

10 November 2025

Our Ref: 24BRT0559

Council Ref: ROL/2024/116

Attention: John Warlow

Norfolk Estates Pty Ltd ATF The Solander Investments Unit Trust
C/- QM Properties
10 / 345 Ann Street
Brisbane QLD 4000

Dear John,

Re: 41-53 Courtney Drive, Upper Coomera

Traffic Response to Residential ROL Council Further Issues

1 Background

Colliers International Engineering and Design (TTMC) Pty Ltd (**'Colliers'**) (previously TTM Consulting Pty Ltd.) have been engaged by QM Properties to provide a response to traffic engineering items raised in Gold Coast City Council's (**'Council'**) Further Issues (**'FI'**) letter dated 21 August 2025.

Colliers have reviewed transport-related items in the IR letter pertaining to Council Items 29a – I, and the Further Advice Note (pertaining to Courtney Drive access) and provide the relevant responses in the following sections.

2 Council Transport Engineering Items

2.1 Council FI Item 29a_{i-ii}

29. Transport code

Revisions to Colliers' IR Response (dated 3/07/2025) are required in order to demonstrate compliance with Performance outcome PO11, PO13 and PO16 of the Transport code, including:

- a. Colliers' IR Response identifies that Safe Intersection Sight Distance (SISD) is not achieved at the following proposed new intersection locations:*
 - Courtney Drive access to proposed Stage 6; and
 - Proposed new public road intersection with Baileys Mountain Road.

The applicant is requested to:

- i. Submit revised 'Concept Plans' (i.e. functional intersection layout and development layout drawings) to demonstrate relocation of the proposed intersections in order to achieve compliant SISD, in accordance with Austroads requirements.*
- ii. A revised Traffic Engineering assessment shall be submitted to support the revised 'Concept Plan'; demonstrating that compliant SISD is achieved. Of note – commentary provided in Colliers' response does not justify non-compliant sight distances (data from multiple surveys identifies 85th percentile speeds of (at least) 70km/h on Baileys Mountain Road; signage does not overcome physical sight distance deficiencies; vegetation clearing is already considered in the assessment; and provision of turning treatments does not alter sight distance requirements). Compliant SISD must be demonstrated, particularly considering that the proposed development is in a greenfield site.*

Note: A functional layout drawing for the proposed new intersection in Baileys Mountain Road has not been submitted and is requested to be submitted in responding to this item.

Colliers Response to Council FI Item 29a_{i-ii}

A revised Concept Plan has been provided to Council as part of a traffic and transport response in relation to the development application for 202 Baileys Mountain Road. This Concept Plan outlines a minor realignment of the westbound section of Baileys Mountain Road (by ~3m) which provides sufficient sight distances to the east (under a constrained site parameter – 1.5 seconds reaction time) under the 70 km/h design speed, without requiring vegetation clearing outside of the existing verge.

Compliant sight distances to the west (70 km/h design speed at 2.0 seconds reaction time) with a minor truncation (beyond the standard 3-chord requirement) on the south-eastern corner of the subject site. An extract of the concept plan of the proposed New Access / Baileys Mountain Road is provided in Figure 1 overleaf, which also identify key design vehicle swept paths.

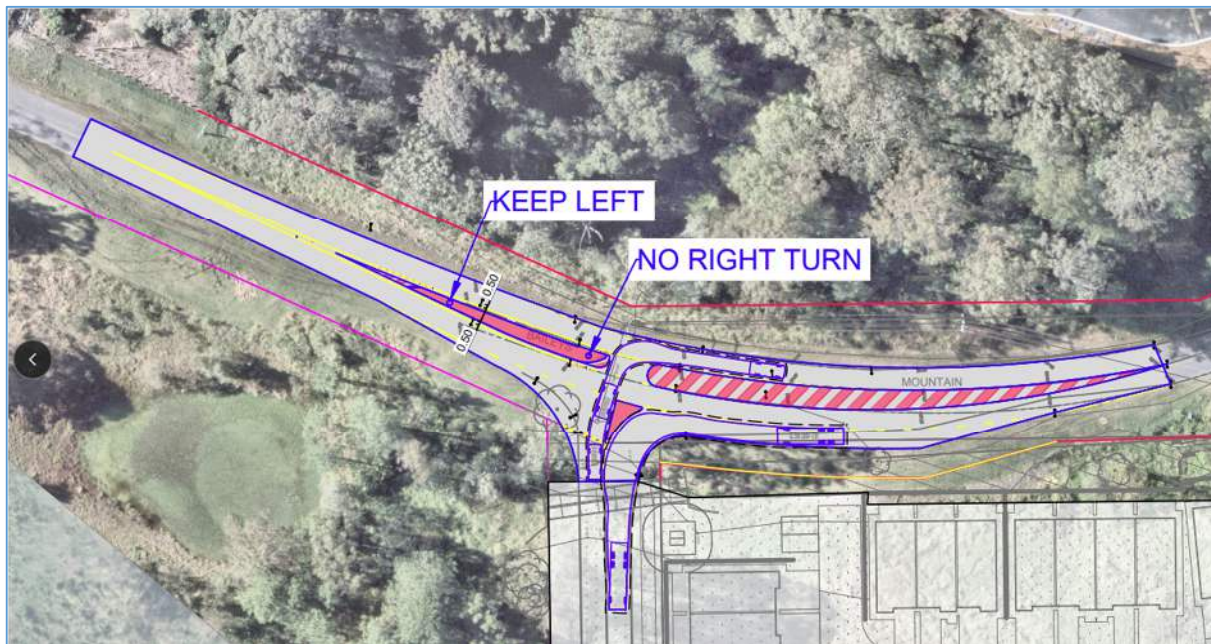


Figure 1: New Access Road / Baileys Mountain Road - Concept Intersection

It is understood that the provided response in relation to the Baileys Mountain Road / New Access Intersection remains under consideration by Council officers.

2.2 Council FI Item 29b

29. Transport code

Revisions to Colliers' IR Response (dated 3/07/2025) are required in order to demonstrate compliance with Performance outcome PO11, PO13 and PO16 of the Transport code, including:

- b. The 'Concept Layout – BAR turn and BAL treatments - Site Location 01' drawing for the proposed Courtney Drive access (to 'Stage 6') does not demonstrate compliance with Austroads standards, with specific regard to the minimum width for the eastbound lane (i.e. eastbound through lane width, plus pavement widening to facilitate vehicle passing). Please note:
 - The additional widening required for the eastbound lane to achieve compliance would result in a non-compliant verge width (NW side of Courtney Drive) for the proposed intersection location. Revised 'Concept Plans', for both the proposed intersection configuration and development layout, shall be submitted, demonstrating a revised intersection design that achieves compliance with Austroads and Council requirements (noting that 'urban', not 'rural' design standards must be applied).
 - This is likely to require altering the alignment of the intersection (relocation further to the SE i.e. take more land from the subject site) in order to achieve sufficient width for pavement and verge requirements.

Colliers Response to Council FI Item 29b

Whilst it is acknowledged that the overall proposed width of the Courtney Drive section along the Stage 6 frontage of the subject site, does not strictly meet the overall design parameters of Austroads, the proposed layout does provide a functional arrangement, particularly considering the expected relative infrequency of right-turn movements from Courtney Drive into the Stage 6 area of the proposed development. This standard configuration is consistent with road access intersection configurations prevalent through the southern section of Courtney Drive (construction currently being finalised).

The proposed design has given consideration to both the interim and ultimate cross-sections of Courtney Drive pavement and seeks to provide the prescribed road cross-section standard along the development frontage. Additionally, Council will need to give consideration to the current development application for the site on the northern side of Courtney Drive and the integration of the road frontages (noting direct lot access proposed by the northern development), and overall access intersection configurations between the two developments – see comments in Colliers Response to Further Advice.

It is noted that 'Urban' turn treatment arrangements, as outlined in Austroads, typically incorporate kerbside parking, which does not currently exist within Courtney Drive and is not incorporated into standard cross-sections. Review of recently constructed Courtney Drive intersections to the south illustrate that this is a typical intersection configuration (i.e. without specific turn treatments). The proposed configuration is considered satisfactory.

2.3 Council FI Item 29c

29. Transport code

Revisions to Colliers' IR Response (dated 3/07/2025) are required in order to demonstrate compliance with Performance outcome PO11, PO13 and PO16 of the Transport code, including:

- c. Clearly identify the total number of lots / dwellings that have been adopted as the 'ultimate' traffic catchment for the design of the proposed new intersection in Baileys Mountain Road. While pages 2 and 13 of Colliers' IR Response identify a number of 'development' sites, current development proposals and approvals, the report doesn't identify which sites have been included in the 'ultimate' traffic catchment for the proposed intersection design. To be clear, the traffic 'catchment' (for design of the new intersection in Baileys Mountain Road) shall also include development yield for Lot 182RP156422.*

Colliers Response to Council FI Item 29c

The previously identified developments within the vicinity of the subject site identified a range of current development proposals and committed developments, as well as an estimation of future developments. For clarity, the following developments form the Ultimate traffic catchment are as follows:

- **Subject Development (ROL/2024/16)** – 134 single dwelling (low density) lots that will have access to Baileys Mountain Road
- **Adjacent Development (COM/2024/317)** – 73 townhouse (medium density) units
- **Future Subdivision of Lot 182/RP156422** – estimate of 60 single dwelling (low density) lots, noting that this will likely have connection to Courtney Drive.
- **Committed Development (COM/2019/82)** – 196 single dwelling lots.

2.4 Council FI Item 29d

29. Transport code

Revisions to Colliers' IR Response (dated 3/07/2025) are required in order to demonstrate compliance with Performance outcome PO11, PO13 and PO16 of the Transport code, including:

- The Traffic Engineering assessment shall be updated to include a table clearly identifying the specific lots, together with the associated number of dwellings for each lot, to clearly identify the total number of dwellings and adopted for the traffic 'catchment' that will use the proposed intersection.*

Colliers Response to Council FI Item 29d

The information provided above in Colliers Response to Council FI Item 29c has been tabulated as requested – see Table 1.

Table 1: Ultimate Catchment Yields - BMR Access

Development Site	Total Development Yield	Lots Assigned to BMR Ultimate
Subject Development (ROL/2024/16)	187 single dwelling (low density) Lots	134 single dwelling (low density) Lots
Adjacent Development (COM/2024/317)	73 townhouse (medium density) units	73 townhouse (medium density) units
Future Subdivision of Lot 182/RP156422	Estimate of 60 single dwelling (low density) Lots	60 single dwelling (low density) Lots

2.5 Council FI Item 29e

29. Transport code

Revisions to Colliers' IR Response (dated 3/07/2025) are required in order to demonstrate compliance with Performance outcome PO11, PO13 and PO16 of the Transport code, including:

- Clearly identify the 'blue' and 'red' trip volumes (in Figure 1 of Colliers' IR Response) as 'AM' and 'PM' volumes.*

Colliers Response to Council FI Item 29e

For the traffic volume values provided in Figure 1 of the Colliers IR response, the 'AM' volumes are indicated in blue, and the 'PM' volumes are indicated in red. This is consistent with the values presented in Figure 9 of Colliers IR response (turn warrant assessment).

2.6 Council IR Item 29f_{i-iii}

29. Transport code

Revisions to Colliers' IR Response (dated 3/07/2025) are required in order to demonstrate compliance with Performance outcome PO11, PO13 and PO16 of the Transport code, including:

- f. Undertake revised turning warrants assessments, in addition to SIDRA Intersection assessments (where identified below), through to the 10-year design horizon, for the following intersections:*
 - i. Proposed new intersection in Baileys Mountain Road (SIDRA assessment also required).*
 - ii. Courtney Drive / Jenkins Court / Baileys Mountain Road intersection (revised SIDRA assessment also required).*
 - iii. Proposed new intersection in Courtney Drive ('Stage 6' access).*

With the following parameters applied:

- Growth rates consistent with Council's initial Information Request (i.e. for Baileys Mountain Road, use a compounding growth rate of 5.5% p.a., to 2037), rather than growth based on LGIP population estimates and growth, as adopted in Colliers' IR Response.*
- Revised traffic 'catchment', as identified in part c*
- With specific regard to the Courtney Drive 'Stage 6' access - revised through traffic volumes on Courtney Drive, incorporating 'development' traffic for both the subject development proposal and any development approvals / current development applications in the Courtney Drive Precinct).*
- Intersection layouts adopted for SIDRA assessments shall also be submitted as part of this request.*

Note - configurations for the above intersections have not been endorsed as part of any other Council development applications / approvals.

Colliers Response to Council IR Item 29f_{i-iii}

Development traffic volume generation, assignment and distribution have adjusted based on updates to lot yields, and FI items from Council (including the higher background traffic growth rate of 5.5% per annum). Updated Traffic Network Diagrams, which also incorporate the higher background traffic growth rate of 5.5% per annum as requested by Council, are provided in Attachment B.

Baileys Mountain Road / New Access

An updated turn warrant assessment for the Baileys Mountain Road / New Access intersection is

provided below for both the left-turn and right-turn treatments as provided in Figure 2.

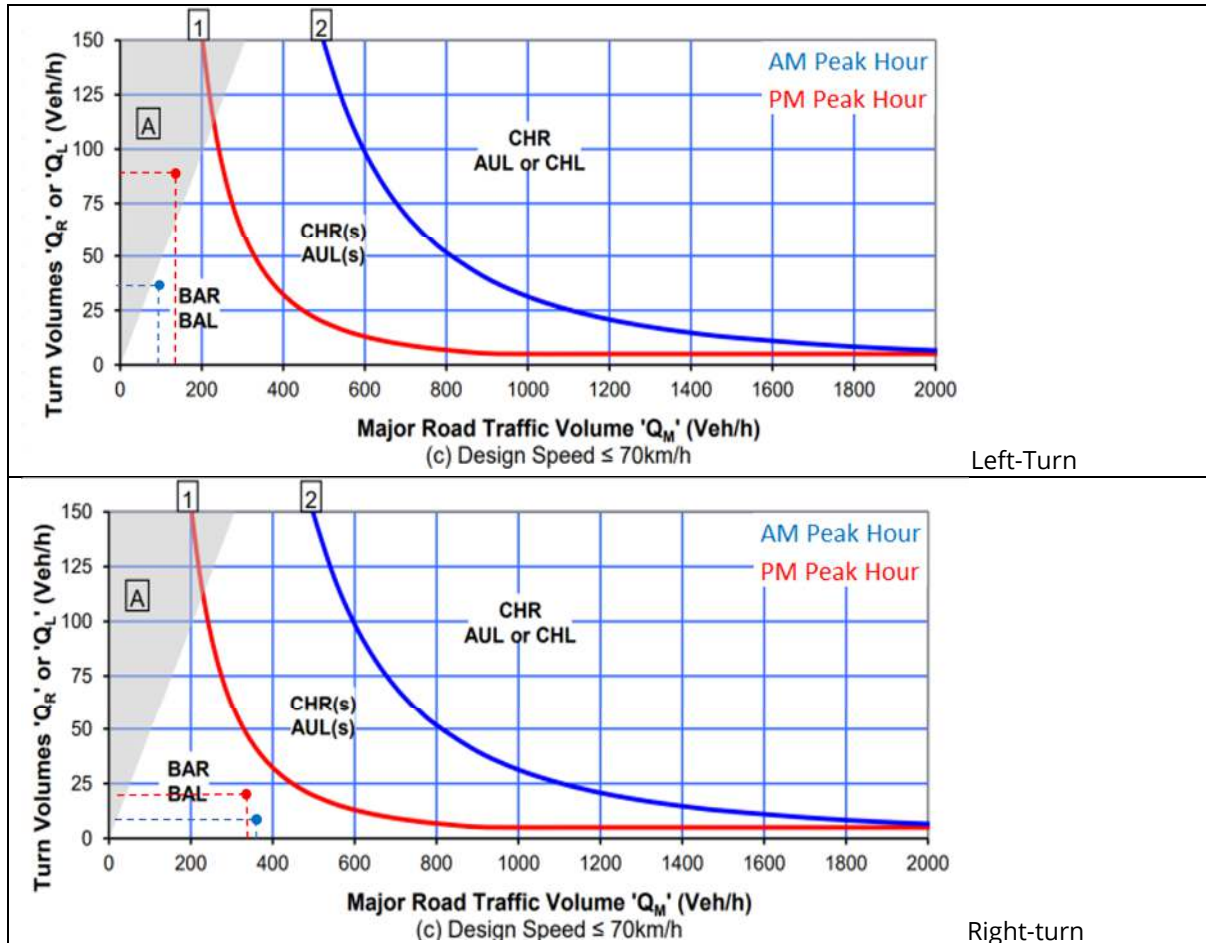


Figure 2: Baileys Mountain Road / New Access - Turn Warrants Assessment

The updated turn warrant assessment identifies BAR / BAL treatments for consideration. The proposed BAR and AUL(s) treatments for the Baileys Mountain Road / New Access intersection meet and exceed the identified treatments and are considered appropriate.

SIDRA analysis for the Baileys Mountain Road / New Access intersection has also been undertaken for the 2027 (opening year) and 2037 (10-year horizon) Design (with Development – subject and committed) scenarios - see summary results provided below in Table 2 overleaf. Detailed SiDRA output summaries are provided in Attachment C.

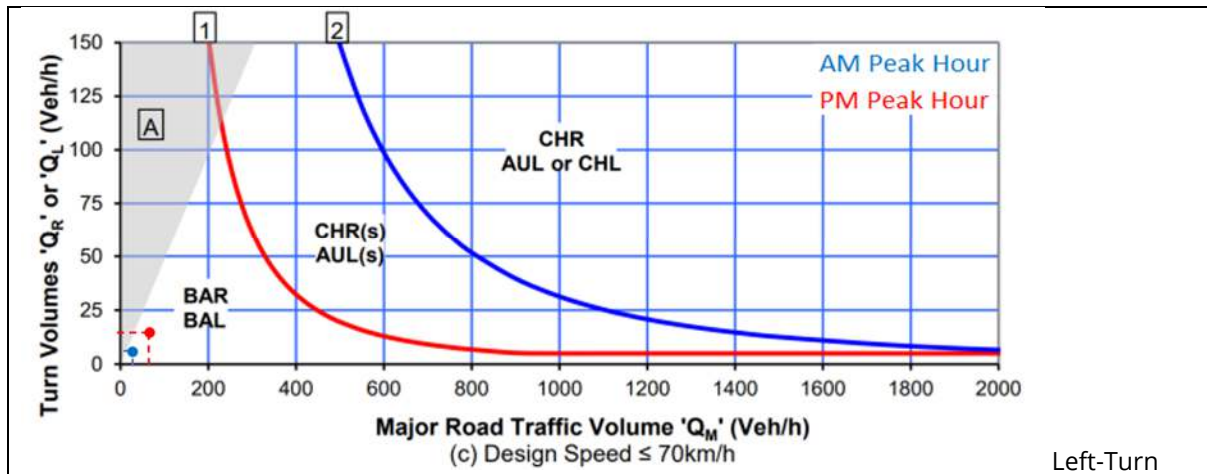
Table 2: SIDRA Analysis Summary – Courtney Drive / Baileys Mountain Road / Jenkins Court

Scenario	DOS	Average Delay		LOS	95th Percentile Critical Queue (m)		
		Overall	Worst Movement		BMR (South)	New Access (West)	BMR (North)
AM Peak Hour							
2027 Base + Development	13%	3 sec	Up to 6 seconds	n/a	>1m	3m	>1m
2037 Base + Development	10%	3 sec	6 – 7 seconds	n/a	>1m	2m	>1m
PM Peak Hour							
2027 Base + Development	14%	2 sec	6 – 7 seconds	n/a	>1m	4m	>1m
2037 Base + Development	12%	3 sec	6 – 7 seconds	n/a	>1m	2m	1m

The SIDRA summary outputs demonstrate that the Baileys Mountain Road / New Access intersection will operate well within practical capacity with minimal queuing and delay.

Courtney Drive / Stage 6 Access

An updated turn warrant assessment for the Courtney Drive / Stage 6 Access intersection is provided below for both the left-turn and right-turn treatments as provided in Figure 3 overleaf.



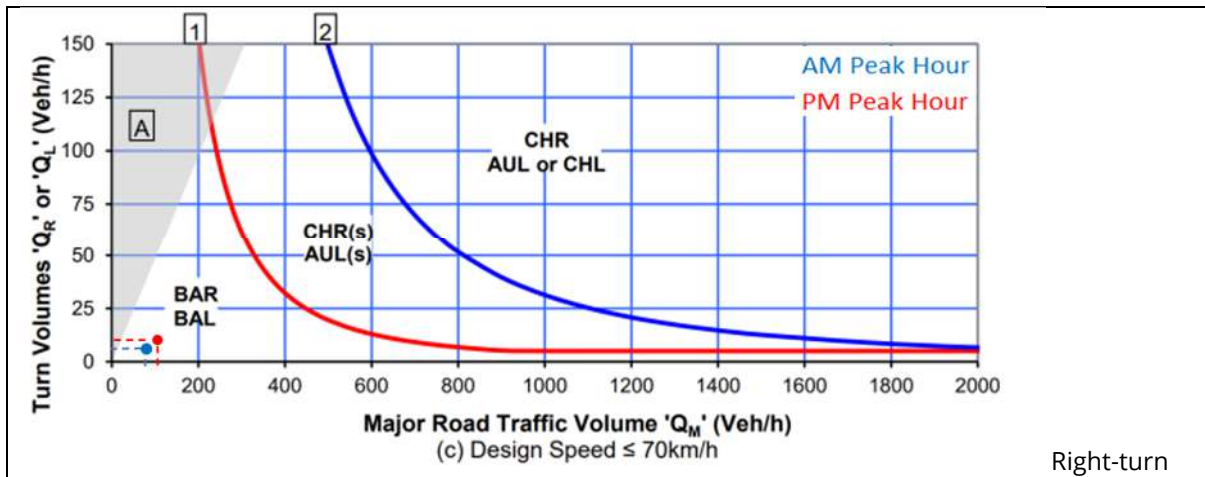


Figure 3: Courtney Drive / Stage 6 Access - Turn Warrants Assessment

The turn warrant assessment identifies BAR / BAL treatments for consideration. The intersection configuration proposed for the Courtney Drive / Stage 6 access is considered appropriate given the relatively low through and turn volumes, as also noting that this arrangement is consistent with comparable recently constructed Courtney Drive intersections to the south. Additional through volumes due to further development will not alter the outcomes noted above.

SIDRA analysis for the Courtney Drive / Stage 6 Access intersection has also been undertaken for the 2027 (opening year) and 2037 (10-year horizon) Design (with Development – subject and committed) scenarios - see summary results provided below in Table 3 overleaf. Detailed SiDRA output summaries are provided in Attachment C.

Table 3: SIDRA Analysis Summary – Courtney Drive / Stage 6 Access

Scenario	DOS	Average Delay		LOS	95th Percentile Critical Queue (m)		
		Overall	Worst Movement		Stg 6 Access (South)	Courtney Dr (East)	Courtney Dr (West)
AM Peak Hour							
2027 Base + Development	2%	2 sec	Up to 6 seconds	n/a	>1m	>1m	>1m
2037 Base + Development	3%	2 sec	Up to 6 seconds	n/a	>1m	>1m	>1m
PM Peak Hour							
2027 Base + Development	3%	2 sec	Up to 6 seconds	n/a	>1m	>1m	>1m
2037 Base + Development	3%	2 sec	Up to 6 seconds	n/a	>1m	>1m	>1m

The SIDRA summary outputs demonstrate that the Courtney Drive / Stage 6 Access intersection will operate well within practical capacity with minimal queuing and delay. Additional through volumes due to further development will not alter the outcomes noted above.

Courtney Drive / Baileys Mountain Road / Jenkins Court

An updated turn warrant assessment for the Courtney Drive / Baileys Mountain Road / Jenkins Court intersection is provided below for both the left-turn and right-turn treatments for the movements to / from Courtney Drive as provided in Figure 4.

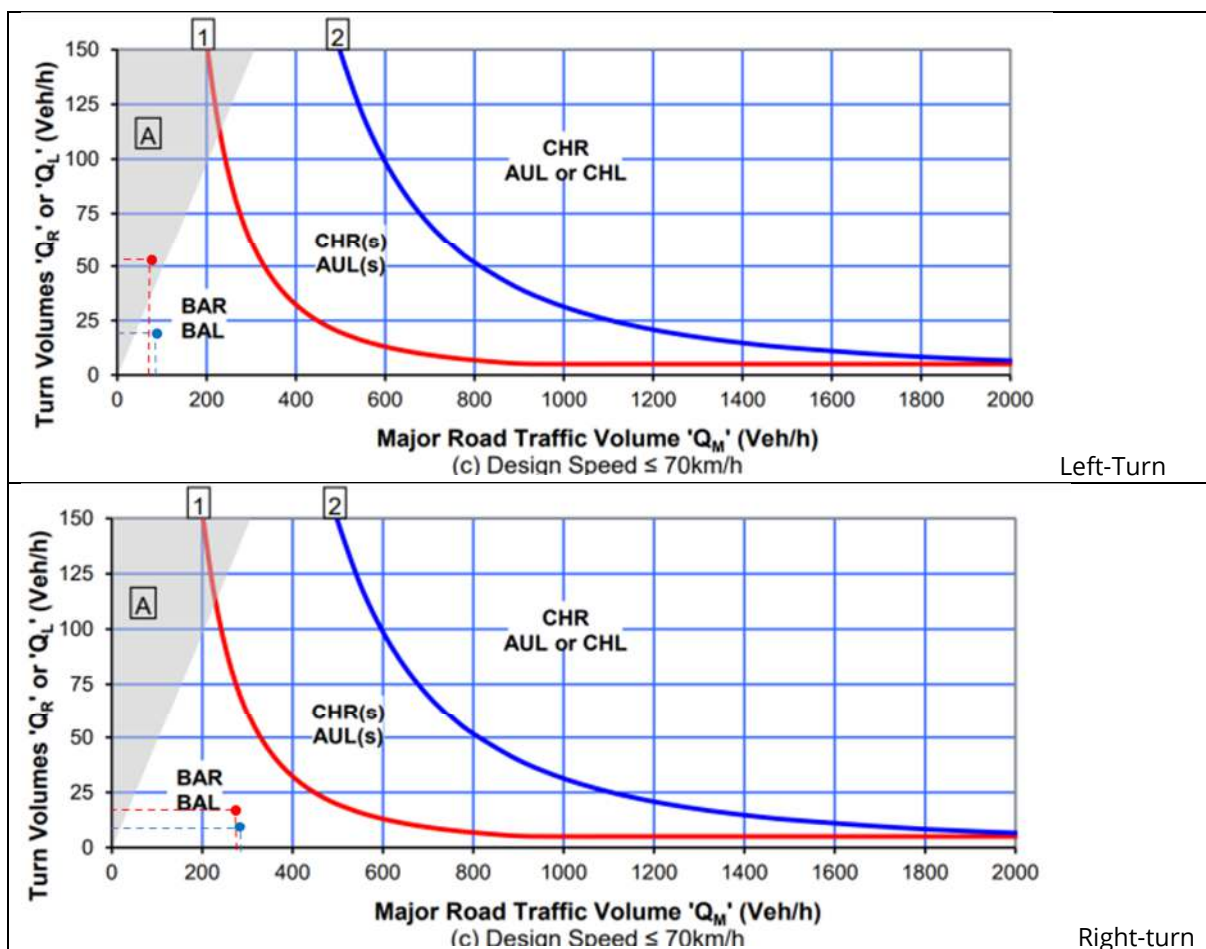


Figure 4: Courtney Drive / Baileys Mountain Road / Jenkins Court - Turn Warrants Assessment

The turn warrant assessment identifies BAR / BAL treatments for consideration. The existing configuration for the Courtney Drive / Baileys Mountain Road / Jenkins Court intersection is considered to remain appropriate, including consideration of additional volumes as illustrated. It is also noted that planning has been undertaken to upgrade this intersection into a roundabout configuration in the future.

Additional through volumes due to further development will not alter the outcomes noted above.

SIDRA analysis for the Courtney Drive / Stage 6 Access intersection has also been undertaken for the 2027 (opening year) and 2037 (10-year horizon) Design (with Development – subject and committed) scenarios - see summary results provided below in Table 4. Detailed SiDRA output summaries are provided in Attachment C.

Table 4: SIDRA Analysis Summary – Courtney Drive / Baileys Mountain Road / Jenkins Court

Scenario	DOS	Average Delay		LOS	95th Percentile Critical Queue (m)			
		Overall	Worst Movement		BMR (South)	Jenkins Ct (East)	BMR (North)	Courtney Dr (West)
AM Peak Hour								
2027 Base + Development	9%	3 sec	6 – 9 seconds	n/a	>1m	>1m	>1m	2m
2037 Base + Development	11%	3 sec	6 – 10 seconds	n/a	>1m	>1m	>1m	3m
PM Peak Hour								
2027 Base + Development	6%	3 sec	6 – 9 seconds	n/a	>1m	>1m	>1m	1m
2037 Base + Development	8%	3 sec	6 – 9 seconds	n/a	>1m	>1m	1m	2m

The SIDRA summary outputs demonstrate that the Courtney Drive / Baileys Mountain Road / Jenkins Court intersection will operate well within practical capacity with minimal queuing and delay. Additional volumes on Courtney Drive approach due to further development will not alter the outcomes noted.

2.7 Council IR Item 29g

29. Transport code

Revisions to Colliers' IR Response (dated 3/07/2025) are required in order to demonstrate compliance with Performance outcome PO11, PO13 and PO16 of the Transport code, including:

- g. Submit revised 'functional layout' drawings to demonstrate any changes required to intersection designs / configurations, for the locations identified in part f. Functional layout drawings shall be fully dimensioned to demonstrate compliance with all relevant (Austroads and Council) standards.

Note – a functional layout drawing has not been submitted for the proposed new intersection with Baileys Mountain Road and shall be submitted in response to this item; non-compliances with respect to the proposed intersection configuration for the Courtney Drive 'Stage 6' access have been identified in part b, herein.

Colliers Response to Council IR Item 29g

As noted previously, a revised Concept Plan has been provided to Council as part of a traffic and transport response in relation to the development application for 202 Baileys Mountain Road. This Concept Plan outlines a minor realignment of the westbound section of Baileys Mountain Road (by ~3m) which provides sufficient sight distances to the east (under a constrained site parameter – 1.5 seconds reaction time / 70 km/h design speed) , without requiring vegetation clearing outside of the existing verge and west (70 km/h design speed at 2.0 seconds reaction time) with a minor truncation (beyond the standard 3-chord requirement) on the south-eastern corner of the subject site.

An extract of the concept plan of the proposed New Access / Baileys Mountain Road is provided in Figure 1 overleaf, which also identify key design vehicle swept paths.

It is understood that the provided response in relation to the Baileys Mountain Road / New Access Intersection remains under consideration by Council officers. Once 'in principle' support from Council has been received for the New Access intersection location and general arrangement, then further design refinement will be undertaken – including functional layout drawings.

2.8 Council IR Item 29h

29. Transport code

Revisions to Colliers' IR Response (dated 3/07/2025) are required in order to demonstrate compliance with Performance outcome PO11, PO13 and PO16 of the Transport code, including:

- h. With further regard to the 'functional layout' drawing for the Courtney Drive / Baileys Mountain Road intersection ('Concept Layout – Road Widening Details'), demonstrate that the proposed pavement widening on the SW corner of the intersection can be accommodated while maintaining a compliant verge width (4.5m, minimum). Cadastral boundaries shall be shown, along with critical dimensions, to assist in this demonstration.*

Colliers Response to Council IR Item 29h

It is noted that the current property boundary on the south-west corner of Baileys Mountain Road and Courtney Drive was be set-back significantly to accommodate the future planning upgrade of this intersection. There is currently ~35m distance between the existing pavement and property boundary – see Figure 5 overleaf.

The proposed pavement widening of up to 1.2m width (also provided in Figure 5 overleaf) will not result in the existing verge width being reduced below the required 4.5m.



Figure 5: Baileys Mountain Road / Courtney Drive - Widening / Verge

2.9 Council IR Item 29i

29. Transport code

Revisions to Colliers' IR Response (dated 3/07/2025) are required in order to demonstrate compliance with Performance outcome PO11, PO13 and PO16 of the Transport code, including:

- i. Submit updated swept paths (using the 'design service vehicle') based on any amendments made to intersection designs / configurations.

Colliers Response to Council IR Item 29i

As noted previously, a revised Concept Plan has been provided to Council as part of a traffic and transport response in relation to the development application for 202 Baileys Mountain Road. This Concept Plan outlines a minor realignment of the westbound section of Baileys Mountain Road (by ~3m) which provides sufficient sight distances. Indicative swept paths for car exit and WCV design service vehicle entry (left-turn) are provided in the Concept Plan excerpt provided as Figure 1.

It is understood that the provided response in relation to the Baileys Mountain Road / New Access Intersection remains under consideration by Council officers. Once 'in principle' support from Council has been received for the New Access intersection location and general arrangement, then further design refinement – including design vehicle swept paths will be provided.

While the location of the Courtney Drive access intersection has been adjusted, the overall configuration of the intersection has remained as per previously provided concept layout. Therefore, the previously provided swept paths for the WCV design service vehicle (see Figure 6 overleaf) remain relevant.

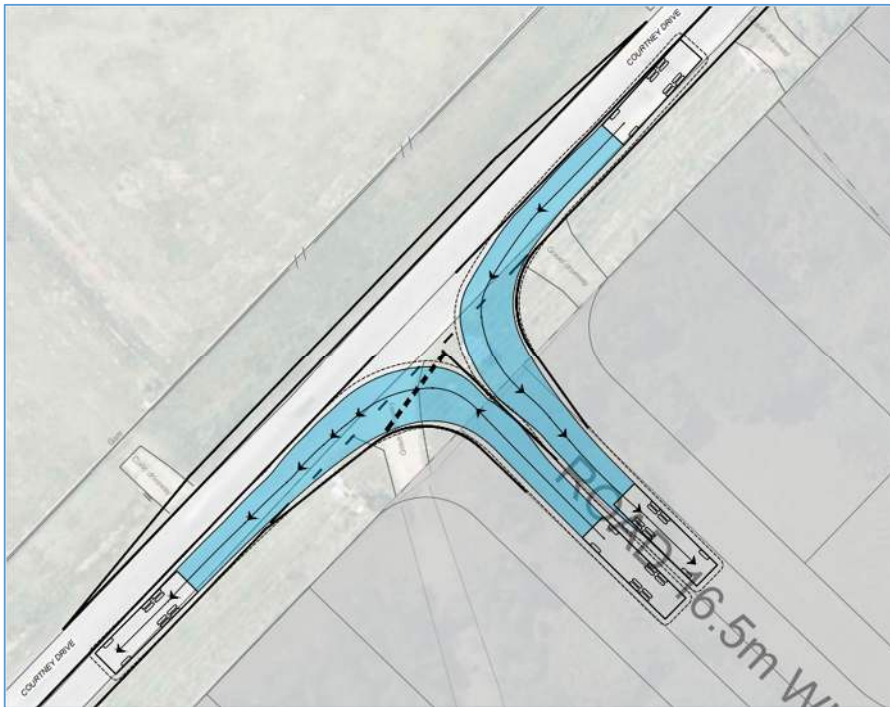


Figure 6: Courtney Drive / New Access - WCV Swept Paths

Source: Colliers RFI Response (dated 3 July 2025)

2.10 Council IR Item 29ji - v

29. Transport code

Revisions to Colliers' IR Response (dated 3/07/2025) are required in order to demonstrate compliance with Performance outcome PO11, PO13 and PO16 of the Transport code, including:

- j. Clearly identify all land requirements, for the purpose of road, on all 'functional layout' drawings. To be clear, land requirements shall be shown for all relevant components, including:
 - i. To accommodate the proposed new intersection in Baileys Mountain Road.
 - ii. To accommodate the proposed new public road (along the SE boundary of lot 183RP156422).
 - iii. To accommodate Council's planned upgrades to Baileys Mountain Road.
 - iv. To accommodate proposed changes to the Courtney Drive / Jenkins Court / Baileys Mountain Road intersection.
 - v. To accommodate the proposed intersection in Courtney Drive for 'Stage 6'.

Land requirements for 'Council' works and 'development-related' works shall be clearly delineated on drawings (for example, colour-coded) to ensure that each land requirement, for each purpose, is clearly distinguished.

Colliers Response to Council IR Item 29j_{i-v}

As noted previously, a revised Concept Plan has been provided to Council as part of a traffic and transport response in relation to the development application for 202 Baileys Mountain Road. This Concept Plan outlines a minor realignment of the westbound section of Baileys Mountain Road (by ~3m) which provides sufficient sight distances.

It is understood that the provided response in relation to the Baileys Mountain Road / New Access Intersection remains under consideration by Council officers. Once 'in principle' support from Council has been received for the New Access intersection location and general arrangement, then further design refinement – including land requirements, including those previously identified for Council's planned upgrades to Baileys Mountain Road and the Courtney Drive / Jenkins Court / Baileys Mountain Road intersection.

2.11 Council IR Item 29k

29. Transport code

Revisions to Colliers' IR Response (dated 3/07/2025) are required in order to demonstrate compliance with Performance outcome PO11, PO13 and PO16 of the Transport code, including:

- k. Ensure that 'development layouts' and 'functional layout' drawings (for intersection / road works) are consistent.*

Colliers Response to Council IR Item 29k

Once 'in principle' support from Council has been received for the New Access intersection location and general arrangement, then further design refinement will be undertaken and consistency between the development layouts and functional layout will be achieved.

2.12 Council IR Item 29l

29. Transport code

Revisions to Colliers' IR Response (dated 3/07/2025) are required in order to demonstrate compliance with Performance outcome PO11, PO13 and PO16 of the Transport code, including:

- l. The Traffic Engineering response shall also ensure that consistency is achieved with regard to Traffic Engineering assessments / requirements for other development applications / approvals in the Courtney Drive Precinct.*

Colliers Response to Council IR Item 29I

The Traffic Engineering Response has been prepared with the aim of providing consistency. If there are specific parameters that may not be consistent, this is expected to be able to be resolved in discussions with Council.

2.13 Council IR Item 1 (Further Advice)

1. Access to Courtney Drive

The applicant is requested to give consideration to other applications that are currently under assessment in proximity to the proposed development. Specifically, the applicant is requested to consider proposed access for Lot 11 Courtney Drive and demonstrate that the two access points from Courtney Drive meet the relevant standards.

Please note the following points are being resolved directly with the consulting Hydraulic Engineer:

- *Afflux is to be limited to no more than 10 mm outside the property boundary. It is required to be demonstrated that the upgraded Courtney Drive achieves safety criteria in accordance with QUDM for pedestrian and /or vehicular crossing during major flood events.*
- *A letter of consent from the neighbouring landowner acknowledging and accepting any potential impacts to their property.*

Colliers Response to Council IR Item 1 (Further Advice)

General consideration has been given to the potential access locations for the proposed development opposite the Stage 6 area of the subject development application. As previously espoused the design and location of the Stage 6 access intersection has considered both traffic and hydraulic engineering outcomes and remains to be considered in the most appropriate location.

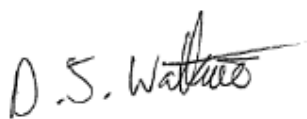
It is anticipated that similar constraints may influence the design / location of the access for the development on the northern side of Courtney Drive (opposite Stage 6) and therefore an access in a similar location on the northern side of Courtney Drive is likely. Given the relatively limited catchments of both Stage 6 and the northern development, Council could give consideration could be given to a 4-way priority controlled intersection. There are examples of this intersection configuration being recently within Courtney Drive to the south of the subject site location. In conjunction with this, structure planning of the road network for both the southern and northern sides of Courtney Drive would also be of benefit.

3 Summary

The information and further analyses / assessments contained herein are considered to adequately address the traffic-related items raised by Council and sufficient to progress the application with Council.

If there are any queries in relation to the information provided, please contact the undersigned.

Yours sincerely,

A handwritten signature in black ink that reads "D.S. Watkins".

Darryl Watkins

Associate Director | RPEQ # 23854

Colliers International Engineering & Design (TTMC) Pty Ltd

Attachments

Attachment A – Development Plan

Attachment B – Traffic Network Diagrams

Attachment C – SiDRA Outputs

Attachment A – Development Plans

LEGEND

- Site Boundary
- Major Contour (1.0m interval)
- Minor Contour (0.5m interval)
- Vegetation Management
- Traffic Calming & Landscape Treatment
- Proposed Temporary Turnaround Easement
- Indicative Binpad Location
- Stage Boundary
- Stage No.

DEVELOPMENT STATISTICS

RESIDENTIAL ALLOTMENTS	No. Lots	%	Net Area
10.5m - 12.49m Frontage	64	34.2%	2.152 ha
12.5m - 13.99m Frontage	69	36.9%	2.773 ha
14m - 14.99m Frontage	29	15.5%	1.228 ha
> 15m Frontage	18	9.6%	0.917 ha
Irregular Frontage	7	3.7%	0.439 ha
Total Residential Allotments	187	100.0%	7.509 ha

Land Budget

Area (Ha)	%
Area of Subject Site / Stage	18.266 ha
Net Residential Area (no roads)	7.509 ha
Detention / Drainage	0.881 ha
Local Park	1.103 ha
Environmental Open Space	5.385 ha
Road Widening	0.027 ha
Road Areas	3.361 ha
Total	18.266 ha

SCALE @A1:1:250 @A3:1:2500 - LENGTHS ARE IN METRES

DEVELOPMENT STATISTICS			
RESIDENTIAL ALLOTMENTS	No. Lots	%	Net Area
10.5m - 12.49m Frontage	64	34.2%	2.152 ha
12.5m - 13.99m Frontage	69	36.9%	2.773 ha
14m - 14.99m Frontage	29	15.5%	1.228 ha
> 15m Frontage	18	9.6%	0.917 ha
Irregular Frontage	7	3.7%	0.439 ha
Total Residential Allotments	187	100.0%	7.509 ha
Land Budget	Area (Ha)	%	
Area of Subject Site / Stage	18.266 ha		
Net Residential Area (no roads)	7.509 ha	41.1%	
Detention / Drainage	0.881 ha	4.8%	
Local Park	1.103 ha	6.0%	
Environmental Open Space	5.385 ha	29.5%	
Road Widening	0.027 ha	0.1%	
Road Areas	3.361 ha	18.4%	
Total	18.266 ha	100.0%	

SCALE @A1 1:1250 @A3 1:2500 - LENGTHS ARE IN METRES

DISCLAIMER

THIS PLAN WAS PREPARED AS A CONCEPTUAL LAYOUT ONLY. IT IS NOT SUITABLE FOR ANY OTHER PURPOSE. PROPERTY DIMENSIONS, AREAS, LOT NUMBERS, AND OTHER FEATURES ARE BASED ON EXISTING INFORMATION AND MAY NOT HAVE BEEN VERIFIED BY SURVEY. THESE DETAILS MAY CHANGE SUBJECT TO DEVELOPMENT APPROVAL OR FURTHER DESIGN. PAVEMENT AND CENTRELINES SHOWN ARE INDICATIVE ONLY AND ARE SUBJECT TO ENGINEERING DESIGN. THE DESIGNS DOCUMENTED HEREIN REMAIN THE PROPERTY OF SAUNDERS HAVILL GROUP AND MUST NOT BE REPRODUCED OR USED IN WHOLE OR PART WITHOUT WRITTEN PERMISSION. SAUNDERS HAVILL GROUP ACCEPTS NO RESPONSIBILITY FOR ANY USE OR RELIANCE BY THIRD PARTIES. REPRODUCTION WITHOUT THIS NOTE IN FULL, RENDERS THE INFORMATION INVALID.

SOURCE
PROJECTION: GDA2020 MGA56
SUBJECT BOUNDARIES: LOT CALCULATIONS BY LANDPARTNERS DATED 25/11/2024



CLIENT
NORFOLK ESTATES PTY LTD
ATF SOLANDER INVESTMENT
UNIT TRUST

SITE ADDRESS
41 - 53 COURTNEY DRIVE ,
UPPER COOMERA

RP DESCRIPTION
Lot 183 RP156422, Lot 184 RP173727, Lot 185 on RP173727, Lot 186 on RP173728, Lot 57 on SP214370 & Lot 56 on RP162858, Lot 58 on SP191940

DRAWN
KA

DATE
01/10/2025

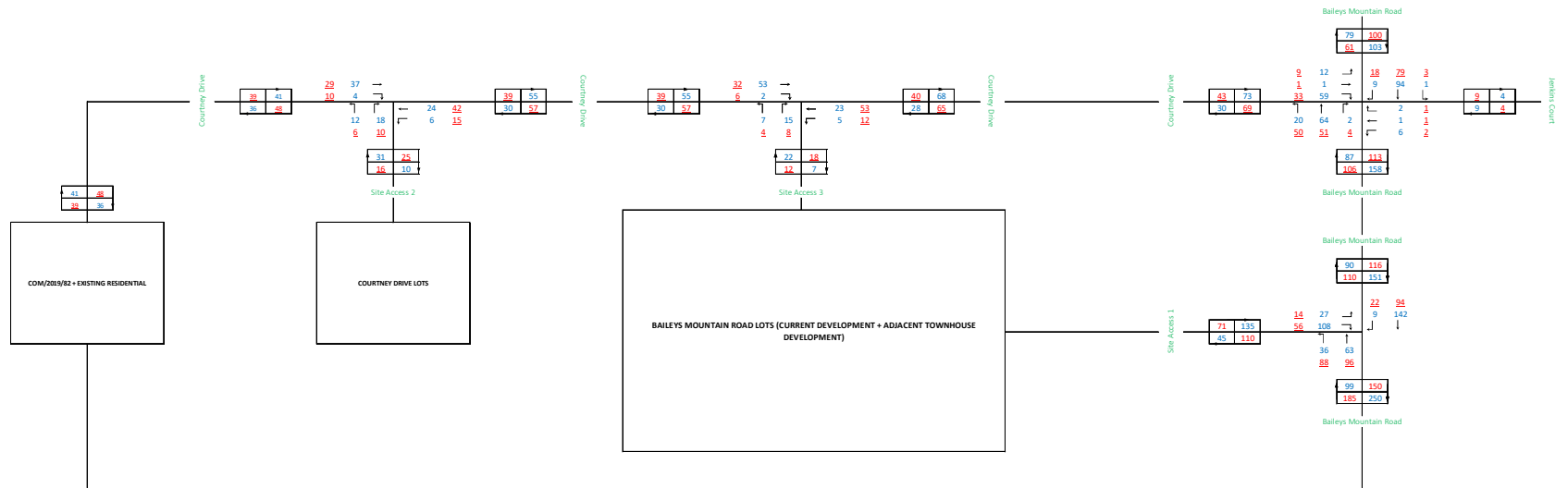
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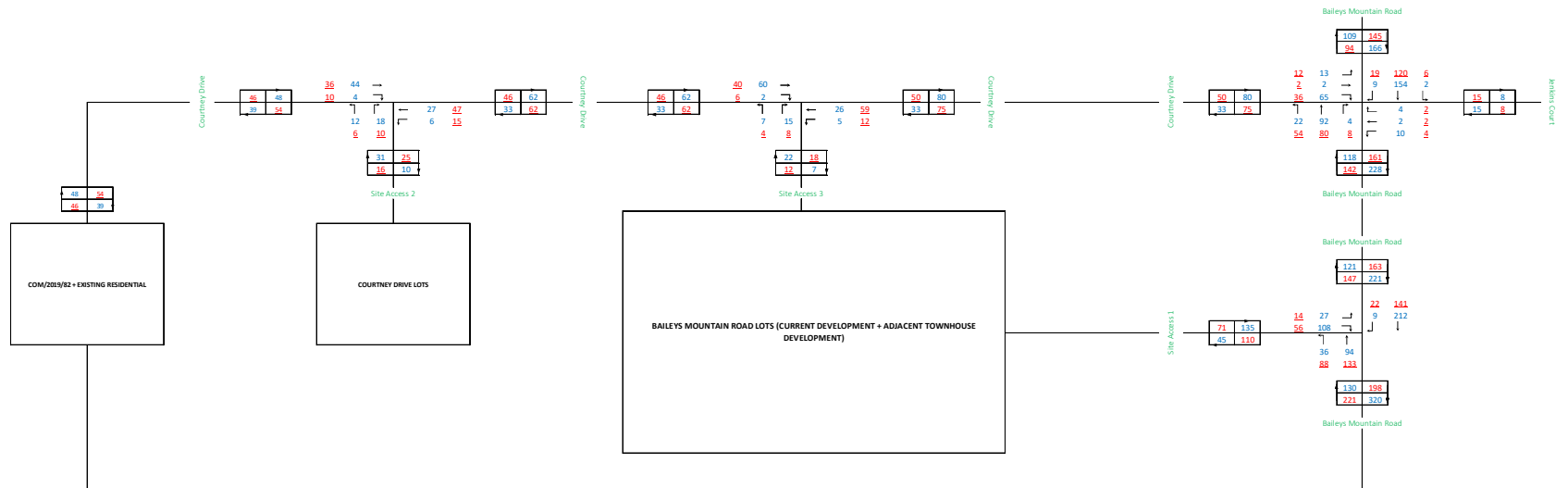


Attachment B – Traffic Network Diagrams

2027 PROJECT TRAFFIC VOLUMES



2037 PROJECT TRAFFIC VOLUMES



Attachment C – SiDRA Outputs

MOVEMENT SUMMARY

Site: 101 [AM Peak (2027 Dev + Base) (Site Folder: Baileys Mountain Road Site Access)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
SouthEast: Baileys Mountain Road South															
1	L2	All MCs	38	0.0	38	0.0	0.054	5.6	LOS A	0.0	0.0	0.00	0.22	0.00	55.7
2	T1	All MCs	66	0.0	66	0.0	0.054	0.0	LOS A	0.0	0.0	0.00	0.22	0.00	58.1
Approach			104	0.0	104	0.0	0.054	2.0	NA	0.0	0.0	0.00	0.22	0.00	57.2
NorthWest: Baileys Mountain Road North															
8	T1	All MCs	149	0.0	149	0.0	0.083	0.0	LOS A	0.1	0.4	0.03	0.04	0.03	59.5
9	R2	All MCs	9	0.0	9	0.0	0.083	5.9	LOS A	0.1	0.4	0.03	0.04	0.03	56.8
Approach			159	0.0	159	0.0	0.083	0.4	NA	0.1	0.4	0.03	0.04	0.03	59.4
SouthWest: Baileys Mountain Road Sit Access															
10	L2	All MCs	28	0.0	28	0.0	0.128	5.7	LOS A	0.5	3.2	0.26	0.59	0.26	52.2
12	R2	All MCs	114	0.0	114	0.0	0.128	6.4	LOS A	0.5	3.2	0.26	0.59	0.26	51.9
Approach			142	0.0	142	0.0	0.128	6.3	LOS A	0.5	3.2	0.26	0.59	0.26	52.0
All Vehicles			405	0.0	405	0.0	0.128	2.9	NA	0.5	3.2	0.10	0.28	0.10	56.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [AM Peak (2037 Dev + Base) (Site Folder: Baileys Mountain Road Site Access)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
SouthEast: Baileys Mountain Road South															
1	L2	All MCs	38	0.0	38	0.0	0.071	5.6	LOS A	0.0	0.0	0.00	0.16	0.00	56.1
2	T1	All MCs	99	0.0	99	0.0	0.071	0.0	LOS A	0.0	0.0	0.00	0.16	0.00	58.5
Approach			137	0.0	137	0.0	0.071	1.6	NA	0.0	0.0	0.00	0.16	0.00	57.8
NorthWest: Baileys Mountain Road North															
8	T1	All MCs	223	0.0	223	0.0	0.121	0.0	LOS A	0.1	0.5	0.03	0.03	0.03	59.7
9	R2	All MCs	9	0.0	9	0.0	0.121	6.0	LOS A	0.1	0.5	0.03	0.03	0.03	56.9
Approach			233	0.0	233	0.0	0.121	0.2	NA	0.1	0.5	0.03	0.03	0.03	59.6
SouthWest: Baileys Mountain Road Sit Access															
10	L2	All MCs	28	0.0	28	0.0	0.140	5.9	LOS A	0.5	3.5	0.33	0.62	0.33	51.9
12	R2	All MCs	114	0.0	114	0.0	0.140	7.0	LOS A	0.5	3.5	0.33	0.62	0.33	51.7
Approach			142	0.0	142	0.0	0.140	6.7	LOS A	0.5	3.5	0.33	0.62	0.33	51.7
All Vehicles			512	0.0	512	0.0	0.140	2.4	NA	0.5	3.5	0.10	0.23	0.10	56.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [PM Peak (2027 Dev + Base) (Site Folder: Baileys Mountain Road Site Access)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
SouthEast: Baileys Mountain Road South															
1	L2	All MCs	93	0.0	93	0.0	0.102	5.6	LOS A	0.0	0.0	0.00	0.28	0.00	55.2
2	T1	All MCs	101	0.0	101	0.0	0.102	0.0	LOS A	0.0	0.0	0.00	0.28	0.00	57.5
Approach			194	0.0	194	0.0	0.102	2.7	NA	0.0	0.0	0.00	0.28	0.00	56.3
NorthWest: Baileys Mountain Road North															
8	T1	All MCs	99	0.0	99	0.0	0.067	0.0	LOS A	0.2	1.1	0.13	0.16	0.13	58.5
9	R2	All MCs	23	0.0	23	0.0	0.067	6.8	LOS A	0.2	1.1	0.13	0.16	0.13	55.8
Approach			122	0.0	122	0.0	0.067	1.3	NA	0.2	1.1	0.13	0.16	0.13	57.9
SouthWest: Baileys Mountain Road Sit Access															
10	L2	All MCs	15	0.0	15	0.0	0.068	5.8	LOS A	0.2	1.6	0.28	0.59	0.28	52.1
12	R2	All MCs	59	0.0	59	0.0	0.068	6.5	LOS A	0.2	1.6	0.28	0.59	0.28	51.9
Approach			74	0.0	74	0.0	0.068	6.3	LOS A	0.2	1.6	0.28	0.59	0.28	51.9
All Vehicles			389	0.0	389	0.0	0.102	2.9	NA	0.2	1.6	0.09	0.30	0.09	55.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [PM Peak (2037 Dev + Base) (Site Folder: Baileys Mountain Road Site Access)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
SouthEast: Baileys Mountain Road South															
1	L2	All MCs	93	0.0	93	0.0	0.122	5.6	LOS A	0.0	0.0	0.00	0.24	0.00	55.5
2	T1	All MCs	140	0.0	140	0.0	0.122	0.0	LOS A	0.0	0.0	0.00	0.24	0.00	57.8
Approach			233	0.0	233	0.0	0.122	2.2	NA	0.0	0.0	0.00	0.24	0.00	56.9
NorthWest: Baileys Mountain Road North															
8	T1	All MCs	148	0.0	148	0.0	0.093	0.0	LOS A	0.2	1.2	0.11	0.13	0.11	58.8
9	R2	All MCs	23	0.0	23	0.0	0.093	7.2	LOS A	0.2	1.2	0.11	0.13	0.11	56.1
Approach			172	0.0	172	0.0	0.093	1.0	NA	0.2	1.2	0.11	0.13	0.11	58.4
SouthWest: Baileys Mountain Road Sit Access															
10	L2	All MCs	15	0.0	15	0.0	0.073	6.0	LOS A	0.2	1.7	0.33	0.62	0.33	52.0
12	R2	All MCs	59	0.0	59	0.0	0.073	6.9	LOS A	0.2	1.7	0.33	0.62	0.33	51.7
Approach			74	0.0	74	0.0	0.073	6.7	LOS A	0.2	1.7	0.33	0.62	0.33	51.8
All Vehicles			478	0.0	478	0.0	0.122	2.5	NA	0.2	1.7	0.09	0.26	0.09	56.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [AM Peak (2027 Dev + Base) (Site Folder: Courtney Drive Site Access)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Courtney Drive General Site Access															
1	L2	All MCs	13	0.0	13	0.0	0.024	5.6	LOS A	0.1	0.6	0.11	0.56	0.11	52.6
3	R2	All MCs	19	0.0	19	0.0	0.024	5.7	LOS A	0.1	0.6	0.11	0.56	0.11	52.3
Approach			32	0.0	32	0.0	0.024	5.6	LOS A	0.1	0.6	0.11	0.56	0.11	52.5
East: Courtney Drive East															
4	L2	All MCs	6	0.0	6	0.0	0.016	5.5	LOS A	0.0	0.0	0.00	0.12	0.00	56.5
5	T1	All MCs	25	0.0	25	0.0	0.016	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	58.9
Approach			32	0.0	32	0.0	0.016	1.1	NA	0.0	0.0	0.00	0.12	0.00	58.4
West: Courtney Drive West															
11	T1	All MCs	39	0.0	39	0.0	0.022	0.0	LOS A	0.0	0.2	0.02	0.06	0.02	59.4
12	R2	All MCs	4	0.0	4	0.0	0.022	5.5	LOS A	0.0	0.2	0.02	0.06	0.02	56.6
Approach			43	0.0	43	0.0	0.022	0.5	NA	0.0	0.2	0.02	0.06	0.02	59.1
All Vehicles			106	0.0	106	0.0	0.024	2.2	NA	0.1	0.6	0.04	0.23	0.04	56.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [AM Peak (2037 Dev + Base) (Site Folder: Courtney Drive Site Access)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Courtney Drive General Site Access															
1	L2	All MCs	13	0.0	13	0.0	0.024	5.6	LOS A	0.1	0.6	0.11	0.56	0.11	52.6
3	R2	All MCs	19	0.0	19	0.0	0.024	5.7	LOS A	0.1	0.6	0.11	0.56	0.11	52.3
Approach			32	0.0	32	0.0	0.024	5.7	LOS A	0.1	0.6	0.11	0.56	0.11	52.4
East: Courtney Drive East															
4	L2	All MCs	6	0.0	6	0.0	0.018	5.5	LOS A	0.0	0.0	0.00	0.11	0.00	56.6
5	T1	All MCs	28	0.0	28	0.0	0.018	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	59.0
Approach			35	0.0	35	0.0	0.018	1.0	NA	0.0	0.0	0.00	0.11	0.00	58.6
West: Courtney Drive West															
11	T1	All MCs	46	0.0	46	0.0	0.026	0.0	LOS A	0.0	0.2	0.02	0.05	0.02	59.5
12	R2	All MCs	4	0.0	4	0.0	0.026	5.5	LOS A	0.0	0.2	0.02	0.05	0.02	56.7
Approach			51	0.0	51	0.0	0.026	0.5	NA	0.0	0.2	0.02	0.05	0.02	59.2
All Vehicles			117	0.0	117	0.0	0.026	2.0	NA	0.1	0.6	0.04	0.21	0.04	57.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [PM Peak (2027 Dev + Base) (Site Folder: Courtney Drive Site Access)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Courtney Drive General Site Access															
1	L2	All MCs	6	0.0	6	0.0	0.013	5.7	LOS A	0.0	0.3	0.14	0.55	0.14	52.5
3	R2	All MCs	11	0.0	11	0.0	0.013	5.7	LOS A	0.0	0.3	0.14	0.55	0.14	52.3
Approach			17	0.0	17	0.0	0.013	5.7	LOS A	0.0	0.3	0.14	0.55	0.14	52.4
East: Courtney Drive East															
4	L2	All MCs	16	0.0	16	0.0	0.031	5.5	LOS A	0.0	0.0	0.00	0.16	0.00	56.2
5	T1	All MCs	44	0.0	44	0.0	0.031	0.0	LOS A	0.0	0.0	0.00	0.16	0.00	58.6
Approach			60	0.0	60	0.0	0.031	1.5	NA	0.0	0.0	0.00	0.16	0.00	57.9
West: Courtney Drive West															
11	T1	All MCs	31	0.0	31	0.0	0.022	0.0	LOS A	0.1	0.4	0.08	0.16	0.08	58.3
12	R2	All MCs	11	0.0	11	0.0	0.022	5.8	LOS A	0.1	0.4	0.08	0.16	0.08	55.7
Approach			41	0.0	41	0.0	0.022	1.5	NA	0.1	0.4	0.08	0.16	0.08	57.6
All Vehicles			118	0.0	118	0.0	0.031	2.1	NA	0.1	0.4	0.05	0.22	0.05	57.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [PM Peak (2037 Dev + Base) (Site Folder: Courtney Drive Site Access)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Courtney Drive General Site Access															
1	L2	All MCs	6	0.0	6	0.0	0.013	5.7	LOS A	0.0	0.3	0.15	0.55	0.15	52.5
3	R2	All MCs	11	0.0	11	0.0	0.013	5.8	LOS A	0.0	0.3	0.15	0.55	0.15	52.2
Approach			17	0.0	17	0.0	0.013	5.7	LOS A	0.0	0.3	0.15	0.55	0.15	52.3
East: Courtney Drive East															
4	L2	All MCs	16	0.0	16	0.0	0.034	5.5	LOS A	0.0	0.0	0.00	0.14	0.00	56.3
5	T1	All MCs	49	0.0	49	0.0	0.034	0.0	LOS A	0.0	0.0	0.00	0.14	0.00	58.7
Approach			65	0.0	65	0.0	0.034	1.3	NA	0.0	0.0	0.00	0.14	0.00	58.1
West: Courtney Drive West															
11	T1	All MCs	38	0.0	38	0.0	0.026	0.0	LOS A	0.1	0.4	0.07	0.14	0.07	58.6
12	R2	All MCs	11	0.0	11	0.0	0.026	5.8	LOS A	0.1	0.4	0.07	0.14	0.07	55.9
Approach			48	0.0	48	0.0	0.026	1.3	NA	0.1	0.4	0.07	0.14	0.07	57.9
All Vehicles			131	0.0	131	0.0	0.034	1.9	NA	0.1	0.4	0.05	0.20	0.05	57.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [AM Peak (2027 Dev + Base) (Site Folder: Baileys Mountain Road / Courtney Drive)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Baileys Mountain Road South															
1	L2	All MCs	21	0.0	21	0.0	0.048	5.5	LOS A	0.0	0.1	0.02	0.15	0.02	56.2
2	T1	All MCs	67	3.0	67	3.0	0.048	0.0	LOS A	0.0	0.1	0.02	0.15	0.02	58.5
3	R2	All MCs	2	0.0	2	0.0	0.048	5.7	LOS A	0.0	0.1	0.02	0.15	0.02	55.8
Approach			91	2.2	91	2.2	0.048	1.4	NA	0.0	0.1	0.02	0.15	0.02	57.9
NorthEast: Jenkins Court															
4	L2	All MCs	6	0.0	6	0.0	0.008	8.4	LOS A	0.0	0.2	0.22	0.87	0.22	51.1
5	T1	All MCs	1	0.0	1	0.0	0.008	8.6	LOS A	0.0	0.2	0.22	0.87	0.22	51.1
6	R2	All MCs	2	0.0	2	0.0	0.008	8.5	LOS A	0.0	0.2	0.22	0.87	0.22	50.8
Approach			9	0.0	9	0.0	0.008	8.4	LOS A	0.0	0.2	0.22	0.87	0.22	51.0
NorthWest: Baileys Mountain Road North															
7	L2	All MCs	1	0.0	1	0.0	0.058	5.5	LOS A	0.1	0.4	0.04	0.07	0.04	56.9
8	T1	All MCs	99	3.0	99	3.0	0.058	0.0	LOS A	0.1	0.4	0.04	0.07	0.04	59.3
9	R2	All MCs	9	0.0	9	0.0	0.058	5.9	LOS A	0.1	0.4	0.04	0.07	0.04	56.5
Approach			109	2.7	109	2.7	0.058	0.6	NA	0.1	0.4	0.04	0.07	0.04	59.0
SouthWest: Courtney Drive															
10	L2	All MCs	13	0.0	13	0.0	0.086	8.3	LOS A	0.3	2.1	0.27	0.88	0.27	51.0
11	T1	All MCs	1	0.0	1	0.0	0.086	8.6	LOS A	0.3	2.1	0.27	0.88	0.27	51.0
12	R2	All MCs	62	0.0	62	0.0	0.086	8.7	LOS A	0.3	2.1	0.27	0.88	0.27	50.7
Approach			76	0.0	76	0.0	0.086	8.6	LOS A	0.3	2.1	0.27	0.88	0.27	50.8
All Vehicles			285	1.7	285	1.7	0.086	3.2	NA	0.3	2.1	0.10	0.34	0.10	56.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [AM Peak (2037 Dev + Base) (Site Folder: Baileys Mountain Road / Courtney Drive)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Baileys Mountain Road South															
1	L2	All MCs	23	0.0	23	0.0	0.066	5.5	LOS A	0.0	0.3	0.03	0.14	0.03	56.3
2	T1	All MCs	97	3.0	97	3.0	0.066	0.0	LOS A	0.0	0.3	0.03	0.14	0.03	58.7
3	R2	All MCs	4	0.0	4	0.0	0.066	6.6	LOS A	0.0	0.3	0.03	0.14	0.03	56.0
Approach			124	2.3	124	2.3	0.066	1.3	NA	0.0	0.3	0.03	0.14	0.03	58.1
NorthEast: Jenkins Court															
4	L2	All MCs	11	0.0	11	0.0	0.017	8.6	LOS A	0.1	0.4	0.30	0.86	0.30	50.9
5	T1	All MCs	2	0.0	2	0.0	0.017	9.1	LOS A	0.1	0.4	0.30	0.86	0.30	50.9
6	R2	All MCs	4	0.0	4	0.0	0.017	9.2	LOS A	0.1	0.4	0.30	0.86	0.30	50.7
Approach			17	0.0	17	0.0	0.017	8.8	LOS A	0.1	0.4	0.30	0.86	0.30	50.9
NorthWest: Baileys Mountain Road North															
7	L2	All MCs	2	0.0	2	0.0	0.092	5.5	LOS A	0.1	0.5	0.03	0.05	0.03	57.0
8	T1	All MCs	162	3.0	162	3.0	0.092	0.0	LOS A	0.1	0.5	0.03	0.05	0.03	59.5
9	R2	All MCs	9	0.0	9	0.0	0.092	6.1	LOS A	0.1	0.5	0.03	0.05	0.03	56.7
Approach			174	2.8	174	2.8	0.092	0.4	NA	0.1	0.5	0.03	0.05	0.03	59.3
SouthWest: Courtney Drive															
10	L2	All MCs	14	0.0	14	0.0	0.106	8.4	LOS A	0.4	2.6	0.36	0.89	0.36	50.6
11	T1	All MCs	2	0.0	2	0.0	0.106	9.3	LOS A	0.4	2.6	0.36	0.89	0.36	50.6
12	R2	All MCs	68	0.0	68	0.0	0.106	9.5	LOS A	0.4	2.6	0.36	0.89	0.36	50.4
Approach			84	0.0	84	0.0	0.106	9.3	LOS A	0.4	2.6	0.36	0.89	0.36	50.4
All Vehicles			399	1.9	399	1.9	0.106	2.9	NA	0.4	2.6	0.11	0.29	0.11	56.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [PM Peak (2027 Dev + Base) (Site Folder: Baileys Mountain Road / Courtney Drive)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Baileys Mountain Road South															
1	L2	All MCs	53	0.0	53	0.0	0.058	5.5	LOS A	0.0	0.3	0.02	0.30	0.02	55.0
2	T1	All MCs	54	0.0	54	0.0	0.058	0.0	LOS A	0.0	0.3	0.02	0.30	0.02	57.2
3	R2	All MCs	4	0.0	4	0.0	0.058	5.8	LOS A	0.0	0.3	0.02	0.30	0.02	54.7
Approach			111	0.0	111	0.0	0.058	2.9	NA	0.0	0.3	0.02	0.30	0.02	56.0
NorthEast: Jenkins Court															
4	L2	All MCs	2	0.0	2	0.0	0.004	8.3	LOS A	0.0	0.1	0.22	0.88	0.22	51.1
5	T1	All MCs	1	0.0	1	0.0	0.004	8.6	LOS A	0.0	0.1	0.22	0.88	0.22	51.1
6	R2	All MCs	1	0.0	1	0.0	0.004	8.3	LOS A	0.0	0.1	0.22	0.88	0.22	50.9
Approach			4	0.0	4	0.0	0.004	8.4	LOS A	0.0	0.1	0.22	0.88	0.22	51.0
NorthWest: Baileys Mountain Road North															
7	L2	All MCs	3	0.0	3	0.0	0.056	5.5	LOS A	0.1	0.9	0.09	0.15	0.09	56.1
8	T1	All MCs	83	0.0	83	0.0	0.056	0.0	LOS A	0.1	0.9	0.09	0.15	0.09	58.5
9	R2	All MCs	19	0.0	19	0.0	0.056	6.2	LOS A	0.1	0.9	0.09	0.15	0.09	55.8
Approach			105	0.0	105	0.0	0.056	1.3	NA	0.1	0.9	0.09	0.15	0.09	57.9
SouthWest: Courtney Drive															
10	L2	All MCs	9	0.0	9	0.0	0.050	8.2	LOS A	0.2	1.2	0.24	0.88	0.24	51.0
11	T1	All MCs	1	0.0	1	0.0	0.050	8.6	LOS A	0.2	1.2	0.24	0.88	0.24	51.0
12	R2	All MCs	35	0.0	35	0.0	0.050	8.5	LOS A	0.2	1.2	0.24	0.88	0.24	50.8
Approach			45	0.0	45	0.0	0.050	8.5	LOS A	0.2	1.2	0.24	0.88	0.24	50.8
All Vehicles			265	0.0	265	0.0	0.058	3.3	NA	0.2	1.2	0.09	0.35	0.09	55.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [PM Peak (2037 Dev + Base) (Site Folder: Baileys Mountain Road / Courtney Drive)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
SouthEast: Baileys Mountain Road South															
1	L2	All MCs	57	0.0	57	0.0	0.079	5.5	LOS A	0.1	0.5	0.04	0.27	0.04	55.2
2	T1	All MCs	84	0.0	84	0.0	0.079	0.0	LOS A	0.1	0.5	0.04	0.27	0.04	57.5
3	R2	All MCs	8	0.0	8	0.0	0.079	6.7	LOS A	0.1	0.5	0.04	0.27	0.04	54.9
Approach			149	0.0	149	0.0	0.079	2.5	NA	0.1	0.5	0.04	0.27	0.04	56.5
NorthEast: Jenkins Court															
4	L2	All MCs	4	0.0	4	0.0	0.008	8.5	LOS A	0.0	0.2	0.28	0.86	0.28	51.0
5	T1	All MCs	2	0.0	2	0.0	0.008	9.1	LOS A	0.0	0.2	0.28	0.86	0.28	50.9
6	R2	All MCs	2	0.0	2	0.0	0.008	8.9	LOS A	0.0	0.2	0.28	0.86	0.28	50.7
Approach			8	0.0	8	0.0	0.008	8.7	LOS A	0.0	0.2	0.28	0.86	0.28	50.9
NorthWest: Baileys Mountain Road North															
7	L2	All MCs	6	0.0	6	0.0	0.081	5.5	LOS A	0.1	1.0	0.09	0.13	0.09	56.3
8	T1	All MCs	126	0.0	126	0.0	0.081	0.0	LOS A	0.1	1.0	0.09	0.13	0.09	58.7
9	R2	All MCs	20	0.0	20	0.0	0.081	6.5	LOS A	0.1	1.0	0.09	0.13	0.09	56.0
Approach			153	0.0	153	0.0	0.081	1.1	NA	0.1	1.0	0.09	0.13	0.09	58.3
SouthWest: Courtney Drive															
10	L2	All MCs	13	0.0	13	0.0	0.062	8.3	LOS A	0.2	1.5	0.30	0.88	0.30	50.8
11	T1	All MCs	2	0.0	2	0.0	0.062	9.1	LOS A	0.2	1.5	0.30	0.88	0.30	50.8
12	R2	All MCs	38	0.0	38	0.0	0.062	9.2	LOS A	0.2	1.5	0.30	0.88	0.30	50.5
Approach			53	0.0	53	0.0	0.062	9.0	LOS A	0.2	1.5	0.30	0.88	0.30	50.6
All Vehicles			363	0.0	363	0.0	0.081	3.0	NA	0.2	1.5	0.10	0.31	0.10	56.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.