Palfrey Road level crossing based on it being assessed as 'medium risk'.
- TMR provided a letter dated 15 April 2013 to Stockland which advised that '*TMR supports the proposed at-grade level crossing solution to Olive Street, noting no further crossings will be added to the network as the existing level crossing at William Palfrey Road will be relocated and upgraded.'*
- TMR issued an information request dated 7 May 2013 which requested further information in relation to state-controlled road traffic, conceptual engineering drawings for the Olive Street level crossing and railway noise.
- The existing William Palfrey Drive level crossing was intended to be utilised for construction purposes, then decommissioned and closed upon the opening of the replacement Olive Street level crossing.
- Queensland Rail provided approval in principle to replace the William Palfrey Road level crossing with the Olive Street level crossing via letters dated 12 April 2013 and 28 August 2013 including specific requirements and conditional upon further consultation at detailed design stages.
- TMR issued a concurrence agency response with conditions on 17 October 2013. This included requirements regarding the new Olive Street level crossing and closure and decommissioning of the William Palfrey Road level crossing, amongst other railway conditions concerning stormwater, fencing, noise and earthworks. Additional conditions were applied in relation to state-controlled road intersection works and future potential bus routes.
- Rockhampton Regional Council issued a Decision Notice dated 11 December 2013 giving approval for a Preliminary Approval to vary the effect of the Planning Scheme for a Material Change of Use for a Master Planned Community and a Development Permit for Reconfiguring a Lot (five lots into 127 lots, public use land and balance lots).
- The approval was subsequently appealed and withdrawn. As such, there is no prior approval.
- The current Rockhampton City Plan 2015 now zones the 'Ellida' site as residential and as such future residential development on the site does not require a preliminary approval to vary the effect of the planning scheme.
- A number of prelodgement meetings have been held between TMR, QR, DILGP and the applicant:

  <u>Prelodgement Meeting – 16 September 2015</u> (TMR ref: TMR15-014875; DILGP Ref: SPL-0815-023596)

  - A prelodgement meeting was held on 16 September 2015, and a prelodgement meeting record dated 2 October 2015 was provided regarding a forthcoming 128 lot subdivision and sales office generally corresponding with the previously assessed stages 1-3.
  - the applicant was advised that all previous reporting for the development application needed to be revised and updated and the relevant SDAP criteria would need to be addressed for state-controlled roads and railways.
  - The applicant advised that the intention of closing the William Palfrey Road railway level crossing remained and requested in-principle agreement that the replacement railway level crossing was still valid. TMR was to check the process required for this with senior management and advised updated traffic data would be required regarding the revised development proposal and arrangements, background traffic, design horizon and the like as this would affect the design / safety controls.
  - The applicant was requested to provide formal written correspondence to TMR clarifying the nature of the proposed development and requesting written confirmation

regarding the validity of the replacement railway level crossing.

- Since this meeting, TMR confirmed that the replacement level crossing approved by the Minister in 2013 remains valid in principle. This was the direction given by the Executive Director, of Transport System Management within TMR.

Prelodgement Meeting – 29 May 2017 (TMR ref: TMR17-021315; DILGP Ref: SPL-0517-039320)

- A prelodgement meeting was held on 29 May 2017 (SPL-0517-039320) and a prelodgement meeting record dated 8 June 2017 was provided regarding a forthcoming 126 lot subdivision generally corresponding to the previously assessed stages 1-3. The intent was to provide information for the entire development.
- Access for the initial stages of the development (construction, display village and initial lot releases of approximately 200 allotments) was proposed through the Edenbrook estate, subject to receiving approval from Rockhampton City Council. The intersection of William Palfrey Road and the Bruce Highway was not intended to be used to access the site during construction and at commencement, provided the applicant could reach agreement to use the road connection from the Edenbrook estate. The applicant wished to achieve primary access to the estate via Olive Street.
- At this meeting it was conveyed that the issues raised at the prelodgement meeting of October 2015 were still required to be addressed, in particular all reports should be updated.
- TMR is upgrading the Bruce Highway at this location, however would not be designing or funding the fourth leg of Olive Street which includes the replacement railway level crossing.
- The meeting specifically discussed traffic information, and in relation to railway level crossings TMR identified that information would be required in relation to proposed access arrangements and development generated traffic for all aspects and stages of the development, and only one level crossing could be operational at one time.
- Queensland Rail and TMR advised that it was preferred for access to the development (namely, construction and the initial stages) to be gained from the road connection via the Edenbrook estate rather than via the existing railway level crossing at William Palfrey Road.

Current development approval

- In October 2017 a development application was received seeking a development permit for Reconfiguring a Lot (1 lot into 129 lots - 124 residential lots, 2 management lots, 1 active open space lot, 1 linear open space lot, and 1 balance lot). The development is adjacent to the North Coast Line on its eastern boundary.
- The development was deemed properly made by Rockhampton Regional Council on 16 October 2017 and assessed by SARA against version 2.1 of the State Development Assessment Provisions (SDAP), effective from 11 August 2017.
- On 12 September 2018, Rockhampton Regional Council subsequently issued a development permit (negotiated) approving the development (D/117-2017). The council decision appended a Referral Agency Response issued by SARA on 21 March 2018 approving the development subject to conditions (1710-2243 SRA).
- The development approval covers the initial stages 1-3 of the 'Ellida' development, adjacent to the railway corridor. The overall development will include up to approximately 2,350 residential allotments as part of the master planned community.
- The approved ultimate access for the development is via a four-way signalised intersection on the Bruce Highway at Olive Street, which includes a replacement at-grade crossing of the railway corridor on the (western) fourth leg of this intersection.
- The existing level crossing on William Palfrey Road was conditioned to be closed (and ultimately relocated to align with the proposed principal access point of the development).

- The development approval applies partly over rail corridor land, namely Lots 22 and 23 on SP134380 and Lot 49 on SP129857. These lots include the existing railway level crossing of William Palfrey Road and the proposed Olive Street extension and new level crossing. The referral material included land owner's consent letter (reference 485/00165, E46413) from the Department of Transport and Main Roads in relation to the rail corridor land to enable the development application to be made over Lots 22 and 23 on SP134380 and Lot 49 on SP129857.

Minor Change

- By letter dated 17 August 2022, the applicant made a change application (minor) to amend its development approval pursuant to section 78 of the *Planning Act 2016* to the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) as the responsible entity.
- The applicant requested to change the existing referral agency conditions, dated 21 March 2018, reference 1710-2243 SRA, particularly conditions 2, 3, 4, 6, 7, 10, 11, 12, 13, and 14.
- The changes requested relate mostly to condition timing and are as follows:
    - *Condition 2 (road works, including the Olive Street railway level crossing) - Condition Timing be amended to add the words "for the appropriate stage"*
    - *Condition 3 (road works associated with the Olive Street railway level crossing) - Be amended to allow for the first stage to access direct from William Palfrey Road as per application made to Council (if required) as attached, removing the requirement for Conditions 2 and 14 to complied with at the same time.*
    - *Condition 4 (construction management) Item (b) - To be deleted as roadworks have made the intersection left in left out already.*
    - *Condition 6 (railway boundary fencing) - We request that this condition specify which boundary is to be fenced.*
    - *Condition 7 (noise attenuation) - Be amended as per DRAFT conditions dated 29 June 2018 to reference the updated Noise Report by MWA as attached.*
    - *Condition 10 (railway level crossing upgrade) - We seek removal of this condition given access will be provided along William Palfrey Road from the west.*
    - *Condition 11 (railway level crossing upgrade - We seek removal of this condition given access will be provided along William Palfrey Road from the west.*
    - *Condition 12 (railway level crossing relocation)- We seek the removal of timing requirements (a) and (b) and replaced with: 'Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing'*
    - *Condition 13 (new level crossing) - Condition Timing be amended to state: 'Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing'*
    - *Condition 14 (railway level crossing closure) - Condition Timing be amended to state: 'Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing'*
- Specifically, the proposed changes seek approval for the development to use William Palfrey Road as the primary site access, until such time as the railway level crossing relocation at Olive Street is completed (due to expected 2.5 year delays to complete the work).
- The applicant also wants to clarify the location and extent of the fencing required along the rail corridor (as per condition 6).
- On 14 October 2022, SARA sought further advice from the applicant in relation to the proposed changes, including matters relating to the proposed alternative access arrangements.
- On 22 February 2023, the applicant provided a Traffic Technical Note to facilitate discussions with TMR/QR in relation to the conditioned railway level crossing upgrades.

Assessment:

- Section 81(2) of the *Planning Act 2016*, states that when assessing a change application, the responsible entity must consider:

- *'(da) …all matters the responsible entity would or may assess against or have regard to, if the change application were a development application; and*
- *(e) another matter that the responsible entity considers relevant.'*

- For sub-section 81(2)(da), provision 81(3) provides that the responsible entity:
  - *'(a) must assess against, or have regard to, the matters that applied when the development application was made; and*
  - *(b) may assess against, or have regard to, the matters that applied when the change application was made.'*

- Since the development application was made, the following have come into effect:-
  - *Planning Act 2016*;
  - *Planning Regulation 2017*; and
  - *State Development Assessment Provisions*, version 3.0.

5.2 SDAP Assessment

The following is an assessment of the application against each applicable codes in:

State Code 2: Development in a railway environment

Performance outcomes	Acceptable outcomes	Response
Buildings and structures		
PO1 The location of buildings, structures, infrastructure, services and utilities does not create a safety hazard in a railway corridor or cause damage to, or obstruct, rail transport infrastructure or other rail infrastructure.	AO1.1 Buildings, structures, infrastructure, services and utilities are not located in a railway corridor. AND AO1.2 Buildings, structures, infrastructure, services and utilities can be maintained without requiring access to a railway corridor. **AND**	<u>Development setbacks/clearances</u> • The Proposed Subdivision Stages 1-3 Allotment Layout (revision I) shows a linear open space lot approximately 20m wide and balance lot 5007 adjacent to the railway corridor. The linear open space is to accommodate a noise mound and the balance lot accommodates future SCR planning. • This plan also shows Stage 3b will include a new road across the railway corridor. This will be addressed under PO23 in relation to railway level crossings. • Therefore, the development is unlikely to compromise this aspect of PO1. <u>Pipework, services and utilities</u> • Electricity is currently available to the site and a future electrical easement lot is proposed adjacent to the railway corridor. • The planning report indicates that new sewer and water connections will be required to service the development from Yaamba Road. These will be required to cross the railway corridor. • These connections across the railway corridor are conceptually shown on the Wastewater Master Plan Service Strategy and Concept Water Reticulation Layout Plan. They appear to align with the new location of Olive Street and will likely be co-located with the new road.

Performance outcomes	Acceptable outcomes	Response
		• Therefore an advice statement should be provided regarding the approval requirements under section 255 of the *Transport Infrastructure Act 1994* to ensure compliance with this aspect of PO1. *Minor Change* • The proposed changes do not alter the original assessment.
	AO1.3 Buildings, structures and infrastructure are set back horizontally a minimum of 3 metres from the outermost projection of overhead line equipment. Note: Section 2.3 of the Guide to Development in a Transport Environment: Rail, TMR, 2015 provides guidance on how to comply with this acceptable outcome. **AND**	N/A – There is no OHLE in this section of the railway corridor.
	AO1.4 The lowest part of development in or over a railway is a minimum of: 1. 7.9 metres above the railway track where the proposed development extends along the railway for a distance of less than 40 metres 2. 9 metres above the railway track where the development extends along the railway for a distance of between 40 and 80 metres. **AND**	N/A – The development is not in or above the railway corridor.
	AO1.5 Pipe work, services and utilities: 1. are not attached to rail transport infrastructure or other rail infrastructure 2. do not penetrate through the side of any proposed building element or structure where built to boundary in, over or abutting a railway corridor.	Refer to the assessment under AO1.1 and AO1.2.
PO2 Buildings and structures are located to not interfere with, or impede access to, a railway bridge.	AO2.1 Buildings and structures are set back horizontally a minimum of 3 metres from a railway bridge. **AND**	N/A – there are no railway bridges at this location.

Performance outcomes	Acceptable outcomes	Response
	AO2.2 Permanent structures are not located below or abutting a railway bridge. **AND** AO2.3 Temporary activities below or abutting a railway bridge do not impede access to a railway corridor. Note: Temporary activities below or abutting a railway bridge could include, for example, car parking or outdoor storage.	
PO3 Development does not add or remove loading that will cause damage to rail transport infrastructure or a railway corridor. Note: To demonstrate compliance with this performance outcome, it is recommended a RPEQ certified geotechnical assessment, prepared in accordance with the Guide to Development in a Transport Environment: Rail, TMR 2015 is provided.	No acceptable outcome is prescribed.	Refer to the assessment under PO10-PO14.
PO4 Development above a railway is designed to enable natural ventilation and smoke dispersion in the event of a fire emergency. Note: Section 5.1 – Development over a railway of the Guide to Development in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with this acceptable outcome.	No acceptable outcome is prescribed.	N/A – The development is not proposed above the railway corridor.
PO5 Construction activities do not cause ground movement or vibration impacts in a railway corridor. Note: Recommended a RPEQ certified	No acceptable outcome is prescribed.	Refer to the assessment under PO10-PO14.

Performance outcomes	Acceptable outcomes	Response
geotechnical assessment, prepared in accordance with section 2.7 of the Guide to Development in a Transport Environment: Rail, TMR, 2015 is provided.		
PO6 Buildings and structures in a railway corridor are designed and constructed to remain structurally sound in the event of a derailed train.	AO6.1 Buildings and structures, in a railway corridor including piers or supporting elements, are designed and constructed in accordance with Civil Engineering Technical Requirement – CIVIL-SR-012 Collision protection of supporting elements adjacent to railways, Queensland Rail, 2011, AS5100 Bridge design and AS1170 Structural design actions. Note: Section 3.2 of the Guide to Development in a Transport Environment: Rail, TMR, 2015 provides guidance on how to comply with this acceptable outcome.	N/A – The proposed development is not located within a railway corridor and is located more than 20m from the nearest railway track. The proposed development relates to a reconfiguration.
PO7 Buildings and structures in high risk locations and where also located within 10 metres of the centreline of the nearest railway track are designed and constructed to remain structurally sound in the event of a derailed train.	AO7.1 Buildings and structures, in a railway corridor including piers or supporting elements, are designed and constructed in accordance with Civil Engineering Technical Requirement CIVIL-SR-012 Collision protection of supporting elements adjacent to railways, Queensland Rail, 2011, AS5100 Bridge design and AS1170 Structural design actions. Note: Section 3.2 of the Guide to Development in a Transport Environment: Rail, TMR, 2015 provides guidance on how to comply with this acceptable outcome.	
PO8 Buildings and structures in a railway corridor are designed and constructed to prevent projectiles from being thrown onto a railway.	AO8.1 Buildings and structures in a railway corridor include throw protection screens in accordance with the relevant provisions of the Civil Engineering Technical Requirement – CIVIL-SR-005 Design of buildings over or near railways, Queensland Rail, 2011, and the Civil Engineering Technical	

Performance outcomes	Acceptable outcomes	Response
	Requirement – CIVIL-SR-008 Protection screens, Queensland Rail. **AND**	
	AO8.2 Road, pedestrian and bikeway bridges over a railway include throw protection screens in accordance with the relevant provisions of the Civil Engineering Technical Requirement – CIVIL-SR-005 Design of buildings over or near railways, Queensland Rail, 2011, and the Civil Engineering Technical Requirement – CIVIL-SR-008 Protection screens, Queensland Rail. Note: Section 2.4 of the Guide to Development in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with this outcome.	
PO9 Buildings, and structures, other than accommodation activities, are designed and constructed to prevent projectiles from being thrown onto a railway from any publicly accessible areas located within 20 metres from the centreline of the nearest railway track.	AO9.1 Publically accessible areas located within 20 metres from the centreline of the nearest railway track do not directly overlook a railway. **OR**	
	AO9.2 Buildings and structures are designed to ensure publically accessible areas located within 20 metres of the centreline of the nearest railway track and that overlook the railway include throw protection screens in accordance with the relevant provisions of the Civil Engineering Technical Requirement – CIVIL-SR-005 Design of buildings over or near railways, Queensland Rail, 2011, and the Civil Engineering Technical Requirement – CIVIL-SR-008 Protection screens, Queensland Rail. Note: Section 2.4 of the Guide to Development in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with this outcome.	
Filling, excavation and retaining structures		
PO10 Filling, excavation and retaining structure	No acceptable outcome is prescribed.	Earthworks, Retaining and Ground Disturbance

Performance outcomes	Acceptable outcomes	Response
do not interfere with, or result in damage to, infrastructure or services in a railway corridor. Note: Where development will impact on an existing or future service or public utility plant in a railway corridor, the alternative alignment must comply with the standards and design specifications of the relevant service or public utility provider, and any costs of relocation are to be borne by the developer.		• The proposed subdivision will involve road works and is likely to involve bulk earthworks to achieve level building pads. • The Proposed Subdivision Stages 1-3 Allotment Layout (revision H) shows a linear open space lot (Stage 3b) approximately 25m wide extending along the length of the railway corridor. The planning report indicates the intent of this lot is to accommodate a future electrical easement. • This plan also shows Stage 3a will include a new road across the railway corridor. • The Civil Engineering and Services Report (Appendix G), prepared by Brown Consulting and dated 05/03/2013, includes Preliminary Bulk Earthworks and Retaining Wall Plans and Preliminary Bulk Earthworks Cut/Fill Depths Plans. These plans show earthworks will be setback approximately 25m from the railway corridor except for works associated with the construction of the Olive Street extension over the railway corridor. • The works on the railway corridor associated with this new road and level crossing will be assessed under PO23 in relation to railway level crossings and require railway manager approval under section 255 of the *Transport Infrastructure Act*. <u>*Response to information request*</u> • A new staging plan has been submitted and the road extension across the railway corridor will occur in Stage 3b. • The works on the railway corridor associated with this new road and level crossing will be assessed under PO23 in relation to railway level crossings and require railway manager approval under section 255 of the *Transport Infrastructure Act*. • The Proposed Subdivision Stages 1-3 Allotment Layout (revision I) shows a linear open space lot (to accommodate noise mound) approximately 20m in width and new balance Lot 5007 (to accommodate future SCR planning) adjacent to the railway corridor.
PO11 Filling, excavation, building foundations and retaining structures do not undermine, or cause subsidence of, a railway corridor. Note: To demonstrate compliance with this performance outcome, it is recommended a RPEQ certified geotechnical assessment is provided, prepared in accordance with section 2.7 of the Guide to Development in a Transport Environment: Rail, TMR, 2015.	No acceptable outcome is prescribed.	
PO12 Filling and excavation, building foundations and retaining structures do not cause ground water disturbance in a railway corridor. Note: To demonstrate compliance with this performance outcome, it is recommended a RPEQ certified geotechnical assessment is provided, prepared in accordance with section 2.7 of the Guide to Development in a Transport	No acceptable solution is prescribed.	

Performance outcomes	Acceptable outcomes	Response
Environment: Rail, TMR, 2015.		• The QR Linear Open Space Cross-Section (drawing 109116-114) shows a 2.5m high acoustic earthmound will be provided within the linear open space corridor and within the railway corridor. This includes a 1:3 batter to the railway corridor existing ground level. • The exact location of these works within the railway corridor is not shown on the submitted plans. • The railway manager (QR) has advised that earthworks not associated with the new proposed road are not permitted within the railway corridor. • No new earthworks details or plans have been provided to support the new staging plan. • Retaining structures, including earth mounds in excess of an overall height of 1m abutting a railway corridor are to be designed and certified by a structural RPEQ. • The proposed earthworks therefore have the potential to adversely impact on the safety and operational integrity of the railway. • It is assumed that a subsequent operational works application will be forthcoming, however DSDMIP will not be triggered as a concurrence agency if these works are 'associated with' the subject application for a material change of use and reconfiguring a lot. • Given the above, a condition is required to be imposed, including RPEQ certification and advice statement regarding approval under section 255 of the *Transport Infrastructure Act* to ensure compliance with PO10 PO14. *Minor Change* • Referral agency condition 9 relates to earthworks • The proposed changes do not request alteration to referral agency condition 9. • The proposed change does not alter the original assessment.
PO13 Excavation, boring, piling, blasting or fill compaction during construction of a development does not result in ground movement or vibration impacts that would cause damage or nuisance to a railway corridor, rail transport infrastructure or railway works. Note: Recommended a RPEQ certified geotechnical assessment is provided, prepared in accordance with section 2.7 of the Guide to Development in a Transport Environment: Rail, TMR, 2015.	No acceptable outcome is prescribed.	
PO14 Filling and excavation material does not cause an obstruction or nuisance in a railway corridor.	AO14.1 Development does not store fill, spoil or any other material in, or adjacent to, a railway corridor.	
Stormwater and drainage		
PO15 Development does not result in an actionable nuisance or	No acceptable outcome is prescribed.	• *Refer to response below for PO15 and PO16.*

Performance outcomes	Acceptable outcomes	Response
worsening of stormwater, flooding or drainage impacts in a railway corridor. Note: Section 2.8 of the Guide to Development in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with this performance outcome.		
PO16 Run-off from the development site during construction of development does not cause siltation of stormwater infrastructure affecting a railway corridor.	AO16.1 Run-off from the development site during construction of development is not discharged to stormwater infrastructure in a railway corridor.	

- The site is currently undeveloped rural land and adjoins the railway corridor on its eastern boundary.
- The first stages (1 to 3) of the development directly adjoin the railway corridor.
- The railway corridor is located upstream of the site.
- The proposed residential subdivision will increase the impervious area on the site and therefore peak discharge.
- Proposed bulk earthworks also have the potential to alter the existing drainage and flooding characteristics of the site which may adversely impact on the railway corridor.
- The site is subject to flooding from Ramsay Creek according to Rockhampton Regional Council online mapping from 2014.
- The applicant has resubmitted the Stormwater Quality Management Plan prepared by DesignFlow and Flood Management Report prepared by Brown Smart Consulting, both from 2013 relating to the previous development application over the site (TMR Ref: TMR13-005882, Council Ref: D/36-2013).
- TMR's Engineering and Technology (Hydraulics) Branch has reviewed the material and advised:

  We refer Brown Consulting (Qld) Pty Ltd's Version C Jan 2013 Flood Management Report.
  The proposed development is on Ramsey Creek, downstream of the North Coast Railway (Glen Geddes to Parkhurst) and the state-controlled 10F Bruce Highway.
  A small portion of the site in the north receives tributary discharge from the railway reserve. The site layout shows that this portion will not be developed and hence will not impede runoff from state controlled infrastructure.
  All other parts of the site runoff away from the state-controlled network and have no external catchment crossing that network. Flood modelling of Ramsey Creek for a range of ARIs from 5 to 100 years, results in flood levels at the upstream cross-section (some 75m downstream of the railway crossing) in the developed case being equal to that for the existing case. Hence there is no worsening of flood level at the state-controlled network.
  Hence TMR should have no objection to this development on stormwater drainage grounds.

  With regards to stormwater management of stages 1 to 3, a report has been prepared by Design Flow in October 2013. The conceptual stormwater management plan appears to show that stormwater runoff from a railway crossing to the east of the development will be conveyed via an open drain along the boundary between the development site and the state controlled railway corridor before discharging into a gully within the development site. TMR records and aerial photos show that there are potentially 2 railway culvert crossings in the vicinity of Stages 1 to 3 of the development. While TMR support this concept in principle, we should request details of the proposed drainage configuration including a hydraulic assessment showing that the

Performance outcomes	Acceptable outcomes	Response

proposed drainage configuration will not worsen flood levels and velocities within the state controlled corridor for events up to the 1% AEP.

- Given the above, further information was requested to demonstrate compliance with PO15 and PO16.

Response to information request

- A revised Flood Investigation and Concept Stormwater Quantity Management Plan for stages 1 to 3, prepared by Calibre Consulting has been submitted.
- Section 3.2.3 concludes that:
  "The results demonstrate that the proposed development will result in negligible increases in peak flows downstream of the site.
  The maximum predicted increase in peak flow of 3% occurs during the minor storm events, with only a 1% increase experienced at all critical analysis points for the 1% AEP storm event. These increases in peak flow are not expected to result in any perceivable change in flood conditions, let alone an adverse impact. Therefore peak flow mitigation is neither required nor proposed as part of the Stag 1 to 3 development.
- Additionally the submitted Proposed Subdivision Stages 1-3 Allotment Layout indicates that a Noise Mound is proposed adjacent to the railway boundary
- The revised report has taken this into consideration during hydraulic analysis.
- Section 4.1 of the report outlines a drainage strategy and hydraulic analysis for the stormwater management measures for stages 1-3:
  Proposed swale and culvert/inlet system adjacent acoustic mound/ berm structure to cater for locally contributing catchment from the east;
  District park overland flow path to cater for some internally generated development flows and eastern flows conveyed from the proposed culvert/inlet system adjacent eastern property boundary and acoustic berm;
  Proposed internal arterial road culvert crossing to cater for district park flows, some internally generated development flows and flows contributing to the site form the east.
- TMR's Engineering and Technology (Hydraulics) Branch has reviewed the material and advised:
  This development is located downstream of the North Coast Line and Bruce Highway. Therefore runoff from this site flows away from the state controlled transport corridor, so there will be no increase in runoff due to proposed development.

  However, currently runoff from a local upstream catchment of 13.69 hectares, east of the site drains into this site. This catchment is largely made up of low density residential allotments and the reminder made up of road and railway corridor. Runoff from this catchment currently enters the site as concentrated overland flow traverses the Bruce Highway (Yamba Road) and North Coast railway corridor via minor stormwater pipe drainage infrastructure. They need to manage this runoff without causing any flooding impact to TMR transport corridors (both rail and road).

  The SMP proposes to implement drainage swales adjacent the acoustic mound/berm within their property to direct flows from upstream catchment east of the site to the proposed inlet structure and then to discharge to the onsite District Park. The report has the details of an assessment of hydraulic capacity of these swale drains and has shown that these swales have been designed to convey 1% AEP runoff from the local upstream catchment east of the site.

  Since the runoff from eastern catchment up to 1% AEP convey through the proposed swale drains and into District Park, it seems unlikely that there will be any impact on flooding on any state controlled transport infrastructure.

  We also requested applicant to provide a confirmation that approval has been given to locate the proposed drainage within an electrical easement. This has not been provided in the report, so TMR should ask applicant to provide relevant documents to confirm it. This should be a condition for approval of this DA.

Performance outcomes	Acceptable outcomes	Response
		I recommend that TMR can accept the new Flood Investigation and Concept Stormwater Quantity Management Plan subject to the condition regarding no worsening of flooding to state controlled rail and road transport corridors. *In addition, TMR should ask for a documents to confirm that approval has been given to locate the proposed drainage within an electrical easement.* • Given the above the proposed development should be conditioned in accordance with the submitted report, including RPEQ certification to achieve compliance with PO15 and PO16. *Minor Change* • Referral agency condition 8 addresses stormwater by requiring the development must be carried out generally in accordance with Section 4 – Hydraulic Investigation and Appendix C – Concept Plans & Details of the Flood Investigation & Concept Stormwater Quantity Management Plan prepared by Calibre Consulting (Qld) Pty Ltd dated 19 February 2018, reference 17- 002720-WER02 and revision A. • The proposed changes do not alter the original assessment.
Access		
PO17 Development prevents unauthorised access to a railway corridor.	AO17.1 Where development is abutting a railway corridor fencing is provided along the property boundary with the railway corridor in accordance with the railway manager's standards. Note: It is recommended the applicant contact the railway manager for advice regarding applicable fencing standards. **AND**	• The site is currently vacant rural land. • The proposed development involves the creation of residential allotments on a site adjacent to the railway corridor. • The proposed development will be changing the existing use of the site and increasing the risk of trespass onto the railway corridor. • It is unclear where the location of the acoustic mound/fence are proposed in relation to the railway corridor boundary. • Therefore, fencing to the railway manager's (QR) standards is required on the railway corridor boundary. Security fencing is accordance with QR-C-S3230 (without rails) is required in this location. • Fencing is required to be conditioned to achieve compliance with PO17. *Minor Change* • Referral agency condition 6 requires *'Fencing sufficient to prevent unauthorised access by people, vehicles and projectiles must be provided along the site boundary with the railway corridor in accordance with Queensland Rail standard fencing drawing number QR-C-S3230 '1.8m High Chain Link Security Fence (without rails using 50mm diamond mesh general arrangement)".* • The correspondence entitled ' RE: Minor Change to Referral Agency Conditions 1710-2243 SRA Reconfiguring a Lot - 1 Lot into 126 Lots William Palfrey Road, Parkhurst',

Performance outcomes	Acceptable outcomes	Response
		prepared by Capricorn Survey Group, dated 17 August 2022 and reference number 8666 requests specification of which boundary is required to be fenced. • The condition can be altered to refer to a plan amended in red to show the location of the fence. • The proposed changes do not alter the original assessment.
	AO17.2 A road barrier designed in accordance with Civil Engineering Technical Requirement – CIVIL-SR-007 Design and selection criteria for road/rail interface barriers, Queensland Rail 2011, and certified by an RPEQ, is installed along any roads abutting a railway corridor. **AND**	N/A – The proposed development does not involve a new road abutting a railway corridor.
	AO17.3 Proposed vehicle manoeuvring areas, driveways, loading areas or carparks abutting a railway corridor include rail interface barriers. Note: Section 2.4 of the Guide to Development in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with acceptable outcome 16.3.	N/A – The proposed development does not involve vehicle manoeuvring areas, driveways, loading areas or carparks abutting a railway corridor.
PO18 Development does not obstruct existing access to a railway corridor.	AO18.1 Development is sited and designed to ensure existing authorised access points and access routes for maintenance and emergency works to a railway corridor are clear from obstructions at all times.	N/A – The development does not obstruct existing authorised access points and access routes for maintenance and emergency works to a railway corridor.
PO19 Access to a railway corridor does not create a safety hazard for users of a railway, or result in a worsening of operating conditions on a railway.	AO19.1 Development does not require a new railway crossing. **AND**	Refer to the assessment against PO23.
	AO19.2 Development does not propose new or temporary structures or works connecting to rail transport infrastructure or other rail infrastructure. **AND**	
	AO19.3 Vehicle access points achieve sufficient clearance from a railway level crossing in accordance with AS1742.7:2016 – Manual of uniform traffic control devices, Part 7: Railway crossings, by	

Performance outcomes	Acceptable outcomes	Response
	providing minimum 5 metres clearance from the edge running rail (outer rail), plus the length of the largest vehicle anticipated on-site. Note: Section 2.2 of the Guide to Development in a Transport Environment: Rail, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this acceptable outcome.	
PO20 Development does not damage or interfere with public passenger transport infrastructure, public passenger services or pedestrian and cycle access to public passenger transport infrastructure and public passenger services.	AO20.1 Development does not necessitate the relocation of existing public passenger transport infrastructure. **AND**	N/A – Interference with public passenger transport will be addressed under the assessment against State Code 6.
	AO20.2 Vehicular access and associated road access works for a development is not located within 5 metres of existing public passenger transport infrastructure. **AND**	
	AO20.3 On-site vehicle circulation is designed give priority to entering vehicles at all times so vehicles using a vehicular access do not obstruct public passenger transport infrastructure and public passenger services or obstruct pedestrian or cyclist access to public passenger transport infrastructure and public passenger services. **AND**	
	AO20.4 The normal operation of public passenger transport infrastructure or public passenger services is not interrupted during construction of the development.	
Planned upgrades		
PO21 Development does not impede delivery of planned upgrades of rail transport infrastructure.	AO21.1 Development is not located on land identified by the Department of Transport and Main Roads as land required for planned upgrades to rail transport infrastructure. Note: Land required for the planned upgrade of rail transport infrastructure is identified in the DA mapping system. **OR**	N/A - Development is not located on land identified by the Department of Transport and Main Roads as land required for planned upgrades to rail transport infrastructure.

Performance outcomes	Acceptable outcomes	Response
	AO21.2 Development is sited and designed so that permanent buildings, structures, infrastructure, services or utilities are not located on land identified by the Department of Transport and Main Roads as land required for the planned upgrade of rail transport infrastructure. **OR** all of the following acceptable outcomes apply: AO21.3 Structures and infrastructure located on land identified by the Department of Transport and Main Roads as land required for the planned upgrade of a of rail transport infrastructure are able to be readily relocated or removed without materially affecting the viability or functionality of the development. **AND** AO21.4 Development does not involve filling and excavation of, or material changes to, land required for a planned upgrade of rail transport infrastructure. **AND** AO21.5 Land is able to be reinstated to the pre-development condition at the completion of the use.	
Network safety		
PO22 Development involving dangerous goods adjacent to a railway corridor does not adversely impact on the safety or operations of a railway. Note: Development involving dangerous goods, or hazardous chemicals above the threshold quantities listed in table 5.2 of the Model Planning Scheme Development Code for Hazardous Industries and Chemicals, Office of Industrial Relations,	AO22.1 Development does not involve handling or storage of hazardous chemicals above the threshold quantities listed in table 5.2 of the Model Planning Scheme Development Code for Hazardous Industries and Chemicals, Office of Industrial Relations, Department of Justice and Attorney-General, 2016.	N/A – The proposed development does not involve the handling or storage of dangerous goods or hazardous chemicals.

Performance outcomes	Acceptable outcomes	Response
Department of Justice and Attorney-General, 2016, should demonstrate that impacts on a railway from a fire, explosion, spill, gas emission or dangerous goods incident can be appropriately mitigated. Section 2.6 – Dangerous goods and fire safety of the Guide to Development in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with this performance outcome.		
PO23 Development does not adversely impact on the safety of a railway crossing. Note: It is recommended a traffic impact assessment be prepared to demonstrate compliance with this performance outcome. An impact on a level crossing may require an Australian Level Crossing Assessment Model (ALCAM) assessment to be undertaken. Section 2.2 – Railway crossing safety of the Guide to Development in a Transport Environment: Rail, Department of TMR, 2015, provides guidance on how to comply with this performance outcome.	AO23.1 Development does not require a new railway crossing. OR AO23.2 A new railway crossing is grade separated. Note: It is recommended a traffic impact assessment be prepared to demonstrate compliance with this acceptable outcome. An impact on a level crossing may require an Australian Level Crossing Assessment Model (ALCAM) assessment to be undertaken. Section 2.2 – Railway crossing safety of the Guide to Development in a Transport Environment: Rail, TMR, 2015, provides guidance on how to comply with this acceptable outcome. OR all of the following acceptable outcomes apply: AO23.3 Upgrades to a level crossing are designed and constructed in accordance with AS1742.7 – Manual of uniform traffic control devices, Part 7: Railway crossings and applicable railway manager's standard drawings. AND AO23.4 Vehicle access points achieve sufficient clearance from a level crossing in	Refer to the response below under PO23.

Performance outcomes	Acceptable outcomes	Response
	accordance with AS1742.7 – Manual of uniform traffic control devices, Part 7: Railway crossings by providing a minimum clearance of 5 metres from the edge running rail (outer rail) plus the length of the largest vehicle anticipated on-site. **AND**	
	AO23.5 On-site vehicle circulation is designed to give priority to entering vehicles at all times to ensure vehicles do not queue in a railway crossing.	

Railway Level Crossing Safety

- The proposed stage 1-3 subdivision plan indicates that the development will gain access to the road network across the railway corridor via an extension of Olive Street to the Bruce Highway. This plan shows that this road forms Stage 3a of the current application and will be 36.0m wide (half constructed).
- The applicant has submitted a Traffic Impact Assessment (TIA) prepared by SLR and dated 5 September 2017. This report references AECOM's Rockhampton Northern Access Upgrade (RNAU) project commissioned by TMR and the previously submitted Cambray Consulting Traffic Report from 2013 relating to the previous development application over the site (TMR Ref: TMR13-005882, Council Ref: D/36-2013).
- The Traffic Impact Assessment identifies the following:
  - The current reconfiguration application has not been considered in isolation, instead the report is based on the ultimate development of 2,300+ residential dwellings;
  - The Cambray report indicates a second connection to the external network would be required beyond 1,895 dwellings through to McLaughlin Street/Alexandra Street to the west/south;
  - The RNAU considered the ultimate development of 1,575 lots – 70% accessing the external road network via Olive Street and 30% using the secondary McLaughlin Street access;
  - Olive Street will form the main access road to the proposed development from the Bruce Highway and is intended to be a 4 lane urban arterial road 36.0m wide;
  - The report acknowledges that the William Palfrey Road crossing will need to be closed prior to the use of the replacement railway level crossing at Olive Street;
  - Section 7.2 indicates the intersection of Olive Street and the Bruce Highway will include an at-grade crossing of the North Coast Line approximately 70m west of the Bruce Highway – 2 traffic lanes are proposed to cross the railway corridor both eastbound and westbound;
  - Table 1 indicates that with 1,900 dwellings the intersection is anticipated to cause queuing in the AM peak onto Ellida (west) leg towards the level crossing;
  - Based on anticipated traffic distribution, the intersection of Olive Street should just be adequate to accommodate the traffic generated from approximately 1,575 dwellings within the development at the 2038 horizon.
- TMR's PD&C Central Region has reviewed the TIA and advised that there is insufficient traffic data and inaccurate assumptions and consequently the traffic data is not reliable.
- The staged development of the Olive Street level crossing must be appropriately designed to ensure the safety and operational integrity of the North Coast Line.
- Conceptual engineering plans and associated documents should be provided for the Olive Street level crossing for both the initial and ultimate designs of the Olive Street/Bruce Highway intersection.
- The TIA does not indicate access arrangements for construction traffic, and each stage in terms of where access will be taken from and anticipated development generated traffic. Should the applicant be proposing to use the William Palfrey railway level crossing to access the site for construction or at the completion of the allotments, then the railway level crossing will need to be upgraded as per prelodgement advice.

Performance outcomes	Acceptable outcomes	Response

- The TIA has not considered how the proposed new level crossing of Olive Street will function as part of the new 4-way signalised intersection with the Bruce Highway or the conceptual design or function of the level crossing given the pedestrian, cyclist and bus functions.
- Additionally, it is not clear which level crossing of the railway corridor (existing or replacement) is proposed to be used, and at what stages.
- The proposed development and traffic data used to determine the level crossing upgrade requirements has changed since the previous 2013 development application. Therefore, a full set of updated traffic data considering current standards, studies and planning context is required to enable an assessment of level crossing impacts.
- The railway manager (Queensland Rail) has reviewed the material and advised:

  Initially, if the overall development has not altered from the previous application, the conditions and requirements for the proposed crossing at Olive Street and existing crossing at William Palfrey Road remain as per the original application, which included on opening of Olive Street, William Palfrey Road crossing is to be closed, additional road traffic lights co-ordinated with the crossing flashing lights on the western approach to the crossing, active pedestrian crossing.

  If the road and intersection designed has changed for Olive St it will have to be reviewed with respect to the crossing requirements. Current design drawing are required for QR Civil to review for the crossing construction.

  Current Traffic Impact Assessment with traffic volumes required to compare with previous estimates.

  Details of construction traffic required – routes, vehicles types, daily volume, operation times, duration etc need to be provided as it would seem they would intend using William Palfrey Road for access.

  It is noted that Alexandra Road is listed as another feeder road to be developed. This road currently does not go over the rail line. Rockhampton Council has made some initial enquiries about installing an at-grade level crossing. The Council has been advised by Rockhampton office that QR could not support installation of an at grade crossing at this location.

- Given the above, further information is required demonstrate compliance with PO19 and PO23.

<u>Response to information request</u>

- A revised traffic assessment report, prepared by SLR Consulting Australia Pty Ltd (dated 23/2/18) has been submitted. The revised report provides conceptual engineering plans for the new Olive Street 4 way signalised intersection, proposed staging and construction, development and traffic data for the existing and relocated railway level crossings.
- A revised staging plan has also been submitted. The Proposed Subdivision Stage 1-3 Allotment Layout indicates that the development will gain access to the road network across the railway corridor via an extension of Olive Street to the Bruce Highway. This plan shows that this road forms Stage 3b of the current application and will include 4 lanes, bike lane and pedestrian paths.
- The report also states: *In terms of construction of the new at-grade crossing of Olive Street and the North Coast Rail Line, it is our understanding that this will be initially constructed as a 4 lane crossing, but would only operate (and be line marked) as a 2 lane crossing until such time as a 4 lane crossing is needed. Timing of the latter will be subject to traffic monitoring and the development rate, but it is likely that the 4 lane crossing will not be needed until approximately 1,000 – 1,500 dwellings are occupied in Ellida.*

<u>*Staging*</u>

- Section 8 of the report provides indicative timings of the proposed road and rail infrastructure. This is supported by an Indicative Stage Plan, prepared by RPS.
- This staging information is summarised below regarding the use of the existing level crossing at William Palfrey Road (ID:5412) and relocated railway level crossing (Olive Street).

Performance outcomes	Acceptable outcomes	Response

Until Dec 2018	- William Palfrey Road retained as existing (gravel formation) including at-grade crossing of the North Coast Rail Line. - Construction traffic access for Ellida via existing William Palfrey Road/Bruce Highway unsignalised intersection.
Jan 2019 – Dec 2019	- New Olive Street at-grade crossing of the North Coast Rail Line under construction. - William Palfrey Road retained as existing (gravel formation) including at-grade crossing of the North Coast Rail Line. - Construction traffic access for Ellida via existing William Palfrey Road / Bruce Highway unsignalised intersection
Jan 2020	- William Palfrey Road retained as existing (gravel formation) west of Ellida. - Existing William Palfrey Road / Bruce Highway unsignalised intersection closed. - Existing William Palfrey Road at-grade crossing of the North Coast Rail Line closed. - New Olive Street at-grade crossing of the North Coast Rail Line open. - Traffic access for Ellida via existing new Olive Street / Bruce Highway signalised intersection. - New road link (via easement through Ellida) in place between Olive Street and the existing gravel section of William Palfrey Road

Railway level crossing safety

- Construction traffic will utilise the existing railway level crossing of the North Coast Line on William Palfrey Road (ID:5412) until the relocated crossing (Olive Street is opened in early 2020).
- Table 5 indicates the AADT figures at the William Palfrey Road railway level crossing (ID:5412) until 2020.

AADT Over Railway Level Crossing (Existing WILLIAM PALFREY ROAD)			
Year	***Without Development (Background Growth)***	***With Development***	***No. and Dimensions/Type of Heavy Vehicles and Buses***
2018	*85vpd (75 light + 10 heavy)*	*185vpd (135 light + 50 heavy)*	*Construction trucks (rigid body – semi trailer)*
2019	*90vpd (79 light + 11 heavy)*	*295vpd (214 light + 81 heavy)*	*Construction trucks (rigid body – semi trailer)*
2020	*94vpd (83 light + 11 heavy)*	*NIL – crossing closed*	-
2021	*98vpd (86 light + 12 heavy)*	*NIL – crossing closed*	-
2022	*102vpd (90 light + 12 heavy)*	*NIL – crossing closed*	-
2037	*166vpd (146 light + 20 heavy)*	*NIL – crossing closed*	-
2038	*170vpd (150 light + 20 heavy)*	*NIL – crossing closed*	-

- Table 6 indicates the AADT figures at the relocated Olive Street railway level crossing until 2038.

AADT Over Railway Level Crossing (Proposed OLIVE STREET)			
Year	***Without Development (Background Growth)***	***With Development***	***No. and Dimensions/Type of Heavy Vehicles and Buses***
2018	*NIL – crossing does not exist*	*NIL – crossing does not exist*	-
2019	*NIL – crossing does not exist*	*NIL – crossing does not exist*	-
2020	*NIL – crossing does not exist*	*404vpd (293 light + 111 heavy)*	*Construction trucks (rigid body – semi trailer)*
2021	*NIL – crossing does not exist*	*1,158vpd (1,009 light + 149 heavy)*	*Construction trucks (rigid body – semi trailer) + refuse trucks + delivery trucks*
2022	*NIL – crossing does not exist*	*1,912vpd (1,725 light + 187 heavy)*	*Construction trucks (rigid body – semi trailer) + refuse trucks + delivery trucks*
2037	*NIL – crossing does not exist*	*14,476vpd (13,656 light + 820 heavy)*	*Construction trucks (rigid body – semi trailer) + refuse trucks + delivery trucks + buses*
2038	*NIL – crossing does not exist*	*16,480vpd (15,560 light + 920 heavy)*	*Construction trucks (rigid body – semi trailer) + refuse trucks + delivery trucks + buses*

- An assessment of the safety of the level crossings (ID:5412 and relocated Olive Street railway level crossing) using the Australian level Crossing Assessment Model (ALCAM) has been undertaken by

Performance outcomes	Acceptable outcomes	Response

the railway manager (QR) based on the anticipated traffic generated by the development provided in the revised report. The ALCAM concluded the following:

In essence the development proposals presented in the traffic assessment as the previous traffic assessment Proposed Master Planned Community North Parkhurst (November 2012) prepared by Cambray Consulting. The main different being it is confirmed that Olive Street will be a bus route. This characteristic significantly increases the ALCAM risk score for the Olive street level crossing, placing it in the High Risk Band (previously Medium Risk Band). As per previous discussions, it was desired that the development design includes grade separation of Olive Street and the North Coast Rail Line.

Olive Street Road Crossing 2038 Design Horizon

- *Install RX-5 Flashing Signals and Boom Gates (Active control) at crossing in accordance with Clauses 2.3.1 and 2.3.9 and Figure 4.6 of AS 1742.7 – 2016.*
- *Install cantilevered overhead flashing light signal assembly at crossing in accordance with Clauses 2.3.1 4.6 of AS 1742.7 – 2016 to cover multiple traffic lanes*
- *Upgrade the existing relay interlocking at Parkhurst to a Processor Based Interlocking (including a new power supply / circuitry) in order to accommodate the level crossing and required signalling interlocking changes*
- *The level crossing active controls are to be coordinated with the proposed traffic light system at the intersection of Olive Street and the Bruce Highway*
- *Proposed traffic light system for the intersection of Olive Street and the Bruce Highway is to hold road traffic on the western side of the rail level crossing and <u>not</u> between the rail and highway intersection.*
- *Seal crossing surface in accordance with QR Standard Drawing No. 2586.*
- *Install cross-hatching and "Keep Tracks Clear" signs in accordance with Clause 3.6 of AS 1742.7 – 2016 and TMR Drawing TC1248.*
- *Install advance warning signage and road markings in accordance with AS 1742.7 – 2016:*
  - *Figure 4.7 for two vehicle lanes on western approach to crossing.*
  - *Figure 4.11 on eastern approach (to be confirmed when detailed drawings are available).*
- *Install whistle boards at 360m on both UP and DN sides of crossing in accordance with QR Standard Drawing No. 10732.*
- *Install Incident Reporting Signage (crossing ID 7426) at crossing in accordance with QR Standard Drawing No. 2622.*
- *It is desirable to install overhead lighting for road crossing in accordance with relevant main roads standards.*
- *In the vicinity of the proposed level crossing, it should be noted that the rail infrastructure is on a 1165m (approx.) radius curve and the track has an approx. 50mm cant which will impact the road design.*
- *In relation to the proposed works within the rail corridor, Queensland Rail requires an Interface Agreement to be entered into.*
- *Olive Street is not to be an approved B-Double route.*

Olive Street Pedestrian Crossings 2038 Design Horizon

- *Construct crossing pathway and install TGSI pads in accordance with QR Standard Drawing No. 10698.*
- *Install active gated enclosures with tapping rails and all warning signage in accordance with QR Standard Drawings Nos. 2644 and 2645.*
- *Install guide fencing on funnel pathway on both approaches to the crossing so as to encourage pedestrians to use the crossing.*
- *Install Incident Reporting Signage (crossing ID 7426) at crossing in accordance with QR Standard Drawing No. 2622.*
- *It is desirable to install overhead lighting for pedestrians in accordance with Clause 6.3.3 (g) of AS 1742.7 - 2016.*
- *In relation to the proposed works within the rail corridor, Queensland Rail requires an Interface Agreement to be entered into.*

Performance outcomes	Acceptable outcomes	Response

William Palfrey Road Upgrade for Construction Traffic

- *Maintain existing RX-5 Flashing Light control at crossing and ensure all advance waring signage is in place in accordance with Figure 4.6 of AS 1742.7 – 2016.*
- *Roadway on approaches for 20m either side of crossing and over crossing to be widened as necessary to accommodate two passing semi-trailers.*
- *If existing bitumen seal over crossing surface and for a minimum distance of 15m from each outer rail is in average or poor condition, reseal in accordance with QR Standard Drawing No. 2586 to protect rail and for safety of users.*
- *Install cross-hatching and "Keep Tracks Clear" signs in accordance with Clause 3.6 of AS 1742.7 – 2016 and TMR Drawing TC1248.*
- *Ensure advance warning signage is in place in accordance with Figure 4.6 of AS1742.7 – 2016.*
- *Decommission crossing in accordance with QR Standard Drawing No. 2623 on opening of Olive Street crossing.*
- *In relation to the proposed works within the rail corridor, Queensland Rail requires an Interface Agreement to be entered into.*

- To ensure compliance with PO19 and PO23, conditions should be imposed to ensure the safety of the railway level crossing as a result of the development. This would require the developer to:
  - upgrade the William Palfrey Road level crossing for construction traffic in accordance with Queensland Rail requirements;
  - relocate the William Palfrey Road railway level crossing to Olive Street and upgrade the crossing;
  - close the William Palfrey Road level crossing at the completion of the Olive Street railway level crossing prior to the commencement of use. Only one level crossing must be operational at any point in time.
- Additionally, an advice statement should be provided regarding the approval requirements under section 255 of the *Transport Infrastructure Act 1994* to ensure compliance with this aspect of PO19 and PO23.

Minor Change

- Conditions 10, 11, 12, 13 and 14 relate to railway level crossing requirements for the development.
- The minor change seeks the following amendments to these conditions:
  - *Condition 10 - We seek removal of this condition given access will be provided along William Palfrey Road from the west.*
  - *Condition 11 - We seek removal of this condition given access will be provided along William Palfrey Road from the west.*
  - *Condition 12 - We seek the removal of timing requirements (a) and (b) and replaced with: 'Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing'*
  - *Condition 13 - Condition Timing be amended to state: 'Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing'*
  - *Condition 14 - Condition Timing be amended to state: 'Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing'*
- Specifically, the proposed changes to conditions are to enable the development to use William Palfrey Road from the west as access to the subject site prior to the completion of the railway level crossing relocation to Olive Street due to expected 2.5 year delays associated with scheduled railway line closures in this location.
- To achieve this, the applicant proposes to seal the access from the west (William Palfrey Road) and leave the eastern portion of William Palfrey Road (containing the rail level crossing) unsealed to discourage the general public in using this portion of William Palfrey Road when wanting to access the state-controlled road (Yaamba Road).

Performance outcomes	Acceptable outcomes	Response

- RAPTTA does not object to allowing the Olive Street intersection to be constructed at a later stage, provided access to the subject site is only obtained from the west via William Palfrey Road, without crossing the existing open level crossing.
- However, the proposal to leave the eastern leg of William Palfrey Road unsealed to discourage access is not considered sufficient to prevent access over the railway level crossing.
- The closure of William Palfrey Road level crossing would require detailed consideration of access arrangements for all properties using this crossing, public consultation and adherence to Queensland Rail processes.
- Additionally, by redirecting traffic west on William Palfrey Drive it is likely that access to the State-controlled road will be obtained via another railway level crossing that was not previously subjected to an ALCAM assessment.
- For example, it is likely that this crossing would be the Boundary Road crossing of the North Coast Line (ID: LXR_05411). This crossing is protected by flashing lights, pavement marking and signage.
- The alternative access arrangements would also need to be endorsed by the City of Rockhampton Council.
- An amended traffic assessment is required to determine the impacts on other level crossings.
- The requested alterations to timing for the construction of the Olive Street level crossing and the decommissioning of the William Palfrey Road level crossing cannot be supported as they are inherently tied to the Queensland Government's Queensland Level Crossing Safety Strategy policy which enforces a no new level crossings policy for safety.
- Further information is required to determine compliance with PO19 and PO23.

Draft Response to Minor Change IR

- By email dated 22 February 2023, the applicant provided a partial response to the further issues that changed the nature of the minor change request.
- The proposed western access option has been withdrawn due to the applicant being unable to obtain support for the proposal from Rockhampton Regional Council.
- The email correspondence included a Technical Note, prepared by Ark Consulting Engineers, dated 09 February 2023 which seeks to provide investigations into staging options for Ellida Estate that could utilise William Palfrey Road as an interim access for construction and development traffic, due to the extent of works and the time required to design and construct the Olive Street connection and rail crossing.
- The purpose of the technical note is to enable the Reconfiguration of Lot (ROL) approval for Stages 1-3 to be modified to suit traffic volumes that are consistent with the safety and capacity restrictions of the existing William Palfrey Road level crossing.
- Ultimately, the applicant seeks advice from TMR and QR as to an acceptable number of allotments that could be facilitated through William Palfrey Road level crossing without upgrade.
- The applicant has argued that the crossing could accommodate the first 130 residential lots.

Construction Stage

- Conditions 10 and 11 of the Concurrence Agency Response, dated 21 March 2018 requires works to William Palfrey Road prior to the commencement of any construction works onsite as a minimum.
- Condition 10 required the following prior to the commencement of operational work or building work, whichever occurs first:

  The railway level crossing of the North Coast Line at William Palfrey Road (ID: 5412) must be:

  (a) widened to accommodate two passing semi-trailers over the crossing and for a distance of 20m from the outer rail track (edge running rail) on each side of the crossing; and

  (b) sealed with asphaltic concrete or similar material which must extend over the crossing and for a minimum distance of 20 metres from the outer rail track (edge running rail) on each side of the crossing, in accordance with Queensland Rail Standard Drawing No. 2586 – 'Level Crossings, Details of Public Road Grading and Sign Posting'.
- Condition 11 required the following prior to the commencement of operational work or building work:

Performance outcomes	Acceptable outcomes	Response

(a) The railway level crossing of the North Coast Line at William Palfrey Road (ID: 5412) must be upgraded at the applicant's expense to include the following on each side of the crossing:

i. Maintain the flashing light controls in accordance with clause 2.3.1 'Railway crossing flashing signal assembly (RX-5)' of AS1742.7:2016 Manual of uniform traffic control devices, Part 7: Railway crossings;

ii. Install advanced warning signage in accordance with Figure 4.6 'Railway crossing with straight approach controlled by flashing lights (Active control)' of AS1742.7:2016 Manual of uniform traffic control devices, Part 7: Railway crossings.

iii. iii. Install cross-hatching and "Keep Tracks Clear" signs in accordance with Section 3.6 and Figure 3.2 'Yellow Box Markings' of AS1742.7:2016 Manual of uniform traffic control devices, Part 7: Railway crossings and Department of Transport and Main Roads Drawing number TC1248 'Layout of Yellow Cross Hatch Markings and Keep Clear Signs at Railway Level Crossings'.

(b) The applicant must provide to the Program Delivery and Operations Unit, Department of Transport and Main Roads, Central Queensland Region (Central.Queensland.IDAS@tmr.qld.gov.au) written evidence from the railway manager that the required works have been designed and constructed in accordance with part (a) of this condition.

- In its current condition, William Palfrey Road railway level crossing is not considered to be of a standard sufficient to accommodate two passing semi-trailers, which creates a significant safety and operational integrity risk.
- Therefore, the works outlined in Conditions 10 and 11 above are required at a minimum prior to any construction occurring onsite.
- Additionally, cabling to facilitate future boom gates should be installed at this stage.
- The Queensland Rail project manager has advised that these works will not require a 2.5 year delay and could be undertaken as early as April or June 2023, provided the appropriate approvals and designs were provided.
- Therefore, RAPTTA does not object to the construction stage of 'initial phasing' of the Ellida Estate going ahead provided the upgrades to William Palfrey Road are undertaken in accordance with the requirements of Conditions 10 and 11 above.

Operational Stage

- The applicant's most recent request seeks to have TMR/QR provide advice on an acceptable number of allotments that could be fully developed, with operational residential traffic utilising the William Palfrey Road level crossing for access purposes.
- Any email received from TMR's Program and Delivery Branch (Central Region), dated 08 March 2023, included further clarification from the applicant regarding proposed staging for the delivery of residential allotments:
  - *If we assume that we are allowed to use William Palfrey Road as logic would suggest we would expect timing would be something similar to:*
    - *June 2024 fist stage construction completed assume 60 lots*
    - *June 2025 first houses completed assume 20 houses*
    - *June 2026 balance of houses completed assume additional 35 houses (not all lots will be built on)*
  - *Note that these dates are even further along than when ARK Consulting prepare the traffic memo as time continues to slip, also the first lots would not be created prior to June 30 because of land tax. Depending upon uptake and progress of Olive Street would determine the future stages.*
- The railway manager (Queensland Rail) has advised that ALCAM is not a tool for advising how many lots can be built without upgrading the crossing.
- However, they have indicated that *'the initial widening be done prior to construction commencing, and the boom gates to be installed when the first lots are offered for sale'*.
- Queensland Rail have advised that they do not support residential operational traffic utilising the William Palfrey Road level crossing without the installation of boom gates prior to the commencement of use.

Performance outcomes	Acceptable outcomes	Response
• The railway manager is concerned about the future delays to providing the Olive Street railway level crossing that will increase the risks associated with increased development traffic. However, the provision of the Olive Street railway level crossing is ultimately a traffic impact requirement. • Therefore, if boom gates are to be installed at William Palfrey Road level crossing, the timing associated with the installation of Olive Street is matter for the PD&O district officers with respect to traffic safety. • The applicant's argument that the level of protection at nearby level crossings (including Boundary Road) are flashing lights only is not sufficient justification that boom gates are not required at the William Palfrey Road crossing, as these crossings are not associated with this development and would be assessed on their merits and have their own individual requirements. • Therefore, the requirement to upgrade the William Palfrey Road railway level crossing prior to commencement of construction (Conditions 10 and 11) must be retained and amended to include the provision of infrastructure (cabling etc) for the future installation of boom gates. The boom gates must then be provided prior to plan sealing for the first lot. Timing for the construction of the Olive Street railway level crossing will be determined by PD&O in relation to the relevant traffic impacts. • The response appears to change the nature of the initial minor change request therefore the applicant should also be asked to confirm whether they are formally seeking to change their request. • Advice is proposed to ensure compliance with PO19 and PO23. <u>Construction delay concerns</u> • The RAPTTA team has consulted with Queensland Rail to verify the applicant's concerns in relation to potential delays in delivering the required upgrades. • Queensland Rail has advised they have assigned a project manager to the Olive Street railway level crossing and have met with the applicant/the applicant's representatives about the design and construction process. • It is understood that Queensland Rail is currently preparing a scope of work and the design parameters for the crossing, which is due to be released to the applicant in the next 6 weeks (scope of work by the end of March and design parameters by the end of April). • The applicant will then be required to prepare the detailed design for Queensland Rail's review, before construction can commence. • Queensland Rail has confirmed that regular closures are planned every year which could facilitate the development works, and they would also consider a special shut down for the development works to occur.		
Noise		
Accommodation activities		
PO24 Development involving: 1. an accommodation activity; or 2. land for a future accommodation activity minimises noise intrusion from a railway or type 2 multi-modal corridor in habitable rooms.	**AO24.1** A noise barrier or earth mound is provided which is designed, sited and constructed: 1. to meet the following external noise criteria at all facades of the building envelope: a. ≤65 dB(A) L_{eq} (24 hour) façade corrected b. ≤87 dB(A) (single event maximum sound pressure level) façade corrected 2. in accordance with the Civil Engineering Technical Requirement – CIVIL-SR-014 Design of noise barriers adjacent to	• The site adjoins the railway corridor on the eastern boundary. • The proposed development involves accommodation activities. • The North Coast Line carries more than 15 passenger and freight services per day. • Transport Noise Corridors were gazetted for railways on 8 July 2015 and therefore Mandatory Part 4.4 of the Queensland Development Code would apply to the development. The development's compliance with the internal railway noise criterion will therefore be dealt with through the subsequent building works approval process.

Performance outcomes	Acceptable outcomes	Response
	railways, Queensland Rail, 2011. Note: To demonstrate compliance with the acceptable outcome, it is recommended a RPEQ certified noise assessment report be provided. The noise assessment report should be prepared in accordance with the State Development Assessment Provisions Supporting Information – Community Amenity (Noise), Department of Transport and Main Roads, 2013. If the building envelope is unknown, the deemed-to-comply setback distances for buildings stipulated by the local planning instrument or relevant building regulations should be used. In some instances, the design of noise barriers and mounds to achieve the noise criteria above the ground floor may not be reasonable or practicable. In these instances, any relaxation of the criteria is at the discretion of the Department of Transport and Main Roads.	• The submitted Proposed Subdivision Stages 1-3 Allotment Layout (revision I) indicates that the proposed single dwelling residential allotments will be setback approximately 30m from the railway corridor boundary. At this location the railway track is setback a minimum of approximately 20m from the railway corridor boundary which indicates allotments will be setback in the order of 50m from the railway tracks. • Stage 2e includes a 'super lot' of 1.55 hectares approximately 11.5m from the railway corridor. It is not clear what future uses are proposed on this lot, however would likely entail residential purposes. • The plan indicates that a Noise Mound is proposed to be located between the 'super lot' and railway corridor boundary. • The referral material includes a Noise Amenity Report, prepared by MWA Environmental, dated 31 October 2013. • This report has not been updated since 2013 prior to Transport Noise Corridors being gazetted for railways and relies on noise logging from 2011. • While the report and noise measurements are not current, the outcomes are still likely to be consistent. • The report concludes that no acoustic barrier is required to comply with the relevant external railway noise criteria for residential allotments within Stages 1 to 3. • The report also indicates the potential to construct an earth mound / acoustic barrier generally along the 'optional acoustic barrier alignment' illustrated within Figure 5. This option will reduce the standard of acoustic treatment required for future residential dwellings under QDC MP4.4. • TMR's Engineering and Technology Branch (Acoustics) has reviewed the noise assessment and the proposed plan of development and provided the following comments: *The report reproduction is not the best and the modelling methodology for rail is very basic, but it is sufficient to demonstrate that the noise impact for both road and rail is below our criteria*
	OR all of the following acceptable outcomes apply: **AO24.2** Buildings which include a habitable room are setback the maximum distance possible from a railway or type 2 multi-modal corridor. **AND**	
	AO24.3 Buildings are designed and oriented so that habitable rooms are located furthest from a railway or type 2 multi-modal corridor. **AND**	
	AO24.4 Buildings (other than a relevant residential building or relocated building) are designed and constructed using materials which ensure that habitable rooms meet the following internal noise criteria:	

Performance outcomes	Acceptable outcomes	Response
	1. ≤45 dB(A) single event maximum sound pressure level. Statutory note: Noise levels from railways or type 2 multi-modal corridors are to be measured in accordance with AS1055.1–1997 Acoustics – Description and measurement of environmental noise. Note: To demonstrate compliance with the acceptable outcome, it is recommended that a RPEQ certified noise assessment report be provided. The noise assessment report should be prepared in accordance with the State Development Assessment Provisions Supporting Information – Community Amenity (Noise), Department of Transport and Main Roads, 2013. Habitable rooms of relevant residential buildings located within a transport noise corridor must comply with the Queensland Development Code MP4.4 Buildings in a transport noise corridor, Queensland Government, 2015. Transport noise corridors are mapped on the State Planning Policy Interactive Mapping System.	*for facade and open space for Stage 1 without the need for acoustic conditions.* *The report considers the construction requirements for dwellings for rail noise since the report came out before the rail corridors were gazetted, but that is now covered by QDC.* • It is not clear whether the acoustic barrier will be provided in the form of a 5.5m earthmound as stated in the report or via a 2.5m earthmound with 1.8m acoustic fence on top (as shown in submitted subdivision plan – drawing number 109116-114). However, the linear open space cross sections are not based on acoustic modelling. • The Noise Amenity Report is inconsistent with the latest proposal plans and the revised Flood Investigation and Concept Stormwater Quantity Management Plan. • The applicant is proposing railway noise attenuation to reduce the internal noise railway criterion. • An earthmound and/or acoustic barrier adjacent to the railway corridor will need to be conditioned to be in accordance with the relevant standards (TMR and railway manager), including RPEQ certification. • The minimum setback of residential allotments from the railway corridor should also be conditioned. *Minor Change* • Referral agency condition 7 requires the development be in accordance with the Noise Amenity Assessment, prepared by MWA Environmental dated 31 October 2013, and given Job Number 11-007, version 2 and construct a 5.5 metre noise barrier. • The minor change requests that referral agency condition 7 be amended as per DRAFT conditions dated 29 June 2018 to reference the updated Noise Report by MWA. • This report has not been provided with the request and has not been previously reviewed by RAPTTA.
PO25 Development involving an accommodation activity minimises noise intrusion from a railway or type 2 multi-modal corridor in outdoor spaces for passive recreation.	**AO25.1** A noise barrier or earth mound is provided which is designed, sited and constructed: 1. to meet the following external noise criteria in outdoor spaces for passive recreation: a. ≤62 dB(A) L_{eq} (24 hour) free field b. ≤84 dB(A) (single event maximum sound pressure level) free field 2. in accordance with the Civil Engineering Technical Requirement – CIVIL-SR-014 Design of noise barriers adjacent to	

Performance outcomes	Acceptable outcomes	Response
	railways, Queensland Rail, 2011. **OR**	• Moreover, the updated noise report dated 27 February 2018 is now 5 years old. • Therefore, further information is required. • This would need to include updated on site rail and road traffic noise measurements and modelling considering a 10-year planning horizon.
	AO25.2 Each dwelling has access to an outdoor space for passive recreation which is shielded from a railway or type 2 multi-modal corridor by a building, a solid gap-free fence, or other solid gap-free structure. **AND**	
	AO25.3 Each dwelling with a balcony directly exposed to noise from a railway or type 2 multi-modal corridor has a continuous solid gap-free balustrade (other than gaps required for drainage purposes to comply with the Building Code of Australia).	
Child care centres and educational establishments N/A		
Hospitals N/A		
Vibration N/A		
Hospitals N/A		
Air and light N/A		

6.0 Recommendations

Pre-response Advice

RAPTTA:

(a) recommends the following further information be requested from the applicant to enable the assessment to be finalised:

Item	Information requested
Railway corridor	
1.	*Railway level crossing safety advice* *Construction Stage* • Conditions 10 and 11 of the Concurrence Agency Response, dated 21 March 2018 required works to William Palfrey Road prior to the commencement of any construction works onsite as a minimum. • In its current condition, William Palfrey Road railway level crossing is not considered to be of a standard sufficient to accommodate two passing semi-trailers, which creates a significant safety and operational integrity risk. • Therefore, the works outlined in Conditions 10 and 11 will be required prior to any construction works occurring onsite. • Additionally, given the crossing is proposed to be used for development traffic (which triggers the need to install boom gates), cabling to facilitate future boom gates should be installed at this stage. • The Queensland Rail project manager for Olive Street has advised that these works will not follow the same detailed design process required for the Olive Street crossing and could be

Item	Information requested
	undertaken as early as April or June 2023 (the next line closures), provided the appropriate approvals and designs were obtained. • Therefore, RAPTTA maintains that the construction stage of 'initial phasing' of the Ellida Estate requires upgrades to William Palfrey Road railway level crossing in accordance with the requirements of Conditions 10 and 11. *Operational Stage* • The applicant's draft response asks TMR/QR to advise the acceptable number of allotments that could be fully developed, with operational residential traffic utilising the William Palfrey Road level crossing for access purposes. • Queensland Rail have advised that they do not support any increase in residential operational traffic utilising the William Palfrey Road level crossing without the upgrade required as part of the construction stage and the installation of boom gates. • If the applicant is seeking to explore options that remove the need to upgrade the William Palfrey Road railway level crossing, they will need to consider alternative access via the west/south for construction traffic. This would require an updated traffic impact assessment (as outlined in the request for further advice issued on 14 October 2022) to assess the traffic impact to other railway level crossings and bringing forward the delivery of the Olive Street level crossing for development traffic. It is understood the applicant no longer wishes to pursue the alternative access for construction and that the applicant holds concerns about the timeframes for delivering the Olive Street level crossing. • We recommend further consultation with the Queensland Rail Project Manager for Olive Street level crossing to gauge the current timeframes for delivery. • We recommend further investigation into a western option for construction access.
2.	**Remains an outstanding issue from previous Minor Change IR request** **Railway Noise** *Issue* The minor change application did not include a copy of the updated noise report, dated 27 February 2018, prepared by MWA. This report is now 5 years old and is likely based on outdated noise monitoring and modelling. The timing of the development in relation to the future railway corridor is unclear. *Action:* The applicant is therefore required to provide an amended Railway Noise Impact Assessment which addresses the following: (a) in accordance with the Queensland Rail Code of Practice – Railway Noise Management, calculate the single event maximum sound pressure level as the arithmetic average of maximum levels from the highest 15 single events over a given 24 hour period. Any assumptions regarding the L_{Amax} must be clearly stated including the height of the main noise source above ground, actual source noise level, location and strength assumptions; (b) noise measurements and monitoring should be conducted over a two day period, preferably on highest trafficked days. Timetable information for passenger rail can be obtained from the railway manager (Queensland Rail); (c) state the rail traffic movements (passenger, freight) used to generate the L_{eq} (24hr) and L_{Amax} level predictions; (d) describe the modelling methodology used to prepare the assessment, including the choice of model, how the L_{Amax} noise levels have been calculated, the number of assumed train pass-bys per day and verification of the accuracy of the model, including whether measured data was used;

Item	Information requested
	(a) demonstrate that the development can achieve all the relevant noise criteria set out in PO40 and Reference Table 2 of State Code 2 – Development in a Railway Environment of the State development Assessment Provisions. (b) Re-assess the noise mitigation measures required to meet the relevant railway noise criteria in light of the above requirements. Demonstrate that any proposed noise barriers will comply with Queensland Rail Civil Engineering Technical Specification – QR-CTS-Part 41 – *Design and Construction of Noise Fences/Barriers* and Transport and Main Roads Specifications *MRTS15 Noise Fences*. For specifications regarding earth mounds please refer to the Department of Transport and Main Roads technical publications at: Category 3 - Roadworks, Drainage, Culverts and Geotechnical (Department of Transport and Main Roads) (tmr.qld.gov.au). The location and height of any proposed noise barriers should be clearly shown on a proposal plan. The height of any proposed noise barrier should take into account the varying topography of the land and the proposed finished levels of the development. Noise mitigation measures should be located outside the existing and future railway corridors.

Queensland Government

Department of Transport and Main Roads

Change to Development Approval_ Minor Change
Recommendation: Refused

SARA reference:	1710-2243 SRA 2208-30645 SPD
SARA role	Referral Agency
SARA regional office:	SARA Fitzroy Central
SARA email:	RockhamptonSARA@dilgp.qld.gov.au
TMR reference:	TMR17-022950
TMR contact name:	Anton DeKlerk
TMR contact details:	(07) 4931 1545

1.0 Application details

Street address:	23-27 William Palfrey Road, Parkhurst QLD 4701
Real property description:	22SP134380, 23SP134380, 49SP129857, 41SP226571, 5SP238731
Local government area:	Rockhampton Regional Council
Applicant name:	Stockland Development Pty Ltd
Applicant contact details:	MAAS Group Properties c/- Capricorn Survey Group CQ PO Box 1391 Rockhampton QLD 4700

2.0 Matters of interest to the state

The development application has the following matters of interest to the state under the provisions of the *Planning Regulation 2017*:

Trigger Mode	Trigger Number	Trigger Description
State-Controlled Roads	10.9.4.2.3.1	Development application for reconfiguring a lot that is assessable development under section 21, if— (a) all or part of the premises are— (i) adjacent to a road (the relevant road) that intersects with a State-controlled road; and (ii) within 100m of the intersection; and (b) 1 or more of the following apply— (i) the total number of lots is increased; (ii) the total number of lots adjacent to the relevant road is increased; (iii) there is a new or changed access between the premises and the relevant road; and (c) the reconfiguration does not relate to government supported transport infrastructure
State-Controlled Roads	10.9.4.2.1.1	Development application for reconfiguring a lot that is assessable development under section 21, if— (a) all or part of the premises are within 25m of a State transport corridor; and (b) 1 or more of the following apply— (i) the total number of lots is increased; (ii) the total number of lots adjacent to the State transport corridor is increased; (iii) there is a new or changed access between the premises and the State

		transport corridor; (iv) an easement is created adjacent to a railway as defined under the Transport Infrastructure Act, schedule 6; and (c) the reconfiguration does not relate to government supported transport infrastructure
All Modes	10.9.4.1.1.1	Development application for an aspect of development stated in schedule 20 that is assessable development under a local categorising instrument or section 21, if—(a) the development is for a purpose stated in schedule 20, column 1 for the aspect; and (b) the development meets or exceeds the threshold— (i) for development in local government area 1—stated in schedule 20, column 2 for the purpose; or (ii) for development in local government area 2—stated in

3.0 Assessment of proposed change

3.1 Considerations and assessment

Reference is made to the request to change (minor change) to the existing Referral Agency conditions associated with Development Permit (D/117-2017), received by the Department of Transport and Main Roads (the department) on 21 September 2022, particularly for:

a) allowing the use of William Palfrey Road rail level crossing during construction phase and

b) sealing a number of residential allotments prior to Olive Street being opened (that is, creating a number of residential allotments (including houses) while undertaking the construction process for the new Olive Street intersection and rail level crossing).

By letter dated 17 August 2022, the applicant made a change application (minor) to amend its development approval pursuant to section 78 of the *Planning Act 2016* to the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) as the responsible entity.

The applicant requested to change the existing referral agency conditions, dated 21 March 2018, reference 1710-2243 SRA, particularly conditions 2, 3, 4, 6, 7, 10, 11, 12, 13, and 14.

The proposed changes to conditions relate mostly to condition timing, allowing the proposed development to use William Palfrey Road / Yaamba Road intersection as the primary site access until the new railway level crossing at Olive Street is completed and/or until a set number of allotments (still to be confirmed) is sealed, whichever is sooner.

On 22 February 2023, the applicant provided a Traffic Technical Note to facilitate further discussions with TMR/Queensland Rail in relation to the conditioned railway level crossing upgrades and establishing a number of lots that could potentially be sealed while utilising William Palfrey Road as an interim access until Olive Street intersection is completed and opened. This is required due to the extent of works and the time required to design and construct the Olive Street connection and rail crossing (anticipated to be at least 2.5 years).

The applicant confirmed the following anticipated timing of sealing allotments and construction of houses within Ellida Estate (state 1-3), should the use of William Palfrey Road rail crossing be supported:

- *If we assume that we are allowed to use William Palfrey Road as logic would suggest we would expect timing would be something similar to:*
  - *June 2024 fist stage construction completed assume 60 lots*
  - *June 2025 first houses completed assume 20 houses*
  - *June 2026 balance of houses completed assume additional 35 houses (not all lots will be built on)*
- *Note that these dates are even further along than when ARK Consulting prepare the traffic memo as time continues to slip, also the first lots would not be created prior to June 30 because of land tax. Depending upon uptake and progress of Olive Street would determine the future stages.*

It should be noted that the purpose of the traffic technical note is to enable the approved subdivision approval for Stages 1-3 (or part thereof) to be modified to suit traffic volumes that are consistent with the safety and capacity restrictions of the existing William Palfrey Road level crossing.

On 13 March 2022 railway manager (Queensland Rail) advised TMR (via TMR's internal Rail and Public Transport Technical Advice (RAPTTA) Team) that Queensland Rail will only support construction vehicles to use William Palfrey Road open level crossing (subject to some minor works) as per current conditions. Queensland Rail have advised that residential traffic utilising the William Palfrey Road level crossing without the installation of boom gates prior to the commencement of use will not be supported due to the safety risk being high. Queensland Rail has also highlighted that an ALCAM assessment is not a tool for advising how many lots can be built without upgrading the crossing.

It was highlighted by the applicant that there will be no point in providing boom gates at William Palfrey Road just to be removed and installed at Olive Street. Even if it should be considered, there is also the concern of the time it will take to obtain approvals for installing boom gates at William Palfrey Road (that is, considering the time required for obtaining scope of works, confirm detailed designs, procurement processes and construction). By the time this is approved and constructed, Olive Street will most likely be ready to be opened. This will also be a big financial burden for no real value.

The applicant also raised the point that the recent changes on Boundary Road, associated with the Rockhampton Northern Access Upgrade and Rockhampton Ring Road, carries far more traffic and it did not require any boom gates. It is unclear why a single residential allotment will trigger the need for boom gates.

3.2 Findings on material questioned

The above mentioned was reviewed by Queensland Rail (QR) via TMR's internal Rail and Public Transport Technical Advice (RAPTTA) Team. Queensland Rail advised that in its current condition, William Palfrey Road railway level crossing is not considered to be of a standard sufficient to accommodate two passing semi-trailers, which creates a significant safety and operational integrity risk. Therefore, the works outlined in Conditions 10 and 11 of the subdivision approval are required at a minimum prior to any construction occurring onsite. Additionally, cabling to facilitate future boom gates on William Palfrey Road should also be installed at this stage. Therefore, Queensland Rail / RAPTTA does not object to the construction stage of 'initial phasing' of the Ellida Estate going ahead provided the upgrades to William Palfrey Road are undertaken in accordance with the requirements of Conditions 10 and 11.

The railway manager (Queensland Rail) has advised that ALCAM is not a tool for advising how many lots can be built without upgrading the crossing. Queensland Rail have advised that they do not support residential operational traffic utilising the William Palfrey Road level crossing without the installation of boom gates prior to the commencement of use. The railway manager is concerned about the future delays to providing the Olive Street railway level crossing that will increase the risks associated with increased development traffic. Therefore, if boom gates are to be installed at William Palfrey Road level crossing, the timing associated with the installation of Olive Street is matter for the TMR Fitzroy District officers with respect to traffic safety.

Queensland Rail further advised that the applicant's argument that the level of protection at nearby level crossings (including Boundary Road) are flashing lights only is not sufficient justification that boom gates are not required at the William Palfrey Road crossing, as these crossings are not associated with this development and would be assessed on their merits and have their own individual requirements. Therefore, the requirement to upgrade the William Palfrey Road railway level crossing prior to commencement of construction (Conditions 10 and 11) must be retained and amended to include the provision of infrastructure (cabling etc) for the future installation of boom gates. The boom gates must then be provided prior to plan sealing for the first lot.

4.0 Recommendation for change application (minor change to a development approval) – SARA is responsible entity

4.1 Technical agency advice for SARA as responsible entity

Our agency (Queensland Rail (QR) via TMR's internal Rail and Public Transport Technical Advice (RAPTTA) Team), recommends refusal of the change for the reasons described below (*Planning Act 2016* section 81(4)(b)).

The reasons for this decision are:

- Residential traffic utilising the William Palfrey Road level crossing without the installation of boom gates prior to the commencement of use will not be supported due to the safety risk being high.

5.0 Endorsement

Officer
Anton DeKlerk
Principal Town Planner
(07) 4931 1545
Central.Queensland.IDAS@tmr.qld.gov.au

Approver
Not Relevant

Anton DeKlerk
Principal Town Planner
(07) 4931 1545
Central.Queensland.IDAS@tmr.qld.gov.au
4 April 2023

View Specialist Advice

Specialist Advice - Request

ID:	49536
Status:	Closed
Office:	Rail & Public Transport Technical Advice Team
Assessment Area:	Railways
Advice In Relation To:	Information Request Response
Type:	Internal
Date Response Required:	10 Mar 2023
Parent Advice:	
Assigned To Type:	User
Title:	Rail & Public Transport Technical Advice Team
Assigned To:	Victoria Stavar
Request Attachments:	William Palfrey Road Level Crossing - Traffic Data for ALCAM.pdf
Original Request:	*** Review Comments - 16 Mar 2023 09:40:07 *** Noted. *** Amended Specialist Advice - 02 Mar 2023 10:42:17 *** Extended as requested by raptta. *** Specialist Advice Requested - 22 Feb 2023 14:07:54 *** Good afternoon RAPTTA, The applicant has submitted the attached response to TMR's further advice item 10. The submission includes a Technical Note about the development traffic affecting the William Palfrey Drive level crossing. I understand the purpose of providing this information is to enable QR to undertake an ALCAM assessment, the outputs of which will determine the number of lots which can ultimately use the William Palfrey level crossing. Fitzroy district have no objection to the stated traffic generation figures at section 7.1 of the Tech Note. I understand QR requested the district confirm acceptance of those figures. Kind regards, Jason Giddy

Specialist Advice - Responses

Responded: 13 Mar 2023 14:52:51

Specialist: Victoria Stavar

Hi Anton,

Response attached. If you have any questions please give Emma Martin and myself a call.

Thanks, Tori

Approved by Emma Martin 13/03/2023

Generated Letter

No letter to display

Attachments

230309_RAPTTA request for lot changes.docx

From: Anton Z De Klerk
To: Victoria L Stavar
Cc: Emma E Martin; Central.Queensland.IDAS
Subject: TMR17-022950 - Ellida Estate, Parkhurst - Further clarification to timing of opening Olive Street vs using William Palfrey Road
Date: Thursday, 9 March 2023 8:38:36 AM

Hi Tori,
I had a brief chat with the applicant yesterday regarding the Ellida Estate on Parkhurst vs the timing of the Rail Works (particularly regarding the claim to be 2.5yrs away).
I asked him if he could explain where the 2.5 years came from / how is it calculated.
In short, he explained that his client has been in formal discussions with QR since July 2022 (noting this was based on contact details received by TMR / RAPTTA). However they have been waiting for a design and all dates keep on slipping / being postponed.
Once they receive designs, QR informed them that it would be a 12 month procurement process and then a 12 month construction process (QR's words).
In December 2022 the applicant told QR that they want Olive Street opened by the end of 2023. QR advised them that this will not be possible.
Thus, based on the advised received by QR (and potentially being realistic), it seems there is a fair chance it may still be 2.5 years before Olive street can be opened.
Furthermore, please note, one should not lose sight of the fact that the William Palfrey Road crossing is similar to that on Boundary Road, Meldrum Road and Dawson Road (subject to some minor widening works), all without boom gates and carrying more capacity than what Ellida Estate are proposing before Olive Street intersection would be opened.
The applicant further highlighted:
"*If we assume that we are allowed to use William Palfrey Road as logic would suggest we would expect timing would be something similar to*

- *June 2024 fist stage construction completed assume 60 lots*
- *June 2025 first houses completed assume 20 houses*
- *June 2026 balance of houses completed assume additional 35 houses (not all lots will be built on)*

Note that these dates are even further along than when ARK Consulting prepare the traffic memo as time continues to slip, also the first lots would not be created prior to June 30 because of land tax. Depending upon uptake and progress of Olive Street would determine the future stages."
Hope and trust the above mentioned shed some more light on where the 2.5yrs come from.
Perhaps the above mentioned can also be addressed within the formal advice via QR/RAPTTA?
Happy to discuss further if required.
Kind regards,

Anton DeKlerk
Principal Town Planner (Project Planning and Corridor Management) | Fitzroy District | Central Queensland Region
Program Delivery & Operations Branch | Infrastructure Management and Delivery Division | Department of Transport and Main Roads

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PO Box 5096 | Red Hill Rockhampton Qld 4701
(07) 49311545 |
anton.z.deklerk@tmr.qld.gov.au
www.tmr.qld.gov.au

From: RockhamptonSARA
To: Central.Queensland.IDAS
Cc: Anton Z De Klerk; Rebecca Kalianiotis; RockhamptonSARA
Subject: FW: 2208-30645 SPD - SARA advice on the minor change request
Date: Monday, 17 October 2022 10:50:09 AM
Attachments: image001.png
image003.png
image004.png
image006.png

Good morning,
Please see details below of SARA advice provided to the applicant 14/10/22 for your records.
Regards, Carl

Carl Porter
Principal Planning Officer
Fitzroy and Central, Planning and Development Services
Department of State Development,
Infrastructure, Local Government and Planning

P 07 4924 2918
Level 2, 209 Bolsover Street, Rockhampton
PO Box 113, ROCKHAMPTON QLD 4700
www.dsdilgp.qld.gov.au

From: RockhamptonSARA
Sent: Friday, 14 October 2022 4:14 PM
To: 'Capricorn Survey Group CQ' <reception@csgcq.com.au>
Cc: RockhamptonSARA <RockhamptonSARA@dsdilgp.qld.gov.au>
Subject: 2208-30645 SPD - SARA advice on the minor change request
Attention: Richard Ford
Hi Richard,
Just tried to call you about this but missed you. Please give me a call if you want to discuss.
The State Assessment and Referral Agency (SARA) has reviewed the material submitted for the proposed minor change to the referral agency conditions dated 21 March 2018 (1710-2243 SRA).
The following issues with the proposed minor change have been identified in the table below.

Condition	Proposal	SARA comments
2	Condition timing be amended to add the words "*for the appropriate stage*".	**Issue:** The proposed change in timing cannot be supported as it provides no finality or certainty as to when the road works will be required. Consideration needs to be given to linking the timing to a particular stage and a specific time. For example: '*Prior to submitting the Plan of Survey to the local government for approval for Stage x or prior to 1 December 2024, whichever is sooner.*' The specific time that is being conditioned could be the scheduled closing date of the rail line as per the direction from the Rail Manager. **Action:** Provide a timing linked to a particular stage and/or date.
3	Be amended to allow for the first stage to access direct from William Palfrey Road as per application made to Council (if required) as	**Issue:** The purpose of condition 3 is to ensure connectivity from the western estates to the state-controlled road is maintained at all times.

	attached, removing the requirement for Conditions 2 and 14 to complied with at the same time.	Conditions 2 and 14 are required to go hand-in-hand as it was a direction from the Minister that only one rail crossing is allowed at any given time. As soon as Olive Street rail crossing is open, William Palfrey Road rail crossing must be permanently closed. Removal of these two conditions is not supported. **Action:** Provide a timing linked to a particular stage and/or date, as discussed in condition 2 above. Provide a revised lot layout plan and staging plan showing the connection to William Palfrey Road in stage 1.
4	Item (b) To be deleted as roadworks have made the intersection left in left out already.	**Issue:** No objection to removing condition 4(b) as the TMR Rockhampton Northern Access Upgrade project has been completed and Yaamba Road / William Palfrey Road intersection can only facilitate left-in and left-out movements. **Action:** Supported.
6	We request that this condition specify which boundary is to be fenced.	**Issue:** The fence is to be provided along the rail corridor for the full frontage of the development site but to be located outside the rail corridor. In this instance the fence will be adjacent to the new future rail corridor alignment (and not the existing rail corridor) and to be located on the development side, not within the future rail corridor. **Action:** Provide an amended development layout plan which clearly shows the location of the boundary to be fenced consistent with the above.
7	Be amended as per DRAFT conditions dated 29 June 2018 to reference the updated Noise Report by MWA as attached	**Issue:** The current condition requires the construction of a 5.5m high noise barrier in accordance with MWA report dated 31 October 2013. It is noted that the updated noise report (dated 27th February 2018) referenced by the change request is now 5 years old (and is based on noise measurements conducted in 2011) and does not consider any assessment of the realignment of the new rail line which is located closer to the subject site. It is also understood that previous technical noise review was provided in relation to the noise report dated 27 February 2018 and it was recommended that the earth mound/noise barrier shown in drawings at that time be conditioned (1.8m barrier on 2.5m earth mound). **Action:** Provide an updated rail and road traffic noise assessment which includes an assessment of the realignment of the rail line. This assessment will need to include updated on site rail and road traffic noise measurements and modelling considering a 10-year planning horizon.
10	We seek removal of this condition given access will be	**Issue:** The proposal for leaving the eastern portion of

	provided along William Palfrey Road from the west.	William Palfrey Road as gravel to discourage people from using this intersection will not be sufficient or reasonable. The existing William Palfrey Road Level Crossing has a limitation on how many vehicles can be supported before it needs to be upgraded. To confirm this limit, a new ALCAM assessment will be required. Furthermore, the proposed gravel road on the eastern end of William Palfrey Road will not be enough to deter people from using the William Palfrey rail crossing to access the state-controlled road. It could be reasonably expected that the number of people using this crossing will increase as the Ellida Estate progresses, plus the sealing of the western end of William Palfrey Road could further encourage other estates (like Edenbrook) to also use William Palfrey Road to access the state-controlled road, thus increasing the safety risks of the open level rail crossing. **Action:** Provide additional information about the number of vehicles that are expected to use the William Palfrey Road rail crossing and how the number of vehicles using this crossing will be limited. Alternatively provide confirmation from Council that it will close the eastern end of William Palfrey Road (just before the open level crossing).
11	We seek removal of this condition given access will be provided along William Palfrey Road from the west.	Same as per condition 10 above.
12	We seek the removal of timing requirements (a) and (b) and replaced with: *Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing.*	**Issue:** The proposed timing condition is not final or certain. SARA recommends to link the timing of the condition to a particular stage and perhaps a specific time. **Action:** Provide a timing linked to a particular stage and/or time.
13	Condition Timing be amended to state: *Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing.*	Same as per condition 12 above.
14	Condition Timing be amended to state: *Upon receipt of application to Queensland Rail for decommissioning of the William Palfrey Road intersection rail level crossing.*	Same as per condition 12 above.

How to respond

It is recommended that you address these issues promptly and provide a response to SARA by 19 October 2022.

If you require additional time to respond to the matters above, section 81A(5) of the *Planning Act 2017,* provides SARA's decision making period can be extended. If you require further time can you please advise of the extension date.

If you decide not to respond, your application will be assessed and decided based on the information provided to date.

Regards, Carl

Carl Porter

Principal Planning Officer

Fitzroy and Central, Planning and Development Services

Department of State Development,

Infrastructure, Local Government and Planning

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Hi Anton,

I have reviewed the minor change request prepared by Capricorn Survey Group ref: 8666 dated 17th August 2022 and the noise report prepared by MWA ref: L04618/BH/11-007 dated 27th February 2018.

In terms of noise, the minor change request relates to changes to Condition 7 as follows:

Condition 7	Be amended as per DRAFT conditions dated 29 June 2018 to reference the updated Noise Report by MWA as attached.

The current condition requires the construction of a 5.5m high noise barrier in accordance with MWA report dated 31 October 2013. It is noted that the updated noise report (dated 27th February 2018) referenced by the change request is now 5 years old (and is based on noise measurements conducted in 2011) and does not consider any assessment of the realignment of the rail line closer to the site.

It is understood that previous technical noise review was provided in relation to the noise report dated 27th February 2018 and it was recommended that the earth mound/noise barrier shown in drawings at that time be conditioned (1.8m barrier on 2.5m earth mound).

Considering the rail line is proposed to move closer to the site it would be preferred to maintain the states interest and not consider any change to the condition.

If you believe it is reasonable to allow a potential change to the proposed noise barrier, then this could only occur based on an updated rail and road traffic noise assessment being provided which includes an assessment of the realignment of the rail line. This would need to include updated on site rail and road traffic noise measurements and modelling considering a 10 year planning horizon. If a revised report is requested, you would need to advise the applicant on what version of SDAP is applicable.

Regards

Glen

From: Kristy P Hows
To: Anton Z De Klerk
Cc: Carmen M Hass; Alexis J Wileman; Dave J Grosse
Subject: RE: (CCT6951) Ellida Estate Subdivision, Parkhurst - Use of William Palfrey Road while Olive Street intersection being designed and constructed
Date: Monday, 27 March 2023 12:42:04 PM
Attachments: image001.png

Hi Anton,

I have spoken with Emma Martin (A/Manager RAPTA). Emma has been liaising with QR. The current issue appears to be that QR do not think the current TIA is suitable for assessment and therefore have taken a conservative approach.

We can't do a lot as QR are accountable for managing their own risk although I would like to get your thoughts around the possibility of reviewing the current TIA:

- Request the developer to review their TIA and include further information around the calculation of volumes and a comparison between construction versus residential (including the potential lag between these). Potential for QR to reassess their risk assessment following this.
- If the developer will not review TIA or you don't think this is necessary, RAPTA could assist in getting an independent peer review. Potential for QR to reassess their risk assessment based on independent assessment.

As there is a current ministerial request, this will be redirected to Fitzroy District (with technical input from RAPTA). I suggest we do not respond to RRC until the Ministerial input is finalised so that our messaging is consistent around QR input and assessments

Kind regards

Kristy Hows
District Director (Fitzroy) | Central Queensland Region
Program Delivery & Operations Branch | Infrastructure Management & Delivery Division
Department of Transport and Main Roads

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TMR: An experience like no other

From: Anton Z De Klerk <Anton.Z.DeKlerk@tmr.qld.gov.au>
Sent: Wednesday, 22 March 2023 10:38 AM
To: Kristy P Hows <Kristy.P.Hows@tmr.qld.gov.au>
Cc: Carmen M Hass <Carmen.M.Hass@tmr.qld.gov.au>; Brett A Skyring <Brett.A.Skyring@tmr.qld.gov.au>
Subject: (CCT6951) Ellida Estate Subdivision, Parkhurst - Use of William Palfrey Road while Olive Street intersection being designed and constructed

Importance: High

Hi Kristy,

As per our meeting on Monday, please see below bullet points highlighting the main events and concerns regarding the Parkhurst Ellida Estate Development.
Note, I had another discussion with the applicant this morning and they will meet with the minister this week to discuss the below highlighted issues / concerns. Thus it could be to our benefit to discuss these items with QR (and/or Dave) as soon as possible.

TMR/Queensland Rail (QR)

- On 21 March 2018 a Subdivision (1 lot into 129 lots) was approved for the first 3 stages of Ellida Estate in Parkhurst (subdivision plan attached). The current TMR/QR conditions requires the Olive Street connection to be delivered prior to the release of the first survey plan.
- Since mid-last year, the new owners (MAAS Group) is trying to finalise a minor change to the DA conditions (mostly regarding the timing of conditions), but in particular:
    - allowing the use of William Palfrey Road rail level crossing during construction phase and
    - allowing the applicant to seal a number of residential allotments prior to Olive Street being opened (that is, creating a number of residential allotments (including houses) while undertaking the construction process for the new Olive Street intersection and rail level crossing).

  In short, the proposed changes to conditions relate mostly to condition timing, allowing the proposed development to use William Palfrey Road / Yaamba Road intersection as the primary site access until the new railway level crossing at Olive Street is completed and/or until a set number of allotments (still to be confirmed) is sealed, whichever is sooner.
- The applicant tried to have numerous discussions with Queensland Rail but with no success.
    - The applicant was advised they must liaise via SARA as it relates to changing DA Conditions, and
    - The applicant must confirm the potential traffic numbers that will be using William Palfrey Road rail crossing during this period (allowing QR to undertake an ALCAM assessment).
- On 22 February 2023, the applicant provided a Traffic Technical Note to facilitate discussions with TMR/QR in relation to the conditioned railway level crossing upgrades and establishing a number of lots that could potentially be sealed while utilising William Palfrey Road as an interim access until Olive Street intersection is completed and opened.
    - Note, the interim use of William Palfrey Road is required due to the extent of works and the time required to design and construct the Olive Street connection and rail crossing (anticipated to be at least 2.5 years).
    - Ultimately, the applicant seeks confirmation from TMR/QR to an acceptable number of allotments that could be facilitated through William Palfrey Road level crossing without triggering further upgrades (other than minor widening works via bitumen seal and line marking).
- On 22 February 2023, TMR received the Traffic Technical Note via SARA. This was forwarded onto QR via TMR's internal Rail and Public Transport Technical Advice (RAPTTA) Team. At the time it was understood that the purpose of providing the Traffic information is to enable QR to undertake an ALCAM assessment, the outputs of which will determine the number of lots which can ultimately use the William Palfrey level crossing.
- The applicant confirmed the following anticipated timing of sealing allotments and construction of houses within Ellida Estate (state 1-3), should the use of William Palfrey Road rail crossing be supported:
    - *If we assume that we are allowed to use William Palfrey Road as logic would suggest we*

would expect timing would be something similar to:
    - *June 2024 fist stage construction completed assume 60 lots*
    - *June 2025 first houses completed assume 20 houses*
    - *June 2026 balance of houses completed assume additional 35 houses (not all lots will be built on)*
  - *Note that these dates are even further along than when ARK Consulting prepare the traffic memo as time continues to slip, also the first lots would not be created prior to June 30 because of land tax. Depending upon uptake and progress of Olive Street would determine the future stages.*
- On 13 March 2022 QR advised (via the RAPTTA Team) that QR will only support construction vehicles to use William Palfrey Road open level crossing (subject to some minor works). QR have advised that they do not support residential operational traffic utilising the William Palfrey Road level crossing without the installation of boom gates prior to the commencement of use.
  - QR has also highlighted that an ALCAM assessment is not a tool for advising how many lots can be built without upgrading the crossing.
- The applicant highlighted that there will be no point in providing boom gates at William Palfrey Road just to be removed and installed at Olive Street. Even if it should be considered, there is also the concern of the time it will take to obtain approvals for installing boom gates at William Palfrey Road (that is, considering the time required for obtaining scope of works, confirm detailed designs, procurement processes and construction). By the time this is approved and constructed, Olive Street will most likely be ready to be opened. This will also be a big financial burden for no real value.
- The applicant also raised the point that the recent changes on Boundary Road, associated with the Ring Road, carries far more traffic and it did not require any boom gates. It is unclear why a single residential allotment will trigger the need for boom gates.
- Furthermore, the applicant also highlighted that they are trying to work with State and Council to get to a reasonable outcome for all parties.
- (It should be noted that technically the applicant could lodge additional subdivision applications (49 lots at a time) on the western side of the approved Ellida Estate which will not trigger any referral to TMR or QR, which means there will be no restrictions on the applicant to use William Palfrey Road (as it is currently a gazetted road). No condition can be imposed to upgrade William Palfrey Road nor Olive Street intersection. This could impose a much higher burden / risk onto TMR/QR).

<u>Rockhampton Regional Council</u>

- TMR received a form letter from Rockhampton Regional Council (Alicia Cutler – General Manager Community Services) regarding the potential impacts Ellida Estate could have on Council's network should TMR/QR not support the temporary use of William Palfrey Road and Yaamba Road intersection while Ellida Estate is being developed and Olive Street is being constructed.
- From Councils perspective, Ellida Estate (via the MAAS Group) is an important part of Council's Parkhurst growth corridor being approximately 270ha of residential zoned land. Development of this land has been frustrated in years gone by given the significant up front cost implications associated with the delivery of numerous trunk infrastructure.
- An interim connection to Yaamba Road to the east via William Palfrey Road has significant benefits to not only the developer but also Council. This connection will defer significant trunk works to the west and allow the developer to progress until such time as the Olive Street connection is realised.
- The developer has proposed an alternate connection to the west via William Palfrey Road in order to be able to proceed with developing the land. However, although this will have no impacts onto the state-controlled corridor (rail and road), this will have significant impacts /

burden onto Council.
    - This western connection is identified as trunk infrastructure in Council's Local Government Infrastructure Plan (LGIP) and is only anticipated to be delivered by 2031.
    - By forcing the applicant to connect from the west could have a financial burden of ± $7.5 million onto Council (due to bring forward trunk infrastructure).
- In order to progress the development on the eastern front without the Olive Street connection, it is Council's preference to allow the developer to use William Palfrey Road corridor and accessing Yaamba Road (via the existing left-in / left-out configuration). It is however noted that MAAS Group are discussing this option with TMR/QR but are struggling to get any traction and as such MAAS Group will be submitting detailed design of the western connection within the next few weeks.
- There are benefits to both the Developer and Council in being able to establish a connection to the east in the interim.
    - Ideally this would see the development of the first approx. 100 – 120 lots by which time the Olive Street connection would be realised.
    - This would defer the western connection works and also push back the delivery of McLaughlin Street extended. (lessening the financial burden on Council).
- It is noted that direction regarding the delivery other trunk infrastructure (McLaughlin Street extended and the Belmont Road roundabout) is also important to inform the developers in this Parkhurst corridor and will be necessary in the near future to inform approvals.

What is Council asking from TMR/QR:

- Council is asking DTMR to support the interim connection via eastern William Palfrey Road and Yaamba Road to avoid further delays with bringing the land to the market quickly. This also avoids bringing forward substantial trunk infrastructure that was not planned until the 2031 window.

What change to condition timing could be considered, subject to QR support (or potentially DD/RD approval):

- Current wording to timing of conditions:
  Prior to submitting the Plan of Survey to the local government for approval.
- An example of a potential new wording to timing of condition to capture when Olive Street intersection must be opened (and allowing the use of William Palfrey Road):
  "Prior to submitting the Plan of Survey for the 101 allotment or by 30 June 2026, whichever is sooner".
  Note, the number of lots and date above is just an example.

RAPTTA Contact:
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Happy to discuss further if required.

Kind regards,

Anton DeKlerk
Principal Town Planner (Project Planning and Corridor Management) | Fitzroy District | Central Queensland Region
Program Delivery & Operations Branch | Infrastructure Management and Delivery Division | Department of Transport and Main Roads

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From: Jason B Giddy
To: Rebecca Kalianiotis
Cc: RAPTTA; Anton Z De Klerk; Tanya L Menadue; Andrea K McPherson
Subject: RE: (TMR17-022950) - FW: 8666 FW: [ARK22-P005 - Ellida] B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing
Date: Monday, 20 February 2023 11:11:43 AM
Attachments: image001.png
image002.png
109116-90i - Proposed Subdivision Stages 1-3 Allotment Layout (RPS).pdf
Ellida - Technical Note_William Palfrey Construction and Development Traffic V1.0.pdf
ID 5428 Bruce Hwy (Yaamba Rd) & William Palfrey Dr - 2016 Intersection Analysis.pdf
RMS TDT 2013-04a Guide to Traffic Generating Developments Updated traffic surveys.pdf

Hi Rebecca,

Thanks for the discussion on the phone this morning. As per our chat I informed the applicant (Richard Ford) to submit his response to the further advice via SARA. It appears the applicant had contacted Anton and not yet contacted SARA. This was handed over to me prior to Anton going on leave and I presumed RAPTTA were involved.

I was asked by Anton prior to him going on leave to confirm the traffic generation figures in the tech memorandum, I understand this was a request from QR. Apologies for not attaching the document.

The table of data is from the RPDM, it isn't part of the submission. The reference to the RPDM is merely Sith pointing out a difference in the RPDM compared to the RTA document in terms of the AADT generation.

We accept the traffic generation figures in the attached tech note. As to the results of the ALCAM assessment and remainder of the methodology in the tech memo, we will await QR's advice after the further advice response is submitted via SARA and QR can formally consider it.

Kind regards,

Jason Giddy
Senior Town Planner (Project Planning & Corridor Management)
Infrastructure Management & Delivery | Program Delivery & Operations
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From: Rebecca Kalianiotis <Rebecca.Z.Kalianiotis@tmr.qld.gov.au>
Sent: Monday, 20 February 2023 9:30 AM
To: Jason B Giddy <Jason.B.Giddy@tmr.qld.gov.au>
Cc: RAPTTA <RAPTTA@tmr.qld.gov.au>; Anton Z De Klerk <Anton.Z.DeKlerk@tmr.qld.gov.au>; Tanya L Menadue <Tanya.L.Menadue@tmr.qld.gov.au>
Subject: RE: (TMR17-022950) - FW: 8666 FW: [ARK22-P005 - Ellida] B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing

Hi Jason

SARA has issued further advice on 2208-30645 SPD and extended the timeframe. Carl Porter has advised that the applicant has not contacted him at all.

The table of data has a lack of information associated with it and we do not run ALCAM's unless they are part of a formal response to SARA.

I think due process needs to be followed here. The railway component will not be assessed further until such time as the applicant formally responds to the SARA advice.

Kind regards,

Rebecca Kalianiotis
Manager RPIA | Transport System Management
Transport Strategy and Planning | Department of Transport and Main Roads

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From: Jason B Giddy <Jason.B.Giddy@tmr.qld.gov.au>
Sent: Monday, 20 February 2023 8:47 AM
To: RAPTTA <RAPTTA@tmr.qld.gov.au>
Subject: (TMR17-022950) - FW: 8666 FW: [ARK22-P005 - Ellida] B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing

Hi Team,

I have a note from Anton (on leave) to confirm the traffic generation numbers associated with a TIA submitted for this file. I understand this data is needed for QR and needs to go to someone from QR who presumably does the level crossing assessments – I don't have that person's details.

In terms of the traffic generation, we are satisfied with the 7.4 trips per dwelling/traffic generation rate the applicant submitted, noting the RPDM isn't referred at section 8.2.1 of the GTIA (determining traffic generation).

Let me know if you need anything further from me.

Kind regards

Jason Giddy
Senior Town Planner (Project Planning & Corridor Management)
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From: Sithranjan X Shanmugasundram <Sithranjan.X.Shanmugasundram@tmr.qld.gov.au>
Sent: Friday, 17 February 2023 3:52 PM
To: Jason B Giddy <Jason.B.Giddy@tmr.qld.gov.au>
Cc: Anton Z De Klerk <Anton.Z.DeKlerk@tmr.qld.gov.au>; Robert A Jones <Robert.A.Jones@tmr.qld.gov.au>
Subject: RE: 8666 FW: [ARK22-P005 - Ellida] B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing (TMR17-022950)

Hi Jason,

Generally I am ok with the figures used in the calculation. However, I feel it is worth to raise the below

matter:

- In the section 7.1 AADT calculation uses 7.4 trips per dwelling as per revised RMS. Please note RPDM still got 9 trips. It may be worth asking this question.

Table 3.5 Traffic generation rates – residential dwellings

Description	Peak rate /unit	Daily rate	Unit	Source*
Detached	0.85	9	Dwelling	RTA
	0.8	6-10	Dwelling	QT
	N/A	9.6	Dwelling	AMCORD
	N/A	10	Dwelling	Qld Streets
Medium Density		4-6.5	Dwelling	RTA
	N/A	5.9	Dwelling	AMCORD
	N/A	6	Dwelling	Qld Streets
High Density	0.4	3-6	Dwelling	QT
	0.29	N/A	Dwelling	RTA
	N/A	4.2	Dwelling	AMCORD

Notes:
*Abbreviations are as follows:
RTA – Roads and Traffic Authority, NSW
QT – Queensland Transport
AMCORD – Australian Model Code for Residential Development
Qld Streets – Institution of Engineers Australia publication on standards and guidelines for streets

Kind regards

Sithranjan Shanmugasundram
Engineer (Project Planning – Project Planning & Corridor Management) | Fitzroy District / Central Queensland Region
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From: Jason B Giddy <Jason.B.Giddy@tmr.qld.gov.au>
Sent: Friday, 17 February 2023 3:11 PM
To: David Higgins Not Relevant @hig.com.au>; Sithranjan X Shanmugasundram <Sithranjan.X.Shanmugasundram@tmr.qld.gov.au>
Cc: Anton Z De Klerk <Anton.Z.DeKlerk@tmr.qld.gov.au>; Robert A Jones <Robert.A.Jones@tmr.qld.gov.au>
Subject: RE: 8666 FW: [ARK22-P005 - Ellida] B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing (TMR17-022950)

Afternoon David,

Whilst my preference would be to leave the task with HIG, I think the fact that NR works for HIG may be enough for a perceived conflict.

I've had a chat with Rob Jones and will assign this one to Sith who works under Rob in the PP team.

Sith – as per Anton's email below, can you review the attached documents and advise if the traffic numbers appear to be reasonable? Let me know if you need any further details.

Kind regards,

Jason Giddy
Senior Town Planner (Project Planning & Corridor Management)
Infrastructure Management & Delivery | Program Delivery & Operations
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From: Not Relevant @hig.com.au>
Sent: Friday, 17 February 2023 2:47 PM
To: Jason B Giddy <Jason.B.Giddy@tmr.qld.gov.au>
Subject: RE: 8666 FW: [ARK22-P005 - Ellida] B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing (TMR17-022950)

Hi Jason,

Anton sent me the request below last night, but I thought I'd contact you instead as he's suppose to be enjoying his break from today. HIG are indeed involved in the Ellida Development, but only in relation to the external works. All the approvals and internal works are being managed separately.

I do consider I have a conflict of interest with this request though, as I've already reviewed the ARK Traffic Report on behalf of the Ellida team. My preference would be to have it checked by others, but I understand the need you guys have in checking this information. Given the lack of support you have, combined with Anton's absence, I could explore the option below in case you have no other option to get it checked.

I do have the ability to nominate my Traffic Engineer NR to perform the review. NR is based in Brisbane and has had no involvement in the Ellida works. I could put you in direct liaison with NR this way I would be totally separate from any advice or liaison. I would also need to discuss the option with HIG Directors for approval.

At the end of the day, I do not wish to bring the reputations of HIG, ARK or Maas into question.

Let me know how you wish to proceed.

Regards

Not Relevant
Principal Civil Designer

Harrison Infrastructure Group

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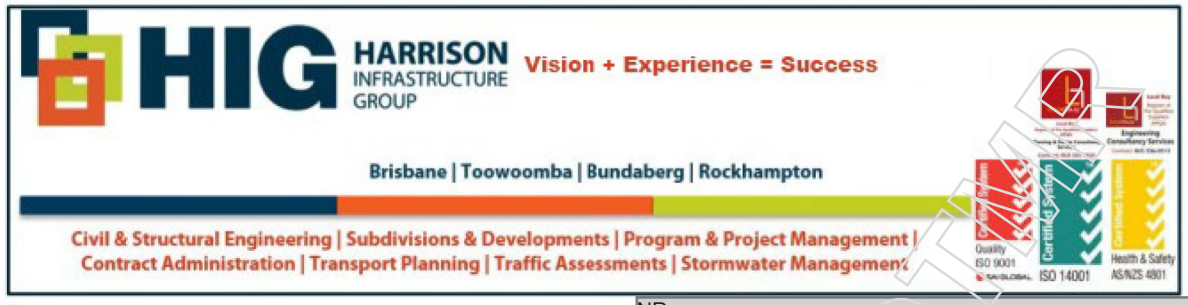

NR

From: Anton Z De Klerk <Anton.Z.DeKlerk@tmr.qld.gov.au>
Sent: Thursday, 16 February 2023 5:41 PM
To: Not Relevant @hig.com.au>
Cc: Corridor Management <CorridorManagement@tmr.qld.gov.au>
Subject: FW: 8666 FW: [ARK22-P005 - Ellida] B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing (TMR17-022950)

Hi NR

If I am not mistaken, HIG is potentially involved with the design of the new Olive Street intersection associated with Ellida Estate?

The applicant was busy liaising with Queensland Rail (QR) regarding the potential use of William Palfrey Road, particularly determining the potential threshold on how many vehicles can cross the Open Level Crossing before it will require an upgrade. However, as this forms part of a 'request to change' regarding DA Conditions, the applicant was directed to liaise via SARA/TMR who will then forward any relevant info onto QR (if applicable).

The applicant was therefore advised to confirm Traffic numbers associated with the proposed ROL allotments to be sealed (and use William Palfrey Road / Yaamba Road intersection). This traffic numbers is to be confirmed by TMR's Corridor Management before Rail will undertake an ALCAM Assessment.

Would you be able to review the traffic numbers (as per attached reports) and confirm if it is 'reasonable' / 'acceptable' before Corridor Management forward it onto RAIL to undertake an ALCAM.

Happy to discuss further if required.

Kind regards,

Anton DeKlerk
Principal Town Planner (Project Planning and Corridor Management) | Fitzroy District | Central Queensland Region
Program Delivery & Operations Branch | Infrastructure Management and Delivery Division | Department of Transport and

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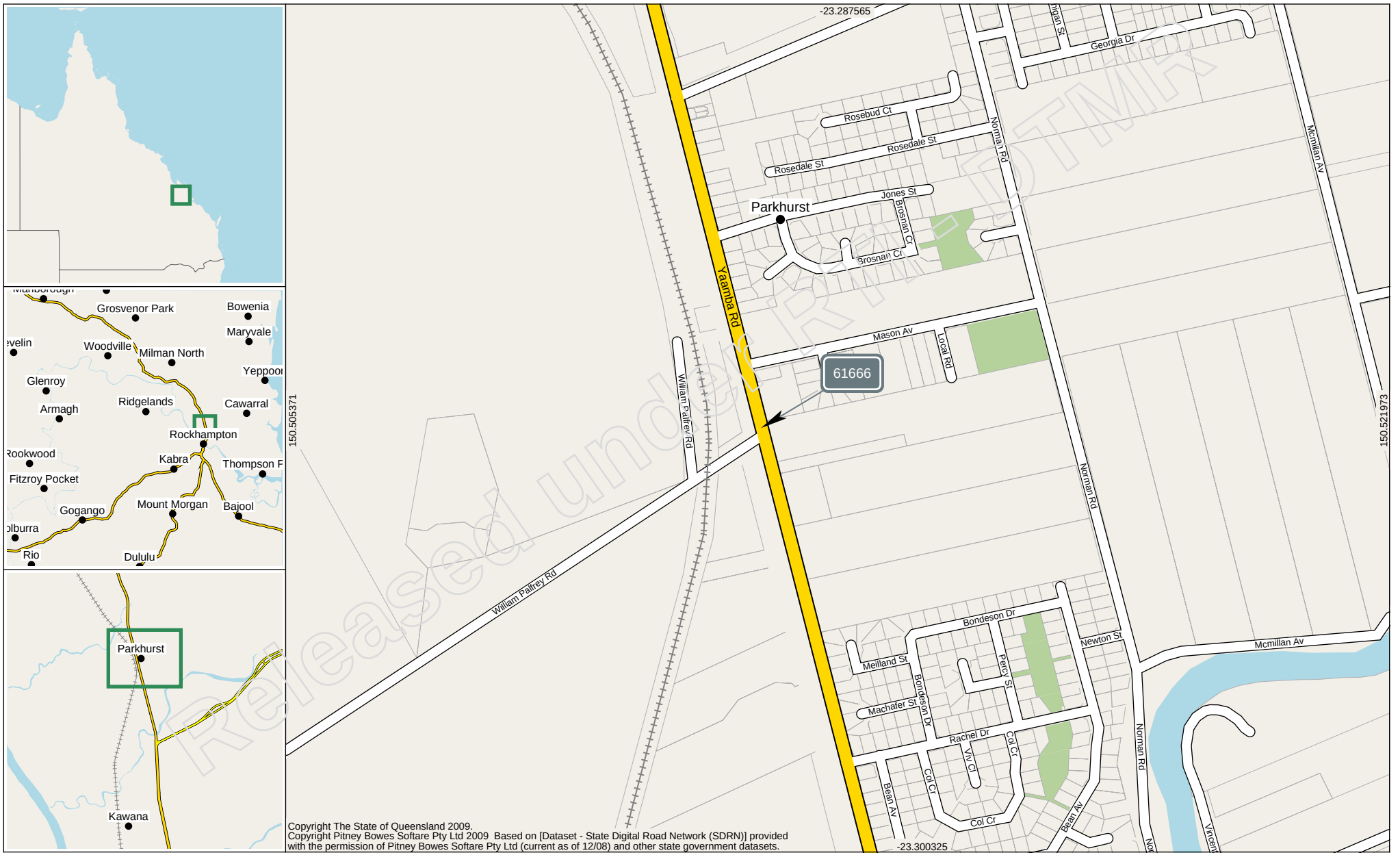
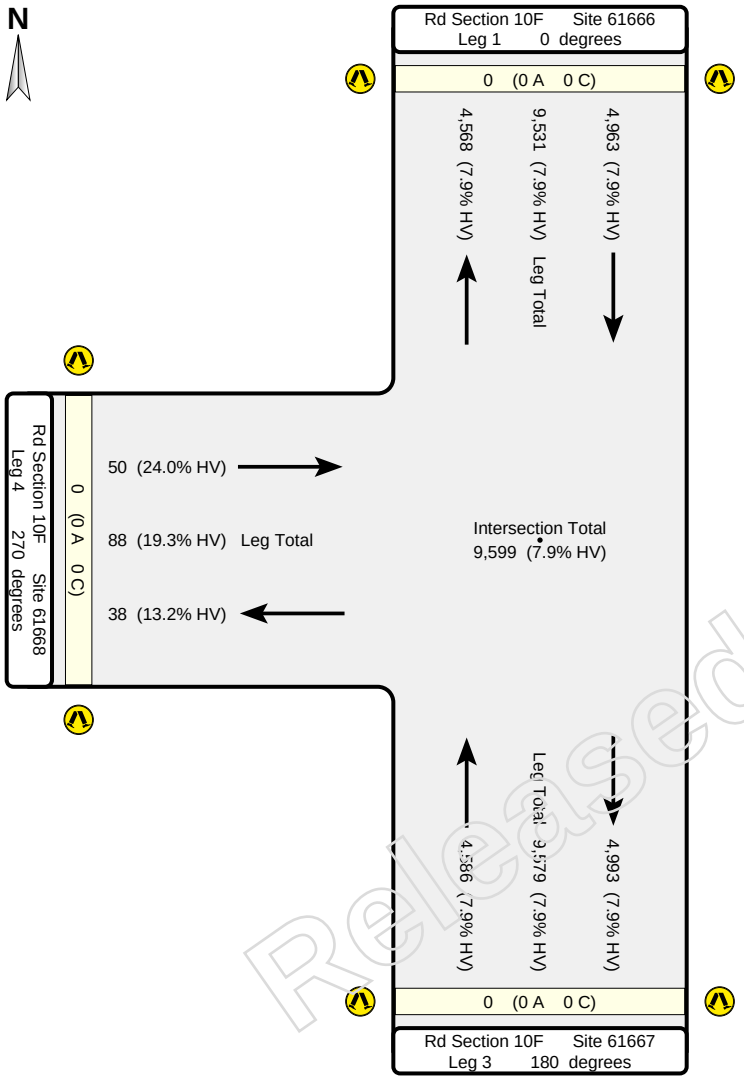
From: Richard Ford - CSG (CQ) <richard@csgcq.com.au>
Sent: Wednesday, 15 February 2023 11:34 AM
To: Anton Z De Klerk <Anton.Z.DeKlerk@tmr.qld.gov.au>
Subject: 8666 FW: [ARK22-P005 - Ellida] B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing

Anton
Please accept the below and attached as formal correspondence for our request to have William Palfrey Road cater for the first 130 residential lots in the estate as approved.
Council is 100% on board with this concept and it is their preferred method of entry to the estate in the first instance until the Olive Street intersection is constructed.
The William Palfrey Road intersection has only just recently been upgraded so that it is now left in left out with a raised median and significant queuing capacity.
We trust that the attachments and below correspondence now provides all information that your Department requires to make an informed decision on the matter.
If you have any queries or require any further information please do not hesitate to contact me.
Regards

Richard Ford | Director
Capricorn Survey Group CQ
Phone. 07 4927 5199
Mobile. 0407 581 850
www.capsurvey.com.au

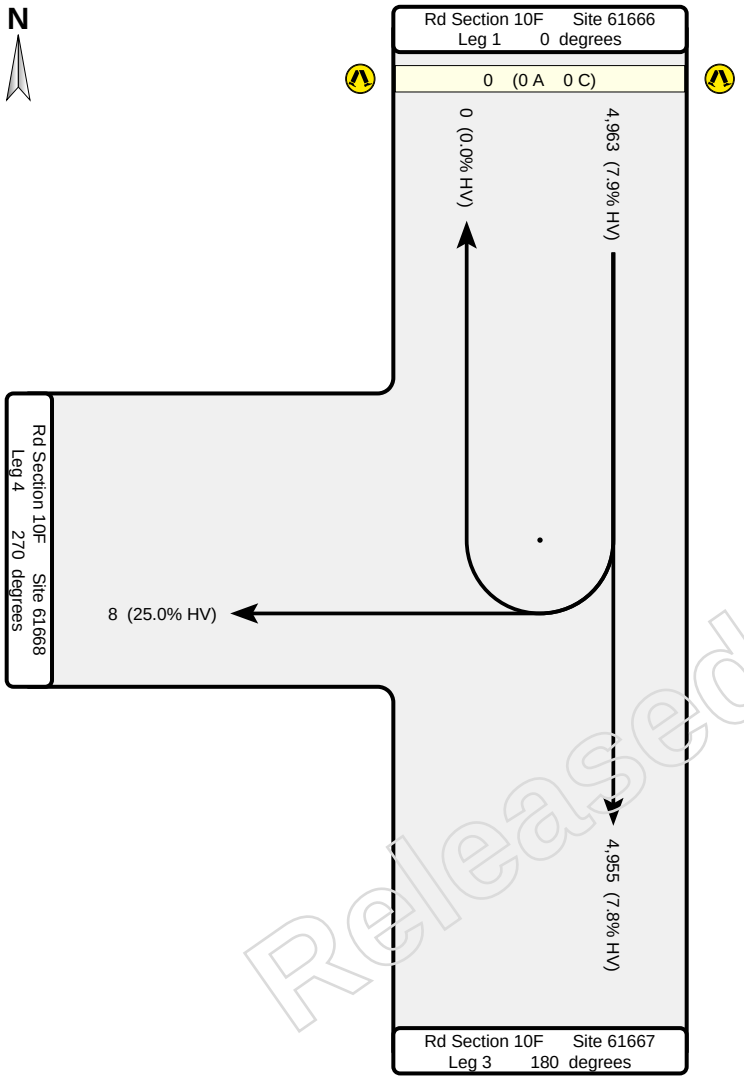


Summary



Leg	Angle	Road Section	Site	TDist	Site Description
1	0	10F	61666	10.510	Bruce Hwy to Mackay @ William Palfrey Dr
3	180	10F	61667	10.509	Bruce Hwy to Rton @ William Palfrey Dr
4	270	10F	61668	10.509	William Palfrey Dr @ Bruce Hwy

Leg 1 Site 61666 Tdist 10.510 km Bruce Hwy to Mackay @ William Palfrey Dr



Leg 1 Site 61666 Tdist 10.510 km Bruce Hwy to Mackay @ William Palfrey Dr

Time	Left	Through	Right	U-Turn	Pedestrians
00:00-00:15					
00:15-00:30					
00:30-00:45					
00:45-01:00					
01:00-01:15					
01:15-01:30					
01:30-01:45					
01:45-02:00					
02:00-02:15					
02:15-02:30					
02:30-02:45					
02:45-03:00					
03:00-03:15					
03:15-03:30					
03:30-03:45					
03:45-04:00					
04:00-04:15					
04:15-04:30					
04:30-04:45					
04:45-05:00					
05:00-05:15					
05:15-05:30					
05:30-05:45					
05:45-06:00					
06:00-06:15					
06:15-06:30		65	0	0	
06:30-06:45		82	0	0	
06:45-07:00		109	0	0	
07:00-07:15		110	1	0	
07:15-07:30		110	1	0	
07:30-07:45		158	0	0	
07:45-08:00		199	0	0	

Time	Left	Through	Right	U-Turn	Pedestrians
08:00-08:15		227	0	0	
08:15-08:30		217	0	0	
08:30-08:45		167	0	0	
08:45-09:00		191	0	0	
09:00-09:15		144	0	0	
09:15-09:30		117	0	0	
09:30-09:45		100	0	0	
09:45-10:00		87	0	0	
10:00-10:15		80	0	0	
10:15-10:30		81	0	0	
10:30-10:45		80	0	0	
10:45-11:00		88	0	0	
11:00-11:15		84	0	0	
11:15-11:30		102	0	0	
11:30-11:45		78	0	0	
11:45-12:00		88	1	0	
12:00-12:15		84	0	0	
12:15-12:30		78	0	0	
12:30-12:45		82	0	0	
12:45-13:00		81	2	0	
13:00-13:15		76	0	0	
13:15-13:30		84	0	0	
13:30-13:45		70	0	0	
13:45-14:00		76	0	0	
14:00-14:15		80	1	0	
14:15-14:30		97	0	0	
14:30-14:45		90	0	0	
14:45-15:00		76	0	0	
15:00-15:15		116	1	0	
15:15-15:30		137	0	0	
15:30-15:45		91	0	0	
15:45-16:00		93	1	0	

Time	Left	Through	Right	U-Turn	Pedestrians
16:00-16:15		109	0	0	
16:15-16:30		74	0	0	
16:30-16:45		77	0	0	
16:45-17:00		79	0	0	
17:00-17:15		82	0	0	
17:15-17:30		97	0	0	
17:30-17:45		79	0	0	
17:45-18:00		104	0	0	
18:00-18:15		79	0	0	
18:15-18:30					
18:30-18:45					
18:45-19:00					
19:00-19:15					
19:15-19:30					
19:30-19:45					
19:45-20:00					
20:00-20:15					
20:15-20:30					
20:30-20:45					
20:45-21:00					
21:00-21:15					
21:15-21:30					
21:30-21:45					
21:45-22:00					
22:00-22:15					
22:15-22:30					
22:30-22:45					
22:45-23:00					
23:00-23:15					
23:15-23:30					
23:30-23:45					
23:45-24:00					

Blank cells indicate the non-collection of corresponding counts.

Traffic Analysis and Reporting System

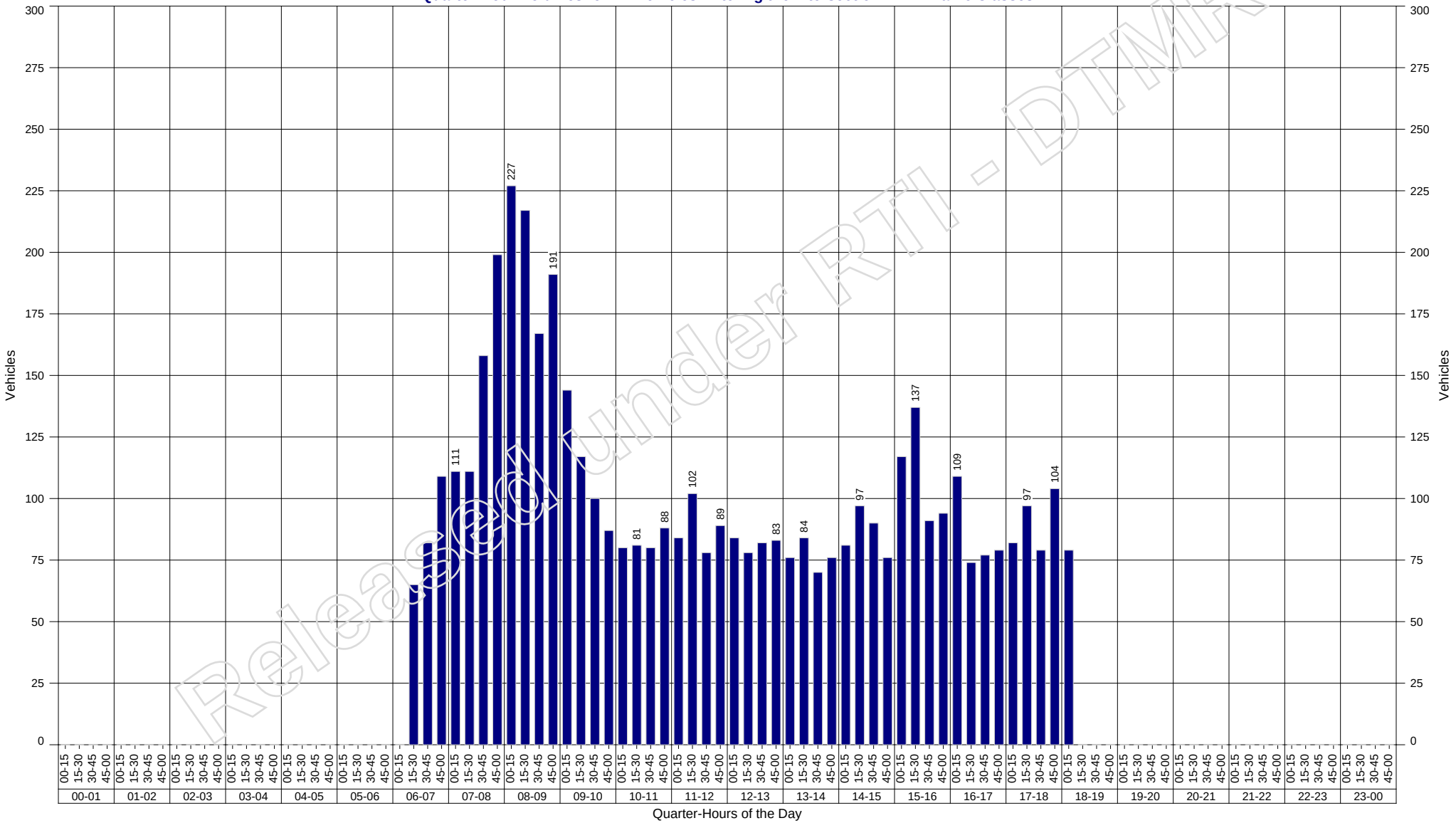
Intersection Analysis Report

Area 404 - Fitzroy District Road Section 10F - BRUCE HIGHWAY (ROCKHAMPTON-ST LAWRENCE)
Intersection 5428 - Yaamba Rd & William Palfrey Dr (LHS)
Wednesday 22-Jun-2016 06:15 - 18:15

Leg 1 Site 61666 Tdist 10.510 km Bruce Hwy to Mackay @ William Palfrey Dr

Total volume 4,963

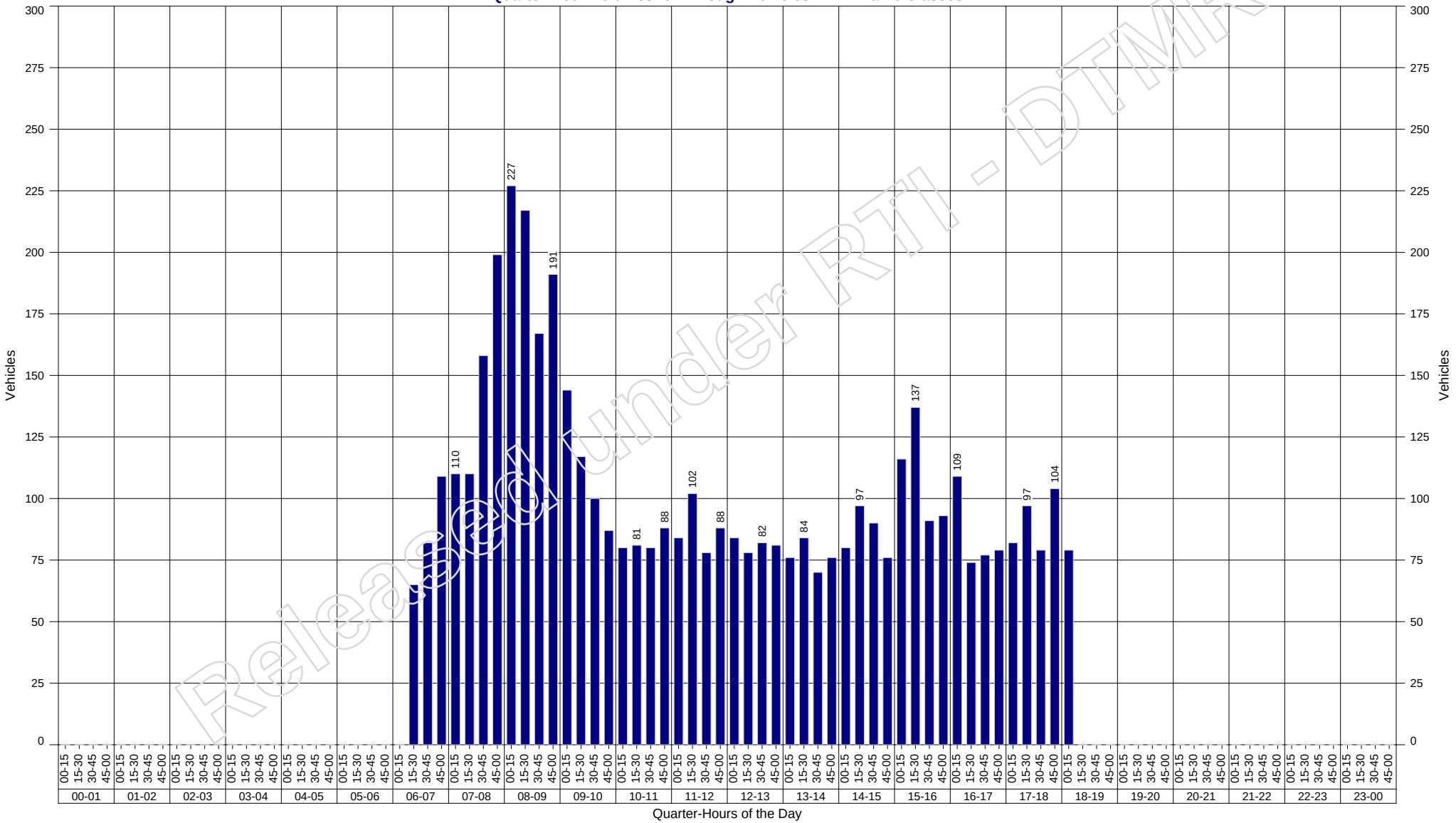
Quarter-Hour Volumes for All Vehicles Entering the Intersection - All Traffic Classes



Leg 1 Site 61666 Tdist 10.510 km Bruce Hwy to Mackay @ William Palfrey Dr

Total volume 4,955

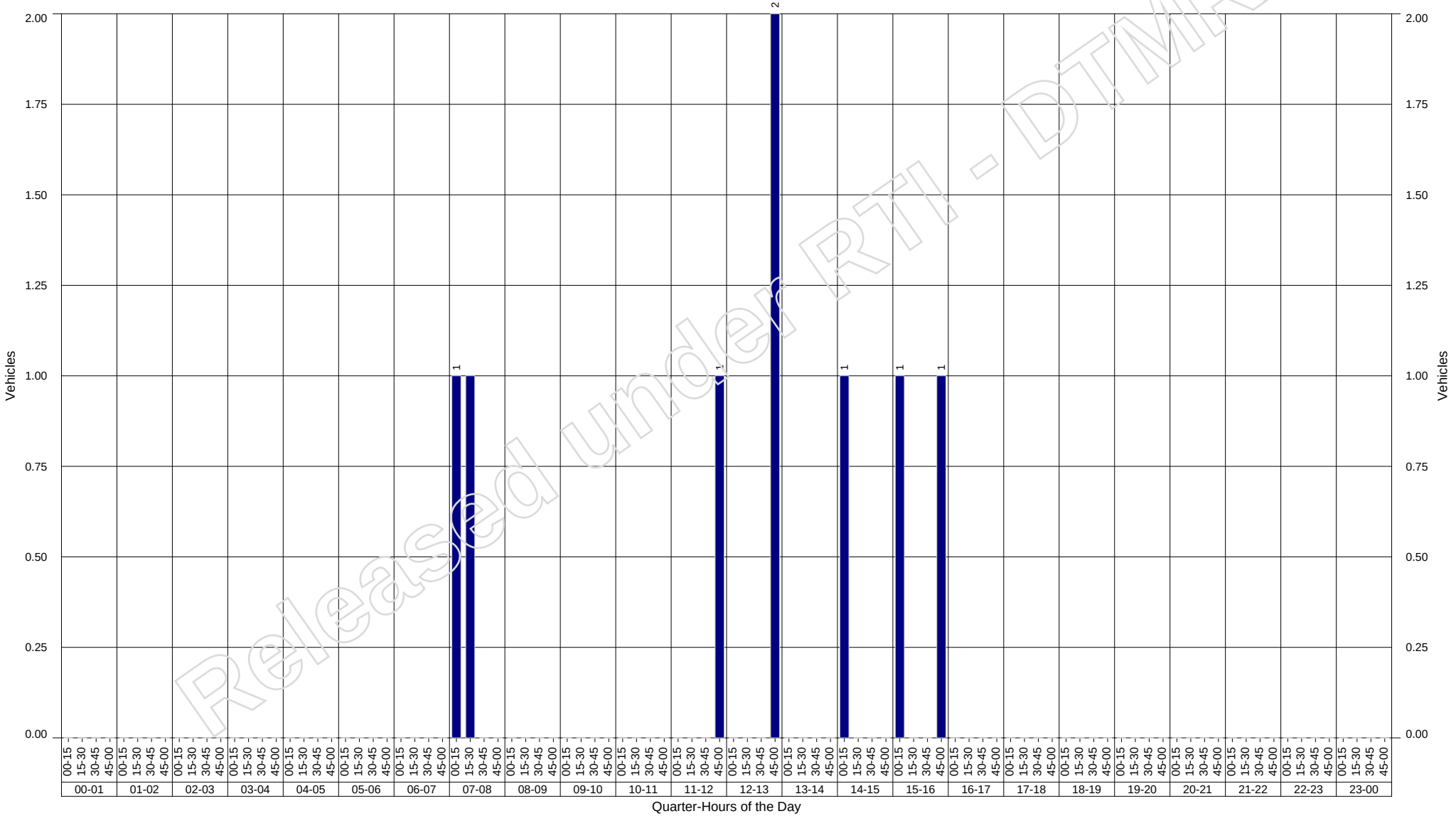
Quarter-Hour Volumes for Through Vehicles - All Traffic Classes



Leg 1 Site 61666 Tdist 10.510 km Bruce Hwy to Mackay @ William Palfrey Dr

Total volume 8

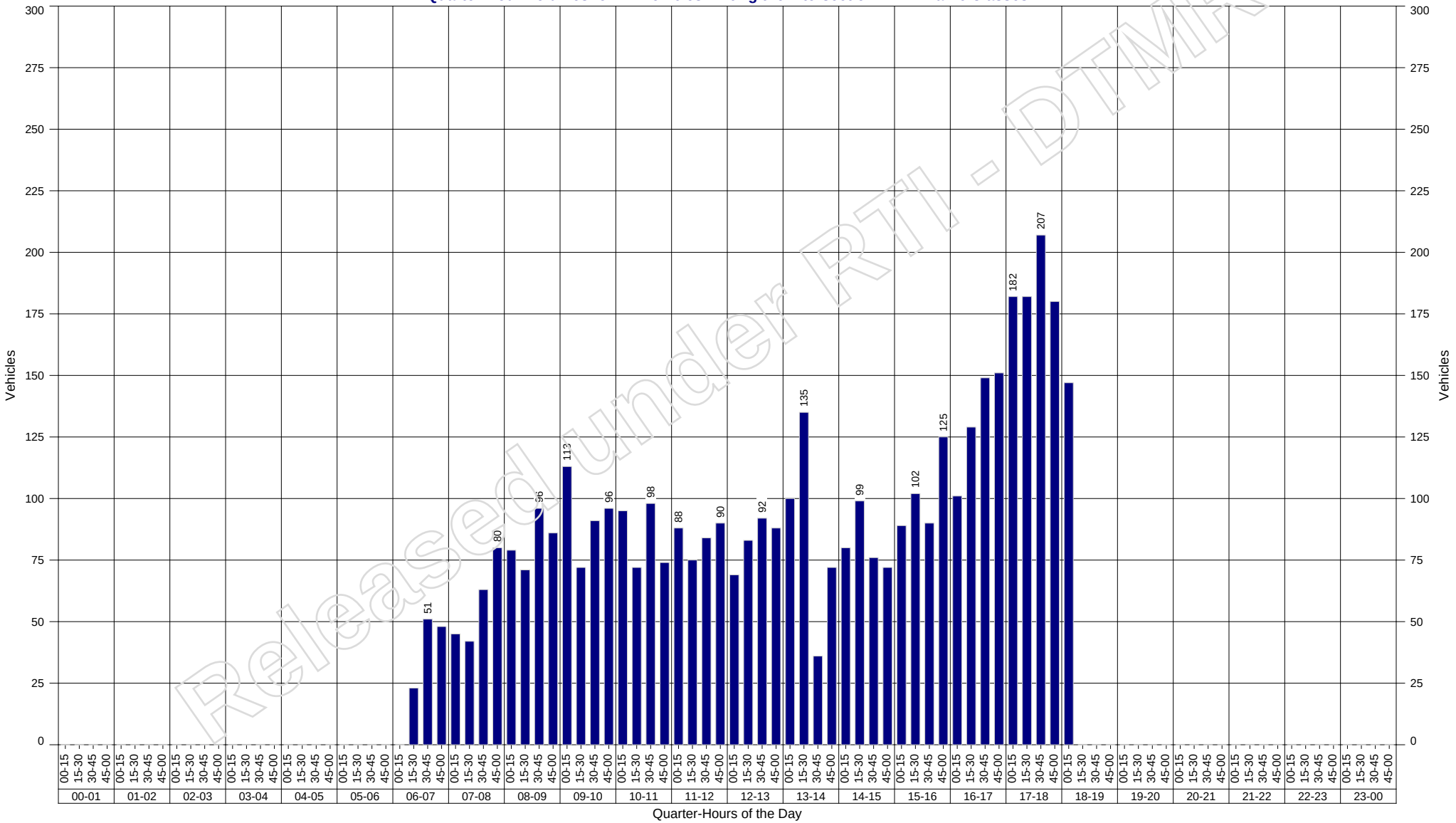
Quarter-Hour Volumes for Right-turning Vehicles - All Traffic Classes



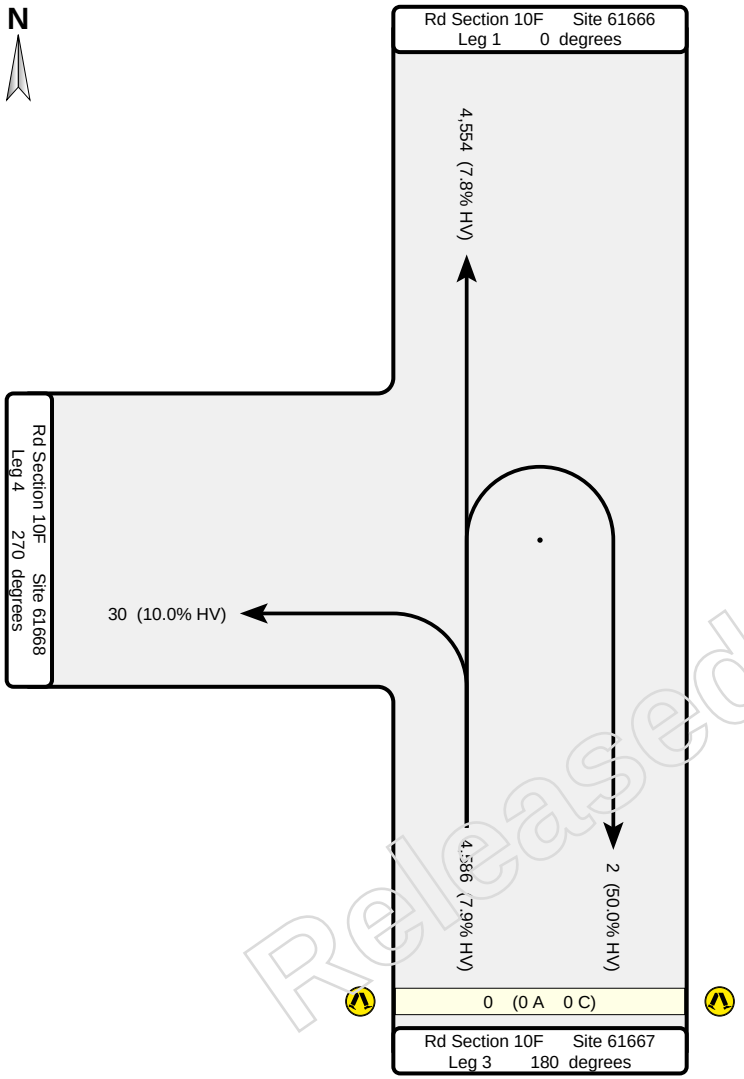
Leg 1 Site 61666 Tdist 10.510 km Bruce Hwy to Mackay @ William Palfrey Dr

Total volume 4,568

Quarter-Hour Volumes for All Vehicles Exiting the Intersection - All Traffic Classes



Leg 3 Site 61667 Tdist 10.509 km Bruce Hwy to Rton @ William Palfrey Dr



Leg 3 Site 61667 Tdist 10.509 km Bruce Hwy to Rton @ William Palfrey Dr

Time	Left	Through	Right	U-Turn	Pedestrians
00:00-00:15					
00:15-00:30					
00:30-00:45					
00:45-01:00					
01:00-01:15					
01:15-01:30					
01:30-01:45					
01:45-02:00					
02:00-02:15					
02:15-02:30					
02:30-02:45					
02:45-03:00					
03:00-03:15					
03:15-03:30					
03:30-03:45					
03:45-04:00					
04:00-04:15					
04:15-04:30					
04:30-04:45					
04:45-05:00					
05:00-05:15					
05:15-05:30					
05:30-05:45					
05:45-06:00					
06:00-06:15					
06:15-06:30	0	23		0	
06:30-06:45	2	51		1	
06:45-07:00	0	48		0	
07:00-07:15	1	45		0	
07:15-07:30	1	42		0	
07:30-07:45	0	63		0	
07:45-08:00	0	80		0	

Time	Left	Through	Right	U-Turn	Pedestrians
08:00-08:15	0	79		0	
08:15-08:30	0	71		0	
08:30-08:45	1	96		0	
08:45-09:00	0	86		0	
09:00-09:15	0	113		0	
09:15-09:30	1	72		0	
09:30-09:45	0	91		0	
09:45-10:00	0	96		0	
10:00-10:15	0	95		1	
10:15-10:30	3	72		0	
10:30-10:45	0	96		0	
10:45-11:00	0	74		0	
11:00-11:15	1	88		0	
11:15-11:30	1	74		0	
11:30-11:45	0	84		0	
11:45-12:00	1	89		0	
12:00-12:15	0	69		0	
12:15-12:30	0	83		0	
12:30-12:45	0	92		0	
12:45-13:00	1	88		0	
13:00-13:15	1	100		0	
13:15-13:30	0	135		0	
13:30-13:45	2	36		0	
13:45-14:00	2	72		0	
14:00-14:15	1	80		0	
14:15-14:30	2	98		0	
14:30-14:45	1	76		0	
14:45-15:00	2	72		0	
15:00-15:15	1	87		0	
15:15-15:30	1	100		0	
15:30-15:45	0	90		0	
15:45-16:00	1	124		0	

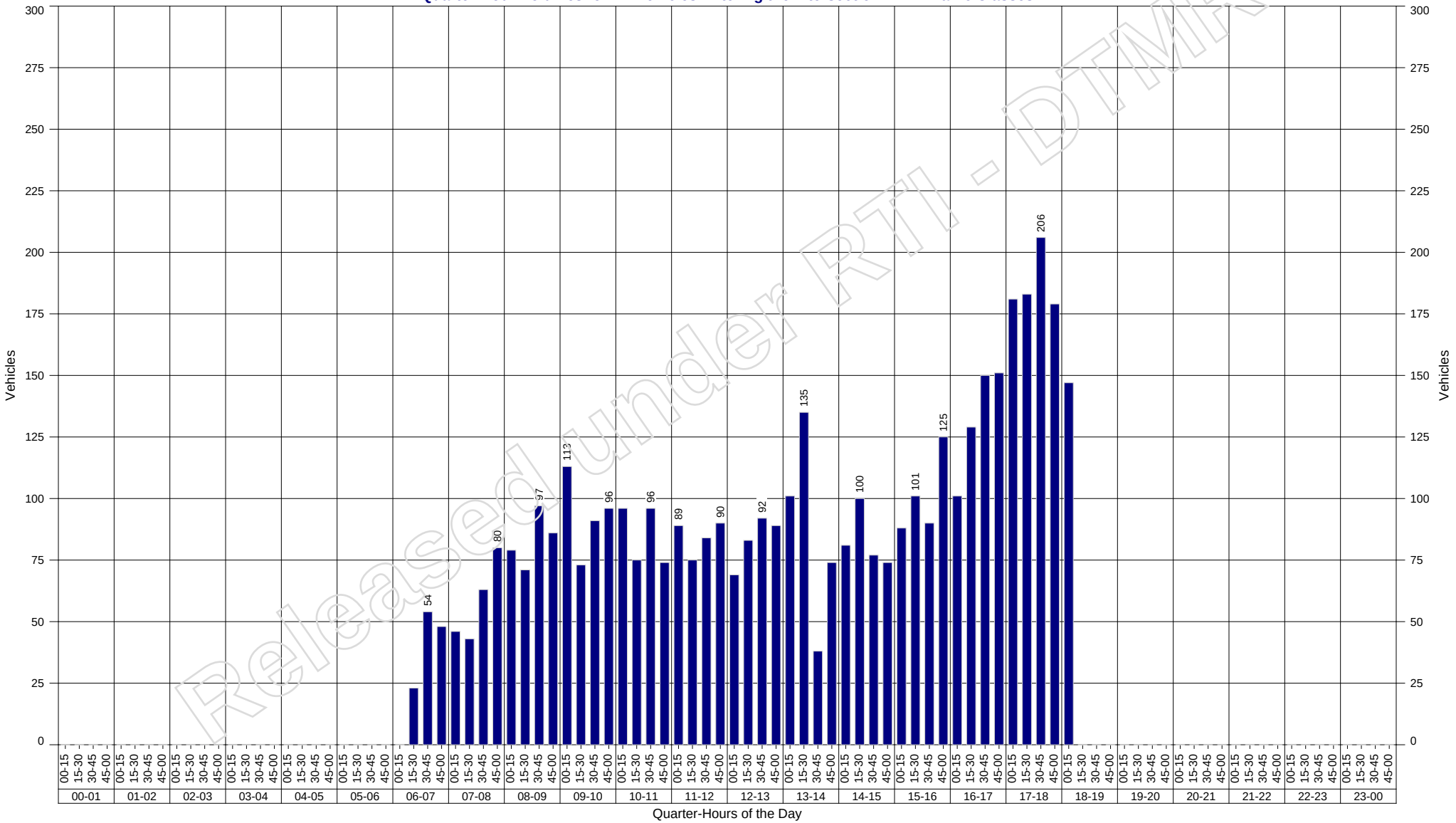
Time	Left	Through	Right	U-Turn	Pedestrians
16:00-16:15	1	100		0	
16:15-16:30	0	129		0	
16:30-16:45	1	149		0	
16:45-17:00	0	151		0	
17:00-17:15	0	181		0	
17:15-17:30	1	182		0	
17:30-17:45	0	206		0	
17:45-18:00	0	179		0	
18:00-18:15	0	147		0	
18:15-18:30					
18:30-18:45					
18:45-19:00					
19:00-19:15					
19:15-19:30					
19:30-19:45					
19:45-20:00					
20:00-20:15					
20:15-20:30					
20:30-20:45					
20:45-21:00					
21:00-21:15					
21:15-21:30					
21:30-21:45					
21:45-22:00					
22:00-22:15					
22:15-22:30					
22:30-22:45					
22:45-23:00					
23:00-23:15					
23:15-23:30					
23:30-23:45					
23:45-24:00					

Blank cells indicate the non-collection of corresponding counts.

Leg 3 Site 61667 Tdist 10.509 km Bruce Hwy to Rton @ William Palfrey Dr

Total volume 4,586

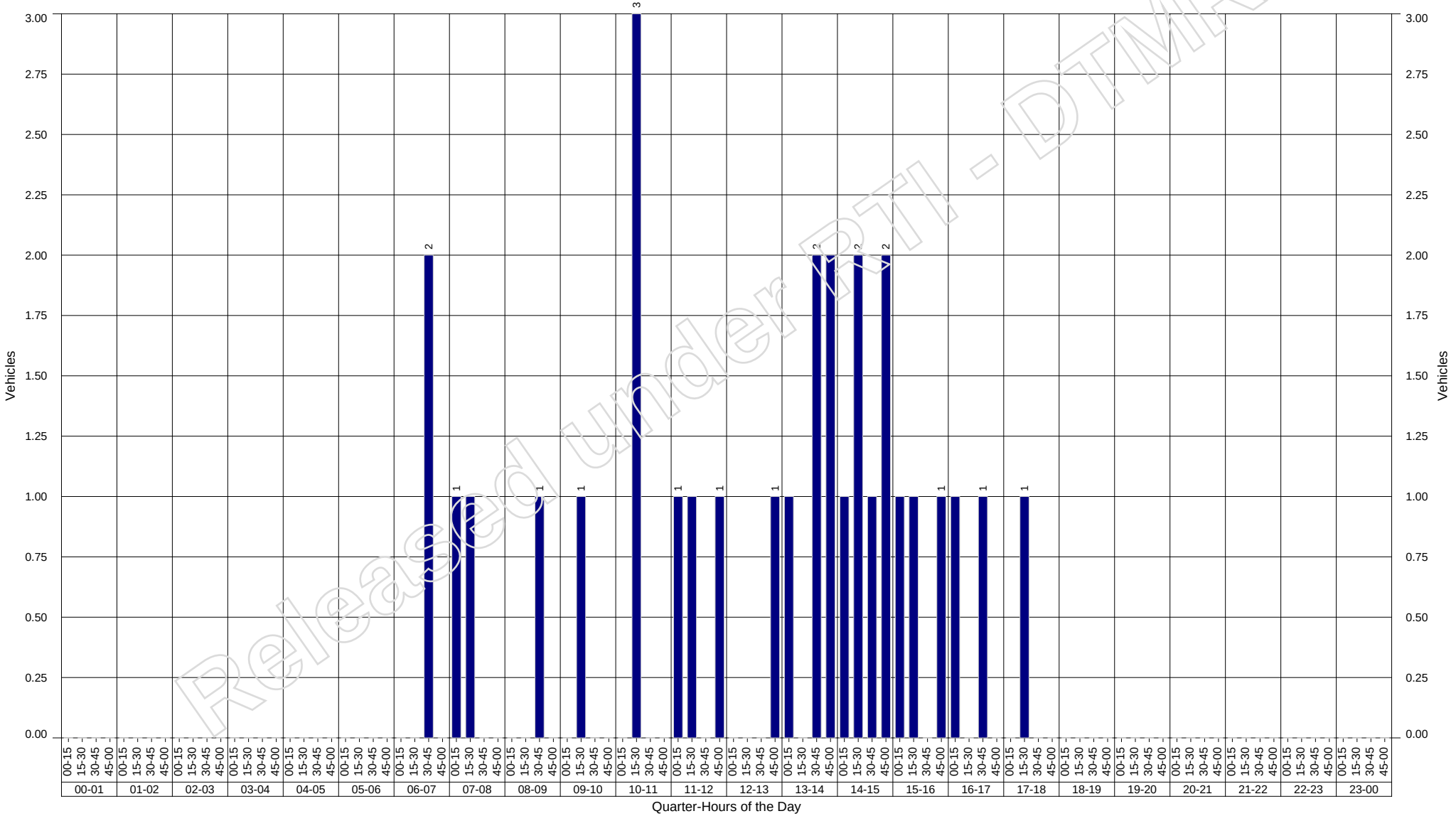
Quarter-Hour Volumes for All Vehicles Entering the Intersection - All Traffic Classes



Leg 3 Site 61667 Tdist 10.509 km Bruce Hwy to Rton @ William Palfrey Dr

Total volume 30

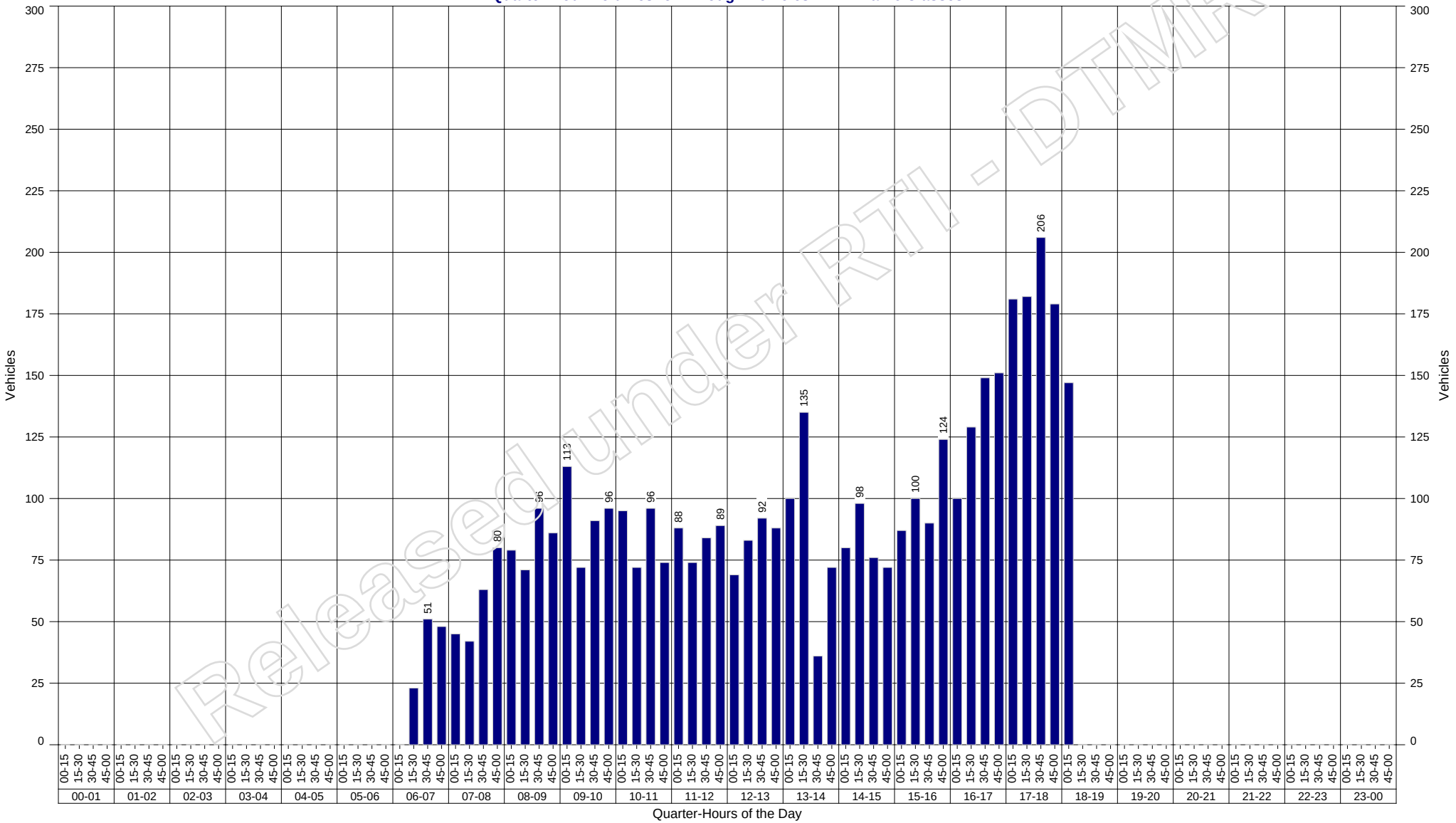
Quarter-Hour Volumes for Left-turning Vehicles - All Traffic Classes



Leg 3 Site 61667 Tdist 10.509 km Bruce Hwy to Rton @ William Palfrey Dr

Total volume 4,554

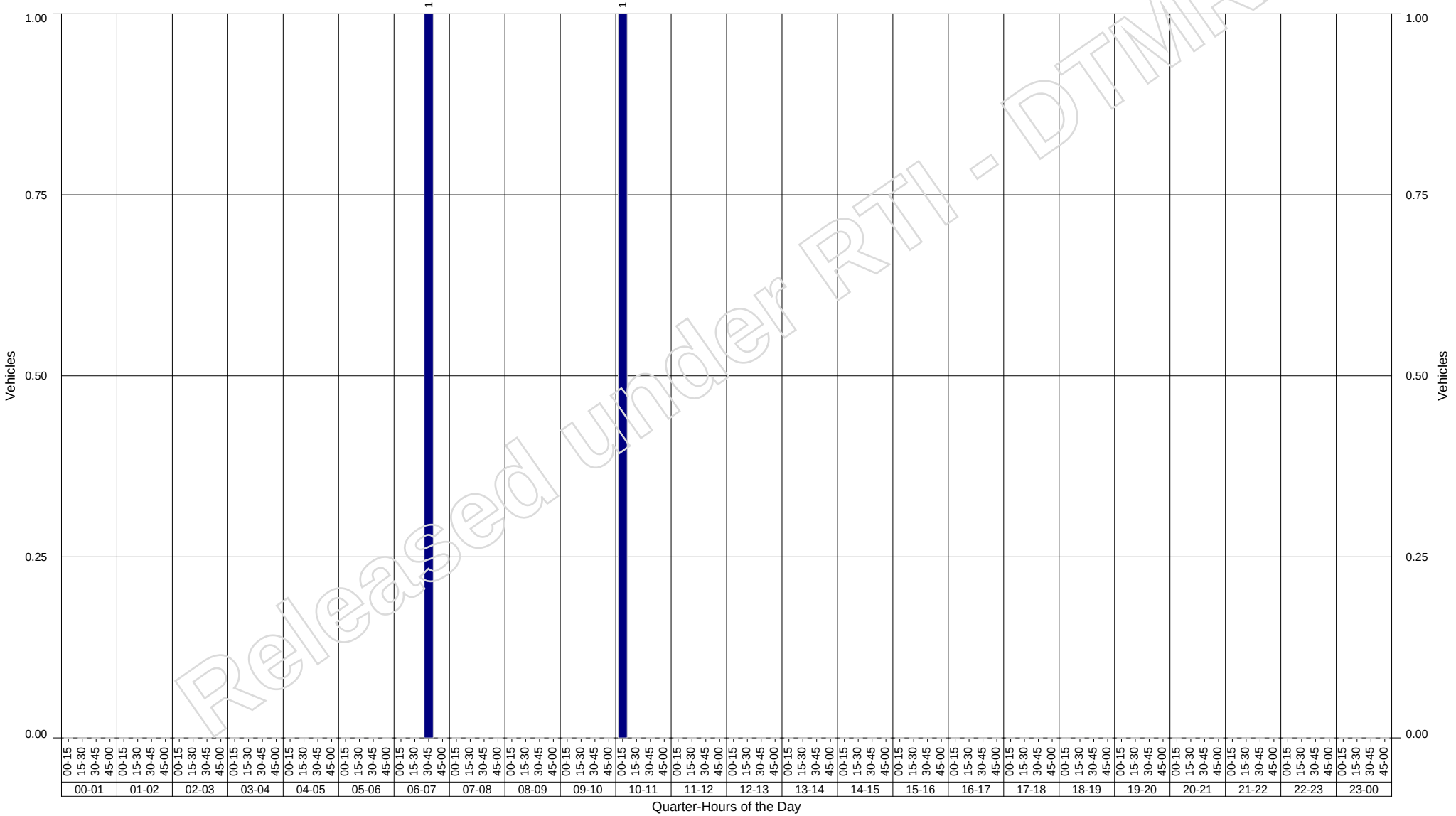
Quarter-Hour Volumes for Through Vehicles - All Traffic Classes



Leg 3 Site 61667 Tdist 10.509 km Bruce Hwy to Rton @ William Palfrey Dr

Total volume 2

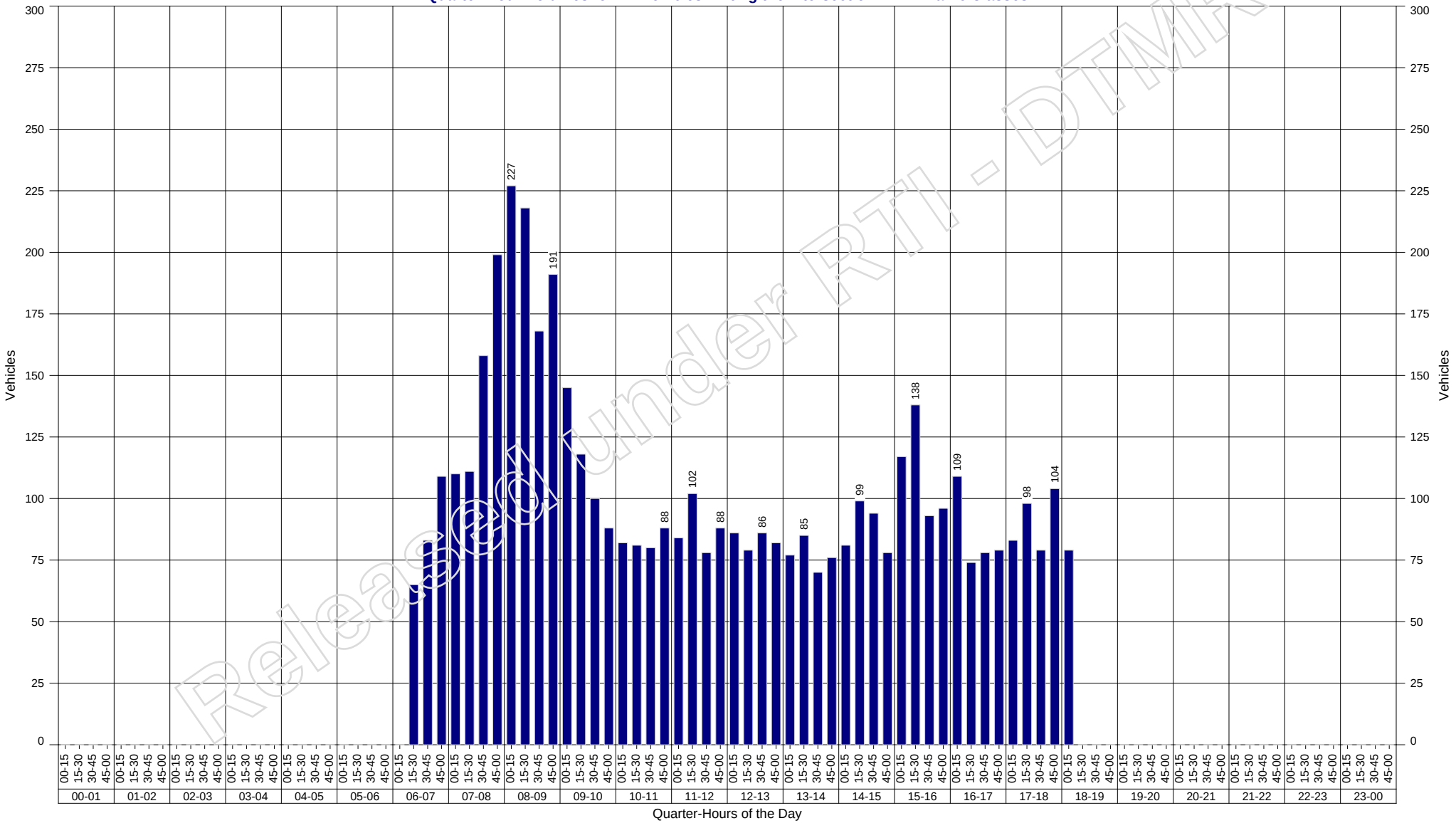
Quarter-Hour Volumes for U-turning Vehicles - All Traffic Classes



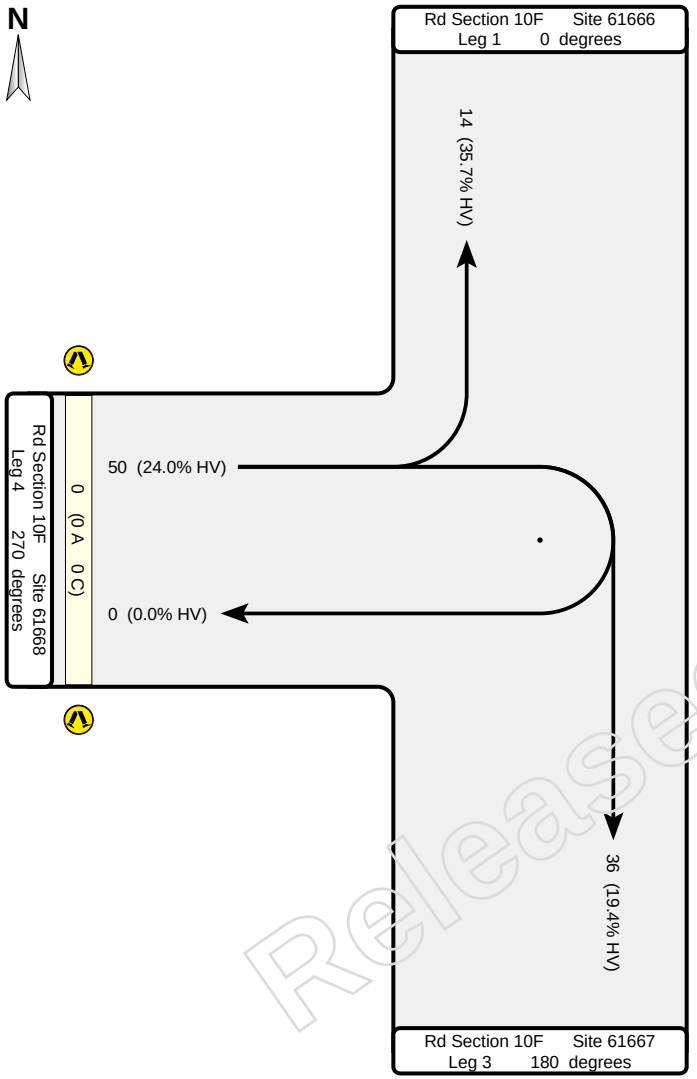
Leg 3 Site 61667 Tdist 10.509 km Bruce Hwy to Rton @ William Palfrey Dr

Total volume 4,993

Quarter-Hour Volumes for All Vehicles Exiting the Intersection - All Traffic Classes



Leg 4 Site 61668 Tdist 10.509 km William Palfrey Dr @ Bruce Hwy



Leg 4 Site 61668 Tdist 10.509 km William Palfrey Dr @ Bruce Hwy

Time	Left	Through	Right	U-Turn	Pedestrians
00:00-00:15					
00:15-00:30					
00:30-00:45					
00:45-01:00					
01:00-01:15					
01:15-01:30					
01:30-01:45					
01:45-02:00					
02:00-02:15					
02:15-02:30					
02:30-02:45					
02:45-03:00					
03:00-03:15					
03:15-03:30					
03:30-03:45					
03:45-04:00					
04:00-04:15					
04:15-04:30					
04:30-04:45					
04:45-05:00					
05:00-05:15					
05:15-05:30					
05:30-05:45					
05:45-06:00					
06:00-06:15					
06:15-06:30	0		0		
06:30-06:45	0		0		
06:45-07:00	0		0		
07:00-07:15	0		0		
07:15-07:30	0		1		
07:30-07:45	0		0		
07:45-08:00	0		0		

Time	Left	Through	Right	U-Turn	Pedestrians
08:00-08:15	0		0		
08:15-08:30	0		1		
08:30-08:45	0		1		
08:45-09:00	0		0		
09:00-09:15	0		1		
09:15-09:30	0		1		
09:30-09:45	0		0		
09:45-10:00	0		1		
10:00-10:15	0		1		
10:15-10:30	0		0		
10:30-10:45	2		0		
10:45-11:00	0		0		
11:00-11:15	0		0		
11:15-11:30	1		0		
11:30-11:45	0		0		
11:45-12:00	1		0		
12:00-12:15	0		2		
12:15-12:30	0		1		
12:30-12:45	0		4		
12:45-13:00	0		1		
13:00-13:15	0		1		
13:15-13:30	0		1		
13:30-13:45	0		0		
13:45-14:00	0		0		
14:00-14:15	0		1		
14:15-14:30	1		2		
14:30-14:45	0		4		
14:45-15:00	0		2		
15:00-15:15	2		1		
15:15-15:30	2		1		
15:30-15:45	0		2		
15:45-16:00	1		3		

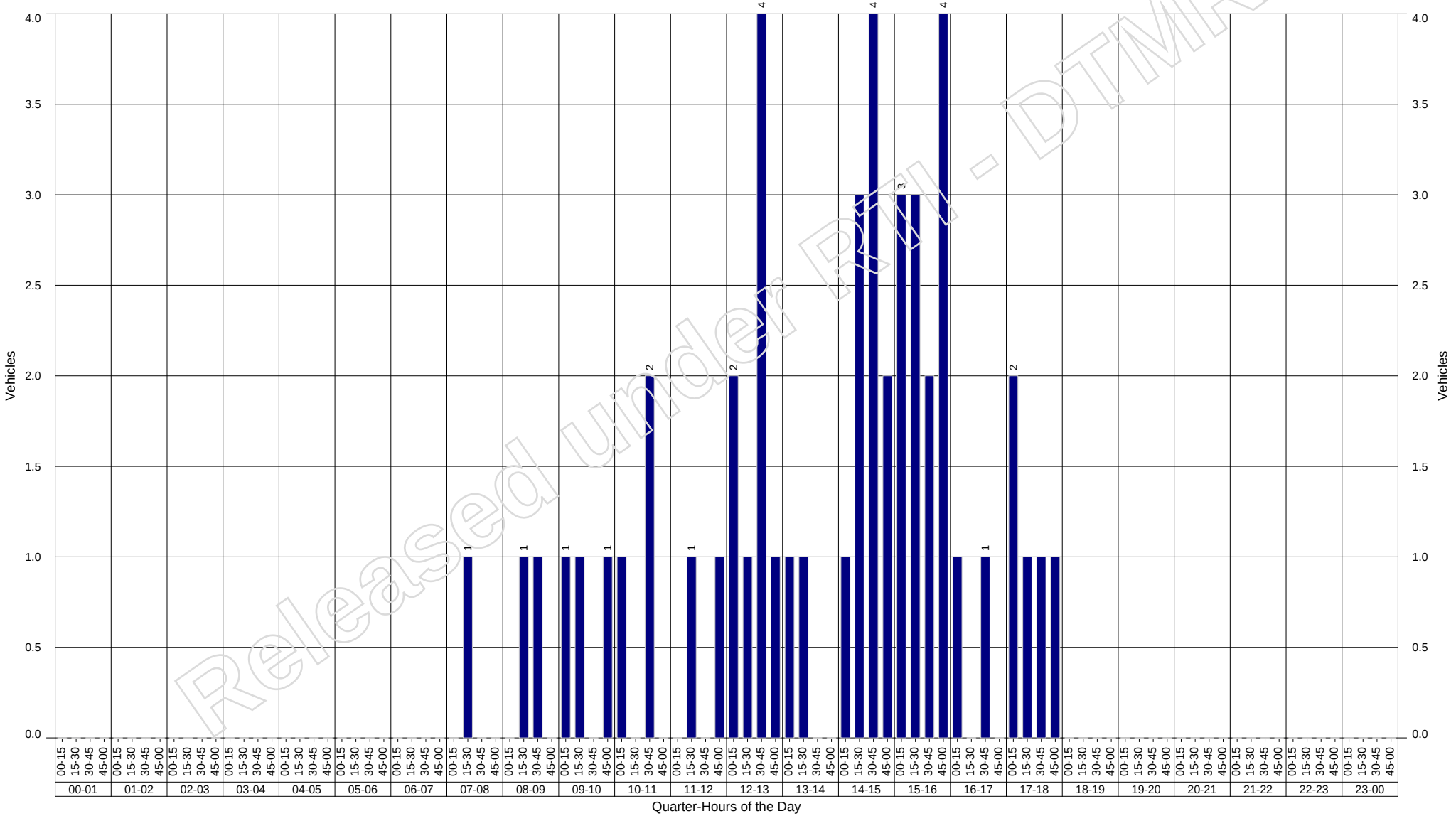
Time	Left	Through	Right	U-Turn	Pedestrians
16:00-16:15	1		0		
16:15-16:30	0		0		
16:30-16:45	0		1		
16:45-17:00	0		0		
17:00-17:15	1		1		
17:15-17:30	0		1		
17:30-17:45	1		0		
17:45-18:00	1		0		
18:00-18:15	0		0		
18:15-18:30					
18:30-18:45					
18:45-19:00					
19:00-19:15					
19:15-19:30					
19:30-19:45					
19:45-20:00					
20:00-20:15					
20:15-20:30					
20:30-20:45					
20:45-21:00					
21:00-21:15					
21:15-21:30					
21:30-21:45					
21:45-22:00					
22:00-22:15					
22:15-22:30					
22:30-22:45					
22:45-23:00					
23:00-23:15					
23:15-23:30					
23:30-23:45					
23:45-24:00					

Blank cells indicate the non-collection of corresponding counts.

Leg 4 Site 61668 Tdist 10.509 km William Palfrey Dr @ Bruce Hwy

Total volume 50

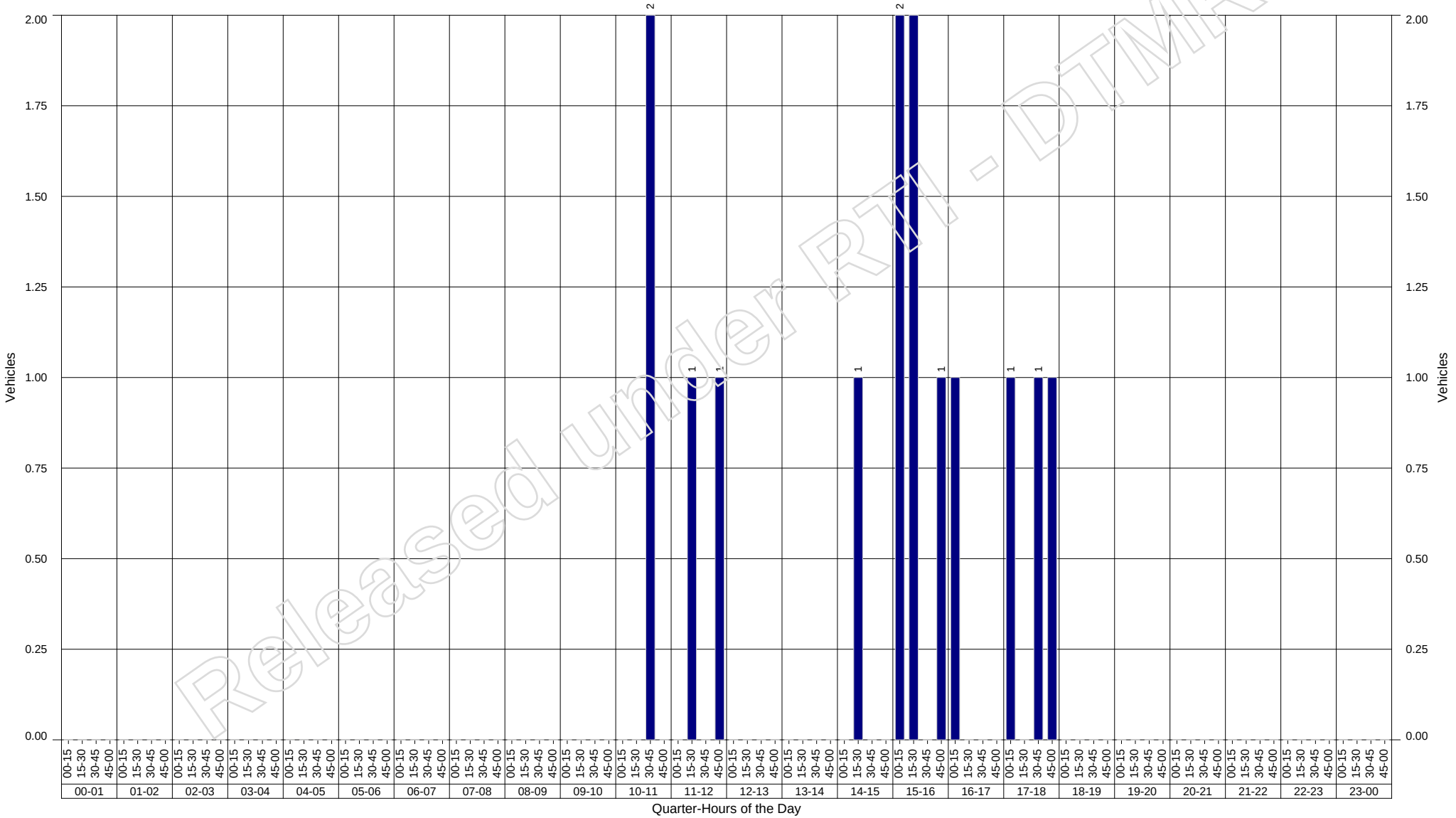
Quarter-Hour Volumes for All Vehicles Entering the Intersection - All Traffic Classes



Leg 4 Site 61668 Tdist 10.509 km William Palfrey Dr @ Bruce Hwy

Total volume 14

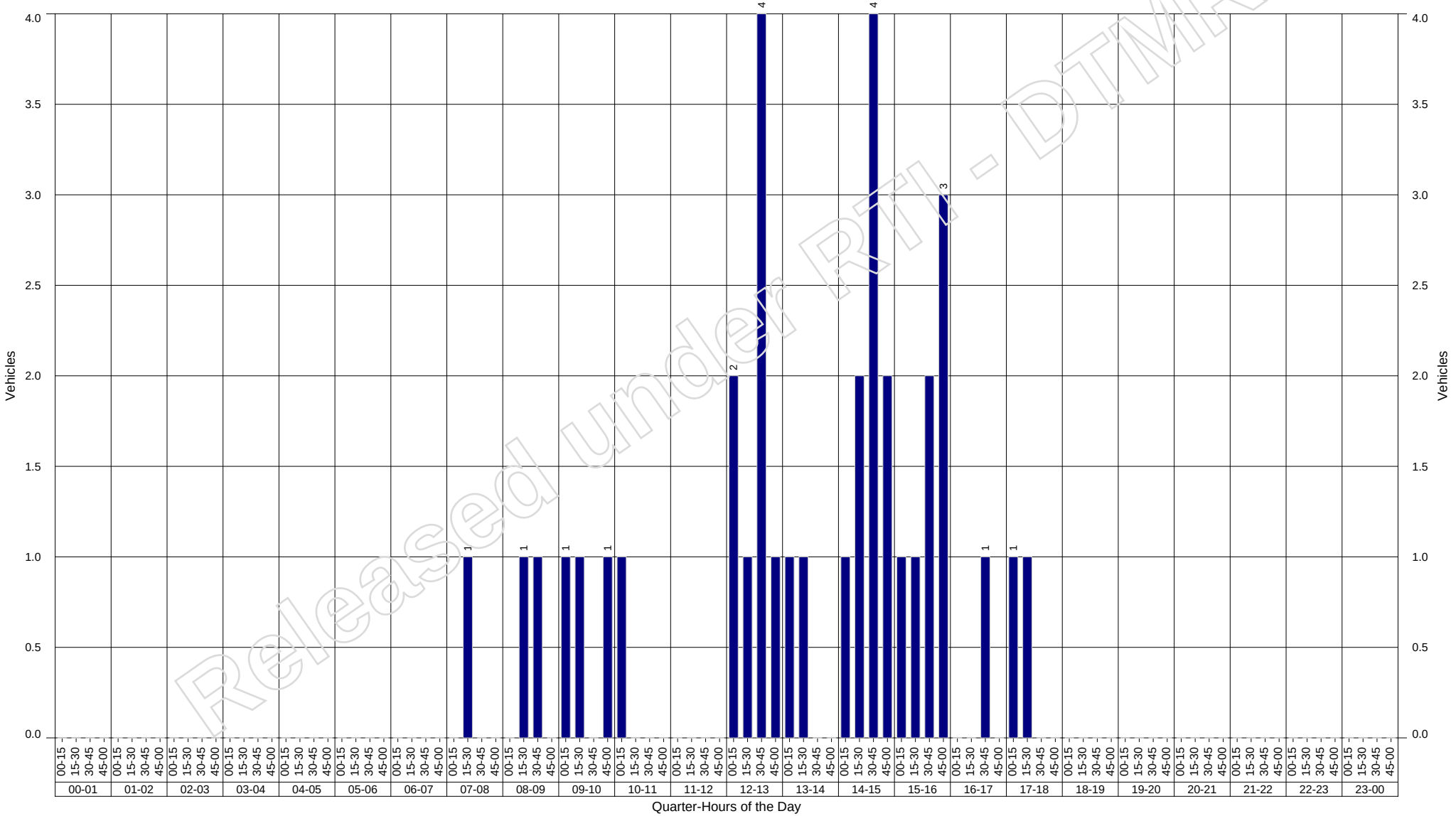
Quarter-Hour Volumes for Left-turning Vehicles - All Traffic Classes



Leg 4 Site 61668 Tdist 10.509 km William Palfrey Dr @ Bruce Hwy

Total volume 36

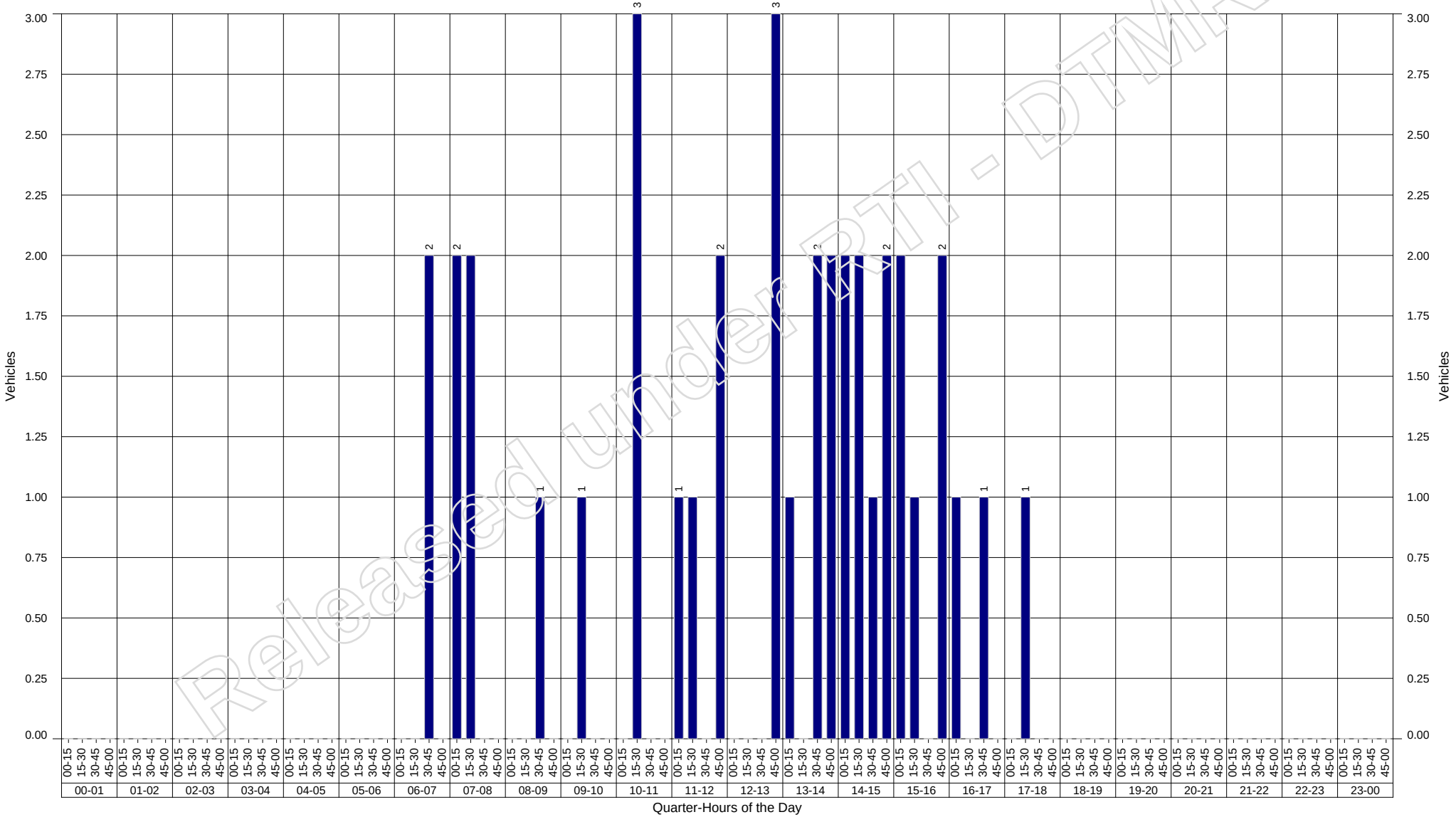
Quarter-Hour Volumes for Right-turning Vehicles - All Traffic Classes



Leg 4 Site 61668 Tdist 10.509 km William Palfrey Dr @ Bruce Hwy

Total volume 38

Quarter-Hour Volumes for All Vehicles Exiting the Intersection - All Traffic Classes



Intersection Analysis Report
Displays traffic and pedestrian flows in both diagram and tabular formats at an intersection on a particular day.

Content includes:
- Actual day counts.
- Traffic volume in, volume out and total volume for each leg.
- Pedestrian flows when available.

Please Note: This data is not averaged.

Important Information
It is important to note that data in this report are the actual traffic counts for the associated time interval on the date indicated. This report does not display an Annual Average Daily Traffic (AADT).

Annual Average Daily Traffic (AADT)
Annual Average Daily Traffic (AADT) is the number of vehicles passing a point on a road in a 24 hour period, averaged over a calendar year.

Angle
Specifies in degrees how far off north the northern most leg points.

Area
For administration purposes the Department of Transport and Main Roads has divided Queensland into 12 Districts. The Area field in TSDM reports displays the District Name and Number.

District Name	District
Central West District	401
Darling Downs District	402
Far North District	403
Fitzroy District	404
Mackay/Whitsunday District	405
Metropolitian District	406
North Coast District	407
North West District	409
Northern District	408
South Coast District	410
South West District	411
Wide Bay/Burnett District	412

Gazettal Direction
Is the direction of the traffic flow. It can be easily recognised by referring to the name of the road eg. Road Section: 10A Brisbane - Gympie denotes that the gazettal direction is from Brisbane to Gympie.

Intersection
The unique code and description of the Intersection.

Leg
The code that identifies each leg of the intersection.

Leg 1 North
Leg 2 East
Leg 3 South
Leg 4 West

The Traffic Analysis and Reporting System (TARS) database has a design limitation that restricts counts to 3way or 4way intersections.

Pedestrians
Pedestrian counts are collected where required and can be classed into Adult (A) and Children (C).

Percentage Heavy Vehicles
%HV are displayed for each turning movement when collected.

Road Section
Is the Gazetted road from which the traffic data is collected. Each Road Section is given a code, allocated sequentially in Gazettal Direction. Larger roads are broken down into sections and identified by an ID code with a suffix for easier data collection and reporting (eg. 10A, 10B, 10C). Road Sections are then broken into AADT Segments which are determined by traffic volume.

Site
The physical location of a traffic counting device. Sites are located at a specified Through Distance along a Road Section.

Site Description
The description of the physical location of the traffic counting device.

TDist
TDist or Through Distance is the physical location of the traffic count site measured in kilometres from the beginning of the Road Section.

Traffic Classes
Are the categories for which data can be captured at an intersection:

Volume
00 All vehicles.

2-Bin
0A Light vehicles
0B Heavy vehicles

4-Bin
1A Short vehicles
1B Truck or bus
1C Articulated vehicles
1D Road train

Vehicle Turning Movements
Turning movements describe the action of a vehicle at the intersection.

L Left hand turn
T Through traffic
R Right hand turn
U U-turn

Technical Direction

For traffic, safety and transport practitioners

OPERATIONAL POLICY – GUIDELINES – ADVICE

Transport Roads & Maritime Services

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Supersedes/Amends TDT 2013/04

TDT 2013/ 04a

Guide to Traffic Generating Developments

Updated traffic surveys

Introduction

The *Guide to Traffic Generating Developments* was first released in 1991. It was revised in 2001 and is in the process of being further revised. It provides guidance on a number of matters related to the traffic impacts of land use developments, most notably on matters relating to traffic generation and parking. Its audience extends beyond that of traffic authorities (RMS and Councils) and is widely used throughout Australia.

Over the past few years a number of surveys have been undertaken to update trip generation and parking information as part of the *Guide*. This Technical Direction provides a summary of the updated information. The information herein should be used to supplement the current Guide and replace those sections of the *Guide* indicated. The information is provided in two parts; (i) a very brief summary below and (ii) more extended summaries in Appendices A-H. More detailed information may be obtained by referral to the RMS Library where reports on each land use may be found.

Summaries of land use traffic generation

Low density residential dwellings

Eleven surveys were conducted in 2010, six within the Sydney urban area and five within regional NSW. The results of the surveys were as follows:

Rates

Daily vehicle trips = 10.7 per dwelling in Sydney, 7.4 per dwelling in regional areas
Weekday average evening peak hour vehicle trips = 0.99 per dwelling in Sydney (maximum 1.39), 0.78 per dwelling in regional areas (maximum 0.90).
Weekday average morning peak hour vehicle trips = 0.95 per dwelling in Sydney (maximum 1.32), 0.71 per dwelling in regional areas (maximum 0.85).
(The above rates do **not** include trips made internal to the subdivision, which may add up to an additional 25%).

Distribution List:

Director, Infrastructure Development; RMS Development Managers; RMS Land use/Planning Officers; Councils; Land & Environment Court Officers and Consultants.

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Amendment: Required Action (Pg 3) amended.
Approved: R O'Keefe, Mgr Traffic Policy, Guidelines & Legislation
RMS. 13.298

High density residential flat dwellings

Ten surveys were conducted in 2012, eight within Sydney, and one each in the Hunter and Illawarra. All developments were (i) close to public transport, (ii) greater than six storeys and (iii) almost exclusively residential in nature. The weekday trip generation rates were as follows:

Weekday Rates	Sydney Average	Sydney Range	Regional Average	Regional Range
AM peak (1 hour) vehicle trips per unit	0.19	0.07-0.32	0.53	0.39-0.67
AM peak (1 hour) vehicle trips per car space	0.15	0.09-0.29	0.35	0.32-0.37
AM peak (1 hour) vehicle trips per bedroom	0.09	0.03-0.13	0.21	0.20-0.22
PM peak (1 hour) vehicle trips per unit	0.15	0.06-0.41	0.32	0.22-0.42
PM peak (1hour) vehicle trips per car space	0.12	0.05-0.28	0.26	0.11-0.40
PM peak (1 hour) vehicle trips per bedroom	0.07	0.03-0.17	0.15	0.07-0.22
Daily vehicle trips per unit	1.52	0.77-3.14	4.58	4.37-4.78
Daily vehicle trips per car space	1.34	0.56-2.16	3.22	2.26-4.18
Daily vehicle trips per bedroom	0.72	0.35-1.29	1.93	1.59-2.26

Housing for seniors

Ten surveys were conducted in 2009, five within the Sydney urban area and five in regional New South Wales. Summary trip generation rates were as follows:

Weekday daily vehicle trips = 2.1 per dwelling
Weekday peak hour vehicle trips = 0.4 per dwelling
(Note that morning site peak hour does not generally coincide with the network peak hour)

Office blocks

Ten surveys were conducted in 2010. Eight of the surveys were conducted within the Sydney urban area and one each in Newcastle and Wollongong. The Sydney sites provided a range of locations with two inner ring sites, four middle ring sites and two outer ring sites. Most had access to the rail network. Summary trip generation rates were as follows:

Daily vehicle trips = 11 per 100 m^2 gross floor area
Morning peak hour vehicle trips = 1.6 per 100 m^2 gross floor area.
Evening peak hour vehicle trips = 1.2 per 100 m^2 gross floor area.

Business parks and industrial estates

In 2012 eleven of these two types of sites were surveyed, four within the Sydney urban area, four within the Lower Hunter, one in the Illawarra and one in Dubbo. Summary vehicle trip generation rates were as follows:

Weekday Rates	Sydney Average	Sydney Range	Regional Average	Regional Range
AM peak (1 hour) vehicle trips per 100 m^2 of GFA.	0.52	0.15-1.31	0.70	0.32-1.20
PM peak (1 hour) vehicle trips per 100 m^2 of GFA.	0.56	0.16-1.50	0.78	0.39-1.30
Daily total vehicle trips	4.60	1.89-10.47	7.83	3.78-11.99

Shopping Centres

Extensive surveys of shopping centres were conducted in 1978, 1990 and again in 2011. The latter survey involved ten larger shopping centres, seven in the Sydney metropolitan area and one each at Mittagong, Shellharbour and Tuggerah. Peak hour trip generation rates are as follows:

Range in Total Floor Area (GLFA – m^2)	Peak Hour Generation Rate (vehicles per 100m^2 GLFA)			
	Thursday (V(P)/A)	Friday (V(P)/A)	Saturday PVT (A)	Sunday
0 – 10,000	12.3	12.5	16.3	
10,000 – 20,000	7.6 (6.2)	6.2 (6.7)	7.5 (7.5)	(6.6)
20,000 – 30,000	5.9 (6.0)	5.6 (5.9)	7.5 (7.0)	(6.3)
30,000 – 40,000	4.6	3.7	6.1	
40,000 – 70,000	(4.4)	(4.4)	(5.5)	(4.6)
70,000+	(3.1)	(4.0)	(3.6)	(3.2)

* Figures in brackets refer to 2011 surveys. Other figures are as per 1978 and 1990 surveys. Caution should be used in comparing the data in that they reflect changes in shopping behaviours. Seasonally adjusted rates appear to be in the order of 3-5% higher than the quoted 2011 rates.

Bulky goods retail stores

Six surveys were conducted in 2009. Two of the surveys were conducted within the Sydney urban area (one electrical goods and one furniture) and four within regional New South Wales (two electrical goods and two furniture). Summary vehicle trip rates are as follows:

Weekday daily vehicle trips = 17 (including 1 heavy) vehicles per 100 m^2 of gross floor area)
Weekday peak hour vehicle trips = 2.7 vehicles per 100 m^2 of gross floor area. (note that the morning site peak hour during weekdays does not generally coincide with the network peak hour.)
Weekend day daily vehicle trips = 19 vehicles per 100 m^2 of gross floor area (minimal heavy vehicles)
Weekend day peak hour vehicle trips = 3.9 vehicles per 100 m^2 of gross floor area.

Major hardware and building supplies stores

Nine surveys were conducted in 2009. Five of the surveys were conducted within the Sydney urban area and four within regional New South Wales. Summary vehicle trip rates are as follows:

Weekday daily vehicle trips = 33 vehicles per 100 m^2 of gross floor area (includes 2 heavy vehicles)
Weekday peak hour vehicle trips = 4.2 vehicles per 100 m^2 of gross floor area. (Note that higher trip rates are observed in the PM network peak with commensurately higher traffic impacts at that time.)
Weekend day daily vehicle trips = 35 vehicles per 100 m^2 of gross floor area (minimal heavy vehicles)
Weekend day peak hour vehicle trips = 5.6 vehicles per 100 m^2 of gross floor area.

Action

This *Technical Direction* must be followed when RMS is undertaking trip generation and/or parking demand assessments.

Updates

To ensure that this *Technical Direction* and any related guidelines remain current and relevant, minor updates may be made from time to time. Any updates may be obtained from the RMS website using the Traffic & Transport Policies & Guidelines Register which can be found at:

www.rta.nsw.gov.au/doingbusinesswithus/guidelines/documentregister/index.html

Printed copies of this *Technical Direction* are uncontrolled, therefore the Register should always be checked prior to using this *Technical Direction* or any related guidelines.

Approved by:	Authorised by:
SIGNED	**SIGNED**
Craig Moran General Manager Traffic & Safety Management	Jim Peachman A/Director Journey Management

APPENDIX A - LOW DENSITY RESIDENTIAL – SURVEY DETAILS

Source: Trip Generation Surveys, Low Density Residential, TEF Consulting, in association with Gennaoui Consulting Pty Ltd, for the NSW Roads and Traffic Authority, June 2010, p6

	Survey area ID										
	LDR1	LDR2	LDR3	LDR4	LDR5	LDR6	LDR7	LDR8	LDR9	LDR10	LDR11
Area Characteristics:											
Suburb	Beaumont Hills	Longueville	North Epping	Werrington Downs	West Hoxton	Westleigh	Coffs Harbour	Goonellabah	Calaire	Glenfield Park	Farmborough Heights
Local Government Area	Baulkham Hills	Lane Cove	Hornsby	Penrith	Liverpool	Hornsby	Coffs Harbour	Lismore	Orange	Wagga Wagga	Wollongong
Typical housing type	two-storey	two-storey	one - & two-storey	one-storey	large two-storey	one-storey	one-storey	one - & two-storey	one-storey	one-storey	one - & two-storey
Indicative Public Transport Accessibility Score	6	30	11	8	5	6	3	2	2	3	2
Traffic generating developments within the area	1 School, 2 Childcare centres	1 Private Hospital	1 School, 2 Childcare centres, 1 Shopping Village, 1 Local shop, 1 Retirement Village	1 Childcare centre	1 School, 3 Childcares, 1 Medical Centre	1 School, 1 Childcare, 1 Shopping centre	None	1 Function Centre	2 Childcare centres, 1 Aged Care facility	None	None
No. of dwellings	956	676	1495	669	1235	1335	509	556	697	554	905
Population	3,346	2,084	4,295	2,095	4,552	4,024	1,250	1,378	2,037	1,391	2,685
	4	3	3	3	4	3	2	2	3	3	3
Date of survey	04-May-10	28-Apr-10	28-Apr-10	04-May-10	06-May-10	28-Apr-10	13-May-10	12-May-10	06-May-10	05-May-10	06-May-10
Day of survey	Tuesday	Wednesday	Wednesday	Tuesday	Thursday	Wednesday	Thursday	Wednesday	Thursday	Wednesday	Thursday
Duration of survey	06:00-19:00 (13 hours) - All survey areas										
Weather	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Fine	Overcast, light morning showers	Fine
Surrounding roads- AM peak period	08:00-09:00	08:00-09:00	06:00-07:00	08:00-09:00	08:00-09:00	07:00-08:00	08:00-09:00	08:00-09:00	08:00-09:00	08:00-09:00	08:00-09:00
Surrounding roads - PM peak period	17:00-18:00	17:00-18:00	15:00-16:00	15:30-16:30	17:00-18:00	16:00-17:00	15:00-16:00	17:00-18:00	16:00-17:00	16:00-17:00	15:00-16:00
Person Trips:											
o Peak 1-hour person-trips	2170	1083	1390	1286	2607	1207	735	631	1018	733	892
o Time of peak 1-hour person-trips	15:00-16:00	07:15-08:15	07:30-08:30	16:30-17:30	08:00-09:00	17:00-18:00	15:15-16:15	15:30-16:30	08:00-09:00	15:30-16:30	07:45-08:45
o Peak person-trips per dwelling	2.27	1.60	0.93	1.92	2.27	0.90	1.44	1.13	1.46	1.32	0.99
o Peak person-trips per resident	0.65	0.52	0.32	0.61	0.62	0.30	0.59	0.46	0.50	0.53	0.33
o Total daily person-trips	14389	9699	11276	9753	17668	11489	4955	5099	7356	4878	6672
o Total daily person-trips per dwelling	15.05	14.35	7.54	14.58	14.31	8.61	9.73	9.17	10.55	8.81	7.37
o Total daily person-trips per resident	4.30	4.65	2.63	4.65	3.88	2.86	3.96	3.70	3.61	3.51	2.49
o Person-trips in network AM peak	1880	917	401	1046	2807	1042	639	629	1018	569	851
o Person-trips in network PM peak	1517	939	1169	1068	1732	1085	675	557	896	655	854
Vehicle Trips:											
o Peak 1-hour vehicle-trips	1170	710	875	932	1625	944	384	446	627	480	555
o Time of peak 1-hour vehicle-trips	08:00-09:00	17:30-18:30	07:30-08:30	17:00-18:00	08:00-09:00	17:00-18:00	08:00-09:00	17:00-18:00	16:45-17:45	17:15-18:15	07:45-08:45
o Peak vehicle-trips per dwelling	1.22	1.05	0.59	1.39	1.32	0.71	0.75	0.80	0.90	0.87	0.61
o Peak vehicle-trips per resident	0.35	0.34	0.20	0.44	0.36	0.23	0.31	0.32	0.31	0.35	0.21
o Total daily vehicle-trips	9237	6962	7816	6914	11983	8888	3325	3635	4962	3521	4670
o Total daily vehicle-trips per dwelling	9.66	10.30	5.23	10.33	9.70	6.66	6.53	6.54	7.12	6.36	5.16
o Total daily vehicle-trips per resident	2.76	3.34	1.82	3.30	2.63	2.21	2.66	2.64	2.44	2.53	1.74
o Vehicle-trips in network AM peak	1170	598	297	649	1625	790	384	368	591	372	543
o Vehicle-trips in network PM peak	1070	709	653	744	1271	808	334	446	552	460	485
o Car Occupancy (average over survey period)	1.25	1.24	1.30	1.28	1.38	1.21	1.35	1.28	1.42	1.32	1.33
% of total trips by mode:											
o % Car (as driver)	61.2%	68.7%	67.7%	68.6%	65.3%	75.2%	65.6%	68.2%	66.7%	70.2%	67.1%
o % Car (as passenger)	15.2%	16.8%	20.5%	18.9%	25.0%	16.1%	23.2%	19.0%	27.9%	22.1%	21.9%
o % Train	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
o % Bus	16.9%	4.5%	5.2%	5.6%	4.0%	3.5%	4.3%	7.0%	2.9%	5.9%	6.2%
o % Cycle	0.3%	0.4%	0.7%	0.7%	0.2%	0.3%	1.3%	0.5%	0.3%	0.1%	0.3%
o % On foot	5.4%	6.8%	4.3%	4.9%	3.5%	3.0%	4.4%	3.6%	1.8%	1.0%	2.6%
o % Other	1.0%	2.9%	1.6%	1.3%	2.0%	1.8%	1.3%	1.7%	0.4%	0.6%	1.8%

APPENDIX B1 – HIGH DENSITY RESIDENTIAL – WEEKDAYS

	Sydney Metropolitan Area					Regional Area				
Site No.	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 10	Site 8	Site 9
Location	St Leonards	Chatswood	Cronulla	Rockdale	Parramatta	Liberty Grove	Strathfield	Pyrmont	Charlestown	Wollongong
Total Units	70	129	28	234	83	64	31	131	108	9
1 Bed	15	8	0	4	9	0	0	70	31	0
2 Bed	24	96	14	214	57	36	31	54	53	0
3+ Bed	31	25	14	16	17	28	0	7	24	9
Parking Spaces	97	206	18	260	108	93	30	199	113	19
Parking Ratio	1.39	1.60	0.64	1.11	1.30	1.45	0.97	1.52	1.05	2.11
Person Based Trips										
Daily Person Based Trips*										
- Car Based	65	245	27	720	177	284	40	160	527	53
- Other	179	445	56	535	239	132	89	240	124	25
- Total	244	690	83	1255	416	416	129	400	651	78
Average Person Trips Per hour*	19	53	6	97	32	32	10	31	50	6
Peak Person Trips	47	129	18	194	104	73	28	91	79	14
Peak Vehicle-Hour Person Trips	47	129	16	194	104	66	28	91	86	10
Peak Network Hour Person Trips										
- AM Peak	45	83	9	189	79	46	16	91	57	8
- PM Peak	38	106	4	123	54	58	13	60	70	10
% Mode Split										
Car Driver	22%	23%	31%	42%	33%	48%	28%	34%	73%	55%
Car Passenger	5%	12%	1%	15%	9%	20%	3%	6%	8%	13%
Non-Car	73%	64%	67%	43%	57%	32%	69%	60%	19%	32%
Vehicle-Based Trips										
Daily Vehicle Trips*	54	159	26	527	139	201	36	135	472	43
Peak Vehicle Trips	13	25	7	76	22	38	5	23	67	8
Peak Network Hour Vehicle Trips										
- AM Peak	10	18	2	76	22	18	3	23	42	6
- PM Peak	5	15	3	43	10	26	2	13	45	2
- % Car Parking Occupancy	62%	62%	-*	75%	77%	73%	73%	50%	78%	74%
Average Vehicle Occupancy										
- AM Peak	1.5	1.4	1.0	1.3	1.3	1.1	1.0	1.1	1.0	1.2
- PM Peak	1.4	1.6	1.0	1.4	1.5	1.4	1.0	1.1	1.2	1.0
- Average Over the Day*	1.2	1.5	1.0	1.4	1.3	1.4	1.1	1.2	1.1	1.2

APPENDIX B2 – HIGH DENSITY RESIDENTIAL - SATURDAYS

	Sydney Metropolitan Area								Regional Area	
Site No.	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 10	Site 8	Site 9
Location	St Leonards	Chatswood	Cronulla	Rockdale	Parramatta	Liberty Grove	Strathfield	Pyrmont	Charlestown	Wollongong
Total Units	70	129	28	234	83	64	31	131	108	9
1 Beds	15	8	0	4	9	0	0	70	31	0
2 Beds	24	96	14	214	57	36	31	54	53	0
3+ Bed	31	25	14	16	17	28	0	7	24	9
Parking Spaces	97	206	18	260	108	93	30	199	113	19
Person Based Trips										
Daily Person Based Trips*										
- Car Based	220	288	26	589	181	252	75	217	304	55
- Other	494	501	90	683	306	175	158	420	205	40
- Total	714	789	116	1272	487	427	233	637	509	95
Average Person Trips*	55	61	9	98	37	33	18	49	39	7
Peak Person Trips	217	132	23	181	70	64	31	104	66	17
Peak Vehicle-Hour Person Trips	106	92	23	154	70	59	27	63	63	16
Peak Network Hour Person Trips	44	92	15	154	34	50	26	93	55	8
% Mode Split										
Car Driver	18%	23%	15%	31%	24%	30%	22%	23%	50%	35%
Car Passenger	12%	13%	8%	15%	14%	29%	10%	11%	10%	23%
Other	69%	63%	78%	54%	63%	41%	68%	66%	40%	42%
Vehicle-Based Trips										
Daily Vehicle Trips*	132	182	17	394	115	129	51	145	252	33
Peak Vehicle Trips	22	27	5	54	18	20	10	25	42	7
Peak Network Hour Vehicle Trips	17	21	3	54	9	14	6	21	35	2
Peak Parking Accumulation										
- % Car Parking Occupancy	56%	58%	-*	77%	68%	69%	63%	44%	65%	79%
Average Vehicle Occupancy										
- Peak Hour	1.5	1.6	1.7	1.3	1.9	2.0	1.8	1.4	1.1	2.0
- Average Over the Day*	1.7	1.6	1.5	1.5	1.6	2.0	1.5	1.5	1.2	1.7

**Parking accumulation for the Cronulla site could not be determined accurately as some car spaces were enclosed*

APPENDIX B3 – HIGH DENSITY RESIDENTIAL – GENERATION RATES

	Sydney Metropolitan Area								Regional Area	
Site No.	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 9
Location	St Leonards	Chatswood	Cronulla	Rockdale	Parramatta	Liberty Grove	Strathfield	Pyrmont	Charlestown	Wollongong
Weekday										
AM Peak Person Trips per Unit	0.64	0.64	0.32	0.81	0.95	0.72	0.52	0.69	0.53	0.89
AM Peak Person Trips per Car Space	0.39	0.51	0.22	0.47	0.50	0.62	0.43	0.30	0.62	0.53
AM Peak Person Trips per Bedroom	0.29	0.30	0.13	0.39	0.45	0.29	0.26	0.46	0.27	0.30
PM Peak Person Trips per Unit	0.54	0.82	0.14	0.53	0.65	0.91	0.42	0.46	0.65	1.11
PM Peak Person Trips per Car Space	0.54	0.82	0.14	0.53	0.65	0.91	0.42	0.46	0.65	1.11
PM Peak Person Trips per Bedroom	0.24	0.39	0.06	0.26	0.31	0.37	0.21	0.30	0.33	0.37
Daily Person Trips per Unit	3.49	5.35	2.96	5.36	5.01	6.50	4.16	3.05	6.03	8.67
Daily Person Trips per Car Space	2.52	3.35	4.61	4.83	3.85	4.47	4.30	2.01	5.76	4.11
Daily Person Trips per Bedroom	1.56	2.51	1.19	2.61	2.39	2.67	2.08	2.01	3.11	2.89
AM Peak Vehicle Trips per Unit	0.14	0.14	0.07	0.32	0.27	0.28	0.10	0.18	0.39	0.67
AM Peak Vehicle Trips per Car Space	0.10	0.09	0.11	0.29	0.20	0.19	0.10	0.12	0.37	0.32
AM Peak Vehicle Trips per Bedroom	0.06	0.07	0.03	0.16	0.13	0.12	0.05	0.12	0.20	0.22
PM Peak Vehicle Trips per Unit	0.07	0.12	0.11	0.18	0.12	0.41	0.06	0.10	0.42	0.22
PM Peak Vehicle Trips per Car Space	0.05	0.07	0.17	0.17	0.09	0.28	0.07	0.07	0.40	0.11
PM Peak Vehicle Trips per Bedroom	0.03	0.05	0.04	0.09	0.06	0.17	0.03	0.07	0.22	0.07
Daily Vehicle Trips per Unit	0.77	1.23	0.93	2.25	1.67	3.14	1.16	1.03	4.37	4.78
Daily Vehicle Trips per Car Space	0.56	0.77	1.44	2.03	1.29	2.16	1.20	0.68	4.18	2.26
Daily Vehicle Trips per Bedroom	0.35	0.58	0.37	1.10	0.80	1.29	0.58	0.68	2.26	1.59
Saturday										
Peak Hour Person Trips per Unit	3.10	1.02	0.82	0.77	0.84	1.00	1.00	0.79	0.61	1.89
Peak Hour Person Trips per Car Space	2.24	0.64	1.28	0.70	0.65	0.69	1.03	0.52	0.58	0.89
Peak Hour Person Trips per Bedroom	0.68	0.33	0.33	0.32	0.40	0.38	0.44	0.32	0.30	0.59
Daily Person Trips per Unit	10.20	6.12	4.14	5.44	5.87	6.67	7.52	4.86	4.71	10.56
Daily Person Trips per Car Space	7.36	3.83	6.44	4.89	4.51	4.59	7.77	3.20	4.50	5.00
Daily Person Trips per Bedroom	4.58	2.87	1.66	2.65	2.80	2.74	3.76	3.20	2.44	3.52
Peak Hour Vehicle Trips per Unit	0.31	0.21	0.18	0.23	0.22	0.31	0.32	0.19	0.39	0.78
Peak Hour Vehicle Trips per Car Space	0.23	0.13	0.28	0.21	0.17	0.22	0.33	0.13	0.37	0.37
Peak Hour Vehicle Trips per Bedroom	0.14	0.10	0.07	0.11	0.10	0.13	0.16	0.13	0.20	0.26
Daily Vehicle Trips per Unit	1.89	1.41	0.61	1.68	1.39	2.02	1.65	1.11	2.33	3.67
Daily Vehicle Trips per Car Space	1.36	0.88	0.94	1.52	1.06	1.39	1.70	0.73	2.23	1.74
Daily Vehicle Trips per Bedroom	0.85	0.66	0.24	0.82	0.66	0.83	0.82	0.73	1.21	1.22

APPENDIX C1 – SENIORS LIVING – SITE DETAILS

Site ID	SH1	SH2	SH3	SH4	SH5	SH6	SH7	SH8	SH9	SH10
Suburb	Dee Why 2099	Allambie Heights 2100	North Parramatta 2151	Richmond 2753	Prestons 2170	Bonnells Bay 2264	Wamberal 2260	Kincumber 2251	Tahmoor 2573	Bowral 2576
Network Peak Hours										
Year of Network Survey Dates	2005	2009 21/3-27/3	2005	2009 23/3-29/3	2009 6/4-12/4	2009 21/3-1/4	2004	2009 21/03-25/3	2009 19/3-25/3	2006
AM Peak - Weekdays	0800-0900	0800-0900	0800-0900	0800-0900	0900-1000	0900-1000	0800-0900	1100-1200	0900-1000	0800-0900
PM Peak - Weekdays	1700-1800	1700-1800	1700-1800	1500-1600	1600-1700	1500-1600	1500-1600	1600-1700	1700-1800	1500-1600
Peak - Weekends	1200-1300	1200-1300	1200-1300	1100-1200	1200-1300	1100-1200	1200-1300	1100-1200	1100-1200	1100-1200
Site Details - Senior Housing										
Accommodation Type	S + H	S + H	S + H + A	S + H + A	S + H	S	S	S	S	S + H
Funded (Resident / Government)	Resident	Resident	Resident	Resident	Both	Resident	Resident	Resident	Resident	Resident
Original Unit Cost	200k-250k	200k-480k	180k-220k	Unknown	135k-175k	300k-400k	90k-95k	365k-520k	95K	385k-645k
Year Constructed	1988-2000	1966-2009	1994-2001	1983-2005	1999-2003	1996	1983-1986	2002-2007	1997	1986
Village Bus	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
Village Bus Frequency per week	9	2	10	2	4	4	No	3	No	No
No. of Units Provided (Total)	272	83	276	174	214	250	62	76	42	86
No. of Occupied Units (Self)	180	40	116	43	147	240	51	70	38	68
No. of Residents (Self)	226	48	157	43	217	350	51	92	50	100-110
No. of Occupied Units (Low-care)	25	38	50	61	67	N/A	N/A	N/A	N/A	13
No. of Residents (Low-care)	25	39	50	61	67	N/A	N/A	N/A	N/A	
No. of Occupied beds (High-care)	N/A	N/A	98	70	N/A	N/A	N/A	N/A	N/A	N/A
No. of Residents (High-care)	N/A	N/A	98	70	N/A	N/A	N/A	N/A	N/A	N/A
No. of employee (Total)	15	32	160	130	30	8	3	10	1	19
No. of employee (at one time)	N/A	12	45	30-40	<30	8	2	1	1	19
Accessbility Score	<79	<79	<79	<79	<79	0.5	32	32	6.5	8
Parking Spaces										
Residents	110	17	82	26	155	500	62	111	42	80
Staff	as Visitor	16	25	as Visitor	11	4	as Visitor	as Visitor	1	as Vistor
Visitors / Loading bays	32	11	32	52	28	75	11	28	16	10
Total	142	44	139	78	194	579	73	139	59	90
Cars Ownership										
No Car	Unknown		54		83	0	16	4	16	
1 Car	Unknown	17	59	15	83	230	37	39	22	60
2 Cars	Unknown		5		0	10	0	10	0	
No. of Cars (Total)	Unknown	17	69	15	83	250	37	59	22	60

Source: Trip Generation and Parking Generation Surveys, Housing for Seniors, Analysis Report, Hyder for the NSW Roads and Traffic Authority, June 2009, p7

APPENDIX C2 – SENIORS LIVING, TRIPS PER OCCUPIED UNIT - WEEKDAY

	Sydney Metropolitan Area					Non-Metropolitan Area				
Site ID	**SH1**	**SH2**	**SH3**	**SH4**	**SH5**	**SH6**	**SH7**	**SH8**	**SH9**	**SH10**
No. of Occupied Units (Total)	**205**	**78**	**264**	**174**	**214**	**240**	**71**	**70**	**38**	**81**
Weekdays										
Person-based Trips										
- Site Peak Hour	126	31	110	80	91	149	31	39	34	44
Trips/ Unit	0.61	0.40	0.42	0.46	0.43	0.62	0.61	0.56	0.89	0.54
- Vehicle Network AM Peak Trips/ Unit	Network AM peak is outside of survey periods									
- Vehicle Network PM Peak	116	8	23	56	44	86	26	22	1	43
Trips/ Unit	0.57	0.10	0.09	0.32	0.21	0.36	0.51	0.31	0.03	0.53
Daily Total Person Trips	854	163	653	481	528	1,037	182	225	139	269
Trips/ Units	4.17	2.09	2.47	2.76	2.47	4.32	3.57	3.21	3.66	3.32
Vehicle-based Trips										
- Site Peak Hour	87	20	62	55	54	105	20	27	21	37
Trips/ Unit	0.42	0.26	0.23	0.32	0.25	0.44	0.39	0.39	0.55	0.46
- Network AM Peak Trips/ Unit	Network AM peak is outside of survey periods									
- Network PM Peak	74	5	12	41	36	54	16	16	1	27
Trips/ Unit	0.36	0.06	0.05	0.24	0.17	0.23	0.31	0.23	0.03	0.33
Daily Total Car Trips	584	95	351	285	294	685	100	146	63	204
Trips/ Unit	2.85	1.22	1.33	1.64	1.37	2.85	1.96	2.09	1.66	2.52
Daily Total CV Trips	9	10	30	26	38	59	9	6	12	5
Trips/ Unit	0.04	0.13	0.11	0.15	0.18	0.25	0.18	0.09	0.32	0.06
Daily Total Vehicle Trips	593	105	381	311	332	744	109	152	75	209
Trips/ Unit	2.89	1.35	1.44	1.79	1.55	3.10	2.14	2.17	1.97	2.58
% CV	1.5%	9.5%	7.9%	8.4%	11.4%	7.9%	8.3%	3.9%	16.0%	2.4%

* CV - Commercial Vehicle

Source: Trip Generation and Parking Generation Surveys, Housing for Seniors, Analysis Report, Hyder for the NSW Roads and Traffic Authority, June 2009, p14

APPENDIX C3 –SENIORS LIVING, TRIPS PER OCCUPIED UNIT - WEEKENDS

	Sydney Metropolitan Area					Non-Metropolitan Area				
Site ID	**SH1**	**SH2**	**SH3**	**SH4**	**SH5**	**SH6**	**SH7**	**SH8**	**SH9**	**SH10**
No. of Occupied Units (Total)	**205**	**78**	**264**	**174**	**214**	**240**	**71**	**70**	**38**	**81**
Weekend										
Person-based Trips										
- Site Peak Hour	31	29	95	73	89	123	28	35	22	46
Trips/ Unit	0.15	0.37	0.36	0.42	0.42	0.51	0.55	0.50	0.58	0.57
- Vehicle Network Peak	13	16	76	44	47	123	6	35	15	37
Trips/ Unit	0.06	0.21	0.29	0.25	0.22	0.51	0.12	0.50	0.39	0.46
Daily Total Person Trips	163	151	620	373	483	452	119	111	114	182
Trips/ Units	0.80	1.94	2.35	2.14	2.26	1.88	2.33	1.59	3.00	2.25
Vehicle-based Trips										
- Site Peak Hour	20	15	56	46	50	85	15	20	11	33
Trips/ Unit	0.10	0.19	0.21	0.26	0.23	0.35	0.29	0.29	0.29	0.41
- Network Peak	9	11	45	30	31	79	3	18	6	27
Trips/ Unit	0.04	0.14	0.17	0.17	0.14	0.33	0.06	0.26	0.16	0.33
Daily Total Car Trips	95	95	334	241	268	312	56	65	58	131
Trips/ Unit	0.46	1.22	1.27	1.39	1.25	1.30	1.10	0.93	1.53	1.62
Daily Total CV Trips	10	2	22	7	16	3	0	0	2	3
Trips/ Unit	0.05	0.03	0.08	0.04	0.07	0.01	0.00	0.00	0.05	0.04
Daily Total Vehicle Trips	105	97	356	248	284	315	56	65	60	134
Trips/ Unit	0.51	1.24	1.35	1.43	1.33	1.31	1.10	0.93	1.58	1.65
% CV	9.5%	2.1%	6.2%	2.8%	5.6%	1.0%	0.0%	0.0%	3.3%	2.2%

* CV – Commercial Vehicle

Source: Trip Generation and Parking Generation Surveys, Housing for Seniors, Analysis Report, Hyder for the NSW Roads and Traffic Authority, June 2009, p14

APPENDIX D1 – OFFICE BLOCKS – SITE DETAILS

	OB1 North Sydney	OB2 Chatswood	OB3 Sydney Olympic Park	OB4 Hurstville	OB5 Macquarie Park	OB6 Parramatta	OB7 Liverpool	OB8 Norwest	OB9 Newcastle	OB10 Wollongong
Total Staff	1,136 (1,129)	397 (347)	2,400 (2,053)	95 (85)	240 (240)	1,400 (1,225)	99 (88)	34 (31)	490 (490)	380 (300)
Size	31,400	10,214	34,131	3,254	5,748	27,000	2,817	1,200	12,182	12,921
Car and Bicycle Parking spaces	136	150	902	66	269	402	28	83	220	133
Loading Bays	1	6	7	0	3	3	0	1	0	1
Accessibility Score	0.9	0.9	0.4	0.9	0.9	0.9	0.9	0.6	0.9	0.9

Source: Trip Generation and Parking Generation Surveys (Office Blocks), GTA Consultants for the NSW Roads and Traffic Authority, September 2010, p113

APPENDIX D2 – OFFICE BLOCKS – VEHICLE-BASED TRIP RATES

	OB1 North Sydney	OB2 Chatswood	OB3 Sydney Olympic Park	OB4 Hurstville	OB5 Macquarie Park	OB6 Parramatta	OB7 Liverpool	OB8 Norwest	OB9 Newcastle	OB10 Wollongong	Average
AM Peak Hour											
Trips	52	105	505	93	119	185	70	33	126	123	141
Trips/100m² GFA	0.17	1.03	1.48	2.86	2.07	0.69	2.49	2.75	1.03	0.95	1.55
PM Peak Hour											
Trips	44	86	481	60	106	166	48	14	139	100	124
Trips/100m² GFA	0.14	0.84	1.41	1.84	1.84	0.61	1.70	1.17	1.14	0.77	1.15
Daily											
Trips	387	710		623	906	1636	518	138	1615	838	819
Trips/100m² GFA	1.23	6.95		19.15	15.76	6.06	18.39	11.50	13.26	6.49	10.98
Road Network AM Peak Hour											
Trips	51	47	-	65	119	185	57	30	126	123	89
Trips/100m² GFA	0.16	0.46	-	2.00	2.07	0.69	2.02	2.50	1.03	0.95	1.19
Road Network PM Peak Hour											
Trips	44	36	-	60	72	75	46	10	137	100	64
Trips/100m² GFA	0.14	0.35	-	1.84	1.25	0.28	1.63	0.83	1.12	0.77	0.82

Source: Trip Generation and Parking Generation Surveys (Office Blocks), GTA Consultants for the NSW Roads and Traffic Authority, September 2010, p114

APPENDIX D3 – OFFICE BLOCKS – PERSON-BASED TRIP RATES

	OB1 North Sydney	OB2 Chatswood	OB3 Sydney Olympic Park	OB4 Hurstville	OB5 Macquarie Park	OB6 Parramatta	OB7 Liverpool	OB8 Norwest	OB9 Newcastle	OB10 Wollongong	Average
AM Peak Hour											
Trips	397	249	842	119	142	387	95	34	172	158	260
Trips/100m² GFA	1.26	2.44	2.47	3.66	2.47	1.43	3.37	2.83	1.41	1.22	2.26
PM Peak Hour											
Trips	338	205	801	77	126	349	65	14	191	128	229
Trips/100m² GFA	1.08	2.01	2.35	2.37	2.19	1.29	2.31	1.17	1.57	0.99	1.73
Daily											
Trips	2,975	1,691	-	802	1,079	5,114	700	142	2,213	1,074	1754
Trips/100m² GFA	9.47	16.56	-	24.65	18.77	18.94	24.85	11.83	18.17	8.31	16.84
Road Network AM Peak Hour											
Trips	391	111	-	104	142	266	58	31	172	158	159
Trips/100m² GFA	1.25	1.09	-	3.20	2.47	0.99	2.06	2.58	1.41	1.22	1.81
Road Network PM Peak Hour											
Trips	338	90	-	67	86	298	48	10	190	128	139
Trips/100m² GFA	1.08	0.88	-	2.06	1.50	1.10	1.70	0.83	1.56	0.99	1.30

Source: Trip Generation and Parking Generation Surveys (Office Blocks), GTA Consultants for the NSW Roads and Traffic Authority, September 2010, p116

APPENDIX E – BUSINESS PARKS AND INDUSTRIAL ESTATES – SITE DETAILS AND TRIP GENERATION

Traffic results summary

	Sydney areas				Non-Sydney areas						
Survey area ID	Site 1 Erskine Park Industrial Estate, Erskine	Site 2 Helensburgh Business Park, Helensburgh	Site 3 Wonderland Business Park, Eastern Creek	Site 4 Riverwood Business Park, Riverwood	Site 5 Tuggerah Business Park, Tuggerah	Site 6 Central Business Park, Albion Park Rail	Site 7 Anambah Business Park, Rutherford	Site 8 Freeway Business Park, Beresfield	Site 9 Shearwater Business Park, Taylors Beach	Site 10 Port Stephens Industrial Estate, Taylors	Site 11 Johnson Street Business Park, Dubbo
Date of survey	29/03/2012	28/03/2012	27/03/2012	28/03/2012	1/05/2012	8/05/2012	2/05/2012	1/05/2012	2/05/2012	2/05/2012	10/05/2012
Day of survey	Thursday	Wednesday	Tuesday	Wednesday	Tuesday	Tuesday	Wednesday	Tuesday	Wednesday	Wednesday	Thursday
Duration of survey	06:00-19:00	07:00-19:00	07:00-19:00	07:00-19:00	07:00-19:00	07:00-19:00	06:00-19:00	07:00-19:00	06:00-19:00	06:00-19:00	06:00-19:00
Surrounding area characteristics:											
Surrounding landuse (eg residential, commercial, open space, etc)	Commercial	Residential	Residential	Residential	Commercial	Residential	Open space	Commercial	Open space	Open space	Residential
Indicative Public Transport Accessibility Score	2	2	4	8	48	10	0	0.5	0.5	0.5	0
Principal adjacent road- AM peak period (weekday	8.00 to 9.00 am	8.30 to 9.30 am	7.30 to 8.30 am	8.15 to 9.15 am	8.00 to 9.00 am	8.00 to 9.00 am	8.00 to 9.00 am	7.00 to 8.00 am	8.00 to 9.00 am	8.00 to 9.00 am	8.00 to 9.00 am
Principal adjacent road - PM peak period (weekday	3.30 to 4.30pm	4.30 to 5.30pm	4.15 to 5.15pm	5.00 to 6.00pm	3.00 to 4.00pm	4.00 to 5.00pm	4.00 to 5.00pm	5.00 to 6.00pm	4.00 to 5.00pm	4.00 to 5.00pm	3.00 to 4.00pm
Principal adjacent road – daily peak period (weeke	1.00 to 2.00 pm	11.00 am to 12.00 p	12.15 to 1.15 pm	1.15 to 2.15 pm	11.00 am to 12.00	11.00 am to 12.00	2.00 to 3.00 pm	12.00 to 1.00 pm	11.00 am to 12.00	11.00 am to 12.00 pm	10.0 to 11.00 am
Estate characteristics:											
Year opened	2003	2011	2007	2004	2006	2000-2005	2008-2010	2005	2003-2005	2001-2005	Late 1980s
Total site area (hectares)	326.9	0.6	114.6	4.7	52.2	14.6	17.5	32.5	10.3	5.9	6.3
No. of units/lots (including vacant units/lots)	38	21	26	16	229	79	18	58	90	42	14
No. of occupied units/lots	36	13	22	16	184	66	18	52	44	27	14
Predominant business types within estate:											
no. of factories	5	0	0	0	6	0	1	5	0	0	1
no. of factories/warehouses	2	0	0	0	2	0	0	2	0	0	0
no. of warehouses	27	0	20	15	41	13	9	23	5	3	11
no. of offices	1	9	0	1	93	4	3	7	7	1	1
no of retailers	0	0	0	0	16	25	1	2	12	6	0
no. of workshops	1	0	0	0	0	9	3	7	6	1	0
no. of manufacturers	0	3	2	0	2	0	0	2	2	10	0
no. of others commercial businesses	0	1	0	0	23	15	5	2	12	5	1
Gross Floor Area in estate m² (occupied)	693,605	1,605	405,600	29,983	136,737	42,899	29,760	89,291	16,022	19,881	14,419
No. of employees	incomplete data from businesses			231	incomplete data from businesses		182	incomplete data from businesses			
Person Trips:											
Peak 1-hour person-trips	1294	29	927	173	1458	510	204	575	285	97	149
Time of peak 1-hour person-trips	14:45-15:45	14:45-15:45	14:00-15:00	08:15-09:15	16:30-17:30	16:15-17:15	15:00-16:00	07:00-08:00	16:15-17:15	15:00-16:00	16:15-17:15
Peak person-trips per business	35.9	2.2	42.1	10.8	8	7.7	11.3	11.1	6.5	3.6	10.6
Peak person-trips per hectare	4	49.4	8.1	37.0	28	35.6	11.6	17.7	27.7	16.5	23.6
Peak person-trips per 100 m² of GFA	0.187	1.807	0.228	0.577	1.066	1.210	0.685	0.644	1.779	0.488	1.033
Peak person-trips per employee	incomplete data from businesses			0.749	incomplete data from businesses		1.121	incomplete data from businesses			
Total daily person-trips	14056	168	9929	1410	2096	4205	2064	6399	2389	975	1316
Total daily person-trips per business	390.4	13.0	451.3	88	65.6	63.7	114.6	123.1	54.3	36.1	94.0
Total daily person-trips per hectare	43.0	287.0	86.6	301.5	231.4	286.7	117.6	197.1	232.0	165.5	208.8
Total daily person-trips per 100 m² of GFA	2.026	10.492	2.447	4.701	6.824	9.802	6.933	7.167	14.910	4.904	9.129
Total daily person-trips per employee	incomplete data from businesses			6.109	incomplete data from businesses		11.339	incomplete data from businesses			
Person-trips during adjacent road AM peak	976	24	89	173	1408	270	123	575	176	93	120
Person-trips during adjacent road PM peak	1073	7	858	94	1060	478	160	396	258	54	136
Vehicle Trips:											
Peak 1-hour vehicle-trips	1128	24	920	129	1256	418	173	504	209	78	118
Time of peak 1-hour vehicle-trips	14:45-15:45	14:45-15:45	08:00-09:00	08:15-09:15	08:00-09:00	16:15-17:15	15:00-16:00	07:15-08:15	16:15-17:15	15:00-16:00	15:00-16:00
Peak vehicle-trips per business	31	1.8	37.3	8.1	6.8	6.3	9.6	9.7	4.8	2.9	8.3
Peak vehicle-trips per hectare	3.5	40.9	7.2	27.6	24.1	28.7	9.9	15.5	20.3	13.2	18.4
Peak vehicle-trips per 100 m² of GFA	0.163	1.495	0.202	0.430	0.919	0.974	0.581	0.564	1.304	0.392	0.805
Peak vehicle-trips per employee	incomplete data from businesses			0.558	incomplete data from businesses		0.951	incomplete data from businesses			
Total daily vehicle-trips	13125	166	9364	1116	10383	4619	1793	5876	1921	751	1246
Total daily vehicle-trips per business	364.6	12.9	426.5	69.75	56.4	70.0	99.6	113.0	43.7	27.8	89.0
Total daily vehicle-trips per hectare	40.1	286.3	81.9	238.6	199.1	317.2	102.2	181.0	186.5	127.5	197.7
Total daily vehicle-trips per 100 m² of GFA	1.892	10.467	2.308	3.722	7.593	10.767	6.024	6.581	11.990	3.777	8.642
Total daily vehicle-trips per employee	incomplete data from businesses			4.83	incomplete data from businesses		9.85	incomplete data from businesses			
Vehicle-trips in adjacent road AM peak (Average)	1165	126	2749	1608	2594	1131	112	1645	670	670	315
Vehicle-trips in adjacent road PM peak (Average)	972	149	2593	1613	2844	1281	150	1789	805	805	341
Vehicle-trips during adjacent road AM peak	929	19	724	129	1256	246	111	495	147	64	108
Vehicle-trips during adjacent road PM peak	965	5	714	69	794	382	127	354	187	42	116
Average vehicle occupancy	1.10	1.10	1.12	1.16	1.17	1.16	1.17	1.17	1.26	1.19	1.15
% of total trips by principal mode:											
% Car (as driver)	62.5%	81.9%	63.2%	68.8%	79.1%	78.5%	70.0%	69.1%	74.3%	71.1%	66.1%
% Car (as passenger)	8.0%	8.3%	8.3%	12.3%	11.2%	13.4%	13.4%	9.6%	19.5%	14.1%	10.9%
% Commercial Vehicles	28.3%	4.2%	25.9%	12.6%	4.9%	6.2%	15.5%	18.3%	4.3%	8.9%	21.8%
% Bus	0.8%	0.0%	2.1%	0.5%	3.2%	0.0%	0.0%	2.2%	0.0%	0.0%	0.2%
% Cycle	0.1%	0.0%	0.3%	0.1%	0.3%	0.6%	0.2%	0.4%	0.8%	1.3%	0.1%
% Motorbike	0.1%	0.0%	0.0%	0.0%	0.3%	0.4%	0.0%	0.3%	0.9%	3.8%	0.2%
% On foot	0.1%	5.6%	0.2%	5.7%	1.1%	0.8%	0.6%	0.0%	0.3%	0.9%	0.4%
% Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.4%

Source: Trip Generation Surveys, Business Parks and Industrial Estates, TEF Consulting, in consultation with Gennaoui Consulting Pty Ltd, for the NSW RMS, December 2012, p5

APPENDIX F1 – SHOPPING CENTRES – DETAILS OF SELECTED SITES

Site ID	Sydney Metropolitan Area							Regional Area		
	SC1 Roselands	SC2 Burwood	SC3 Liverpool	SC4 Penrith	SC5 Prairiewood	SC6 Rouse Hill	SC7 Warriewood	SC8 Wollongong	SC9 Shellharbour	SC10 Tuggerah
Network Peak Hours										
Year	2008	2011	2008	2009	2011	2008	2008	2008	2000	2004
AM Peak - Weekdays	7-8AM	8-9AM	8-9AM	8-9AM	8-9AM	8-9AM	8-9AM	9-10AM	8-9AM	8-9AM
PM Peak - Weekdays	5-6PM	3-4PM	4-5PM	4-5PM	5-6PM	5-6PM	5-6PM	4-5PM	3-4PM	3-4PM
Peak - Weekends	1-2PM	10-11AM	1-2PM	12-1PM	12-1PM	12-1PM	12-1PM	1-2PM	11AM-12PM	11AM-12PM
Site Details - Shopping Centre										
Gross Leasable Floor Area (m^2)	61,424	63,404	91,115	100,134	49,898	69,000	22,143	15,552	41,040	87,162
Year Constructed	1965	1966	1972	1971	1983	2008	1980	2007	1982	1995
Busy Peak Period	Saturday Midday	Saturday PM	Saturday Midday	Saturday Midday	Saturday Midday	Sunday Midday	Saturday Midday	Saturday Midday	Saturday Midday	Saturday Midday
Accessibility Score	40	233	268	200	96	184	64	22	67	105
Opening Hours										
Mon, Tue, Wed & Fri	9AM - 5:30PM	9AM - 5:30PM	9AM - 5:30PM	9AM - 5:30PM	9AM - 5:30PM	9AM - 5:30PM	9AM - 5:30PM	9AM - 5:30PM	9AM - 5:30PM	9AM - 5:30PM
Thu	9AM - 9PM	9AM - 9PM	9AM - 9PM	9AM - 9PM	9AM - 9PM	9AM - 9PM	9AM - 9PM	9AM - 9PM	9AM - 9PM	9AM - 9PM
Sat	9AM - 4PM	9AM - 5PM	9AM - 5PM	9AM - 5PM	9AM - 5PM	9AM - 5PM	9AM - 4PM	9AM - 5PM	9AM - 4PM	9AM - 5PM
Sun	10AM - 4PM	10AM - 5PM	10AM - 5PM	10AM - 4PM	10AM - 4PM	10AM - 5PM	10AM - 4PM	10AM - 4PM	10AM - 4PM	10AM - 4PM
Parking Spaces										
Customer	2,539	2,972	2,893	3,382	1,467	2,470	986	727	1,668	3,187
Disabled	67	38	78	60	35	75	18	16	44	66
Staff	140	-	514	-	369	553	-	5	-	-
Loading Bay/Reserved	90	23	29	110	15	38	20	16	12	4
Total	2,836	3,033	3,514	3,552	1,886	3,136	1,024	764	1,724	3,257
Survey Information										
Date of survey - Weekdays	25 & 26/11/10	24 & 25/03/11	19 & 20/05/11	7 & 8/04/11	28 & 29/04/11	17 & 18/03/11	3 & 4/03/11	10 & 11/03/11	5 & 6/05/11	12 & 13/05/11
- Weather	-	Sunny	Sunny	Sunny	Cloudy/Rain	Sunny/Cloudy	Sunny	Cloudy	Sunny	Sunny
Date of survey - Weekends	27 & 28/11/10	26 & 27/03/11	21 & 22/05/11	9 & 10/04/11	30/04 & 1/05/11	19 & 20/03/11	5 & 6/03/11	12 & 13/03/11	7 & 8/05/11	14 & 15/05/11
- Weather	-	Cloudy/Shower	Sunny	Sunny	Cloudy/Rain	Cloudy/Rain	Sunny	Cloudy/Rain	Sunny	Sunny

Source: Trip Generation and Parking Demand of Shopping Centres, Analysis Report, Halcrow for the NSW Roads and Traffic Authority, September 2011, p7

APPENDIX F2 – SHOPPING CENTRES – PERSON TRIP RATES

Trips/100m^2 GLFA	Sydney Metropolitan Area							Regional Area		
	SC1 Roselands	SC2 Burwood	SC3 Liverpool	SC4 Penrith	SC5 Prairiewood	SC6 Rouse Hill	SC7 Warriewood	SC8 Mittagong	SC9 Shellharbour	SC10 Tuggerah
Total GLFA (m2)	61,424	63,404	91,115	100,134	49,898	69,000	22,143	15,552	41,040	87,162
Thursday										
Daily Person Trips	71.00	105.78	95.73	93.45	95.94	67.41	83.83	91.51	89.96	61.06
Peak Person Trips (per Hour)	6.65	9.96	8.50	8.70	8.29	7.58	8.89	9.81	8.40	5.51
Peak Network Hour Person Trips										
- AM Peak	2.75	3.05	3.97	5.63	4.38	2.13	3.11	5.81	5.92	2.59
- PM Peak	6.22	7.72	7.25	8.40	8.11	6.91	7.60	9.42	7.73	5.17
Friday										
Daily Person Trips	52.96	74.18	66.76	61.95	70.98	43.60	71.96	81.83	69.69	47.91
Peak Person Trips (per Hour)	6.47	9.93	8.94	8.81	9.53	5.72	8.68	10.42	8.78	5.39
Peak Network Hour Person Trips										
- AM Peak	2.58	3.49	3.39	4.50	3.52	2.02	3.25	6.53	3.62	2.35
- PM Peak	4.32	8.27	6.05	7.00	9.26	5.69	6.00	10.28	8.03	5.38
Saturday										
Daily Person Trips	67.75	93.11	77.39	69.01	80.97	69.92	83.35	92.28	86.43	55.01
Peak Person Trips (per Hour)	9.23	12.67	10.80	9.82	10.40	10.04	12.26	14.02	12.92	7.19
Peak Network Hour Person Trips	8.24	8.52	10.42	9.34	10.40	10.04	12.23	12.78	12.66	6.84
Sunday										
Daily Person Trips	54.88	84.27	61.68	48.95	63.71	65.34	67.77	73.86	47.76	46.26
Peak Person Trips (per Hour)	8.60	12.45	9.77	8.03	9.67	10.16	10.99	12.49	7.84	7.11
Peak Network Hour Person Trips	8.52	8.88	9.75	8.02	9.30	8.97	9.53	10.74	7.82	6.27

Source: Trip Generation and Parking Demand of Shopping Centres, Analysis Report, Halcrow for the NSW Roads and Traffic Authority, September 2011, p21

APPENDIX F3 – SHOPPING CENTRES – VEHICLE TRIP RATES

Trips/100m^2 GLFA	Sydney Metropolitan Area							Regional Area		
	SC1 Roselands	SC2 Burwood	SC3 Liverpool	SC4 Penrith	SC5 Prairiewood	SC6 Rouse Hill	SC7 Warriewood	SC8 Mittagong	SC9 Shellharbour	SC10 Tuggerah
Total GLFA (m2)	61,424	63,404	91,115	100,134	49,898	69,000	22,143	15,552	41,040	87,162
Thursday										
Daily Vehicle Trips	43.76	34.03	29.51	34.27	60.18	42.22	59.60	60.67	54.99	38.92
Peak Vehicle Trips (per Hour)	3.90	3.10	2.71	3.24	5.21	4.40	6.01	6.21	5.25	3.49
Peak Network Hour Vehicle Trips										
- AM Peak	1.84	0.96	1.01	2.12	2.88	1.43	2.24	4.08	4.06	1.87
- PM Peak	3.72	2.57	2.22	3.14	4.96	4.17	5.19	5.77	4.92	3.31
Friday										
Daily Vehicle Trips	33.46	23.73	21.37	23.80	45.19	28.96	50.92	55.48	46.05	32.05
Peak Vehicle Trips (per Hour)	4.01	3.08	2.84	3.26	5.71	3.63	5.90	6.71	5.75	3.53
Peak Network Hour Vehicle Trips										
- AM Peak	1.65	0.98	1.04	1.54	1.87	1.37	2.42	4.69	2.61	1.70
- PM Peak	2.69	2.66	1.95	2.73	5.49	3.61	4.00	6.41	5.21	3.53
Saturday										
Daily Vehicle Trips	37.20	29.08	23.98	26.09	46.87	39.37	49.61	50.18	48.59	30.32
Peak Vehicle Trips (per Hour)	5.06	3.77	3.16	3.56	5.83	5.60	7.00	7.48	7.04	3.85
Peak Network Hour Vehicle Trips	4.43	2.97	3.04	3.43	5.83	5.60	6.93	6.89	6.99	3.77
Sunday										
Daily Vehicle Trips	30.65	27.00	18.25	19.21	34.71	32.77	39.43	39.78	25.10	24.72
Peak Vehicle Trips (per Hour)	4.79	4.08	2.81	3.13	5.08	5.00	6.25	6.60	4.08	3.76
Peak Network Hour Vehicle Trips	4.79	3.03	2.77	3.04	4.97	4.30	5.58	5.63	4.08	3.31

Source: Trip Generation and Parking Demand of Shopping Centres, Analysis Report, Halcrow for the NSW Roads and Traffic Authority, September 2011, p22

APPENDIX G1 – BULKY GOOD RETAIL – SITE DETAILS

Site ID	BG1	BG2	BG3	BG4	BG5	BG6
Name	Freedom/	Harvey Norman	Retravision	Domayne	Bing Lee	Fantastic
Suburb	Balgowlah	Auburn	Springwood	Kotara	Warilla	South Nowra
	2093	2144	2777	2289	2528	2541
Region	Sydney	Sydney	Blue Mountain	Newcastle	Southern	Southern
Network Peak Hours						
Year of Network Survey Dates	2005	2007	2005	2004	2007	2009
						18/3-24/3
AM Peak - Weekdays	0800-0900	0800-0900	0800-0900	0800-0900	0800-0900	0800-0900
PM Peak - Weekdays	1700-1800	1700-1800	1700-1800	1600-1700	1500-1600	1500-1600
Peak - Weekends	1200-1300	1200-1300	1100-1200	1200-1300	1100-1200	1100-1200
Site Details - Bulky Goods/Hardware						
Area Dimension (m^2)		Approx 9000	1,600			
Gross floor area (m^2)	4,300	25,384 (including car park)	600	6,029	1,200	1,700
No. of Employee (Total)	29	220	5			9
No. of employee (at one time)	10	100	5	50	20	9
Year Constructed	Unknown	2001			2008	
Accessibility Score	80-139	<79	<79	78	26	0
Opening Hours						
Mon-Fri	0900-1800	0900-1730	0900-1730	0900-1730	0900-1730	0900-1730
Sat	0900-1700	0900-1730	0900-1600	0900-1700	0900-1700	0900-1700
Sun	1000-1700	0900-1730	1000-1600	1000-1700	1000-1700	1000-1700
Parking Spaces						
Customers	43	338	13	151	51	30
Disabled	0	12	0	2	4	4
Staff	3	0	0	0	33	9
Loading Bay	4		1	1	4	2
Total	50	350	14	154	92	45
Survey Results						
Date of Survey - Weekdays	19/03/09	12/03/09	12/03/09	12/03/09	19/03/09	26/03/09
	(Thurs)	(Thurs)	(Thurs)	(Thurs)	(Thurs)	(Thurs)
Weather	Sunny	Sunny	Sunny	Sunny/Cloudy	Sunny/Cloudy	Sunny
Date of Survey - Weekend	21/03/09	14/03/09	14/03/09	14/03/09	21/03/09	28/03/09
	(Sat)	(Sat)	(Sat)	(Sat)	(Sat)	(Sat)
Weather	Sunny/Shower	Sunny	Sunny	Sunny/Cloudy	Sunny/Cloudy	Sunny

Source: Trip Generation and Parking Generation Surveys, Bulky Goods/Hardware Stores, Analysis Report, Hyder Consulting for the NSW Roads and Traffic Authority, May 2009, p8

APPENDIX G2 – BULKY GOODS RETAIL –TRIP GENERATION

Trips/ 100m² GFA	Sydney Metropolitan Area BG1 to BG3			Non-Metropolitan Area BG4 to BG6			All Survey Sites BG1 to BG6			Avg Non-metro / Metro %
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	
Weekdays										
Person-based Trips										
- Site Peak Hour	2.42	7.00	4.33	2.64	7.83	4.69	2.42	7.83	4.51	108.2%
- Vehicle Network AM Peak	Network AM peak is outside of opening hours									
- Vehicle Network PM Peak	1.33	2.03	1.68	1.72	4.58	2.99	1.33	4.58	2.46	178.1%
Daily Total Person Trips	15.88	36.33	24.52	19.41	49.92	30.38	15.88	49.92	27.45	123.9%
Vehicle-based Trips										
- Site Peak Hour	1.42	4.33	2.44	1.96	4.75	2.92	1.42	4.75	2.68	119.8%
- Network AM Peak	Network AM peak is outside of opening hours									
- Network PM Peak	0.81	1.21	1.01	1.12	2.25	1.51	0.81	2.25	1.31	149.0%
Daily Total LV Trips	10.16	22.17	14.69	10.00	26.58	17.16	10.00	26.58	15.92	116.8%
Daily Total HV Trips	0.00	3.00	1.07	0.20	2.33	0.92	0.00	3.00	1.00	86.2%
Daily Total Vehicle Trips	10.37	25.17	15.76	10.24	28.92	18.08	10.24	28.92	16.92	114.7%
Peak Parking Accumulation	0.65	3.17	1.57	0.41	2.00	1.03	0.41	3.17	1.30	65.6%
Weekend										
Person-based Trips										
- Site Peak Hour	4.63	11.83	7.90	5.59	14.17	8.67	4.63	14.17	8.28	109.7%
- Vehicle Network Peak	3.81	4.92	4.36	3.12	8.33	5.49	3.12	8.33	4.92	125.9%
Daily Total Person Trips	25.09	39.40	33.72	23.94	70.83	42.37	23.94	70.83	38.05	125.7%
Vehicle-based Trips										
- Site Peak Hour	2.23	6.17	3.75	2.76	5.67	3.94	2.23	6.17	3.85	105.1%
- Vehicle Network Peak	1.70	2.83	2.24	1.35	4.00	2.72	1.35	4.00	2.48	121.4%
Daily Total LV Trips	11.42	19.83	16.05	10.47	33.67	20.81	10.47	33.67	18.43	129.6%
Daily Total HV Trips	0.00	0.33	0.11	0.03	0.50	0.22	0.00	0.50	0.16	195.2%
Daily Total Vehicle Trips	11.42	20.17	16.16	10.59	34.17	21.02	10.59	34.17	18.59	130.1%
Peak Parking Accumulation	0.91	2.17	1.57	0.35	2.25	1.15	0.35	2.25	1.36	73.2%
Weekend / Weekdays %										
Person-based Trips										
- Site Peak Hour	191.3%	242.9%	259.9%	180.7%	181.8%	183.8%	235.2%	181.8%	199.9%	
Daily Total Person Trips	158.0%	108.4%	137.5%	123.3%	141.9%	139.5%	150.7%	141.9%	138.6%	
Vehicle-based Trips										
- Site Peak Hour	157.4%	142.3%	154.0%	141.3%	119.3%	135.0%	157.4%	129.8%	143.6%	
Daily Total LV Trips	112.4%	89.5%	109.3%	104.7%	126.6%	121.2%	104.7%	126.6%	115.7%	
Daily Total HV Trips	0.0%	11.1%	10.4%	16.7%	21.4%	23.5%	0.0%	16.7%	16.5%	
Daily Total Vehicle Trips	110.1%	80.1%	102.6%	103.4%	118.2%	116.3%	103.4%	118.2%	109.9%	
Peak Parking Accumulation	139.3%	68.4%	99.9%	85.7%	112.5%	111.5%	85.7%	71.1%	104.5%	

Source: Trip Generation and Parking Generation Surveys, Bulky Goods/Hardware Stores, Analysis Report, Hyder Consulting for the NSW Roads and Traffic Authority, May 2009, p20

APPENDIX H1 – HARDWARE AND BUILDING SUPPLIES – SITE DETAILS

Site ID	HW1	HW2	HW3	HW4	HW5	HW6	HW7	HW8	HW9
Name	Bunnings	Bunnings	Mitre10	Bunnings	Mitre10	Mitre10	Mitre10	Bunnings	Mitre10
Suburb	North Parramatta	Bankstown Airport	Windsor	Minchinbury	Narellan	Morisset	Picton	South Nowra	Orange
	2152	2200	2756	2770	2567	2264	2571	2541	2800
Region	Sydney	Sydney	Sydney	Sydney	Sydney	Northern	Northern	Northern	Southern
Network Peak Hours									
Year of Network Survey	2007	2005	2007	2007	2005	2004	2009	2009	2005
Dates							6/4-12/4	18/3-24/3	
AM Peak - Weekdays	0800-0900	0700-0800	0800-0900	0800-0900	0800-0900	0800-0900	0900-1000	0800-0900	0800-0900
PM Peak - Weekdays	1700-1800	1600-1700	1500-1600	1700-1800	1600-1700	1600-1700	1600-1700	1500-1600	1600-1700
Peak - Weekends	1200-1300	1200-1300	1100-1200	1100-1200	1100-1200	1100-1200	1200-1300	1100-1200	1100-1200
Site Details - Bulky Goods/Hardware									
Area Dimension (m^2)			6,700		3,500		3,600		Unknown
Gross floor area (m^2)	9,800	14,111	1,800	11,915	2,400	2,000	1,600	9,948	1,800
No. of Employee (Total)			42		20		12		23
No. of employee (at one time)			34		15	15	12		8
Year Constructed			1990		1991-1992		Unknown		1980
Accessibility Score	<79	<79	<79	<79	<79	0.5	1	0	2
Opening Hours									
Mon-Fri	0700-2100	0700-2100	0630-1700	0700-2100	0700-1730	0630-1730	0730-1700	0700-2100	0700-1730
Sat	0800-1800	0800-1800	0800-1600	0800-1800	0730-1600	0700-1600	0700-1600	0800-1800	0800-1600
Sun	0800-1800	0800-1800	0900-1500	0800-1800	0900-1600	0700-1600	0900-1400	0800-1800	0900-1600
Parking Spaces									
Customers	263	464	44	397	35	29	75	209	28
Disabled	2	8	0	6	2	1	0	4	2
Staff			0		0	0	0		10
Loading Bay			2		1	0	5		2
Total	265	472	46	403	38	30	80	213	42
Survey Results									
Date of Survey - Weekdays	12/03/09	26/03/09	19/03/09	19/03/09	19/03/09	12/03/09	26/03/09	26/03/09	19/03/09
	(Thurs)	(Thurs)	(Thurs)	(Thurs)	(Thurs)	(Thurs)	(Thurs)	(Thurs)	(Thurs)
Weather	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny/ Rain Evening	Sunny
Date of Survey - Weekend	14/03/09	28/03/09	21/03/09	21/03/09	21/03/09	14/03/09	28/03/09	28/03/09	21/03/09
	(Sat)	(Sat)	(Sat)	(Sat)	(Sat)	(Sat)	(Sat)	(Sat)	(Sat)
Weather	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny/ Rain Evening	Sunny	Sunny	Sunny

Source: Trip Generation and Parking Generation Surveys, Bulky Goods/Hardware Stores, Analysis Report, Hyder Consulting for the NSW Roads and Traffic Authority, May 2009, p7

APPENDIX H2 – HARDWARE AND BUILDING SUPPLIES – TRIP GENERATION

Trips/ 100m² GFA	Sydney Metropolitan Area HW1 to HW5			Non-Metropolitan Area HW6 to HW9			All Survey Sites HW1 to HW9			Avg Non-metro / Metro %
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	
Weekdays										
Person-based Trips										
- Site Peak Hour	4.00	5.77	5.06	3.95	6.40	5.49	3.95	6.40	5.25	108.6%
- Vehicle Network AM Peak	0.65	2.72	2.01	1.28	4.75	2.97	0.65	4.75	2.43	147.9%
- Vehicle Network PM Peak	2.48	4.89	3.50	2.79	4.65	3.78	2.48	4.89	3.63	108.0%
Daily Total Person Trips	32.88	53.26	42.42	29.22	43.40	38.34	29.22	53.26	40.61	90.4%
Vehicle-based Trips										
- Site Peak Hour	3.15	4.67	4.03	2.74	5.60	4.41	2.74	5.60	4.20	109.6%
- Network AM Peak	0.60	2.22	1.68	1.09	3.88	2.50	0.60	3.88	2.05	148.7%
- Network PM Peak	2.05	3.56	2.70	1.99	3.80	3.03	1.99	3.80	2.85	112.5%
Daily Total LV Trips	25.21	38.25	30.59	20.66	35.90	30.30	20.66	38.25	30.46	99.0%
Daily Total HV Trips	0.99	6.17	2.40	0.69	2.25	1.49	0.69	6.17	2.00	62.0%
Daily Total Vehicle Trips	26.80	39.75	32.99	21.35	38.15	31.79	21.35	39.75	32.46	96.4%
Peak Parking Accumulation	0.78	1.67	1.16	1.05	1.90	1.48	0.78	1.90	1.30	127.8%
Weekend										
Person-based Trips										
- Site Peak Hour	6.83	10.54	9.11	7.43	9.20	8.11	6.83	10.54	8.66	89.0%
- Vehicle Network Peak	6.00	10.44	8.59	6.67	8.70	7.53	6.00	10.44	8.12	87.6%
Daily Total Person Trips	36.94	74.39	59.25	40.17	49.90	44.66	36.94	74.39	52.76	75.4%
Vehicle-based Trips										
- Site Peak Hour	4.28	6.69	5.91	4.49	6.17	5.28	4.28	6.69	5.63	89.3%
- Vehicle Network Peak	3.61	6.33	5.33	4.28	5.33	4.92	3.61	6.33	5.15	92.3%
Daily Total LV Trips	22.00	48.78	38.42	28.24	32.20	30.68	22.00	48.78	34.98	79.9%
Daily Total HV Trips	0.13	0.89	0.52	0.00	0.25	0.13	0.00	0.89	0.35	24.5%
Daily Total Vehicle Trips	22.89	49.05	38.94	28.39	32.45	30.81	22.89	49.05	35.33	79.1%
Peak Parking Accumulation	1.50	2.59	2.00	1.45	2.81	1.82	1.45	2.81	1.92	91.3%
Weekend/Weekdays %										
Person-based Trips										
- Site Peak Hour	170.7%	213.6%	245.4%	238.6%	187.1%	199.1%	241.9%	213.6%	224.0%	
Daily Total Person Trips	112.4%	139.7%	139.7%	137.5%	115.0%	116.5%	126.4%	139.7%	129.9%	
Vehicle-based Trips										
- Site Peak Hour	136.0%	143.4%	146.9%	163.7%	110.1%	119.8%	155.9%	119.5%	134.2%	
Daily Total LV Trips	87.3%	127.5%	125.6%	136.7%	89.7%	101.3%	106.5%	127.5%	114.8%	
Daily Total HV Trips	12.7%	14.4%	21.7%	0.0%	11.1%	8.6%	0.0%	14.4%	17.4%	
Daily Total Vehicle Trips	85.4%	123.4%	118.0%	133.0%	85.1%	96.9%	107.2%	123.4%	108.8%	
Peak Parking Accumulation	192.9%	155.3%	171.9%	138.7%	148.0%	122.9%	186.4%	148.0%	147.2%	

Source: Trip Generation and Parking Generation Surveys, Bulky Goods/Hardware Stores, Analysis Report, Hyder Consulting for the NSW Roads and Traffic Authority, May 2009, p16

From: Carl Porter
To: Anton Z De Klerk
Cc: Anthony Walsh
Subject: RE: 1710-2243 SRA - Please confirm the latest version of SARA Conditions to this development
Date: Wednesday, 12 October 2022 4:11:25 PM
Attachments: image001.png
image004.png
image003.png
image005.png

Anton,

To clarify, the applicant did finally agree to the SARA response to reps, however they did not advise SARA of agreement until after Council had issued its decision and therefore too late to be valid.

As such, our conditions dated 21 March 2018 were final.

I look forward to receiving your advice notice.

Regards, Carl

Carl Porter
Principal Planning Officer
Fitzroy and Central, Planning and Development Services
Department of State Development,
Infrastructure, Local Government and Planning

P 07 4924 2918
Level 2, 209 Bolsover Street, Rockhampton
PO Box 113, ROCKHAMPTON QLD 4700
www.dsdilgp.qld.gov.au

Unite & Recover

From: Anton Z De Klerk <Anton.Z.DeKlerk@tmr.qld.gov.au>
Sent: Wednesday, 12 October 2022 3:52 PM
To: Carl Porter <Carl.Porter@dsdilgp.qld.gov.au>
Subject: RE: 1710-2243 SRA - Please confirm the latest version of SARA Conditions to this development

Thanks Carl,

That clarifies things a little more.
My next concern, I don't think I can finalise this 'Request to Change' without obtaining more information / clarification from the applicant.
Thus I will be issuing a Further Advice letter (hopefully by end of today).

Anton

From: Carl Porter <Carl.Porter@dsdilgp.qld.gov.au>

Sent: Wednesday, 12 October 2022 3:44 PM
To: Anton Z De Klerk <Anton.Z.DeKlerk@tmr.qld.gov.au>
Cc: Anthony Walsh <Anthony.Walsh@dsdilgp.qld.gov.au>; Carl Porter <Carl.Porter@dsdilgp.qld.gov.au>
Subject: RE: 1710-2243 SRA - Please confirm the latest version of SARA Conditions to this development

Hi Anton,

Our conditions are attached, dated 21 March 2018.

From a review of our records, there is no evidence that the applicant agreed to the other document that was entitled '**Proposed content of changed referral agency response with conditions**'. This document was the SARA response to representations but it was apparently not accepted by the applicant.

Regards, Carl

Carl Porter
Principal Planning Officer
Fitzroy and Central, Planning and Development Services
Department of State Development,
Infrastructure, Local Government and Planning

P 07 4924 2918
Level 2, 209 Bolsover Street, Rockhampton
PO Box 113, ROCKHAMPTON QLD 4700
www.dsdilgp.qld.gov.au

Unite & Recover

From: Anton Z De Klerk <Anton.Z.DeKlerk@tmr.qld.gov.au>
Sent: Wednesday, 12 October 2022 1:50 PM
To: Carl Porter <Carl.Porter@dsdilgp.qld.gov.au>
Subject: 1710-2243 SRA - Please confirm the latest version of SARA Conditions to this development

Hi Carl,

I'm getting confused with the assessment of this application (too many different documentations and emails)....

Please see attached copies of SARA Conditions regarding the Stockland Development (Elidda Estate) at William Palfrey Drive, Parkhurst.
Could you please confirm which version of the two attachments is the most recent / set of conditions to be used.

Kind regards,

Anton DeKlerk

Principal Town Planner (Project Planning and Corridor Management) | Fitzroy District | Central Queensland Region
Program Delivery & Operations Branch | Infrastructure Management and Delivery Division | Department of Transport and Main Roads

Floor 1 | 31 Knight Street | North Rockhampton Qld 4701
PO Box 5096 | Red Hill Rockhampton Qld 4701
(07) 49311545 |
anton.z.deklerk@tmr.qld.gov.au
www.tmr.qld.gov.au

From: RockhamptonSARA
To: Central.Queensland.IDAS
Cc: RockhamptonSARA; Jason B Giddy
Subject: Request for TMR review and ALCAM assessment FW: (TMR17-022950) - FW: 8666 FW: [ARK22-P005 - Ellida] B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing
Date: Wednesday, 22 February 2023 4:04:13 PM
Attachments: image003.jpg
image001.png
image004.png
image002.png
image006.png
109116-90i - Proposed Subdivision Stages 1-3 Allotment Layout (RPS).pdf
Ellida - Technical Note_William Palfrey Construction and Development Traffic V1.0.pdf
ID 5428 Bruce Hwy (Yaamba Rd) & William Palfrey Dr - 2016 Intersection Analysis.pdf
RMS TDT 2013-04a Guide to Traffic Generating Developments Updated traffic surveys.pdf
2208-30645 SPD - SARA advice on the minor change request.msg
2208-30645 SPD - Further SARA advice on the minor change request.msg
8666 FW ARK22-P005 - Ellida B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing.msg

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Good Afternoon,
The applicant has provided the attached for TMR consideration and response.
It is my understanding that a response to the advice notices will be provided at later date with an updated staging plan.
TMR response is requested by 10/3/23.
Regards, Carl

Carl Porter
Principal Planning Officer
Planning and Development Services
Department of State Development, Infrastructure, Local Government and Planning

*Microsoft teams – **meet now***

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PO Box 113, Rockhampton QLD 4700

statedevelopment.qld.gov.au

From: Capricorn Survey Group CQ <reception@csgcq.com.au>
Sent: Wednesday, 22 February 2023 1:19 PM
To: RockhamptonSARA <RockhamptonSARA@dsdilgp.qld.gov.au>
Cc: Carl Porter <Carl.Porter@dsdilgp.qld.gov.au>; Steve Guy Maas Group <SteveGuy@maasgroup.com.au>; 'Scott Muller' <scott@arkce.com.au>; Anton Z De Klerk <Anton.Z.DeKlerk@tmr.qld.gov.au>; Jason B Giddy <Jason.B.Giddy@tmr.qld.gov.au>; Jamie McCaul <Jamie.McCaul@rrc.qld.gov.au>
Subject: FW: (TMR17-022950) - FW: 8666 FW: [ARK22-P005 - Ellida] B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing
Carl
Further to our telephone conversation and your email below please find attached Traffic Technical Note prepared by my client's engineer following ongoing discussions with QR.
This correspondence is issued to Main Roads as further information as required for an ALCAM

assessment to be undertaken on the William Palfrey Road level crossing.
We believe that it is likely that we can safely provide access to the first 130 residential lots through William Palfrey Road from Yaamba Road.
Once the ALCAM has been undertaken the staging will be amended to represent the appropriate number of lots to provide clarity in the approval conditions.
If you have any queries please do not hesitate to contact me.
Regards

Richard Ford | Director
Capricorn Survey Group CQ
Phone. 07 4927 5199
Mobile. 0407 581 850
www.capsurvey.com.au

Capricorn Survey Group (CQ) Pty Ltd
ABN 22 154 830 565,
132 Victoria Parade
(PO Box 1391)
Rockhampton Qld 4700

From: RockhamptonSARA <RockhamptonSARA@dsdilgp.qld.gov.au>
Sent: Tuesday, February 21, 2023 3:34 PM
To: Richard Ford - CSG (CQ) <richard@csgcq.com.au>
Cc: RockhamptonSARA <RockhamptonSARA@dsdilgp.qld.gov.au>
Subject: FW: (TMR17-022950) - FW: 8666 FW: [ARK22-P005 - Ellida] B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing

Hi Richard,
TMR has requested for this correspondence to go through SARA, as per standard practice.
I note SARA has issued two separate advice notices (attached) regarding this application, on 14 October 2022 and on 25 October 2022.
I also note the current request only relates to some of the items raised in the advice notices.
Can you please resubmit the current request through SARA, confirming the nature of the current request and whether this is intended to be a partial or full response to the advice notice/s or whether the advice notices will be responded to at a later time.
Note the department's statutory due date is currently 28 March 2023, however we would require your response to the advice notices by 14 March 2023 to provide time for assessment.
Regards, Carl

Carl Porter
Principal Planning Officer
Planning and Development Services
Department of State Development, Infrastructure,

Local Government and Planning

*Microsoft teams – **meet now***

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statedevelopment.qld.gov.au

From: Jason B Giddy <Jason.B.Giddy@tmr.qld.gov.au>
Sent: Monday, 20 February 2023 10:05 AM
To: richard@csgcq.com.au
Cc: Central.Queensland.IDAS <Central.Queensland.IDAS@tmr.qld.gov.au>; RockhamptonSARA <RockhamptonSARA@dsdilgp.qld.gov.au>; Anton Z De Klerk <Anton.Z.DeKlerk@tmr.qld.gov.au>; Andrea K McPherson <Andrea.K.McPherson@tmr.qld.gov.au>
Subject: FW: (TMR17-022950) - FW: 8666 FW: [ARK22-P005 - Ellida] B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing

Hi Richard,

Can you arrange to submit this via SARA and the department can respond to this submission. It appears this is a response to a further advice issued ~17 October 2022. The most recent correspondence appears to be a timeframe extension from 22 November 2022.

My understanding is the purpose of this submission is to ascertain the amount of traffic/lots that can be permitted via the William Palfrey level crossing.

Kind regards,

Jason Giddy
Senior Town Planner (Project Planning & Corridor Management)
Infrastructure Management & Delivery | Program Delivery & Operations
Department of Transport and Main Roads

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GPO Box 5096 | Red Hill Rockhampton Qld 4701
jason.b.giddy@tmr.qld.gov.au
www.tmr.qld.gov.au

From: Richard Ford - CSG (CQ) <richard@csgcq.com.au>
Sent: Wednesday, 15 February 2023 11:34 AM
To: Anton Z De Klerk <Anton.Z.DeKlerk@tmr.qld.gov.au>
Subject: 8666 FW: [ARK22-P005 - Ellida] B.06590 Olive Street Parkhurst - William Palfrey Road Level Crossing

Anton

Please accept the below and attached as formal correspondence for our request to have William Palfrey Road cater for the first 130 residential lots in the estate as approved.

Council is 100% on board with this concept and it is their preferred method of entry to the estate in the first instance until the Olive Street intersection is constructed.

The William Palfrey Road intersection has only just recently been upgraded so that it is now left in left out with a raised median and significant queuing capacity.

We trust that the attachments and below correspondence now provides all information that your Department requires to make an informed decision on the matter.
If you have any queries or require any further information please do not hesitate to contact me.
Regards

Richard Ford | Director
Capricorn Survey Group CQ
Phone. 07 4927 5199
Mobile. 0407 581 850
www.capsurvey.com.au