From:Stephen WhitakerSent:16 Feb 2018 12:20:27 +1000To:Brian MillardCc:Dominic Hammersley;Carl Ewin;Planning (Shared)Subject:Change to Development Application - EMAIL 2 OF 2 - 112 Barnwell Road,Kuranda - RAL/18/0002Attachments:

Hi Brian,

I refer to the development application over land at 112 Barnwell Road, Kuranda (MSC Ref: RAL/18/0002). We act for the Applicant, Reever and Ocean Pty Ltd, in relation to this development application.

On behalf of the Applicant, please find attached correspondence provided in accordance with Section 52 of the *Planning Act 2016*, documenting a change to the application.

Due to the size of the documentation, it has been split across two (2) emails, this is email 2 of 2.

Should you have any queries in relation to this matter, please do not hesitate to contact me.

Kind Regards, Stephen Whitaker PLANNER CARDNO



Phone +61 7 4034 0500 Direct +61 7 4034 0512 Address 15 Scott Street, Parramatta Park, Cairns, Queensland 4870 Australia Postal P.O. Box 1619, Cairns QLD 4870 Email stephen.whitaker@cardno.com.au Web www.cardno.com

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Traffic Impact Assessment

Proposed Non Urban Residential Subdivision Kuranda

QTT17026

Prepared for Reever and Ocean Pty Ltd

18 January 2018





Document Information

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Contact Information

Cardno (Qld) Pty Ltd ABN 57 051 074 992

Level 11 Green Square North Tower 515 St Paul's Terrace Locked Bag 4006 Fortitude Valley Qld 4006

Telephone: 07 3369 9822 Facsimile: 07 3369 9722 International: +61 7 3369 9822

transportqld@cardno.com.au www.cardno.com.au

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- Appendix B Austraffic survey data
- Appendix C Trip distribution
- Appendix D Detailed sidra outputs
- Appendix E Phasing plan (TMR)
- Appendix F FNQROC Extract

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1 Introduction

Cardno has been commissioned by Reever and Ocean Pty Ltd (Reever and Ocean) to provide a Traffic Impact Assessment (TIA) report for a proposed non-urban residential subdivision on land located at Barnwell Road, Kuranda, located 22km north-west of Cairns. The key deliverable is to determine the impact and mitigation treatments (if any) required for the external road network, including the intersections of Kennedy Highway (Kuranda Range Road)/Myola Road and Myola Road/Barnwell Road as outlined in Figure 2-1. Drawings of the proposed development have been provided and are attached in Appendix A.

1.1 Scope

The objective of this report is to understand the traffic and transport issues associated with the proposed development. The report will form part of the Development Application (DA) for the proposal and provides the relevant approval authorities, including Mareeba Shire Council, the opportunity to adequately consider any traffic or transport related impacts.

Based on our understanding of the site and of Reever and Ocean's requirements, Cardno has been engaged to undertake the following tasks to complete this assessment:

- > Review the existing road network to understand the current road connections and conditions.
- > Estimate the traffic generation of the site based on the proposed land uses and activities.
- > Estimate the traffic distribution onto the surrounding road network
- > Provide engineering advice on access arrangements into the site and geometric requirements including upgrade requirements (if any) to adjacent roads and intersections.
- > Assessment of the impact of the additional trips generated from the development on the local and state road network.
- > Analysis of the impact of the development on the road network for the year of opening and the design horizon

1.2 References

In preparing this report, references are made to the following traffic engineering and council sources:

- > Austroads Guide to Road Design Part 4A (2017)
- > Austroads Guide to Road Design Part 3 (2016)
- > Austroads Guide to Traffic Management Part 6 (2017)
- > Mareeba Shire Planning Scheme (2004)
- > Manual of Uniform Traffic Control Devices Part 2 (2003)
- > Guide to Traffic Impact Assessment (2017)
- > Far North Queensland Regional Organisation of Councils Development Manual (2014)
- > Department of Transport and Main Roads: Road Planning and Design Manual (2004)

2 Existing Situation

2.1 Site location

The site is located west of Cairns in North Queensland and is accessible via the Kennedy Highway. Figure 2-1 provides a profile of the site within the northern region.





Source: Nearmap





Source: Nearmap

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2.2 Land Use and Zoning

The proposed development falls within the Myola Zone of the zoning maps in the Mareeba Shire Planning Scheme (2004). The anticipated traffic growth rate of the surrounding area is considered to be relatively low.



Figure 2-3 Extract from Mareeba Shire Planning Scheme

Source: Mareeba Shire Planning Scheme (2004) Zoning Maps (Map Z7)

2.3 Road Network

The site is currently accessed from Barnwell Road. A profile of the surrounding road network site is outlined in Table 2-1.

Table 2-1 Existing road network

Road	Form	Posted Speed
Kennedy Highway	Two lane undivided	80km/h
Myola Road	Two lane undivided	60km/h
Barnwell Road	Two lane undivided	60km/h

Source: Site Inspection

Kennedy Highway is a state controlled road linking Cairns to the Atherton Tablelands which includes Kuranda. Kennedy Highway (Figure 2-4) is an 80km/h, 7.0m wide, two lane, undivided sealed road with line markings and shoulders which extend to turn lanes on approach to the intersection with Myola Road.

Figure 2-4 Kennedy Highway



Source: Nearmap

Myola Road is a major rural road connecting Kuranda to communities located along the Barron River including Myola and Kowrowa. The Kuranda District State College is also located on Myola Road. Myola Road is an undivided sealed road with a posted speed of 60km/h, with a pavement width varying from 6.0m to 7.0m and comprising of two lanes with line markings and shoulders (on intersection approaches only).





Source: Kuranda site visit

Barnwell Road is a 5.0m wide, two lane road with no line markings or shoulders. A 60km/h area sign posted at the Myola Road / Barnwell Road intersection applies throughout the area unless indicated otherwise. The northern section of Barnwell Road, approximately 650m south of Myola Road/Barnwell Road intersection, comprises of a sealed pavement and turns to a gravel surface ranging from 3.3m to 5.0m in width outlined in Figure 2-6 and Figure 2-7. This gravel section of the road currently provides access to only three (3) properties.





Source: Kuranda site visit

Figure 2-7 Barnwell Road (unsealed section)



Source: Kuranda site visit

2.4 Crash History

A review of the crash data for the past five (5) years (2012-2017) for the road network around the site has been undertaken and is summarised in Table 2-2 with locations shown in Figure 2-8.

Table 2-2 Crash Data			
Location	Date	Type & DCA Code	Casualty
Myola Road	February 2013	Hit Object 804	Medically Treated
Kennedy Highway/Myola Road intersection	August 2013	Angle from Adjacent Approach 101	Medically Treated
Myola Road	November 2015	Hit Object 803	Hospitalisation
Kennedy Highway/Warril Drive intersection	March 2015	Vehicles from opposing directions 202	Medically Treated
Kennedy Highway/Warril Drive intersection	June 2015	Angle from adjacent approach	Fatal

Figure 2-8 Crash Locations



Source: Nearmap, & Department of Transport and Main Roads

2.5 Traffic flows

2.5.1 Surveys

Traffic surveys were carried out by AusTraffic, on the Wednesday May 10th 2017, from 6:00AM to 8:00PM at the following locations;

- 1. Kennedy Highway / Myola Road / Rob Veivers Drive Intersection
- 2. Myola Road / Oak Forest Road / Barnwell Road Intersection
- 3. Kennedy Highway / Warril Drive / Fallon Road
- 4. Barnwell Road (300m south of Kingfisher Drive)

Figure 2-9 Traffic Survey Locations



Source: Nearmap

The Average Annual Daily Traffic (AADT) Volume for Kennedy Highway was provided from Transport and Main Roads Traffic Census Data (2016). The daily volumes for Myola Road and Barnwell Road are estimated from peak hour flows (survey) and factored (15% for rural roads) as per *Austroads Guide to Traffic Management Part 6 (2017) Cl 2.3.6.* Table 2-3 outlines the AADT volumes for the roads of interest.

Table 2-3Daily Traffic Flows

Road	AADT* (vpd)
Kennedy Highway (North of Myola Road)	8740
Kennedy Highway (South of Myola Road)	5830
Myola Road	1560
Barnwell Road	55

*Values rounded up

A review of the traffic survey data was undertaken, and the common peak hour period was identified for all surveyed intersections as follow;

- > Morning (AM) Peak: 8:15AM 9:15AM
- > Afternoon (PM) Peak: 2:30PM 3:30PM

A summary of the morning and afternoon peak hour traffic flows at the intersection of Myola Road and Kennedy Highway, Barnwell Road and Myola Road and Warril Drive and Kennedy Highway is shown in Figure 2-10, Figure 2-11 and Figure 2-12. Full details for intersection surveys are provided in Appendix B.



Figure 2-10 Kennedy Highway/Myola Road Intersection flows (Peak Flows)





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Figure 2-12 Myola Road/Barnwell Road Intersection flows (Peak Flows)

3 Proposed Development

3.1 Summary of Development

The proposed development consists of a non-urban residential development located between Warril Drive and Barnwell Road. The land is described as Lots 17,18 and 22 on N157227, Lots 1 and 2 on RP703984 and Lot 19 on N157452.

The proposal includes 179 residential lots across 8 stages of development with linkages to Barnwell Road in the north and Warril Drive to the south. It is expected that the staging of development could be complete within a 10 to 16 year timeframe, although this is dependent on future sales of allotments.



Figure 3-1 Development Proposal

Source: Cardno

3.2 Access

Traffic associated with the development will access the site from two locations. The northern access will be from Barnwell Road. Access to the major road network will be along Myola Road through to the intersection with Kennedy Highway.

The southern access will be via Warril Drive linking to an existing sealed section of road. Access to the major road network will be along Warril Drive to the intersection with Kennedy Highway.

4 Development Impact

4.1 Existing Traffic Movements

4.1.1 Trip Generation

In order to analyse the impact of the development on the existing transport infrastructure, it is necessary to assess the number of trips generated to and from the site and where they are likely to travel. Reference has been made to the Austroads Guides and the RTA Guide to Traffic Generating Developments.

The potential development traffic generation from the site has been estimated based on 179 residential lots and a peak hour traffic generating rate for residential lots of 0.85 trips per lot during the peak hour and 9.0 trips per lot per day.

Table 4-1	Trip	Generation	Initial	Scale	(179	lots)
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	Trip Generation	
Lots	Peak Hour Trips (0.85 trips per lot)	Daily Trips (9 trips per lot per day)
179 Lots	152	1,611

4.1.2 Traffic Distribution

Directional splits for residential developments are generally 70% departures and 30% arrivals in the morning peak with the reverse in the afternoon peak period. It is estimated that the majority of trips will be generated to and from the Kennedy Highway. The assignment of traffic to the external road network has been based on existing patterns obtained from traffic survey data.

At the intersection of Myola Road and Kennedy Highway the distribution has been assigned as:

- > 70% to and from Kennedy Highway east
- > 20% to and from Rob Vievers Drive
- > 10% to and from Kennedy Highway west

At the intersection of Warril Drive and Kennedy Highway the distribution has been assigned as:

- > 70% to and from Kennedy Highway east
- > 5% to and from Fallon Road
- > 25% to and from Kennedy Highway west

It is assumed that up until the commencement of Stage H, all traffic generated from Stages A through to G will access the external road network via Barnwell Road to Myola Road and the Kennedy Highway. Stage H will provide an alternative route to Kennedy Highway via Warril Drive. Therefore, it is assumed that approximately 90 lots (50% of the development) will utilise the access to Warril Drive and Kennedy Highway due to the shorter more convenient route and 90 lots will continue to use Barnwell Road which is closer to the local school.

4.2 Traffic Growth Rate

Traffic growth applied to the background traffic volumes represents the increase in traffic associated with the surrounding area. A compound growth of 2% has been adopted to flows on Kennedy Highway and Rob Vievers Drive, and a growth of 1% has been applied to Myola Road, Warril Drive and Barnwell Road. These flows have been analysed at the predicted 2019 opening year with an expected 10 years of construction through to the 2029 and therefore a design horizon year of 2039 (10-year design horizon after the completion of development).

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4.3 Assessed Intersections

The following intersections have been assessed. Figure 4-1 illustrates the locations of these intersections:

- 1. Signalised intersection at Kennedy Highway, Myola Road and Rob Veivers Drive
- 2. Priority controlled T-intersection at Myola Road and Barnwell Road
- 3. Signalised intersection at Kennedy Highway, Warril Drive and Rob Fallon Road

Figure 4-1 SIDRA Assessment locations



Source: Nearmap

4.4 Assessment Scenarios

The following scenarios have been assessed for the proposed development:

- > 2017 Background Traffic
- > 2019 year of Commencement
- > 2029 Background Traffic (Year of Completion)
- > 2039 Background Traffic (10 year Design Horizon)
- > 2029 With Development (Year of Completion)
- > 2039 With Development (10 year Design Horizon)

The background, future traffic and development traffic scenario volumes for the AM and PM peak have been included in Appendix C. Detailed SIDRA analysis outputs are provided in Appendix D.

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4.5 SIDRA Assessment Criteria

The performance of each intersection was analysed using SIDRA Intersection 7 (SIDRA) which is an industry recognised analysis tool that estimates the capacity and performance of intersections based on input parameters, including geometry and traffic volumes, and provides estimates of an intersection's Degree of Saturation (DOS), queues and delays. Simplistically, DOS is a measure of the proportion of traffic entering an intersection relative to the intersection's capacity. Table 5-1 provides the defined DOS intervention thresholds for intersections.

Table 4-2 Adopted Intersection Performance Threshold – Degree of Saturation

Intersection Control	DOS Threshold
Signals	Less than or equal to 0.90
Priority-controlled	Less than or equal to 0.80

Source: TMR Guidelines for Assessment of Road Impacts of Development (2006)

Importantly it is noted that DOS is not the only performance indicator and that other measures such as critical delay should also be considered when assessing the performance of an intersection. Other authorities such as the NSW Roads and Maritimes Services (RMS) recommend the use of the critical movement delay for assessing the performance of priority-controlled intersections. The RMS Guide to Traffic Generating Developments states that the average delay statistics for the critical movement provides a better indication of intersection performance and safety for priority-controlled intersections and roundabouts than DOS. Table 7- 2 provides the RMS-defined delay thresholds.

Level of service is a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A key issue is determining the level of service that is deemed acceptable, and whether that level should be a projected level for future operations of a facility, or the level existing at the current operation of the facility.

LOS	Level of Service Description	Critical Delay
A	Good Operation	Less than 14 sec
В	Acceptable delays and spare capacity	15 to 28 sec
С	Satisfactory, but accident study required	29 to 42 sec
D	Near capacity and accident study required	43 to 56 sec
E	At capacity, requires or control mode	57 to 70 sec

Table 4-3 Adopted Intersection Performance Threshold – Critical Delay

Source: RMS Guide to Traffic Generating Developments

4.6 Operational Assessment Results

4.6.1 Kennedy Highway / Myola Road / Rob Veivers Drive Intersection

The current configuration of this intersection is a four-way signalised arrangement. The aerial and SIDRA assessed layout are illustrated in Figure 4-2. Phasing has been provided by TMR and has been attached for reference in Appendix E.

Figure 4-2 Current and SIDRA Assessed Layout – Kennedy Highway / Myola Road / Rob Veivers Drive Intersection



Source: Nearmap, SIDRA 7.0

Table 4-4 SIDRA Outputs for Kennedy Highway / Myola Road / Rob Veivers Drive Intersection

		AM Peak		PM Peak			
Scenarios	DOS	Delay (sec)	95 th %ile Queue	DOS	Delay (sec)	95 th %ile Queue	
2017 Background	0.63	21	68m	0.73	25sec	59m	
2029 Background	0.65	22	90m	0.82	27sec	77m	
2029 With Development 163 lots (stage 7)	0.84	23	96m	0.833	28sec	84m	
2039 Background	0.68	23	110	0.79	30sec	107m	
2039 With Development All 179 lots	0.71	25	126m	0.90	31sec	116m	

The results indicate the intersection operates within the typical performance thresholds (DOS \leq 0.90 for signals) for all scenarios. It is noted that with the inclusion of the proposed expansion traffic, the critical delay and 95th percentile queue is not significantly impacted, when compared to the background scenarios. There is no requirement to provide mitigation measures for this intersection.

4.6.2 Kennedy Highway /Warril Drive /Fallon Road Intersection

The current configuration of this intersection is a four-way priority controlled intersection. The aerial and SIDRA assessed layout are illustrated in Figure 4-3.

Figure 4-3 Current and SIDRA Assessed Layout – Kennedy Highway / Warril Drive / Fallon Road Intersection



Source: Nearmap, SIDRA 7.0

Table 4-5 SIDRA Outputs for Kennedy Highway / Warril Drive / Fallon Road Intersection

		AM Pea	ak		PM Peak	
Scenarios	DOS	Delay (sec)	95 th %ile Queue	DOS	Delay (sec)	95 th %ile Queue
2017 Background	0.24	2.7	6.0m	0.18	1.9	2.0m
2029 Background	0.38	3.3	10.2m	0.23	2.0	3.2m
2039 Background	0.66	5.2	15.4m	0.26	2.2	5.0m
2029 With Development 90 lots	0.40	4.2	10.7m	0.25	3.3	5.8m
2039 With Development 90 lots	0.58	5.4	17m	0.26	3.0	6.0m

The results indicate the current form of the intersection operates within the typical performance thresholds (DOS \leq 0.80 for priority controlled intersections) for all scenarios. It is noted that with the inclusion of the proposed expansion traffic, the critical delay and 95th percentile queue is not significantly impacted, when compared to the background scenarios. No mitigation measures are required.

4.6.3 Myola Road / Oak Forest Road / Barnwell Road Intersection

The current configuration of this intersection is priority controlled t-intersection. The aerial and SIDRA assessed layout are illustrated in Figure 4-3.

Figure 4-4 Current and SIDRA Assessed Layout - Myola Road / Oak Forest Road / Barnwell Road Intersection



Source: Nearmap, SIDRA 7.0

Table 1 G	CIDDA Outputo	for Konnody	Liabwoy	/ Myola Dood	(Dob)	Joivoro	Drivo	Intoropotion
1 able 4-0	SIDKA UULDULS	IOI Reilleuv	пиниаи	/ IVIVOIA ROAU	/ KUU V	ververs	Drive	Intersection

		AM Pea	ak		PM Peak		
Scenarios	DOS	Delay (sec)	95 th %ile Queue	DOS	Delay (sec)	95 th %ile Queue	
2017 Background	0.07	0.5	0m	0.06	0.4	0m	
2029 Background	0.08	0.5	0m	0.07	0.4	0m	
2039 Background	0.08	0.5	0m	0.08	0.4	0m	
2039 With Development 179 lots	0.13	2.5	3m	0.14	2.4	1m	

The results indicate the current form of the intersection operates within the typical performance thresholds (DOS \leq 0.80 for priority controlled intersections) for all scenarios. It is noted that with the inclusion of the proposed expansion traffic, the critical delay and 95th percentile queue is not significantly impacted, when compared to the background scenarios. No mitigation measures are required.

4.7 Road Section Analysis

The annual average daily traffic volume (AADT) for 2016 for Kennedy Highway has been obtained from TMR and indicates traffic flows of 8,738 vehicles per day (vpd) east of Myola Road and 5,830 vpd west of Myola Road. The proposed development generates an additional 1,611 vehicles per day, and approximately 1,128 vehicles per day to the east of Myola Road on the Kuranda Range section of Kennedy Highway. As per Austroads Guide to Traffic Management Part 3, the mid-block capacity for undivided urban roads is 900 vehicles (passenger car units) per hour per lane (one-way). The Kennedy Highway is an arterial road with a traffic carrying function of over 15,000 vehicles per day and therefore has spare capacity for future growth. The impact of additional development generated traffic does not adversely impact on its functional capacity of the state controlled road network.

Traffic Carry Functional Characteristics										
Road Link	Traffic Capacity	Existing Daily Volume	Development Traffic	Total Traffic Flows	Within Capacity Limits					
Kennedy Highway (east of Myola Road)	15,000 vpd	8,738 vpd	1,128 vpd	9,866 vpd	Yes					
Kennedy Highway (west of Myola Road)	15,000 vpd	5,830 vpd	322 vpd	6,152 vpd	Yes					

Table 4-7 Traffic Carrying Capacity Analysis

5 Design Consideration

5.1 Road Characteristics

A review of the capacity and formation of the existing sections of road has been undertaken to determine the suitability for the proposed development traffic. In accordance with the Far North Queensland Regional Organisation of Councils Development Manual (FNQROC) (2014), rural roads with less than 100vpd require a formation of 8.0m and a seal width of 4.5m (Figure 5-1). The existing sealed width of Barnwell Road and Warril Drive is approximately 5.0m, complying with FNQROC (2014). The southern gravel section of Barnwell Road currently functions as a driveway to access three rural properties.

Traffic Volume or Road Class	<100VPD	100 <u>-</u> 999	1000 - 2999 (or rural collector)	>3000 (or sub-arterial)
Road Reserve (flat terrain ≤ 5%)	20m	20m	25m	MR
Road Reserve ² (Undulating/Hilly > 5%)	25m	25m	30m	DS or E
Formation	8m	8m	10m	ROAI
Pavement Width	5.5m	6.5m	8m	h AUST
Seal Width	4.5 ^{1,7}	6.5m	8m (incl. 0.5m sealed shoulders)	ce witl
Shoulders ³	1.25m Approved Select material	0.75m gravel	1m gravel	d in accordan es.
Desirable Speed Environment	100kph	100kph	100kph	esignec
Design Speed for Individual Elements (Minimum)	80kph	80kph	80kph	To be de design g

Figuro	5_1	Rural	Road	Flomonte
iguic	0-1	ixuiui	Noud	Licincinto

Source: Far North Queensland Regional Organisation of Councils Development Manual (2014)

Barnwell Road is currently approaching 100vpd at the intersection with Myola Road, however toward the development site the traffic flows on Barnwell Road are very low. With the proposed development, Barnwell Road will fall within the 100-999vpd criteria and will therefore require an upgraded seal width of 6.5m on an 8m formation to comply with the FNQROC Development Manual (2014). It is also recommended that as part of Stage G, the pavement width of Myola Road be upgraded to provide an 8m seal to comply with FNQROC requirements.

Warril Drive currently has between 160 and 600 vehicles per day and does not currently meet the rural road requirements of providing a 6.5m seal as per the FNQROC Development Manual. It is recommended that as part of Stage H of the development and the connection to Warril Drive that shoulder widening be undertaken to provide a 6.5m seal width.

Table 5-1 outlines the relationship between the existing road infrastructure and the requirements of the FNQROC standards, in relation to both pre-development and post-development traffic volumes.

Table 5-1 FNQROC Compliance Summary

Road Section	Existing Traffic Volume (vpd)	Applicable FNQROC Standard (Current)	Compliance with Standard (Current)	Existing Construction	Upgrade Requirements (without development)	Future Traffic Volume (with development) (vph)	Applicable FNQROC Standard (Future)	Compliance with Standard (Future)	Upgrade Requirements (with development)
Barnwell Road North	55	<100	×	5m seal width, 5m pavement width	5.5m pavement width	865	100-999	×	6.5m pavement width, 6.5m seal width, 0.75m shoulder width
Barnwell Road South	27	<100	×	Gravel surface (no sealing)	4.5m seal width, 5.5m pavement width	910	100-999	×	6.5m pavement width, 6.5m seal width, 0.75m shoulder width
Myola Road	1560	1000-2999	×	6.5m – 7.5m seal width, 6m – 7m pavement width	10m formation, 8m pavement width, 8m seal width (with 0.5m sealed shoulders), 1m gravel shoulder	2370	1000-2999	×	10m formation, 8m pavement width, 8m seal width (with 0.5m sealed shoulders), 1m gravel shoulder
Warril Drive	160-600	100-999	×	5m seal width, 5m pavement width	6.5m pavement width, 6.5m seal width, 0.75m shoulder width	970-1410	1000-2999	×	6.5m pavement width, 6.5m seal width, 0.75m shoulder width

6 Conclusion

This report has assessed the impact of traffic generated by the proposed rural residential development on the local and state transport network. Consideration has been given to operational performance, road safety and access arrangements.

An assessment was carried out of the trips likely to be generated by the proposed development and the estimated distribution of trips on the existing street network. The impact of the proposed development on the road network has been analysed using procedures set out in *Austroads* and SIDRA Traffic modelling software. Results of analysis indicate that the road network continues to operate with spare capacity and the impact of development traffic on the operational performance of the external road network is insignificant.

The following mitigation measures are proposed:

- > Prior to the completion of the first stage of development (Stage A) it is recommended that the existing gravel section of Barnwell Road be widened to provide a sealed width of 6.5m on an 8m formation.
- > It is also recommended that as part of Stage G, the pavement width of Myola Road be upgraded to provide an 8m seal to comply with FNQROC requirements.
- > It is recommended that as part of the final stage of development (stage H) and the connection to Warril Drive that shoulder widening be undertaken on Warril Drive to provide a 6.5m seal width.

In conclusion, the proposed rural residential development will not adversely impact on the operational performance of the surrounding road network and the proposed access arrangements are considered adequate and suitable for the proposed land use. Some additional improvements to the road formation of Barnwell Road and Warril Drive are required at various stages of the project to improve safety and comply with current road design standards.

Proposed Non Urban Residential Subdivision Kuranda

APPENDIX A DEVELOPMENT SITE





Proposed Non Urban Residential Subdivision Kuranda

APPENDIX B AUSTRAFFIC SURVEY DATA
























Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles





Document Set ID: 3345665 Version: 1, Version Date: 16/02/2018







Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-38 -- English (ENA)

<u>Datasets:</u> Site: Direction: Survey Duration: Zone:	[Warril Drive 1] Ch 70 @ Inter Kennedy Hwy & Warril Dr < 50 > 7 - North bound A>B, South bound B>A. Lane: 0 10:15 Thursday, 21 August 2014 => 9:46 Friday, 5 September 2014
File: Identifier:	Warril Drive 105Sep2014.EC0 (Plus) N2222EEP MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Factory default (v3.21 - 15315)
Data type:	Axle sensors - Paired (Class/Speed/Count)
Profile: Filter time: Included classes: Speed range: Direction: Separation: Name: Scheme: Units: In profile:	0:00 Friday, 22 August 2014 => 0:00 Friday, 5 September 2014 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 10 - 160 km/h. North, East, South, West (bound) All - (Headway) Default Profile Vehicle classification (AustRoads94) Metric (meter, kilometer, m/s, km/h, kg, tonne) Vehicles = 7963 / 8506 (93.62%)

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-38

Site:	Warril Drive 1.0.0NS
Description:	Ch 70 @ Inter Kennedy Hwy & Warril Dr < 50 >
Filter time:	0:00 Friday, 22 August 2014 => 0:00 Friday, 5 September 2014
Scheme:	Vehicle classification (AustRoads94)
Filter:	Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Average: 1 - 5	s 1 - 7
Hour							L		
0000-0100	1.0	2.0	2.5	0.5	0.5	1.5	2.5	1.3	1.5
0100-0200	0.0	2.0	1.5	0.5	1.5	1.0	1.5	1.1	1.1
0200-0300	1.5	2.0	1.0	1.5	1.5	1.0	0.5	1.5	1.3
0300-0400	0.5	0.0	1.0	1.0	0.0	0.0	0.5	0.5	0.4
0400-0500	1.0	2.0	2.0	2.0	2.5	2.0	1.0	1.9	1.8
0500-0600	5.5	4.5	6.5	5.5	5.5	4.0	2.0	5.5	4.8
0600-0700	10.5	13.5	9.5	11.0	12.0	6.5	5.5	11.3	9.8
0700-0800	35.5	35.5	37.5	33.0	31.0	30.5	15.5	34.5	31.2
0800-0900	46.0	49.5	52.5<	53.5<	44.0	46.0	30.0	49.1<	45.9
0900-1000	37.0	54.0<	46.0	44.5	46.5<	60.5<	48.0<	45.6	48.1<
1000-1100	39.0	37.5	40.0	43.5	39.0	49.0	42.5	39.8	41.5
1100-1200	49.0<	44.5	44.0	51.5	41.5	36.5	44.5	46.1	44.5
1200-1300	41.0	43.0	28.5	43.0	40.0	48.0	38.5	39.1	40.3
1300-1400	34.5	34.0	32.5	37.5	44.0	45.0	38.0	36.5	37.9
1400-1500	43.0	38.5	37.5	28.0	37.5	48.0	39.0<	36.9	38.8
1500-1600	51.0<	53.0	57.0<	59.5<	65.5<	49.5	38.5	57.2<	53.4<
1600-1700	44.0	59.5<	46.5	48.0	53.0	53.5<	36.0	50.2	48.6
1700-1800	49.5	48.0	46.0	38.5	36.5	32.0	32.0	43.7	40.4
1800-1900	41.5	35.0	32.0	42.5	41.5	27.0	27.0	38.5	35.2
1900-2000	8.0	16.0	27.5	20.0	18.5	8.0	16.5	18.0	16.4
2000-2100	8.0	12.0	14.5	9.0	11.0	5.0	1.0	10.9	8.6
2100-2200	5.0	7.5	10.5	9.0	10.5	9.5	6.0	8.5	8.3
2200-2300	2.5	4.0	6.0	5.0	5.5	9.0	4.5	4.6	5.2
2300-2400	1.5	5.5	7.5	0.5	3.0	7.5	0.5	3.6	3.7
Totals _							.		
0700-1900	511.0	532.0	500.0	523.0	520.0	525.5	429.5	517.2	505.9
0600-2200	542.5	581.0	562.0	572.0	572.0	554.5	458.5	565.9	548.9
0600-0000	546.5	590.5	575.5	577.5	580.5	571.0	463.5	574.1	557.9
0000-0000	556.0	603.0	590.0	588.5	592.0	580.5	471.5	585.9	568.8
AM Peak	1100	0900	0800	0800	0900	0900	0900		
	49.0	54.0	52.5	53.5	46.5	60.5	48.0		
PM Peak	1500 51 0	1600	1500	1500	1500	1600	1400		

* - No data.

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-42 -- English (ENA)

<u>Datasets:</u> Site: Direction: Survey Duration: Zone:	[Warril Drive 2] Ch 820 @ Intersection Kennedy Hwy & Warril Dr <50> 7 - North bound A>B, South bound B>A. Lane: 0 9:34 Thursday, 21 August 2014 => 9:50 Friday, 5 September 2014
File: Identifier: Algorithm: Data type:	Warril Drive 205Sep2014.EC0 (Plus) FN47XFS5 MC56-L5 [MC55] (c)Microcom 19Oct04 Factory default (v3.21 - 15315) Axle sensors - Paired (Class/Speed/Count)
Profile: Filter time: Included classes: Speed range: Direction: Separation: Name: Scheme: Units: In profile:	0:00 Friday, 22 August 2014 => 0:00 Friday, 5 September 2014 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 10 - 160 km/h. North, East, South, West (bound) All - (Headway) Default Profile Vehicle classification (AustRoads94) Metric (meter, kilometer, m/s, km/h, kg, tonne) Vehicles = 2200 / 2355 (93.42%)

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-42

Site:	Warril Drive 2.0.0NS
Description:	Ch 820 @ Intersection Kennedy Hwy & Warril Dr <50>
Filter time:	0:00 Friday, 22 August 2014 => 0:00 Friday, 5 September 2014
Scheme:	Vehicle classification (AustRoads94)
Filter:	Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Average: 1 - 5	s 1 - 7
Hour									
0000-0100	0.5	2.0	1.0	0.5	0.5	1.0	0.5	0.9	0.9
0100-0200	0.0	0.5	1.0	0.5	0.0	0.0	1.5	0.4	0.5
0200-0300	0.0	1.0	1.0	0.5	0.5	0.0	0.5	0.6	0.5
0300-0400	0.5	0.0	1.0	0.0	0.0	0.0	0.0	0.3	0.2
0400-0500	1.0	1.5	2.0	1.0	1.0	0.5	0.0	1.3	1.0
0500-0600	2.5	2.0	3.0	2.0	2.5	0.5	0.0	2.4	1.8
0600-0700	1.5	2.5	3.0	2.0	2.5	1.0	1.0	2.3	1.9
0700-0800	4.5	5.5	7.0	6.5	4.5	9.5	2.5	5.6	5.7
0800-0900	15.0	15.5	16.0<	19.0<	16.5<	10.5	5.0	16.4<	13.9
0900-1000	12.5	19.0<	15.5	11.5	14.0	13.5<	17.5<	14.5	14.8<
1000-1100	7.5	10.5	14.0	12.0	12.0	11.0	10.5	11.2	11.1
1100-1200	18.0<	10.5	15.0	15.0	9.5	9.5	14.0	13.6	13.1
1200-1300	9.5	11.5	8.0	10.0	15.5	10.5	10.0	10.9	10.7
1300-1400	7.5	13.5	8.0	10.5	11.5	12.5	12.5<	10.2	10.9
1400-1500	9.0	13.5	8.5	6.5	8.5	14.0	9.5	9.2	9.9
1500-1600	13.0	15.5	17.0<	24.5<	25.0<	16.0<	10.0	19.0<	17.3<
1600-1700	11.0	22.0<	14.0	13.5	13.5	9.5	9.5	14.8	13.3
1700-1800	17.0<	13.0	15.5	10.0	11.5	5.5	8.5	13.4	11.6
1800-1900	8.0	7.5	8.5	6.0	9.5	7.0	3.5	7.9	7.1
1900-2000	0.5	5.0	7.5	3.0	3.5	1.5	3.0	3.9	3.4
2000-2100	1.5	5.5	4.5	4.0	1.0	0.5	0.0	3.3	2.4
2100-2200	0.0	1.5	3.5	1.0	2.5	3.0	0.5	1.7	1.7
2200-2300	0.0	2.0	3.5	1.5	1.5	2.0	1.5	1.7	1.7
2300-2400	1.0	4.0	6.5	0.0	0.0	0.0	0.5	2.3	1.7
Totals _									
0700-1900	132.5	157.5	147.0	145.0	151.5	129.0	113.0	146.7	139.4
0600-2200	136.0	172.0	165.5	155.0	161.0	135.0	117.5	157.9	148.9
0600-0000	137.0	178.0	175.5	156.5	162.5	137.0	119.5	161.9	152.3
0000-0000	141.5	185.0	184.5	161.0	167.0	139.0	122.0	167.8	157.1
AM Peak	1100	0900	0800	0800	0800	0900	0900		
	18.0	19.0	16.0	19.0	16.5	13.5	17.5		
PM Peak	1700	1600	1500	1500	1500	1500	1300		
	17.0	22.0	17.0	24.5	25.0	16.0	12.5		

* - No data.

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-38 -- English (ENA)

<u>Datasets:</u> Site: Direction: Survey Duration: Zone:	[Warril Drive 1] Ch 70 @ Inter Kennedy Hwy & Warril Dr < 50 > 7 - North bound A>B, South bound B>A. Lane: 0 10:15 Thursday, 21 August 2014 => 9:46 Friday, 5 September 2014
File: Identifier:	Warril Drive 105Sep2014.EC0 (Plus) N2222EEP MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Factory default (v3.21 - 15315)
Data type:	Axle sensors - Paired (Class/Speed/Count)
Profile: Filter time: Included classes: Speed range: Direction: Separation: Name: Scheme: Units: In profile:	0:00 Friday, 22 August 2014 => 0:00 Friday, 5 September 2014 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 10 - 160 km/h. North, East, South, West (bound) All - (Headway) Default Profile Vehicle classification (AustRoads94) Metric (meter, kilometer, m/s, km/h, kg, tonne) Vehicles = 7963 / 8506 (93.62%)

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Site:	Warril Drive 1.0.0NS
Description:	Ch 70 @ Inter Kennedy Hwy & Warril Dr < 50 >
Filter time:	0:00 Friday, 22 August 2014 => 0:00 Friday, 5 September 2014
Scheme:	Vehicle classification (AustRoads94)
Filter:	Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Average: 1 - 5	s 1 - 7
Hour							L		
0000-0100	1.0	2.0	2.5	0.5	0.5	1.5	2.5	1.3	1.5
0100-0200	0.0	2.0	1.5	0.5	1.5	1.0	1.5	1.1	1.1
0200-0300	1.5	2.0	1.0	1.5	1.5	1.0	0.5	1.5	1.3
0300-0400	0.5	0.0	1.0	1.0	0.0	0.0	0.5	0.5	0.4
0400-0500	1.0	2.0	2.0	2.0	2.5	2.0	1.0	1.9	1.8
0500-0600	5.5	4.5	6.5	5.5	5.5	4.0	2.0	5.5	4.8
0600-0700	10.5	13.5	9.5	11.0	12.0	6.5	5.5	11.3	9.8
0700-0800	35.5	35.5	37.5	33.0	31.0	30.5	15.5	34.5	31.2
0800-0900	46.0	49.5	52.5<	53.5<	44.0	46.0	30.0	49.1<	45.9
0900-1000	37.0	54.0<	46.0	44.5	46.5<	60.5<	48.0<	45.6	48.1<
1000-1100	39.0	37.5	40.0	43.5	39.0	49.0	42.5	39.8	41.5
1100-1200	49.0<	44.5	44.0	51.5	41.5	36.5	44.5	46.1	44.5
1200-1300	41.0	43.0	28.5	43.0	40.0	48.0	38.5	39.1	40.3
1300-1400	34.5	34.0	32.5	37.5	44.0	45.0	38.0	36.5	37.9
1400-1500	43.0	38.5	37.5	28.0	37.5	48.0	39.0<	36.9	38.8
1500-1600	51.0<	53.0	57.0<	59.5<	65.5<	49.5	38.5	57.2<	53.4<
1600-1700	44.0	59.5<	46.5	48.0	53.0	53.5<	36.0	50.2	48.6
1700-1800	49.5	48.0	46.0	38.5	36.5	32.0	32.0	43.7	40.4
1800-1900	41.5	35.0	32.0	42.5	41.5	27.0	27.0	38.5	35.2
1900-2000	8.0	16.0	27.5	20.0	18.5	8.0	16.5	18.0	16.4
2000-2100	8.0	12.0	14.5	9.0	11.0	5.0	1.0	10.9	8.6
2100-2200	5.0	7.5	10.5	9.0	10.5	9.5	6.0	8.5	8.3
2200-2300	2.5	4.0	6.0	5.0	5.5	9.0	4.5	4.6	5.2
2300-2400	1.5	5.5	7.5	0.5	3.0	7.5	0.5	3.6	3.7
Totals _							.		
0700-1900	511.0	532.0	500.0	523.0	520.0	525.5	429.5	517.2	505.9
0600-2200	542.5	581.0	562.0	572.0	572.0	554.5	458.5	565.9	548.9
0600-0000	546.5	590.5	575.5	577.5	580.5	571.0	463.5	574.1	557.9
0000-0000	556.0	603.0	590.0	588.5	592.0	580.5	471.5	585.9	568.8
AM Peak	1100	0900	0800	0800	0900	0900	0900		
	49.0	54.0	52.5	53.5	46.5	60.5	48.0		
PM Peak	1500 51 0	1600	1500	1500	1500	1600	1400 39 0		

* - No data.

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-42 -- English (ENA)

<u>Datasets:</u> Site: Direction: Survey Duration: Zone:	[Warril Drive 2] Ch 820 @ Intersection Kennedy Hwy & Warril Dr <50> 7 - North bound A>B, South bound B>A. Lane: 0 9:34 Thursday, 21 August 2014 => 9:50 Friday, 5 September 2014
File: Identifier: Algorithm: Data type:	Warril Drive 205Sep2014.EC0 (Plus) FN47XFS5 MC56-L5 [MC55] (c)Microcom 19Oct04 Factory default (v3.21 - 15315) Axle sensors - Paired (Class/Speed/Count)
Profile: Filter time: Included classes: Speed range: Direction: Separation: Name: Scheme: Units: In profile:	0:00 Friday, 22 August 2014 => 0:00 Friday, 5 September 2014 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 10 - 160 km/h. North, East, South, West (bound) All - (Headway) Default Profile Vehicle classification (AustRoads94) Metric (meter, kilometer, m/s, km/h, kg, tonne) Vehicles = 2200 / 2355 (93.42%)

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-42

Site:	Warril Drive 2.0.0NS
Description:	Ch 820 @ Intersection Kennedy Hwy & Warril Dr <50>
Filter time:	0:00 Friday, 22 August 2014 => 0:00 Friday, 5 September 2014
Scheme:	Vehicle classification (AustRoads94)
Filter:	Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Average: 1 - 5	s 1 - 7
Hour									
0000-0100	0.5	2.0	1.0	0.5	0.5	1.0	0.5	0.9	0.9
0100-0200	0.0	0.5	1.0	0.5	0.0	0.0	1.5	0.4	0.5
0200-0300	0.0	1.0	1.0	0.5	0.5	0.0	0.5	0.6	0.5
0300-0400	0.5	0.0	1.0	0.0	0.0	0.0	0.0	0.3	0.2
0400-0500	1.0	1.5	2.0	1.0	1.0	0.5	0.0	1.3	1.0
0500-0600	2.5	2.0	3.0	2.0	2.5	0.5	0.0	2.4	1.8
0600-0700	1.5	2.5	3.0	2.0	2.5	1.0	1.0	2.3	1.9
0700-0800	4.5	5.5	7.0	6.5	4.5	9.5	2.5	5.6	5.7
0800-0900	15.0	15.5	16.0<	19.0<	16.5<	10.5	5.0	16.4<	13.9
0900-1000	12.5	19.0<	15.5	11.5	14.0	13.5<	17.5<	14.5	14.8<
1000-1100	7.5	10.5	14.0	12.0	12.0	11.0	10.5	11.2	11.1
1100-1200	18.0<	10.5	15.0	15.0	9.5	9.5	14.0	13.6	13.1
1200-1300	9.5	11.5	8.0	10.0	15.5	10.5	10.0	10.9	10.7
1300-1400	7.5	13.5	8.0	10.5	11.5	12.5	12.5<	10.2	10.9
1400-1500	9.0	13.5	8.5	6.5	8.5	14.0	9.5	9.2	9.9
1500-1600	13.0	15.5	17.0<	24.5<	25.0<	16.0<	10.0	19.0<	17.3<
1600-1700	11.0	22.0<	14.0	13.5	13.5	9.5	9.5	14.8	13.3
1700-1800	17.0<	13.0	15.5	10.0	11.5	5.5	8.5	13.4	11.6
1800-1900	8.0	7.5	8.5	6.0	9.5	7.0	3.5	7.9	7.1
1900-2000	0.5	5.0	7.5	3.0	3.5	1.5	3.0	3.9	3.4
2000-2100	1.5	5.5	4.5	4.0	1.0	0.5	0.0	3.3	2.4
2100-2200	0.0	1.5	3.5	1.0	2.5	3.0	0.5	1.7	1.7
2200-2300	0.0	2.0	3.5	1.5	1.5	2.0	1.5	1.7	1.7
2300-2400	1.0	4.0	6.5	0.0	0.0	0.0	0.5	2.3	1.7
Totals _									
0700-1900	132.5	157.5	147.0	145.0	151.5	129.0	113.0	146.7	139.4
0600-2200	136.0	172.0	165.5	155.0	161.0	135.0	117.5	157.9	148.9
0600-0000	137.0	178.0	175.5	156.5	162.5	137.0	119.5	161.9	152.3
0000-0000	141.5	185.0	184.5	161.0	167.0	139.0	122.0	167.8	157.1
AM Peak	1100	0900	0800	0800	0800	0900	0900		
	18.0	19.0	16.0	19.0	16.5	13.5	17.5		
PM Peak	1700	1600	1500	1500	1500	1500	1300		
	17.0	22.0	17.0	24.5	25.0	16.0	12.5		

* - No data.

Proposed Non Urban Residential Subdivision Kuranda

APPENDIX C



Document Set ID: 3345665 Version: 1, Version Date: 16/02/2018



2) 5	(269) 180	(83) 91	Rob Veivers
2	Т	L	Drive
)	(0)		
2	(138)		
5	(52)		
8	(67)		
2)	(322)	(29)	
7	231	10	
2	т	L	Fallon Dood
)	(0)		FallOli Ruau
5	(17)		
2	(2)		
5	(7)		
Hig	ghway (so	uth)	
end			
-	Left turn	00	AM Peak Volume
Г	Through	(00)	PM Peak Volume
2	Right turn		\wedge
J	U-turn		\bigcirc



8) 2	(334) 223	(93) 102	Rob Veivers
2	Т	L	Drive
)	(0)		_
7	(155)		
0	(58)		
3	(75)		
7)	(399)	(32)	
9	286	11	
2	Т	L	Eallon Dood
)	(0)		Falloli Roau
2	(19)		
2	(2)		
7	(8)		
Hig	nhway (so	uth)	
end			
-	Left turn	00	AM Peak Volume
Г	Through	(00)	PM Peak Volume
2	Right turn		
J	U-turn		\bigvee



3) 7 8	(387) 259 T	(101) 111 L	Rob Veivers Drive
) 1 5 6	(0) (168) (63) (82)		
1) 1 R	(464) 333 T	(35) 12 L	Fallen Dood
) 7 2 8	(0) (21) (2) (9)		- Fallon Road
Hig	ghway (so	uth)	
end - F	Left turn Through	00 (00)	AM Peak Volume PM Peak Volume
) J	Right turn U-turn		\bigcirc















26) 91 R	(334) 223 T	(93) 102 L	Rob Veivers Drive
0 47 59 43	(0) (155) (78) (75)		
17) 19 R 0 52 2 17 <i>Hig</i>	(399) 286 <u>T</u> (0) (19) (2) (8) <i>hway (sou</i>	(32) 11 L	- Fallon Road
end L T R U	Left turn Through Right turn U-turn	00 (00)	AM Peak Volume PM Peak Volume



61) 6 1 1 3	(387) 259 T (0) (168) (83)	(101) 111 L	Rob Veivers Drive
5 1) 1	(82) (464) 333 T	(35) 12 L	- Fallon Road
r 2 B <i>Hi</i> g	(0) (21) (2) (9) ghway (so	uth)	
end	Left turn Through Right turn U-turn	00 (00)	AM Peak Volume PM Peak Volume



96) 78 R	(334) 223 T	(93) 102 L	Rob Veivers Drive
0 47 55 43	(0) (155) (69) (75)		
34) 35 R 0 52 3 17 <i>Hig</i>	(399) 286 T (0) (19) (5) (8) <i>hway (sou</i>	(32) 11 L	- Fallon Road
end L T R U	Left turn Through Right turn U-turn	00 (00)	AM Peak Volume PM Peak Volume



)1) 3 ?	(387) 259 T	(101) 111 L	Rob Veivers Drive
) 1 9 6	(0) (168) (74) (82)		-
9) 7 R	(464) 333 T	(35) 12 L	- Fallon Road
) 7 1 8	(0) (21) (5) (9)		- 1 411011 11.040
Hig	ghway (so	uth)	
end - r	Left turn Through	00 (00)	AM Peak Volume PM Peak Volume
) J	Right turn U-turn		\bigcirc



33) 4	(334) 223	(93) 102	Rob Veivers
7 0 3	(0) (155) (80) (75)	L	Drive
7) 9 <u>8</u>	(399) 286 T (0)	(32) 11 L	- Fallon Road
2 <u>2</u> 7 Hig	(19) (2) (8) Jhway (so	uth)	
end - r R J	Left turn Through Right turn U-turn	00 (00)	AM Peak Volume PM Peak Volume



38) 9 ?	(387) 259 T	(101) 111 L	Rob Veivers Drive
) 1 4	(0) (168) (85) (82)		
0	(82)		
1)	(464)	(35)	
1	333	12	
2	т	L	Eallan Dood
)	(0)		Falloli Roau
7	(21)		
2	(2)		
8	(9)		
Hig	ghway (so	uth)	
end			
-	Left turn	00	AM Peak Volume
Г	Through	(00)	PM Peak Volume
R	Right turn		
J	U-turn		\bigvee

Proposed Non Urban Residential Subdivision Kuranda

APPENDIX D DETAILED SIDRA OUTPUTS



Document Set ID: 3345665 Version: 1, Version Date: 16/02/2018

Site: 101 [2017 Background - AM]

2017 AM

Signals - Fixed Time Isolated Cycle Time = 75 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles											
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average
ID	Mov	Total	HV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed
0 11		veh/h	%	v/c	sec		veh	m		per veh	km/h
South	East: Rob	Veivers Dr									
21	L2	40	5.0	0.032	7.4	LOS A	0.3	2.0	0.28	0.61	56.3
22	T1	47	4.0	0.156	15.7	LOS B	0.8	5.9	0.89	0.66	47.7
23	R2	44	0.0	0.149	21.2	LOS C	0.8	5.3	0.89	0.72	47.0
Appro	ach	132	3.0	0.156	15.0	LOS B	0.8	5.9	0.71	0.66	49.8
North	East: Ken	nedy Hwy E									
24	L2	96	2.0	0.070	8.5	LOS A	0.5	3.8	0.25	0.66	58.4
25	T1	189	12.0	0.561	18.8	LOS B	4.8	36.9	0.95	0.77	56.7
26	R2	58	9.0	0.207	23.1	LOS C	1.0	7.6	0.90	0.74	46.7
Appro	ach	343	8.7	0.561	16.7	LOS B	4.8	36.9	0.75	0.73	55.2
North\	West: Myo	bla Rd									
27	L2	59	7.0	0.055	8.9	LOS A	0.6	4.4	0.38	0.63	54.6
28	T1	83	0.0	0.631	37.7	LOS D	3.1	21.9	0.99	0.80	37.1
29	R2	43	5.0	0.258	41.9	LOS D	1.6	11.4	0.96	0.73	36.6
Appro	ach	185	3.4	0.631	29.5	LOS C	3.1	21.9	0.79	0.73	41.2
South	West: Ker	nnedy Hwy W									
30	L2	73	7.0	0.052	8.2	LOS A	0.3	2.2	0.20	0.65	58.5
31	T1	281	7.0	0.565	26.2	LOS C	9.1	67.5	0.92	0.77	50.9
32	R2	78	3.0	0.268	25.3	LOS C	1.9	13.3	0.91	0.75	45.6
Appro	ach	432	6.3	0.565	23.0	LOS C	9.1	67.5	0.80	0.75	50.9
All Vel	hicles	1092	6.2	0.631	21.2	LOS C	9.1	67.5	0.77	0.73	50.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: CARDNO (QLD) PTY LTD | Processed: Wednesday, 10 January 2018 11:54:32 AM

Project: G:\QTT17026 - Kuranda Equestrian TIA\5_PROJECT ANALYSIS\Analysis\Sidra\Rural Residential\Kennedy Hwy and Myola Intersn RURAL RES.sip7

Site: 101 [2029 Background - AM]

2017 AM

Signals - Fixed Time Isolated Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles											
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average
ID	Mov	Total	ΗV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South	East: Rob	Veivers Dr									
21	L2	45	5.0	0.037	7.9	LOS A	0.4	2.8	0.31	0.61	55.9
22	T1	53	4.0	0.185	17.2	LOS B	1.0	7.2	0.91	0.67	46.8
23	R2	49	0.0	0.178	22.8	LOS C	0.9	6.5	0.91	0.72	46.1
Appro	ach	147	3.0	0.185	16.2	LOS B	1.0	7.2	0.72	0.67	49.0
North	East: Keni	nedy Hwy E									
24	L2	107	2.0	0.078	8.6	LOS A	0.7	4.7	0.25	0.66	58.3
25	T1	235	12.0	0.611	19.3	LOS B	6.3	48.4	0.95	0.78	56.2
26	R2	65	9.0	0.249	24.7	LOS C	1.3	9.5	0.92	0.74	45.8
Appro	ach	407	8.9	0.611	17.4	LOS B	6.3	48.4	0.76	0.74	54.8
North\	Nest: Myc	ola Rd									
27	L2	66	7.0	0.064	9.6	LOS A	0.8	5.7	0.40	0.64	54.0
28	T1	93	0.0	0.632	38.3	LOS D	3.6	25.3	0.97	0.79	36.9
29	R2	48	5.0	0.240	42.3	LOS D	1.8	13.2	0.95	0.74	36.5
Appro	ach	207	3.4	0.632	30.0	LOS C	3.6	25.3	0.78	0.73	40.9
South	West: Ker	nnedy Hwy W									
30	L2	81	7.0	0.057	8.2	LOS A	0.4	2.7	0.21	0.65	58.5
31	T1	348	7.0	0.650	27.4	LOS C	12.2	90.2	0.93	0.80	50.0
32	R2	87	3.0	0.320	26.6	LOS C	2.2	15.7	0.93	0.76	44.8
Appro	ach	517	6.3	0.650	24.3	LOS C	12.2	90.2	0.82	0.77	50.2
All Vel	hicles	1279	6.3	0.650	22.1	LOS C	12.2	90.2	0.78	0.74	49.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Site: 101 [2029 Background - PM]

2017 AM

Signals - Fixed Time Isolated Cycle Time = 85 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles											
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average
ID	Mov	Total	ΗV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South	East: Rob	Veivers Dr									
21	L2	79	1.0	0.065	9.3	LOS A	0.9	6.5	0.37	0.64	55.5
22	T1	61	0.0	0.398	38.3	LOS D	2.4	16.8	0.95	0.71	36.9
23	R2	163	7.0	0.821	51.9	LOS D	7.5	55.7	1.00	0.94	33.1
Appro	ach	303	4.0	0.821	38.1	LOS D	7.5	55.7	0.83	0.82	37.9
NorthE	East: Keni	nedy Hwy E									
24	L2	98	10.0	0.071	8.4	LOS A	0.5	3.8	0.21	0.65	58.3
25	T1	352	4.0	0.749	21.8	LOS C	10.7	77.1	0.98	0.86	54.2
26	R2	61	8.0	0.246	26.2	LOS C	1.3	9.8	0.93	0.74	45.0
Appro	ach	511	5.6	0.749	19.7	LOS B	10.7	77.1	0.83	0.81	53.6
North\	Nest: Myc	ola Rd									
27	L2	69	8.0	0.069	9.7	LOS A	0.8	6.3	0.39	0.64	53.7
28	T1	73	3.0	0.821	48.7	LOS D	3.3	24.0	1.00	0.91	33.4
29	R2	56	9.0	0.453	49.9	LOS D	2.4	18.1	1.00	0.75	33.5
Appro	ach	198	6.4	0.821	35.4	LOS D	3.3	24.0	0.78	0.77	38.6
South	West: Ker	nnedy Hwy W									
30	L2	49	7.0	0.036	8.4	LOS A	0.3	2.0	0.22	0.65	58.3
31	T1	293	11.0	0.506	25.7	LOS C	10.0	76.6	0.86	0.73	51.2
32	R2	40	0.0	0.153	26.7	LOS C	1.0	6.9	0.91	0.72	44.8
Appro	ach	382	9.3	0.506	23.6	LOS C	10.0	76.6	0.79	0.72	51.3
All Vel	hicles	1394	6.4	0.821	27.0	LOS C	10.7	77.1	0.81	0.78	46.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Site: 101 [2039 Background - AM]

2017 AM

Signals - Fixed Time Isolated Cycle Time = 85 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles												
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average	
ID	Mov	Total	ΗV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed	
A (1)		veh/h	%	v/c	sec		veh	m		per veh	km/h	
SouthEast: Rob Vei		Veivers Dr										
21	L2	48	5.0	0.041	8.2	LOS A	0.5	3.3	0.32	0.62	55.6	
22	T1	58	4.0	0.216	18.8	LOS B	1.2	8.9	0.92	0.69	45.9	
23	R2	54	0.0	0.205	24.4	LOS C	1.1	7.9	0.92	0.73	45.1	
Appro	ach	160	3.0	0.216	17.5	LOS B	1.2	8.9	0.74	0.68	48.2	
North	East: Keni	nedy Hwy E										
24	L2	117	2.0	0.085	8.9	LOS A	0.8	6.0	0.27	0.67	58.0	
25	T1	273	12.0	0.610	19.1	LOS B	7.5	57.9	0.94	0.78	56.4	
26	R2	71	9.0	0.286	26.3	LOS C	1.5	11.5	0.93	0.75	44.9	
Annro	ach	460	9.0	0.610	17.6		7.5	57.9	0.77	0.75	54.7	
Appro	aon	400	0.0	0.010	17.0	L00 D	7.0	07.5	0.77	0.70	04.7	
NorthWest: Myola		ola Rd										
27	L2	72	7.0	0.073	11.5	LOS B	1.1	7.8	0.45	0.65	52.6	
28	T1	101	0.0	0.674	40.7	LOS D	4.2	29.4	0.97	0.81	36.0	
29	R2	53	5.0	0.249	44.0	LOS D	2.1	15.2	0.95	0.74	35.8	
Appro	ach	225	3.4	0.674	32.2	LOS C	4.2	29.4	0.80	0.75	40.0	
South	Mast· Kar	nedy Hwy W										
20	1.2		7.0	0.062	Q /	1084	0.5	2.2	0.22	0.65	59.4	
30		00	7.0	0.002	0.4	LOSA	0.5	3.5	0.22	0.05	10.4	
31	11	404	7.0	0.682	27.7	LOSIC	14.8	110.1	0.93	0.81	49.9	
32	R2	95	3.0	0.369	27.7	LOS C	2.4	17.5	0.95	0.76	44.3	
Approach		587	6.4	0.682	24.8	LOS C	14.8	110.1	0.83	0.78	49.9	
All Vel	hicles	1433	6.4	0.682	22.8	LOS C	14.8	110.1	0.79	0.75	49.2	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Site: 101 [2039 Background - PM]

2017 AM

Signals - Fixed Time Isolated Cycle Time = 100 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles												
Mov	OD	Demand	Flows	Deq.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average	
ID	Mov	Total	ΗV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed	
		veh/h	%	v/c	sec		veh	m		per veh	km/h	
SouthEast: Rob Vei		Veivers Dr										
21	L2	86	1.0	0.073	10.2	LOS B	1.2	8.7	0.38	0.64	54.8	
22	T1	66	0.0	0.412	42.2	LOS D	3.0	20.7	0.93	0.70	35.4	
23	R2	177	7.0	0.792	55.6	LOS E	9.1	67.6	1.00	0.90	32.0	
Approach		329	4.0	0.792	41.0	LOS D	9.1	67.6	0.82	0.80	36.8	
North	East: Kenr	nedy Hwy E										
24	L2	106	10.0	0.076	8.5	LOS A	0.7	5.0	0.20	0.65	58.2	
25	T1	407	4.0	0.765	24.9	LOS C	14.7	106.6	0.97	0.87	51.8	
26	R2	66	8.0	0.290	30.0	LOS C	1.6	12.2	0.94	0.75	43.0	
Approach		580	5.6	0.765	22.5	LOS C	14.7	106.6	0.83	0.81	51.6	
NorthWest: Myola F		ola Rd										
27	L2	76	8.0	0.078	10.9	LOS B	1.2	8.6	0.40	0.65	52.8	
28	T1	80	3.0	0.740	50.4	LOS D	4.0	28.7	0.98	0.84	32.8	
29	R2	60	9.0	0.344	53.0	LOS D	2.9	21.6	0.97	0.75	32.6	
Appro	ach	216	6.4	0.740	37.3	LOS D	4.0	28.7	0.77	0.75	37.8	
South	West: Ker	nedy Hwy W										
30	L2	54	7.0	0.038	8.4	LOS A	0.3	2.4	0.19	0.64	58.4	
31	T1	340	11.0	0.566	29.9	LOS C	13.8	105.3	0.88	0.76	48.4	
32	R2	43	0.0	0.194	31.3	LOS C	1.3	8.9	0.93	0.73	42.5	
Approach		437	9.4	0.566	27.4	LOS C	13.8	105.3	0.80	0.74	48.7	
All Ve	hicles	1562	6.4	0.792	29.8	LOS C	14.7	106.6	0.81	0.78	44.8	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Site: 101 [2017 Background - PM]

2017 AM

Signals - Fixed Time Isolated Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles												
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average	
ID	Mov	Total	ΗV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed	
		veh/h	%	v/c	sec		veh	m		per veh	km/h	
SouthEast: Rob Vei		Veivers Dr										
21	L2	71	1.0	0.056	8.4	LOS A	0.7	4.8	0.34	0.63	56.3	
22	T1	55	0.0	0.336	36.5	LOS D	2.0	14.3	0.95	0.71	37.5	
23	R2	145	7.0	0.730	46.8	LOS D	6.0	44.9	1.00	0.88	34.7	
Approach		271	4.0	0.730	34.7	LOS C	6.0	44.9	0.82	0.78	39.2	
NorthE	East: Keni	nedy Hwy E										
24	L2	87	10.0	0.063	8.3	LOS A	0.4	3.0	0.21	0.65	58.3	
25	T1	283	4.0	0.701	20.8	LOS C	8.0	57.8	0.98	0.83	55.0	
26	R2	55	8.0	0.208	24.5	LOS C	1.0	7.8	0.91	0.74	45.9	
Approach		425	5.7	0.701	18.7	LOS B	8.0	57.8	0.81	0.78	54.3	
NorthWest: Myola		ola Rd										
27	L2	62	8.0	0.059	8.7	LOS A	0.6	4.7	0.35	0.63	54.5	
28	T1	65	3.0	0.647	42.0	LOS D	2.7	19.2	1.00	0.80	35.5	
29	R2	49	9.0	0.378	46.7	LOS D	2.0	15.0	0.99	0.74	34.6	
Appro	ach	177	6.4	0.647	31.6	LOS C	2.7	19.2	0.77	0.72	40.1	
South	West: Ker	nnedy Hwy W										
30	L2	44	7.0	0.032	8.4	LOS A	0.2	1.6	0.21	0.64	58.4	
31	T1	236	11.0	0.451	25.6	LOS C	7.7	58.7	0.87	0.73	51.3	
32	R2	36	0.0	0.128	25.8	LOS C	0.9	6.0	0.90	0.72	45.4	
Approach		316	9.2	0.451	23.2	LOS C	7.7	58.7	0.78	0.71	51.4	
All Vel	hicles	1188	6.4	0.730	25.4	LOS C	8.0	58.7	0.80	0.75	47.0	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: G:\QTT17026 - Kuranda Equestrian TIA\5_PROJECT ANALYSIS\Analysis\Sidra\Rural Residential\Kennedy Hwy and Myola Intersn RURAL RES.sip7

Site: 101 [2039 Background - AM with Dev all 179 lots]

2017 AM

Signals - Fixed Time Isolated Cycle Time = 95 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles												
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average	
ID	Mov	Total	HV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed	
		veh/h	%	V/C	sec		veh	m		per veh	km/h	
SouthEast: Rob Ver		o veivers Dr										
21	L2	48	5.0	0.042	8.4	LOS A	0.5	3.7	0.31	0.62	55.4	
22	T1	67	4.0	0.281	21.8	LOS C	1.5	11.2	0.94	0.71	44.2	
23	R2	54	0.0	0.229	27.2	LOS C	1.2	8.5	0.93	0.73	43.6	
Approach		169	3.0	0.281	19.7	LOS B	1.5	11.2	0.76	0.69	46.7	
North	East: Ken	inedy Hwy E										
24	L2	117	2.0	0.086	8.9	LOS A	0.9	6.4	0.25	0.66	58.1	
25	T1	273	12.0	0.623	22.5	LOS C	8.7	67.5	0.94	0.79	53.6	
26	R2	104	9.0	0.473	29.8	LOS C	2.5	18.7	0.97	0.77	43.0	
Approach		494	9.0	0.623	20.8	LOS C	8.7	67.5	0.79	0.75	51.9	
NorthWest: Myola		ola Rd										
27	L2	151	7.0	0.177	11.9	LOS B	2.5	18.6	0.45	0.67	52.2	
28	T1	123	0.0	0.683	38.5	LOS D	5.2	36.7	0.91	0.77	36.8	
29	R2	64	5.0	0.189	41.1	LOS D	2.5	18.6	0.88	0.75	36.9	
Appro	ach	338	4.1	0.683	27.1	LOS C	5.2	36.7	0.70	0.72	42.4	
South	West: Ke	nnedy Hwy W										
30	L2	93	7.0	0.066	8.6	LOS A	0.6	4.2	0.22	0.65	58.2	
31	T1	404	7.0	0.710	32.3	LOS C	17.0	126.0	0.95	0.83	46.9	
32	R2	95	3.0	0.412	31.5	LOS C	2.9	20.6	0.96	0.77	42.3	
Approach		592	6.4	0.710	28.5	LOS C	17.0	126.0	0.84	0.79	47.5	
All Vel	hicles	1593	6.3	0.710	24.9	LOS C	17.0	126.0	0.78	0.75	47.5	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: CARDNO (QLD) PTY LTD | Processed: Monday, 15 January 2018 9:52:38 AM Project: G:\QTT17026 - Kuranda Equestrian TIA\5_PROJECT ANALYSIS\Analysis\Sidra\Rural Residential\Kennedy Hwy and Myola Intersn RURAL RES.sip7
Site: 101 [2029 Background - AM with Dev 163 lots Stg 7]

2017 AM

Signals - Fixed Time Isolated Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles													
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average		
ID	Mov	Total	HV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed		
South	East: Rot	ven/n Veivers Dr	70	V/C	Sec	_	ven	m	_	per ven	KM/N		
21	12	45	5.0	0.038	81	LOSA	0.4	29	0.32	0.62	55.7		
22	 T1	61	4.0	0 214	17.3	LOSB	12	8.4	0.91	0.68	46.7		
23	R2	49	0.0	0.178	22.8		0.9	6.5	0.91	0.00	46.1		
Appro	ach	156	3.0	0.170	16.4		1.2	8.4	0.31	0.62	10.1		
Appio	acri	150	5.0	0.214	10.4	L03 D	1.2	0.4	0.74	0.00	40.0		
North	East: Ken	inedy Hwy E											
24	L2	107	2.0	0.080	8.8	LOS A	0.7	5.1	0.27	0.66	58.1		
25	T1	235	12.0	0.692	22.1	LOS C	6.8	52.8	0.98	0.83	53.9		
26	R2	96	9.0	0.366	25.1	LOS C	1.9	14.3	0.94	0.76	45.6		
Appro	ach	438	8.9	0.692	19.5	LOS B	6.8	52.8	0.80	0.78	52.8		
North\	Nest: Mv	ola Rd											
27	L2	138	7.0	0.164	9.2	LOS A	1.5	11.4	0.39	0.65	54.3		
28	 T1	113	0.0	0.839	43.2		4.8	33.3	0.96	0.93	35.1		
29	R2	59	5.0	0 239	40.1		21	15.6	0.93	0.75	37.3		
Annro	ach	309	4 1	0.839	27.5	105.0	4.8	33.3	0.70	0.77	42.3		
, appro-	aon	000	1.1	0.000	21.0	200.0	1.0	00.0	0.70	0.11	12.0		
South	West: Ke	nnedy Hwy W											
30	L2	85	7.0	0.062	8.6	LOS A	0.5	3.5	0.25	0.66	58.2		
31	T1	348	7.0	0.712	30.5	LOS C	13.0	96.2	0.96	0.85	48.0		
32	R2	87	3.0	0.320	27.4	LOS C	2.3	16.4	0.93	0.76	44.4		
Appro	ach	521	6.3	0.712	26.4	LOS C	13.0	96.2	0.84	0.80	48.7		
All Vel	hicles	1424	6.3	0.839	23.4	LOS C	13.0	96.2	0.79	0.77	48.3		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Site: 101 [2029 Background - PM with Dev 163 lots Stg 7]

2017 AM

Signals - Fixed Time Isolated Cycle Time = 90 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles												
Mov	OD	Demand	l Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average	
ID	Mov	Total	HV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed	
Couth		veh/h	%	V/C	sec		veh	m		per veh	km/h	
South	East: Ro	D velvers Dr										
21	L2	79	1.0	0.065	9.4	LOS A	1.0	6.8	0.37	0.64	55.5	
22	T1	81	0.0	0.537	40.6	LOS D	3.4	23.8	0.96	0.74	36.0	
23	R2	163	7.0	0.818	53.7	LOS D	7.8	58.2	1.00	0.93	32.6	
Appro	ach	323	3.8	0.818	39.6	LOS D	7.8	58.2	0.83	0.81	37.2	
North	East: Ker	nnedy Hwy E										
24	L2	98	10.0	0.071	8.5	LOS A	0.5	4.2	0.21	0.65	58.2	
25	T1	352	4.0	0.757	23.7	LOS C	11.5	83.6	0.98	0.87	52.7	
26	R2	133	8.0	0.566	28.7	LOS C	3.1	23.0	0.98	0.78	43.6	
Approach		582	5.9	0.757	22.3	LOS C	11.5	83.6	0.85	0.81	51.1	
North\	Nest: My	vola Rd										
27	L2	100	8.0	0.098	9.9	LOS A	1.3	9.7	0.39	0.65	53.6	
28	T1	81	3.0	0.833	49.8	LOS D	3.9	27.7	0.98	0.92	33.0	
29	R2	60	9.0	0.344	48.6	LOS D	2.6	19.6	0.97	0.75	33.9	
Appro	ach	241	6.6	0.833	32.9	LOS C	3.9	27.7	0.73	0.76	39.6	
South	West: Ke	ennedy Hwy W	1									
30	L2	60	7.0	0.045	9.0	LOS A	0.5	3.3	0.25	0.65	57.8	
31	T1	293	11.0	0.517	27.7	LOS C	10.7	81.7	0.87	0.74	49.8	
32	R2	40	0.0	0.162	28.5	LOS C	1.1	7.5	0.92	0.72	43.9	
Appro	ach	393	9.3	0.517	24.9	LOS C	10.7	81.7	0.78	0.73	50.2	
All Vel	hicles	1539	6.4	0.833	28.3	LOS C	11.5	83.6	0.81	0.78	45.3	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Site: 101 [2039 Background - PM with Dev all 179 lots]

2017 AM

Signals - Fixed Time Isolated Cycle Time = 95 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles													
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average		
ID	Mov	Total	HV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed		
South	East: Rot	ven/n Neivers Dr	%	V/C	sec	_	ven	m	_	per ven	Km/n		
21	12	86	10	0.074	10.5		1.2	87	0.30	0.65	54.6		
21	L2 T1	00	0.0	0.074	10.0		1.2	26.0	0.05	0.03	25.0		
22		00	0.0	0.043	41.Z		3.0	20.0	0.95	0.73	30.0		
23	R2	177	7.0	0.826	55.4	LUSE	8.9	66.1	1.00	0.94	32.1		
Appro	ach	352	3.8	0.826	40.8	LOS D	8.9	66.1	0.84	0.81	36.8		
NorthE	East: Ken	nedy Hwy E											
24	L2	106	10.0	0.077	8.5	LOS A	0.7	5.0	0.21	0.65	58.1		
25	T1	407	4.0	0.848	30.4	LOS C	16.0	115.7	1.00	0.94	48.1		
26	R2	145	8.0	0.655	31.2	LOS C	3.7	27.3	1.00	0.81	42.4		
Appro	ach	659	5.8	0.848	27.0	LOS C	16.0	115.7	0.87	0.87	48.0		
North	Vest: My	ola Rd											
27	L2	109	8.0	0.132	11.4	LOS B	1.7	12.8	0.43	0.66	52.4		
28	T1	89	3.0	0.902	59.2	LOS E	4.8	34.5	0.98	1.00	30.4		
29	R2	64	9.0	0.350	50.3	LOS D	2.9	21.9	0.97	0.76	33.4		
Approa	ach	263	6.5	0.902	37.1	LOS D	4.8	34.5	0.75	0.80	37.9		
South	Nost Ko	nnedy Hwy W											
20		65	7.0	0.040	0.2	1084	0.6	4.1	0.26	0.66	57.5		
30		00	11.0	0.049	9.3		0.0	4.1	0.20	0.00	ог.о 40 г		
31	11	340	11.0	0.592	29.7	LOSC	13.4	102.6	0.90	0.77	48.5		
32	R2	43	0.0	0.184	30.1	LOS C	1.2	8.6	0.93	0.73	43.1		
Appro	ach	448	9.4	0.592	26.8	LOS C	13.4	102.6	0.81	0.75	49.0		
All Vel	nicles	1722	6.4	0.902	31.3	LOS C	16.0	115.7	0.83	0.81	43.7		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 101v [2017BG AM]

Myola Road / Barnwell Road Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h		
South:	RoadNam	е											
1	L2	3	0.0	0.009	5.9	LOS A	0.0	0.2	0.24	0.57	52.4		
3	R2	7	0.0	0.009	6.3	LOS A	0.0	0.2	0.24	0.57	52.4		
Approa	ch	11	0.0	0.009	6.2	LOS A	0.0	0.2	0.24	0.57	52.4		
East: R	loadName												
4	L2	7	14.0	0.067	5.7	LOS A	0.0	0.0	0.00	0.04	57.4		
5	T1	117	6.0	0.067	0.0	LOS A	0.0	0.0	0.00	0.04	59.7		
Approa	ch	124	6.5	0.067	0.3	NA	0.0	0.0	0.00	0.04	59.5		
West: 0	Dak Forest	Road											
11	T1	124	3.0	0.066	0.0	LOS A	0.0	0.1	0.01	0.01	59.9		
12	R2	2	0.0	0.066	5.8	LOS A	0.0	0.1	0.01	0.01	57.4		
Approa	ch	126	3.0	0.066	0.1	NA	0.0	0.1	0.01	0.01	59.8		
All Veh	icles	261	4.5	0.067	0.5	NA	0.0	0.2	0.01	0.04	59.3		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 101v [2019BG AM]

Myola Road / Barnwell Road Giveway / Yield (Two-Way)

Mover	Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h			
South:	RoadNan	ne												
1	L2	3	0.0	0.009	5.9	LOS A	0.0	0.2	0.25	0.57	52.4			
3	R2	7	0.0	0.009	6.3	LOS A	0.0	0.2	0.25	0.57	52.4			
Approa	ch	11	0.0	0.009	6.2	LOS A	0.0	0.2	0.25	0.57	52.4			
East: RoadName		Э												
4	L2	7	14.0	0.068	5.7	LOS A	0.0	0.0	0.00	0.03	57.4			
5	T1	119	6.0	0.068	0.0	LOS A	0.0	0.0	0.00	0.03	59.7			
Approa	ch	126	6.5	0.068	0.3	NA	0.0	0.0	0.00	0.03	59.5			
West: 0	Dak Fores	st Road												
11	T1	126	3.0	0.067	0.0	LOS A	0.0	0.1	0.01	0.01	59.9			
12	R2	2	0.0	0.067	5.8	LOS A	0.0	0.1	0.01	0.01	57.4			
Approa	ch	128	3.0	0.067	0.1	NA	0.0	0.1	0.01	0.01	59.8			
All Veh	icles	265	4.5	0.068	0.5	NA	0.0	0.2	0.01	0.04	59.3			

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: CARDNO (QLD) PTY LTD | Processed: Wednesday, 10 January 2018 11:41:22 AM Project: G:\QTT17026 - Kuranda Equestrian TIA\5_PROJECT ANALYSIS\Analysis\Sidra\Rural Residential\Myola Barnwell RURAL RES.sip7

V Site: 101v [2029BG AM]

Myola Road / Barnwell Road Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h		
South:	RoadName	e											
1	L2	3	0.0	0.011	5.9	LOS A	0.0	0.2	0.27	0.57	52.3		
3	R2	8	0.0	0.011	6.4	LOS A	0.0	0.2	0.27	0.57	52.4		
Approa	ch	12	0.0	0.011	6.3	LOS A	0.0	0.2	0.27	0.57	52.4		
East: R	oadName												
4	L2	8	14.0	0.075	5.7	LOS A	0.0	0.0	0.00	0.04	57.4		
5	T1	131	6.0	0.075	0.0	LOS A	0.0	0.0	0.00	0.04	59.7		
Approa	ch	139	6.5	0.075	0.4	NA	0.0	0.0	0.00	0.04	59.5		
West: C	Oak Forest	Road											
11	T1	139	3.0	0.074	0.0	LOS A	0.0	0.1	0.01	0.01	59.9		
12	R2	2	0.0	0.074	5.9	LOS A	0.0	0.1	0.01	0.01	57.4		
Approa	ch	141	3.0	0.074	0.1	NA	0.0	0.1	0.01	0.01	59.8		
All Veh	cles	292	4.5	0.075	0.5	NA	0.0	0.2	0.01	0.04	59.3		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: CARDNO (QLD) PTY LTD | Processed: Wednesday, 10 January 2018 11:41:13 AM Project: G:\QTT17026 - Kuranda Equestrian TIA\5_PROJECT ANALYSIS\Analysis\Sidra\Rural Residential\Myola Barnwell RURAL RES.sip7

V Site: 101v [2039BG AM]

Myola Road / Barnwell Road Giveway / Yield (Two-Way)

Mover	Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back o Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h			
South:	RoadName													
1	L2	4	0.0	0.013	5.9	LOS A	0.0	0.3	0.28	0.58	52.3			
3	R2	9	0.0	0.013	6.5	LOS A	0.0	0.3	0.28	0.58	52.3			
Approa	ch	14	0.0	0.013	6.3	LOS A	0.0	0.3	0.28	0.58	52.3			
East: R	oadName													
4	L2	9	14.0	0.081	5.7	LOS A	0.0	0.0	0.00	0.04	57.4			
5	T1	142	6.0	0.081	0.0	LOS A	0.0	0.0	0.00	0.04	59.6			
Approa	ch	152	6.5	0.081	0.4	NA	0.0	0.0	0.00	0.04	59.5			
West: C	Dak Forest F	Road												
11	T1	152	3.0	0.081	0.0	LOS A	0.0	0.1	0.01	0.01	59.9			
12	R2	2	0.0	0.081	5.9	LOS A	0.0	0.1	0.01	0.01	57.4			
Approa	ch	154	3.0	0.081	0.1	NA	0.0	0.1	0.01	0.01	59.8			
All Veh	icles	319	4.5	0.081	0.5	NA	0.0	0.3	0.02	0.05	59.3			

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: CARDNO (QLD) PTY LTD | Processed: Monday, 15 January 2018 10:44:46 AM Project: G:\QTT17026 - Kuranda Equestrian TIA\5_PROJECT ANALYSIS\Analysis\Sidra\Rural Residential\Myola Barnwell RURAL RES.sip7

▽ Site: 101v [2039BG PM]

Myola Road / Barnwell Road Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	OD Mov	Demand I Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back (Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h		
South:	RoadName)											
1	L2	2	0.0	0.006	5.9	LOS A	0.0	0.1	0.26	0.56	52.3		
3	R2	4	0.0	0.006	6.4	LOS A	0.0	0.1	0.26	0.56	52.4		
Approa	ch	6	0.0	0.006	6.2	LOS A	0.0	0.1	0.26	0.56	52.4		
East: R	oadName												
4	L2	12	0.0	0.077	5.5	LOS A	0.0	0.0	0.00	0.05	57.9		
5	T1	134	5.0	0.077	0.0	LOS A	0.0	0.0	0.00	0.05	59.5		
Approa	ch	145	4.6	0.077	0.4	NA	0.0	0.0	0.00	0.05	59.4		
West: C	Oak Forest	Road											
11	T1	124	6.0	0.067	0.0	LOS A	0.0	0.1	0.01	0.01	59.9		
12	R2	1	0.0	0.067	5.9	LOS A	0.0	0.1	0.01	0.01	57.5		
Approa	ch	125	5.9	0.067	0.1	NA	0.0	0.1	0.01	0.01	59.9		
All Veh	cles	277	5.1	0.077	0.4	NA	0.0	0.1	0.01	0.04	59.4		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: CARDNO (QLD) PTY LTD | Processed: Monday, 15 January 2018 10:45:29 AM Project: G:\QTT17026 - Kuranda Equestrian TIA\5_PROJECT ANALYSIS\Analysis\Sidra\Rural Residential\Myola Barnwell RURAL RES.sip7

V Site: 101v [2017BG PM]

Myola Road / Barnwell Road Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	OD Mov	Demand I Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h		
South:	RoadName	Э											
1	L2	2	0.0	0.004	5.8	LOS A	0.0	0.1	0.22	0.55	52.4		
3	R2	3	0.0	0.004	6.2	LOS A	0.0	0.1	0.22	0.55	52.5		
Approa	ch	5	0.0	0.004	6.0	LOS A	0.0	0.1	0.22	0.55	52.5		
East: R	oadName												
4	L2	9	0.0	0.063	5.5	LOS A	0.0	0.0	0.00	0.05	57.9		
5	T1	109	5.0	0.063	0.0	LOS A	0.0	0.0	0.00	0.05	59.5		
Approa	ch	119	4.6	0.063	0.4	NA	0.0	0.0	0.00	0.05	59.4		
West: 0	Dak Forest	Road											
11	T1	102	6.0	0.055	0.0	LOS A	0.0	0.1	0.01	0.01	59.9		
12	R2	1	0.0	0.055	5.8	LOS A	0.0	0.1	0.01	0.01	57.5		
Approa	ch	103	5.9	0.055	0.1	NA	0.0	0.1	0.01	0.01	59.9		
All Veh	icles	227	5.1	0.063	0.4	NA	0.0	0.1	0.01	0.04	59.4		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: CARDNO (QLD) PTY LTD | Processed: Wednesday, 10 January 2018 11:41:24 AM Project: G:\QTT17026 - Kuranda Equestrian TIA\5_PROJECT ANALYSIS\Analysis\Sidra\Rural Residential\Myola Barnwell RURAL RES.sip7

V Site: 101v [2019BG PM]

Myola Road / Barnwell Road Giveway / Yield (Two-Way)

Mover	Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back o Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h			
South:	RoadName													
1	L2	2	0.0	0.004	5.8	LOS A	0.0	0.1	0.22	0.55	52.4			
3	R2	3	0.0	0.004	6.2	LOS A	0.0	0.1	0.22	0.55	52.5			
Approa	ch	5	0.0	0.004	6.0	LOS A	0.0	0.1	0.22	0.55	52.5			
East: RoadName														
4	L2	9	0.0	0.064	5.5	LOS A	0.0	0.0	0.00	0.05	57.9			
5	T1	112	5.0	0.064	0.0	LOS A	0.0	0.0	0.00	0.05	59.5			
Approa	ch	121	4.6	0.064	0.4	NA	0.0	0.0	0.00	0.05	59.4			
West: C	Dak Forest F	Road												
11	T1	104	6.0	0.056	0.0	LOS A	0.0	0.1	0.01	0.01	59.9			
12	R2	1	0.0	0.056	5.8	LOS A	0.0	0.1	0.01	0.01	57.5			
Approa	ch	105	5.9	0.056	0.1	NA	0.0	0.1	0.01	0.01	59.9			
All Veh	icles	232	5.1	0.064	0.4	NA	0.0	0.1	0.01	0.04	59.4			

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: CARDNO (QLD) PTY LTD | Processed: Wednesday, 10 January 2018 11:41:19 AM Project: G:\QTT17026 - Kuranda Equestrian TIA\5_PROJECT ANALYSIS\Analysis\Sidra\Rural Residential\Myola Barnwell RURAL RES.sip7

▽ Site: 101v [2029BG PM]

Myola Road / Barnwell Road Giveway / Yield (Two-Way)

Mover	Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back o Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h			
South:	RoadName													
1	L2	2	0.0	0.004	5.9	LOS A	0.0	0.1	0.24	0.55	52.4			
3	R2	3	0.0	0.004	6.3	LOS A	0.0	0.1	0.24	0.55	52.4			
Approa	ch	5	0.0	0.004	6.1	LOS A	0.0	0.1	0.24	0.55	52.4			
East: R	oadName													
4	L2	11	0.0	0.070	5.5	LOS A	0.0	0.0	0.00	0.05	57.9			
5	T1	122	5.0	0.070	0.0	LOS A	0.0	0.0	0.00	0.05	59.5			
Approa	ch	133	4.6	0.070	0.4	NA	0.0	0.0	0.00	0.05	59.4			
West: C	Dak Forest R	Road												
11	T1	115	6.0	0.062	0.0	LOS A	0.0	0.1	0.01	0.01	59.9			
12	R2	1	0.0	0.062	5.9	LOS A	0.0	0.1	0.01	0.01	57.5			
Approa	ch	116	5.9	0.062	0.1	NA	0.0	0.1	0.01	0.01	59.9			
All Veh	cles	254	5.1	0.070	0.4	NA	0.0	0.1	0.01	0.04	59.4			

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: CARDNO (QLD) PTY LTD | Processed: Monday, 15 January 2018 10:44:28 AM Project: G:\QTT17026 - Kuranda Equestrian TIA\5_PROJECT ANALYSIS\Analysis\Sidra\Rural Residential\Myola Barnwell RURAL RES.sip7

∇ Site: 101v [2039BG AM with Dev 179 lots]

Myola Road / Barnwell Road Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	OD Mov	Demano Total veh/h	d Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h		
South:	Barnwel	ll Road											
1	L2	4	0.0	0.130	6.0	LOS A	0.4	3.1	0.36	0.66	52.0		
3	R2	122	0.0	0.130	6.8	LOS A	0.4	3.1	0.36	0.66	52.1		
Approa	ich	126	0.0	0.130	6.8	LOS A	0.4	3.1	0.36	0.66	52.1		
East: Myola Road		ad											
4	L2	57	14.0	0.109	5.7	LOS A	0.0	0.0	0.00	0.17	56.3		
5	T1	142	6.0	0.109	0.0	LOS A	0.0	0.0	0.00	0.17	58.4		
Approa	ich	199	8.3	0.109	1.6	NA	0.0	0.0	0.00	0.17	57.8		
West: 0	Dak Fore	est Road											
11	T1	152	3.0	0.081	0.0	LOS A	0.0	0.1	0.01	0.01	59.9		
12	R2	2	0.0	0.081	6.1	LOS A	0.0	0.1	0.01	0.01	57.4		
Approa	ich	154	3.0	0.081	0.1	NA	0.0	0.1	0.01	0.01	59.8		
All Veh	icles	479	4.4	0.130	2.5	NA	0.4	3.1	0.10	0.25	56.7		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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▽ Site: 101v [2039BG PM with Dev 179 lots]

Myola Road / Barnwell Road Giveway / Yield (Two-Way)

Mover	nent Pe	erformance -	Vehicl	es							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South:	Barnwel	l Road									
1	L2	2	0.0	0.055	5.9	LOS A	0.2	1.3	0.34	0.63	52.1
3	R2	52	0.0	0.055	6.7	LOS A	0.2	1.3	0.34	0.63	52.2
Approa	ach	54	0.0	0.055	6.7	LOS A	0.2	1.3	0.34	0.63	52.2
East: N	/Iyola Ro	ad									
4	L2	124	0.0	0.138	5.6	LOS A	0.0	0.0	0.00	0.28	55.9
5	T1	134	5.0	0.138	0.0	LOS A	0.0	0.0	0.00	0.28	57.2
Approa	ach	258	2.6	0.138	2.7	NA	0.0	0.0	0.00	0.28	56.5
West: 0	Oak Fore	est Road									
11	T1	124	6.0	0.067	0.0	LOS A	0.0	0.1	0.01	0.01	59.9
12	R2	1	0.0	0.067	6.3	LOS A	0.0	0.1	0.01	0.01	57.5
Approa	ach	125	5.9	0.067	0.1	NA	0.0	0.1	0.01	0.01	59.9
All Veh	icles	437	3.2	0.138	2.4	NA	0.2	1.3	0.04	0.25	56.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: CARDNO (QLD) PTY LTD | Processed: Monday, 15 January 2018 10:49:00 AM Project: G:\QTT17026 - Kuranda Equestrian TIA\5_PROJECT ANALYSIS\Analysis\Sidra\Rural Residential\Myola Barnwell RURAL RES.sip7

∇ Site: 102 [2017 Background AM]

New Site Giveway / Yield (Two-Way)

Move	ment Pe	rformanc <u>e</u> -	Vehicl	es							
Mov ID	OD Mov	Demand Total veh/h	Flows HV <u>%</u>	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South:	Kennedy	Hwy S									
1	L2	4	1.0	0.003	7.4	LOS A	0.0	0.1	0.07	0.58	59.3
2	T1	339	7.0	0.182	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
3	R2	3	1.0	0.002	7.7	LOS A	0.0	0.1	0.34	0.56	57.8
Approa	ach	346	6.9	0.182	0.2	LOS A	0.0	0.1	0.00	0.01	79.3
East: F	allon Roa	ad									
4	L2	16	1.0	0.015	6.6	LOS A	0.1	0.4	0.32	0.55	57.6
5	T1	2	1.0	0.241	16.3	LOS C	0.9	6.1	0.73	0.91	45.2
6	R2	58	2.0	0.241	19.2	LOS C	0.9	6.1	0.73	0.91	47.9
Approach		76	1.8	0.241	16.5	LOS C	0.9	6.1	0.65	0.83	49.6
North:	Kennedy	Highway N									
7	L2	11	20.0	0.007	7.6	LOS A	0.0	0.2	0.03	0.59	58.6
8	T1	243	10.0	0.133	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
9	R2	18	6.0	0.014	8.3	LOS A	0.1	0.4	0.41	0.61	57.2
Approa	ach	272	10.1	0.133	0.9	LOS A	0.1	0.4	0.03	0.06	76.8
West: V	Warril Dri [,]	ve									
10	L2	41	1.0	0.044	7.2	LOS A	0.2	1.1	0.39	0.61	57.3
11	T1	2	1.0	0.033	14.2	LOS B	0.1	0.8	0.70	0.85	45.7
12	R2	5	20.0	0.033	19.9	LOS C	0.1	0.8	0.70	0.85	45.4
Approa	ach	48	3.1	0.044	8.9	LOS A	0.2	1.1	0.44	0.65	55.1
All Veh	icles	742	7.3	0.241	2.7	NA	0.9	6.1	0.11	0.16	72.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: CARDNO (QLD) PTY LTD | Processed: Wednesday, 17 January 2018 2:06:30 PM Project: G:\QTT17026 - Kuranda Equestrian TIA\5_PROJECT ANALYSIS\Analysis\Sidra\Rural Residential\Kennedy Hwy and Warril Dr Intersn RURAL RES DESKTOP VALUES.sip7

∇ Site: 102 [2017 Background PM]

New Site Giveway / Yield (Two-Way)

Move	ment Pe	rformanc <u>e</u> -	Vehic	les							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South:	Kennedy	Hwy S									
1	L2	5	1.0	0.003	7.4	LOS A	0.0	0.1	0.12	0.57	59.2
2	T1	278	5.0	0.147	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
3	R2	16	7.0	0.013	8.3	LOS A	0.1	0.4	0.41	0.60	57.2
Approa	ach	299	5.0	0.147	0.6	LOS A	0.1	0.4	0.02	0.04	77.8
East: F	allon Roa	ad									
4	L2	7	14.0	0.009	7.4	LOS A	0.0	0.2	0.39	0.57	54.2
5	T1	2	1.0	0.090	16.6	LOS C	0.3	2.0	0.73	0.88	45.1
6	R2	18	1.0	0.090	19.6	LOS C	0.3	2.0	0.73	0.88	48.0
Approach		27	4.5	0.090	16.1	LOS C	0.3	2.0	0.64	0.80	49.3
North:	Kennedy	Highway N									
7	L2	31	1.0	0.019	7.4	LOS A	0.1	0.5	0.07	0.59	59.4
8	T1	339	3.0	0.177	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
9	R2	44	1.0	0.032	7.9	LOS A	0.1	1.0	0.37	0.61	57.7
Approa	ach	414	2.6	0.177	1.4	LOS A	0.1	1.0	0.04	0.11	74.9
West:	Warril Dri [,]	ve									
10	L2	15	1.0	0.015	6.8	LOS A	0.1	0.4	0.34	0.56	57.5
11	T1	1	1.0	0.032	15.7	LOS C	0.1	0.7	0.71	0.87	45.7
12	R2	6	1.0	0.032	18.6	LOS C	0.1	0.7	0.71	0.87	48.7
Approa	ach	22	1.0	0.032	10.6	LOS B	0.1	0.7	0.47	0.66	54.0
All Veh	icles	762	3.6	0.177	1.9	NA	0.3	2.0	0.07	0.12	73.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: CARDNO (QLD) PTY LTD | Processed: Wednesday, 17 January 2018 2:06:30 PM Project: G:\QTT17026 - Kuranda Equestrian TIA\5_PROJECT ANALYSIS\Analysis\Sidra\Rural Residential\Kennedy Hwy and Warril Dr Intersn RURAL RES DESKTOP VALUES.sip7

∇ Site: 102 [2039 Background PM]

New Site Giveway / Yield (Two-Way)

Move	ment Pe	rformanc <u>e</u> -	Vehicl	es							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back (Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South:	Kennedy	Hwy S									
1	L2	6	1.0	0.004	7.5	LOS A	0.0	0.1	0.13	0.57	59.1
2	T1	400	5.0	0.212	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
3	R2	19	7.0	0.018	9.0	LOS A	0.1	0.6	0.50	0.66	56.9
Approa	ach	425	5.0	0.212	0.5	LOS A	0.1	0.6	0.02	0.04	78.1
East: F	allon Roa	ad									
4	L2	9	14.0	0.013	8.5	LOS A	0.0	0.4	0.48	0.64	53.5
5	T1	2	1.0	0.215	31.7	LOS D	0.7	4.7	0.88	0.96	36.6
6	R2	22	1.0	0.215	38.5	LOS E	0.7	4.7	0.88	0.96	38.6
Approach		34	4.7	0.215	29.7	LOS D	0.7	4.7	0.77	0.87	41.7
North:	Kennedy	Highway N									
7	L2	37	1.0	0.023	7.4	LOS A	0.1	0.6	0.07	0.58	59.3
8	T1	488	3.0	0.255	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
9	R2	54	1.0	0.045	8.4	LOS A	0.2	1.3	0.45	0.65	57.4
Approa	ach	579	2.7	0.255	1.3	LOS A	0.2	1.3	0.05	0.10	75.5
West: V	Warril Driv	/e									
10	L2	18	1.0	0.021	7.5	LOS A	0.1	0.5	0.42	0.61	57.2
11	T1	1	1.0	0.072	27.9	LOS D	0.2	1.5	0.86	0.94	38.4
12	R2	7	1.0	0.072	34.3	LOS D	0.2	1.5	0.86	0.94	40.5
Approa	ach	26	1.0	0.072	15.8	LOS C	0.2	1.5	0.56	0.72	50.4
All Veh	nicles	1064	3.6	0.255	2.2	NA	0.7	4.7	0.07	0.11	73.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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∇ Site: 102 [2039 Background AM]

New Site Giveway / Yield (Two-Way)

Move	ment Pe	rformance -	Vehic	es							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South:	Kennedy	Hwy S									
1	L2	5	1.0	0.003	7.4	LOS A	0.0	0.1	0.08	0.58	59.3
2	T1	488	7.0	0.262	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
3	R2	4	1.0	0.003	8.1	LOS A	0.0	0.1	0.42	0.58	57.5
Approa	ach	498	6.9	0.262	0.2	LOS A	0.0	0.1	0.00	0.01	79.3
East: F	allon Roa	ad									
4	L2	19	1.0	0.021	7.2	LOS A	0.1	0.5	0.40	0.60	57.3
5	T1	2	1.0	0.546	37.6	LOS E	2.2	15.4	0.91	1.07	34.6
6	R2	71	2.0	0.546	44.1	LOS E	2.2	15.4	0.91	1.07	36.2
Approach		92	1.8	0.546	36.3	LOS E	2.2	15.4	0.81	0.97	39.1
North:	Kennedy	Highway N									
7	L2	13	20.0	0.009	7.7	LOS A	0.0	0.3	0.04	0.59	58.6
8	T1	351	10.0	0.191	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
9	R2	22	6.0	0.022	9.1	LOS A	0.1	0.6	0.50	0.67	56.9
Approa	ach	385	10.1	0.191	0.8	LOS A	0.1	0.6	0.03	0.06	77.2
West: V	Warril Driv	ve									
10	L2	51	1.0	0.066	8.2	LOS A	0.2	1.6	0.48	0.69	56.6
11	T1	2	1.0	0.073	24.3	LOS C	0.2	1.7	0.85	0.93	38.1
12	R2	6	20.0	0.073	37.7	LOS E	0.2	1.7	0.85	0.93	37.9
Approa	ach	59	3.0	0.073	12.0	LOS B	0.2	1.7	0.54	0.73	52.9
All Veh	icles	1034	7.4	0.546	4.3	NA	2.2	15.4	0.12	0.15	70.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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igvee Site: 102 [2039 Background AM with Dev 90 lots]

New Site Giveway / Yield (Two-Way)

Mover	ment Pe	rformanc <u>e</u> -	Vehicl	es							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South:	Kennedy	Hwy S									
1	L2	12	1.0	0.007	7.4	LOS A	0.0	0.2	0.11	0.57	59.2
2	T1	488	7.0	0.262	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
3	R2	4	1.0	0.003	8.1	LOS A	0.0	0.1	0.42	0.58	57.5
Approa	ach	504	6.8	0.262	0.3	LOS A	0.0	0.2	0.01	0.02	79.0
East: F	allon Roa	ad									
4	L2	19	1.0	0.021	7.2	LOS A	0.1	0.5	0.40	0.60	57.3
5	T1	4	1.0	0.583	40.5	LOS E	2.4	16.7	0.92	1.08	33.5
6	R2	71	2.0	0.583	47.6	LOS E	2.4	16.7	0.92	1.08	35.0
Approach		94	1.8	0.583	39.1	LOS E	2.4	16.7	0.82	0.99	38.0
North:	Kennedy	Highway N									
7	L2	13	20.0	0.009	7.7	LOS A	0.0	0.3	0.05	0.58	58.6
8	T1	351	10.0	0.191	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
9	R2	39	6.0	0.038	9.1	LOS A	0.2	1.1	0.51	0.69	56.9
Approa	ach	402	9.9	0.191	1.1	LOS A	0.2	1.1	0.05	0.08	76.1
West: \	Warril Driv	/e									
10	L2	89	1.0	0.117	8.4	LOS A	0.4	2.9	0.50	0.72	56.5
11	T1	5	1.0	0.236	28.6	LOS D	0.7	5.9	0.88	0.97	35.8
12	R2	20	20.0	0.236	43.6	LOS E	0.7	5.9	0.88	0.97	35.6
Approa	ach	115	4.3	0.236	15.4	LOS C	0.7	5.9	0.58	0.78	50.1
All Veh	icles	1115	7.3	0.583	5.4	NA	2.4	16.7	0.15	0.20	67.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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igvee Site: 102 [2039 Background PM with Dev 90 lots]

New Site Giveway / Yield (Two-Way)

Move	Novement Performance - Vehicles												
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/ <u>c</u>	Average Delay se <u>c</u>	Level of Service	95% Back Vehicles ve <u>h</u>	of Queue Distance <u>m</u>	Prop. Queued	Effective Stop Rate per v <u>eh</u>	Average Speed km/ <u>h</u>		
South:	Kennedy	Hwy S											
1	L2	20	1.0	0.013	7.6	LOS A	0.1	0.4	0.19	0.57	58.9		
2	T1	400	5.0	0.212	0.0	LOS A	0.0	0.0	0.00	0.00	79.9		
3	R2	19	7.0	0.018	9.0	LOS A	0.1	0.6	0.50	0.66	56.9		
Approa	ach	439	4.9	0.212	0.8	LOS A	0.1	0.6	0.03	0.05	77.3		
East: F	allon Roa	ad											
4	L2	9	14.0	0.013	8.5	LOS A	0.0	0.4	0.48	0.64	53.5		
5	T1	5	1.0	0.258	35.4	LOS E	0.8	5.7	0.90	0.98	35.3		
6	R2	22	1.0	0.258	43.1	LOS E	0.8	5.7	0.90	0.98	37.1		
Approach		37	4.3	0.258	33.1	LOS D	0.8	5.7	0.79	0.89	40.0		
North:	Kennedy	Highway N											
7	L2	37	1.0	0.023	7.4	LOS A	0.1	0.7	0.08	0.58	59.3		
8	T1	488	3.0	0.255	0.0	LOS A	0.0	0.0	0.00	0.00	79.9		
9	R2	94	1.0	0.078	8.5	LOS A	0.3	2.4	0.46	0.67	57.3		
Approa	ach	619	2.6	0.255	1.7	LOS A	0.3	2.4	0.07	0.14	73.9		
West:	Warril Driv	ve											
10	L2	35	1.0	0.040	7.5	LOS A	0.1	1.0	0.43	0.63	57.2		
11	T1	2	1.0	0.149	31.0	LOS D	0.4	3.1	0.88	0.95	36.8		
12	R2	14	1.0	0.149	38.6	LOS E	0.4	3.1	0.88	0.95	38.7		
Approa	ach	51	1.0	0.149	16.9	LOS C	0.4	3.1	0.57	0.73	49.6		
All Veh	icles	1145	3.5	0.258	3.0	NA	0.8	5.7	0.10	0.16	71.6		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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∇ Site: 102 [2029 Background AM]

New Site Giveway / Yield (Two-Way)

Mover	nent P <u>e</u> r	formanc <u>e</u> -	Vehicl	es							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South:	Kennedy	Hwy S									
1	L2	4	1.0	0.003	7.4	LOS A	0.0	0.1	0.08	0.58	59.3
2	T1	420	7.0	0.225	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
3	R2	3	1.0	0.002	7.9	LOS A	0.0	0.1	0.39	0.57	57.6
Approa	ach	427	6.9	0.225	0.2	LOS A	0.0	0.1	0.00	0.01	79.4
East: F	allon Roa	d									
4	L2	18	1.0	0.019	7.0	LOS A	0.1	0.5	0.37	0.58	57.4
5	T1	2	1.0	0.381	24.9	LOS C	1.4	10.2	0.84	0.99	40.1
6	R2	65	2.0	0.381	29.4	LOS D	1.4	10.2	0.84	0.99	42.3
Approach		85	1.8	0.381	24.6	LOS C	1.4	10.2	0.74	0.91	44.7
North:	Kennedy l	Highway N									
7	L2	12	20.0	0.008	7.6	LOS A	0.0	0.3	0.03	0.59	58.6
8	T1	308	10.0	0.168	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
9	R2	20	6.0	0.018	8.7	LOS A	0.1	0.5	0.46	0.64	57.1
Approa	ach	340	10.1	0.168	0.8	LOS A	0.1	0.5	0.03	0.06	77.2
West: \	Narril Driv	е									
10	L2	46	1.0	0.055	7.7	LOS A	0.2	1.4	0.44	0.65	57.0
11	T1	2	1.0	0.054	19.1	LOS C	0.2	1.3	0.79	0.91	41.7
12	R2	6	20.0	0.054	28.3	LOS D	0.2	1.3	0.79	0.91	41.4
Approa	ach	55	3.2	0.055	10.5	LOS B	0.2	1.4	0.50	0.69	53.9
All Veh	icles	907	7.4	0.381	3.3	NA	1.4	10.2	0.11	0.15	71.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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∇ Site: 102 [2029 Background PM]

New Site Giveway / Yield (Two-Way)

Move	ment Pe	rformance -	Vehicl	es							
Mov ID	OD Mov	Demand Total	Flows HV_	Deg. Sat <u>n</u>	Average Delay	Level of Servic <u>e</u>	95% Back (Vehicle <u>s</u>	of Queue Distanc <u>e</u>	Prop. Queue <u>d</u>	Effective Stop Ra <u>te</u>	Average Speed
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South:	Kennedy	Hwy S									
1	L2	6	1.0	0.004	7.5	LOS A	0.0	0.1	0.12	0.57	59.1
2	T1	344	5.0	0.182	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
3	R2	18	7.0	0.016	8.7	LOS A	0.1	0.5	0.46	0.63	57.0
Approa	ach	368	5.0	0.182	0.6	LOS A	0.1	0.5	0.02	0.04	77.9
East: F	allon Roa	ad									
4	L2	8	14.0	0.011	8.0	LOS A	0.0	0.3	0.44	0.60	53.9
5	T1	2	1.0	0.142	22.7	LOS C	0.4	3.1	0.82	0.92	41.2
6	R2	20	1.0	0.142	27.3	LOS D	0.4	3.1	0.82	0.92	43.6
Approach		31	4.6	0.142	21.7	LOS C	0.4	3.1	0.72	0.83	45.9
North:	Kennedy	Highway N									
7	L2	35	1.0	0.022	7.4	LOS A	0.1	0.6	0.07	0.58	59.4
8	T1	420	3.0	0.220	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
9	R2	49	1.0	0.039	8.2	LOS A	0.2	1.2	0.42	0.63	57.5
Approa	ach	504	2.7	0.220	1.3	LOS A	0.2	1.2	0.05	0.10	75.2
West: V	Warril Dri [,]	ve									
10	L2	17	1.0	0.018	7.1	LOS A	0.1	0.4	0.39	0.59	57.3
11	T1	1	1.0	0.052	21.3	LOS C	0.2	1.1	0.80	0.91	42.0
12	R2	7	1.0	0.052	25.7	LOS D	0.2	1.1	0.80	0.91	44.5
Approa	ach	25	1.0	0.052	13.1	LOS B	0.2	1.1	0.53	0.70	52.2
All Veh	nicles	928	3.6	0.220	2.0	NA	0.4	3.1	0.07	0.12	73.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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igvee Site: 102 [2029 Background AM with Dev 90 lots]

New Site Giveway / Yield (Two-Way)

Move	ment Pe	erformance -	Vehic	les							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South:	Kennedy	y Hwy S									
1	L2	11	1.0	0.007	7.4	LOS A	0.0	0.2	0.11	0.57	59.2
2	T1	420	7.0	0.225	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
3	R2	3	1.0	0.002	7.9	LOS A	0.0	0.1	0.38	0.56	57.6
Approa	ach	434	6.8	0.225	0.3	LOS A	0.0	0.2	0.01	0.02	79.0
East: F	allon Ro	ad									
4	L2	18	1.0	0.018	6.9	LOS A	0.1	0.5	0.37	0.58	57.4
5	T1	3	1.0	0.395	25.6	LOS D	1.5	10.7	0.85	1.00	39.7
6	R2	65	2.0	0.395	30.4	LOS D	1.5	10.7	0.85	1.00	41.8
Approach		86	1.8	0.395	25.4	LOS D	1.5	10.7	0.75	0.91	44.3
North:	Kennedy	/ Highway N									
7	L2	12	20.0	0.008	7.7	LOS A	0.0	0.3	0.04	0.59	58.6
8	T1	301	10.0	0.164	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
9	R2	37	6.0	0.033	8.7	LOS A	0.1	1.0	0.47	0.66	57.0
Approa	ach	349	9.9	0.164	1.2	LOS A	0.1	1.0	0.05	0.09	75.8
West: V	Warril Dri	ive									
10	L2	85	1.0	0.101	7.8	LOS A	0.4	2.6	0.46	0.68	56.9
11	T1	5	1.0	0.170	20.4	LOS C	0.5	4.2	0.82	0.92	40.6
12	R2	20	20.0	0.170	30.5	LOS D	0.5	4.2	0.82	0.92	40.3
Approa	ach	111	4.4	0.170	12.5	LOS B	0.5	4.2	0.54	0.74	52.1
All Veh	icles	980	7.2	0.395	4.2	NA	1.5	10.7	0.15	0.20	69.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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igvee Site: 102 [2029 Background PM with Dev 90 lots]

New Site Giveway / Yield (Two-Way)

Move	ment Pe	rformance -	Vehicl	es							
Mov	OD Mov	Demand	Flows	Deg. Sate	Average	Level of	95% Back o	of Queue	Prop.	Effective Stop Pate	Average
	IVIOV	veh/h	%	V/C	Sec	Service	venicies	m	Queueu	per veh	km/h
South:	Kennedy	Hwy S									
1	L2	20	1.0	0.013	7.6	LOS A	0.1	0.4	0.18	0.57	58.9
2	T1	344	5.0	0.182	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
3	R2	18	7.0	0.016	8.7	LOS A	0.1	0.5	0.46	0.63	57.0
Approa	ach	382	4.9	0.182	0.8	LOS A	0.1	0.5	0.03	0.06	77.0
East: F	Fallon Roa	ad									
4	L2	8	14.0	0.011	8.0	LOS A	0.0	0.3	0.44	0.60	53.9
5	T1	5	1.0	0.172	24.7	LOS C	0.5	3.8	0.84	0.93	40.4
6	R2	20	1.0	0.172	29.8	LOS D	0.5	3.8	0.84	0.93	42.7
Approach		34	4.3	0.172	23.6	LOS C	0.5	3.8	0.74	0.85	44.6
North:	Kennedy	Highway N									
7	L2	34	1.0	0.021	7.4	LOS A	0.1	0.6	0.07	0.58	59.3
8	T1	420	3.0	0.220	0.0	LOS A	0.0	0.0	0.00	0.00	79.9
9	R2	88	1.0	0.069	8.2	LOS A	0.3	2.1	0.42	0.65	57.5
Approa	ach	542	2.5	0.220	1.8	LOS A	0.3	2.1	0.07	0.14	73.6
West:	Warril Driv	/e									
10	L2	13	1.0	0.014	7.1	LOS A	0.0	0.3	0.39	0.58	57.3
11	T1	2	1.0	0.248	26.3	LOS D	0.8	5.8	0.85	0.96	39.2
12	R2	34	1.0	0.248	31.7	LOS D	0.8	5.8	0.85	0.96	41.4
Approa	ach	48	1.0	0.248	25.1	LOS D	0.8	5.8	0.73	0.86	44.5
All Veh	nicles	1006	3.4	0.248	3.3	NA	0.8	5.8	0.11	0.17	71.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Proposed Non Urban Residential Subdivision Kuranda

APPENDIX E PHASING PLAN (TMR)



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			1		YELLOW	A4	2	2	2	2	2				
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			+	4	GREEN	A9	91	59	15	91	59				
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Proposed Non Urban Residential Subdivision Kuranda

APPENDIX F



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RURAL DESIGN CRITERIA

D1.27 GENERAL

 In addition to the foregoing sections this section specifically applies to all those sites identified as being suited to rural and rural residential subdivisions inclusive of rural home sites and hobby farms types of developments. For roads within the Rural Living Areas (under FNQ2031) reference should be made to Table D1.1. Table D1.4 details specific road demands for rural roads.

Traffic Volume or Road Class	<100VPD _{5,6}	100 <u>-</u> 999	1000 - 2999 (or rural collector)	>3000 (or sub-arterial)
Road Reserve (flat terrain ≤ 5%)	20m	20m	25m	JMR
Road Reserve ² (Undulating/Hilly > 5%)	25m	25m	30m	To be designed in accordance with AUSTROADS or D design guidelines.
Formation	8m	8m	10m	
Pavement Width	5.5m	6.5m	8m	
Seal Width	4.5 ^{1,7}	6.5m	8m (incl. 0.5m sealed shoulders)	
Shoulders ³	1.25m Approved Select material	0.75m gravel	1m gravel	
Desirable Speed Environment	100kph	100kph	100kph	
Design Speed for Individual Elements (Minimum)	80kph	80kph	80kph	

Table D1.4 Rural Road Elements ⁸

Notes:

- 1. Cook Shire Council may consider relaxing the requirement to seal rural roads in some instances if there are no adverse impacts i.e. dust.
- 2. In undulating terrain this width shall be increased to enable services to be constructed on accessible flatter land on top and below batters.
- 3. Where the road is a designated on-road bicycle route (signposted and pavement marked) the shoulder provision needs to conform to the AUSTROADS
- 4. (Intentionally left blank)
- 5. In Cook Shire Council, all rural residential subdivisions within the urban expansion footprint are to comply with Residential Streets Table D1.1
- 6. In Cassowary Coast Regional Council, the seal and pavement width will be min 6.5m with a shoulder width of 0.75m unless otherwise approved by council
- 7. Tablelands Regional Council will consider reduction of sealed width to 3.5m. For roads with less than 50vpd it will also consider relaxing the requirement for bitumen sealing
- 8. In TRC, this table does not apply to Rural Residential areas where lot size is less than 10,000m². For all Rural Residential areas where lot sizes are generally less than 10,000m² refer to the Urban road standards.