APPENDIX J TRAFFIC IMPACT ASSESSMENT

Premise

MIRVAC QUEENSLAND PTY LTD

Everleigh ROL13

TRAFFIC IMPACT ASSESSMENT

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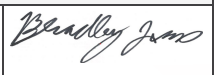
Bradley Jones		Bradley Jones		Bradley Jones	

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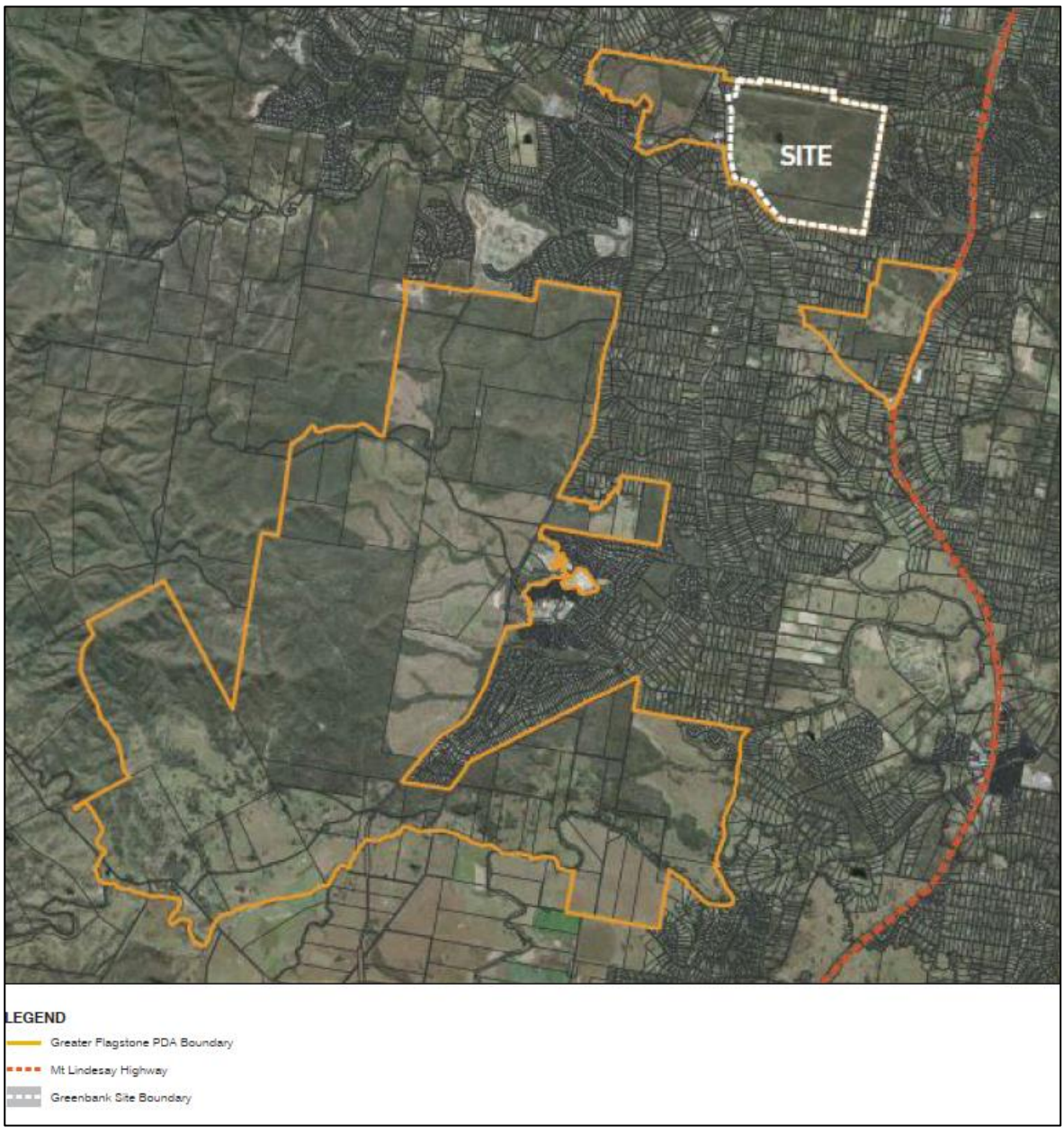
1. INTRODUCTION

Premise Brisbane Pty Ltd (Premise) has been engaged by Mirvac Queensland Pty Ltd (Mirvac) to undertake a Traffic Impact Assessment for Everleigh ROL13 consisting of 354 residential lots, one (1) high school, and 13.4Ha of future residential development within Everleigh urban subdivision.

1.1 Background

Everleigh is an approved master planned community located within the Queensland Government declared Greater Flagstone Priority Developmental Area (PDA) as shown by Figure 1 and falls under the planning jurisdiction of Economic Development Queensland (EDQ).

Figure 1 – Site Locality (Source: Urbis)



Everleigh is located on a 481Ha parcel of land with road frontage to Teviot Road and Greenbank Road. The latest planning by Mirvac anticipates the following development yield in accordance with the land use plan shown by Figure 2:

- Residential – 3,562 dwellings, predominantly detached with some duplex, terrace, attached and land lease product.
- Schools – Primary school designed for 1,400 students and 140 staff, and a high school designed for 1,800 students and 190 staff.
- Neighbourhood Centre – 8,000m^2 gross floor area (GFA).
- State community health centre – 8,000m^2 GFA.
- Parks and reserves for local recreation, neighbourhood recreation, regional sports and recreation, conservation, and drainage.

"Everleigh: Movement Network Infrastructure Master Plan" (P000170-R02-revA) dated 27 March 2024 by Premise for Mirvac reviewed proposed transport networks and confirmed that these are satisfactory to accommodate the above development yield. P000170-R02-revA investigated:

- Road Networks: Road network layout, hierarchy, typical cross sections, and intersections.
- Public Transport: Bus compatible routes, bus stop locations and infrastructure standards.
- Active Transport: Pedestrian and bicycle network, and movement permeability.
- Parking: Adopted parking rates and provisions.
- Traffic Operation: Modelling of demand, capacity of proposed intersections and road links, and staging of works.

Figure 2 – Land use plan (Source: Urbis)

LEGEND

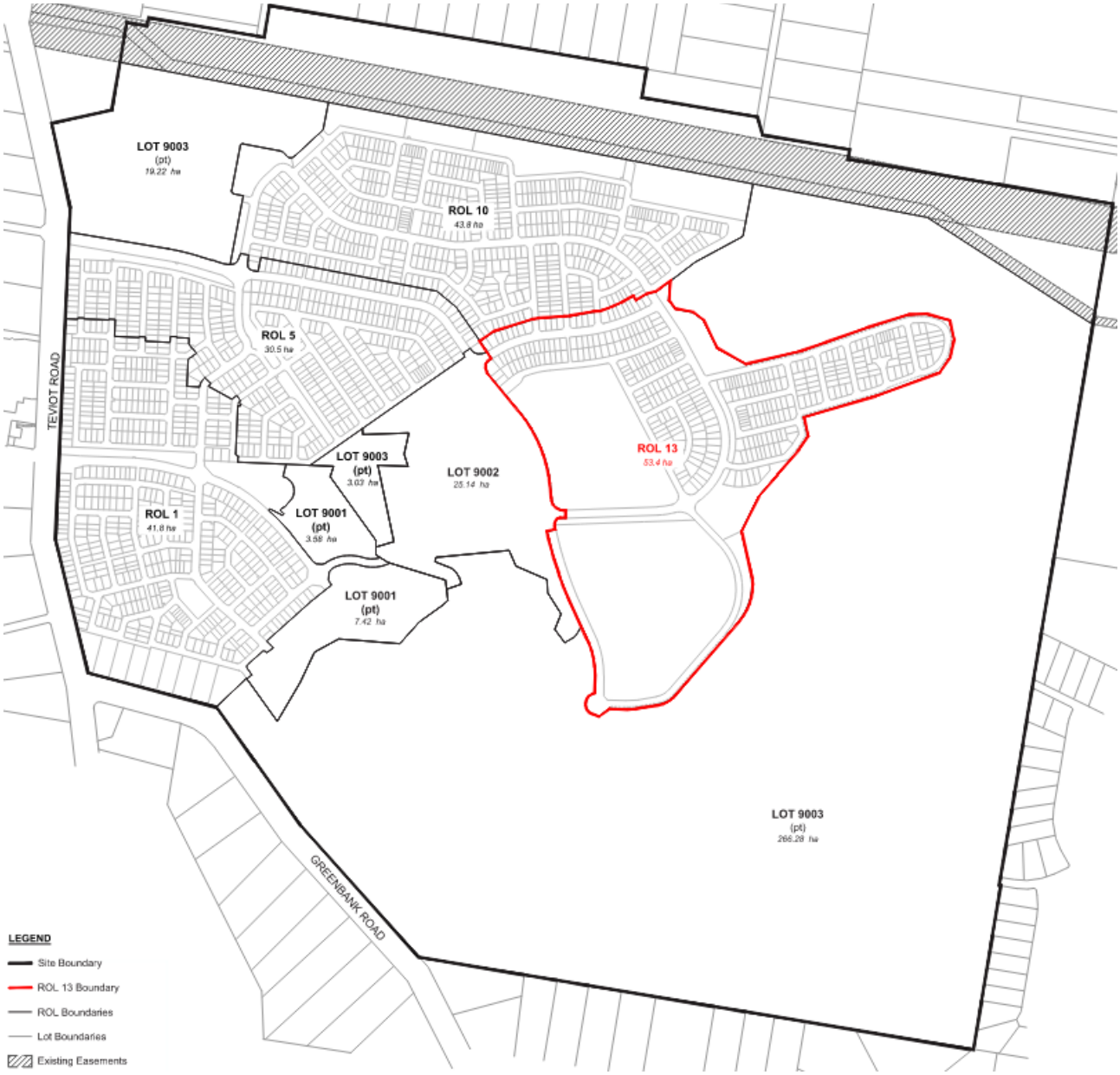
- Greater Flagstone UDA Boundary
- Site Boundary
- Cadastre Boundaries
- Existing Easements
- Rail Corridor
- Potential Train Station [1]

Land Uses

- Residential - Standard Lots
- Residential - Interface Lots
- Potential Land Lease Community (LLC)
- Neighbourhood Centre
- State Community Health Centre
- District Centre (external) [1]
- Conservation Parkland (Corridor Park)
- Combined Regional Recreation and Regional Sports Park
- Major Linear Park
- Indicative Locations of Neighbourhood Parks
- Indicative Location of State Primary School
- Indicative Location of State High School (subject to State agency aquisition)

Figure 3 shows ROL13 in the context of existing and approved reconfigurations of a lot (ROL) within Everleigh. ROL13 will be developed in accordance with P000170-R02-revA.

Figure 3 – Reconfiguration of a lot plan – ROL13 – balance lots (Source: Urbis)



1.2 Scope and Study Area

Figure 4 shows the impact assessment area which consists of:

- Anderson Drive from Teviot Road 1.1km west of ROL13 to the southern boundary of ROL13.
- Teviot Road / Leanne Court / Anderson Drive signals 1.1km west of ROL13.
- Anderson Drive / Road 103 / Road 53 roundabout on the northwest corner of ROL13.
- Anderson Drive / Ivory Parkway / Guroman Drive roundabout in the centre of ROL13's western boundary.
- Anderson Drive / Road 83 roundabout in the southwest corner of ROL13.

Figure 4 – Impact assessment area (Source: Urbis)

Development in ROL13 is expected to commence in 2026 with ROL13 expected to reach peak traffic generation in 2032. The assessments contained in this report consider critical stages in the development of the Everleigh road network between the commencement of ROL13 development in 2026 and 2044 being 10 years after completion of the final stage of Everleigh development.

2. EXISTING CONDITIONS

2.1 Land Use and Zoning

Figure 5 is an aerial image of Everleigh showing development as of 27 July 2023. Note the following existing land uses:

- Everleigh State School on the northwest corner of the Anderson Drive / Ivory Parkway / Guroman Drive roundabout opened in 2022. According to the My School website (www.myschool.edu.au/school/53052) Everleigh State School had 238 students and 31.4 full time equivalent (FTE) staff in 2022.
- Central Park is being developed in stages with access via Ivory Parkway and Road 53.
- ROL1 consisting of residential lots accessed via the Teviot Road / Pub Lane / Everleigh Drive signals is fully developed.
- ROL5 consisting of residential lots between Anderson Drive, Central Park, Everleigh Drive and Teviot Road is under development with some residential lots occupied by dwellings.
- ROL10 consisting of residential lots to the north of Anderson Drive is being prepared for development.
- ROL13 as proposed to the west of Anderson Drive is undeveloped.

Figure 5 – Aerial image dated 27 July 2023 (Source: Google Earth)

2.2 Adjacent Land Uses / Approval

Future land use within Everleigh surrounding ROL13 is described in 1.1.

Figure 5 shows Greenbank Shopping Centre on the northwest corner of the Teviot Road / Pub Lane intersection which service the retail needs of Everleigh until the Everleigh Neighbourhood Centre is developed.

2.3 Surrounding Road Network Details

Figure 6 shows the planned Everleigh road hierarchy as assessed in P000170-R01-revA.

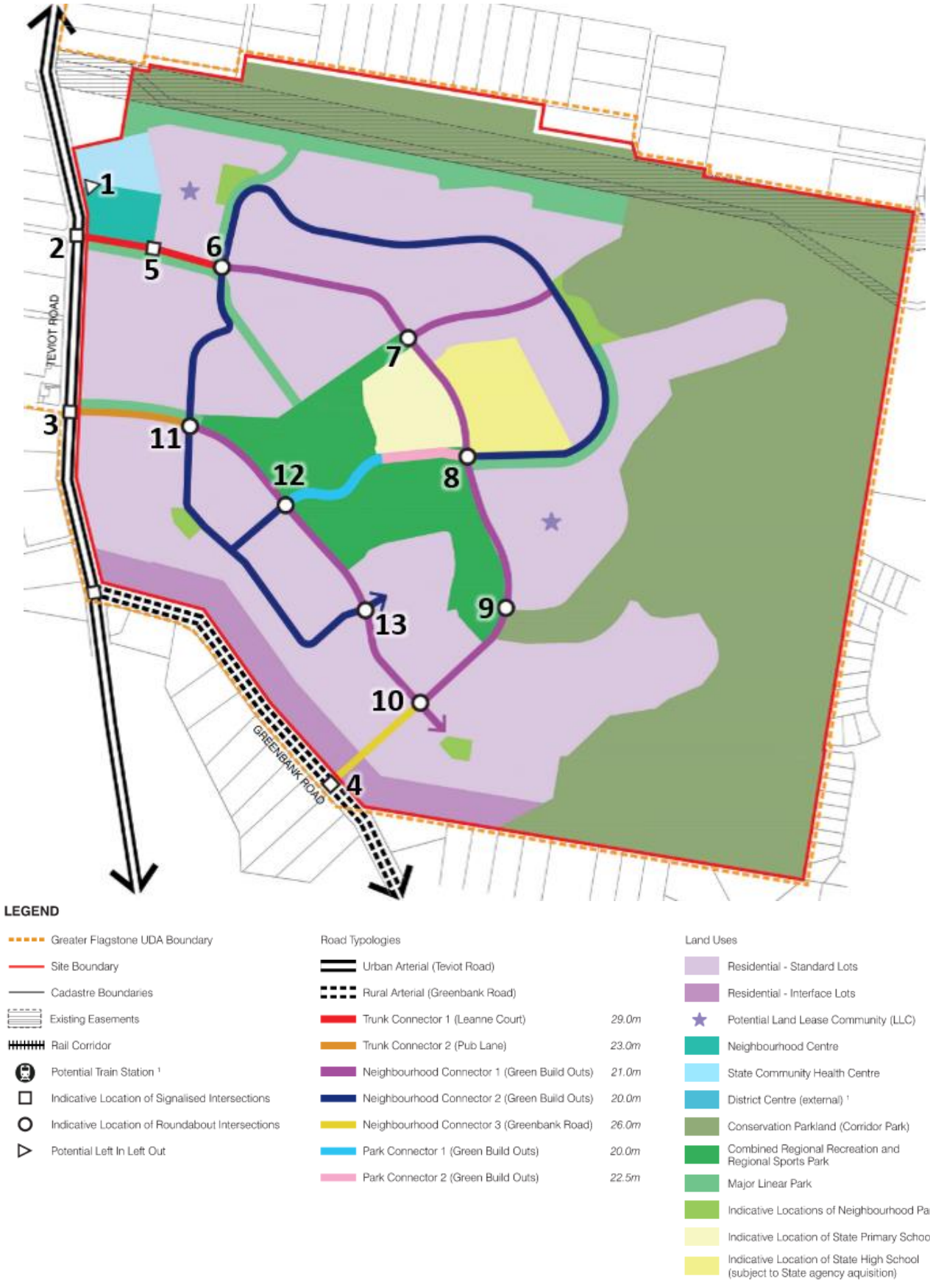
The impact assessment area for this report consists of:

- Anderson Drive (Trunk Connector 1 / Neighbourhood Connector 1) from Teviot Road (Intersection 2) to the southern boundary of ROL13 (Intersection 9).
- Teviot Road / Leanne Court / Anderson Drive signals (Intersection 2).
- Anderson Drive / Road 103 (Neighbourhood Connector 1) / Road 53 (Central Park access) roundabout (Intersection 7).
- Anderson Drive / Ivory Parkway / Guroman Drive roundabout (Intersection 8).
- Anderson Drive / Road 83 roundabout (Intersection 9).

As shown by Figure 5, the existing elements of the planned road network are:

- Intersection 3: Teviot Road / Pub Lane / Everleigh Drive signals.
- Intersection 7: Anderson Drive / Road 103 (Neighbourhood Connector 1) / Road 53 (Central Park access)) roundabout.
- Intersection 8: Anderson Drive / Ivory Parkway / Guroman Drive roundabout.
- Intersection 11: Everleigh Drive / Kessels Boulevard / Guroman Drive roundabout.
- Intersection 12: Everleigh Drive / Ivory Parkway / Emerald Parade roundabout.
- Anderson Drive (Neighbourhood Connector 1) between Intersections 7 and 8.
- Everleigh Drive (Trunk Connector 2 / Neighbourhood Connector 1) between Intersection 3 and 12.
- Ivory Parkway (Park Connector 1 / 2) between Intersections 8 and 12.
- Guroman Drive (Neighbourhood Connector 2) between Intersections 6 and 11.
- Kessels Boulevard / Emerald Parade (Neighbourhood Connector 2) between Intersections 11 and 12.

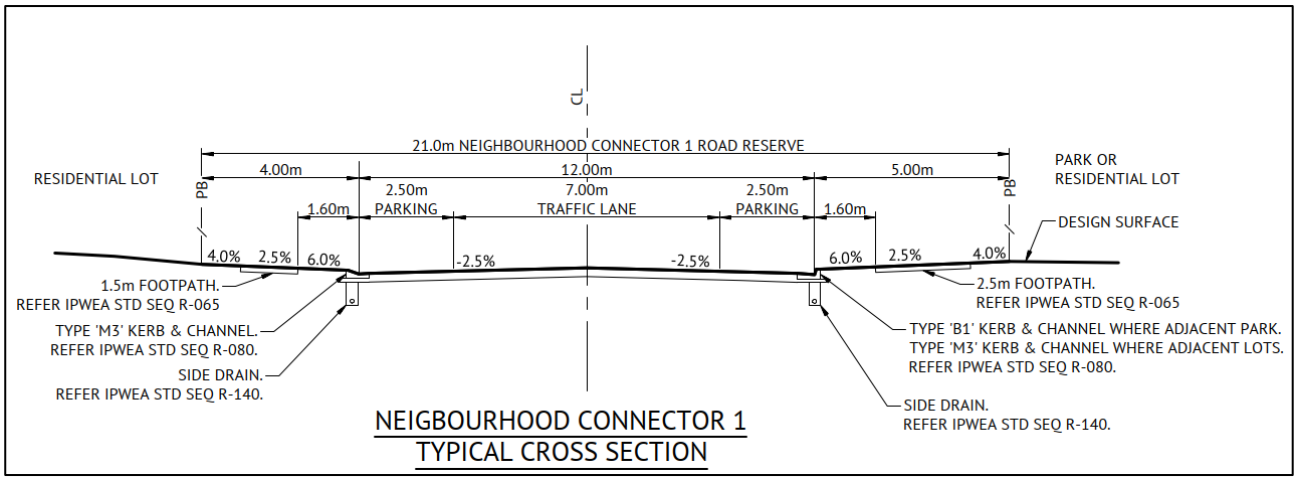
Figure 6 – Road hierarchy plan and road intersections key (Source: Urbis)



2.3.1 FRONTAGE ROAD – ANDERSON DRIVE

ROL13 has frontage to Anderson Drive which, as shown by Figure 6 will ultimately connect Teviot Road at Leanne Court (Intersection 2) in the west to Greenbank Road (Intersection 4) in the south. Currently the only segment of Anderson Drive which exists is the generally north-south aligned segment on the Everleigh State School frontage between Road 53 (Intersection 7) and Ivory Parkway (Intersection 8). This section of Anderson Drive is constructed to Neighbourhood Connector 1 standard with the typical cross section and characteristics indicated by Figure 7

Figure 7 – Anderson Drive typical cross section and characteristics (Source: P000170-R02-revA)



Traffic Lanes =	Two (2)
Traffic Volume =	3,000-7499vpd
Traffic Lane Width =	3.5m
Parking Lane Width =	2.5m
Median Width =	NA
Verge Width =	4-5m
Vegetated Sound Buffer =	NA
Total Reserve Width =	21m
Road Speed =	50km/h
Residential Frontage =	Yes
Notes =	Parking lanes include 1.5m wide green build outs.

2.3.2 OTHER ROAD LINKS

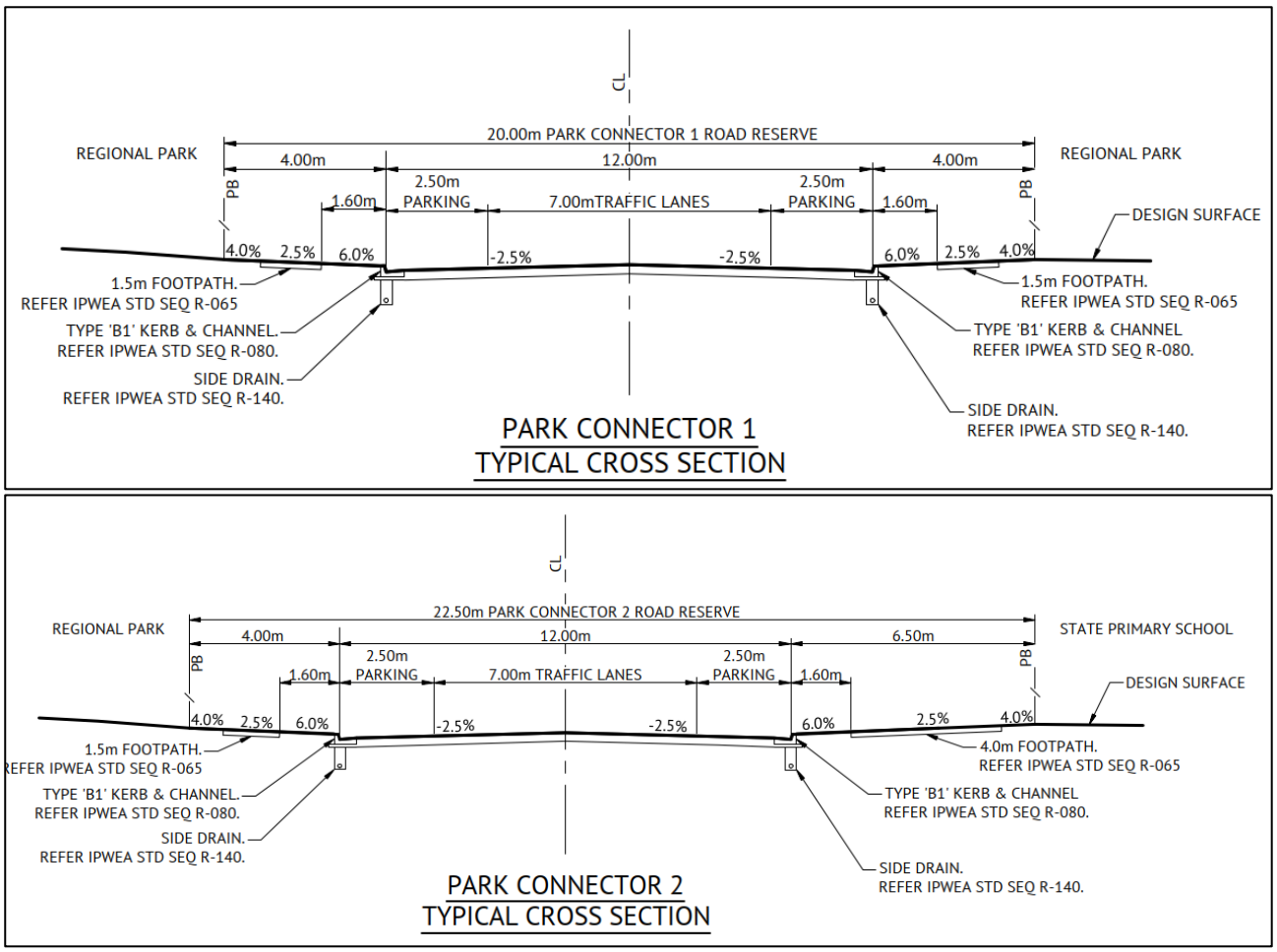
2.3.2.1 Teviot Road

Teviot Road provides a major local route between the western residential areas of Jimboomba (to the south) and Greenbank (to the north). Teviot Road is a key distributor of traffic, providing links to the Mount Lindesay Highway via Greenbank Road/Crowson Lane and Stoney Camp Road, to Springfield via Springfield-Greenbank Arterial Road and to Browns Plains via Middle Road. Teviot Road is constructed to a 2-lane rural standard.

2.3.2.2 Ivory Parkway

Ivory Parkway provides a park connector link between ROL13 (Intersection 8) in the east and Everleigh Drive (Intersection 12) in the west. Ivory Parkway is constructed to Park Connector standard with the typical cross sections and characteristics indicated by Figure 8.

Figure 8 – Ivory Parkway typical cross sections and characteristics (Source: P000170-R02-revA)



Traffic Lanes =	Two (2)
Traffic Volume =	3,000-7499vpd
Traffic Lane Width =	3.5m
Parking Lane Width =	2.5m
Median Width =	NA
Verge Width =	4-6.5m
Vegetated Sound Buffer =	NA
Total reserve Width =	20-22.5m
Road Speed =	50km/h
Residential Frontage =	No
Notes =	Footpath may be deleted where paths provided in adjacent park. Parking lanes include 1.5m wide green build outs. Road reserve may be widened to provide for perpendicular and / or angle parking.

2.3.3 INTERSECTIONS

Existing intersections applicable to this assessment include:

- Teviot Road / Leanne Court T-intersection (Intersection 2).
- Anderson Drive / Road 103 (Neighbourhood Connector 1) / Road 53 (Central Park access) roundabout (Intersection 7).
- Anderson Drive / Ivory Parkway / Guroman Drive roundabout (Intersection 8).

2.3.3.1 Intersection 2: Teviot Road / Leanne Court T-Intersection

Figure 9 shows the existing Teviot Road and Leanne Court form a priority-controlled T-intersection. It features basic turn treatments with give way control of the Leanne Drive approach.

Figure 9 – Teviot Road / Leanne Court T-intersection layout (Source: Google Earth)

2.3.3.2 Intersection 7: Anderson Drive / Road 103 / Road 53 Roundabout

Figure 10 shows the existing Anderson Drive / Road 103 (Neighbourhood Connector 1) / Road 53 (Central Park access) single lane roundabout (Intersection 7). It features a 21.5m diameter central island and a 6.5m wide circulating roadway.

Figure 10 – Anderson Drive / Road 103 / Road 53 roundabout layout (Source: Nearmap)

2.3.3.3 Intersection 8: Anderson Drive / Ivory Parkway / Guroman Drive Roundabout

Figure 11 shows the existing Anderson Drive / Ivory Parkway / Guroman Drive single lane roundabout (Intersection 8). It features a 21.5m diameter central island and a single 7.0m wide circulating lane.

Figure 11 – Ivory Parkway / Anderson Drive roundabout layout (Source: Nearmap)

2.3.4 PLANNED ROAD NETWORK DETAILS

Identified by EDQ as being local roads requiring upgrade to support the Greater Flagstone PDA, most local roads with close proximity to the development site have been identified for future upgrades including Teviot Road, Stoney Camp Road, Greenbank Road, Crowson Lane and Pub Lane. Such upgrades are identified in the following documents:

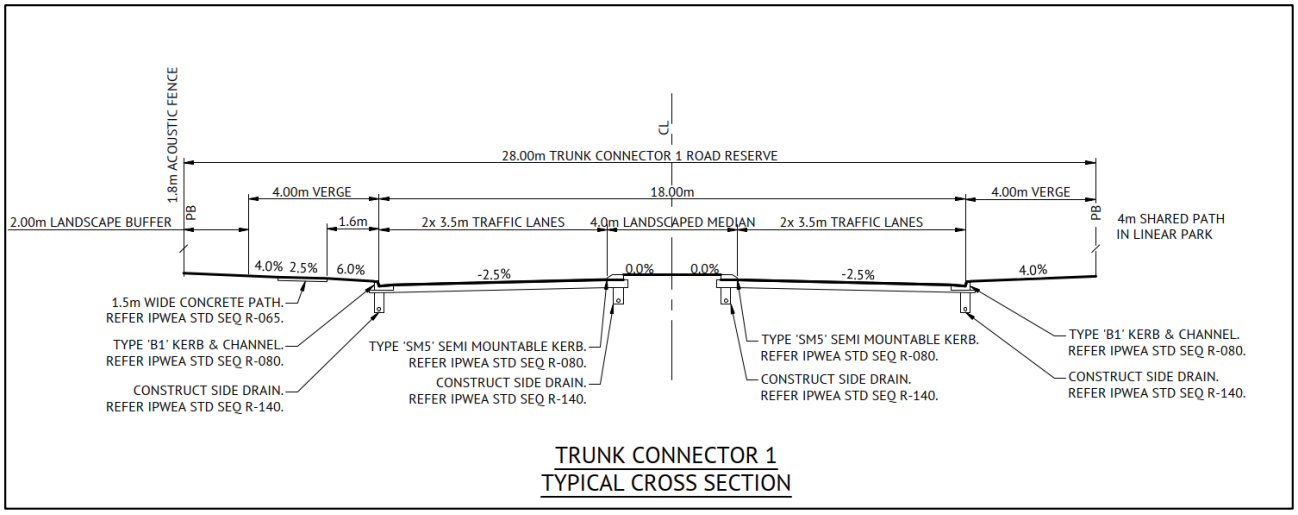
- Greater Flagstone Urban Development Area Development Scheme dated October 2011 (PDA Development Scheme).

- Greater Flagstone Priority Development Area Development Charges and Offset Plan dated July 2023 (DCOP).
- Yarrabilba PDA & Greater Flagstone PDA IA Sub-regional Infrastructure Plan v2.0 dated June 2022 (IA SRIP).

In 2020, Logan City Council (LCC) undertook the *Teviot Road Corridor Upgrade Project* to inform on the future needs along the Teviot Road corridor to inform preliminary road design and options analysis processes. Teviot Road upgrade is anticipated to commence works mid-2024, pending weather and construction conditions. Relevant preliminary design drawings are enclosed in Appendix A.

The proposed Everleigh road hierarchy is shown by Figure 6. Anderson Drive between Teviot Road (Intersection 2) and Guroman Drive (Intersection 6) is identified in the DCOP for completion in early 2024. It will be constructed as a Trunk Connector 1 aligning with Leanne Court with the typical cross section and characteristics shown by Figure 12.

Figure 12 – Trunk Connector 1 typical cross section and characteristics (Source: P000170-R02-revA)



Traffic Lanes =	Four (4)
Traffic Volume =	18,001-30,000vpd
Traffic Lane Width =	3.5m
Parking Lane Width =	NA
Median Width =	4m
Verge Width =	4m
Vegetated Sound Buffer =	2m
Total reserve Width =	28m
Road Speed =	50km/h
Residential Frontage =	No
Notes =	The acoustic fence and landscaped buffer may be excluded where acoustic advice indicates that an acoustic fence is not required.

East of Guroman Drive (Intersection 6), Anderson Drive will be constructed by Mirvac to the Neighbourhood Connector 1 standards shown by Figure 7. The segment from Guroman Drive (Intersection 6) to ROL13 (Intersection 7) will be constructed as part of the ROL5 development (refer Figure 3 and Figure 5) and will be completed prior to development commencing in ROL13.

2.4 Site Access

ROL13 access is currently provided from Teviot Road via the Everleigh Drive / Ivory Parkway / Anderson Drive route (refer Section 2.3).

By the time construction of ROL13 commences, the site will be accessible from Teviot Road directly via Anderson Drive (refer Section 2.3.4).

2.5 Public Transport

The nearest public transport facility to the development site is TransLink bus stop 320027 on Pub Lane 100m west of Teviot Road. The stop is used by bus route 535 and various school bus services.

Bus route 535 operates between Flagstone and Browns Plains servicing Flagstone, South Maclean, North Maclean, and Browns Plains. The route map and timetable are enclosed in Appendix B. The route operates along Teviot Road stopping on the northern side of Pub Lane adjacent to Greenbank Shopping Centre when travelling both northbound and southbound. The route operates 13 northbound and 11 southbound services over approximately 14 hours on weekdays with seven (7) northbound and six (6) southbound services over 12 hours on Saturdays. Route 535 does not operate on Sundays.

Route 535 connects to Browns Plains Plaza which is a hub in the South East Queensland public transport network providing bus connections to Brisbane City, Griffith University, Prion Springfield Central, Beaudesert, Greenbank, Park Ridge, Heritage Park, Garden City, Woodridge, Springwood, and Loganholme station.

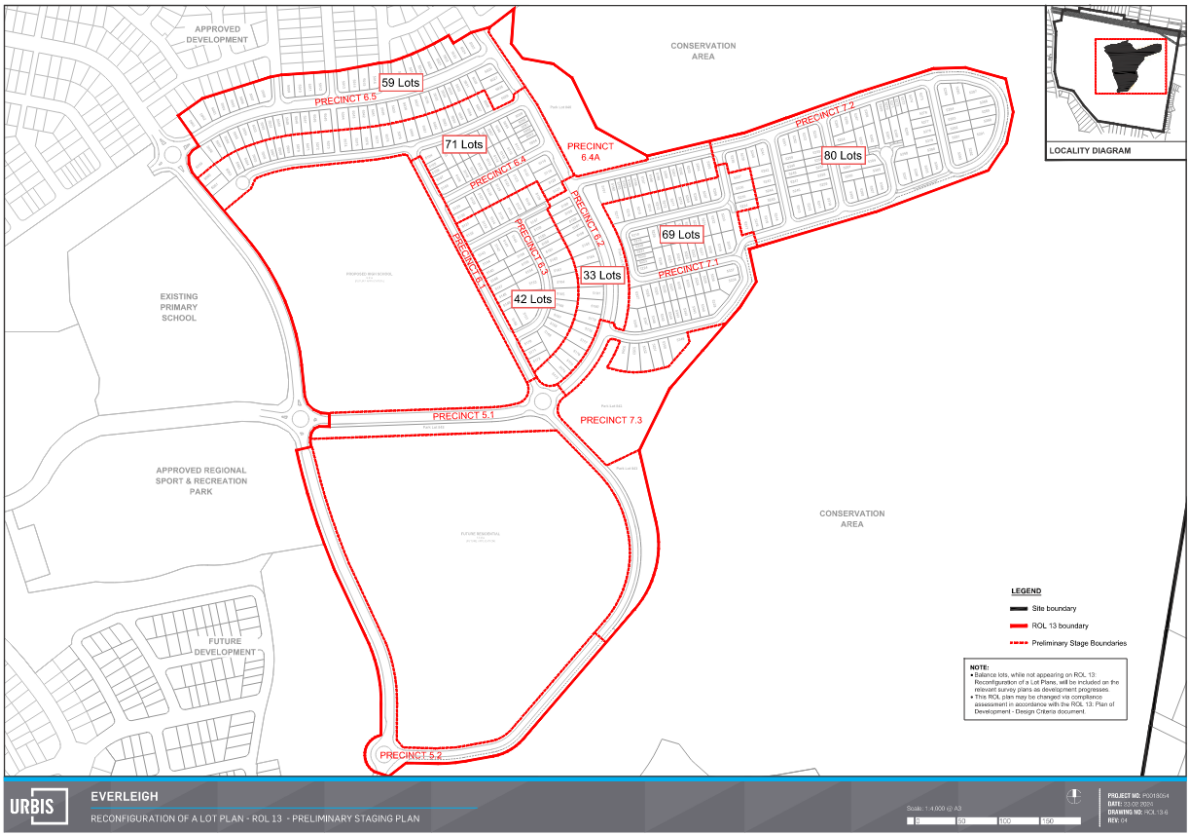
3. PROPOSED DEVELOPMENT DETAILS

3.1 Development Site Plan

ROL13: Reconfiguration of a Lot Plans by Urbis are enclosed in Appendix C. ROL13 consists of:

- 354 residential lots distributed as shown by Figure 13.
- 9.3Ha for a proposed high school (subject to a future application) on the northeast corner of the Anderson Drive / Ivory Parkway / Guroman Drive roundabout (Intersection 8).
- 13.4Ha of future residential development (subject to a future development application) on the southeast corner of the Anderson Drive / Ivory Parkway / Guroman Drive roundabout (Intersection 8). At 17 dwellings per hectare consistent with the density of the current layout, this site would yield 229 residential lots.

Figure 13 – Development site plan (Source: Urbis)



3.2 Operational Details

Residential development in ROL13 is expected to commence in 2026 and be completed, including the future residential development, in 2028.

The proposed high school is expected to take its first enrolments in 2027 and reach capacity in 2032.

3.3 Proposed Access and Parking

The following intersections will provide access to ROL13 from Anderson Drive:

- Anderson Drive / Road 103 (Neighbourhood Connector 1) / Road 53 (Central Park access) roundabout (Intersection 7).
- Anderson Drive / Ivory Parkway / Guroman Drive roundabout (Intersection 8).
- Anderson Drive / Road 83 roundabout (Intersection 9).

Access and parking for ROL13 will be provided in accordance with P000170-R02-revA.

4. DEVELOPMENT TRAFFIC

Development traffic is estimated in accordance with "Everleigh: Traffic Modelling" (P000170-R01-revA) dated 20 March 2024 by Premise for Mirvac which forms an appendix to P000170-R02-revA. Development traffic was estimated with the inclusion of the proposed high school and future residential development even though these developments will be subject to future applications. While the envisaged total lot yield is around 583 residential lots, 354 in ROL13 plus 229 in the future residential development, development traffic is estimated for 670 dwellings. Development traffic for the high school is based on 1,800 students.

4.1 Traffic Generation

The adopted traffic generation rates and directional splits for land uses within ROL13 are identified in Table 1.

Table 1 – ROL13 Traffic Generation Rates and Directional Splits (Source: P000170-R01-revA)

Land Use		Daily	AM Peak	PM Peak
Residential	**Rate**	7vpd / dwelling	0.6375vph / dwelling[1]	0.85vph / dwelling
	In	50%	22%	65%
	Out	50%	78%	35%
High School	**Rate**	1.29vpd / student	0.2vph / student	0.042vph / student
	In	50%	55%	49%
	Out	50%	45%	51%

4.2 Trip Distribution

Consistent with P000170-/R01revA the assumed distribution of residential trips when Everleigh is fully developed is:

- Everleigh State School = 4%
- Central Park = 1%
- ROL13 high school = 4%
- Everleigh Neighbourhood Centre = 12%
- State Community Health Centre = 4%
- External = 75%

Everleigh's internal trip attractors will be progressively developed in parallel with residential development within Everleigh. Any trip purpose which is not satisfied within Everleigh (that is attracted to an internal land use) is added to the trips distributed external to the development.

[1] 0.85vph / dwelling with a 25% discount for internal trips consistent with the "Movement Network Infrastructure Master Plan" dated 03 March 2017 by MWH for Mirvac which was approved by EDQ on 9 August 2017.

The traffic generation of the high school is discounted based on the number of trips attracted from internal residential development. This was done separately for each direction of travel with the minimum value of inbound or outbound trips generated by an internal trip attractor being zero (0).

The same distribution is assumed for external residential and high school trips. Based on "Everleigh Transport Assessment" dated 24 October 2022 by Veitch Lister Consulting (VLC) and consistent with P000170-R01-revA, external trips are distributed:

- Teviot Road north = 40% of external trips
- Pub Lane west = 30% of external trips
- Greenbank Road south = 25% of external trips
- Leanne Court west = 5% of external trips

4.3 Development Traffic Volumes on the Network

Development traffic volumes on the network were calculated using the spreadsheet traffic model developed for P000170-R01-revA which, with reference to Figure 6, estimates turning movements at all 13 numbered intersections and directional volumes on all road links internal to Everleigh.

Appendix D contains modelled development (ROL13) traffic volumes (excluding background traffic) when the proposed high school reaches capacity after completion of residential development, include the future residential development, in ROL13 (2032) with the only road network changes being the works which are planned for completion prior to development of ROL13 (refer Section 2.3.4) or as part of ROL13 (refer Appendix C).

Appendix E contains modelled development (ROL13) traffic volumes (excluding background traffic) at completion of Everleigh (2034) including the associated road network.

5. IMPACT ASSESSMENT AND MITIGATION

The following discussion draws on "Everleigh: Movement Network Infrastructure Master Plan" (P000170-R02-revA) dated 27 March 2024 by Premise for Mirvac including the following reports which form appendices to P000170-R02-revA:

- "Everleigh: Traffic Modelling" (P000170-R01-revA) dated 20 March 2024 by Premise for Mirvac.
- "Everleigh: Intersection Analysis" (P000170-R03-revA) dated 26 March 2024 by Premise for Mirvac.

5.1 With and Without Development Traffic Volumes

The estimation of with and without development traffic in and around Everleigh is documented in P000170-R01-revA.

The sequencing and scheduling of road network development to the south of ROL13, that is Intersections 4, 10 and 13 as shown by Figure 6, to support development of Everleigh Precincts 3 (P3) and 4 (P4) is uncertain. P000170-R01-revA indicates that the worst-case scenario for the study area as defined in Section 1.2 would be:

- Extension of Anderson Drive southwest from ROL13 (Intersection 9) as the only access to P3 and P4 until 2032.
- Construction of Greenbank Road / Anderson Drive T-intersection (Intersection 4) in 2031 / 2032 to provide a second access to P3 and P4 making Anderson Drive a continuous and direct link between Teviot Road (Intersection 2) and Greenbank Road (Intersection 4) through ROL13.
- Deferring construction of Everleigh Drive between Ivory Parkway (Intersection 12) and P3 (Intersection 13) until 2033 / 2034.

With consideration to the above road network sequencing and scheduling, "with development" traffic volumes on the Everleigh road network are shown in the following appendices:

- Appendix F: 2031 "With Development" Traffic – P3 & P4 access via Anderson Drive only
- Appendix G: 2033 "With Development" Traffic – excluding Everleigh Drive link
- Appendix H: 2044 "With Development" Traffic – 10 years after completion of Everleigh

5.2 Access and Frontage Impact Assessment and Mitigation

The following intersections are assessed as accesses:

- Anderson Drive / Road 103 (Neighbourhood Connector 1) / Road 53 (Central Park access) roundabout (Intersection 7).
- Anderson Drive / Ivory Parkway / Guroman Drive roundabout (Intersection 8).
- Anderson Drive / Road 83 roundabout (Intersection 9).

Intersection analysis was undertaken using SIDRA Intersection Version 9.1 software (SIDRA). SIDRA is an advanced micro-analytical traffic tool for evaluation of intersection performance in terms of a range of parameters including:

- **Demand Volume (V):** the modelled number of vehicles arriving at the intersection during the assessment hour. Demand volumes are calculated by dividing the peak hour volume by the peak flow factor (PFF). SIDRA's default PFF of 95% was adopted for all movements.
- **Degree of Saturation (DoS):** the ratio of the demand volume, V, to the theoretical capacity. A roundabout is considered to be operating at its practical capacity when the DoS reaches 0.85. For traffic signals, the desirable maximum DoS is 0.90 and cycle times may be increased up to 150sec to reduce DoS.
- **Average Delay (D):** The mean control delay including both queuing delay and geometric delay for all vehicles arriving during the assessment period including the delay experienced after the end of the flow period until the departure of the last vehicle arriving during the flow period. The Department of Transport and Main Roads' (TMR's) "Guide to Traffic Impact Assessment" (GTIA) specified that average delays exceeding 42 seconds for any movement at a priority or roundabout controlled intersection are a safety issue.
- **95th Percentile Back of Queue Length (Q):** The maximum backward extent of the queue relative to the stop line or give way / yield line during a single cycle or gap acceptance cycle below which 95% of all queue lengths fall. The 95th percentile back of queue length is generally accepted as the maximum queue length for design purposes.

The three (3) access intersections were analysed based on forecast peak hour traffic in:

- 2044: 10 years after completion of the final stage of Everleigh (refer Appendix H).
- 2033: Immediately prior to construction of Everleigh Drive between Ivory Parkway (Intersection 12) and P3 (Intersection 13) which is the worst traffic scenario for access intersections (refer Appendix G).

5.2.1 INTERSECTION 7: ANDERSON DRIVE / ROAD 103 / ROAD 53 ROUNDABOUT

SIDRA analysis outputs for the Anderson Drive / Road 103 (Neighbourhood Connector 1) / Road 53 (Central Park access) single-lane roundabout (Intersection 7) are enclosed in Appendix I. Key findings are:

- The maximum DoS is 0.359 for the Anderson drive north approach during the PM peak hour in 2033 prior to the construction of Everleigh Drive between Ivory Parkway (Intersection 12) and P3 (Intersection 13). This is acceptable.
- The maximum average delay for any movement reported by SIDRA is 11.5sec for the right turn out of Central Park during the AM peak hour in 2033 prior to the construction of Everleigh Drive between Ivory Parkway (Intersection 12) and P3 (Intersection 13). This is acceptable.
- The maximum queue length is on the Anderson drive north approach during the PM peak hour in 2033 prior to the construction of Everleigh Drive between Ivory Parkway (Intersection 12) and P3 (Intersection 13). The queue is not expected to exceed three (3) vehicles which is acceptable.

5.2.2 INTERSECTIION 8: ANDERSON DRIVE / IVORY PARKWAY / GUROMAN DRIVE ROUNDABOUT

SIDRA analysis outputs for the Anderson Drive / Ivory Parkway / Guroman Drive single-lane roundabout (Intersection 8) are enclosed in Appendix J. Key findings are:

- The maximum DoS is 0.392 for the Anderson Drive south approach during the AM peak hour in 2033 prior to the construction of Everleigh Drive between Ivory Parkway (Intersection 12) and P3 (Intersection 13). This is acceptable.
- The maximum average delay for any movement reported in SIDRA is 11.2sec for the right turn out of Ivory Parkway during the PM peak hour in 2033 prior to the construction of Everleigh Drive between Ivory Parkway (Intersection 12) and P3 (Intersection 13). This is acceptable.
- The maximum queue length is on the Anderson drive south approach during the AM peak hour in 2033 prior to the construction of Everleigh Drive between Ivory Parkway (Intersection 12) and P3 (Intersection 13). The queue is not expected to exceed three (3) vehicles which is acceptable.

5.2.3 INTERSECTION 9: ANDERSON DROVE / ROAD 83 ROUNDABOUT

SIDRA analysis outputs for the Anderson Drive / Road 83 single lane roundabout (Intersection 9) are enclosed in Appendix K. King findings are:

- The maximum DoS is 0.273 for the Anderson Drive north approach during the PM peak hour in 2033 prior to construction of Everleigh Drive between Ivory Parkway (Intersection 12) and P3 (Intersection 13). This is acceptable.
- The maximum average delay for any movement reported in SIDRA is 11.1sec for the right turn on to Anderson Drive during the PM peak hour in 2033 prior to construction of Everleigh Drive between Ivory Parkway (Intersection 12) and P3 (Intersection 13). This is acceptable.
- The maximum queue length is two (2) vehicles on Anderson Drive in 2033 prior to construction of Everleigh Drive between Ivory Parkway (Intersection 12) and P3 (Intersection 13). This is acceptable.

5.2.4 OTHER INTERNAL INTERSECTIONS

Other intersections within ROL13 are expected to serve less than 4,000vpd and capacity analysis is not required for priority intersection control.

Most internal intersections are T-intersections though there is one (1) crossroads. Priority controlled crossroads have high crash rates relative to other intersections forms. Therefore, it is recommended that the crossroads is controlled by a single lane roundabout.

5.3 Intersection Delay Impact Assessment and Mitigation

The Teviot Road / Leanne Court / Anderson Drive signals (Intersection 2) is assessed using SIDRA in a similar manner to the above access intersections.

SIDRA analysis outputs for the Teviot Road / Leanne Court / Anderson Drive signals (Intersection 2) from P000170-R03-revA are enclosed in Appendix L. This analysis is based on:

- The intersection layout shown in Appendix A.
- 2044 peak hour traffic 10 years after completion of the final stage of Everleigh (refer Appendix H).
- 2033 peak hour traffic with all access to P3 and P4 via Anderson Drive which is a worse traffic scenario for the Teviot Road / Leanne Court / Anderson Drive signals than the scenarios forecast in both Appendix F and Appendix G.

Key findings from the SIDRA analysis are:

- The maximum DoS is 0.887 with a 100sec cycle time during the PM peak hour in 2033 with all access to P3 and P4 via Anderson Drive.
- The next highest DoS is 0.886 during the AM peak hour in the design year (2044) but with a cycle time of just 70sec.
- Intersection DoS are acceptable.
- Delays and queue lengths may be improved through coordination with adjacent traffic signals.

5.4 Road Link Capacity Assessment and Mitigation

Daily link volumes in each direction of travel on the road networks shown in Appendix F, Appendix G and Appendix H are colour-coded as follows:

- Red = over 3,750vpd one-way (over 7,500vpd two-way)
- Yellow = 1,500 to 3,750vpd one-way (up to 7,500vpd two-way)
- Green = 0 to 1,500vpd one-way (up to 3,000vpd two-way)

These thresholds were selected based on "Street and Movement Network: PDA Guideline No. 6" dated February 2019 by EDQ which nominates traffic volumes for road typologies proposed within Everleigh of:

- Trunk Connector = 7,500 – 30,000 vpd
- Neighbourhood Connector = 3,000 – 7,500 vpd
- Access Street < 3,000 vpd

Forecast traffic on all road links is below the maximum traffic volumes nominated for the road types at all stages of Everleigh road network development.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Summary of Impacts and Mitigation Measures Proposed

Based on the preceding discussion it is concluded that:

- ROL13 internal and access intersections including Intersections 7, 8 and 9 on Anderson Drive will operate within acceptable limits with forecast traffic at every stage of the Everleigh development. Priority control of T-intersections and control of crossroads by single-lane roundabouts will provide both safe and efficient intersection operation.
- The Teviot Road / Leanne Court / Anderson Drive signals (Intersection 2) to be constructed as part of the Teviot Road upgrade will operate within acceptable limits with forecast traffic at every stage of the Everleigh development. The Teviot Road upgrade is anticipated to commence works mid-2024, pending weather and construction conditions, and be completed prior to development commencing in ROL13.
- Traffic volumes on all Everleigh road links are forecast to remain below nominated maximum values at every stage of Everleigh development.

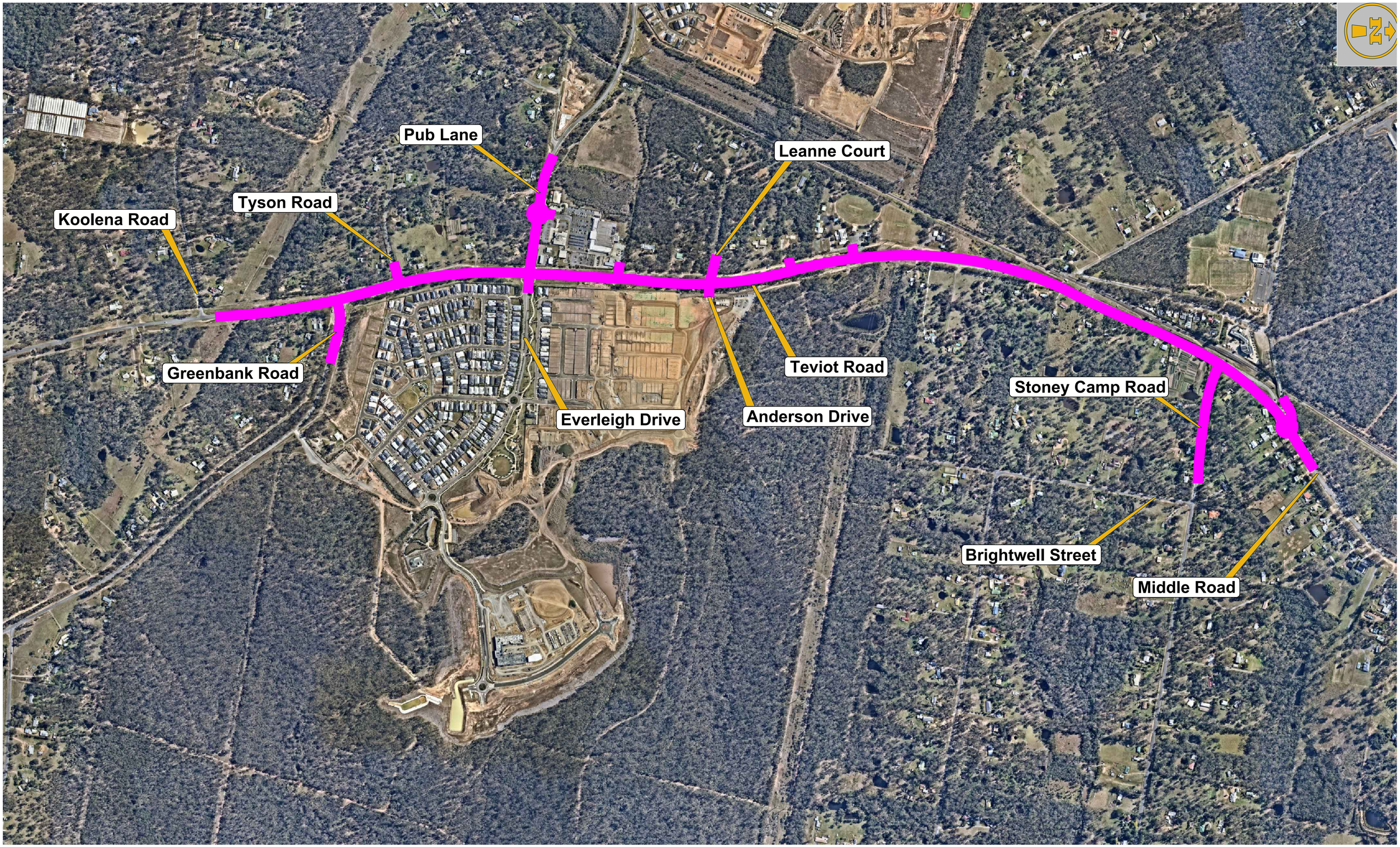
6.2 Certification Statement and Authorisation

This report was prepared by Mr Bradley Jones RPEQ 19986. Traffic Impact Assessment Certification in accordance with the GTIA is enclosed in Appendix M.

APPENDIX A

TEVIOT ROAD PROPOSED WORKS

www.logan.qld.gov.au/teviot-road-upgrade



Teviot Road Upgrade, Greenbank
Greenbank Road to Middle Road

Preliminary design | Indicative only

CITY OF LOGAN

Greenbank Shopping Centre

Service Station

House #221-233

House #205-219

Leanne Court

House #197-201

House #189-195

House #169-187

House #133-149 (Community Centre)

Teviot Road

The Meadows

Anderson Drive

The Meadows

House #130-136

LEGEND

- Road Construction Works
- Concrete Driveways
- Shared Path
- Footpath
- Grassed Embankment / Batters
- Medians

Teviot Road Upgrade, Greenbank
Greenbank Road to Middle Road

Preliminary design | Indicative only

CITY OF LOGAN

APPENDIX B

ROUTE 535 MAP AND TIMETABLE

Ticketing information

Ticket type	Where to buy tickets			
	Selected *go* card agents and on the Translink website	Translink bus operators ^	Queensland Rail selected stations	Translink fare machines
Translink *go* card A smart card that stores value for travel on Translink services.	✔	*	✔	~
Translink single # One-way ticket to reach your destination (not return). Final transfers must be made within two hours of ticket issue.		✔	✔	✔

Proof of concession entitlement must be presented upon request or full fare will be charged. Please visit **translink.com.au** for more information including where to buy a *go* card, or call Translink on **13 12 30**.

* – Top up an existing *go* card only. ^ – Excludes Brisbane City Council buses.

~ – Top up an existing *go* card at all fare machines with adult *go* cards also available for purchase from selected fare machines at busway stations and bus interchanges.

\# – Further conditions apply for single tickets. Passengers travelling through 4 zones or more will have their final transfer time extended a further 90 minutes in addition to the two hours.

Timetable information

How to read this timetable

1. Use the route map to find the two timing points your stop is located between.
2. Find these points on the timetable. Your bus is scheduled to arrive between the times shown for these points. For example, if your bus stop is between timing points Ⓐ and Ⓑ on the map, then the bus is scheduled to arrive between the times listed for Ⓐ and Ⓑ.

Please note the times shown are approximate. We advise customers to be at their bus stop at least five minutes before the scheduled departure time.

Travel tips

1. Pre-plan your trip at **MyTranslink** app, **translink.com.au** or call **13 12 30**.
2. Top up your *go* card or have the correct fare ready before boarding. If you have a concession card, have it ready to show the driver.
3. Read the number on the approaching bus to check if it is the one you want.
4. Raise your hand so the driver knows to stop.
5. On the bus find your seat quickly. If you need to stand, hold onto a handle.
6. Ring the bell to let the driver know to stop at the next stop for you to get off. Stay seated until the bus stops and touch off with your *go* card as you get off.
7. Wait for the bus to move away and check the road is clear before crossing the road.

Your **Southern Region** bus operator

bus queensland

TLBQTT001

Due to unforeseen circumstances, details on this timetable may change.

Download the MyTranslink app for the most relevant bus, train, ferry and tram information in the palm of your hand.

translink

Printed 2023

535

535 Flagstone to Browns Plains

Effective from **23 January 2023**

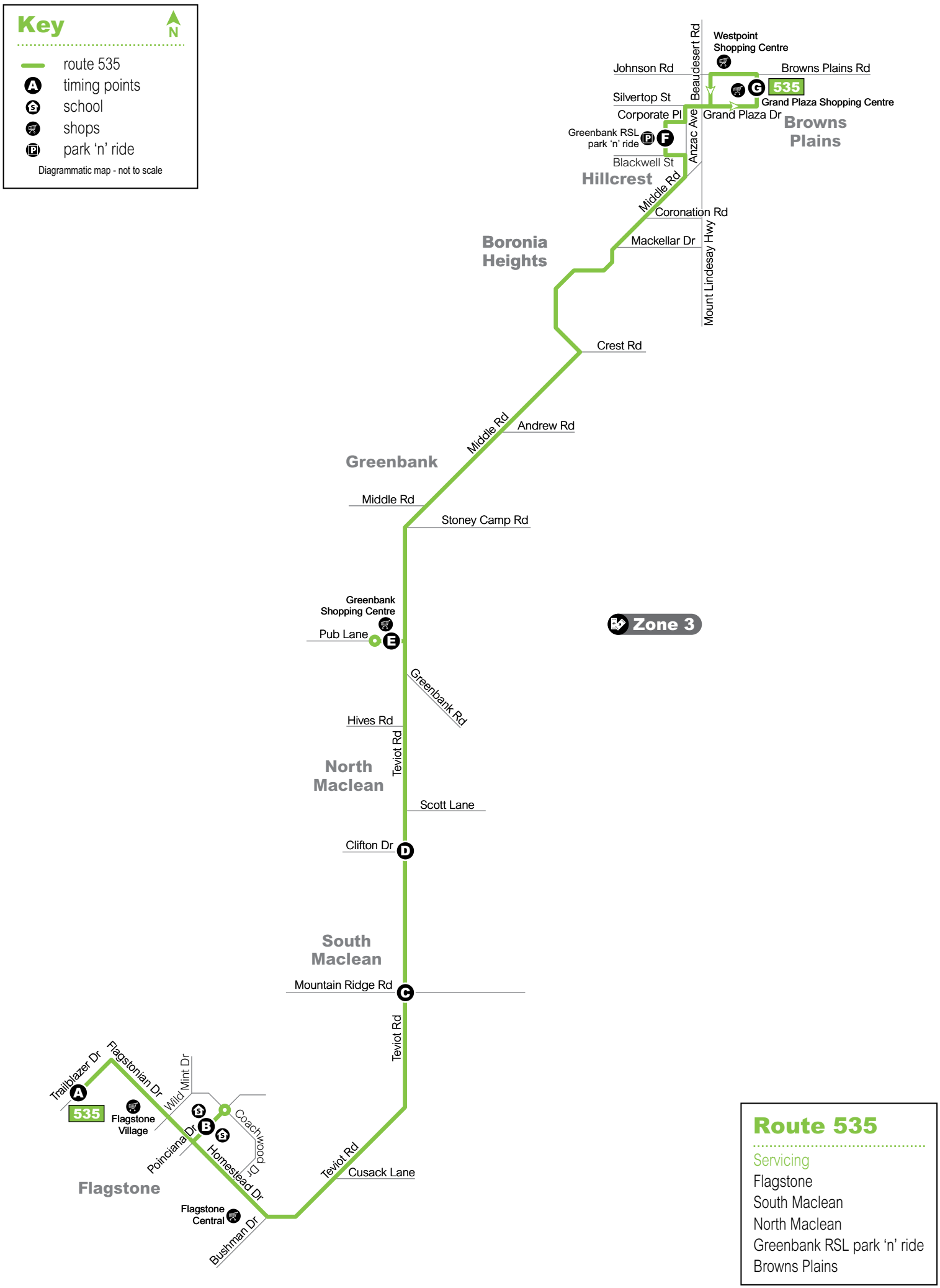
Route description

535 Flagstone to Browns Plains servicing Flagstone, South Maclean, North Maclean and Browns Plains.
Operates Monday to Saturday only.

translink

Queensland Government

Route 535 Route map



Route 535

Servicing
Flagstone
South Maclean
North Maclean
Greenbank RSL park 'n' ride
Browns Plains

Route
535

Flagstone to Browns Plains

servicing Flagstone, South Maclean, North Maclean and Browns Plains

Monday to Friday

map ref	Route number	535	535	535	535	535	535	535	535	535	535	535	535	535
		am	am	am	am	am	am	pm	pm	pm	pm	pm	pm	pm
A	Flagstone, Trailblazer Dr	5.33	6.03	6.33	7.03	8.36	10.17	**12.17**	**2.17**	**3.17**	**5.17**	**6.17**	**6.50**	**7.20**
B	Flagstone Schools, Poinciana Dr	5.38	6.08	6.38	7.08	8.41	10.22	**12.22**	**2.22**	**3.22**	**5.22**	**6.22**	**6.55**	**7.25**
C	Teviot Rd near Mountain Ridge Rd	5.44	6.14	6.44	7.14	8.47	10.28	**12.28**	**2.28**	**3.28**	**5.28**	**6.28**	**7.01**	**7.31**
D	Teviot Rd near Clifton Dr	5.46	6.16	6.46	7.16	8.49	10.30	**12.30**	**2.30**	**3.30**	**5.30**	**6.30**	**7.03**	**7.33**
E	Greenbank Shopping Centre	5.52	6.22	6.52	7.22	8.55	10.36	**12.36**	**2.36**	**3.36**	**5.36**	**6.36**	**7.09**	**7.39**
F	Greenbank RSL park 'n' ride	6.06	6.38	7.08	7.38	9.09	10.50	**12.50**	**2.50**	**3.50**	**5.50**	**6.50**	**7.23**	**7.53**
G	Browns Plains station	6.13	6.45	7.15	7.45	9.16	10.57	**12.57**	**2.57**	**3.57**	**5.57**	**6.57**	**7.30**	**8.00**

Saturday

map ref	Route number	535	535	535	535	535	535	535
		am	am	am	pm	pm	pm	pm
A	Flagstone, Trailblazer Dr	6.32	8.32	10.32	**12.32**	**2.32**	**4.32**	**6.32**
B	Flagstone Schools, Poinciana Dr	6.37	8.37	10.37	**12.37**	**2.37**	**4.37**	**6.37**
C	Teviot Rd near Mountain Ridge Rd	6.43	8.43	10.43	**12.43**	**2.43**	**4.43**	**6.43**
D	Teviot Rd near Clifton Dr	6.45	8.45	10.45	**12.45**	**2.45**	**4.45**	**6.45**
E	Greenbank Shopping Centre	6.51	8.51	10.51	**12.51**	**2.51**	**4.51**	**6.51**
F	Greenbank RSL park 'n' ride	7.05	9.05	11.05	**1.05**	**3.05**	**5.05**	**7.05**
G	Browns Plains station	7.12	9.12	11.12	**1.12**	**3.12**	**5.12**	**7.12**

Route
535

Browns Plains to Flagstone

servicing Browns Plains, North Maclean, South Maclean and Flagstone

Monday to Friday

map ref	Route number	535	535	535	535	535	535	535	535	535	535	535
		am	am	am	pm	pm	pm	pm	pm	pm	pm	pm
G	Browns Plains station, stop 2A	7.48	9.28	11.28	**1.28**	**2.28**	**4.22**	**5.22**	**6.00**	**6.30**	**7.20**	**8.15**
F	Greenbank RSL park 'n' ride	7.54	9.34	11.34	**1.34**	**2.34**	**4.28**	**5.28**	**6.06**	**6.36**	**7.26**	**8.21**
E	Greenbank Shopping Centre	8.10	9.50	11.50	**1.50**	**2.51**	**4.49**	**5.49**	**6.22**	**6.52**	**7.41**	**8.36**
D	Teviot Rd near Clifton Dr	8.15	9.55	11.55	**1.55**	**2.56**	**4.54**	**5.54**	**6.27**	**6.57**	**7.46**	**8.41**
C	Teviot Rd near Mountain Ridge Rd	8.17	9.57	11.57	**1.57**	**2.58**	**4.56**	**5.56**	**6.29**	**6.59**	**7.48**	**8.43**
B	Flagstone Schools, Poinciana Dr	8.24	10.04	**12.04**	**2.04**	**3.06**	**5.04**	**6.04**	**6.37**	**7.07**	**7.55**	**8.50**
A	Flagstone, Trailblazer Dr	8.29	10.09	**12.09**	**2.09**	**3.11**	**5.09**	**6.09**	**6.42**	**7.12**	**8.00**	**8.55**

Saturday

map ref	Route number	535	535	535	535	535	535
		am	am	pm	pm	pm	pm
G	Browns Plains station, stop 2A	9.26	11.26	**1.26**	**3.26**	**5.26**	**7.26**
F	Greenbank RSL park 'n' ride	9.32	11.32	**1.32**	**3.32**	**5.32**	**7.32**
E	Greenbank Shopping Centre	9.48	11.48	**1.48**	**3.48**	**5.48**	**7.48**
D	Teviot Rd near Clifton Dr	9.53	11.53	**1.53**	**3.53**	**5.53**	**7.53**
C	Teviot Rd near Mountain Ridge Rd	9.55	11.55	**1.55**	**3.55**	**5.55**	**7.55**
B	Flagstone Schools, Poinciana Dr	10.02	**12.02**	**2.02**	**4.02**	**6.02**	**8.02**
A	Flagstone, Trailblazer Dr	10.07	**12.07**	**2.07**	**4.07**	**6.07**	**8.07**

APPENDIX C

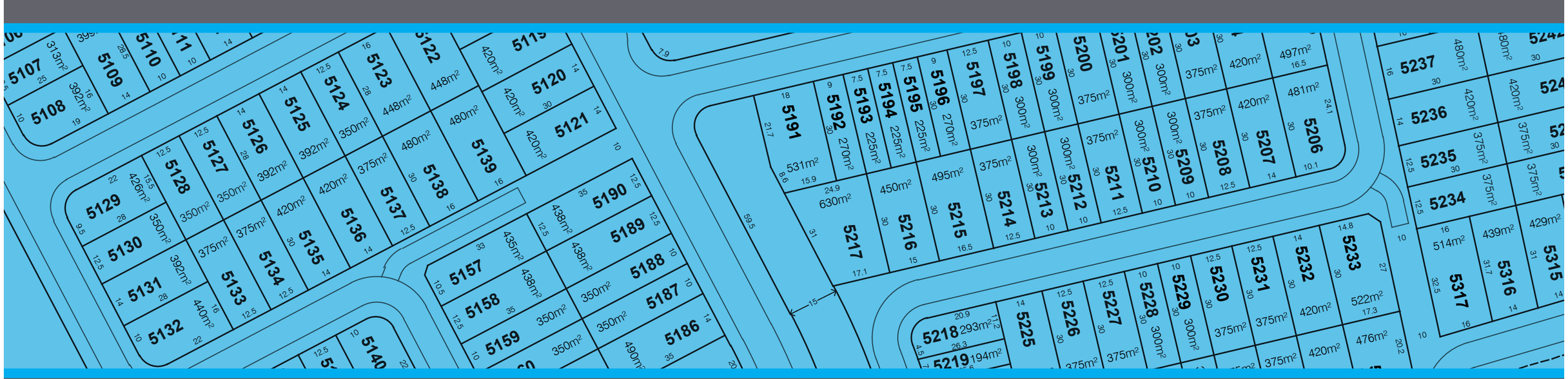
DEVELOPMENT SITE PLAN

Everleigh

ROL 13:
RECONFIGURATION OF A LOT PLANS

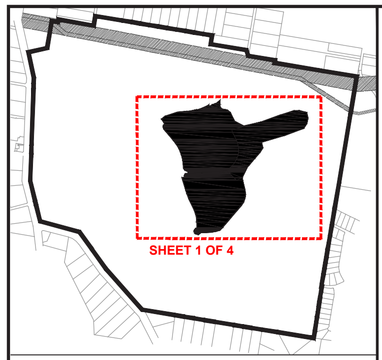
TEVIOT ROAD, EVERLEIGH

MARCH 2024

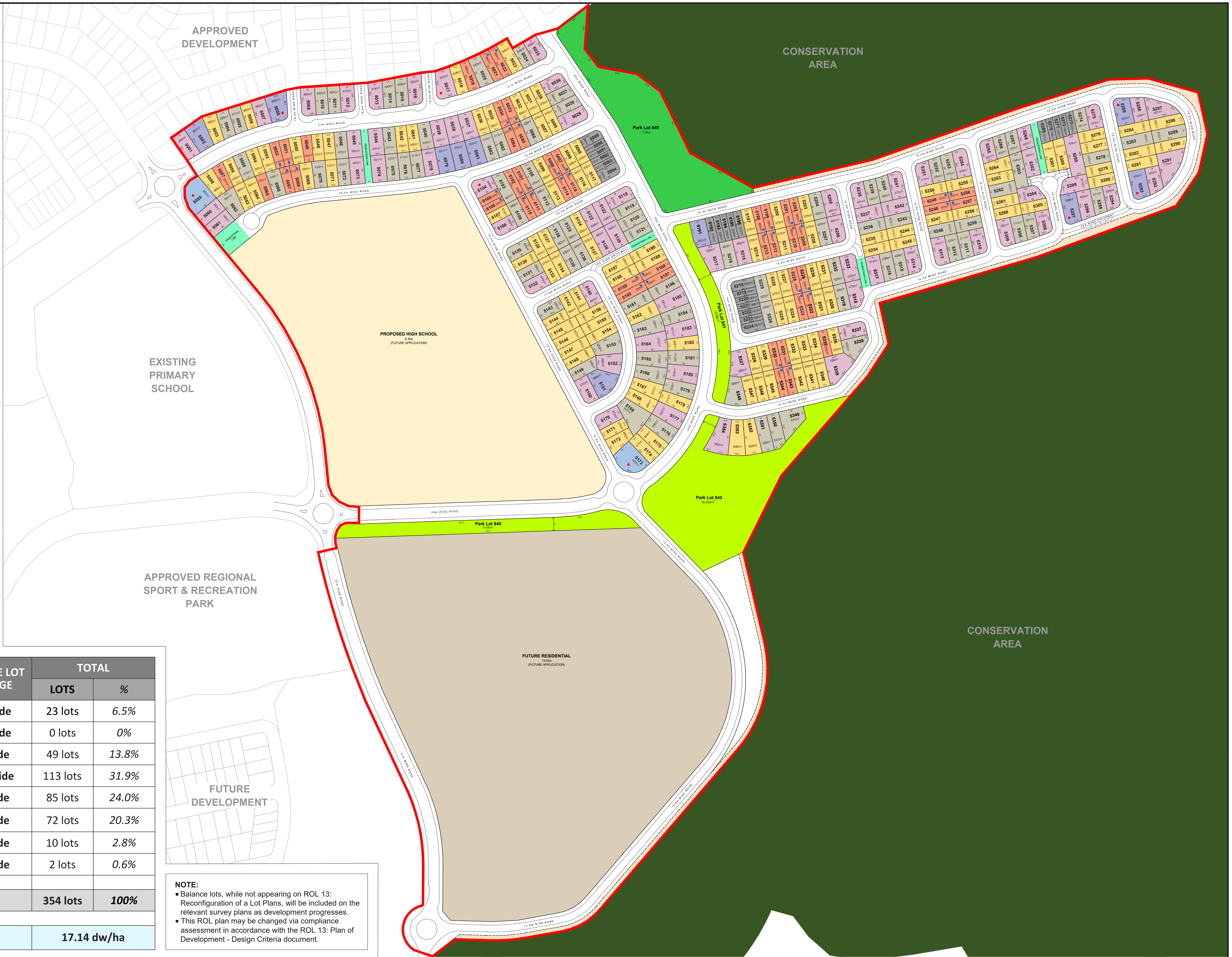


mirvac

URBIS



LOCALITY DIAGRAM



LEGEND

GENERAL

- ROL 13 Boundary
- Proposed Lot Boundaries
- Proposed Road Carriageways
- Proposed High School
- Future Residential
- Major Linear Park
- Neighbourhood Park
- Local Park / Pedestrian Link
- Conservation Area
- Additional Verge for Bushfire Buffer

RESIDENTIAL - STANDARD LOTS

HOUSE (ATTACHED)

- Front Loaded Terrace
- Potential Attached Dwelling (refer to House (Attached) Design Criteria which prevails to the extent of any inconsistency with this plan)

HOUSE (DETACHED)

- Villa
- Premium Villa
- Courtyard
- Premium Courtyard
- Traditional
- Premium Traditional

MULTIPLE RESIDENTIAL

- Potential Duplex Dwelling

ROL 13 - YIELD SUMMARY

LOT TYPE		INDICATIVE LOT FRONTAGE	TOTAL	
			LOTS	%
	Front Loaded Terrace	7.5m wide	23 lots	6.5%
	Rear Loaded Terrace	7.5m wide	0 lots	0%
	Villa	10m wide	49 lots	13.8%
	Premium Villa	12.5m wide	113 lots	31.9%
	Courtyard	14m wide	85 lots	24.0%
	Premium Courtyard	16m wide	72 lots	20.3%
	Traditional	18m wide	10 lots	2.8%
	Premium Traditional	20m wide	2 lots	0.6%
TOTAL RESIDENTIAL LOTS			354 lots	100%
DENSITY (NET RESIDENTIAL DENSITY)			17.14 dw/ha	

NOTE:
- Balance lots, while not appearing on ROL 13: Reconfiguration of a Lot Plans, will be included on the relevant survey plans as development progresses.
- This ROL plan may be changed via compliance assessment in accordance with the ROL 13: Plan of Development - Design Criteria document.

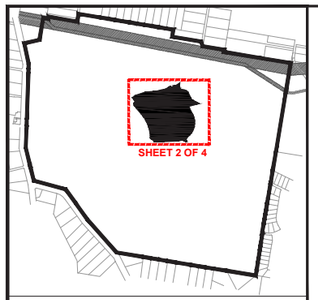
URBIS

EVERLEIGH

RECONFIGURATION OF A LOT PLAN - ROL 13 - SHEET 1 OF 4

Scale: 1:4,000 @ A3
0 50 100 150 200

PROJECT NO: P0018054
DATE: 11.03.2024
DRAWING NO: ROL13-1
REV: 06



LOCALITY DIAGRAM

LEGEND

GENERAL

- ROL 13 Boundary
- Proposed Lot Boundaries
- Proposed Road Carriageways
- Proposed High School
- Future Residential
- Major Linear Park
- Neighbourhood Park
- Local Park / Pedestrian Link
- Conservation Area
- Additional Verge for Bushfire Buffer

RESIDENTIAL - STANDARD LOTS

HOUSE (ATTACHED)

- Front Loaded Terrace
- Potential Attached Dwelling (refer to House (Attached) Design Criteria which prevails to the extent of any inconsistency with this plan)

HOUSE (DETACHED)

- Villa
- Premium Villa
- Courtyard
- Premium Courtyard
- Traditional
- Premium Traditional

MULTIPLE RESIDENTIAL

- Potential Duplex Dwelling

NOTE:

- Balance lots, while not appearing on ROL 13: Reconfiguration of a Lot Plans, will be included on the relevant survey plans as development progresses.
- This ROL plan may be changed via compliance assessment in accordance with the ROL 13: Plan of Development - Design Criteria document.

APPROVED DEVELOPMENT

CONSERVATION AREA

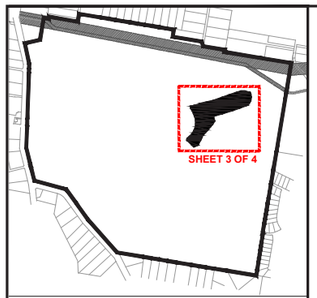
Park Lot 840
1.28ha

PROPOSED HIGH SCHOOL
9.3ha
(FUTURE APPLICATION)

EXISTING PRIMARY SCHOOL

Park Lot 841
3168m²

15.5m WIDE ROAD
21m WIDE ROAD
20m WIDE ROAD
14m WIDE ROAD
10m WIDE DRIVEWAY
PEDESTRIAN LINK



LOCALITY DIAGRAM

LEGEND

GENERAL

- ROL 13 Boundary
- Proposed Lot Boundaries
- Proposed Road Carriageways
- Proposed High School
- Future Residential
- Major Linear Park
- Neighbourhood Park
- Local Park / Pedestrian Link
- Conservation Area
- Additional Verge for Bushfire Buffer

RESIDENTIAL - STANDARD LOTS

HOUSE (ATTACHED)

- Front Loaded Terrace
- Potential Attached Dwelling (refer to House (Attached) Design Criteria which prevails to the extent of any inconsistency with this plan)

HOUSE (DETACHED)

- Villa
- Premium Villa
- Courtyard
- Premium Courtyard
- Traditional
- Premium Traditional

MULTIPLE RESIDENTIAL

- Potential Duplex Dwelling

NOTE:

- Balance lots, while not appearing on ROL 13: Reconfiguration of a Lot Plans, will be included on the relevant survey plans as development progresses.
- This ROL plan may be changed via compliance assessment in accordance with the ROL 13: Plan of Development - Design Criteria document.

CONSERVATION AREA

Park Lot 840
1.28ha

Park Lot 841
316m²

Park Lot 842
16,234m²

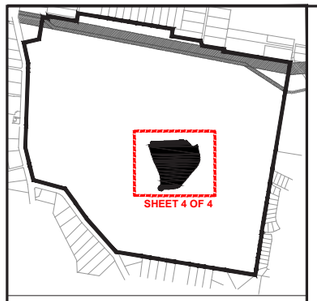
15.5m WIDE ROAD

20m WIDE ROAD

14m WIDE ROAD

12m WIDE DRIVEWAY

PEDESTRIAN LINK



LOCALITY DIAGRAM

LEGEND

GENERAL

- ROL 13 Boundary
- Proposed Lot Boundaries
- Proposed Road Carriageways
- Proposed High School
- Future Residential
- Major Linear Park
- Neighbourhood Park
- Local Park / Pedestrian Link
- Conservation Area
- Additional Verge for Bushfire Buffer

RESIDENTIAL - STANDARD LOTS

HOUSE (ATTACHED)

- Front Loaded Terrace
- Potential Attached Dwelling (refer to House (Attached) Design Criteria which prevails to the extent of any inconsistency with this plan)

HOUSE (DETACHED)

- Villa
- Premium Villa
- Courtyard
- Premium Courtyard
- Traditional
- Premium Traditional

MULTIPLE RESIDENTIAL

- Potential Duplex Dwelling

NOTE:

- Balance lots, while not appearing on ROL 13: Reconfiguration of a Lot Plans, will be included on the relevant survey plans as development progresses.
- This ROL plan may be changed via compliance assessment in accordance with the ROL 13: Plan of Development - Design Criteria document.

20m WIDE ROAD

Park Lot 845
5158m²

225.4
38.3
339.1

Park Lot 842
16,234m²

21m WIDE ROAD

15.5m WIDE ROAD

FUTURE RESIDENTIAL
13.4ha
(FUTURE APPLICATION)

FUTURE DEVELOPMENT

CONSERVATION AREA

URBIS

EVERLEIGH

RECONFIGURATION OF A LOT PLAN - ROL 13 - SHEET 4 OF 4

Scale: 1:2,500 @ A3

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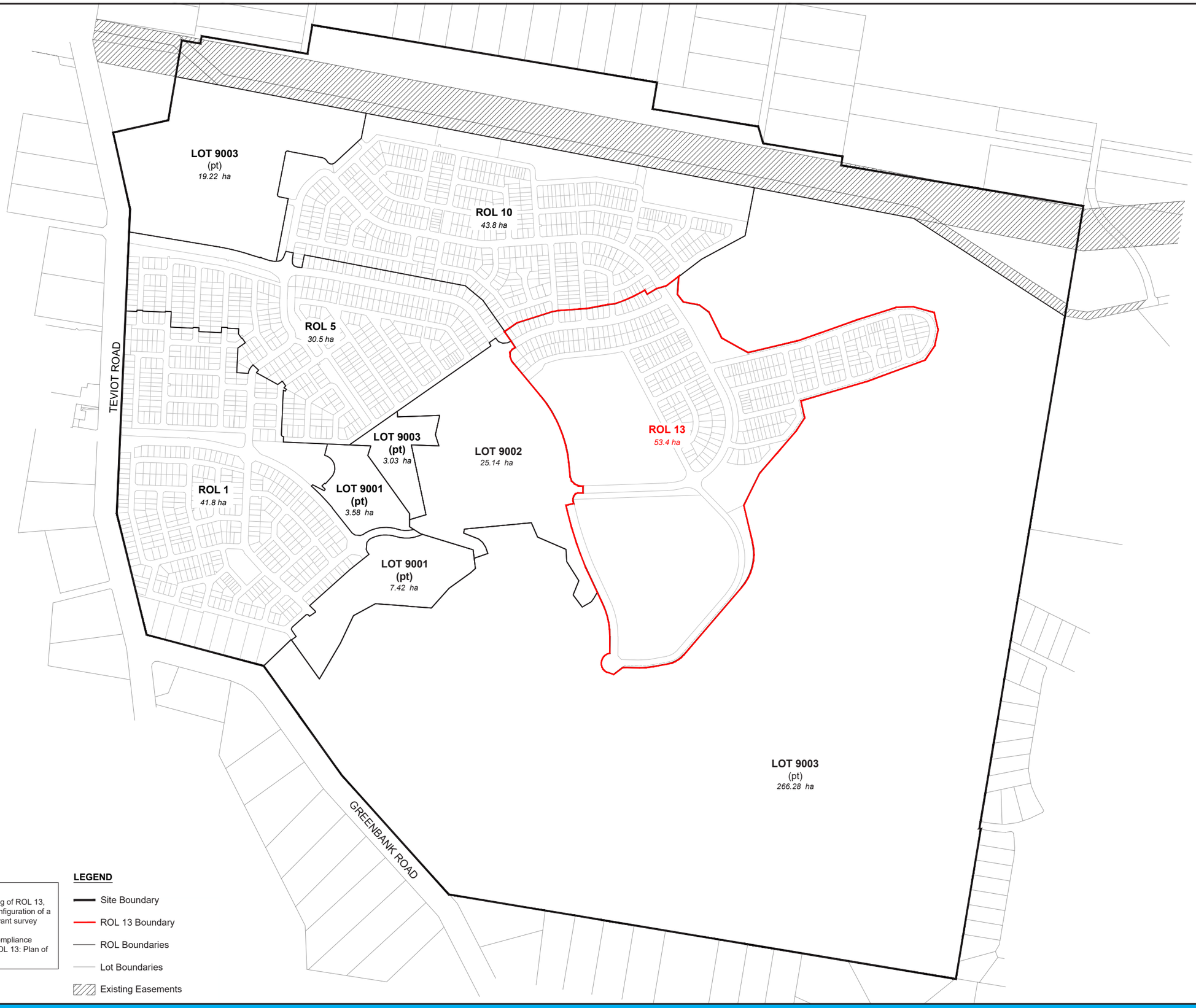
PROJECT NO: P0018054
DATE: 11.03.2024
DRAWING NO: ROL13-4
REV: 06



NOTE:
- Balance lots for the progressive staging of ROL 13, while not appearing on ROL 13: Reconfiguration of a Lot Plans, will be included on the relevant survey plans as development progresses.
- This ROL plan may be changed via compliance assessment in accordance with the ROL 13: Plan of Development - Design Criteria.

LEGEND

- Site Boundary
- ROL 13 Boundary
- ROL Boundaries
- Lot Boundaries
- Existing Easements

URBIS

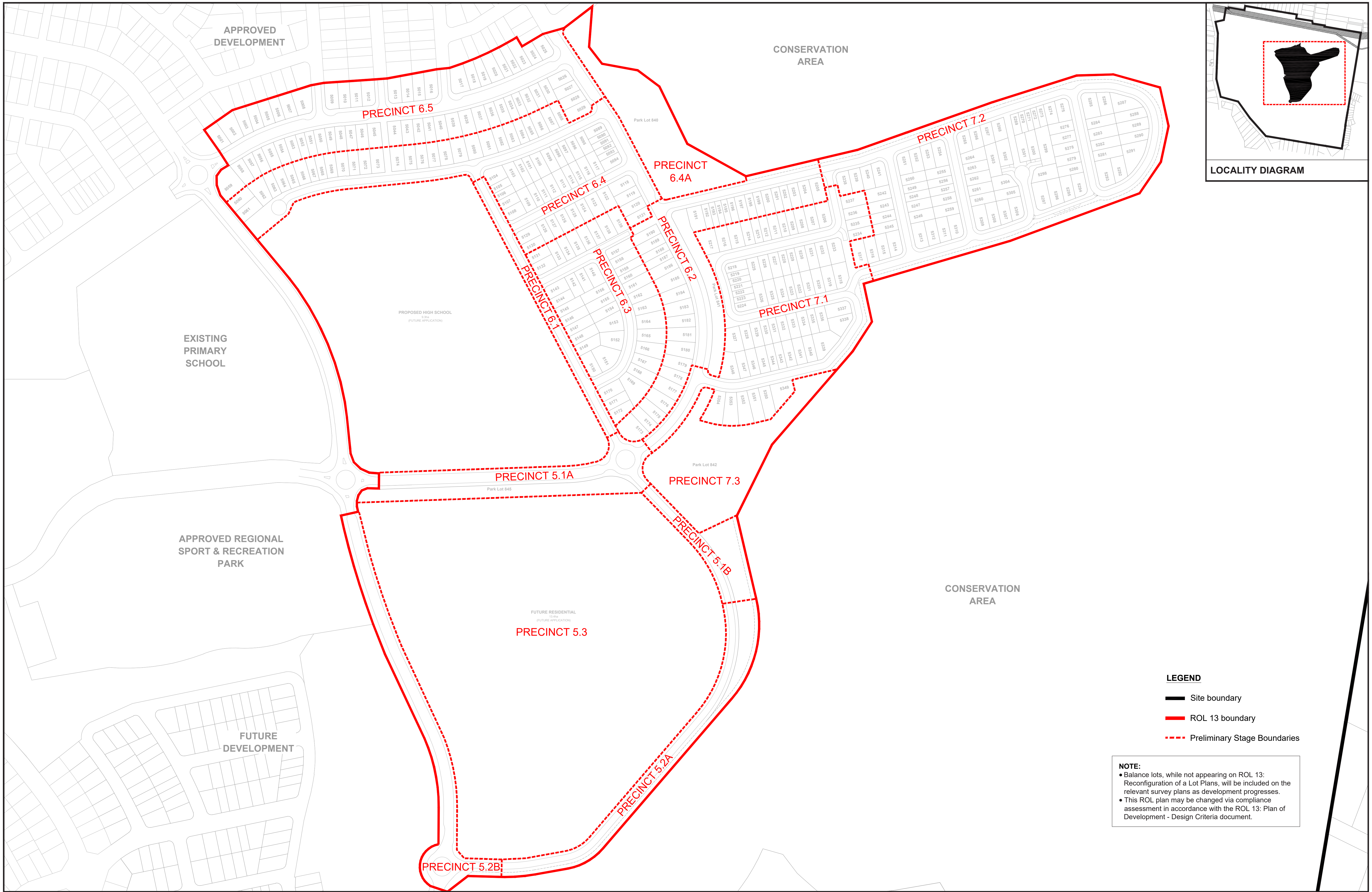
EVERLEIGH

RECONFIGURATION OF A LOT PLAN - ROL 13 - BALANCE LOTS

Scale: 1:10,000 @ A3

0 100 200 300 400 500

PROJECT NO: P0018054
DATE: 11.03.2024
DRAWING NO: ROL13-5
REV: 06


APPROVED DEVELOPMENT
CONSERVATION AREA
LOCALITY DIAGRAM
PRECINCT 6.5
PRECINCT 7.2
PRECINCT 6.4A
PRECINCT 6.4
PRECINCT 6.2
PRECINCT 6.3
PRECINCT 6.1
PRECINCT 7.1
Park Lot 840
Park Lot 841
PROPOSED HIGH SCHOOL
EXISTING PRIMARY SCHOOL
PRECINCT 5.1A
Park Lot 845
Park Lot 842
PRECINCT 7.3
PRECINCT 5.1B
APPROVED REGIONAL SPORT & RECREATION PARK
CONSERVATION AREA
FUTURE RESIDENTIAL
PRECINCT 5.3
FUTURE DEVELOPMENT
PRECINCT 5.2A
PRECINCT 5.2B
LEGEND
Site boundary
ROL 13 boundary
Preliminary Stage Boundaries
NOTE:
• Balance lots, while not appearing on ROL 13: Reconfiguration of a Lot Plans, will be included on the relevant survey plans as development progresses.
• This ROL plan may be changed via compliance assessment in accordance with the ROL 13: Plan of Development - Design Criteria document.

URBIS

EVERLEIGH

RECONFIGURATION OF A LOT PLAN - ROL 13 - PRELIMINARY STAGING PLAN

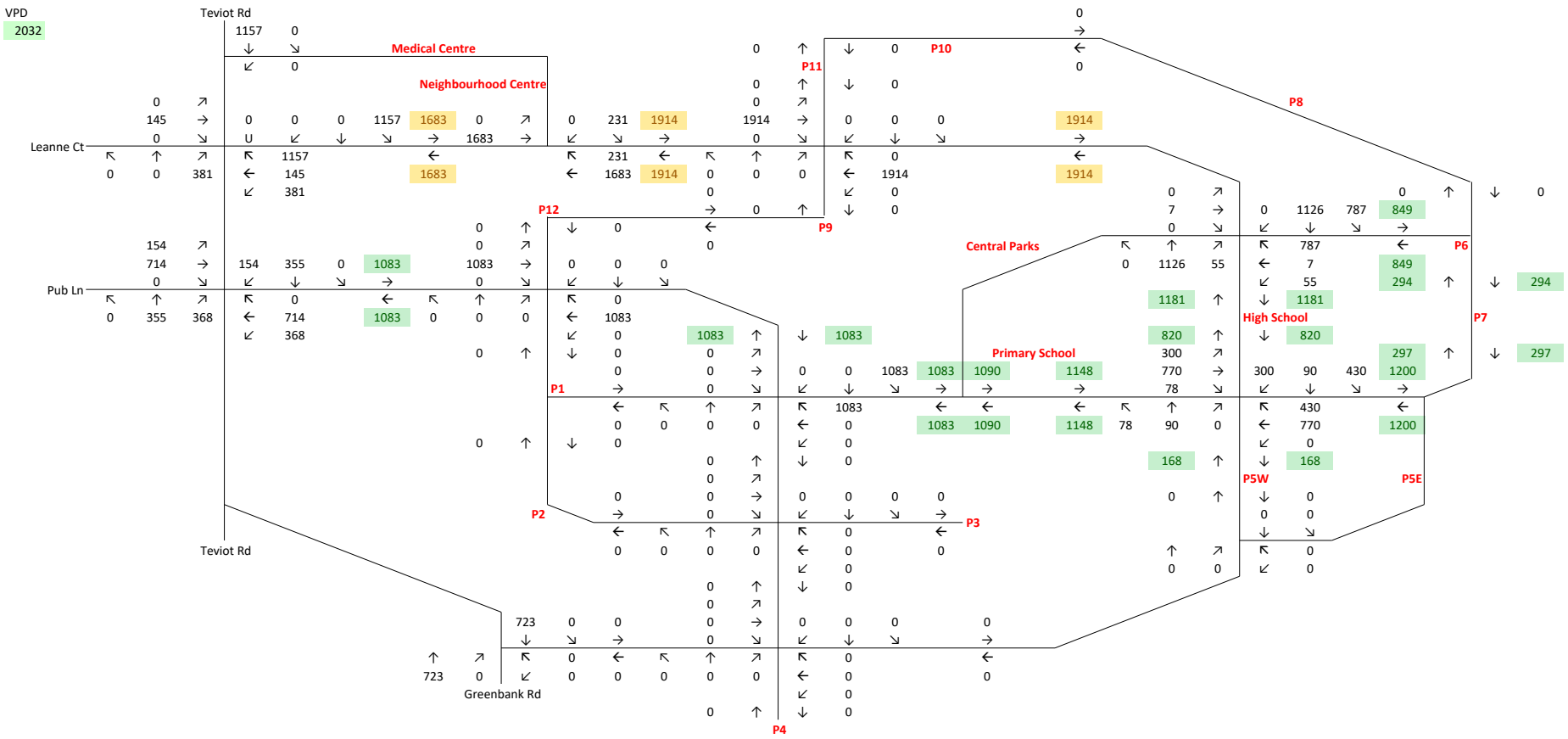
Scale: 1:4,000 @ A3

0 50 100 150

PROJECT NO: P0018054
DATE: 11.03.2024
DRAWING NO: ROL13-6
REV: 06

APPENDIX D

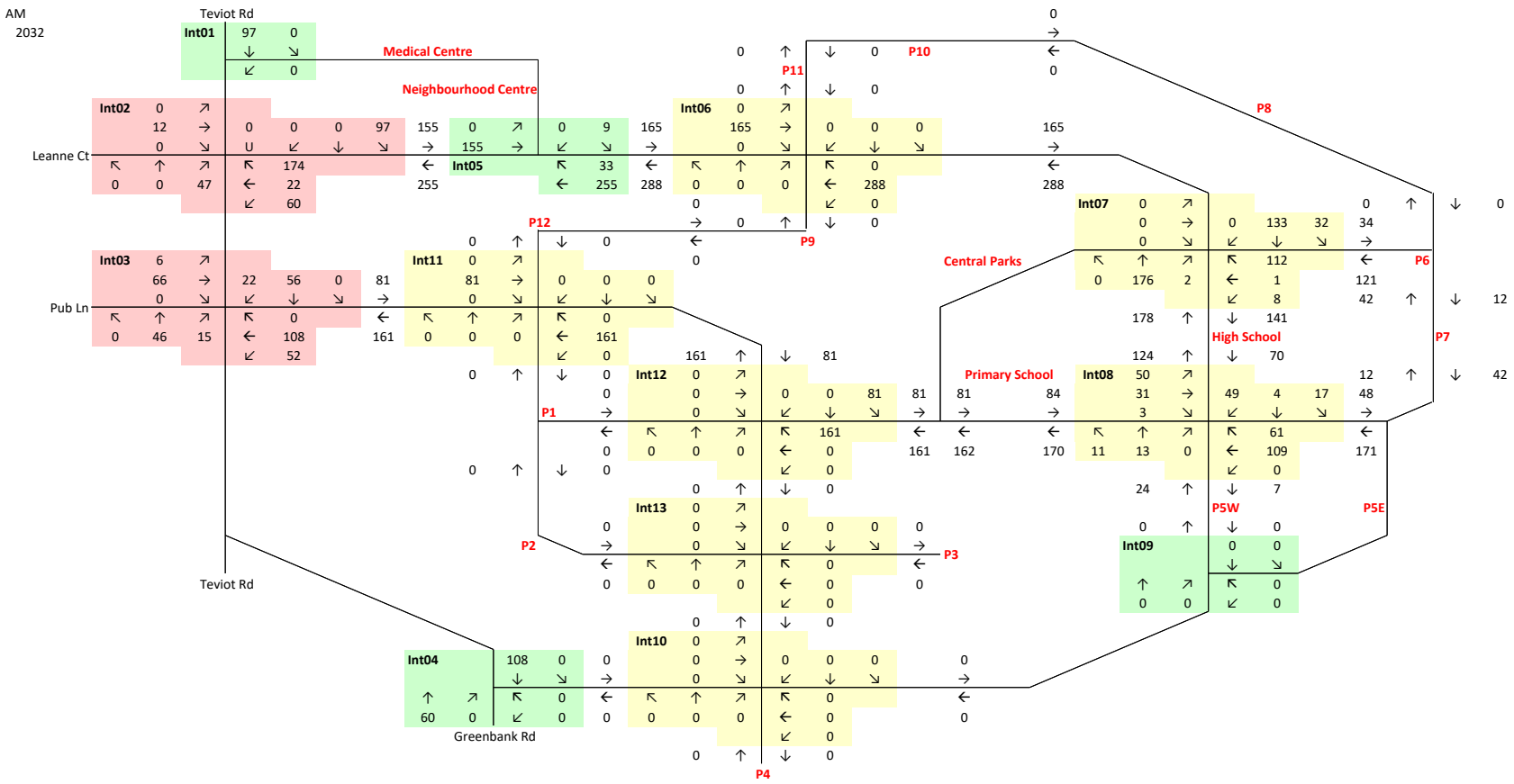
ROL13 TRAFFIC AT COMPLETION OF ROL13 (2032)

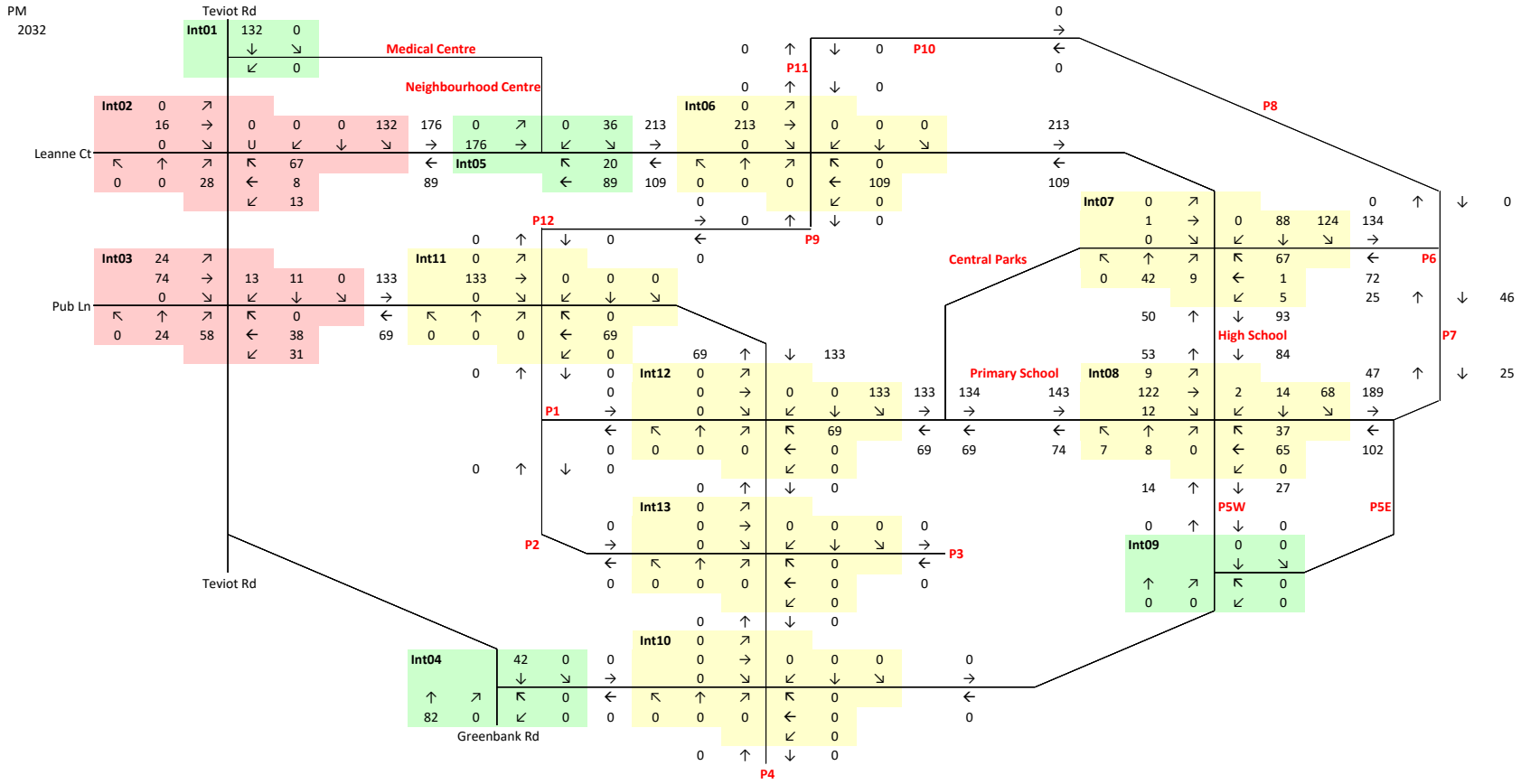


Greenbank Drive access		N
P1	365	0%
P2	226	0%
P3	0	0%
P4	426.73	0%
P5W	48	100%
P6	195	100%
P7	169	100%
P8	286	0%
P9	423	0%
P10	280	0%
P11	253	0%
P12	143	0%
P5E	258	100%
Primary	1400	0%
Medical	8000	0%
Retail	8000	0%
Secondary	1800	100%
Background		N

Everleigh Drive link: N

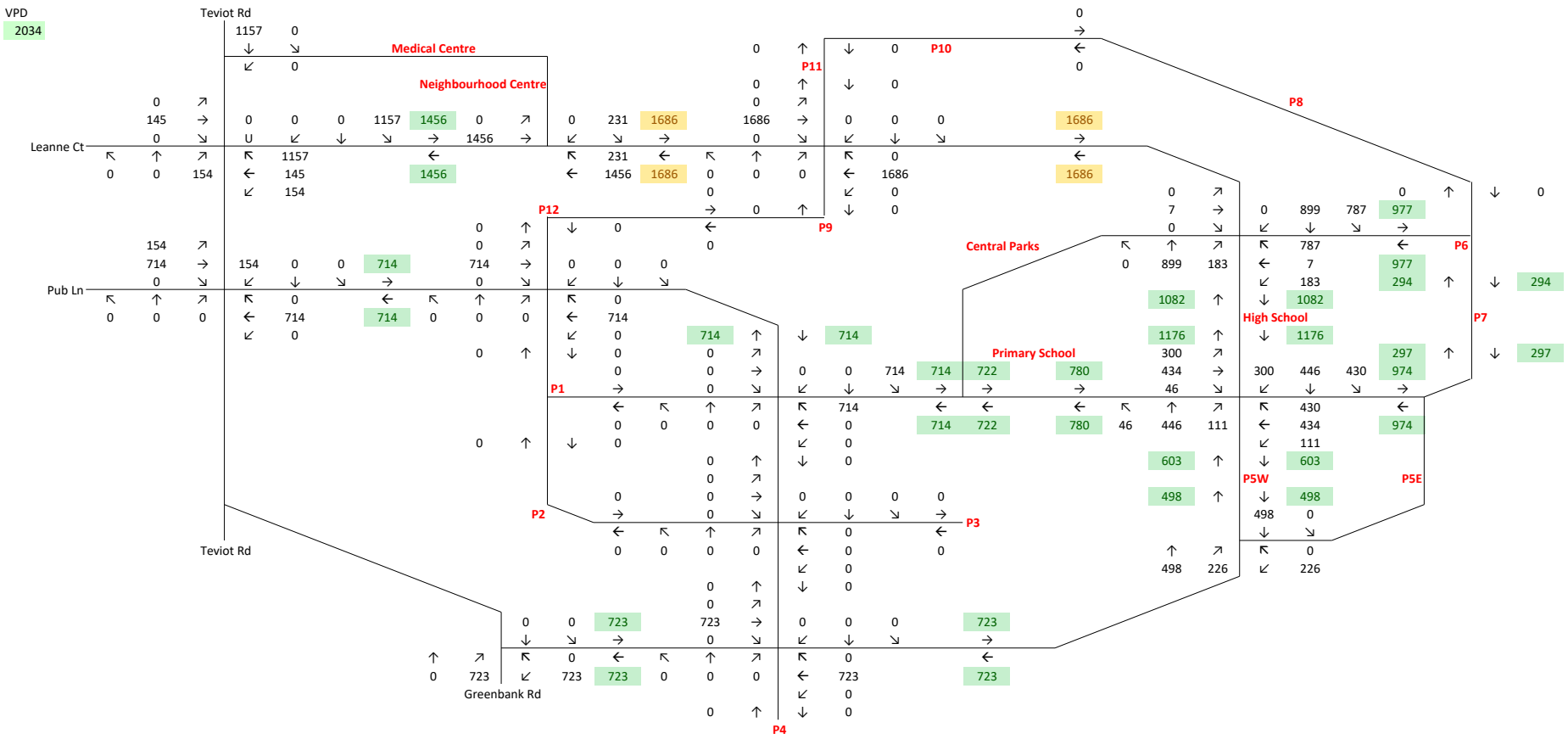
Anderson Drive link: N


AM
2032
Teviot Rd
Int01
Medical Centre
Neighbourhood Centre
Int02
Leanne Ct
Int05
Int06
P10
P11
P8
P12
P9
Int03
Pub Ln
Int11
Central Parks
Int07
P6
Int12
Primary School
Int08
High School
P7
P1
P5W
P5E
P2
P3
Int13
Int09
Int10
Int04
Greenbank Rd
P4


PM
2032
Teviot Rd
Int01
Medical Centre
Neighbourhood Centre
Int02
Leanne Ct
Int05
Int06
P10
P11
P8
P12
P9
Int03
Pub Ln
Int11
Central Parks
Int07
P6
P7
High School
Primary School
Int08
Int12
P1
P5W
P5E
P2
P3
Int09
Int13
Int10
Int04
Greenbank Rd
P4

APPENDIX E

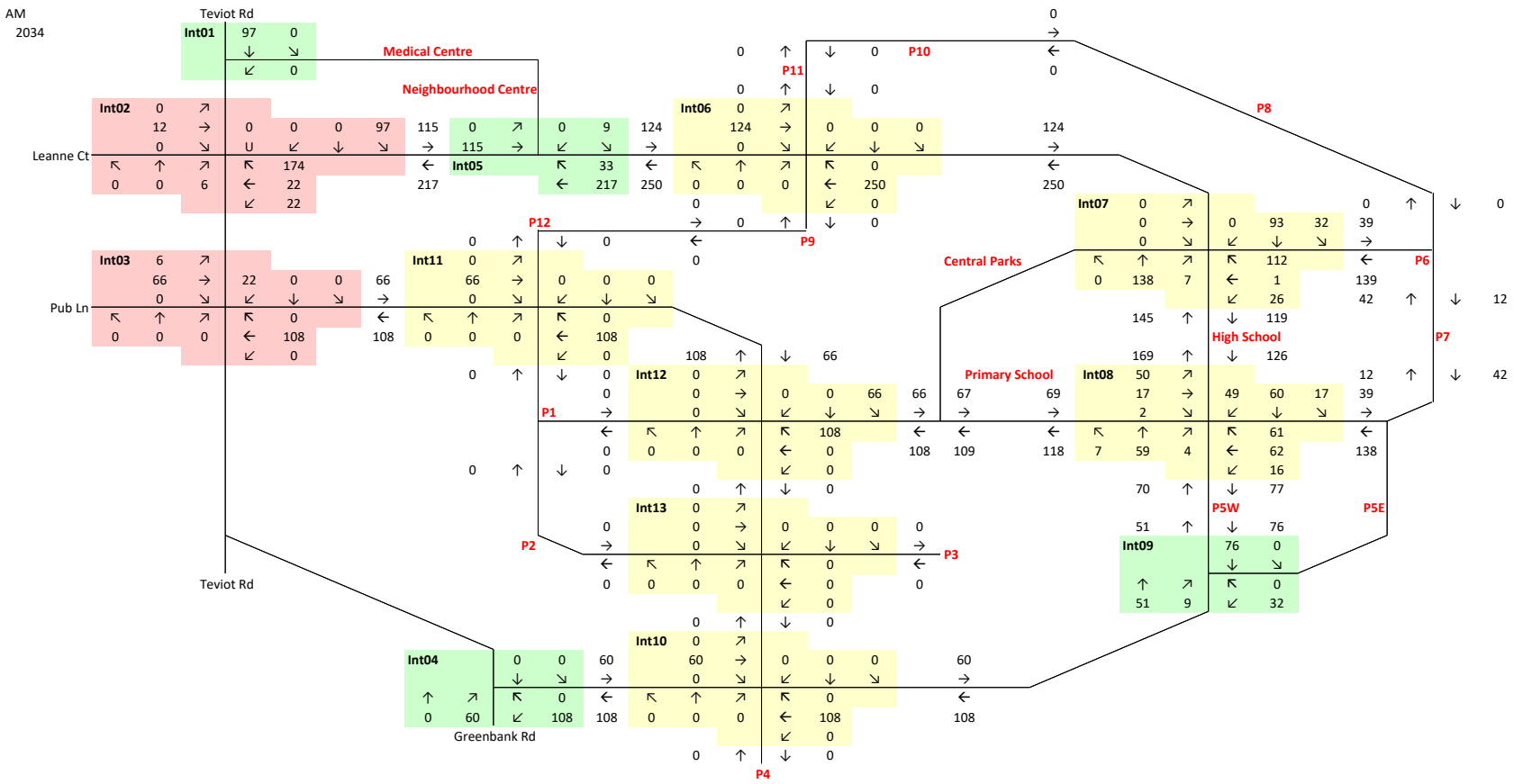
ROL13 TRAFFIC AT COMPLETION OF EVERLEIGH (2034)

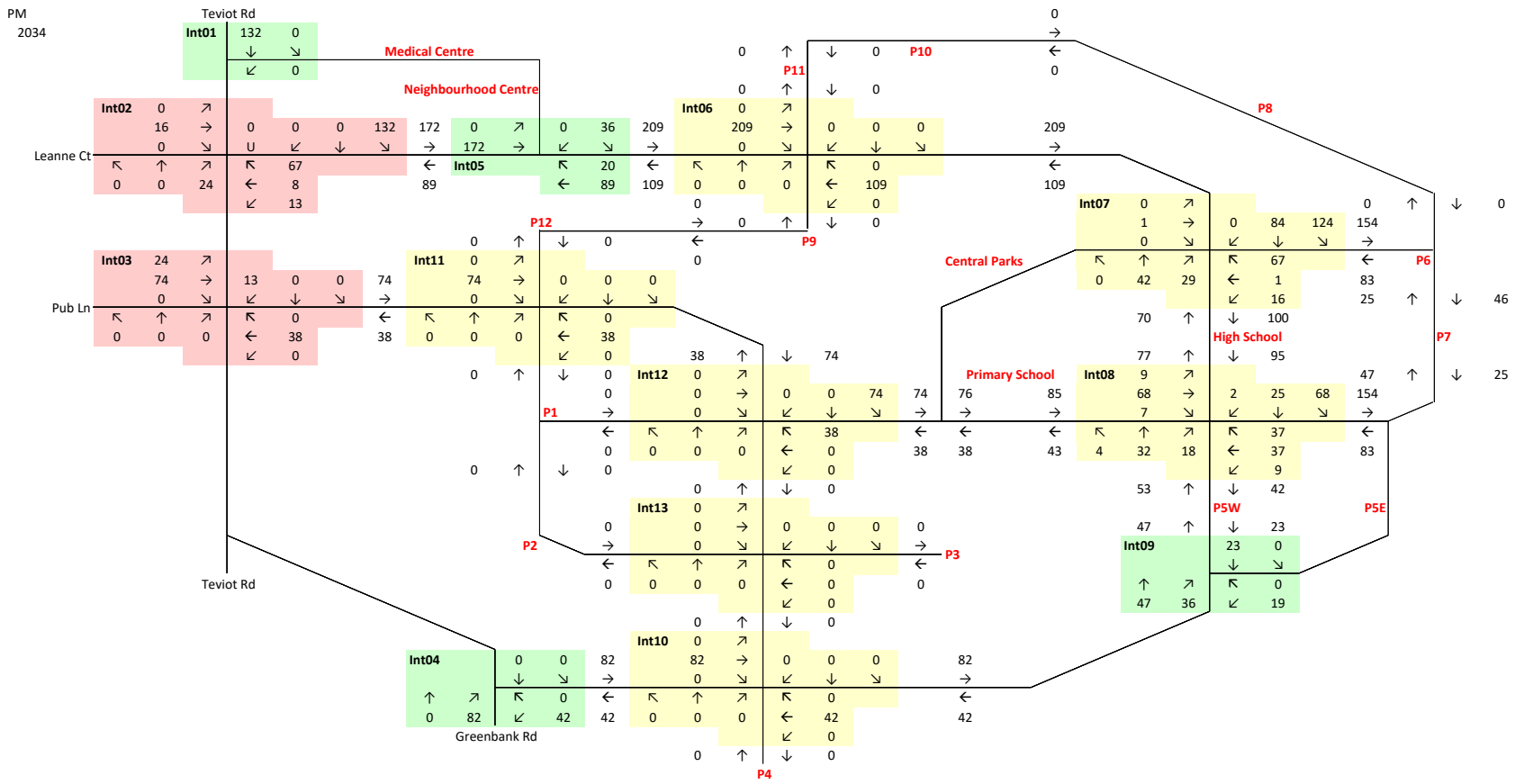


Greenbank Drive access		Y
P1	365	0%
P2	226	0%
P3	359	0%
P4	557	0%
P5W	48	100%
P6	195	100%
P7	169	100%
P8	286	0%
P9	423	0%
P10	280	0%
P11	253	0%
P12	143	0%
P5E	258	100%
Primary	1400	0%
Medical	8000	0%
Retail	8000	0%
Secondary	1800	100%
Background		N

Everleigh Drive link: Y

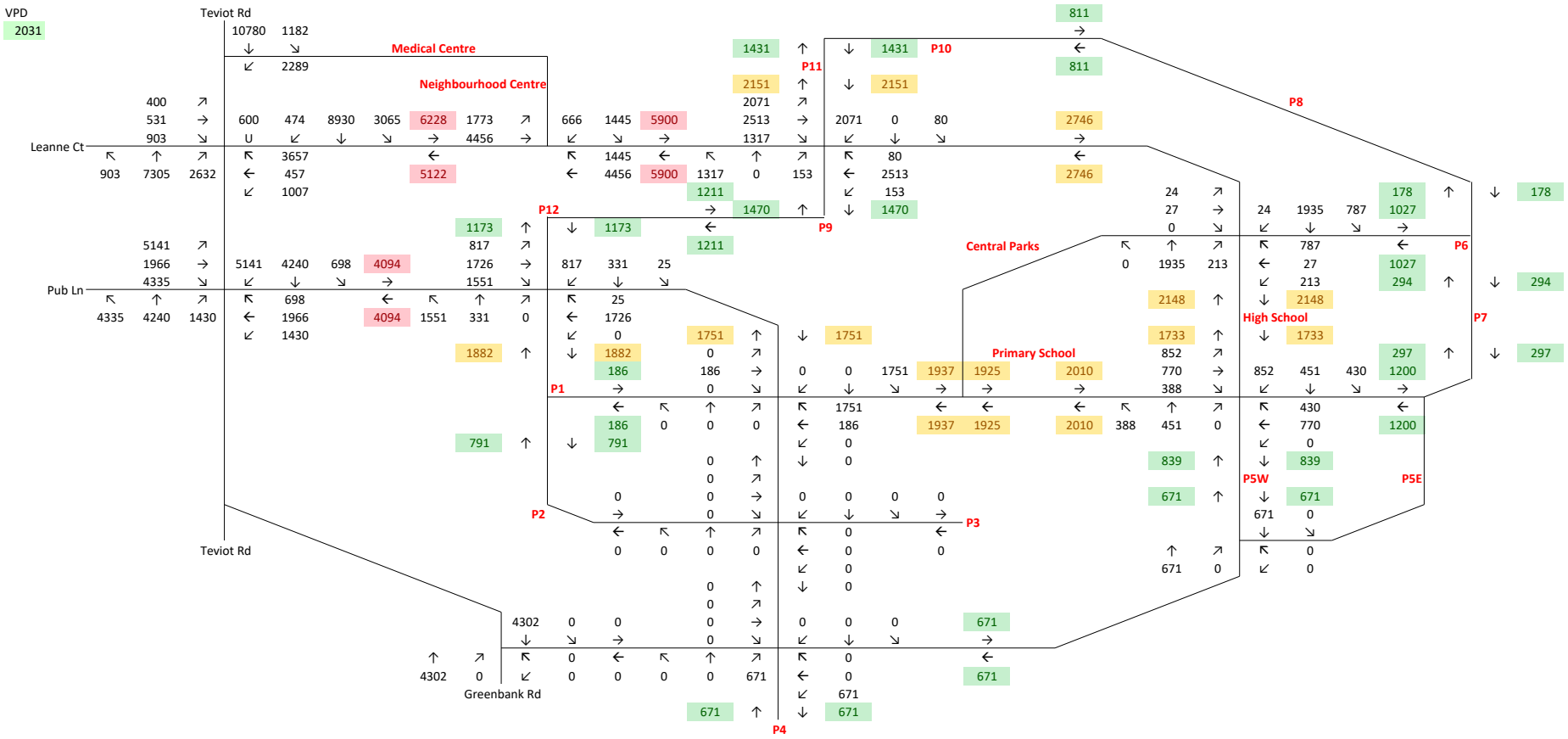
Anderson Drive link: Y


AM
2034
Teviot Rd
Int01
Medical Centre
Neighbourhood Centre
Int02
Leanne Ct
Int05
Int06
P10
P11
P8
P12
P9
Int03
Pub Ln
Int11
Central Parks
Int07
P6
Primary School
Int08
High School
P7
Int12
P1
P5W
P5E
Int09
P2
P3
Int13
Int10
Int04
Greenbank Rd
P4


PM
2034
Teviot Rd
Int01
Medical Centre
Neighbourhood Centre
Int02
Int03
Int04
Int05
Int06
Int07
Int08
Int09
Int10
Int11
Int12
Int13
Leanne Ct
Pub Ln
Teviot Rd
Greenbank Rd
Central Parks
Primary School
High School
P1
P2
P3
P4
P5E
P5W
P6
P7
P8
P9
P10
P11
P12

APPENDIX F

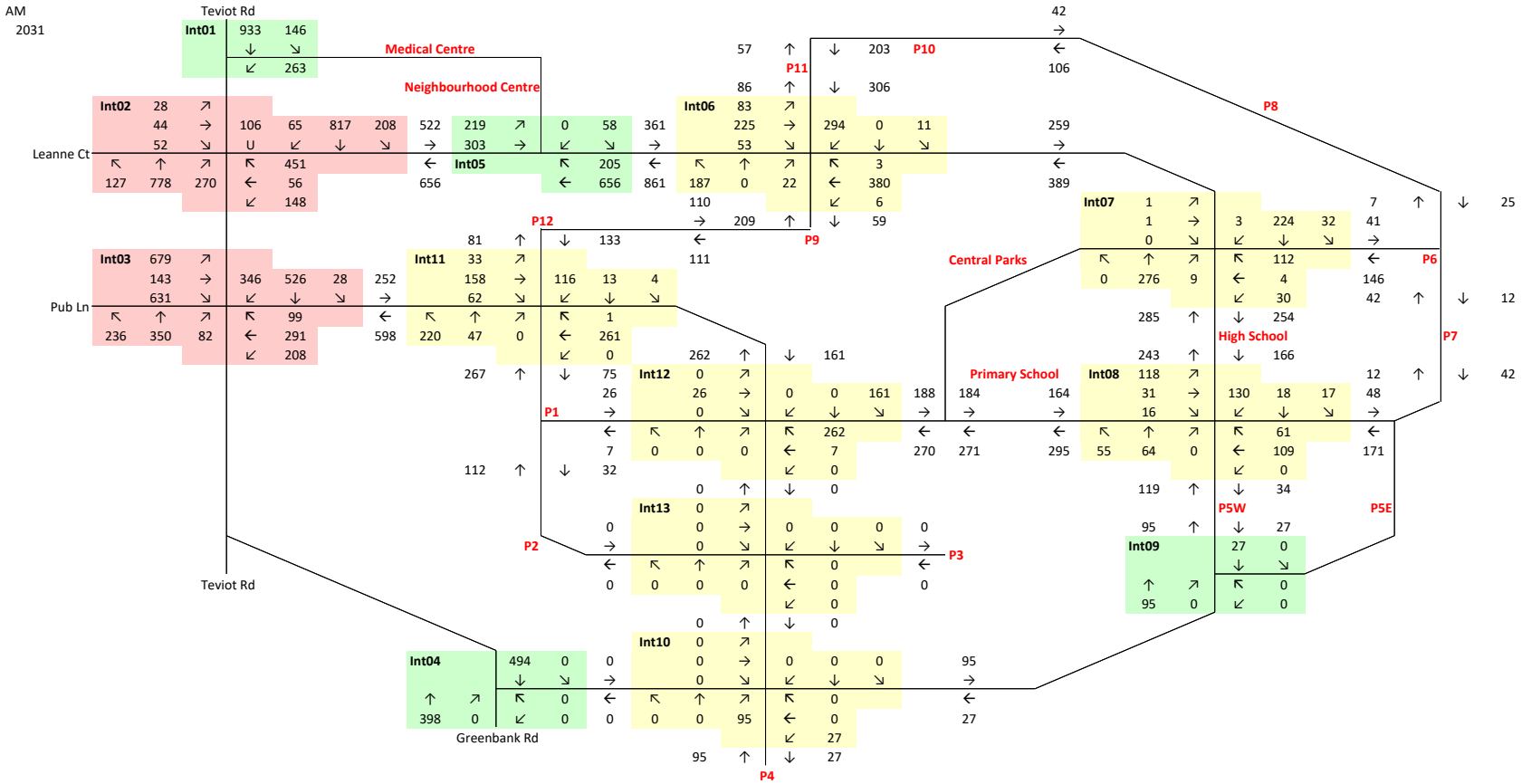
2031 "WITH DEVELOPMENT" TRAFFIC – P3 & P4 ACCESS VIA ANDERSON DRIVE ONLY

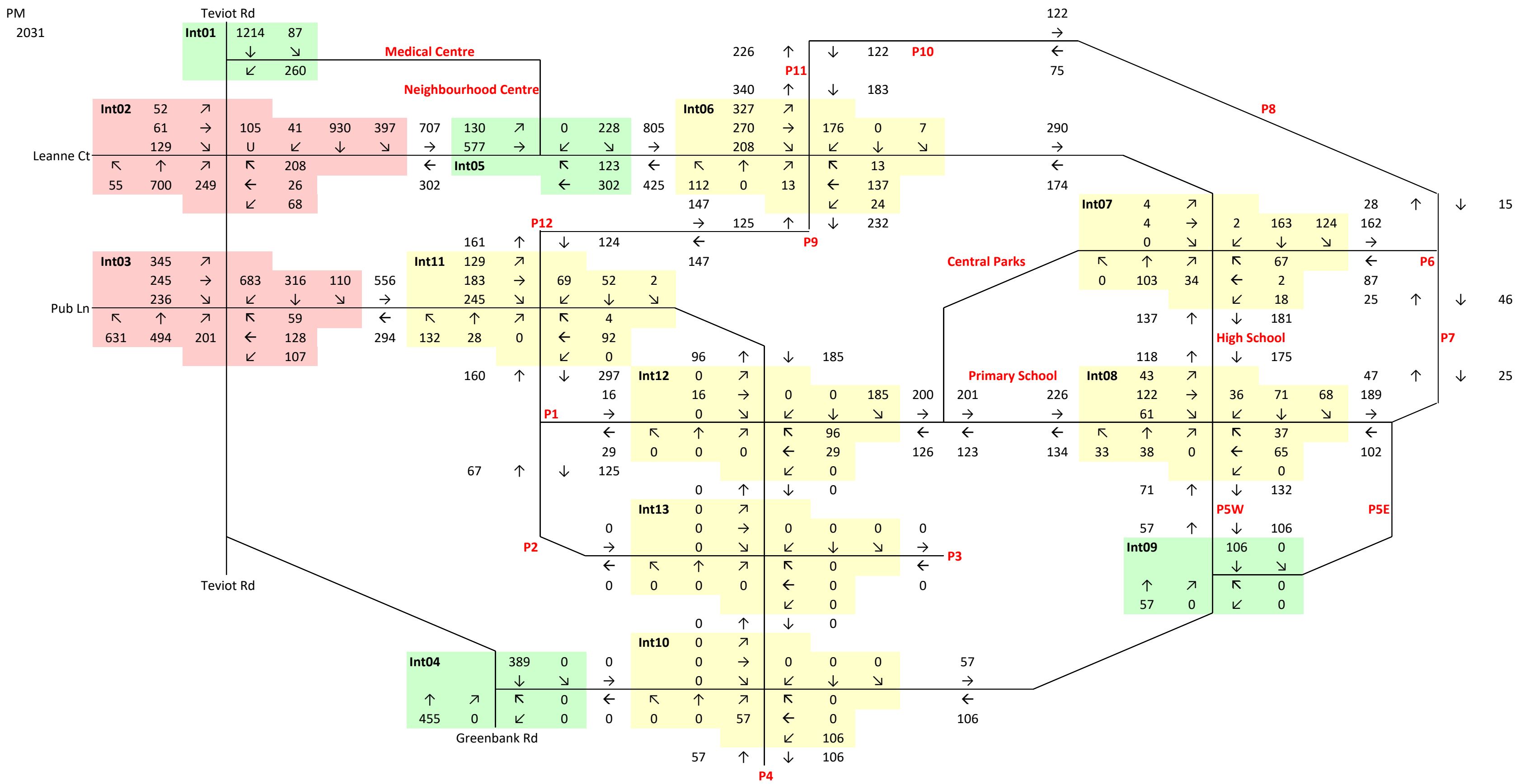


Greenbank Drive access		N
P1	365	100%
P2	226	100%
P3	0	100%
P4	191.75	100%
P5W	48	100%
P6	195	100%
P7	169	100%
P8	286	100%
P9	423	100%
P10	280	100%
P11	253	100%
P12	143	100%
P5E	258	100%
Primary	1400	100%
Medical	8000	100%
Retail	8000	100%
Secondary	1650	100%
Background		Y

Everleigh Drive link: N

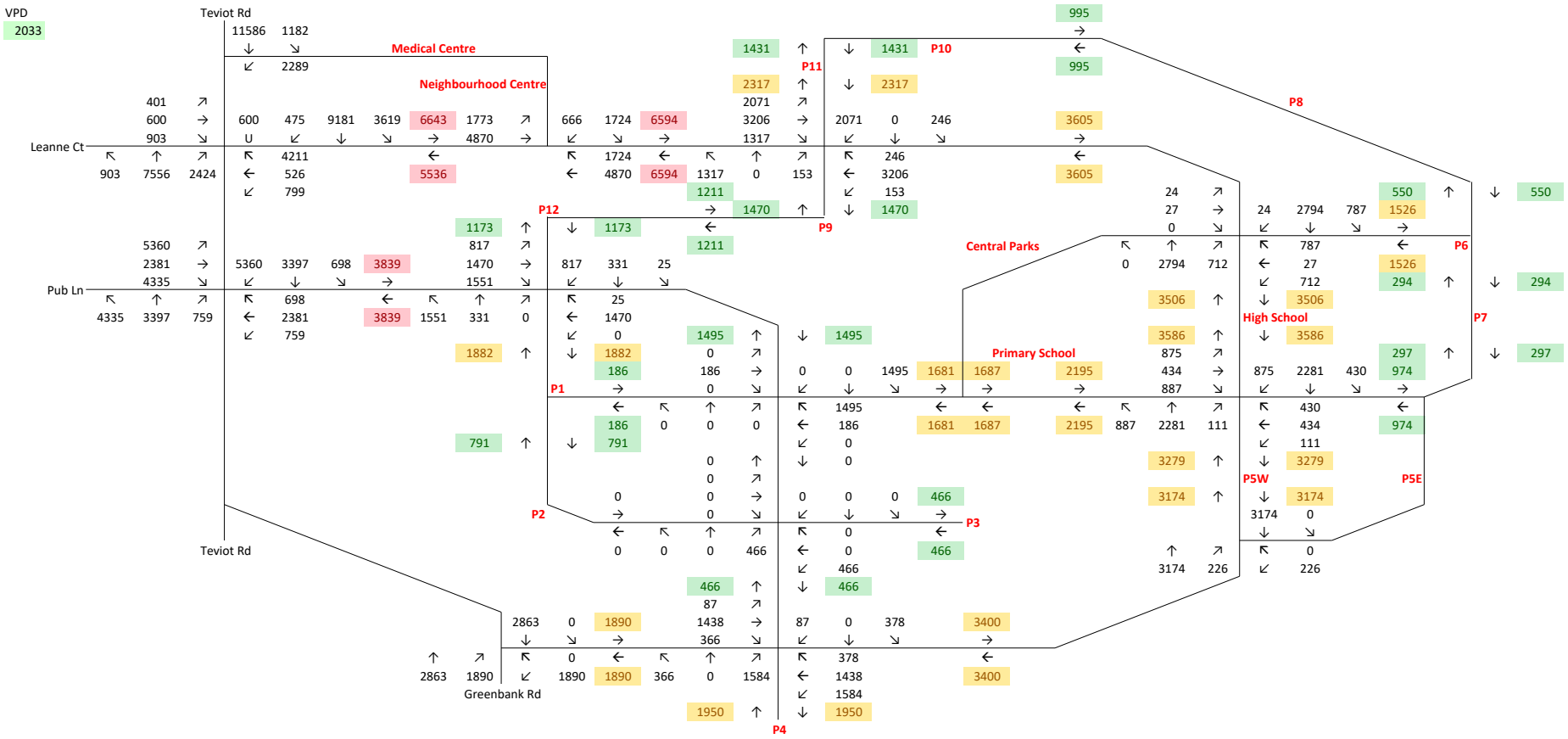
Anderson Drive link: Y


AM
2031
Teviot Rd
Int01
Medical Centre
Neighbourhood Centre
Leanne Ct
Pub Ln
Int02
Int03
Int04
Int05
Int06
Int07
Int08
Int09
Int10
Int11
Int12
Int13
Central Parks
Primary School
High School
P1
P2
P3
P4
P5E
P5W
P6
P7
P8
P9
P10
P11
P12
Greenbank Rd


PM
2031
Teviot Rd
Int01
Medical Centre
Neighbourhood Centre
Int02
Leanne Ct
Int05
Int06
P10
P11
P8
Int07
P6
P12
P9
Int03
Int11
Pub Ln
Central Parks
High School
P7
Int12
Primary School
Int08
P1
Int13
P2
P3
P5W
P5E
Int09
Teviot Rd
Int04
Int10
Greenbank Rd
P4

APPENDIX G

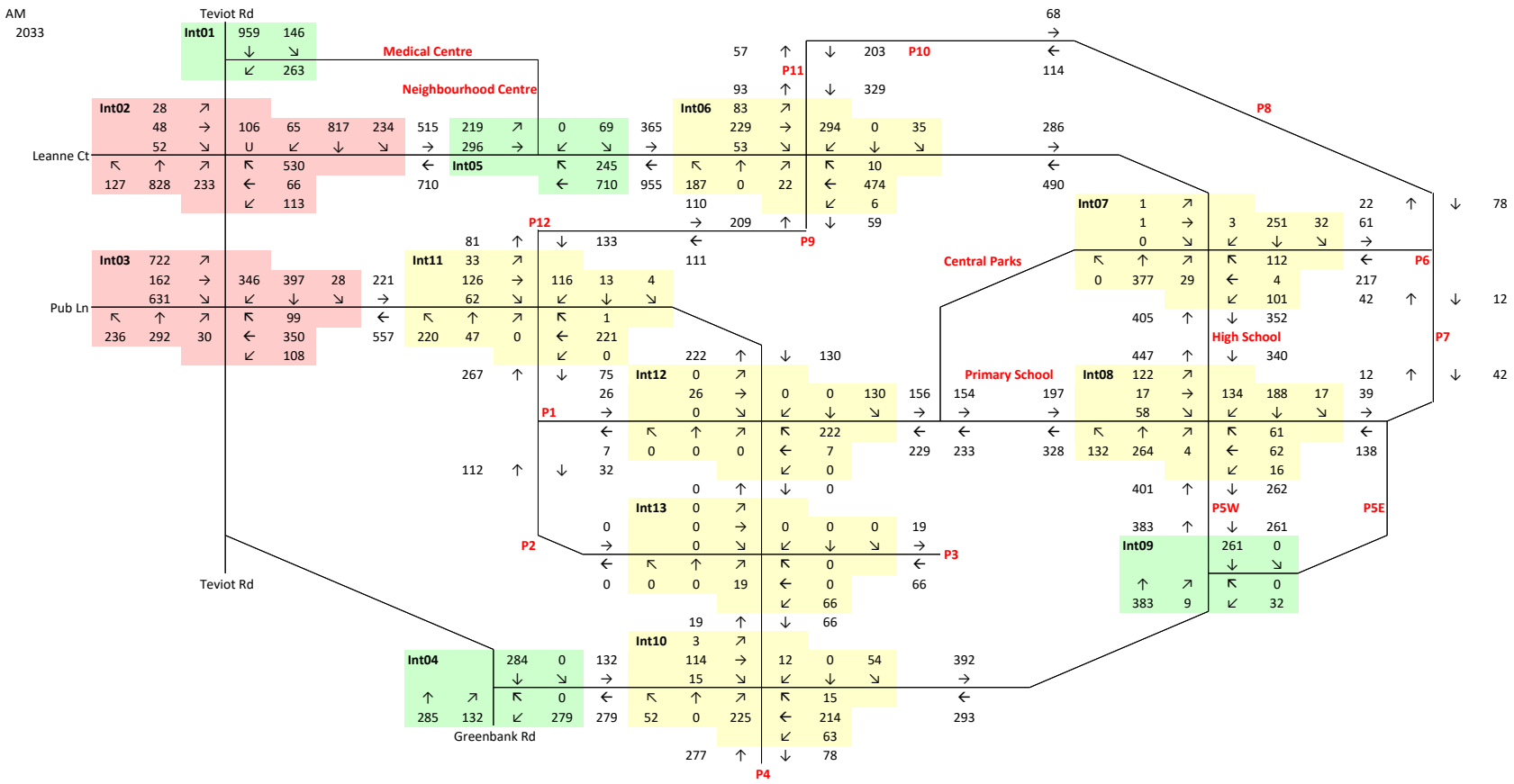
2033 "WITH DEVELOPMENT" TRAFFIC – EXCLUDING EVERLEIGH DRIVE LINK

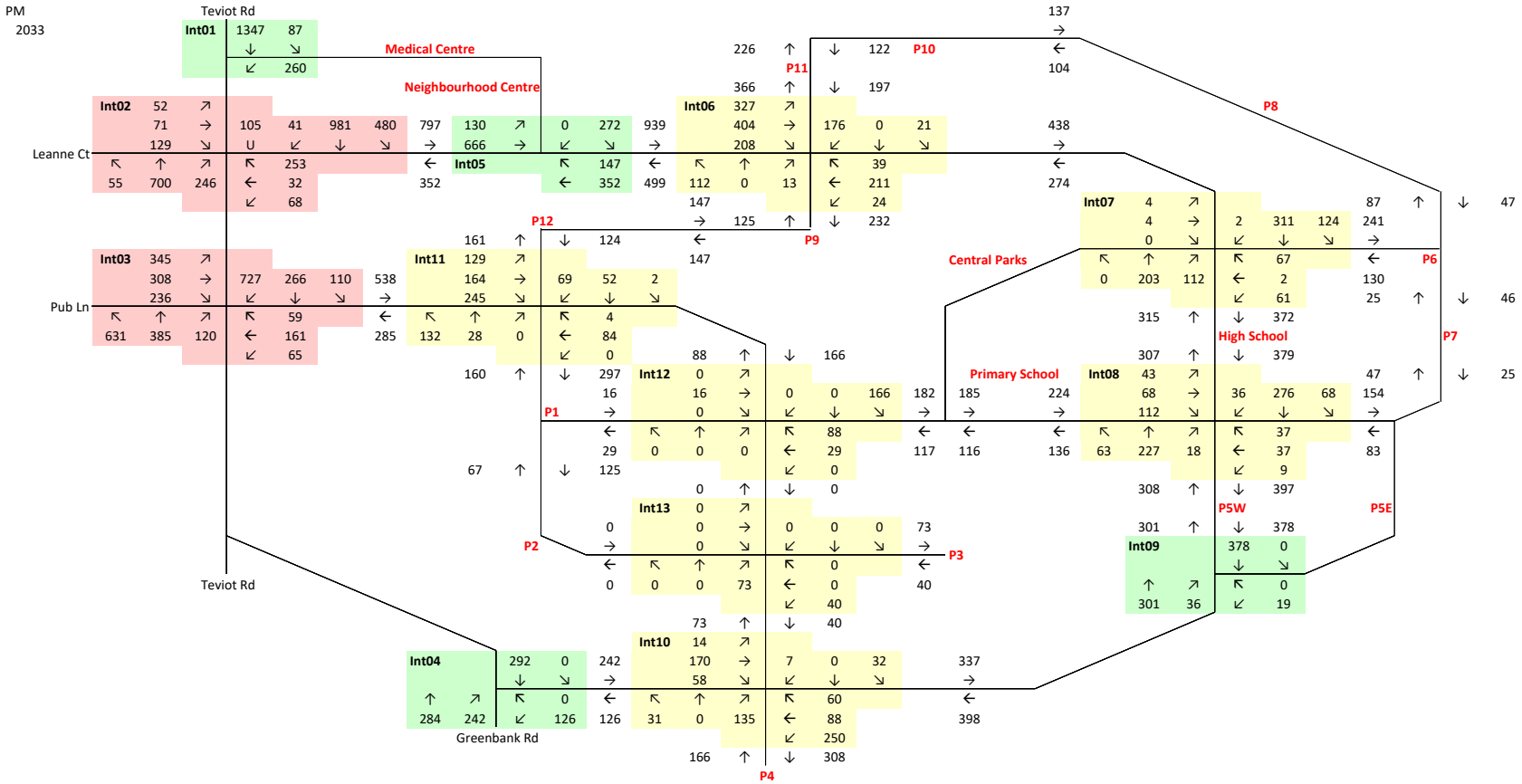


Greenbank Drive access		Y
P1	365	100%
P2	226	100%
P3	133	100%
P4	557	100%
P5W	48	100%
P6	195	100%
P7	169	100%
P8	286	100%
P9	423	100%
P10	280	100%
P11	253	100%
P12	143	100%
P5E	258	100%
Primary	1400	100%
Medical	8000	100%
Retail	8000	100%
Secondary	1800	100%
Background		Y

Everleigh Drive link: N

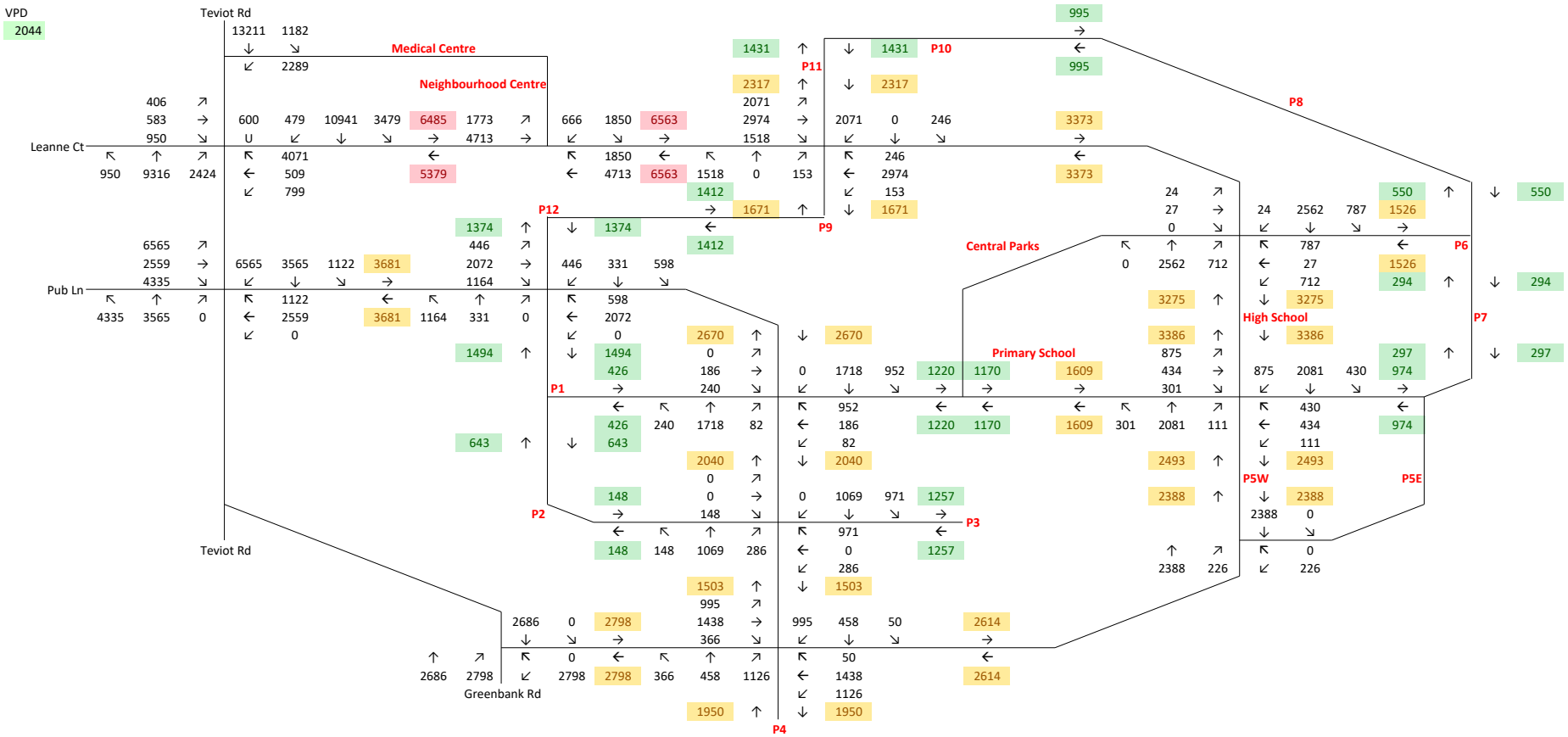
Anderson Drive link: Y


AM
2033
Teviot Rd
Int01
959
146
263
Medical Centre
Neighbourhood Centre
Leanne Ct
Pub Ln
Int02
Int03
Int04
Int05
Int06
Int07
Int08
Int09
Int10
Int11
Int12
Int13
P1
P2
P3
P4
P5E
P5W
P6
P7
P8
P9
P10
P11
P12
Central Parks
Primary School
High School
Greenbank Rd


PM
2033
Teviot Rd
Int01
Medical Centre
Neighbourhood Centre
Int02
Leanne Ct
Int05
Int06
P8
P10
P11
P12
P9
Int03
Int11
Pub Ln
Central Parks
Int07
P6
High School
P7
Primary School
Int08
Int12
P1
P5W
P5E
Int09
P2
P3
Int13
Int10
Int04
Greenbank Rd
P4

APPENDIX H

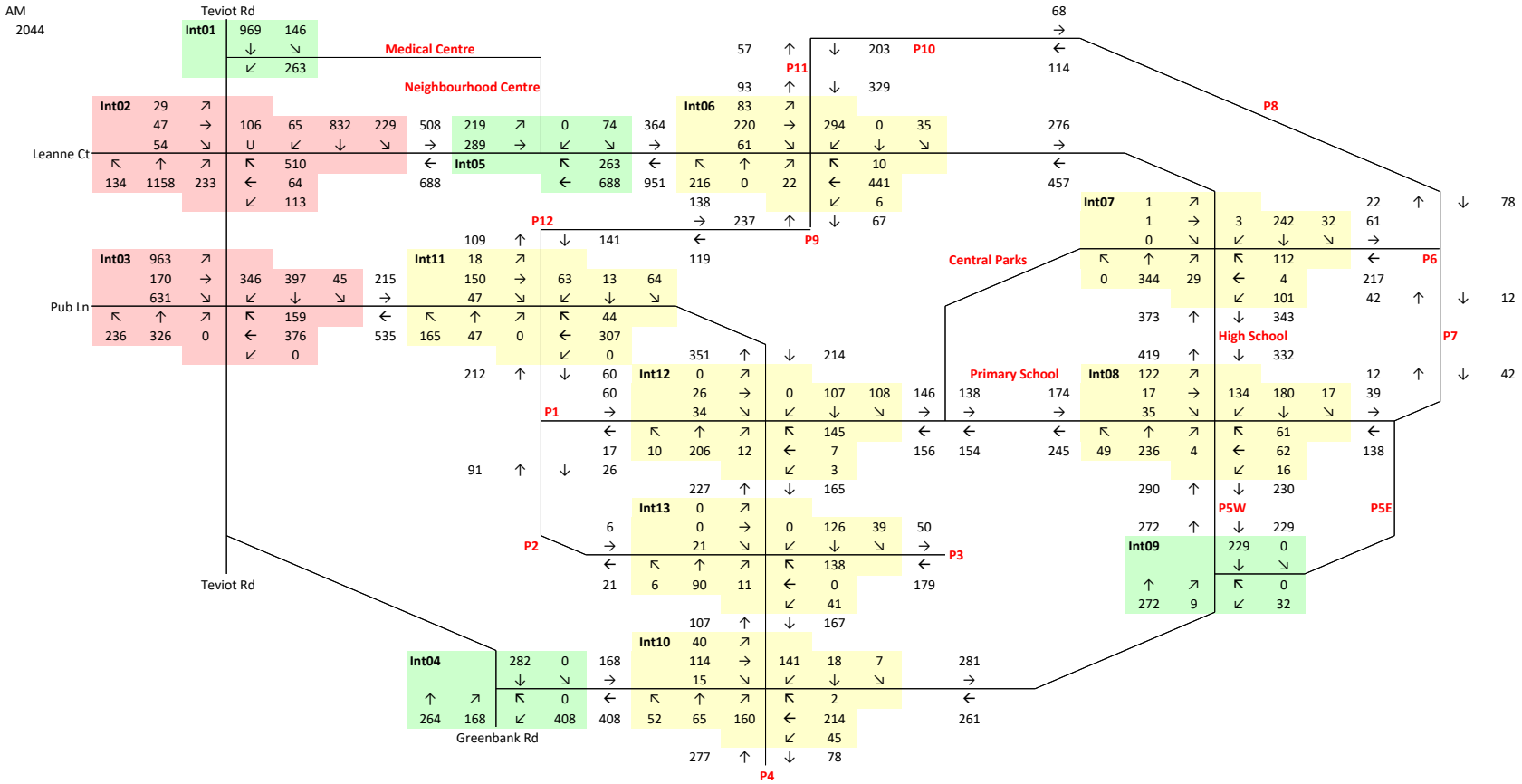
2044 "WITH DEVELOPMENT" TRAFFIC – 10 YEARS AFTER COMPLETION OF EVERLEIGH

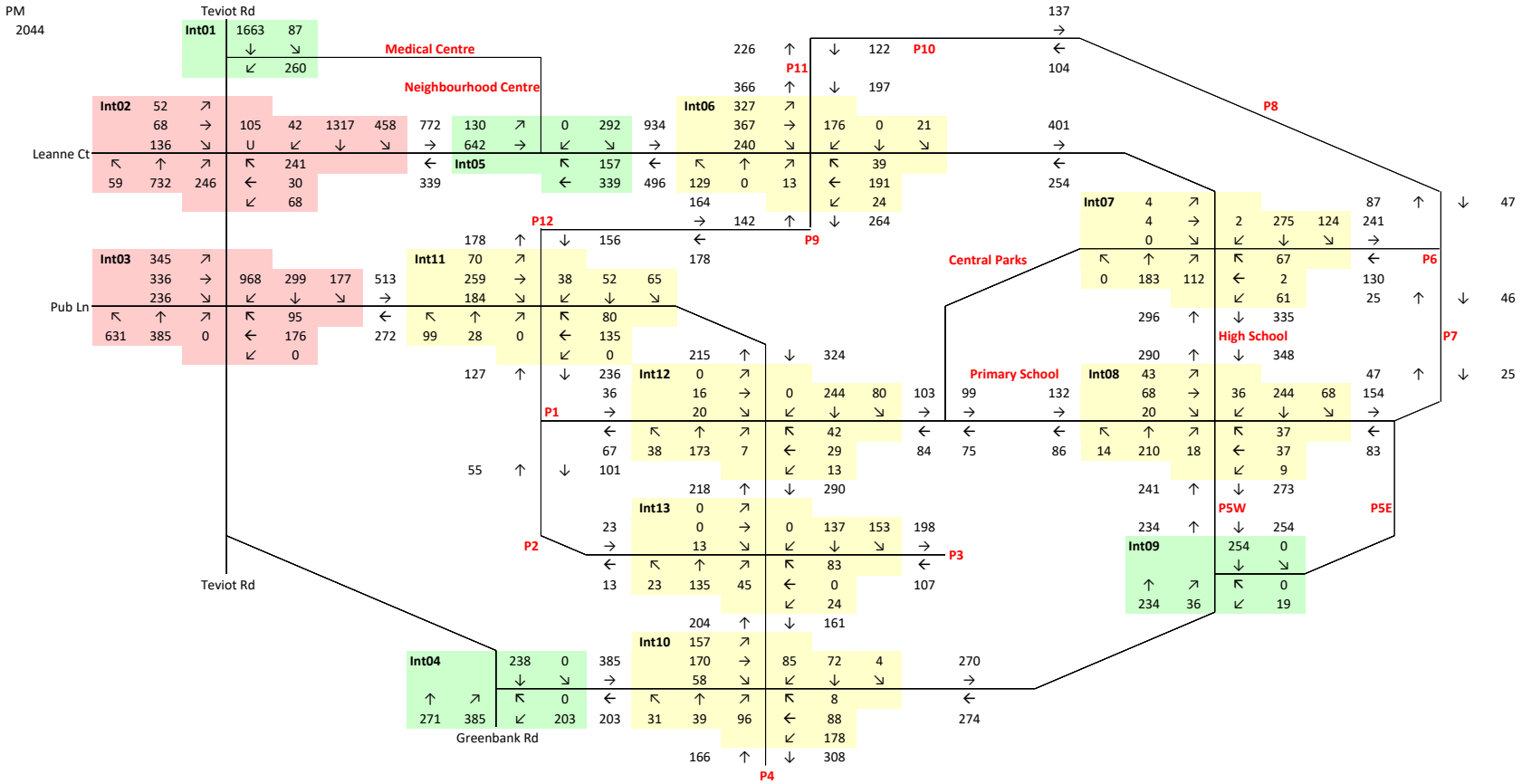


Greenbank Drive access		Y
P1	365	100%
P2	226	100%
P3	359	100%
P4	557	100%
P5W	48	100%
P6	195	100%
P7	169	100%
P8	286	100%
P9	423	100%
P10	280	100%
P11	253	100%
P12	143	100%
P5E	258	100%
Primary	1400	100%
Medical	8000	100%
Retail	8000	100%
Secondary	1800	100%
Background		Y

Everleigh Drive link Y

Anderson Drive link Y


AM
2044
Teviot Rd
Int01
969
146
263
Medical Centre
Neighbourhood Centre
Leanne Ct
Pub Ln
Int02
Int03
Int04
Int05
Int06
Int07
Int08
Int09
Int10
Int11
Int12
Int13
Central Parks
Primary School
High School
P1
P2
P3
P4
P5E
P5W
P6
P7
P8
P9
P10
P11
P12
Greenbank Rd


PM
2044
Teviot Rd
Int01
Medical Centre
Neighbourhood Centre
Int02
Leanne Ct
Int05
Int06
P8
P10
P11
P12
P9
Int03
Pub Ln
Int11
Central Parks
Int07
P6
High School
P7
Primary School
Int08
Int12
P1
P5W
P5E
Int09
P2
P3
Int13
Int10
Int04
Greenbank Rd
P4

APPENDIX I

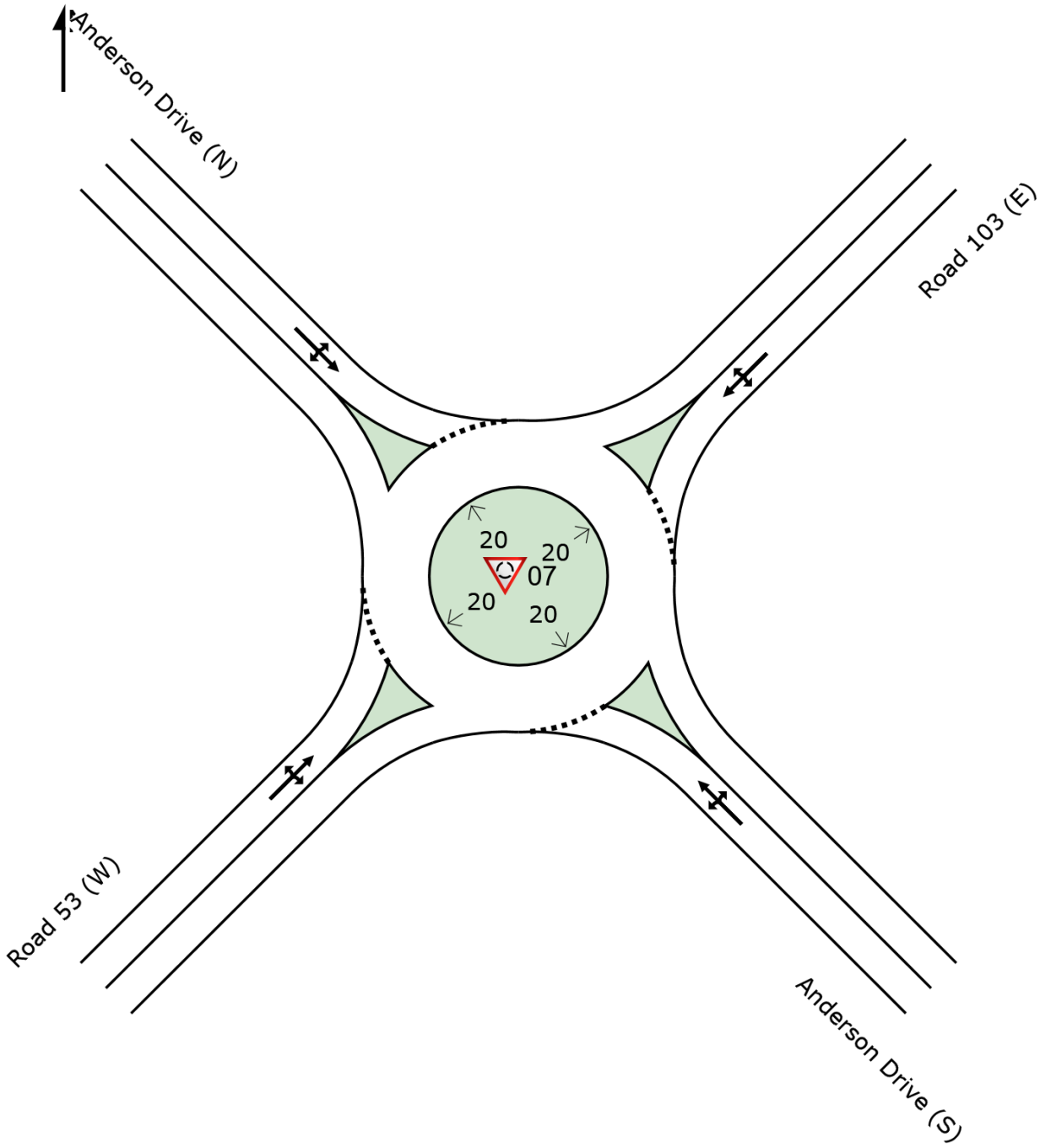
SIDRA OUTPUT – INTERSECTION 7: ANDERSON DRIVE / ROAD 103 / ROAD 53 ROUNDABOUT

SITE LAYOUT

Site: 07 [INT07 (Site Folder: 2044AM)]

Anderson Drive /Road 103 / Road 53 - Roundabout
2044 AM
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 07 [INT07 (Site Folder: 2044AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Anderson Drive /Road 103 / Road 53 - Roundabout
2044 AM
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Anderson Drive (S)															
1	L2	All MCs	1	5.0	1	5.0	0.313	4.7	LOS A	2.1	15.1	0.37	0.45	0.37	52.8
2	T1	All MCs	362	5.0	362	5.0	0.313	4.9	LOS A	2.1	15.1	0.37	0.45	0.37	53.2
3	R2	All MCs	31	5.0	31	5.0	0.313	9.5	LOS A	2.1	15.1	0.37	0.45	0.37	52.3
Approach			394	5.0	394	5.0	0.313	5.2	LOS A	2.1	15.1	0.37	0.45	0.37	53.1
NorthEast: Road 103 (E)															
4	L2	All MCs	106	5.0	106	5.0	0.212	5.4	LOS A	1.2	8.5	0.46	0.60	0.46	51.6
5	T1	All MCs	4	5.0	4	5.0	0.212	5.6	LOS A	1.2	8.5	0.46	0.60	0.46	52.0
6	R2	All MCs	118	5.0	118	5.0	0.212	10.3	LOS B	1.2	8.5	0.46	0.60	0.46	51.1
Approach			228	5.0	228	5.0	0.212	7.9	LOS A	1.2	8.5	0.46	0.60	0.46	51.4
NorthWest: Anderson Drive (N)															
7	L2	All MCs	34	5.0	34	5.0	0.200	4.1	LOS A	1.2	8.7	0.15	0.40	0.15	54.0
8	T1	All MCs	255	5.0	255	5.0	0.200	4.2	LOS A	1.2	8.7	0.15	0.40	0.15	54.4
9	R2	All MCs	3	5.0	3	5.0	0.200	8.9	LOS A	1.2	8.7	0.15	0.40	0.15	53.4
Approach			292	5.0	292	5.0	0.200	4.3	LOS A	1.2	8.7	0.15	0.40	0.15	54.3
SouthWest: Road 53 (W)															
10	L2	All MCs	1	5.0	1	5.0	0.004	6.4	LOS A	0.0	0.1	0.57	0.55	0.57	51.5
11	T1	All MCs	1	5.0	1	5.0	0.004	6.6	LOS A	0.0	0.1	0.57	0.55	0.57	51.9
12	R2	All MCs	1	5.0	1	5.0	0.004	11.2	LOS B	0.0	0.1	0.57	0.55	0.57	51.0
Approach			3	5.0	3	5.0	0.004	8.1	LOS A	0.0	0.1	0.57	0.55	0.57	51.4
All Vehicles			917	5.0	917	5.0	0.313	5.6	LOS A	2.1	15.1	0.32	0.47	0.32	53.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
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.
Roundabout 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: 07 [INT07 (Site Folder: 2044PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Anderson Drive /Road 103 / Road 53 - Roundabout
2044 PM
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Anderson Drive (S)															
1	L2	All MCs	1	5.0	1	5.0	0.232	4.3	LOS A	1.4	10.6	0.26	0.50	0.26	52.4
2	T1	All MCs	193	5.0	193	5.0	0.232	4.5	LOS A	1.4	10.6	0.26	0.50	0.26	52.8
3	R2	All MCs	118	5.0	118	5.0	0.232	9.1	LOS A	1.4	10.6	0.26	0.50	0.26	51.9
Approach			312	5.0	312	5.0	0.232	6.2	LOS A	1.4	10.6	0.26	0.50	0.26	52.5
NorthEast: Road 103 (E)															
4	L2	All MCs	64	5.0	64	5.0	0.132	5.5	LOS A	0.7	5.2	0.47	0.61	0.47	51.6
5	T1	All MCs	2	5.0	2	5.0	0.132	5.7	LOS A	0.7	5.2	0.47	0.61	0.47	51.9
6	R2	All MCs	71	5.0	71	5.0	0.132	10.3	LOS B	0.7	5.2	0.47	0.61	0.47	51.1
Approach			137	5.0	137	5.0	0.132	8.0	LOS A	0.7	5.2	0.47	0.61	0.47	51.3
NorthWest: Anderson Drive (N)															
7	L2	All MCs	131	5.0	131	5.0	0.331	4.7	LOS A	2.1	15.6	0.36	0.45	0.36	53.2
8	T1	All MCs	289	5.0	289	5.0	0.331	4.9	LOS A	2.1	15.6	0.36	0.45	0.36	53.6
9	R2	All MCs	2	5.0	2	5.0	0.331	9.5	LOS A	2.1	15.6	0.36	0.45	0.36	52.7
Approach			422	5.0	422	5.0	0.331	4.8	LOS A	2.1	15.6	0.36	0.45	0.36	53.5
SouthWest: Road 53 (W)															
10	L2	All MCs	4	5.0	4	5.0	0.010	5.7	LOS A	0.0	0.3	0.48	0.52	0.48	52.5
11	T1	All MCs	4	5.0	4	5.0	0.010	5.9	LOS A	0.0	0.3	0.48	0.52	0.48	52.9
12	R2	All MCs	1	5.0	1	5.0	0.010	10.5	LOS B	0.0	0.3	0.48	0.52	0.48	52.0
Approach			9	5.0	9	5.0	0.010	6.3	LOS A	0.0	0.3	0.48	0.52	0.48	52.6
All Vehicles			880	5.0	880	5.0	0.331	5.8	LOS A	2.1	15.6	0.34	0.49	0.34	52.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
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.
Roundabout 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: 07 [INT07 (Site Folder: 33AM-W)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Anderson Drive /Road 103 / Road 53 - Roundabout
2033 AM with no connection between P2 and P3
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Anderson Drive (S)															
1	L2	All MCs	1	5.0	1	5.0	0.339	4.7	LOS A	2.3	16.9	0.38	0.45	0.38	52.8
2	T1	All MCs	397	5.0	397	5.0	0.339	4.9	LOS A	2.3	16.9	0.38	0.45	0.38	53.2
3	R2	All MCs	31	5.0	31	5.0	0.339	9.5	LOS A	2.3	16.9	0.38	0.45	0.38	52.3
Approach			428	5.0	428	5.0	0.339	5.2	LOS A	2.3	16.9	0.38	0.45	0.38	53.1
NorthEast: Road 103 (E)															
4	L2	All MCs	106	5.0	106	5.0	0.214	5.5	LOS A	1.2	8.6	0.46	0.61	0.46	51.6
5	T1	All MCs	4	5.0	4	5.0	0.214	5.7	LOS A	1.2	8.6	0.46	0.61	0.46	52.0
6	R2	All MCs	118	5.0	118	5.0	0.214	10.3	LOS B	1.2	8.6	0.46	0.61	0.46	51.1
Approach			228	5.0	228	5.0	0.214	8.0	LOS A	1.2	8.6	0.46	0.61	0.46	51.3
NorthWest: Anderson Drive (N)															
7	L2	All MCs	34	5.0	34	5.0	0.206	4.1	LOS A	1.2	9.0	0.16	0.40	0.16	54.0
8	T1	All MCs	264	5.0	264	5.0	0.206	4.2	LOS A	1.2	9.0	0.16	0.40	0.16	54.4
9	R2	All MCs	3	5.0	3	5.0	0.206	8.9	LOS A	1.2	9.0	0.16	0.40	0.16	53.4
Approach			301	5.0	301	5.0	0.206	4.3	LOS A	1.2	9.0	0.16	0.40	0.16	54.3
SouthWest: Road 53 (W)															
10	L2	All MCs	1	5.0	1	5.0	0.004	6.6	LOS A	0.0	0.1	0.59	0.55	0.59	51.3
11	T1	All MCs	1	5.0	1	5.0	0.004	6.8	LOS A	0.0	0.1	0.59	0.55	0.59	51.7
12	R2	All MCs	1	5.0	1	5.0	0.004	11.5	LOS B	0.0	0.1	0.59	0.55	0.59	50.8
Approach			3	5.0	3	5.0	0.004	8.3	LOS A	0.0	0.1	0.59	0.55	0.59	51.3
All Vehicles			961	5.0	961	5.0	0.339	5.6	LOS A	2.3	16.9	0.33	0.47	0.33	53.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
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.
Roundabout 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: 07 [INT07 (Site Folder: 33PM-W)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Anderson Drive /Road 103 / Road 53 - Roundabout
2033 PM with no connection between P2 and P3
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Anderson Drive (S)															
1	L2	All MCs	1	5.0	1	5.0	0.247	4.3	LOS A	1.6	11.5	0.27	0.49	0.27	52.5
2	T1	All MCs	214	5.0	214	5.0	0.247	4.5	LOS A	1.6	11.5	0.27	0.49	0.27	52.9
3	R2	All MCs	118	5.0	118	5.0	0.247	9.1	LOS A	1.6	11.5	0.27	0.49	0.27	51.9
Approach			333	5.0	333	5.0	0.247	6.1	LOS A	1.6	11.5	0.27	0.49	0.27	52.5
NorthEast: Road 103 (E)															
4	L2	All MCs	64	5.0	64	5.0	0.136	5.7	LOS A	0.7	5.5	0.50	0.62	0.50	51.5
5	T1	All MCs	2	5.0	2	5.0	0.136	5.9	LOS A	0.7	5.5	0.50	0.62	0.50	51.9
6	R2	All MCs	71	5.0	71	5.0	0.136	10.5	LOS B	0.7	5.5	0.50	0.62	0.50	51.0
Approach			137	5.0	137	5.0	0.136	8.2	LOS A	0.7	5.5	0.50	0.62	0.50	51.2
NorthWest: Anderson Drive (N)															
7	L2	All MCs	131	5.0	131	5.0	0.359	4.7	LOS A	2.4	17.4	0.37	0.45	0.37	53.2
8	T1	All MCs	327	5.0	327	5.0	0.359	4.9	LOS A	2.4	17.4	0.37	0.45	0.37	53.6
9	R2	All MCs	2	5.0	2	5.0	0.359	9.5	LOS A	2.4	17.4	0.37	0.45	0.37	52.6
Approach			460	5.0	460	5.0	0.359	4.8	LOS A	2.4	17.4	0.37	0.45	0.37	53.5
SouthWest: Road 53 (W)															
10	L2	All MCs	4	5.0	4	5.0	0.010	5.8	LOS A	0.0	0.4	0.50	0.53	0.50	52.5
11	T1	All MCs	4	5.0	4	5.0	0.010	6.0	LOS A	0.0	0.4	0.50	0.53	0.50	52.9
12	R2	All MCs	1	5.0	1	5.0	0.010	10.7	LOS B	0.0	0.4	0.50	0.53	0.50	51.9
Approach			9	5.0	9	5.0	0.010	6.4	LOS A	0.0	0.4	0.50	0.53	0.50	52.6
All Vehicles			939	5.0	939	5.0	0.359	5.8	LOS A	2.4	17.4	0.35	0.49	0.35	52.8

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

APPENDIX J

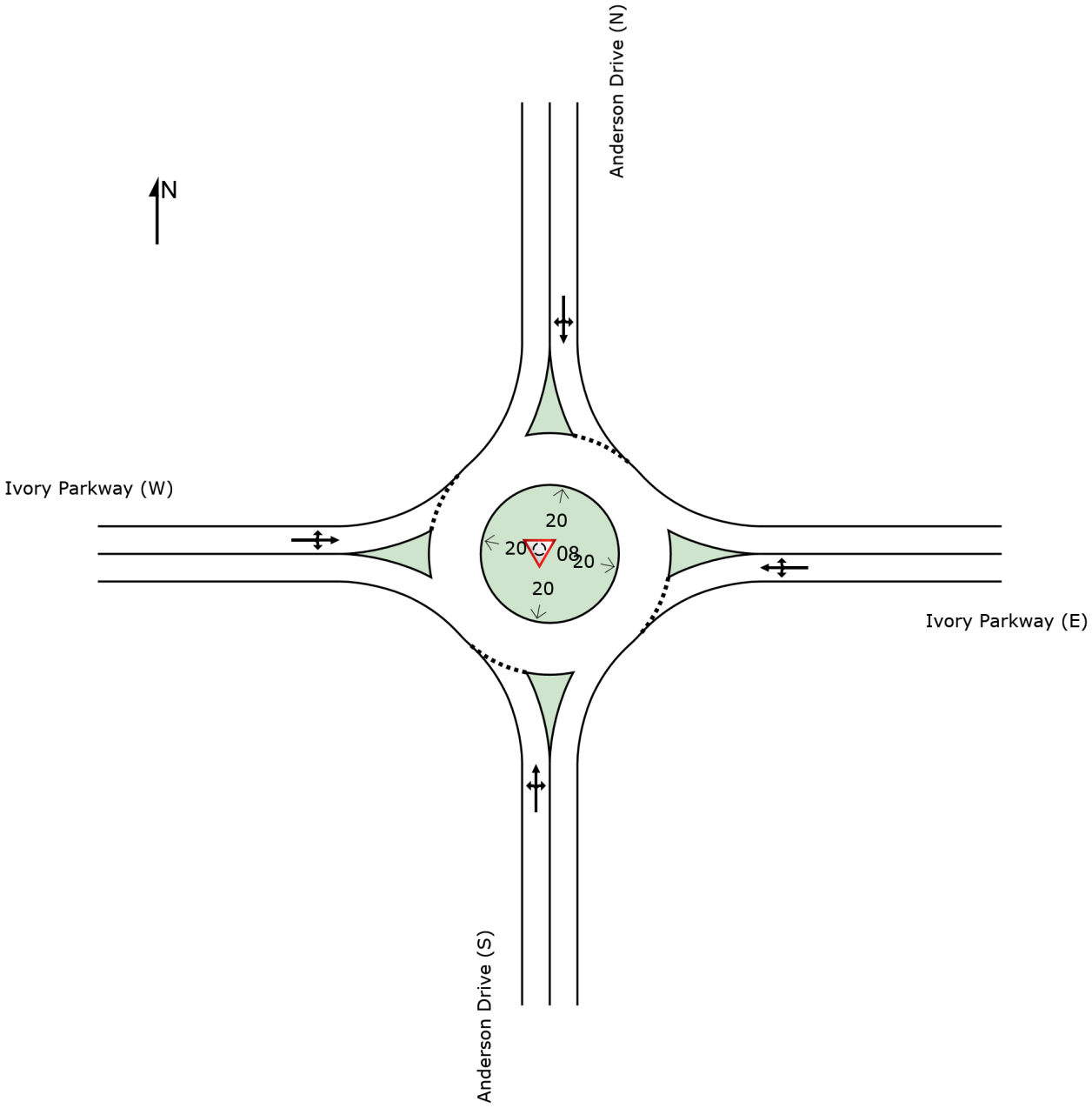
SIDRA OUTPUT – INTERSECTION 8: ANDERSON DRIVE / IVORY PARKWAY / GUROMAN DRIVE ROUNDABOUT

SITE LAYOUT

Site: 08 [INT08 (Site Folder: 2044AM)]

Anderson Drive / Ivory Parkway / P6 - Roundabout
2044 AM
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 08 [INT08 (Site Folder: 2044AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Anderson Drive / Ivory Parkway / P6 - Roundabout
2044 AM
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Anderson Drive (S)															
1	L2	All MCs	52	5.0	52	5.0	0.286	5.6	LOS A	1.7	12.5	0.50	0.53	0.50	52.5
2	T1	All MCs	248	5.0	248	5.0	0.286	5.8	LOS A	1.7	12.5	0.50	0.53	0.50	52.9
3	R2	All MCs	4	5.0	4	5.0	0.286	10.4	LOS B	1.7	12.5	0.50	0.53	0.50	52.0
Approach			304	5.0	304	5.0	0.286	5.8	LOS A	1.7	12.5	0.50	0.53	0.50	52.8
East: Ivory Parkway (E)															
4	L2	All MCs	17	5.0	17	5.0	0.148	6.0	LOS A	0.8	5.8	0.52	0.62	0.52	51.4
5	T1	All MCs	65	5.0	65	5.0	0.148	6.1	LOS A	0.8	5.8	0.52	0.62	0.52	51.7
6	R2	All MCs	64	5.0	64	5.0	0.148	10.8	LOS B	0.8	5.8	0.52	0.62	0.52	50.8
Approach			146	5.0	146	5.0	0.148	8.2	LOS A	0.8	5.8	0.52	0.62	0.52	51.3
North: Anderson Drive (N)															
7	L2	All MCs	18	5.0	18	5.0	0.251	4.2	LOS A	1.6	11.8	0.24	0.50	0.24	52.5
8	T1	All MCs	189	5.0	189	5.0	0.251	4.4	LOS A	1.6	11.8	0.24	0.50	0.24	52.9
9	R2	All MCs	141	5.0	141	5.0	0.251	9.0	LOS A	1.6	11.8	0.24	0.50	0.24	51.9
Approach			348	5.0	348	5.0	0.251	6.3	LOS A	1.6	11.8	0.24	0.50	0.24	52.5
West: Ivory Parkway (W)															
10	L2	All MCs	128	5.0	128	5.0	0.181	5.7	LOS A	1.0	7.5	0.51	0.59	0.51	52.4
11	T1	All MCs	18	5.0	18	5.0	0.181	5.9	LOS A	1.0	7.5	0.51	0.59	0.51	52.8
12	R2	All MCs	37	5.0	37	5.0	0.181	10.5	LOS B	1.0	7.5	0.51	0.59	0.51	51.9
Approach			183	5.0	183	5.0	0.181	6.7	LOS A	1.0	7.5	0.51	0.59	0.51	52.3
All Vehicles			982	5.0	982	5.0	0.286	6.5	LOS A	1.7	12.5	0.41	0.54	0.41	52.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
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.
Roundabout 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: 08 [INT08 (Site Folder: 2044PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Anderson Drive / Ivory Parkway / P6 - Roundabout
2044 PM
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Anderson Drive (S)															
1	L2	All MCs	15	5.0	15	5.0	0.204	4.5	LOS A	1.2	8.5	0.31	0.45	0.31	53.1
2	T1	All MCs	221	5.0	221	5.0	0.204	4.7	LOS A	1.2	8.5	0.31	0.45	0.31	53.5
3	R2	All MCs	19	5.0	19	5.0	0.204	9.4	LOS A	1.2	8.5	0.31	0.45	0.31	52.5
Approach			255	5.0	255	5.0	0.204	5.1	LOS A	1.2	8.5	0.31	0.45	0.31	53.4
East: Ivory Parkway (E)															
4	L2	All MCs	9	5.0	9	5.0	0.086	5.5	LOS A	0.4	3.3	0.47	0.60	0.47	51.6
5	T1	All MCs	39	5.0	39	5.0	0.086	5.7	LOS A	0.4	3.3	0.47	0.60	0.47	51.9
6	R2	All MCs	39	5.0	39	5.0	0.086	10.4	LOS B	0.4	3.3	0.47	0.60	0.47	51.0
Approach			87	5.0	87	5.0	0.086	7.8	LOS A	0.4	3.3	0.47	0.60	0.47	51.5
North: Anderson Drive (N)															
7	L2	All MCs	72	5.0	72	5.0	0.286	4.6	LOS A	1.8	13.3	0.34	0.46	0.34	53.0
8	T1	All MCs	257	5.0	257	5.0	0.286	4.7	LOS A	1.8	13.3	0.34	0.46	0.34	53.4
9	R2	All MCs	38	5.0	38	5.0	0.286	9.4	LOS A	1.8	13.3	0.34	0.46	0.34	52.4
Approach			366	5.0	366	5.0	0.286	5.2	LOS A	1.8	13.3	0.34	0.46	0.34	53.2
West: Ivory Parkway (W)															
10	L2	All MCs	45	5.0	45	5.0	0.131	5.4	LOS A	0.7	5.1	0.46	0.55	0.46	52.5
11	T1	All MCs	72	5.0	72	5.0	0.131	5.6	LOS A	0.7	5.1	0.46	0.55	0.46	52.9
12	R2	All MCs	21	5.0	21	5.0	0.131	10.2	LOS B	0.7	5.1	0.46	0.55	0.46	51.9
Approach			138	5.0	138	5.0	0.131	6.2	LOS A	0.7	5.1	0.46	0.55	0.46	52.6
All Vehicles			846	5.0	846	5.0	0.286	5.6	LOS A	1.8	13.3	0.36	0.49	0.36	53.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
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.
Roundabout 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: 08 [INT08 (Site Folder: 33AM-W)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Anderson Drive / Ivory Parkway / P6 - Roundabout
2033 AM with no connection between P2 and P3
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Anderson Drive (S)															
1	L2	All MCs	139	5.0	139	5.0	0.392	5.8	LOS A	2.6	18.8	0.55	0.55	0.55	52.5
2	T1	All MCs	278	5.0	278	5.0	0.392	6.0	LOS A	2.6	18.8	0.55	0.55	0.55	52.8
3	R2	All MCs	4	5.0	4	5.0	0.392	10.6	LOS B	2.6	18.8	0.55	0.55	0.55	51.9
Approach			421	5.0	421	5.0	0.392	6.0	LOS A	2.6	18.8	0.55	0.55	0.55	52.7
East: Ivory Parkway (E)															
4	L2	All MCs	17	5.0	17	5.0	0.153	6.2	LOS A	0.8	6.1	0.54	0.63	0.54	51.2
5	T1	All MCs	65	5.0	65	5.0	0.153	6.4	LOS A	0.8	6.1	0.54	0.63	0.54	51.6
6	R2	All MCs	64	5.0	64	5.0	0.153	11.0	LOS B	0.8	6.1	0.54	0.63	0.54	50.7
Approach			146	5.0	146	5.0	0.153	8.4	LOS A	0.8	6.1	0.54	0.63	0.54	51.2
North: Anderson Drive (N)															
7	L2	All MCs	18	5.0	18	5.0	0.269	4.4	LOS A	1.8	12.8	0.29	0.50	0.29	52.3
8	T1	All MCs	198	5.0	198	5.0	0.269	4.6	LOS A	1.8	12.8	0.29	0.50	0.29	52.7
9	R2	All MCs	141	5.0	141	5.0	0.269	9.2	LOS A	1.8	12.8	0.29	0.50	0.29	51.8
Approach			357	5.0	357	5.0	0.269	6.4	LOS A	1.8	12.8	0.29	0.50	0.29	52.3
West: Ivory Parkway (W)															
10	L2	All MCs	128	5.0	128	5.0	0.211	5.9	LOS A	1.2	9.1	0.55	0.61	0.55	52.0
11	T1	All MCs	18	5.0	18	5.0	0.211	6.1	LOS A	1.2	9.1	0.55	0.61	0.55	52.4
12	R2	All MCs	61	5.0	61	5.0	0.211	10.8	LOS B	1.2	9.1	0.55	0.61	0.55	51.4
Approach			207	5.0	207	5.0	0.211	7.4	LOS A	1.2	9.1	0.55	0.61	0.55	51.9
All Vehicles			1132	5.0	1132	5.0	0.392	6.7	LOS A	2.6	18.8	0.47	0.56	0.47	52.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
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.
Roundabout 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: 08 [INT08 (Site Folder: 33PM-W)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Anderson Drive / Ivory Parkway / P6 - Roundabout
2033 PM with no connection between P2 and P3
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Anderson Drive (S)															
1	L2	All MCs	66	5.0	66	5.0	0.257	4.6	LOS A	1.6	11.5	0.33	0.45	0.33	53.1
2	T1	All MCs	239	5.0	239	5.0	0.257	4.8	LOS A	1.6	11.5	0.33	0.45	0.33	53.5
3	R2	All MCs	19	5.0	19	5.0	0.257	9.4	LOS A	1.6	11.5	0.33	0.45	0.33	52.6
Approach			324	5.0	324	5.0	0.257	5.0	LOS A	1.6	11.5	0.33	0.45	0.33	53.4
East: Ivory Parkway (E)															
4	L2	All MCs	9	5.0	9	5.0	0.096	6.3	LOS A	0.5	3.8	0.57	0.64	0.57	51.1
5	T1	All MCs	39	5.0	39	5.0	0.096	6.5	LOS A	0.5	3.8	0.57	0.64	0.57	51.5
6	R2	All MCs	39	5.0	39	5.0	0.096	11.2	LOS B	0.5	3.8	0.57	0.64	0.57	50.6
Approach			87	5.0	87	5.0	0.096	8.6	LOS A	0.5	3.8	0.57	0.64	0.57	51.0
North: Anderson Drive (N)															
7	L2	All MCs	72	5.0	72	5.0	0.353	5.3	LOS A	2.4	17.2	0.49	0.52	0.49	52.4
8	T1	All MCs	291	5.0	291	5.0	0.353	5.5	LOS A	2.4	17.2	0.49	0.52	0.49	52.8
9	R2	All MCs	38	5.0	38	5.0	0.353	10.1	LOS B	2.4	17.2	0.49	0.52	0.49	51.9
Approach			400	5.0	400	5.0	0.353	5.9	LOS A	2.4	17.2	0.49	0.52	0.49	52.6
West: Ivory Parkway (W)															
10	L2	All MCs	45	5.0	45	5.0	0.227	5.7	LOS A	1.3	9.5	0.50	0.61	0.50	51.4
11	T1	All MCs	72	5.0	72	5.0	0.227	5.9	LOS A	1.3	9.5	0.50	0.61	0.50	51.7
12	R2	All MCs	118	5.0	118	5.0	0.227	10.5	LOS B	1.3	9.5	0.50	0.61	0.50	50.9
Approach			235	5.0	235	5.0	0.227	8.2	LOS A	1.3	9.5	0.50	0.61	0.50	51.2
All Vehicles			1046	5.0	1046	5.0	0.353	6.3	LOS A	2.4	17.2	0.45	0.53	0.45	52.4

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

APPENDIX K

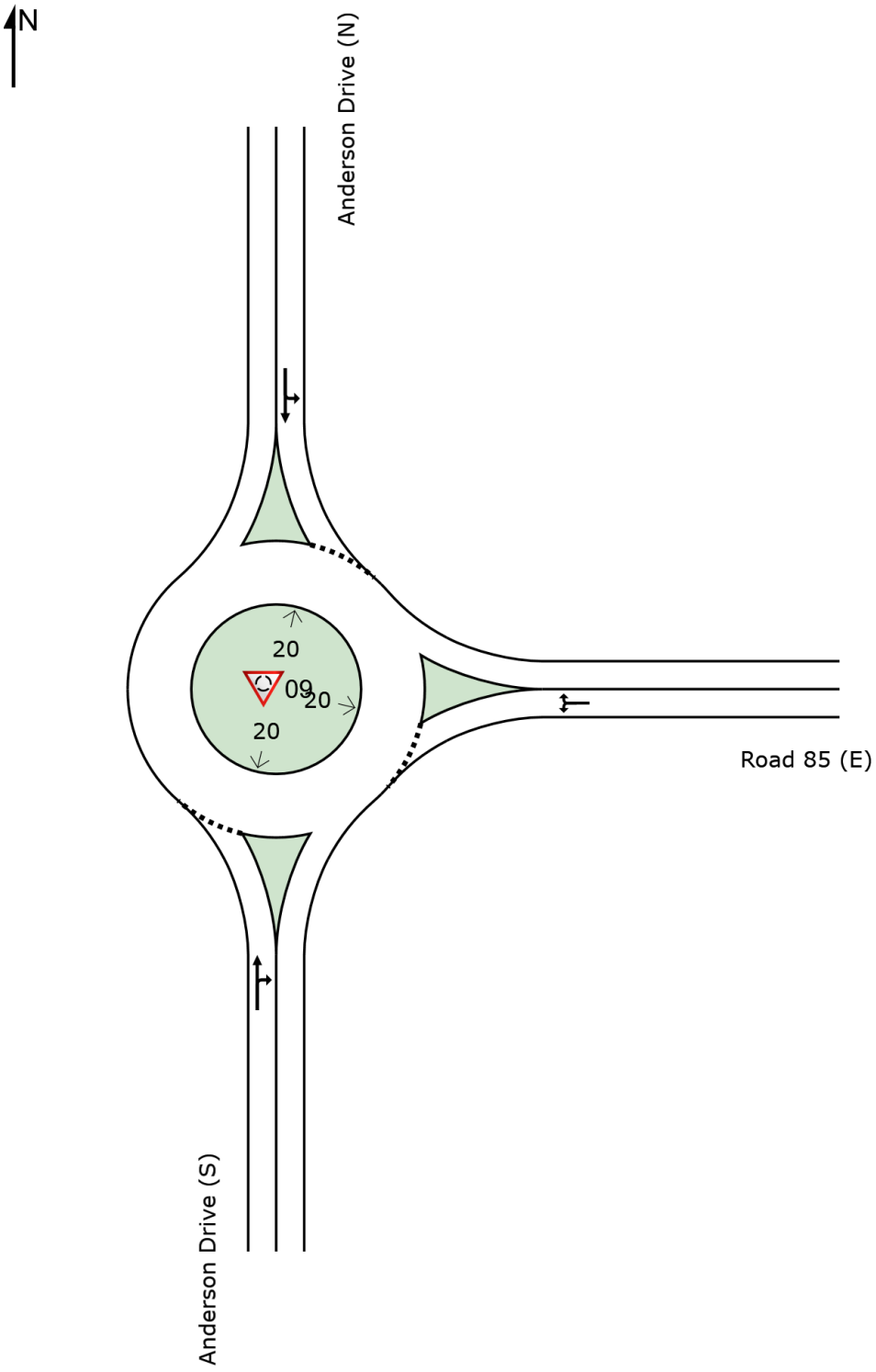
SIDRA OUTPUT – INTERSECTION 9: ANDERSON DRIVE / ROAD 83 ROUNDABOUT

SITE LAYOUT

Site: 09 [INT09 (Site Folder: 2044AM)]

Anderson Drive / P5- Roundabout Control
2044 AM
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 09 [INT09 (Site Folder: 2044AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Anderson Drive / P5- Roundabout Control
2044 AM
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Anderson Drive (S)															
2	T1	All MCs	286	5.0	286	5.0	0.175	4.1	LOS A	1.2	8.8	0.02	0.41	0.02	53.5
3	R2	All MCs	9	5.0	9	5.0	0.175	8.7	LOS A	1.2	8.8	0.02	0.41	0.02	53.9
Approach			296	5.0	296	5.0	0.175	4.2	LOS A	1.2	8.8	0.02	0.41	0.02	53.6
East: Road 85 (E)															
4	L2	All MCs	34	5.0	34	5.0	0.033	5.3	LOS A	0.2	1.3	0.43	0.52	0.43	53.3
6	R2	All MCs	1	5.0	1	5.0	0.033	10.2	LOS B	0.2	1.3	0.43	0.52	0.43	53.3
Approach			35	5.0	35	5.0	0.033	5.4	LOS A	0.2	1.3	0.43	0.52	0.43	53.3
North: Anderson Drive (N)															
7	L2	All MCs	1	5.0	1	5.0	0.154	3.9	LOS A	0.9	6.6	0.07	0.39	0.07	54.8
8	T1	All MCs	241	5.0	241	5.0	0.154	4.1	LOS A	0.9	6.6	0.07	0.39	0.07	53.4
Approach			242	5.0	242	5.0	0.154	4.1	LOS A	0.9	6.6	0.07	0.39	0.07	53.4
All Vehicles			573	5.0	573	5.0	0.175	4.3	LOS A	1.2	8.8	0.07	0.41	0.07	53.5

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

Organisation: PREMISE GROUP SERVICES PTY LTD | Licence: PLUS / 1PC | Processed: Sunday, 24 March 2024 2:50:14 PM
Project: C:\12dS\data\12dSynergy\P000170 Everleigh Traffic Movement_15965\14. Engineering - Traffic\02. SIDRA\P000170 SIDRA Models.sip9

MOVEMENT SUMMARY

Site: 09 [INT09 (Site Folder: 2044PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Anderson Drive / P5- Priority Control
2044 PM
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Anderson Drive (S)															
2	T1	All MCs	246	5.0	246	5.0	0.168	4.1	LOS A	1.2	8.5	0.02	0.45	0.02	53.1
3	R2	All MCs	38	5.0	38	5.0	0.168	8.7	LOS A	1.2	8.5	0.02	0.45	0.02	53.5
Approach			284	5.0	284	5.0	0.168	4.7	LOS A	1.2	8.5	0.02	0.45	0.02	53.2
East: LCC (E)															
4	L2	All MCs	20	5.0	20	5.0	0.020	5.4	LOS A	0.1	0.8	0.45	0.52	0.45	53.1
6	R2	All MCs	1	5.0	1	5.0	0.020	10.3	LOS B	0.1	0.8	0.45	0.52	0.45	53.1
Approach			21	5.0	21	5.0	0.020	5.7	LOS A	0.1	0.8	0.45	0.52	0.45	53.1
North: Anderson Drive (N)															
7	L2	All MCs	1	5.0	1	5.0	0.188	4.1	LOS A	1.1	8.3	0.17	0.39	0.17	54.4
8	T1	All MCs	267	5.0	267	5.0	0.188	4.3	LOS A	1.1	8.3	0.17	0.39	0.17	52.8
Approach			268	5.0	268	5.0	0.188	4.3	LOS A	1.1	8.3	0.17	0.39	0.17	52.8
All Vehicles			574	5.0	574	5.0	0.188	4.6	LOS A	1.2	8.5	0.11	0.42	0.11	53.0

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

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Project: C:\12dS\data\12dSynergy\P000170 Everleigh Traffic Movement_15965\14. Engineering - Traffic\02. SIDRA\P000170 SIDRA Models.sip9

MOVEMENT SUMMARY

Site: 09 [INT09 (Site Folder: 33AM-W)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Anderson Drive / P5- Roundabout Control
2033 AM with no connection between P2 and P3
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Anderson Drive (S)															
2	T1	All MCs	403	5.0	403	5.0	0.243	4.1	LOS A	1.8	13.4	0.02	0.41	0.02	53.6
3	R2	All MCs	9	5.0	9	5.0	0.243	8.7	LOS A	1.8	13.4	0.02	0.41	0.02	53.9
Approach			413	5.0	413	5.0	0.243	4.2	LOS A	1.8	13.4	0.02	0.41	0.02	53.6
East: Road 85 (E)															
4	L2	All MCs	34	5.0	34	5.0	0.034	5.5	LOS A	0.2	1.3	0.45	0.53	0.45	53.2
6	R2	All MCs	1	5.0	1	5.0	0.034	10.4	LOS B	0.2	1.3	0.45	0.53	0.45	53.2
Approach			35	5.0	35	5.0	0.034	5.7	LOS A	0.2	1.3	0.45	0.53	0.45	53.2
North: Anderson Drive (N)															
7	L2	All MCs	1	5.0	1	5.0	0.174	3.9	LOS A	1.0	7.6	0.07	0.39	0.07	54.8
8	T1	All MCs	275	5.0	275	5.0	0.174	4.1	LOS A	1.0	7.6	0.07	0.39	0.07	53.4
Approach			276	5.0	276	5.0	0.174	4.1	LOS A	1.0	7.6	0.07	0.39	0.07	53.4
All Vehicles			723	5.0	723	5.0	0.243	4.2	LOS A	1.8	13.4	0.06	0.41	0.06	53.5

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

Organisation: PREMISE GROUP SERVICES PTY LTD | Licence: PLUS / 1PC | Processed: Sunday, 24 March 2024 2:05:08 PM
Project: C:\12dS\data\12dSynergy\P000170 Everleigh Traffic Movement_15965\14. Engineering - Traffic\02. SIDRA\P000170 SIDRA Models.sip9

MOVEMENT SUMMARY

Site: 09 [INT09 (Site Folder: 33PM-W)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Anderson Drive / P5- Roundabout Control
2033 PM with no connection between P2 and P3
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Anderson Drive (S)															
2	T1	All MCs	317	5.0	317	5.0	0.209	4.1	LOS A	1.6	11.4	0.02	0.44	0.02	53.2
3	R2	All MCs	38	5.0	38	5.0	0.209	8.7	LOS A	1.6	11.4	0.02	0.44	0.02	53.6
Approach			355	5.0	355	5.0	0.209	4.6	LOS A	1.6	11.4	0.02	0.44	0.02	53.3
East: Road 85 (E)															
4	L2	All MCs	20	5.0	20	5.0	0.023	6.3	LOS A	0.1	0.9	0.55	0.56	0.55	52.7
6	R2	All MCs	1	5.0	1	5.0	0.023	11.1	LOS B	0.1	0.9	0.55	0.56	0.55	52.7
Approach			21	5.0	21	5.0	0.023	6.5	LOS A	0.1	0.9	0.55	0.56	0.55	52.7
North: Anderson Drive (N)															
7	L2	All MCs	1	5.0	1	5.0	0.273	4.1	LOS A	1.8	13.3	0.19	0.39	0.19	54.3
8	T1	All MCs	398	5.0	398	5.0	0.273	4.3	LOS A	1.8	13.3	0.19	0.39	0.19	52.7
Approach			399	5.0	399	5.0	0.273	4.3	LOS A	1.8	13.3	0.19	0.39	0.19	52.7
All Vehicles			775	5.0	775	5.0	0.273	4.5	LOS A	1.8	13.3	0.12	0.42	0.12	53.0

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

Organisation: PREMISE GROUP SERVICES PTY LTD | Licence: PLUS / 1PC | Processed: Sunday, 24 March 2024 2:05:16 PM
Project: C:\12dS\data\12dSynergy\P000170 Everleigh Traffic Movement_15965\14. Engineering - Traffic\02. SIDRA\P000170 SIDRA Models.sip9

APPENDIX L

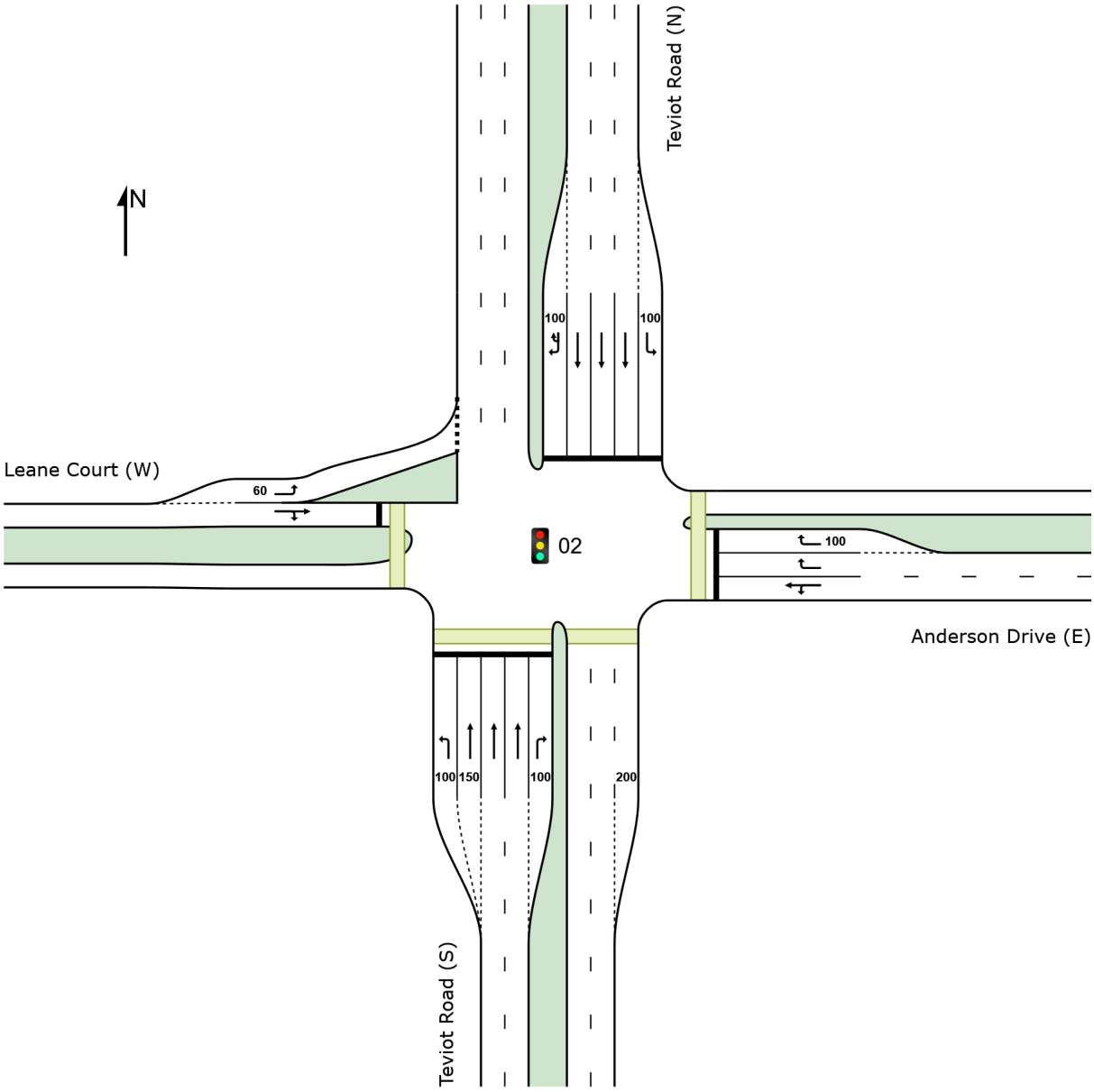
SIDRA OUTPUT – INTERSECTION 2: TEVIOT ROAD / LEANNE COURT / ANDERSON DRIVE SIGNALS

SITE LAYOUT

Site: 02 [INT02 (Site Folder: 2044AM)]

Teviot Road / Anderson Drive / Leane Court - Singals
2044 AM
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



PHASING SUMMARY

Site: 02 [INT02 (Site Folder: 2044AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Teviot Road / Anderson Drive / Leane Court - Singals
2044 AM
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Practical Cycle Time)

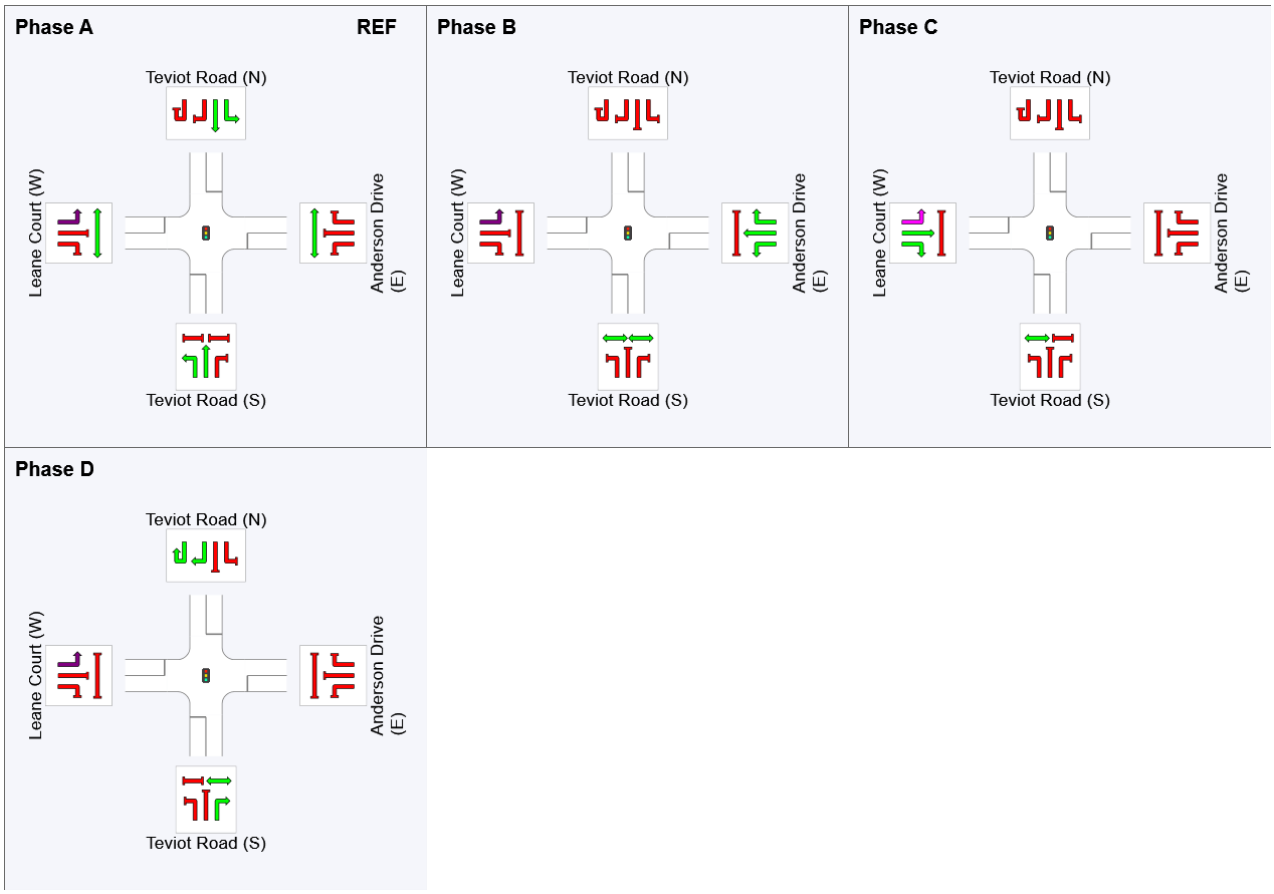
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Four-Phase Leading Right Turns
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	23	41	53
Green Time (sec)	17	12	6	11
Phase Time (sec)	23	18	12	17
Phase Split	33%	26%	17%	24%
Phase Frequency (%)	100.0	100.0	100.0	100.0

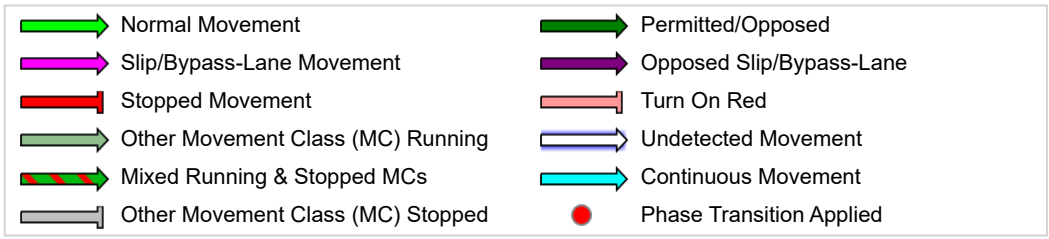
See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



MOVEMENT SUMMARY

Site: 02 [INT02 (Site Folder: 2044AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Teviot Road / Anderson Drive / Leane Court - Singals
2044 AM
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Practical Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Teviot Road (S)															
1	L2	All MCs	141	5.0	141	5.0	0.367	31.7	LOS C	4.3	31.0	0.90	0.78	0.90	38.7
2	T1	All MCs	1219	5.0	1219	5.0	* 0.886	38.3	LOS D	16.6	121.0	1.00	1.09	1.36	31.1
3	R2	All MCs	245	5.0	245	5.0	* 0.870	46.0	LOS D	9.9	72.0	1.00	1.05	1.42	28.7
Approach			1605	5.0	1605	5.0	0.886	38.9	LOS D	16.6	121.0	0.99	1.06	1.33	31.5
East: Anderson Drive (E)															
4	L2	All MCs	119	5.0	119	5.0	0.665	39.5	LOS D	6.5	47.1	0.99	0.85	1.08	32.0
5	T1	All MCs	67	5.0	67	5.0	0.665	31.0	LOS C	6.5	47.1	0.99	0.85	1.08	32.6
6	R2	All MCs	537	5.0	537	5.0	* 0.873	45.7	LOS D	10.8	79.1	1.00	1.05	1.41	18.4
Approach			723	5.0	723	5.0	0.873	43.3	LOS D	10.8	79.1	1.00	1.00	1.32	22.4
North: Teviot Road (N)															
7	L2	All MCs	241	5.0	241	5.0	0.627	33.8	LOS C	7.8	57.2	0.96	0.83	0.98	21.6
8	T1	All MCs	876	5.0	876	5.0	0.636	26.8	LOS C	9.3	67.6	0.95	0.81	0.96	36.5
9	R2	All MCs	68	5.0	68	5.0	0.769	41.3	LOS D	6.7	49.0	1.00	0.92	1.24	28.3
9u	U	All MCs	112	5.0	112	5.0	0.769	42.8	LOS D	6.7	49.0	1.00	0.92	1.24	17.2
Approach			1297	5.0	1297	5.0	0.769	30.2	LOS C	9.3	67.6	0.96	0.83	1.00	32.0
West: Leane Court (W)															
10	L2	All MCs	31	5.0	31	5.0	0.062	19.5	LOS B	0.6	4.7	0.71	0.68	0.71	38.5
11	T1	All MCs	49	5.0	49	5.0	* 0.675	37.3	LOS D	3.9	28.6	1.00	0.85	1.16	31.0
12	R2	All MCs	57	5.0	57	5.0	0.675	43.0	LOS D	3.9	28.6	1.00	0.85	1.16	35.9
Approach			137	5.0	137	5.0	0.675	35.7	LOS D	3.9	28.6	0.94	0.81	1.06	34.7
All Vehicles			3762	5.0	3762	5.0	0.886	36.6	LOS D	16.6	121.0	0.98	0.96	1.21	30.1

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Teviot Road (S)												
P11	Stage 1	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09

P12 Stage 2	50	53	12.6	LOS B	0.1	0.1	0.83	0.83	166.4	200.0	1.20
East: Anderson Drive (E)											
P2 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
West: Leane Court (W)											
P4 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
All Pedestrians	200	211	25.1	LOS C	0.1	0.1	0.89	0.89	179.0	200.0	1.12

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 02 [INT02 (Site Folder: 2044PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Teviot Road / Anderson Drive / Leane Court - Singals
2044 AM
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site Practical Cycle Time)

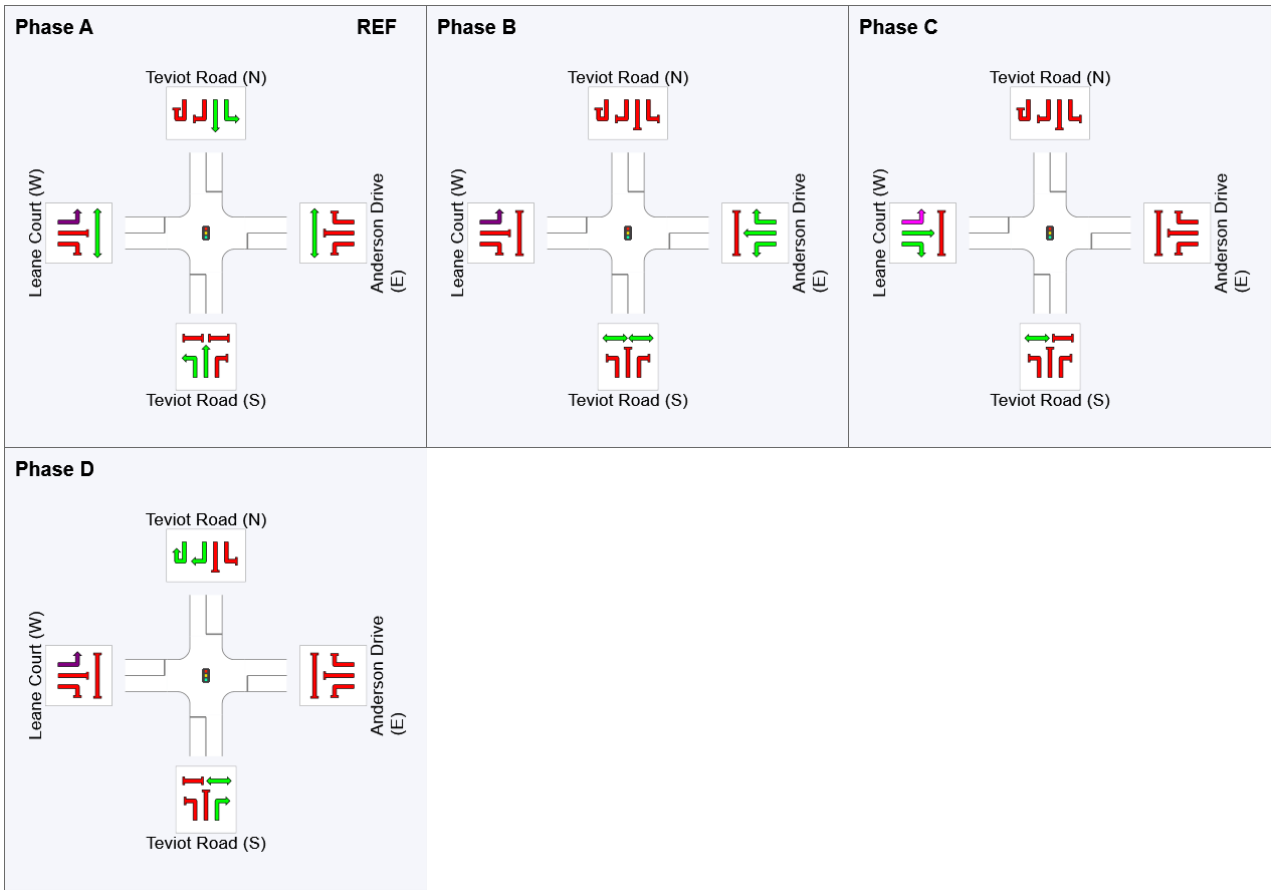
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Four-Phase Leading Right Turns
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	41	57	77
Green Time (sec)	35	10	14	17
Phase Time (sec)	41	16	20	23
Phase Split	41%	16%	20%	23%
Phase Frequency (%)	100.0	100.0	100.0	100.0

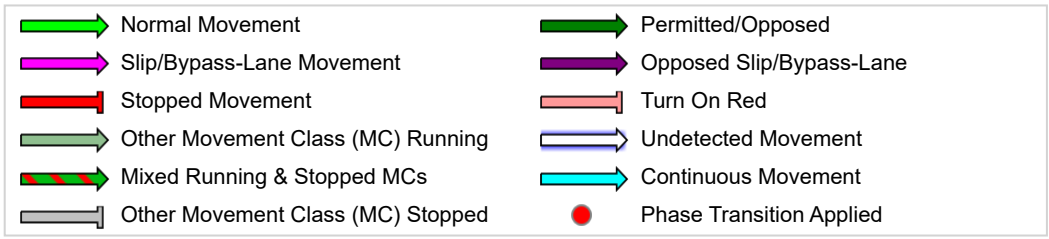
See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



MOVEMENT SUMMARY

Site: 02 [INT02 (Site Folder: 2044PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Teviot Road / Anderson Drive / Leane Court - Singals
2044 AM
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site Practical Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Teviot Road (S)															
1	L2	All MCs	62	5.0	62	5.0	0.108	31.3	LOS C	2.1	15.5	0.74	0.72	0.74	38.9
2	T1	All MCs	771	5.0	771	5.0	0.389	26.3	LOS C	9.4	68.8	0.80	0.68	0.80	36.6
3	R2	All MCs	259	5.0	259	5.0	* 0.849	57.2	LOS E	13.9	101.7	1.00	0.98	1.25	25.6
Approach			1092	5.0	1092	5.0	0.849	33.9	LOS C	13.9	101.7	0.84	0.75	0.90	33.3
East: Anderson Drive (E)															
4	L2	All MCs	72	5.0	72	5.0	0.732	61.9	LOS E	5.4	39.4	1.00	0.87	1.18	25.5
5	T1	All MCs	32	5.0	32	5.0	* 0.732	51.2	LOS D	5.4	39.4	1.00	0.87	1.18	25.6
6	R2	All MCs	254	5.0	254	5.0	0.707	56.6	LOS E	6.5	47.3	1.00	0.86	1.13	15.9
Approach			357	5.0	357	5.0	0.732	57.2	LOS E	6.5	47.3	1.00	0.87	1.14	19.2
North: Teviot Road (N)															
7	L2	All MCs	482	5.0	482	5.0	* 0.840	46.1	LOS D	24.4	178.3	1.00	0.93	1.13	17.8
8	T1	All MCs	1386	5.0	1386	5.0	0.699	30.8	LOS C	19.5	142.3	0.92	0.81	0.92	34.6
9	R2	All MCs	44	5.0	44	5.0	0.627	49.3	LOS D	7.4	53.8	0.98	0.83	1.01	25.8
9u	U	All MCs	111	5.0	111	5.0	0.627	50.8	LOS D	7.4	53.8	0.98	0.83	1.01	15.2
Approach			2023	5.0	2023	5.0	0.840	36.0	LOS D	24.4	178.3	0.94	0.84	0.98	29.4
West: Leane Court (W)															
10	L2	All MCs	55	5.0	55	5.0	0.066	13.1	LOS B	1.0	7.3	0.46	0.66	0.46	43.0
11	T1	All MCs	72	5.0	72	5.0	* 0.841	52.8	LOS D	11.5	84.1	1.00	0.99	1.26	26.0
12	R2	All MCs	143	5.0	143	5.0	0.841	58.5	LOS E	11.5	84.1	1.00	0.99	1.26	31.1
Approach			269	5.0	269	5.0	0.841	47.8	LOS D	11.5	84.1	0.89	0.92	1.10	31.1
All Vehicles			3741	5.0	3741	5.0	0.849	38.2	LOS D	24.4	178.3	0.92	0.82	0.98	29.6

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Teviot Road (S)												
P11	Stage 1	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01

P12 Stage 2	50	53	19.9	LOS B	0.1	0.1	0.88	0.88	173.7	200.0	1.15
East: Anderson Drive (E)											
P2 Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
West: Leane Court (W)											
P4 Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
All Pedestrians	200	211	38.2	LOS D	0.1	0.1	0.93	0.93	192.0	200.0	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 02 [INT02 (Site Folder: 33AM+N)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Teviot Road / Anderson Drive / Leane Court - Singals
2033 AM with Anderson Drive link
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site Practical Cycle Time)

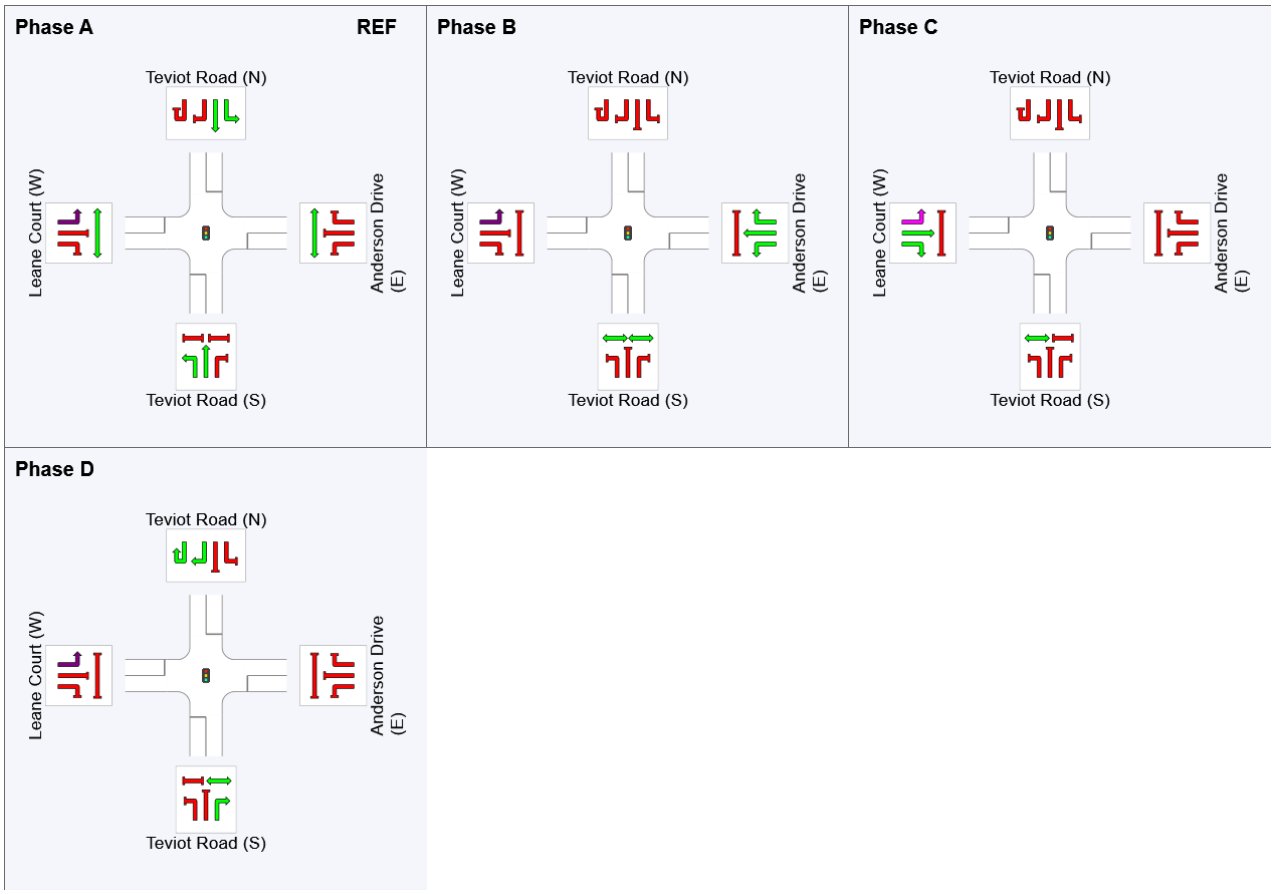
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Four-Phase Leading Right Turns
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	23	45	57
Green Time (sec)	17	16	6	17
Phase Time (sec)	23	22	12	23
Phase Split	29%	28%	15%	29%
Phase Frequency (%)	100.0	100.0	100.0	100.0

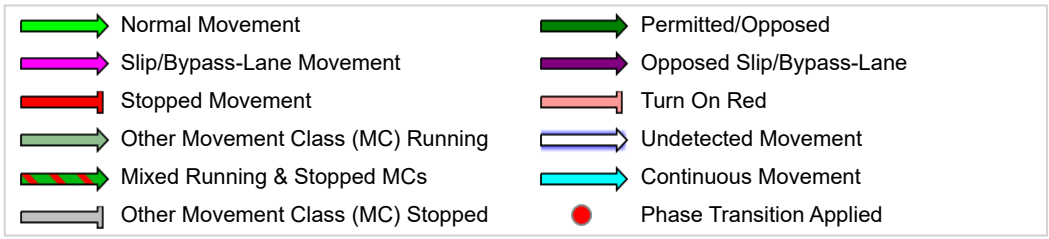
See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



MOVEMENT SUMMARY

Site: 02 [INT02 (Site Folder: 33AM+N)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Teviot Road / Anderson Drive / Leane Court - Singals
2033 AM with Anderson Drive link
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site Practical Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Teviot Road (S)															
1	L2	All MCs	134	5.0	134	5.0	0.398	37.4	LOS D	4.7	34.6	0.92	0.78	0.92	36.6
2	T1	All MCs	872	5.0	872	5.0	* 0.724	34.0	LOS C	11.3	82.2	0.99	0.88	1.07	32.9
3	R2	All MCs	287	5.0	287	5.0	* 0.754	40.9	LOS D	11.4	83.5	0.99	0.90	1.12	30.3
Approach			1293	5.0	1293	5.0	0.754	35.9	LOS D	11.4	83.5	0.98	0.87	1.07	32.8
East: Anderson Drive (E)															
4	L2	All MCs	159	5.0	159	5.0	0.686	41.9	LOS D	8.8	64.6	0.99	0.86	1.06	31.0
5	T1	All MCs	69	5.0	69	5.0	0.686	33.5	LOS C	8.8	64.6	0.99	0.86	1.06	31.4
6	R2	All MCs	558	5.0	558	5.0	* 0.778	42.6	LOS D	11.4	83.1	1.00	0.92	1.16	19.3
Approach			786	5.0	786	5.0	0.778	41.6	LOS D	11.4	83.1	1.00	0.90	1.13	23.3
North: Teviot Road (N)															
7	L2	All MCs	246	5.0	246	5.0	0.733	41.7	LOS D	9.8	71.5	1.00	0.88	1.11	19.0
8	T1	All MCs	860	5.0	860	5.0	0.714	34.0	LOS C	11.0	80.6	0.98	0.87	1.06	33.0
9	R2	All MCs	68	5.0	68	5.0	0.569	37.3	LOS D	6.6	47.9	0.95	0.81	0.95	29.7
9u	U	All MCs	112	5.0	112	5.0	0.569	38.9	LOS D	6.6	47.9	0.95	0.81	0.95	18.3
Approach			1286	5.0	1286	5.0	0.733	36.1	LOS D	11.0	80.6	0.98	0.86	1.05	29.3
West: Leane Court (W)															
10	L2	All MCs	29	5.0	29	5.0	0.052	17.1	LOS B	0.6	4.4	0.61	0.67	0.61	40.1
11	T1	All MCs	51	5.0	51	5.0	* 0.764	44.6	LOS D	4.5	33.2	1.00	0.90	1.27	28.6
12	R2	All MCs	55	5.0	55	5.0	0.764	50.3	LOS D	4.5	33.2	1.00	0.90	1.27	33.6
Approach			135	5.0	135	5.0	0.764	40.9	LOS D	4.5	33.2	0.92	0.85	1.13	32.7
All Vehicles			3500	5.0	3500	5.0	0.778	37.4	LOS D	11.4	83.5	0.98	0.87	1.08	29.6

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Teviot Road (S)												
P11	Stage 1	50	53	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06

P12 Stage 2	50	53	14.8	LOS B	0.1	0.1	0.85	0.85	168.6	200.0	1.19
East: Anderson Drive (E)											
P2 Full	50	53	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
West: Leane Court (W)											
P4 Full	50	53	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
All Pedestrians	200	211	29.4	LOS C	0.1	0.1	0.91	0.91	183.3	200.0	1.09

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 02 [INT02 (Site Folder: 33PM+N)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Teviot Road / Anderson Drive / Leane Court - Singals
2033 PM with Anderson Drive link
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site Practical Cycle Time)

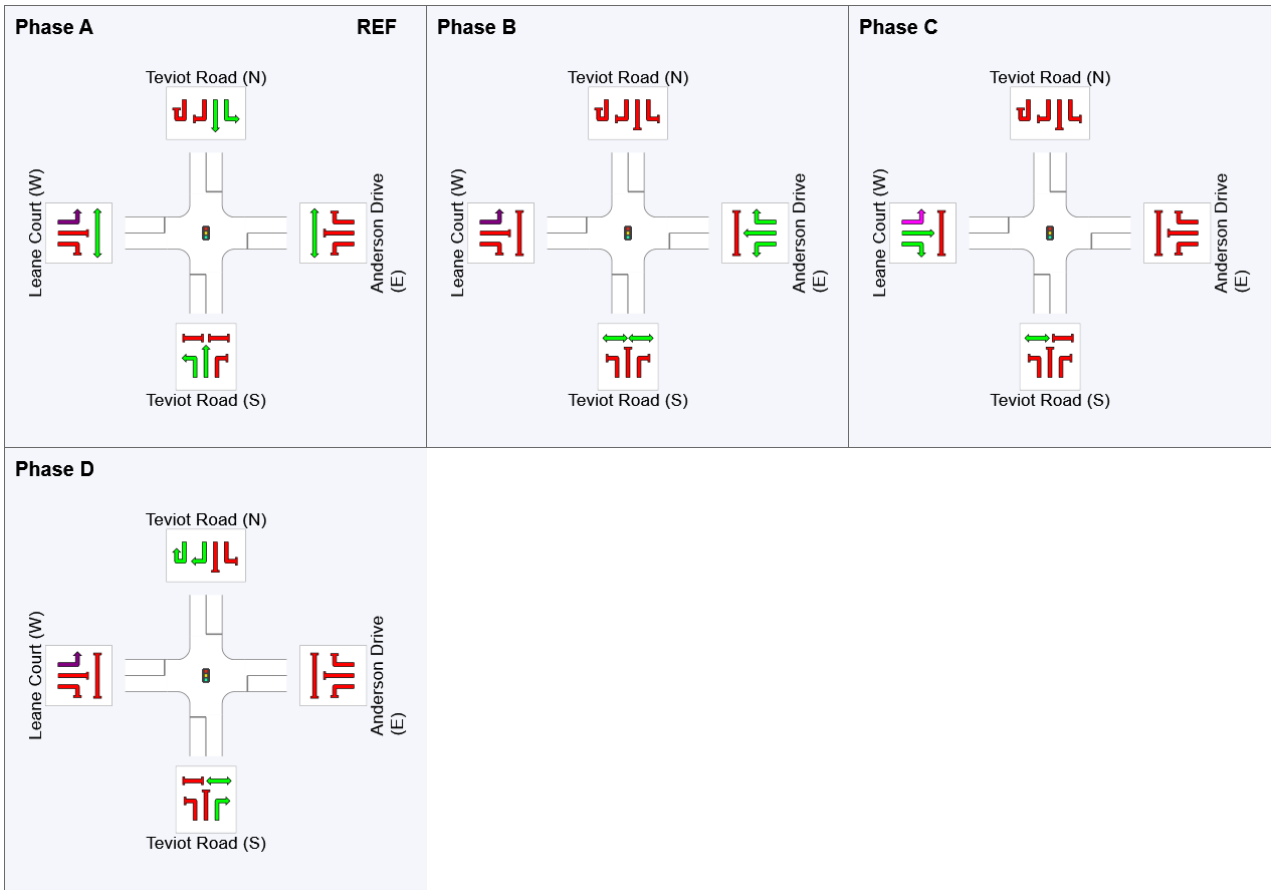
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Four-Phase Leading Right Turns
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	42	58	77
Green Time (sec)	36	10	13	17
Phase Time (sec)	42	16	19	23
Phase Split	42%	16%	19%	23%
Phase Frequency (%)	100.0	100.0	100.0	100.0

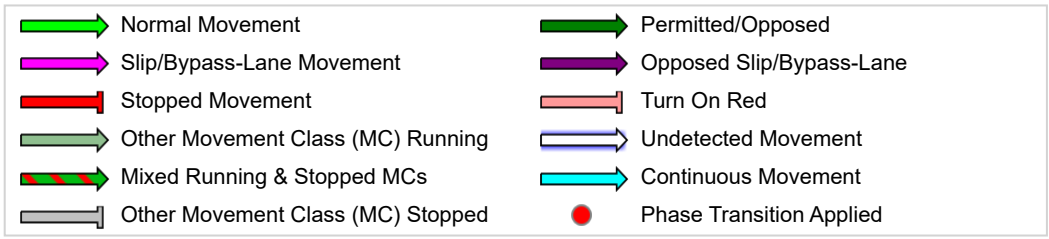
See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



MOVEMENT SUMMARY

Site: 02 [INT02 (Site Folder: 33PM+N)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Teviot Road / Anderson Drive / Leane Court - Singals
2033 PM with Anderson Drive link
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site Practical Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Teviot Road (S)															
1	L2	All MCs	58	5.0	58	5.0	0.098	30.4	LOS C	1.9	14.2	0.72	0.72	0.72	39.2
2	T1	All MCs	737	5.0	737	5.0	0.361	25.3	LOS C	8.8	64.3	0.78	0.66	0.78	37.2
3	R2	All MCs	262	5.0	262	5.0	*0.860	58.1	LOS E	14.3	104.1	1.00	0.99	1.27	25.4
Approach			1057	5.0	1057	5.0	0.860	33.7	LOS C	14.3	104.1	0.83	0.74	0.90	33.4
East: Anderson Drive (E)															
4	L2	All MCs	72	5.0	72	5.0	0.743	61.3	LOS E	5.5	40.4	1.00	0.88	1.19	25.4
5	T1	All MCs	34	5.0	34	5.0	*0.743	51.5	LOS D	5.5	40.4	1.00	0.88	1.19	25.5
6	R2	All MCs	266	5.0	266	5.0	0.743	57.4	LOS E	6.9	50.3	1.00	0.89	1.17	15.8
Approach			372	5.0	372	5.0	0.743	57.7	LOS E	6.9	50.3	1.00	0.89	1.17	19.0
North: Teviot Road (N)															
7	L2	All MCs	505	5.0	505	5.0	*0.854	46.8	LOS D	26.0	190.2	1.00	0.94	1.15	17.6
8	T1	All MCs	1033	5.0	1033	5.0	0.506	27.3	LOS C	13.2	96.1	0.83	0.72	0.83	36.3
9	R2	All MCs	43	5.0	43	5.0	0.624	49.2	LOS D	7.3	53.4	0.98	0.82	1.00	25.8
9u	U	All MCs	111	5.0	111	5.0	0.624	50.8	LOS D	7.3	53.4	0.98	0.82	1.00	15.2
Approach			1692	5.0	1692	5.0	0.854	35.2	LOS D	26.0	190.2	0.90	0.80	0.95	28.9
West: Leane Court (W)															
10	L2	All MCs	55	5.0	55	5.0	0.066	12.7	LOS B	1.0	7.1	0.45	0.65	0.45	43.3
11	T1	All MCs	75	5.0	75	5.0	*0.887	57.5	LOS E	11.9	86.6	1.00	1.04	1.37	24.8
12	R2	All MCs	136	5.0	136	5.0	0.887	63.2	LOS E	11.9	86.6	1.00	1.04	1.37	30.0
Approach			265	5.0	265	5.0	0.887	51.2	LOS D	11.9	86.6	0.89	0.96	1.18	30.0
All Vehicles			3385	5.0	3385	5.0	0.887	38.5	LOS D	26.0	190.2	0.89	0.80	0.97	29.2

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Teviot Road (S)												
P11	Stage 1	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01

P12 Stage 2	50	53	20.0	LOS C	0.1	0.1	0.88	0.88	173.9	200.0	1.15
East: Anderson Drive (E)											
P2 Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
West: Leane Court (W)											
P4 Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
All Pedestrians	200	211	38.2	LOS D	0.1	0.1	0.93	0.93	192.1	200.0	1.04

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

APPENDIX M

TRAFFIC IMPACT ASSESSMENT CERTIFICATION

CERTIFICATION OF TRAFFIC IMPACT ASSESSMENT REPORT

REGISTERED PROFESSIONAL ENGINEER QUEENSLAND

FOR

Project Title	Everleigh ROL13: Traffic Impact Assessment

As a professional engineer registered by the Board of Professional Engineers of Queensland pursuant to the *Professional Engineers Act 2002* as competent in my areas of nominated expertise, I understand and recognise:

- The significant role of engineering as a profession; and that
- The community has a legitimate expectation that my certification affixed to this engineering work can be trusted; and that
- I am responsible for ensuring its preparation has satisfied all necessary standards, conduct and contemporary practice.

As the responsible RPEQ, I certify:

i) I am satisfied that all submitted components comprising this traffic impact assessment, listed in the following table, have been completed in accordance with the Guide to Traffic Impact Assessment published by the Queensland Department of Transport and Main Roads and using sound engineering principles; and
ii) Where specialised areas of work have not been under my direct supervision, I have reviewed the outcomes of the work and consider the work and its outcomes as suitable for the purposes of this traffic impact assessment; and that
iii) The outcomes of this traffic impact assessment are a true reflection of results of assessment; and that
iv) I believe the strategies recommended for mitigating impacts by this traffic impact assessment, embrace contemporary practice initiatives and will deliver the desired outcomes.

Name	Bradley Jones
RPEQ No.	19986
RPEQ Competencies	Civil
Email	Bradley.Jones@premise.com.au
Postal Address	PO Box 1110, Townsville QLD 4810
Signature	
Date	30 March 2024

Traffic impact assessment components to which this certification applies	☒
1. Introduction	
Background	☒
Scope and study area	☒
Pre-lodgement meeting notes	☐
2. *Existing Conditions*	
Land use and zoning	☒
Adjacent land uses / approvals	☒
Surrounding road network details	☒
Traffic volumes	☐
Intersection and network performance	☐
Road safety issues	☐
Site access	☒
Public transport (if applicable)	☒
Active transport (if applicable)	☐
Parking (if applicable)	☐
Pavement (if applicable)	☐
Transport infrastructure (if applicable)	☐
3. *Proposed Development Details*	
Development site plan	☒
Operational details (including year of opening each stage and any relevant catchment / market analysis)	☒
Proposed access and parking	☒
4. *Development Traffic*	
Traffic generation (by development stage if relevant and considering light and heavy vehicle trips)	☒
Trip distribution	☒
Development traffic volumes on the network	☒
5. *Impact Assessment and Mitigation*	
With and without development traffic volumes	☒
Construction traffic impact assessment and mitigation (if applicable)	☐
Road safety impact assessment and mitigation	☐
Access and frontage impact assessment and mitigation	☒
Intersection delay impact assessment and mitigation	☒
Road link capacity assessment and mitigation	☒
Pavement impact assessment and mitigation	☐
Transport infrastructure impact assessment and mitigation	☐
Other impacts assessment relevant to the specific development type / location (if applicable)	☐
6. *Conclusions and Recommendations*	
Summary of impacts and mitigation measures proposed	☒
Certification statement and authorisation	☒

Premise