TRAFFIC & CIVIL SERVICES

WYNYARD SPORTS PRECINCT
AUSTIN STREET TRAFFIC MANAGEMENT
WYNYARD

TRAFFIC IMPACT ASSESSMENT

JANUARY 2023

Wynyard Sports Precinct – Austin Street Traffic Management, Wynyard

TRAFFIC IMPACT ASSESSMENT

- Draft 2
- January 2023

Traffic & Civil Services
ABN 72617648601
1 Cooper Crescent
Riverside
Launceston TAS 7250 Australia
P: +61 3 6334 8168
M: 0456 535 746
E: Richard.burk@trafficandcivil.com.au
W: www.trafficandcivil.com.au

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1. Introduction

1.1 Background

A Wynyard Sports Precinct Development is proposed either side of Austin Street on the Southern side of the Jenner Street junction. A Traffic Impact Assessment (TIA) has been prepared to assess options for management of traffic in the vicinity of the proposal and Austin Street that considers the existing roads, current and future traffic activity for each option and the impact of each option on the adjacent road network.
This Traffic Impact Assessment (TIA) should be submitted with the development application for the proposal and has been prepared based on Department of State Growth guidelines and provide details as follows:

- Anticipated additional traffic and pedestrian movements.
- The significance of the impact of these movements on the existing road network
- Any changes required to accommodate the additional traffic.

1.2 Objectives

A Traffic Impact Assessment is a means for assisting in the planning and design of sustainable development proposals that consider:

- Safety and capacity
- Equity and social justice
- Economic efficiency and the environment and
- future development with traffic projections for 10 years

1.3 Scope of Traffic Impact Assessment (TIA)

This TIA considers in detail the impact of the proposal on the surrounding road network including Austin Street, Saunders Street, Jenner Street, Park Street, Gibbons Street, Hales Street and Inglis Street and the intersections involving these streets.

1.4 References

- RTA Guide to Traffic Generating Developments – 2002
- Waratah Wynyard Interim Planning Scheme – 2013
- Austroads Guidelines:
    - Guide to Road Design Part 4A Unsignalised and Signalised Intersections 2021
    - Guide to Traffic Management . Part 6: Inter., Interchanges & Crossings 2020.

1.5 Glossary of Terms

AADT	Annual Average Daily Traffic - The total number of vehicles travelling in both directions passing a point in a year divided by the number of days in a year.
Acceleration Lane	An auxiliary lane used to allow vehicles to increase speed without interfering with the main traffic stream. It is often used on the departure side of intersections.
Access	The driveway by which vehicles and/or pedestrians enter and/or leave the property adjacent to a road.
ADT	Average Daily Traffic – The average 24-hour volume being the total number of vehicles travelling in both directions passing a point in a stated period divided by the stared number of days in that period.
Austroads	The Association of Australian and New Zealand road transport and traffic authorities and includes the Australian Local Government Association.
Delay	The additional travel time experiences by a vehicle or pedestrian with reference to a vase travel time (e.g. the free flow travel time).
DSG	Department of State Growth – The Tasmanian Government Department which manages the State Road Network.
GFA	Gross Floor Area
Intersection Kerb	The place at which two or more roads meet or cross. A raised border of rigid material formed at the edge of a carriageway, pavement or bridge.
km/h	Kilometres per hour
Level of Service	An index of the operational performance of traffic on a given traffic lane, carriageway or road when accommodating various traffic volumes under different combinations of operating conditions. It is usually defined in terms of the convenience of travel and safety performance.
m	Metres
Median	A strip of road, not normally intended for use by traffic, which separates carriageways for traffic in opposite directions. Usually formed by painted lines, kerbed and paved areas grassed areas, etc.
Movement	A stream of vehicles that enters from the same approach and departs from the same exit (i.e. with the same origin and destination).
Phase	The part of a signal cycle during which one or more movements receive right-of -way subject to resolution of any vehicle or pedestrian conflicts by priority rules. A phase is identified by at least one movement gaining right-of-way at the start of it and at least one movement losing right-of-way at the end of it.

Sight Distance	The distance, measured along the road over which visibility occurs between a driver and an object or between two drivers at specific heights above the carriageway in their lane of travel.
Signal Phasing	Sequential arrangement of separately controlled groups of vehicle and pedestrian movements within a signal cycle to allow all vehicle and pedestrian movements to proceed.
SISD	Safe Intersection Sight Distance – The sight distance provides sufficient distance for a driver of a vehicle on the major road to observe a vehicle on a minor road approach moving into a collision situation and to decelerate to a stop before reaching the collision point.
Speed	Distance travelled per unit time.
85th Percentile	The speed at which 85% of car drivers will travel slower and 15% will travel faster.
	A control method that allows a variable sequence and variable duration of signal displays depending on vehicle and pedestrian traffic demands.
Traffic-actuated Control	A control method that allows a variable sequence and variable duration of signal displays depending on vehicle and pedestrian tragic demands.
Traffic Growth Factor	A factor used to estimate the percentage annual increase in traffic volume.
Trip	A one-way vehicular movement from one point to another excluding the return journey. Therefore, a vehicle entering and leaving a land use is counted as two trips. (RTA Guide to Traffic generating Developments).
Turning Movement	The number of vehicles observed to make a particular turning movement (left or right turn, or through movement) at an intersection over a specified period.
Turning Movement Count	A traffic count at an intersection during which all turning movements are recorded.
Vehicle Actuated Traffic Signals	Traffic signals in which the phasing varies in accordance with the detected presence of vehicles on the signal approaches.
vpd	vehicles per day – The number of vehicles travelling in both directions passing a point during a day from midnight to midnight.
vph	vehicles per hour – The number of vehicles travelling in both directions passing a point during an hour.

1.6 Statement of Qualifications and Experience

This TIA has been prepared by Richard Burk, an experienced and qualified traffic engineer in accordance with the requirements of the Department of State Growth's guidelines and Council's requirements. Richard's experience and qualifications include:

- 35 years professional experience in road and traffic engineering industry
    - Director Traffic and Civil Services Pty Ltd since May 2017
    - Manager Traffic Engineering, Department of State Growth until May 2017.
    - Previous National committee memberships of Austroads Traffic Management and State Road Authorities Pavement Marking Working Groups
- Master of Traffic, Monash University, 2004
- Post Graduate Diploma in Management, Deakin University, 1995
- Bachelor of Civil Engineering, University of Tasmania, 1987
-

Richard Burk

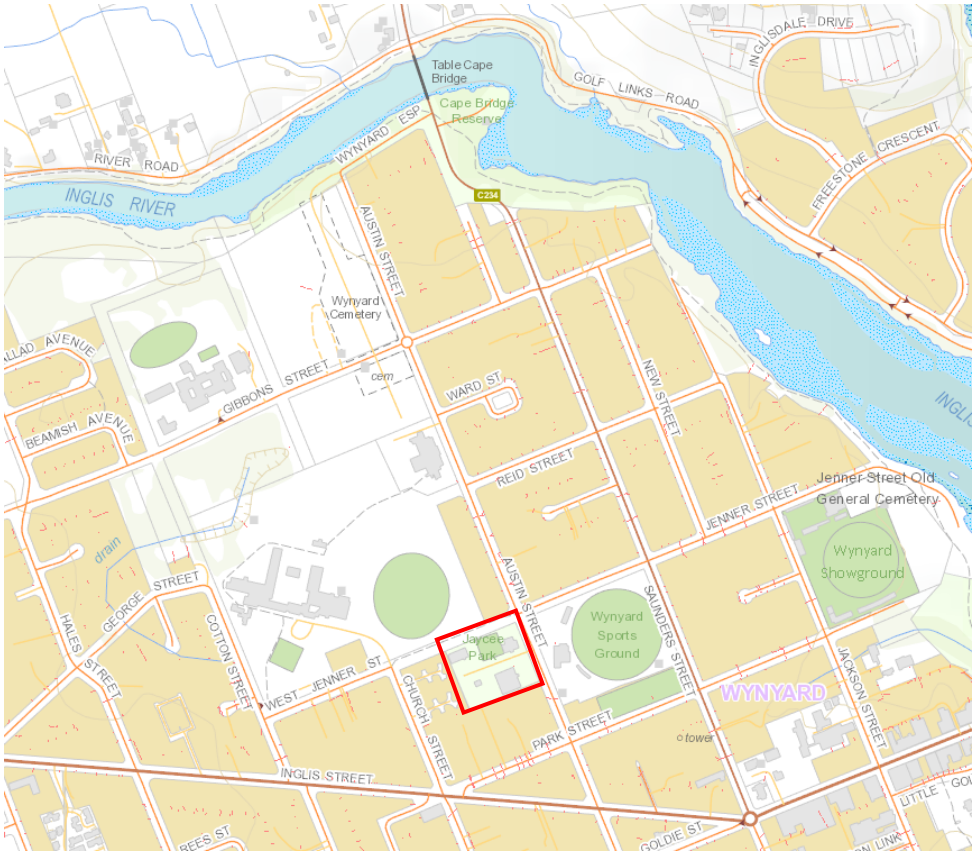
BE (Civil) M Traffic Dip Man. MIE Aust CPEng
Director Traffic and Civil Services Pty Ltd

2. Site Description

Sport facilities operate either side of Austin Street, South of the Jenner Street junction. WWC propose to support the facilities with improved off-street parking, safer access for pedestrians and cyclists and recognition of the area as the Wynard Sport Precinct. Figures 1 & 2 show the development and an aerial view of the existing facilities including:

- Jaycee Park
  - Wynyard Sports Centre
  - Basketball stadium
  - Tennis & Squash courts
  - Wynyard Concert Band
  - Community Garden
- Wynyard Bowls Club (Park Street)
- Wynyard Sports Ground
- Wynyard High School (Church Street) Sports Ground

Figure 1 -Development site



Source: LISTmap, DPIPWE

Figure 2 – Aerial view of development site

Source: LISTmap, DPIPWE

3. Proposed Development

3.1 Description of Proposed Development

The proposal is to develop the site as shown in Figure 3 with formalised off-street car parking , removal of through traffic, safer access for all road users including pedestrians, landscaping and enhancement of the existing infrastructure.

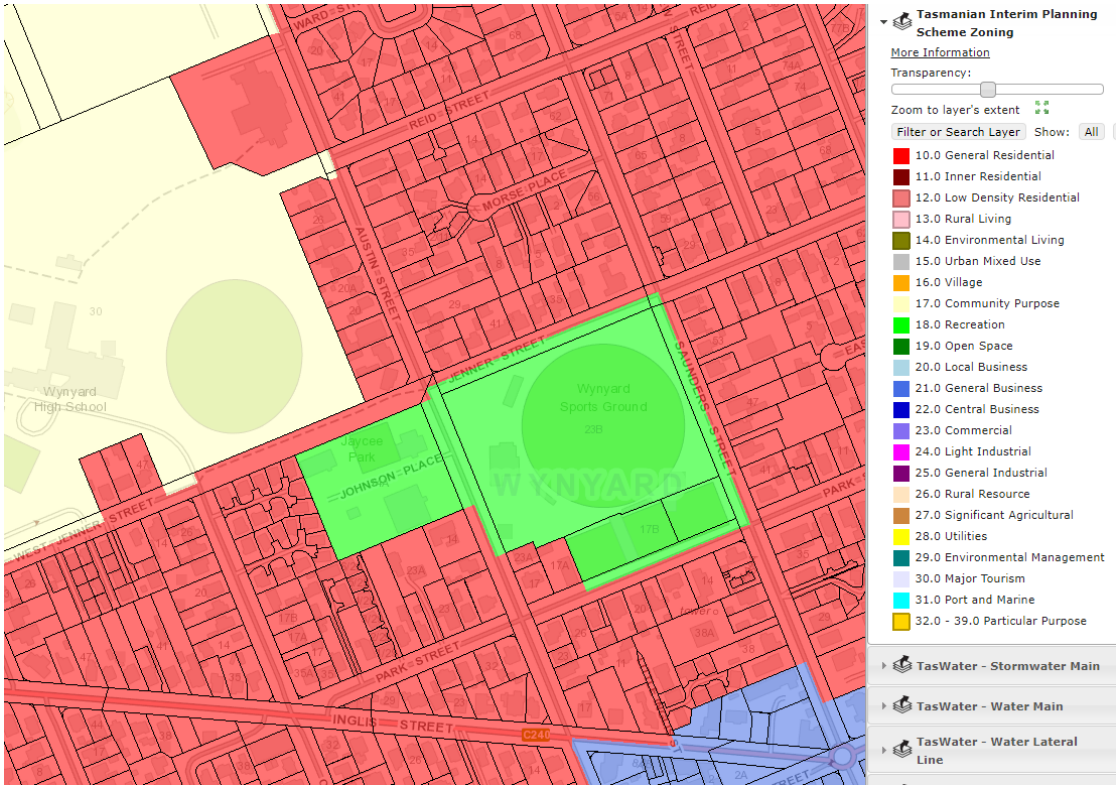
To achieve the safest possible outcome WWC propose making Austin Street a No Through Road, see Figure 3. Also see Appendix A for the overall plan.

Figure 3 – Extract from proposed development layout

3.2 Council Planning Scheme

The development site is zoned Recreation in accordance with the Waratah – Wynyard Interim Planning Scheme – 2013, see Figure 4a.

Figure 4a – Proposed development site is zoned Recreation.



Source: LISTmap, DPIPWE

3.3 Local Road Network Objectives

The Waratah Wynyard Council objective is to maintain traffic safety and transport efficiency of the Council Road network.

4. Existing Conditions

4.1 Transport Network

The local transport system within the study area consists of Inglis Street which has a sub-arterial function, Saunders Street which is a Collector Road and Austin, Gibbons and Hale Streets which are local roads. Jenner and Park Streets are short residential streets. The remainder of the roads have local access function and are primarily residential streets. All the roads within the study area are Council Roads.

Council's Road Hierarchy for these roads at Wynard is shown in Figure 4b, also see Appendix K.

Figure 4b – Extract from Wynyard Road Hierarchy

4.2 Inglis Street

Inglis Street has a sub arterial function with estimated AADT of 6,600 vpd (2022) and is part of the Tasmanian 26m B Double Network, see Appendix D. The road has a speed limit of 60km/h on the approaches to Hale and Austin Streets. Inglis Street has a 50km/h speed limit on the approaches to the Saunders Street roundabout.

Inglis Street has 2.5m wide parking and 4.0m wide traffic lanes in each direction. Footpath is provided both sides of the road with one pedestrian island provided for crossing the road.

Delineation is provided with streetlighting and line marking with a Separation line.

4.2.1 Inglis Street / Austin Street intersection

The Inglis Street / Austin Street intersection is shown in Figures 5-10.

Figure 5– Aerial view of Inglis St. / Austin St. junction

Source: LISTmap, DPIPWE

Figure 6 – Looking right along Inglis St. from Austin St.

Sight distance right is 150m.

Figure 7 – Looking left along Inglis St. from Austin St.

Sight distance left is 150m.

Figure 8 – Inglis Street Eastern approach to Austin St.

Figure 9 – Austin St. (North) approach to Inglis St.

4.2.2 Austin Street

Austin Street has a very minor collector road function with estimated AADT of 1,050 vpd (2022) and the General Urban Speed Limit of 50km/h applies.

Austin Street varies in width, progressively narrowing from 14.3m at Inglis Street to 11m on the North side of Jenner Street and 8.4m on the North side of Reid Street.

The road supports on street parking and footpath is provided on the East side. Delineation is provided with streetlighting .

4.2.3 Austin Street / Park Street intersection

The Austin Street / Park Street intersection is shown in Figures 10 – 12.

Figure 10 – Aerial view of Austin St. / Park St. intersection

Source: LISTmap, DPIPWE

Figure 11 – Austin Street Northern approach to Park St.

Figure 12 – Park St. Eastern approach to Austin St.

4.2.4 Park Street

Park Street is a local access road with estimated AADT of 300 vpd (2022) and the General Urban Speed Limit of 50km/h applies. The road provides access to the Wynyard Bowls Club.

Park Street is 13.4m wide and supports angle parking on the North side and parallel parking on the South side. The parking spaces are delineated with line marking.

Footpath is provided both sides of the road and streetlighting.

4.2.5 Austin Street / Jenner Street junction

The Austin Street / Jenner Street junction is shown in Figures 13 – 18.

Figure 13 – Aerial view of Austin St. / Jenner St. junction

Source: LISTmap, DPIPWE

Junction has a Simple Right and Left layout.

Figure 14 – Looking right along Austin St. from Jenner St.

Sight distance Right is 200m.

Figure 15 – Looking left along Austin St. from Jenner St.

Sight distance left is 200m.

Figure 16 – Austin St. Southern approach to Jenner St.

Figure 17 – Austin St. Southern approach to Jenner St.

4.2.6 Austin Street / Reid Street junction

The Austin Street / Reid Street junction is shown in Figures 18 – 19.

Figure 18 – Aerial view of Austin St. / Reid St. junction

Source: LISTmap, DPIPWE

Figure 19 – Austin St. Southern approach to Reid St.

4.2.7 Jenner Street

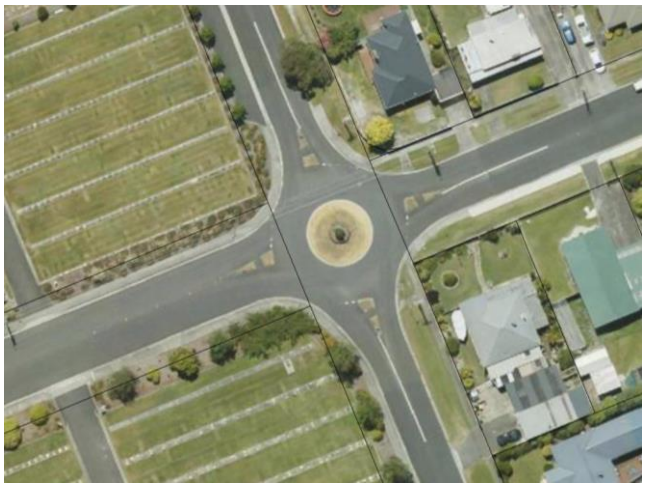
Jenner Street has estimated AADT of 220 vpd (2022) and the General Urban Speed Limit of 50km/h applies.

Jenner Street is 12.3m wide and supports on street parking both sides. Footpath is provided along the North side of the road and has streetlighting .

4.2.8 Gibbons Street / Austin Street intersection

The Gibbons Street / Austin Street Roundabout is shown in Figures 20– 21.

Figure 20 – Aerial view of Gibbons St. / Austin St. roundabout



Source: LISTmap, DPIPWE

Figure 21a – Austin St. (West) approach to Gibbons St.

Sight distance right is 10m and 50m with bush removal.

Figure 21b – Austin St. (North) approach to Gibbons St.

Sight distance right is 35m and 62m with bush removal

Figure 21c – Austin St. (South) approach to Gibbons St.

Sight distance right is 62m.

Figure 21d – Austin St. (East) approach to Gibbons St.

Sight distance right is 50m and 62 with tree removal.

4.2.9 Gibbons Street

Gibbons Street has a minor collector road function with estimated AADT of 1,500 vpd (2022) and provides access to Table Cape Primary School (TCPS) and Wynyard High School on the North and South sides of the road respectively.

When the Electronic 40 Km/hr School Zone is not operating the General Urban Speed Limit of 50km/h applies. Gibbons Street varies in width between 12 and 10.3m at the Saunders Street intersection. The road supports on street parking either side.

Footpath is provided on both sides of the road and a School Crossing is provided at the Table Cape Primary School, see Figures 22 & 23. Road delineation is provided with streetlighting and marked car parking spaces both sides.

Figure 22 – Gibbons St. Eastern approach to TCPS Crossing

Figure 23 – Gibbons St. at TCPS Crossing

4.2.10 Hales Street / Gibbons Street intersection

The Hales Street / Gibbons Street intersection is shown in Figures 24– 26.

Figure 24 – Aerial view of Hale St. / Gibbons St. intersection

Junction has a Simple Right and Left layout

Source: LISTmap, DPIPWE

Figure 25 – Hales St. Southern approach to Gibbon St.

Figure 26 – Gibbons St. Eastern approach to Hales St.

4.2.11 Hales Street

Hales Street has a minor collector road function with estimated AADT of 2,300 vpd (2022) and the General Urban Speed Limit of 50km/h applies.

Hales Street is 13.7m wide and supports on street parking and footpath is provided mostly on both sides of the road.

Delineation is provided with streetlighting and some B3 Barrier line on the winding sections.

4.2.12 Inglis Street / Hales Street intersection

The Inglis Street / Hales Street intersection is shown in Figures 27– 29.

Figure 27 – Aerial view of Inglis St. / Hales St. intersection

Source: LISTmap, DPIPWE

Figure 28 – Inglis St. Eastern approach to Hales St.

Figure 29 – Hales St. Northern approach to Inglis St.

4.2.13 Inglis Street / Saunders Street intersection

The Inglis Street / Saunders Street intersection is shown in Figures 30-31.

Figure 30– Aerial view of Inglis St. / Saunders St. intersection.

Source: LISTmap, DPIPWE

Figure 31a – Saunders St. Northern approach

Sight distance right is 20m.

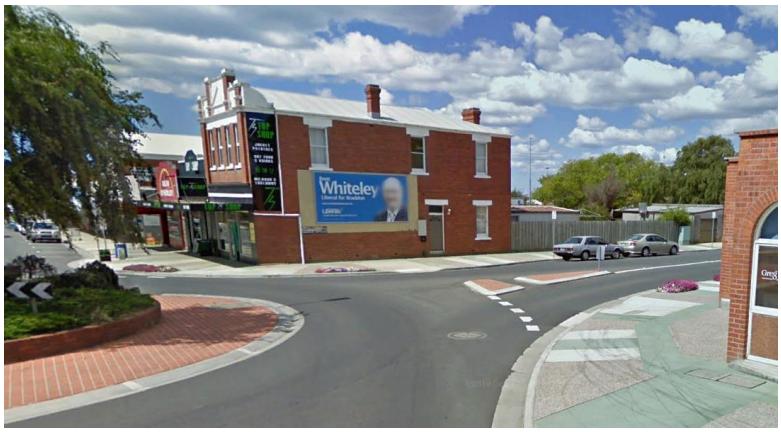
Figure 31b – Saunders St. Southern approach

Sight distance right is 20m.

Figure 31c – Goldie St. Eastern approach

Sight distance right is 70m.

Figure 31d – Inglis St. Western approach



Sight distance right is 20m.

4.2.14 Saunders Street

Saunders Street has a Collector Road function with estimated AADT of 2,500 vpd (2022) and has a posted 60km/h speed limit.

Saunders Street supports on street parking and varies in width:

- Inglis to Park Street – 12.8m with footpath both sides
- Park to Jenner Street – 14.3m with footpath both sides
- Jenner to Table Cape Bridge – 10.3m with footpath on the East Side
- Table Cape Bridge 7.5m plus a footpath on the East side.

Delineation is provided with street lighting and line marked with Separation Line B3 Barrie line on the reverse curves South of Table Cape Bridge.

4.2.15 Saunders / Park Street intersection

The Saunders St. / Park St. intersection is shown in Figures 32 – 33.

Figure 32 – Aerial view of Saunders St. / Park St, intersection

Source: LISTmap, DPIPWE

Figure 33 – Saunders St Northern approach to Park St.

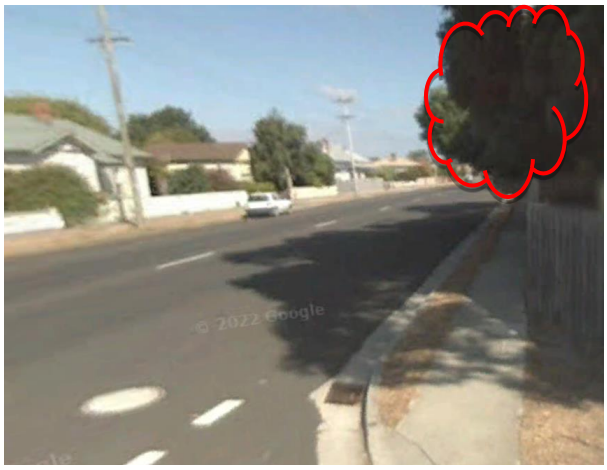
4.2.16 Saunders / Jenner Street junction

The Saunders St. / Jenner St. intersection is shown in Figures 34 – 37.

Figure 34 – Aerial view of Saunders St. / Jenner St. intersection

Source: LISTmap, DPIPWE

Figure 35 – Looking right along Saunders St. from Jenner St. (West)



Sight distance right is 50m and 123m with tree pruning.

Source: Google Maps

Figure 36 – Looking left along Saunders St. from Jenner St. (West)

Sight distance left is 123m.

Figure 37 – Saunders St Northern approach to Jenner St.

Source: LISTmap, DPIPWE

4.2.17 Saunders / Gibbons Street intersection

The Saunders / Gibbons Street intersection is shown in Figures 38 – 43.

Figure 38 – Aerial view of Saunders St. / Gibbons St. intersection.

Source: LISTmap, DPIPWE

Figure 39 – Looking right along Saunders St. from Gibbons St. (West)

Sight distance left is 123m.

Figure 40 – Looking left along Saunders St. from Gibbons St. (West)

Sight distance left is 60m and 123m with tree pruning.

Figure 41 – Saunders St Northern approach to Gibbons St.

Figure 42 – Saunders St Southern approach to Gibbons St.

Figure 43 – Gibbons St. (West) approach to Saunders St.

4.2.18 Saunders Street (Table Cape Bridge)

The Saunders Street Southern approach to Table Cape Bridge is shown in Figure 44.

Figure 44 – Saunders St. Southern approach to Table Cape Bridge

4.3 Traffic Activity

WWC traffic survey data from Sept – Oct 2022 is attached in Appendix B. Metrocount speed data is attached in Appendix C and Metrocount traffic flow data is attached in Appendix L. Figure 45 summarises the traffic data.

Figure 45 – Estimated AADT (2022) for surrounding road network

Road	Location	Data Source	Traffic Counts				Traffic Speeds		
			AM Peak (vph)	PM Peak (vph)	AADT (vpd)	Average AADT (vpd)	Posted Limit (km/h)	85th% Speed (km/h)	Site
Inglis St.	At Hales St.	WWC	620	586	6030	6,500	60	54.36	50km/h Sign
	At Austin St.	WWC	610	718	6640				
	At Saunders St.	TCS	700	700	7000				
Austin St.	Jenner St.	WWC	106	132	1190	1,050	50	59.40	PP510206
	Inglis St.	WWC	100	80	900				
Saunders St.	Inglis St.	TCS	250	260	2550	2,500	60	63.00	PP372796
	Park St.	WWC	245	254	2500				
	Jenner St.	TCS	250	235	2420				
	Gibbons St.	WWC	256	216	2360				
Hales St.	Gibbons St.	WWC	257	192	2245	2,300	50		
	Inglis St.	WWC	258	225	2415				
Park St.	Saunders St.	WWC	28	34	310	300	50	42.48	PP125158
Jenner St.	Saunders St.	TCS	16	29	220	220	50	50.58	PP125326
	Austin St.	WWC	16	29	220				
Gibbons St.	Saunders St.	WWC	162	103	1320	1,500	50	58.86	PP124319
	Austiin St.	TCS	189	119	1537				
	Hales St.	WWC	216	135	1755				

Final estimates from WWC 2022 Metrocount data

PP | Power Pole

Initial estimates by TCS from interpolation of WWC turning count surveys

The 85th Percentile traffic speed data provides evidence of reasonable compliance with the applicable Speed Limits on each of the roads. It is noted however the:

- 85th Percentile speed on Austin St is 59.4 km/h within a 50km/h Speed Limit.
- 85th Percentile speed on Saunders St is 63 km/h within a 60km/h Speed Limit.

It is suggested that the proposal will enable transfer of through traffic to Saunders Street which has a speed limit more in keeping with demand than Austin Street.

4.4 Sight Distance Summary (Figure 46)

Figure 46 – Sight Distance Summary for existing and proposed junctions

Junction Major Rd - Minor Rd	Speed		Road frontage sight distance		
	Limit (km/h)	Environ. (km/h)	Austroads SISD (m)	Available Left(m)	Available Right(m)
Inglis - Austin (Nth)	60	60	123	150	150
Austin - Park(East)	50	50	97	105	150
Austin - Jenner (East)	50	50	97	200	200
Austin - Reid	50	50	97	150	150
Austin - Gibbons (West)	50	35	62		50
Austin - Gibbons (Nth)					62
Austin - Gibbons (Sth)					62
Austin - Gibbons (East)					62
Hale - Gibbons (East)	50	50	97	84	150
Inglis - Hale (North)	60	60	123	150	123
Inglis - Saunders (West)	50	35	62		20
Inglis - Saunders(Nth)					20
Inglis - Saunders (Sth)					20
Inglis - Saunders (East)					70
Saunders - Park (West)	60	60	123	123	150
Saunders - Jenner (West)	60	60	123	123	123
Saunders - Gibbons (West)	60	60	123	123	123

SISD compliant

SISD marginal

SISD compliant with tree pruning

SISD non- compliant

4.5 Crash History

The Department of State Growth is supplied with reported crashes by Tasmania Police. The Department maintains a crash database from the crash reports which is used to monitor road safety, identify problem areas and develop improvement schemes.

Figure 47 summarises the reported crash history for the surrounding road network.

There are no reported crashes within the vicinity of the proposal.

There is no crash propensity on the Council Road network. See Appendix J for crash locations for each street.

Figure 47 – Reported 5 Year Crash History Summary

Street	Crash Id	Description	Date	Time	Severity	Light	location	Units
Austin	2035121	110 - Cross traffic	20-Apr-2017	18:43	PDO	Dusk	Austin St / Park St. Int.	LV & LV
	49947027	110 - Cross traffic	30-Mar-2019	18:49	PDO	Dusk	Austin St / Inglis St. Int.	LV & LV
	50569937	110 - Cross traffic	01-Feb-2020	12:25	PDO	Day	Austin St / Park St.Int.	LV & LV
	50670434	110 - Cross traffic	01-Jun-2020	14:40	PDO	Day	Austin St / Inglis St. Int.	LV & LV
	50920431	169 - Other on path	30-Dec-2020	18:20	Serious	Day	Austin St.	LV & LV
	51433715	169 - Other on path	21-Oct-2021	00:43	Minor	Night	Austin St / Inglis St. Int.	LV & LV
	51754304	110 - Cross traffic	28-Aug-2022	11:50	Serious	Day	Austin St / Inglis St. Int.	LV & LV
Gibbons	No reported crashes							
Hales	2015503	189 - Other curve	04-Mar-2017	01:50	Serious	Night	Hales St.	Motorcycle
Inglis	2018286	100 - Near side	11-Mar-2017	10:50	PDO	Day	Inglis / Saunders Int.	LV & Ped
	2064102	110 - Cross traffic	01-Jul-2017	18:50	PDO	Night	Inglis / Saunders Int.	LV & LV
	48779573	110 - Cross traffic	27-Nov-2017	00:00	PDO	Night	Inglis / Saunders Int.	LV & LV
	49968034	100 - Near side	17-Apr-2019	13:20	Minor	Day	Inglis / Saunders Int.	LV & Ped
	49979475	110 - Cross traffic	01-May-2019	13:00	PDO	Day	Inglis / Saunders Int.	LV & LV
	50197148	164 - Permanent obs	31-Jul-2019	08:00	PDO	Day	Inglis / Saunders Int.	HV
	50614207	179 - Other straight	01-Apr-2020	03:15	PDO	Night	Inglis / Saunders Int.	LV
	51041591	121 - Right through	27-Apr-2021	08:00	PDO	Day	Inglis / Saunders Int.	LV & LV
	51347266	110 - Cross traffic	13-Aug-2021	18:40	PDO	Night	Inglis / Saunders Int.	LV & LV
	48812170	144 - Parking vehicle	28-Dec-2017	11:00	PDO	Day	Inglis St.	LV & LV
	51426689	132 - Veh. in same la	13-Oct-2021	17:00	Minor	Day	Inglis St.	LV & LV
	51502400	173 - Right off c/way	01-Jan-2022	16:15	PDO	Day	Inglis St.	LV
	49384258	121 - Right through	06-Jun-2018	08:50	PDO	Day	Inglis / Church Int.	LV & LV
	49557790	137 - Veh. in parallel	29-Aug-2018	11:50	First Aid	Day	Inglis / Park Int.	LV & Bicycle
	49947027	110 - Cross traffic	30-Mar-2019	18:49	PDO	Dusk	Inglis / Austin Int.	LV & LV
	50670434	110 - Cross traffic	01-Jun-2020	14:40	PDO	Day	Inglis / Austin Int.	LV & LV
	51433715	169 - Other on path	21-Oct-2021	00:43	Minor	Night	Inglis / Austin Int.	LV & LV
	51754304	110 - Cross traffic	28-Aug-2022	11:50	Serious	Day	Inglis / Austin Int.	LV & LV
	51468821	132 - Vehicles in sam	02-Dec-2021	10:15	PDO	Day	Inglis / Cotton Int.	LV & LV
Jenner	50891718	110 - Cross traffic	05-Dec-2020	11:30	Minor	Day	Jenner / Saunders Int.	
	51501151	149 - Other maneuve	23-Dec-2021	17:35	PDO	Day	Jenner St.	
Park	2035121	110 - Cross traffic	20-Apr-2017	18:43	PDO	Dusk	Austin St. / Park St. Int.	LV & LV
	49890206	110 - Cross traffic	09-Mar-2019	13:15	Minor	Day	Saunders St. / Park St. In	LV & LV
	50569937	110 - Cross traffic	01-Feb-2020	12:25	PDO	Day	Austin St. / Park St. Int.	LV & LV
	50881115	110 - Cross traffic	30-Nov-2020	09:50	PDO	Day	Saunders St. / Park St. In	LV & LV
	51440817	145 - Reversing	30-Oct-2021	11:00	PDO	Day	Park St.	HV & LV
	51452943	169 - Other on path	10-Nov-2021	21:00	PDO	Night	Park St.	LV & LV
Saunders	2018286	100 - Near side	11-Mar-2017	10:50	PDO	Day	Inglis / Saunders Rabt	LV & Ped.
	2064102	110 - Cross traffic	01-Jul-2017	18:50	PDO	Night	Inglis / Saunders Rabt	LV & LV
	48779573	110 - Cross traffic	27-Nov-2017	00:00	PDO	Night	Inglis / Saunders Rabt	LV & LV
	49890206	110 - Cross traffic	09-Mar-2019	13:15	Minor	Day	Saunders / Park Int.	LV & LV
	49968034	100 - Near side	17-Apr-2019	13:20	Minor	Day	Inglis / Saunders Rabt	LV & Ped.
	49979475	110 - Cross traffic	01-May-2019	13:00	PDO	Day	Inglis / Saunders Rabt	LV & LV
	50197148	164 - Perm. Obst. on	31-Jul-2019	08:00	PDO	Day	Inglis / Saunders Rabt	HV
	50614207	179 - Other straight	01-Apr-2020	03:15	PDO	Night	Inglis / Saunders Rabt	LV
	50881115	110 - Cross traffic	30-Nov-2020	09:50	PDO	Day	Saunders / Park Int.	LV & LV
	50891718	110 - Cross traffic	05-Dec-2020	11:30	Minor	Day	Saunders / Jenner Int.	LV & LV
	51041591	121 - Right through	27-Apr-2021	08:00	PDO	Day	Inglis / Saunders Rabt	LV & LV
	51347266	110 - Cross traffic	13-Aug-2021	18:40	PDO	Night	Inglis / Saunders Rabt	LV & LV

4.6 Road Safety Review

From road safety review some potential issues were identified and some countermeasures are suggested, see Figure 48, which summarises the review.

4.6.1 Inglis Street (Hales to Saunders)

The Inglis / Saunders / Goldie Street roundabout has limited sight distance due to buildings close to the intersection. In future with higher traffic volumes traffic signals could be considered that would overcome the limited sight distance issue and provide for pedestrians. There have been 2 pedestrian crashes at the roundabout in 2017 & 2019.

4.6.2 Austin Street (Inglis to Gibbons)

The Austin / Gibbons Street roundabout approaches have vegetation that limit sight distance to the right on several approaches which could be resolved by pruning vegetation.

4.6.3 Saunders Street (Inglis to Gibbons)

No issues were identified.

4.6.4 Hales Street (Inglis to Gibbons)

The Hales /Gibbons Street intersection is a combination of offset Y junctions with an unfortunate offset potentially resulting in conflict between right turners to the side roads being opposed to each other. The right turning volume on the Hales Street Northern approach is very low and will remain very low therefore crash risk is low, and a roundabout is not considered necessary.

4.6.5 Gibbons Street (Hales to Saunders)

No issues were identified.

4.6.6 Park Street (Austin to Saunders)

No issues were identified.

4.6.7 Jenner Street (Austin to Saunders)

No issues were identified.

Figure 48 – Road Safety Review Summary

Link and intersection		5 Year Reported Crash History	Road Safety Review		
			Issue	Crash Risk	Countermeasure
Inglis (Hales to Saunders) with 60 km/hr & 6,500 vpd		1 Minor, 3 PDO	Rear end crashes	Medium - Low	Median Turn Lane , not currently warranted
	Inglis - Hales	None	Simple intersection layout	Low	
	Inglis - Austin	1 Serious, 1 Minor & 2 PDO	Simple intersection layout	Low	
	Inglis - Saunders - Goldie	1 Minor & 8 PDO	Limited sight distances at roundabout	Low	Traffic Signals not currently warranted
Austin (Inglis to Gibbons) with 50 km/hr & 1,050 vpd		1 Serious 2 PDO	No issues	Very Low	NA
	Austin - Park	None			
	Austin - Jenner	None			
	Austin - Reid	None			
	Austin - Gibbons	None	Limited sight distance to the right at roundabout	Low	Clearing of vegetation on roundabout approaches
Saunders (Inglis to Gibbons) with 60 km/h & 2,500 vpd		None 1 Minor, 1 PDO 1 Minor None	No issues	Very Low	NA
	Saunders - Park				
	Saunders - Jenner				
	Saunders - Gibbons				
Hales (Inglis to Gibbons) with 50 km/h & 2,300 vpd		1 Serious	No issues	Low	NA
	Hale - Gibbons	None	Unfavourable side road offsets	Low	Roundabout, not currently warranted
Gibbons (Saunders to Hales) with 50km/h & 1,500 vpd		None	No issues	Very Low	NA
Park (Austin to Saunders) with 50km/h & 300 vpd		2 PDO	No issues	Very Low	NA
Jenner (Austin to Saunders) with 50km/h & 220 vpd		1 PDO	No issues	Very Low	NA

4.7 Safe System Assessment

The streets within the study area have been assessed with the Austroads Safe System assessment framework. This framework involves consideration of exposure, likelihood and severity to yield a risk framework score. High risk crash types and vulnerable road user crash types are assessed for each site and aggregated to provide an overall crash risk. Crash risk is considered in terms of three components:

- Exposure (is low where low numbers of through and turning traffic) i.e.1 out of 4
- Likelihood (is low where the infrastructure standard is high) i.e. 1 out of 4
- Severity (is low where the speed environment is low) i.e. 1 out of 4

The Austroads Safe System Assessment process enables the relative crash risk of an intersection or road link to be assessed. Road users are considered along with the most common crash types. The crash risk score is an indication of how well the infrastructure being assessed satisfies the *safe system objective which is for a forgiving road system where crashes do not result in death or serious injury*.

From safe system assessment the following crash risk scores were calculated:

- Inglis Street (Hales to Saunders) – 36/448
- Austin Street (Inglis to Gibbons) – 27/448
- Saunders Street (Inglis to Gibbons) – 23/448
- Hales Street (Inglis to Gibbons) – 21/448
- Gibbons Street (Hales to Saunders) – 16/448
- Park Street (Austin to Saunders) – 18/448
- Jenner Street (Austin to Saunders) – 15/448

See Appendix E for assessment details for each street.

These crash risk scores indicate good alignment with the safe system objective with very low risk scores, see Figure 49.

Figure 49 – Austroads Safe System Assessment alignment between crash score and risk

5. Traffic Generation and Assignment

This section of the report describes how traffic generated by the proposal is distributed within the adjacent road network now and in 10 & 20 years.

5.1 Traffic Growth

0.5% average annual exp. growth is assumed for Hales, Austin, Saunders & Gibbons Streets. Due to the low traffic volumes whether a 0.5 or 1% rate is applied will have minimal impact on traffic capacity.

Compound annual growth

- 0.5% would result in a 5.1 % increase in traffic in 10 years.
- For a road with a 1,000 vpd AADT this would represent a 51 vpd increase.
- 5% would result in a 10.4 % increase in traffic in 10 years.
- For a road with a 1,000 vpd AADT this would represent a 104 vpd increase.

5.2 Trip Generation

No additional trip generation is assumed due to the development however some traffic transfers are assumed for the various options as follows:

Option 1 – Closure of Austin St (Jenner St. towards Park St. for 100m.)

- No change in traffic use on Hales St., Inglis St. or Gibbons St. West of Austin Street
- Change in use of Austin Street:
  - AM peak 70 to 35 vph i.e 35vph reduction
  - PM peak 50 to 25 vph i.e 25vph reduction
- Change in use of Saunders Street:
  - AM peak 35 vph increase
  - PM peak 25 vph increase

Option 2 – Calming of Austin St with a 10km/h Shared Zone

- No change in traffic use on Hales St., Inglis St. or Gibbons St. West of Austin Street
- Change in use of Austin Street:
  - AM peak 70 to 50 vph i.e 20 vph reduction
  - PM peak 50 to 35 vph i.e 15vph reduction
- Change in use of Saunders Street:
  - AM peak 20 vph increase
  - PM peak 15 vph increase

Option 3 – Calming of Austin St with traffic management facilities

- No change in traffic use on Hales St., Inglis St. or Gibbons St. West of Austin Street
- Change in use of Austin Street:
  - AM peak 70 to 50 vph i.e 20 vph reduction
  - PM peak 50 to 35 vph i.e 15vph reduction
- Change in use of Saunders Street:
  - AM peak 20 vph increase
  - PM peak 15 vph increase

Option 4 – Calming of Austin St with a 40km/h Speed Limit

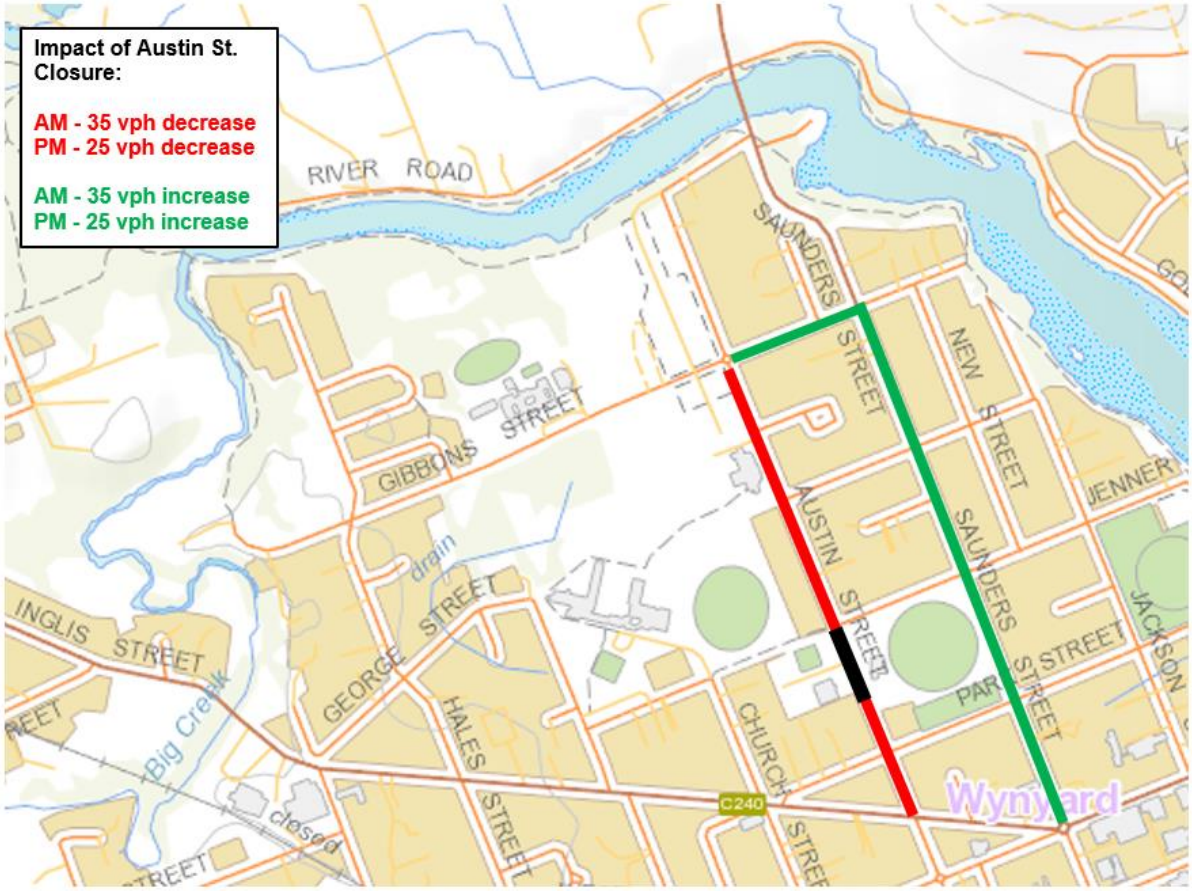
- No change in traffic use on Hales, Inglis, Gibbons, Austin or Saunders Streets.

In summary, see Figure 50, the impact of the options are estimated as follows:

- Option 1 yields a 25-35 vph transfer from Austin to Saunders Street
- Options 2 & 3 yield a 15-20 vph transfer from Austin to Saunders Street
- Option 4 yields no vph transfer from Austin to Saunders Street

For analysis purposes traffic assignments are prepared for Option 1 and Option 4 at the intersection most adversely impacted i.e the Saunders Street intersections with Gibbons Street and Park Street. The traffic assignments for 2022 are attached in Appendix I and assignments for 2032 and 2042 are shown in Figures 51 - 54.

Figure 50 – Estimated impact on traffic activity due to Option 1 – Austin Street closure

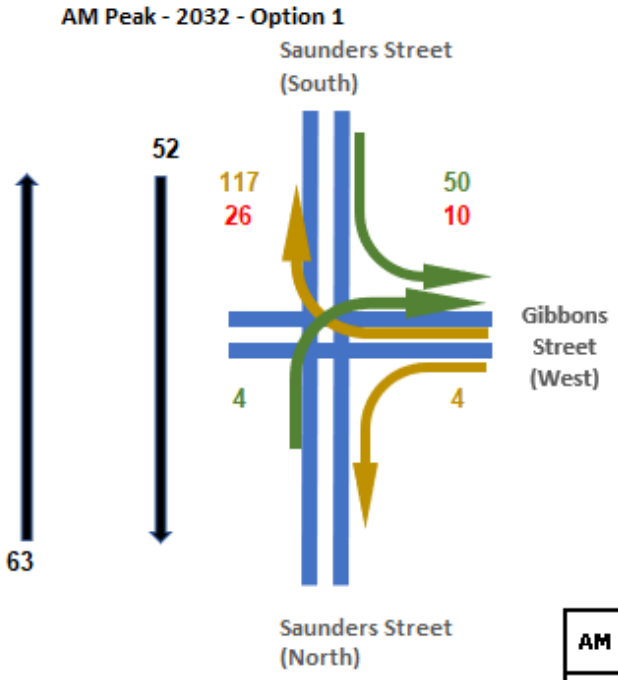


5.3 Trip Assignment

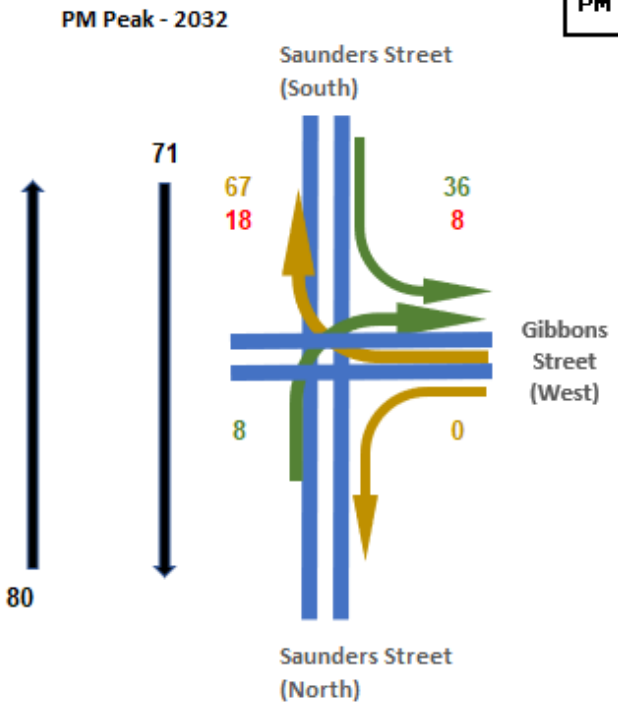
Traffic assignments have been prepared for the following cases:

- Inglis / Saunders intersection for 2032 & 2042 for Option 1 and Option 4
- Gibbons / Saunders intersection for 2032 & 2042 for Option 1 and Option 4

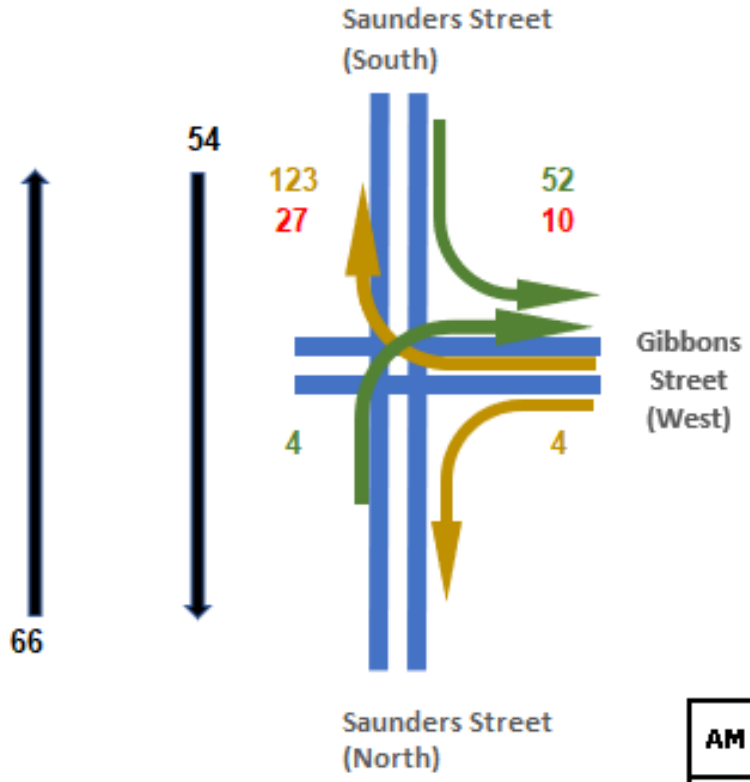
Figure 51 – Saunders / Gibbons Street intersection 2032 & 2042 for Option 1



Peak Hr Summary (vph)			
	Movement	Turn	TEF
AM	Left In	60	52
	Right In	4	165
PM	Left In	44	71
	Right In	8	187



AM Peak - 2042 - Option 1



Peak Hr Summary (vph)			
	Movement	Turn	TEF
AM	Left In	62	54
	Right In	4	172
PM	Left In	46	74
	Right In	8	196

PM Peak - 2042

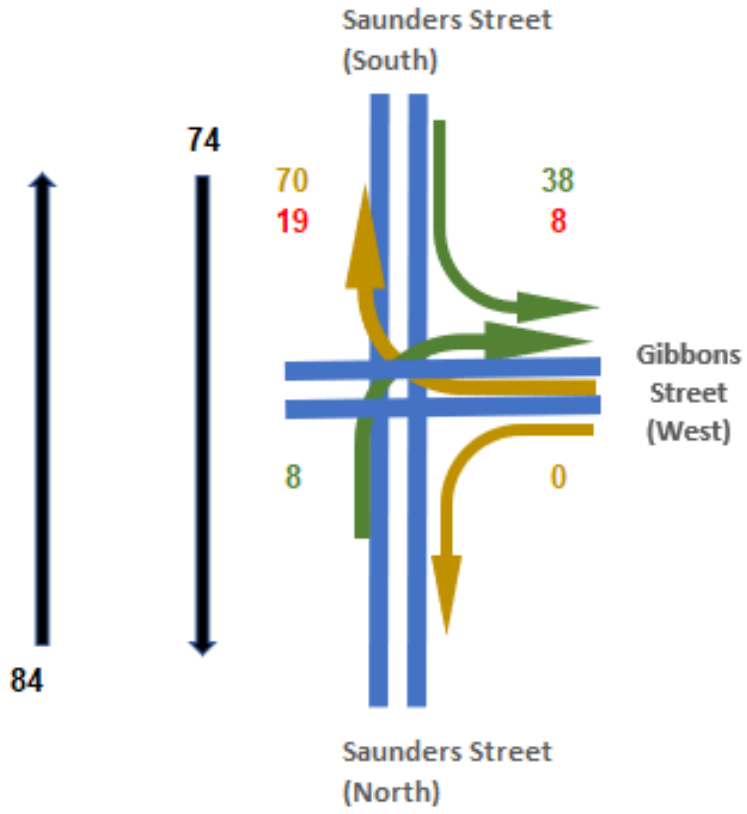
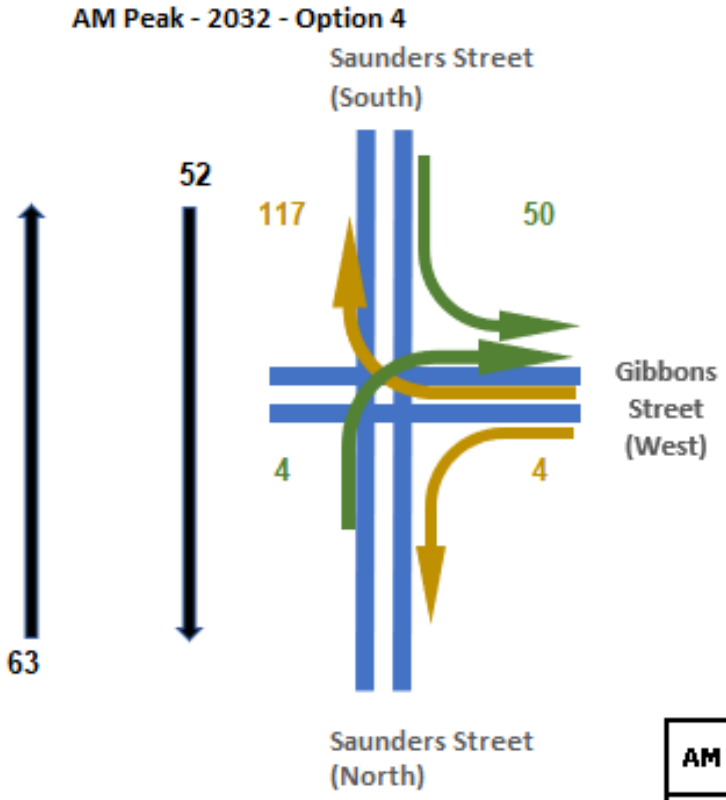
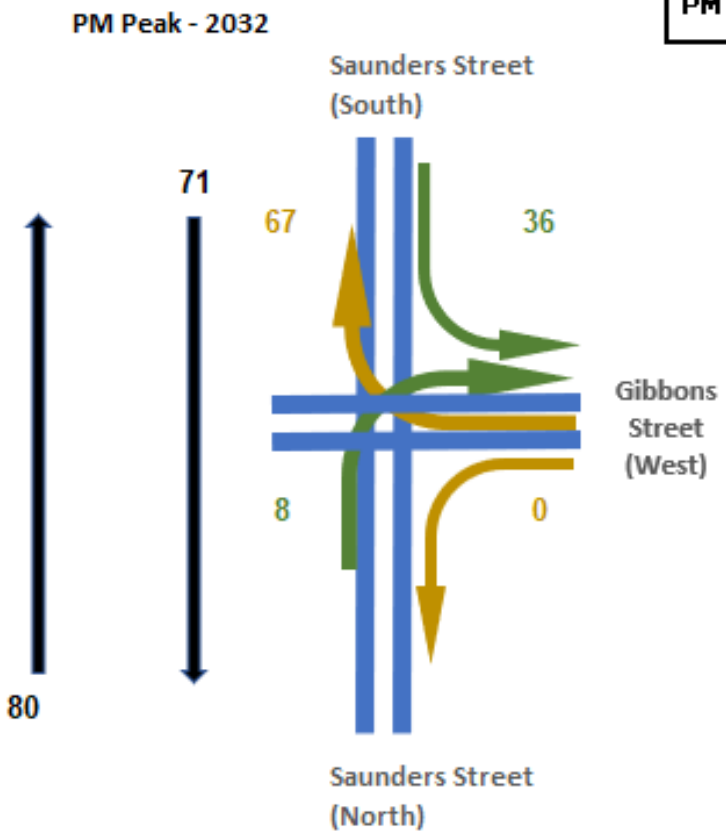


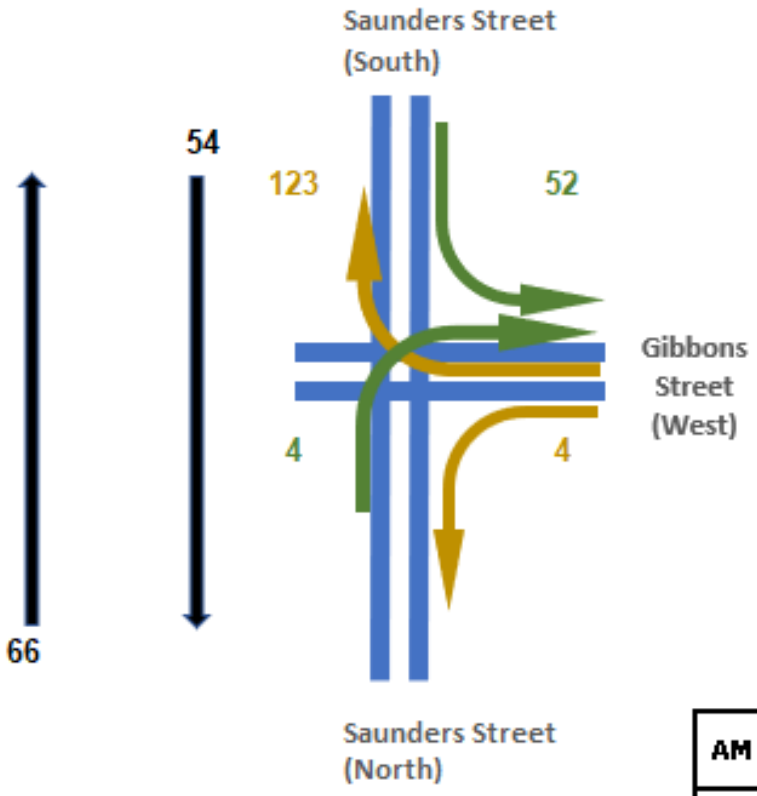
Figure 52 – Saunders / Gibbons Street intersection 2032 & 2042 for Option 4



Peak Hr Summary (vph)			
	Movement	Turn	TEF
AM	Left In	50	52
	Right In	4	165
PM	Left In	36	71
	Right In	8	187



AM Peak - 2042 - Option 4



	Peak Hr Summary (vph)		
	Movement	Turn	TEF
AM	Left In	52	54
	Right In	4	172
PM	Left In	38	74
	Right In	8	196

PM Peak - 2042

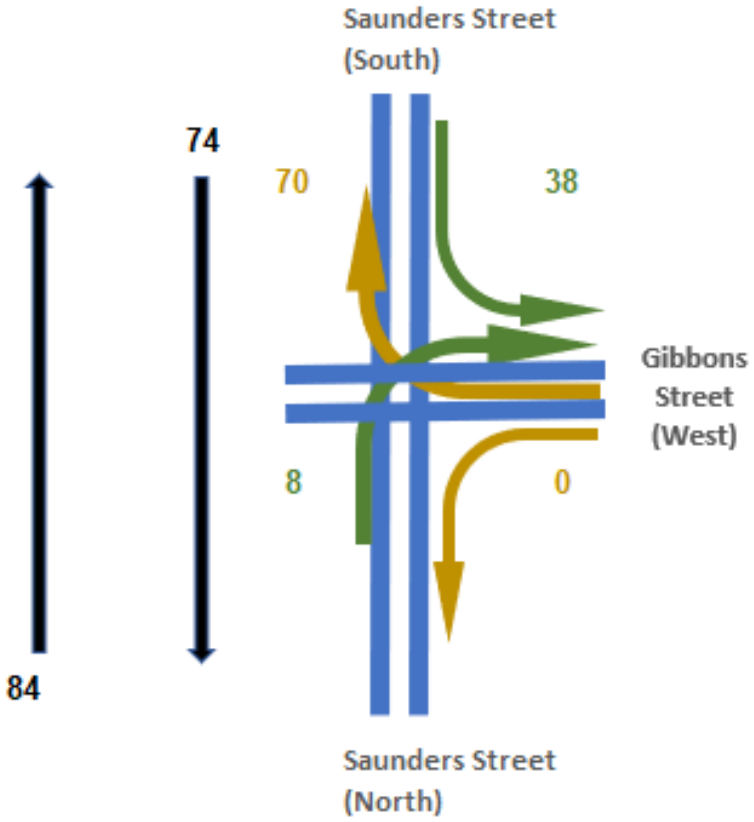
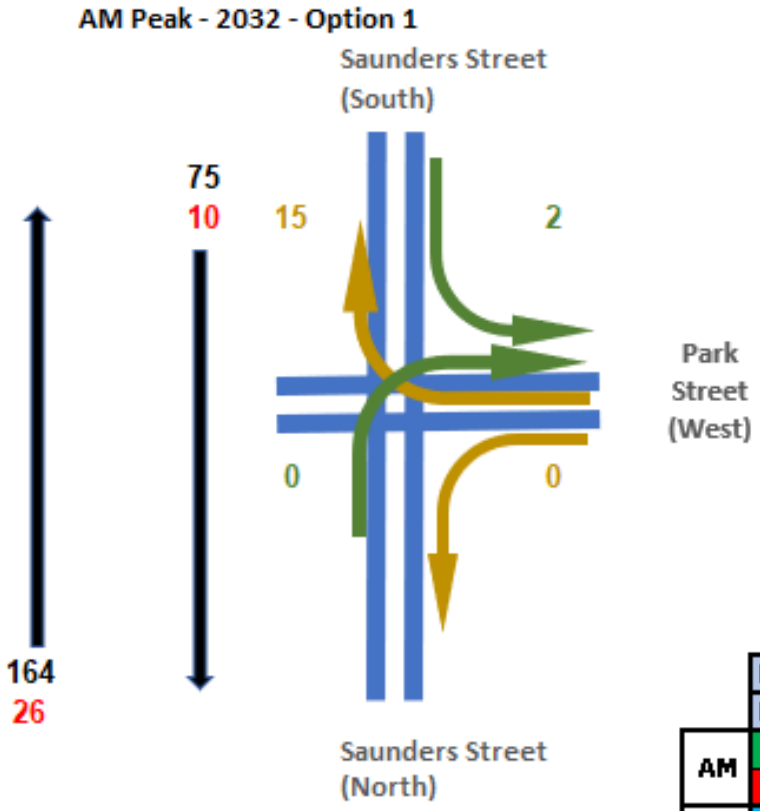
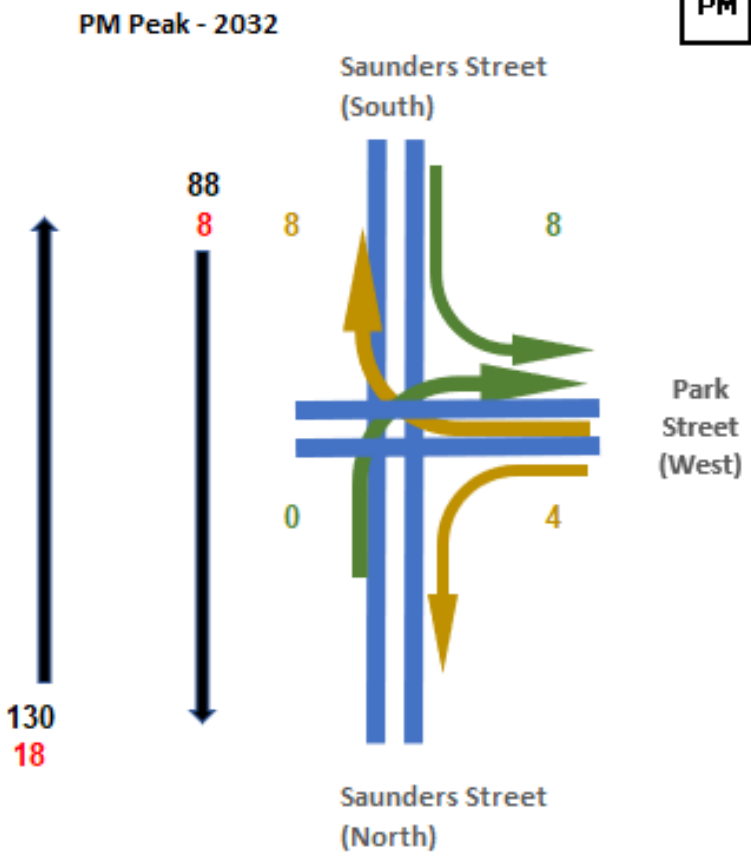


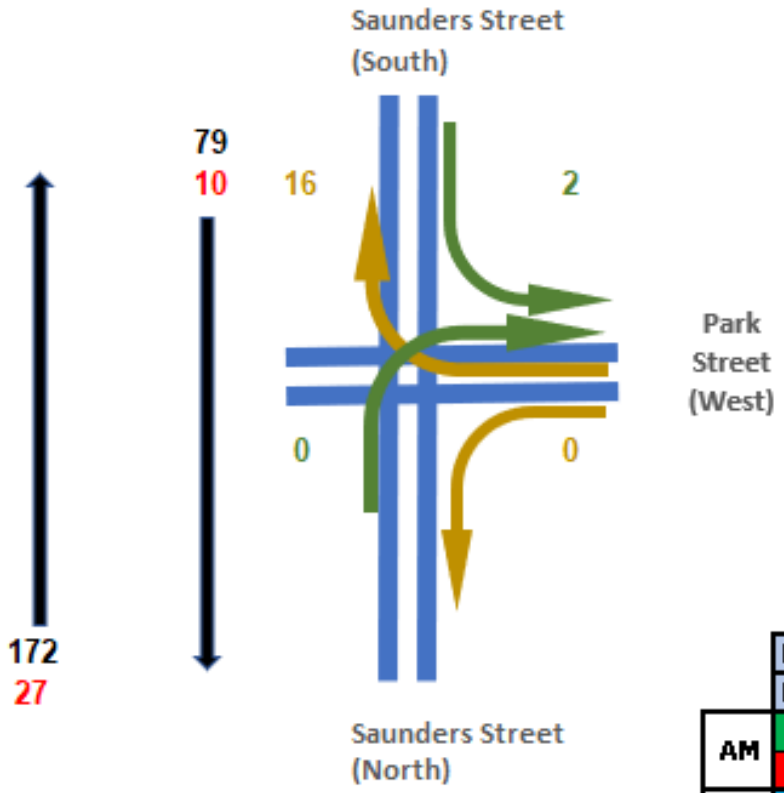
Figure 53 – Saunders / Park Street intersection 2032 & 2042 for Option 1



	Peak Hr Summary (vph)		
	Movement	Turn	TEF
AM	Left In	2	85
	Right In	0	277
PM	Left In	8	96
	Right In	0	252



AM Peak - 2042 - Option 1



	Peak Hr Summary (vph)		
	Movement	Turn	TEF
AM	Left In	2	89
	Right In	0	290
PM	Left In	8	100
	Right In	0	263

PM Peak - 2042

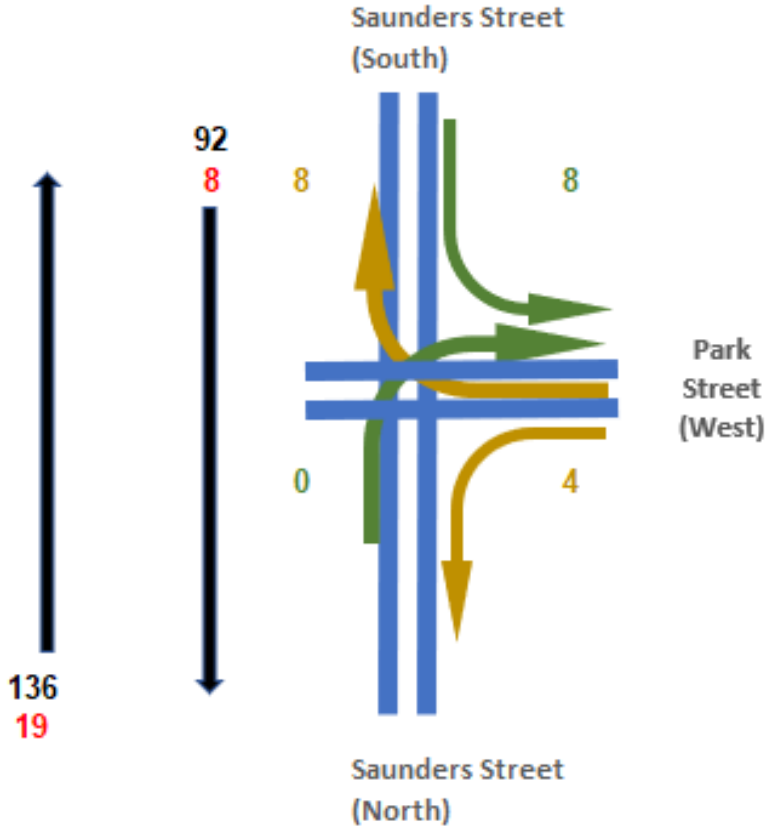
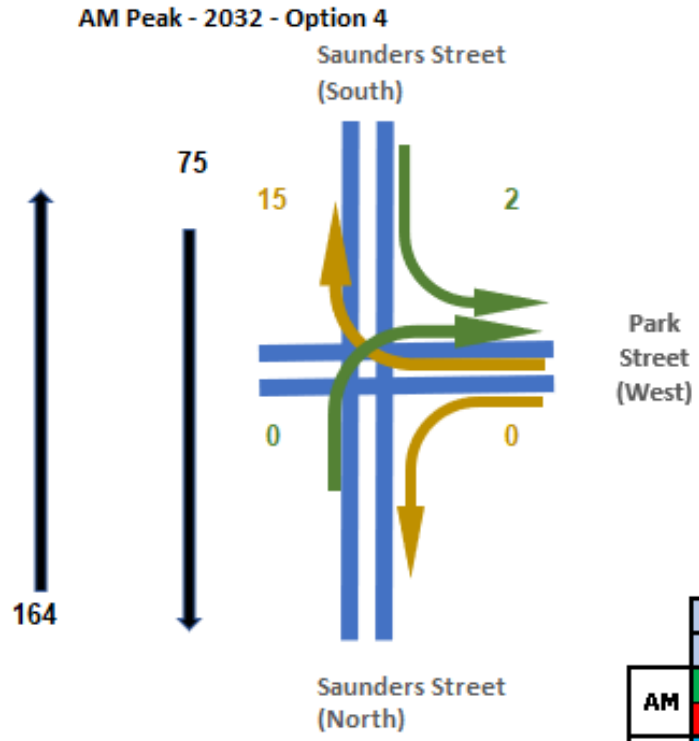
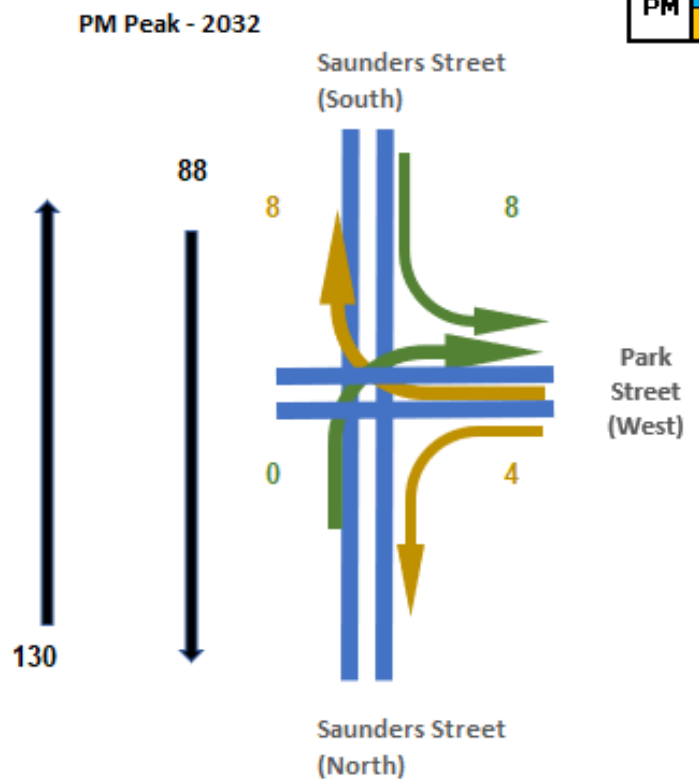


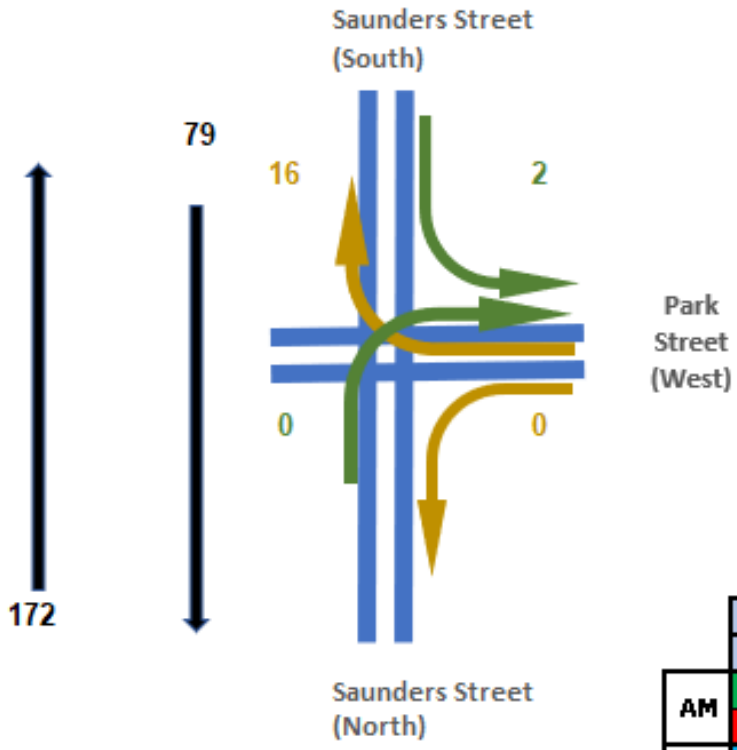
Figure 54 – Saunders / Park Street intersection 2032 & 2042 for Option 4



Peak Hr Summary (vph)			
	Movement	Turn	TEF
AM	Left In	2	75
	Right In	0	241
PM	Left In	8	88
	Right In	0	226

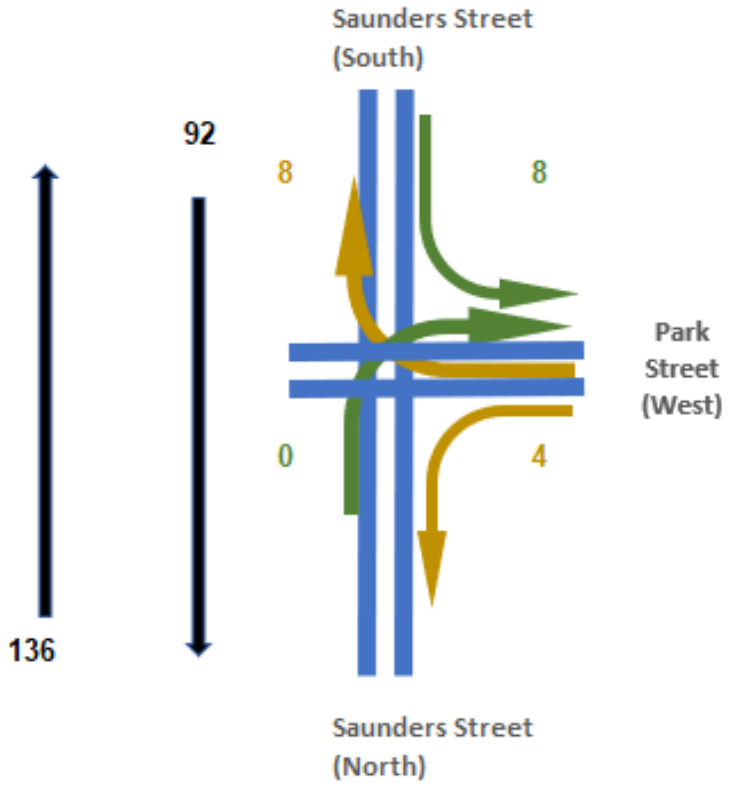


AM Peak - 2042 - Option 4



	Peak Hr Summary (vph)		
	Movement	Turn	TEF
AM	Left In	2	79
	Right In	0	253
PM	Left In	8	92
	Right In	0	236

PM Peak - 2042



6. Impact on Road Network

As the council road network has low traffic volumes the approach taken to assess the impact of the various treatments on Austin Street has been to assess the two most impacted intersections for the most impacting (Option 1) and least impacting(Option 4) cases for projected traffic activity in 2032 and 2042.

The intersections analysed in detail are:

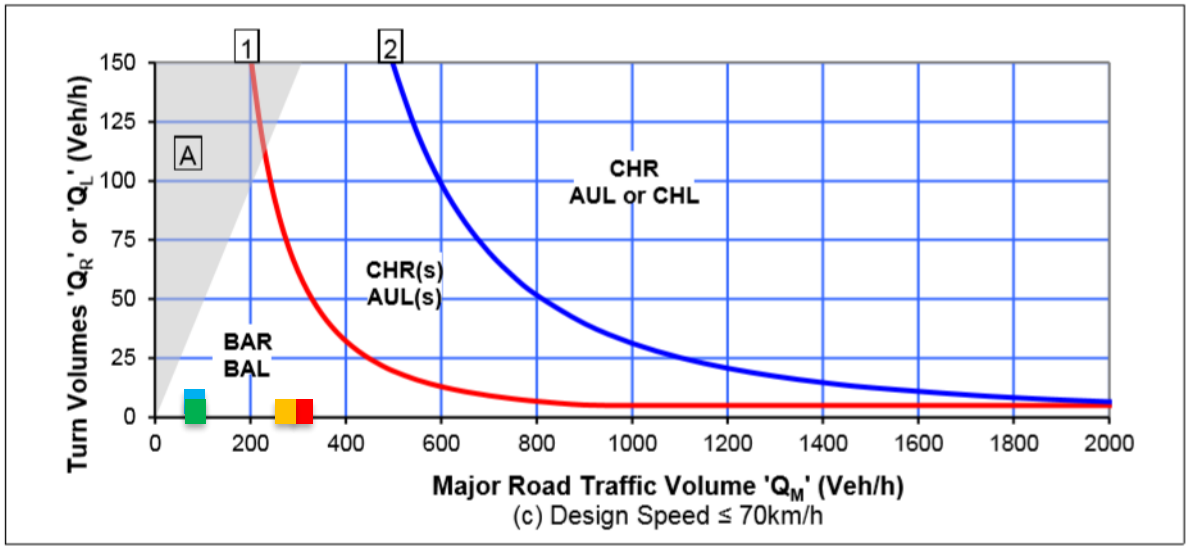
- Saunders Street / Park Street intersection
- Saunders Street / Gibbons Street intersection

6.1 Saunders / Park Street intersection

6.1.1 Austroads Junction Warrant

Figure 55 shows that a Simple intersection layout is adequate for projected traffic movements.

Figure 55 – Austroads junction warrant - Saunders / Park St Intersection 2032 & 2042



Option 1

2032

Peak Hr Summary (vph)			
	Movement	Turn	TEF
AM	Left In	2	85
	Right In	0	277
PM	Left In	8	96
	Right In	0	252

2042

Peak Hr Summary (vph)			
	Movement	Turn	TEF
AM	Left In	2	89
	Right In	0	290
PM	Left In	8	100
	Right In	0	263

Option 4

2032

Peak Hr Summary (vph)			
	Movement	Turn	TEF
AM	Left In	2	75
	Right In	0	241
PM	Left In	8	88
	Right In	0	226

2042

Peak Hr Summary (vph)			
	Movement	Turn	TEF
AM	Left In	2	79
	Right In	0	253
PM	Left In	8	92
	Right In	0	236

Figure 83 demonstrates that a CHR and AUL(S) junction layout are technically warranted.

6.1.2 Intersection Analysis

As the turning traffic volumes at peak times are low analysis with SIDRA INTERSECTION 9+ Intersection Analysis Software has not been necessary. Figure 56 summarises the Level of Service (LOS) expected for all scenarios. See Appendix H for LOS definitions.

Figure 56 – Saunders / Park Street Intersection Analysis Summary

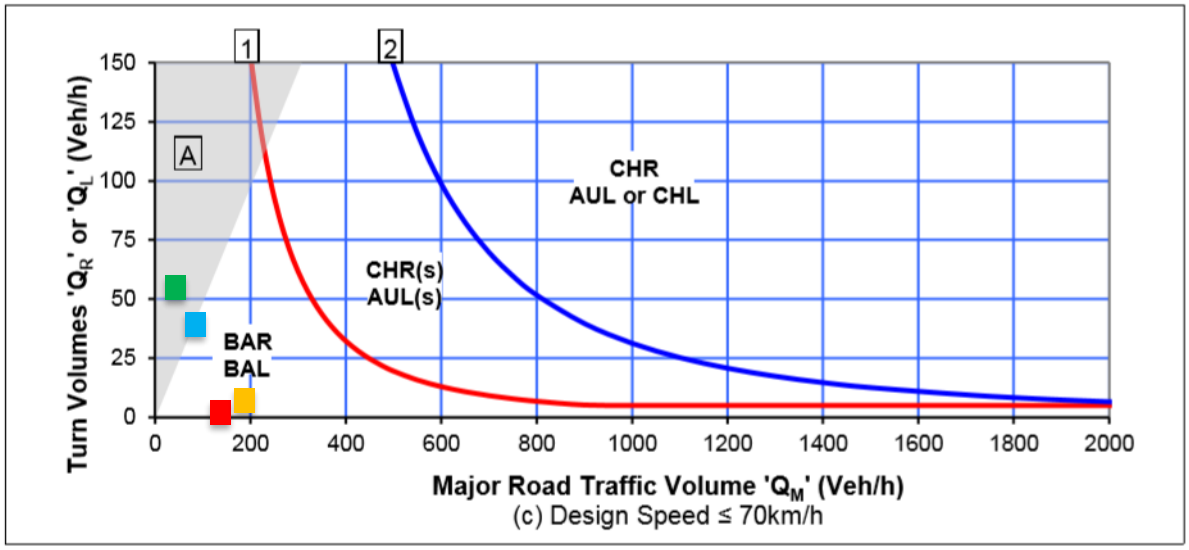
Intersection	Approach		Level of Service			
			Option 1		Option 4	
			2032	2042	2032	2042
Saunders / Park Street	Saunders (Nth)	AM	A	A	A	A
	Saunders (Sth)		A	A	A	A
	Park (East)		A	A	A	A
	Park (West)		A	A	A	A
	Saunders (Nth)	PM	A	A	A	A
	Saunders (Sth)		A	A	A	A
	Park (East)		A	A	A	A
	Park (West)		A	A	A	A

6.2 Saunders Street / Gibbons Street Intersection

6.2.1 Austroads Junction warrant

Figure 57 shows that a Simple intersection layout is adequate for projected traffic movements.

Figure 57 – Austroads junction warrant - Saunders / Gibbons St, Int. 2032 & 2042



Option 1

2032

	Peak Hr Summary (vph)		
	Movement	Turn	TEF
AM	Left In	60	52
	Right In	4	165
PM	Left In	44	71
	Right In	8	187

2042

	Peak Hr Summary (vph)		
	Movement	Turn	TEF
AM	Left In	62	54
	Right In	4	172
PM	Left In	46	74
	Right In	8	196

Option 4

2032

	Peak Hr Summary (vph)		
	Movement	Turn	TEF
AM	Left In	50	52
	Right In	4	165
PM	Left In	36	71
	Right In	8	187

2042

	Peak Hr Summary (vph)		
	Movement	Turn	TEF
AM	Left In	52	54
	Right In	4	172
PM	Left In	38	74
	Right In	8	196

6.2.2 Intersection Analysis

The intersection has been analysed with SIDRA INTERSECTION 9+ Intersection Analysis Software to demonstrate the intersection will operate at LOS A for all scenarios. Figure 58 summarises the results. The junction model is attached in Appendix F and the movement summaries are attached in Appendix G. See Appendix H for LOS definitions.

The SIDRA INTERSECTION analysis was undertaken for Option 1 for the AM & PM peaks of 2042 only as this is the worst case and demonstrates the intersection will operate at LOS A.

Figure 58 – Saunders / Gibbons Street Intersection Analysis Summary

Intersection	Approach		Level of Service			
			Option 1		Option 4	
			2032	2042	2032	2042
Saunders / Gibbons Street	Saunders (Nth)	AM	A	A	A	A
	Saunders (Sth)		A	A	A	A
	Gibbons (East)		A	A	A	A
	Gibbons (West)		A	A	A	A
	Saunders (Nth)	PM	A	A	A	A
	Saunders (Sth)		A	A	A	A
	Gibbons (East)		A	A	A	A
	Gibbons (West)		A	A	A	A

6.3 Impacts on road users.

Road user and traffic parameters are summarised in Figure 59 for each road considered.

Figure 59 – Road User and Road Network Summary

Road Users	Infrastructure	Existing Council Roads						
		Inglis Street	Saunders Street	Austin Street	Hales Street	Gibbons Street	Jenner Street	Park Street
Function		Sub Arterial Road	Collector	Local Road	Local Road	Local Road	Residential	Residential
Target LGAT Urban Road Type		3 - Collector (11.0m)	3 - Collector (11.0m)	4 - Local (8.9m)	4 - Local (8.9m)	4 - Local (8.9m)	4 - Local (8.9m)	4 - Local (8.9m)
AADT (vpd)		6,500	2,500	1,050	2,300	1,500	220	300
Speed Limit (km/h)		60	60	50	50	50	50	50
Road Width (m)		13	14.5 to 9.5	14.3 to 8.4	13.7	12 to 10.3	12.3	13.4
PDO crashes/5 yr		13	1	2	0	0	1	2
Casualty crashes/5 yr		4	2	1	1	0	0	0
Pedestrians (ppd)		Some	Low	School & Sport	Low	School	Low	Sport
Pedestrians	Footpath	Both Sides	One Side	One Side	Both Sides	Both Sides	One Side	Both Sides
Public Transport	Bus Route							
Cyclists	Footpath	Both Sides	One Side	One Side	Both Sides	Both Sides	One Side	Both Sides
	Road							
Motorcyclists	Sealed road							
Light Vehicles	Parking	Both sides		Varies	Both sides			
Heavy Vehicles	Design Vehicle.	26m B Double	General Access Vehicle					

All Road Users	Street Lighting	Provided

6.3.1 Public Transport

The proposal will have a minor impact in that Public Transport will prefer Saunders Street.
The Wynyard Sports Precinct will be accessed from Austin Street.

6.3.2 Delivery Vehicles

The proposal has no impact on delivery vehicles.

6.3.3 Pedestrians and Cyclists

All the options to treat Austin Street would reduce crash risk for pedestrians and cyclists.
Option 1 provides the best outcome as through traffic is removed.

6.3.4 Motorcyclists

The proposal will not disaffect motorcyclists.

6.4 Other impacts

6.4.1 Environmental

No applicable environmental impacts were identified in relation to:

- Noise, Vibration and Visual Impact
- Community Severance and Pedestrian Amenity
- Hazardous Loads
- Air Pollution, Dust and Dirt and Ecological Impacts
- Heritage and Conservation values

6.4.2 Street Lighting and Furniture

The proposal is not expected to change street lighting requirements.

6.5 Tasmanian Subdivision Guideline Considerations

No issues have been identified.

6.6 Transport Planning Considerations

The proposed options to calm traffic on Austin Street have the impact of reducing or calming traffic activity however the surrounding and adjacent road network has ample capacity as indicated from the traffic assignment and projected traffic volumes presented in section 6 of this report. Option 1 – Converting Austin Street to a No Through Road has the effect of increasing traffic activity on Saunders Street by some 300vpd. This is acceptable as Saunders Street is a Collector Road and suitable standard of road. Saunders Street is a Collector Road in the Council Road Hierarchy.

6.7 Impact on traffic activity

Option 1 – making Austin Street a no though road with a permanent closure South of the Jenner Street junction will have a minor impact on Saunders Street, increasing traffic activity by some 300vpd, see Figure 60.

All the other surrounding roads will not be affected. Figure 60 shows all roads experiencing some minor growth due to assumed annual average exponential growth of 0.5% due to infill development and potential rezoning and subdivision North of the Inglis River.

Figure 60 – Road User and Road Network Summary

Road	Location	Data Source	Traffic Counts from 2022 Data				Option 1	
			AM Peak	PM Peak	AADT	Overall AADT	2032 Overall AADT	2042 Overall AADT
			(vph)	(vph)	(vpd)	(vpd)	(vpd)	(vpd)
Inglis St.	At Hales St.	WWC	620	586	6,030	6,500	7,150	7,865
	At Austin St.	WWC	610	718	6,640			
	At Saunders St.	TCS	700	700	7,000			
Austin St.	Jenner St.	WWC	106	132	1,190	1,050	790	830
	Inglis St.	WWC	100	80	900			
Saunders St.	Inglis St.	TCS	250	260	2,550	2,500	2,940	3,090
	Park St.	WWC	245	254	2,500			
	Jenner St.	TCS	250	235	2,420			
	Gibbons St.	WWC	256	216	2,360			
Hales St.	Gibbons St.	WWC	257	192	2,245	2,300	2,415	2,536
	Inglis St.	WWC	258	225	2,415			
Park St.	Saunders St.	WWC	28	34	310	300	315	331
Jenner St.	Saunders St.	TCS	16	29	220	220	231	243
	Austin St.	WWC	16	29	220			
Gibbons St.	Saunders St.	WWC	162	103	1,320	1,500	1,575	1,654
	Austiin St.	TCS	189	119	1,537			
	Hales St.	WWC	216	135	1,755			

Estimated from recorded data
Estimated from interpolation

6.8 Liveability, Safety and Amenity Guidelines

Guidelines for the safety and amenity of a residential areas include:

- Residential precincts need to be bounded by traffic routes and/or natural barriers to minimise conflict.
- Direct vehicular and pedestrian access should be avoided from single dwelling units onto road with over 2,000 vehicles per day.
- Effective street lengths should be less than 200-250m in order to achieve typical vehicle speeds of 40km/h.
- Cyclist and pedestrian demands should be catered for separately using path or cycle networks.

To maximise the liveability, safety and amenity of the local area, road and street network layout should be such that:

- A minimum of 60% of lots should abut residential streets with less than 300vpd passing traffic.
- A minimum of 80% of lots should abut residential streets with less than 600 vpd passing traffic.
- A maximum of 5% of single dwelling lots should abut residential streets with between 1,000-2,000 vpd passing traffic.
- A maximum of 1% of single dwelling lots should abut local streets or collectors with less than 3,000 vpd passing traffic, and
- No single dwelling lot should abut a route with > 3,000 vpd passing traffic

These guidelines are from *TE&M Chapter 2.2: Design of New Urban Network*

This study however deals with the existing road network and roads which have some Collector function . Hales and Gibbons Streets are typical examples with AADT of 1,500 vpd or more which provide access to North Wynyard and the Table Cape Primary School.

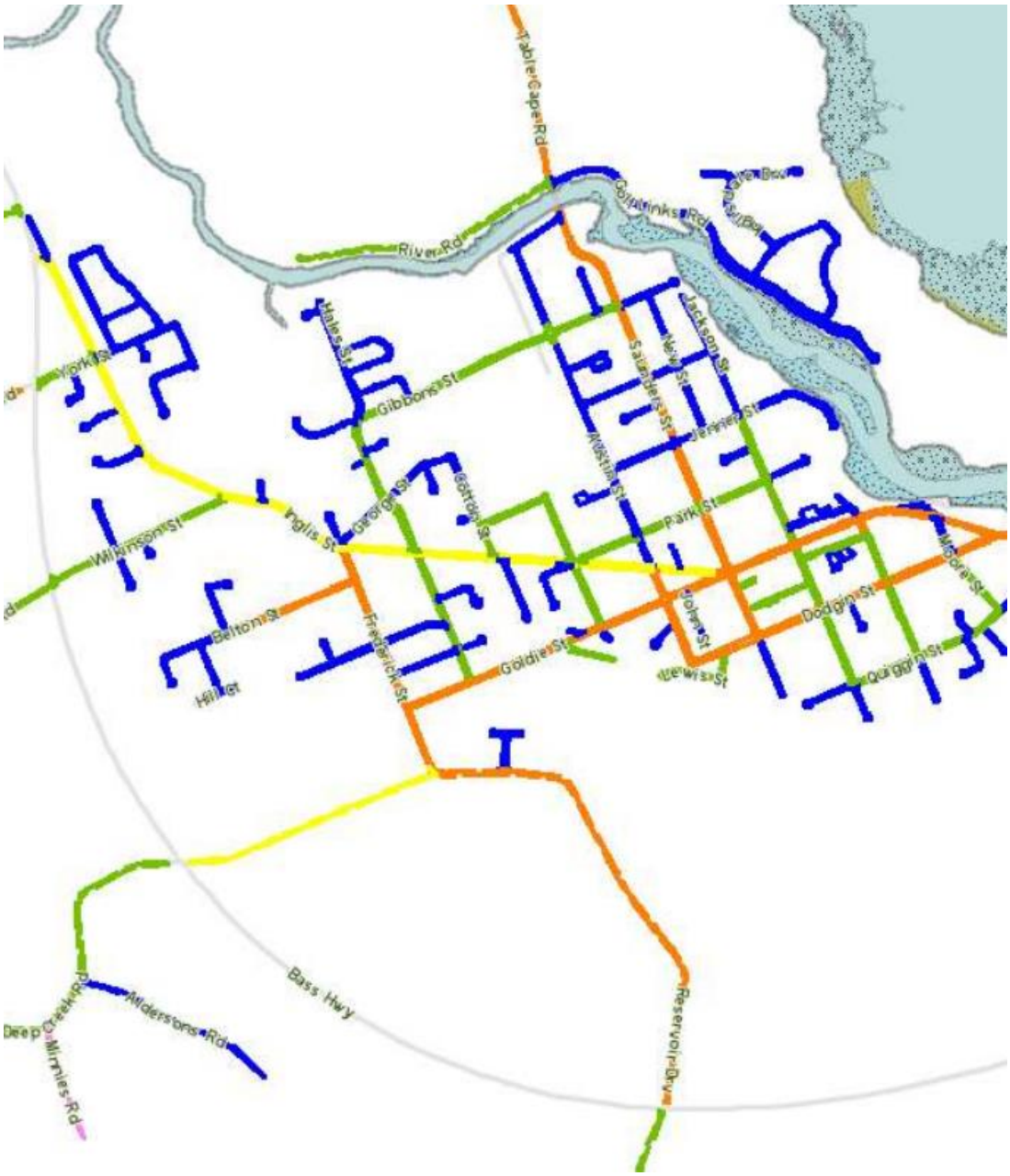
The inherited road network does not satisfy modern guidelines. However, for the function of the roads and existing traffic activity, are considered acceptable and consistent with the standard of liveability, safety and amenity in similar situations in Tasmania.

7. Road Hierarchy Management

7.1 Wynyard Road Hierarchy

Council's Road Hierarchy for Wynard is shown in Figure 61. See Appendix K for more details. The proposed closure of Austin Street is consistent with Council's Road Hierarchy Management Plan which supports use of Saunders Street as a Collector Road.

Figure 61 – Wynyard Road Hierarchy



Local Road Network Objectives

The WWC Roads Infrastructure Service Level Documentation outline service standards for the local road network. See extracts in Appendix K.

Impact of proposed development.

It is considered that proposed development will not disaffect the Council Road Hierarchy.

Collector Road Targets

The existing road network satisfies LGAT urban road standards. The roads within the study area exceed minimum width requirements.

7.2 Austin and Saunders Street

Austin Street functions primarily as a residential street. The proposed traffic management supports Austin Street's function as a residential street.

Saunders Street has a Collector Road function in the local road network with AADT of 2,500 vpd (2022). The proposal is estimated to increase traffic on Saunders Street at between 35 and 25 vpd during the AM and PM peaks respectively which will increase AADT by some 300vpd. A collector road with AADT of 2,500 vpd can easily absorb 300vpd without disaffecting operation and is estimated to continue to operate at LOS A.

7.3 Pedestrian and Cycle Network

From review of road safety and road hierarchy needs the local road network appears to have adequate pedestrian facilities to cater for the proposal, see Figure 62,

Figure 63 shows the proposed internal pedestrian facilities for the Wynyard Sports Precinct.

It is suggested that Council consider installing a footpath on the Southern side of Jenner Street to complete a pedestrian circuit of the wider precinct as indicated in Figures 62 & 63.

Figure 62 – Existing & proposed Footpaths in the vicinity of the development site.

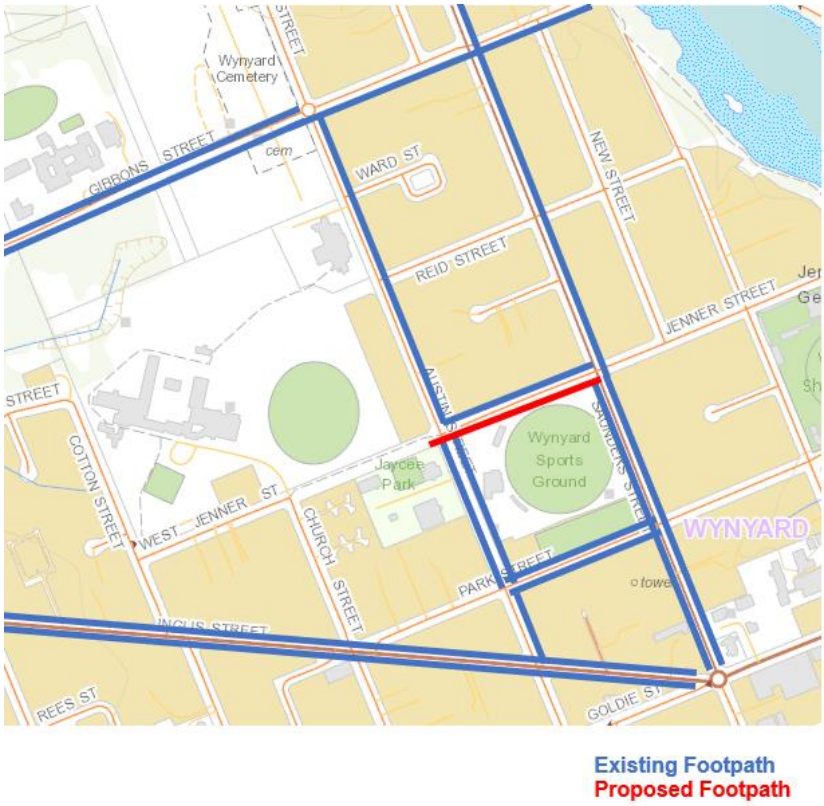
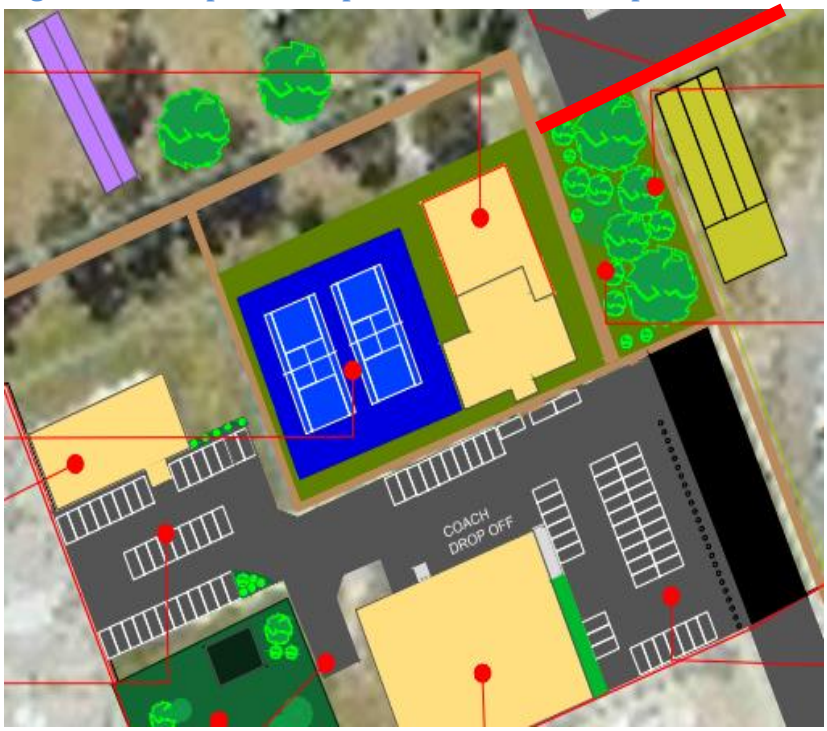


Figure 63 – Proposed Footpaths within the development site.



8. Stakeholder Consultation

8.1 Key Stakeholders

The following key stakeholders have been identified by Council and consulted in accordance with the project brief:

- Table Cape Primary School
- Wynard High School
- School Bus Operators
- Metro
- Emergency Management – Tas Police, Fire and Ambulance

8.2 Stakeholder Feedback

Stakeholders were invited to provide feedback on the proposal over the period 1 to 16 Dec 2022 and the feedback is summarised in Figure 64. Details of the feedback received in each case are attached in Appendix M.

Figure 64 – Stakeholder Feedback Summary.

Stakeholder	Feedback (See Appendix M)		TCS Comment
	Contact	Issues	
Wynyard High School 30 Church St, Wynard			
Table Cape Primary School 33A Gibbons St, Wynyard			
Tas Police - Wynyard (Wynyard Police Station)	Dean Snooks	Changed access to on street parking for football matches has implications for Austin Street intersections with Park and Inglis Streets.	There is normally a hiatus with road closures while road users adjust to the changes. Within 6 months most road users are adjusted.
Tas Fire Servcie North West 15 Three Mile Line Rd, Burnie			
Ambulance TAS - North West 2 Strahan St, Burnie			
Metro			
Wynyard Bus Lines Pty Ltd (1-5 York St, Wynyard)	Abi Wood	Appears to be inadequate turning facilities for buses.	Optimise turning facilities
		School Bus contracts specify the Austin St route, but this can be adjusted.	Advise DSG of intentions.

8.3 Conclusions and recommendations from Stakeholder Feedback

Feedback was received from Tas Police and Wynyard Bus Lines Pty Ltd.

8.3.1 Tas Police- Wynyard

There will likely be some surprises for road users when the changes are first implemented, especially for road users seeking parking on Austin Street for football matches. This is a normal outcome. Usually within 6 months road users adjust to significant changes and this is expected to be the case in this situation.

8.3.2 Wynyard Bus Lines Pty Ltd

It is agreed that bus turning facilities could be improved to cater for projected needs. User friendly bus access is an important objective. Provision of user-friendly bus turning facilities is required for proper function of Sports Precincts.

It is noted that DSG contracts with School Bus service providers normally specify routes to be used. Advising DSG – Road User Services branch of Councils plans should enable existing contracts to be varied to suite.

9. Discussion and Decision Analysis

9.1 Key Objectives

Identified key traffic management objectives for the proposed Wynyard Sports Precinct have been identified from situation appraisal by Council and consultation with key stakeholders. These objectives influence the nature of traffic facilities to be provided and are summarised as follows:

- Minimised through traffic in Austin Street:
    - Need for calm environment for vehicle and pedestrian access to support operation of a sports precinct.
    - Closeness of nearby High School, Wynard Sports Ground and Bowls Club
    - Use as a collector road to Table Cape Primary when a more suitable collector road is available i.e Saunders Street
- Better pedestrian safety given:
    - The range of sports catered for in the area
    - Proportion of vulnerable pedestrians (primary age and elderly)
    - Proximity of Wynard Sports Ground which generates pedestrian activity
    - Pedestrian activity associated with the Wynyard High School
- Better Traffic Safety
    - Need to consider needs of all road users
- Cost effectiveness
    - Viable return on investment
- Preserve Residential Amenity
- Better vulnerable road user safety
    - Provide for motorcyclists, bicyclists, and disabled with accessible parking

These objectives have been used to assess effectiveness of various traffic management options for Austin Street.

9.2 Options to achieve key objectives

9.2.1 Option 1 – Austin Street No Through Road

This option involves converting a 50m length of Austin Street, South of the Jenner Street junction to a landscaped area as shown in Figure 65.1. The landscaped area provides for pedestrian flow free of through traffic.

Issues to be considered include:

- cost of infrastructure service work which may be required.
- Street lighting required for the carpark and pedestrian areas.

Figure 65.1 – Proposed Austin Street Road closure utilising landscaping.

To manage the road closure at the Austin Street Southern access to the precinct a No Through Road Street Sign Blade should be installed at the Austin Street / Park Street intersection. See Figure 65.2 for typical signage. A turning facility is not required. Approaching traffic can circulate around the carpark and exit.

Figure 65.2 – Proposed Austin St. closure signage at Austin St. / Park St. intersection.

To manage the road closure at the Austin Street / Jenner Street corner it is recommended that kerb and channel be retrofitted around the outside of the corner to provide continuity and stormwater drainage combined with a B3 centreline to show all traffic turns at the corner. The B3 line should start some 15m in advance of both approaches to the corner. See Figure 65.3 for typical line marking layout. Residents should be consulted as the B3 Line bans on street parking where applied.

Figure 65.3 – Proposed Austin St / Jenner St corner traffic management.

9.2.2 Option 2 – Austin Street 10km/h Shared Zone

This option involves converting a length of Austin Street, South of the Jenner Street junction to a mall type environment controlled with regulatory Shared Zone and End Shared Zone signs where pedestrians have Right of Way, see Figure 66. The share space is made to not look like a road and provides urban design opportunities.

Issues to be considered include:

- cost of installation and infrastructure service work which may be required.
- Street lighting required for the carpark and pedestrian areas.

Figure 66 – Proposed Austin Street Shared Zone signs.

9.2.3 Option 3 – Austin Street Traffic Calming

This option could involve installation of raised plateaus to reduce vehicle speeds while retaining through flow. Can consist of a range of elements to suit the situation. Figure 67 shows a concept for raised plateaus on Austin Street at the Jenner and Park Street intersections.

Issues to be considered include:

- Whether through traffic is acceptable
- Cost of installation

Figure 67 – Proposed Austin Street Traffic Calming with raised plateaus

9.2.4 Option 4 – Austin Street 40km/hr Zone Speed Limit

This option involves installation of a 40km/hr zone, see Figure 68 for sign type, on Austin Street for 400m encompassing the Jenner Street junction and Inglis Street intersection to reduce vehicle speeds while retaining through flow.

The issue to consider is whether through traffic is acceptable for proposed operation.

Figure 68 – Proposed Austin Street Shared Zone.

9.3 Decision Analysis

Each of the options have been scored against the key objectives which have also been weighted in terms of relative importance. Minimising through traffic, better pedestrian safety and preserving residential amenity were given the highest weightings.

Option 1 is considered the lowest risk option

Option 2 is potentially an expensive option

Option 3 & 4 do not stop through traffic.

Figure 69 summarises the Decision Analysis. Option 1 scored the highest and is potentially the lowest risk option and is therefore recommended.

Decision Statement: **Best Austin Street (Wynyard Sports Precinct) Traffic Management**

Development & Classification of Objectives and Identification and Evaluation of Alternatives

		Is it ?					Alternative solutions											
							Option 1 No Through Rd			Option 2 10km/h Shared Zone			Option 3 Traffic Calming			Option 4 40km/h Speed Limit		
	Objective	Mandatory	Measurable	Realistic	Class M / W	Weight	score	value	notes	score	value	notes	score	value	notes	score	value	notes
1	Minimise through traffic in Austin St.	No	Yes	Yes	Want	10	10	100	Very effective	6	60	Some effect	5	50	Some effect	3	30	Little effect
2	Better Pedestrian Safety	No	Yes	Yes	Want	10	10	100	Very effective	8	80	Effective	7	70	Effective	6	60	Some effect
3	Traffic Safety	No	Yes	Yes	Want	5	8	40	Improved	7	35	Improved	7	35	Improved	5	25	Some effect
4	Low Cost and Cost Effective	No	Yes	Yes	Want	5	4	20	Some Cost	1	5	High Cost	6	30	Some Cost	10	50	Low Cost
5	Preserve Residential Amenity	No	Yes	Yes	Want	10	10	100	Very effective	8	80	Effective	7	70	Effective	6	60	Some effect
6	Better Vulnerable Road User Safety	No	Yes	Yes	Want	5	8	40	Effective	8	40	Effective	7	35	Effective	6	30	Some effect
Total Score							**400**			**300**			**290**			**255**		

Assess Risks

Option 1 has very low risk
Option 2 is potentially expensive converting the road surface to a mall type appearance
Option 3 will still allow through traffic
Option 4 will not discourage through traffic

Decision **Option 1**

Figure 69 – Decision Analysis

10. Waratah Wynyard Int. Plan. Scheme 2013

Traffic Generating Use and Parking Code E9

E9.5.1 Provision for parking

Acceptable Solution A1

Provision for parking must be - (a) the minimum number of on-site vehicle parking spaces must be in accordance with applicable standard for the use class as shown in the Table to this Code (Table E9.1 Provision of Parking Spaces and Loading Areas)

No new facilities are proposed.

The site has 70 existing off street car parking spaces.

The proposal provides for 85 off street car parking spaces.

A1 is satisfied.

E9.5.2 Provision for loading and unloading of vehicle

Acceptable Solution A1
There must be provision within a site for

(a) on-site loading area in accordance with the requirement in the Table this Code (Table E9.1 Provision of Parking); and

(b) passenger vehicle pick-up and set-down facilities for business, commercial, educational and retail use at the rate of 1 space for every 50 parking spaces

Applicable rates from Table E9.1 for the proposed land uses:

Sports and recreation - 1 small rigid truck space.

Proposal provides a small rigid truck space. **A1 is satisfied.**

E9.6.1 Design of vehicle parking and unloading

Acceptable Solution A1.1

All development must provide for the collection, drainage and disposal of stormwater.

A1 is satisfied as proposed carparking is designed for collection & drainage of stormwater**.**

Acceptable Solution A1.2

Other than for development for a single dwelling in the General Residential, Low Density Residential, Urban Mixed Use and Village zones, the layout of vehicle parking area, loading area, circulation aisle and manoeuvring area must –

(a) Be in accordance with AS/NZS 2890.1 (2004) – Parking Facilities - Off Street Car Parking; Satisfied, see Figure 70.

(b) Be in accordance with AS/NZS2890.2 (2002) Parking Facilities - Off Street Commercial Vehicles; Satisfied.

(c) Be in accordance with AS/NZS 2890.3 1993) Parking Facilities – Bicycle Parking Facilities; Satisfied.

(d) Be in accordance with AS/NZS 2890.6 Parking Facilities - Off Street Parking for People with Disabilities; Satisfied.

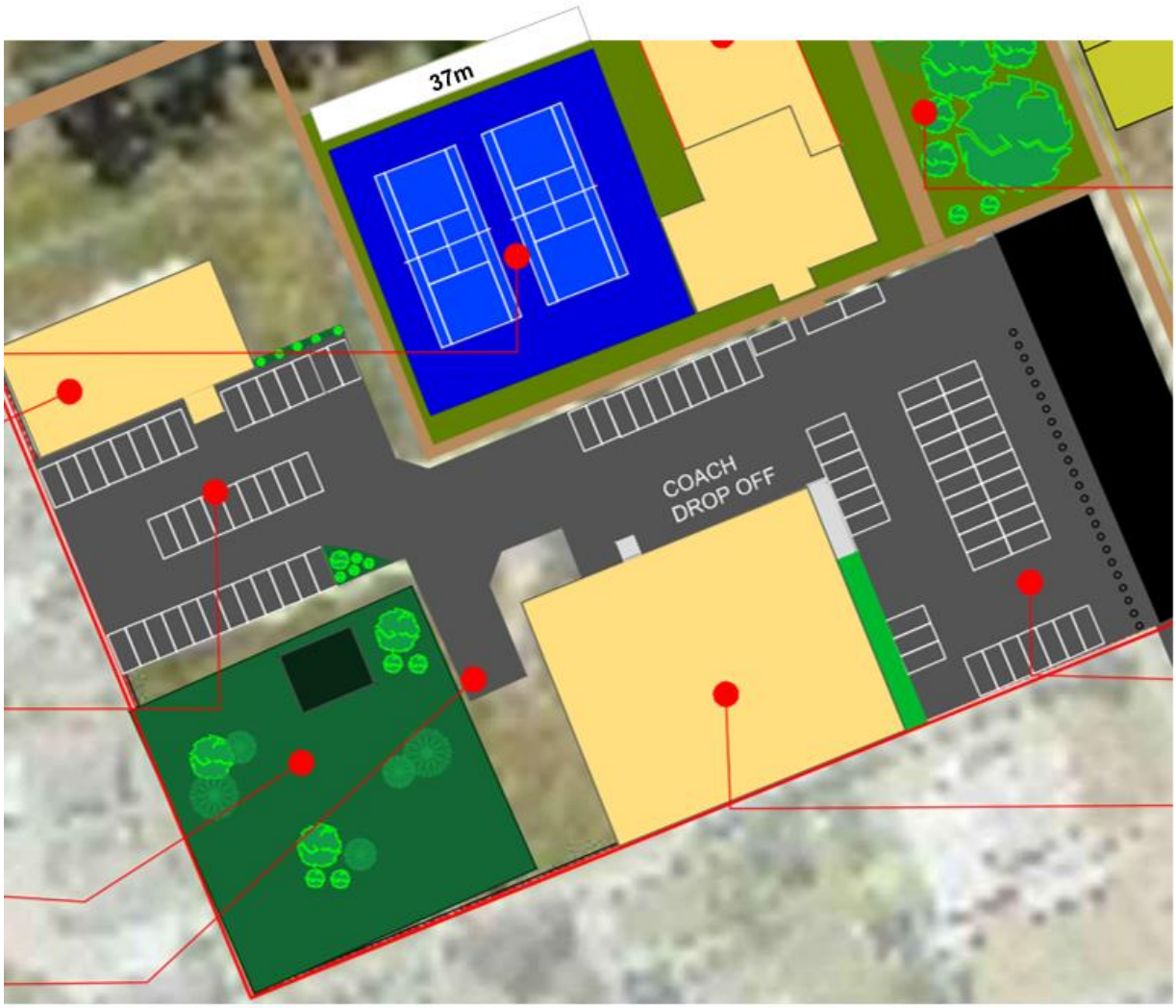
(e) Each parking space must be separately accessed from the internal circulation aisle within the site; Satisfied.

(f) Provide for the forward movement and passing of all vehicles within the site other than if entering or leaving a loading or parking space; Satisfied.

(g) Be formed and constructed with compacted sub-base and an all-weather surface. Satisfied.

A1.2 is satisfied.

Figure 70 – Proposed off street parking



- **Acceptable parking spaces are shown as 2.5m wide by 5.4m long.**
- **Acceptable circulating aisle width shown as 6.2m wide.**
- **Need to show small rigid truck parking space.**
- **Need to show at least 2 accessible parking spaces**

11. Recommendations and Conclusions

This traffic impact assessment has assessed the proposed Wynyard Sports Precinct development and associated traffic management options for Austin Street.

All the surrounding intersections potentially impacted by the proposal have been surveyed with traffic surveys by WWC to establish baseline data including Metrocount traffic data on the road links to verify through volumes and 85th percentile speeds.

Intersections, links surveyed, traffic data obtained and projections for Option 1 are summarised in Figure 71.

Figure 71 – Impact of Option 1 on traffic activity

							Option 1	
Road	Location	Data Source	Traffic Counts from 2022 Data				2032	2042
			AM Peak	PM Peak	AADT	Overall AADT	Overall AADT	Overall AADT
			(vph)	(vph)	(vpd)	(vpd)	(vpd)	(vpd)
Inglis St.	At Hales St.	WWC	620	586	6,030	6,500	7,150	7,865
	At Austin St.	WWC	610	718	6,640			
	At Saunders St.	TCS	700	700	7,000			
Austin St.	Jenner St.	WWC	106	132	1,190	1,050	790	830
	Inglis St.	WWC	100	80	900			
Saunders St.	Inglis St.	TCS	250	260	2,550	2,500	2,940	3,090
	Park St.	WWC	245	254	2,500			
	Jenner St.	TCS	250	235	2,420			
	Gibbons St.	WWC	256	216	2,360			
Hales St.	Gibbons St.	WWC	257	192	2,245	2,300	2,415	2,536
	Inglis St.	WWC	258	225	2,415			
Park St.	Saunders St.	WWC	28	34	310	300	315	331
Jenner St.	Saunders St.	TCS	16	29	220	220	231	243
	Austin St.	WWC	16	29	220			
Gibbons St.	Saunders St.	WWC	162	103	1,320	1,500	1,575	1,654
	Austiin St.	TCS	189	119	1,537			
	Hales St.	WWC	216	135	1,755			

Estimated from recorded data
Estimated from interpolation

11.1 Traffic Capacity

Intersection standards

Austroads junction warrants were reviewed for the most impacted intersection:

- Saunders / Gibbons Street intersection
- Saunders / Park Street intersection

The intersection layouts were found to be adequate for all scenarios, see Figures 51 – 54.

Intersection capacity

The intersections were all found to be operating with low traffic volumes in the range where there are no traffic capacity issues. The existing intersection and road standards were found to be suitable for the level of traffic activity and estimated to continue to operate at LOS A by 2042.

Pedestrian capacity

Adequate pedestrian facilities are provided. It is suggested that Council consider installing a footpath along the Southern side of Jenner Street to complete a pedestrian circuit of the wider sports precinct in the area

11.2 Traffic Safety

Traffic safety has been assessed in terms of crash history, road safety review and Austroads Safe System Assessment. Findings are summarised as follows:

5 Year Reported Crash History

Reported crash history demonstrates a normal crash rate for urban residential environment with no evidence of any crash propensities.

Road Safety Review

From site observations some line-of-sight restrictions due to trees and shrubs were identified as follows. These issues are considered minor and can be rectified by pruning and or removal of vegetation.

Austroad Safe System Assessment (SSA)

From the SSA methodology crash risk at all the intersections and along all the links is assessed as very low as traffic activity is low, the speed environment is low and the road infrastructure and intersection standards are high.

11.3 Traffic Speeds

Traffic flow and speeds on the roads within the study area are summarised in Figure 72.

Figure 72 – Waratah Wynyard Council Traffic Flow & Speed Survey Data (2022)

Road	Average AADT (vpd)	Traffic Speeds Posted Limit (km/h)	85th% Speed (km/h)
Inglis St.	6500	60	54.36
Austin St.	1050	50	59.40
Saunders St.	2500	60	63.00
Hales St.	2300	50	
Park St.	300	50	42.48
Jenner St.	220	50	50.58
Gibbons St.	1500	50	58.86

The 85th Percentile Speed is the speed which 85% of traffic using the road operate at or below. 15% of traffic using the road exceed the 85th Percentile Speed.

The 85th Percentile traffic speed data provides evidence of reasonable compliance with the Speed Limits on each of the roads within the study area. It is also noted that the:

- 85th Percentile speed on Austin St is 59.4 km/h within a 50km/h Speed Limit.
- 85th Percentile speed on Saunders St is 63 km/h within a 60km/h Speed Limit.

It is suggested that the proposal will enable transfer of through traffic to Saunders Street which has a speed limit more in keeping with demand than Austin Street. This transfer is unlikely to increase the 85th Percentile Speed on Saunders Street.

11.4 Austin Street Sports Precinct

Traffic Management objectives

- Minimised through traffic in Austin Street:
- Better pedestrian safety given:
- Better Traffic Safety
- Cost effectiveness
- Preserve Residential Amenity
- Better vulnerable road user safety

Identified options

- Option 1 – Austin Street No Through Road
- Option 2 – Austin Street 10km/h Shared Zone
- Option 3 – Austin Street Traffic Calming
- Option 4 – Austin Street 40km/hr Zone Speed Limit

Decision Analysis

Each option was scored against the key objectives and Option 1 scored the highest with the lowest risk profile and is recommended.

11.5 Stakeholder Engagement

Key stakeholders were consulted regarding their views on the proposal. Feedback received is summarised in Figure 64.

The issued with bus friendly access to the Sport Precinct can be resolved in the final design process.

11.6 Road Hierarchy Management

The proposed Option1 results in a transfer of some 300vpd from Austin Street to Saunders Street, see Figure 50 and the following AADT summaries pre and post implementation of Option 1 . This increase is supported by the Wynyard Road Hierarchy which shows Saunders Street as the Collector Road serving area.

2022 AADT (pre implementation of Option 1)

- Austin Street – 1,050 vpd
- Saunders Street – 2,500 vpd

2023 AADT (post implementation of Option 1)

- Austin Street – 750 vpd
- Saunders Street – 2,800 vpd

These traffic activity levels are within guidelines for residential liveability, safety and amenity of the local area, see Section 6.8 of this report.

11.7 Waratah Wynyard Interim Planning Scheme 2013

Evidence is provided to demonstrate compliance with Traffic Generating Use and Parking Code E9.

11.8 Recommendations:

Traffic Safety Review

- *Clear sight lines at Austin Street / Gibbons Street roundabout*
    - *Western approach, see Figure 21a*
    - *Northern approach, see Figure 21b*
    - *Eastern approach, see Figure 21d*
- *Maintain clear sight lines at Inglis Street / Saunders Street roundabout*
    - *Northern approach, see Figure 31a*
    - *Southern approach, see Figure 31b*
    - *Western approach, see Figure 31d*

- *Clear sight lines at Saunders Street / Jenner Street intersection*
    - *Looking right from Jenner Street along Saunders Street, see Figure 35*
- *Clear sight lines at Saunders Street / Gibbons Street intersection*
    - *Looking left from Gibbons Street along Saunders Street, see Figure 40*

Austin Street Traffic Management

- *Subject to completion of the Regulatory Road Closure process in accordance with the Local Government Highway Act 1982, see extract attached in Appendix N, proceed with Option 1.*
- *Make Austin Street a No Through Road and modify the Austin Street / Jenner Street corner by retrofit of kerb & channel and B3 centreline, see Section 9.2.1 and Figures 95.2 and 95.3.*
- *Consult with residents concerning management of the Austin Street ./ Jenner Street corner as there is some loss of on street parking associated with installation of the B3 centreline.*
- *Consult with Wynard Bus Lines on the type and size of buses / coaches likely to access and or park within the Wynyard Sports Precinct.*
- *Design for the bus / coach access and parking agreed by Council and prepare preliminary design plans to suit including provision of internal circulation width for swept path of public transport, agreed bus zone provision and adjustment of the carpark design for user friendly access for all.*

Suggestions:

- *Improve pedestrian connectivity around wider Wynyard Sport Precinct by providing footpath along the Southern side of Jenner Street.*

Overall, it has been concluded that the proposed development will not create any traffic issues and traffic will continue to operate safely and efficiently on the existing road network. Based on the finding of this report and subject to the recommendations above, the proposal is supported on traffic grounds.

Appendices

Appendix A - Wynyard Sports Precinct Concept

Appendix B - WWC Turning Count Surveys

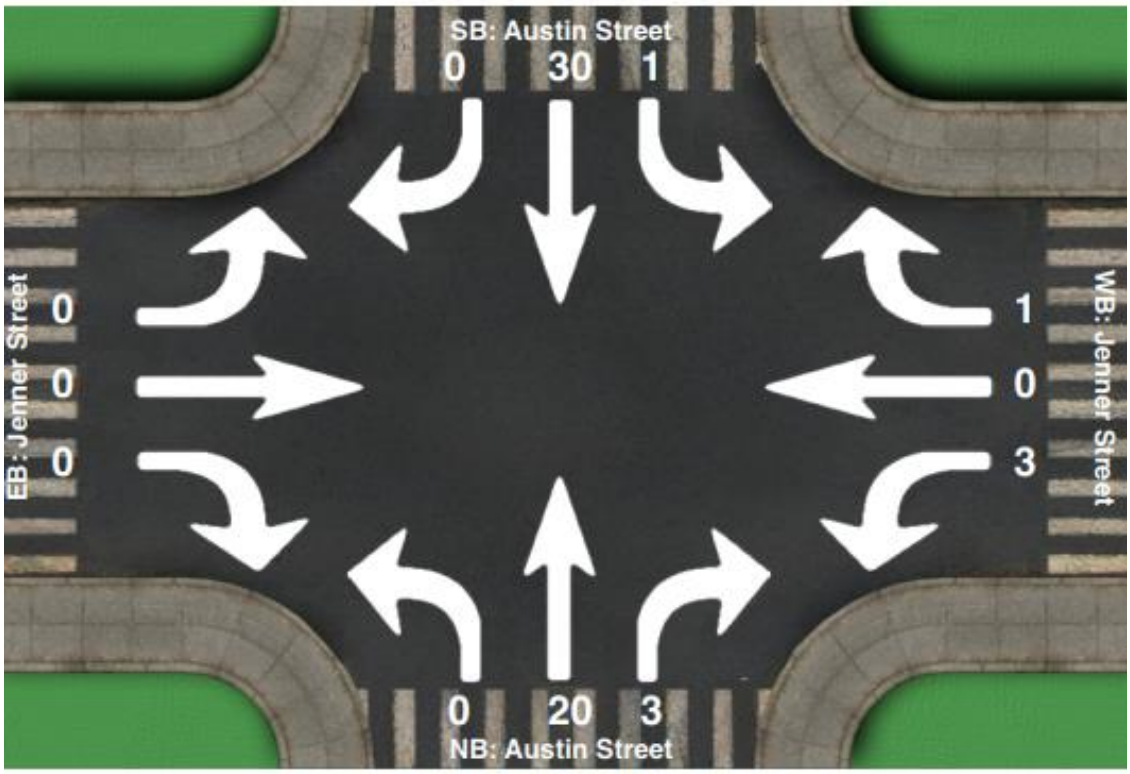
Austin / Jenner AM

Austin Street
- **AM Peak 106 vph**
- **PM Peak 132 vph**
- **Estimated AADT 1,190 vpd**

Jenner Street
- **AM Peak 16 vph**
- **PM Peak 29 vph**
- **Estimated AADT 220 vpd**

Intersection Count Summa

Location: Austin Street at Jenner Street, Wynyard
GPS Coordinates: Lat=-41.443828, Lon=147.141768
Date: 2022-08-26
Day of week: Friday
Weather: Fine
Analyst: Richard Burk



Intersection Count Summary

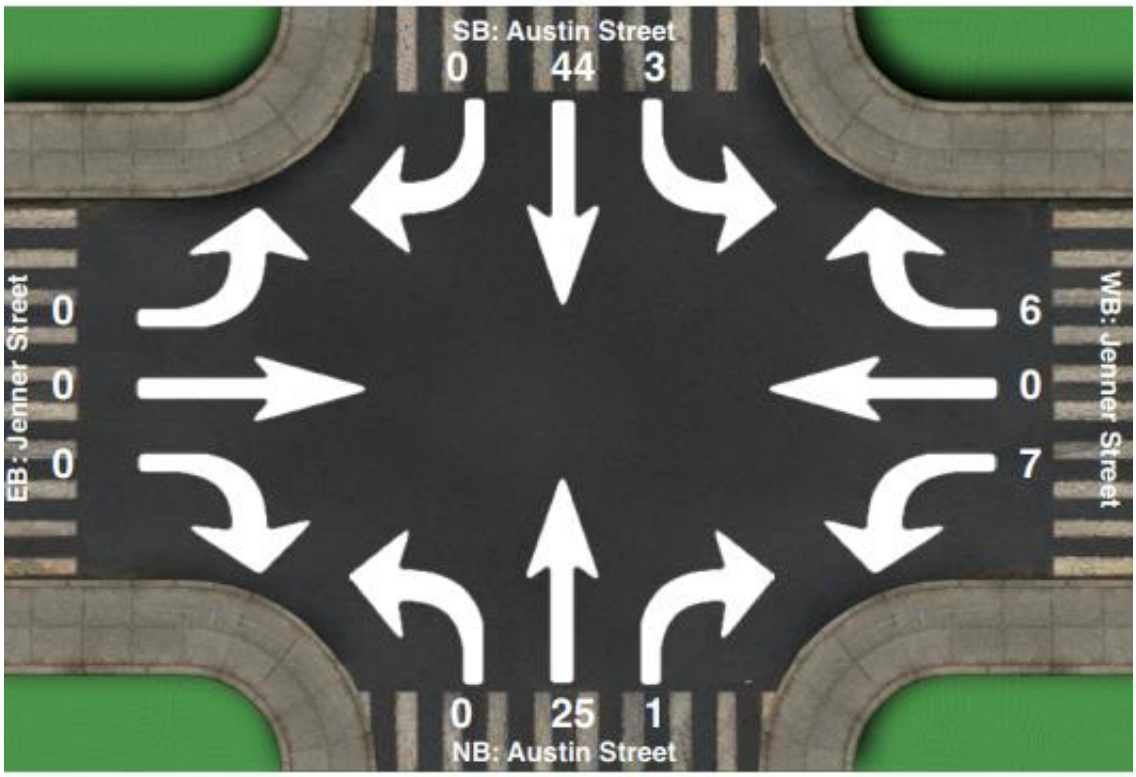
08:21 - 08:51

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	1	30	0	3	0	1	0	20	3	0	0	0	58

Austin / Jenner PM

Intersection Count Summary

Location: Austin Street at Jenner Street, Wynyard
GPS Coordinates: Lat=-41.443828, Lon=147.141768
Date: 2022-08-26
Day of week: Friday
Weather: Overcast
Analyst: Gary Neil



Intersection Count Summary

14:36 - 15:10

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	3	44	0	7	0	6	0	25	1	0	0	0	86

Inglis / Hales AM

Inglis Street

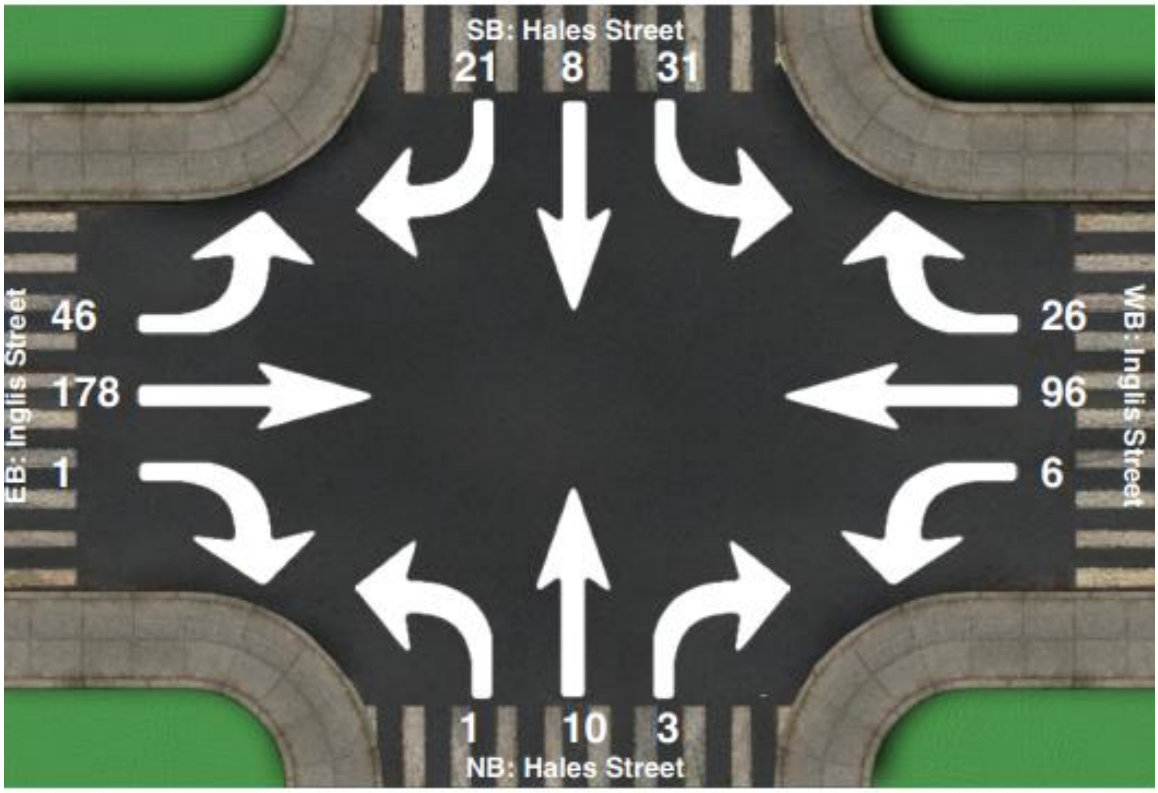
- **AM Peak 620 vph**
- **PM Peak 586 vph**
- **Estimated AADT 6,030 vpd**

Hales Street

- **AM Peak 258 vph**
- **PM Peak 225 vph**
- **Estimated AADT 2,415 vpd**

Intersection Count Summ

Location: Hales Street at Inglis Street, Wynyard
GPS Coordinates: Lat=-41.443828, Lon=147.141768
Date: 2022-08-31
Day of week: Wednesday
Weather: Sunny
Analyst: Gary Neil



Intersection Count Summary

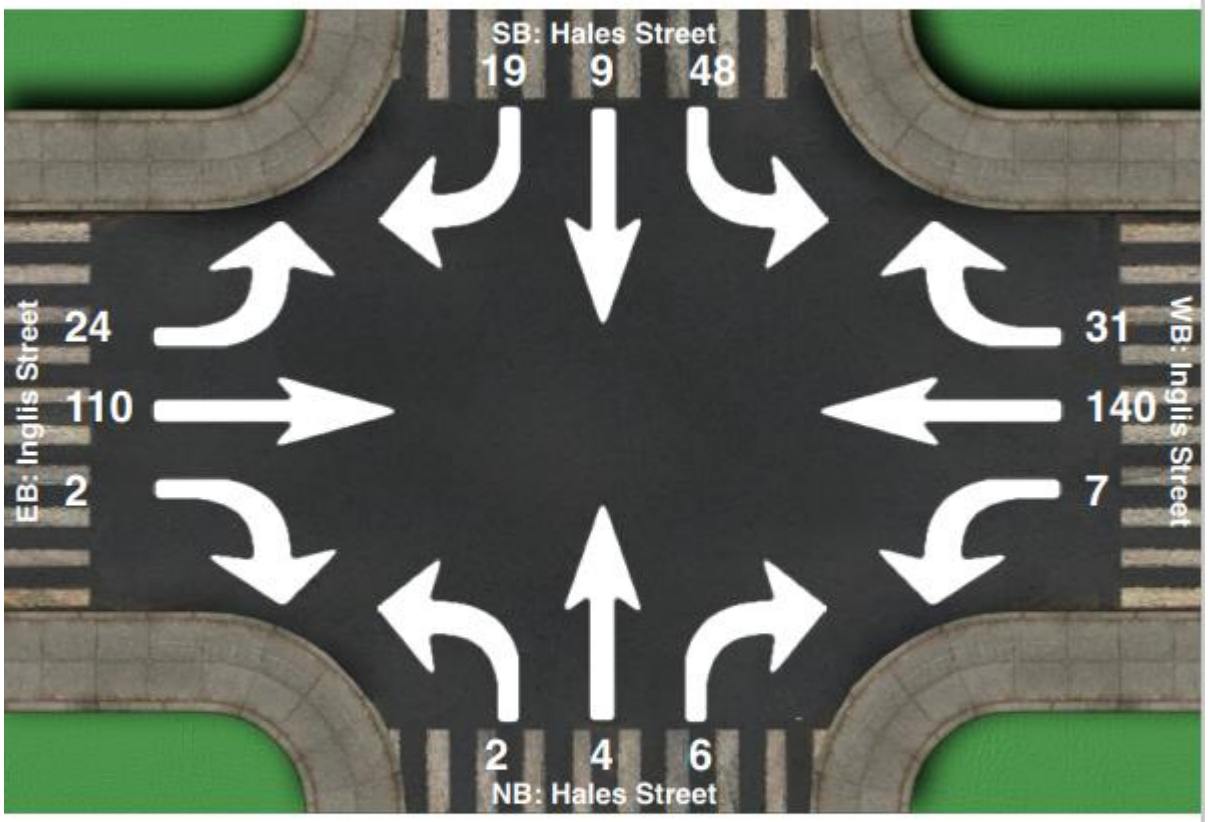
08:17 - 08:50

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	31	8	21	6	96	26	1	10	3	46	178	1	427

Inglis / Hales PM

Intersection Count Summary

Location: Hales Street at Inglis Street, Wynyard
GPS Coordinates: Lat=-41.443828, Lon=147.141768
Date: 2022-08-31
Day of week: Wednesday
Weather: Sunny
Analyst: Gary Neil



Intersection Count Summary

14:35 - 15:10

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	48	9	19	7	140	31	2	4	6	24	110	2	402

Inglis / Austin AM

Inglis Street

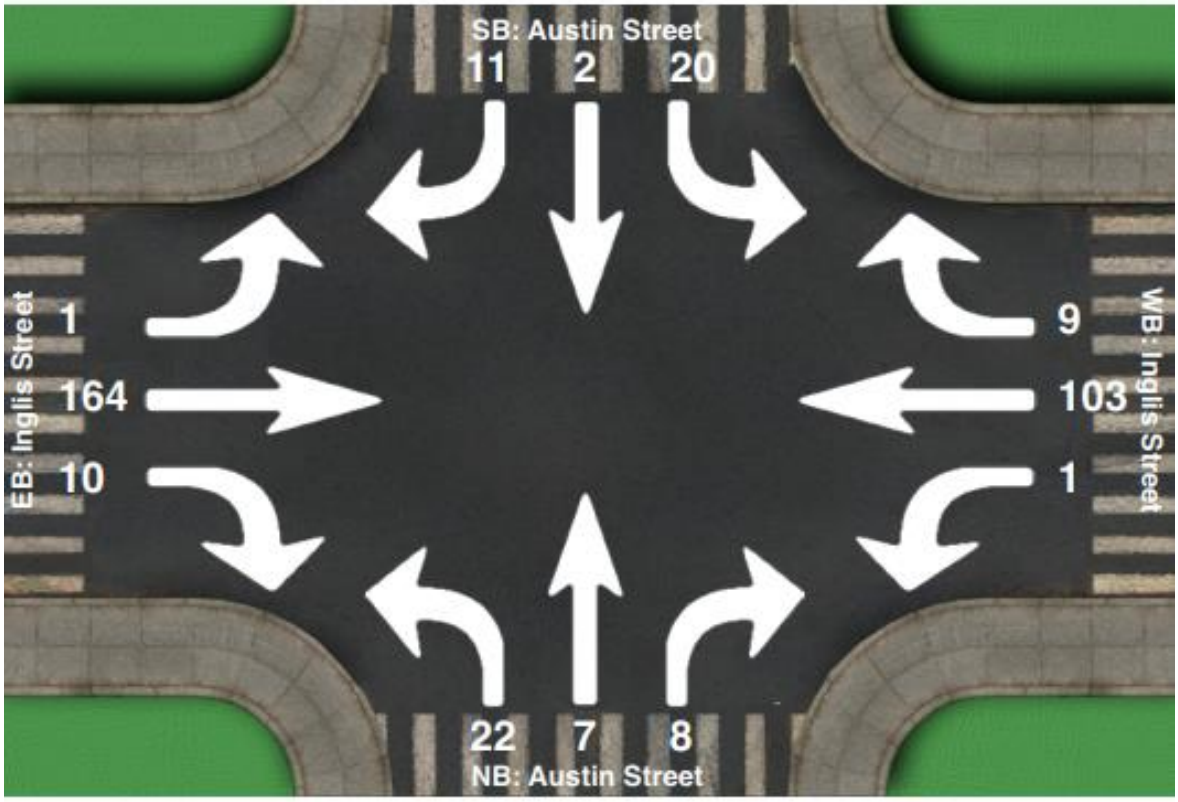
- AM Peak 610 vph
- PM Peak 718 vph
- Estimated AADT 6,640 vpd

Austin Street

- AM Peak 100 vph
- PM Peak 80 vph
- Estimated AADT 900vpd

Intersection Count Su

Location: Austin Street at Inglis Street, Wynyard
GPS Coordinates: Lat=-41.443828, Lon=147.141768
Date: 2022-09-02
Day of week: Friday
Weather: Sunny
Analyst: Gary Neil



Intersection Count Summary

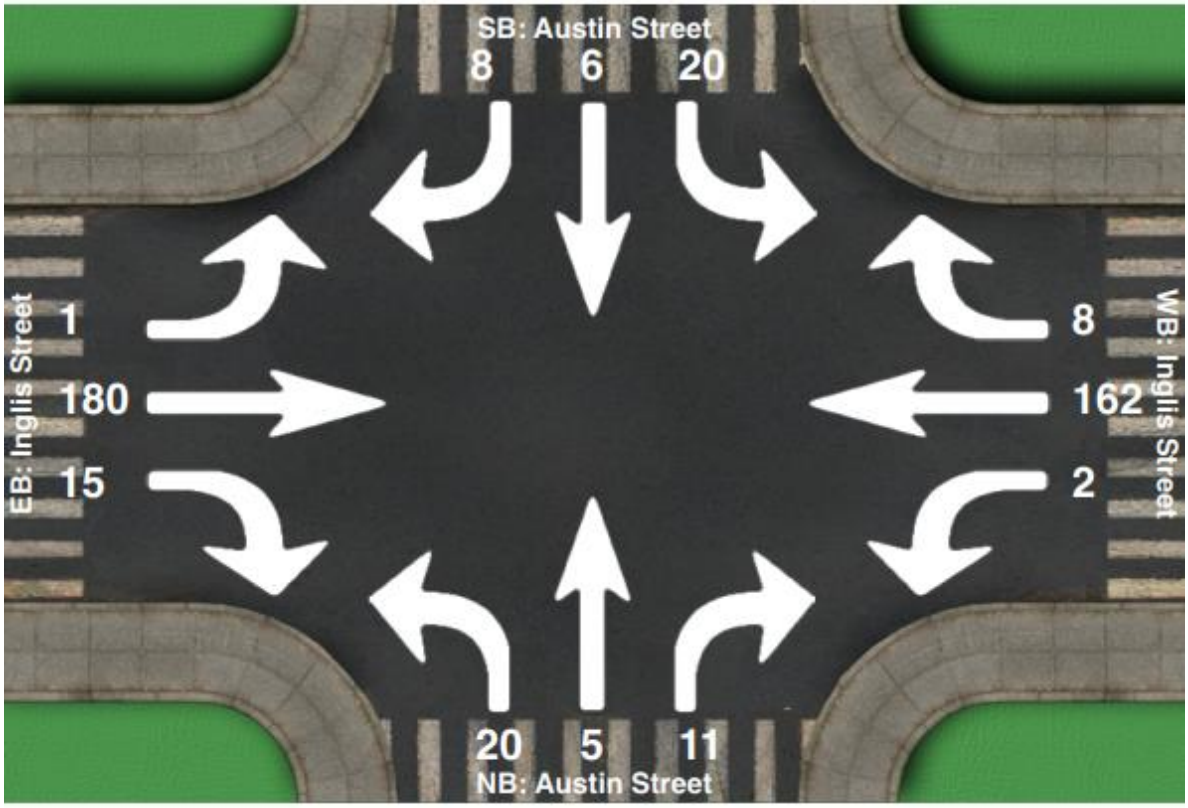
08:19 - 08:50

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	20	2	11	1	103	9	22	7	8	1	164	10	358

Inglis / Austin PM

Intersection Count Summary

Location: Austin Street at Inglis Street, Wynyard
GPS Coordinates: Lat=-41.443828, Lon=147.141768
Date: 2022-09-02
Day of week: Friday
Weather: Sunny
Analyst: Gary Neil



Intersection Count Summary

14:38 - 15:10

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	20	6	8	2	162	8	20	5	11	1	180	15	438

Inglis / Saunders AM
Inglis / Saunders PM

Saunders / Park AM

Saunders Street

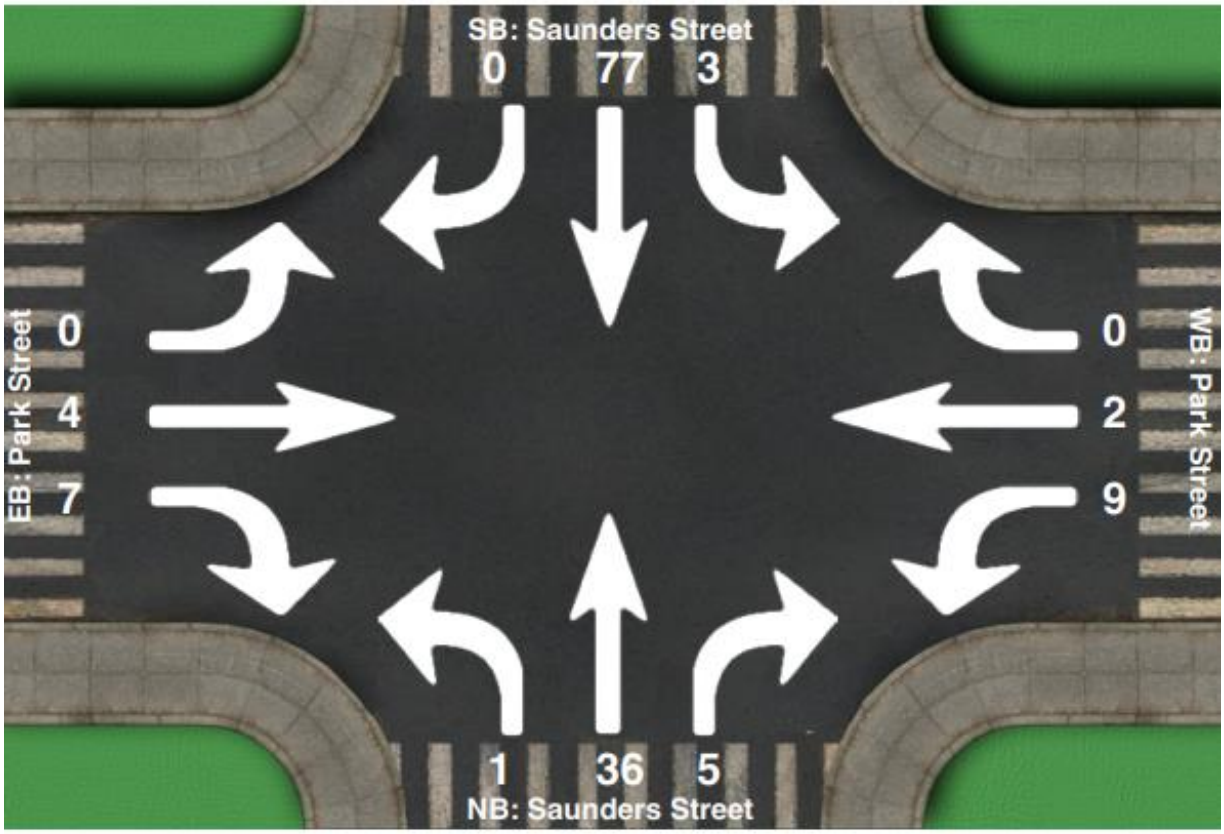
- **AM Peak 245 vph**
- **PM Peak 254 vph**
- **Estimated AADT 2,500vpd**

Park Street

- **AM Peak 28 vph**
- **PM Peak 34 vph**
- **Estimated AADT 310vpd**

Intersection Count Summ

Location: Saunders Street at Park Street, Wynyard
GPS Coordinates: Lat=-41.443828, Lon=147.141768
Date: 2022-09-01
Day of week: Thursday
Weather: Raining
Analyst: Gary Neil



Intersection Count Summary

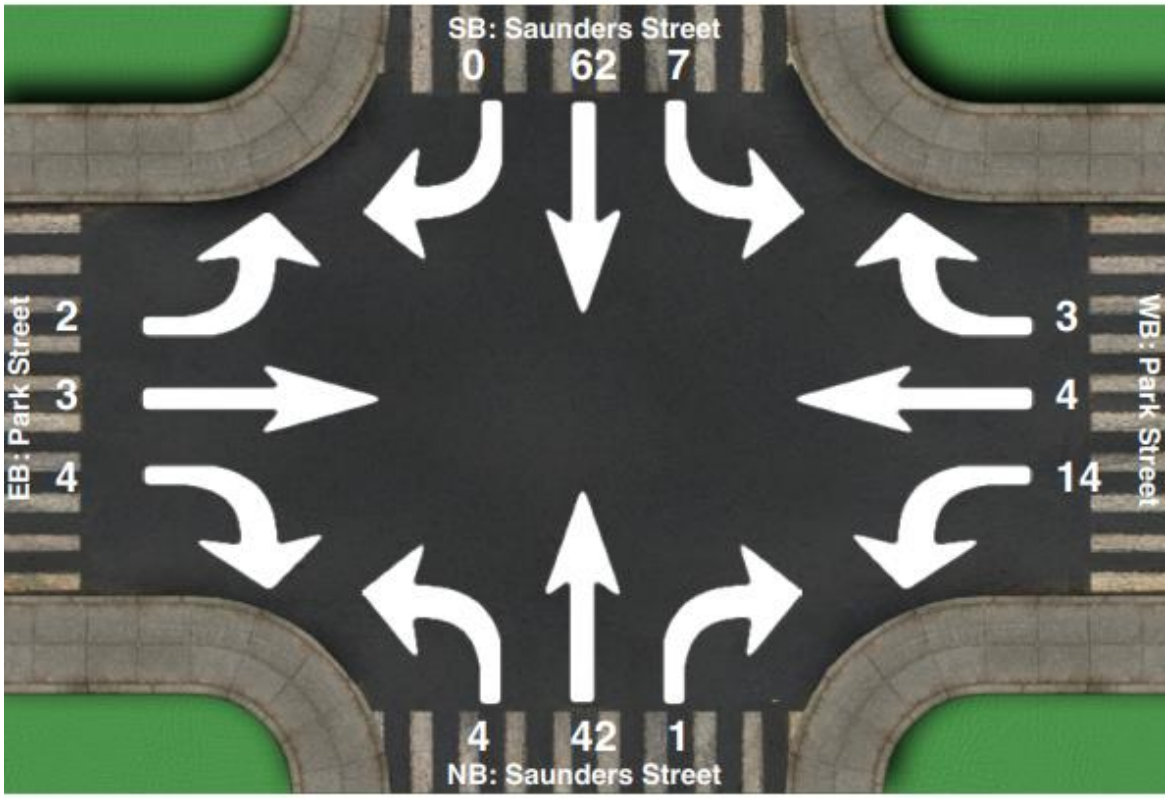
08:17 - 08:50

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	3	77	0	9	2	0	1	36	5	0	4	7	144

Saunders / Park PM

Intersection Count Summary

Location: Saunders Street at Park Street, Wynyard
GPS Coordinates: Lat=-41.443828, Lon=147.141768
Date: 2022-09-01
Day of week: Thursday
Weather: Overcast
Analyst: Gary Neil



Intersection Count Summary

14:39 - 15:09

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	7	62	0	14	4	3	4	42	1	2	3	4	146

Saunders / Jenner AM

Saunders / Jenner PM

Saunders Street

- **AM Peak vph**
- **PM Peak vph**
- **Estimated AADT vpd**

Jenner Street

- **AM Peak vph**
- **PM Peak vph**
- **Estimated AADT vpd**

Saunders / Gibbons AM

Saunders Street

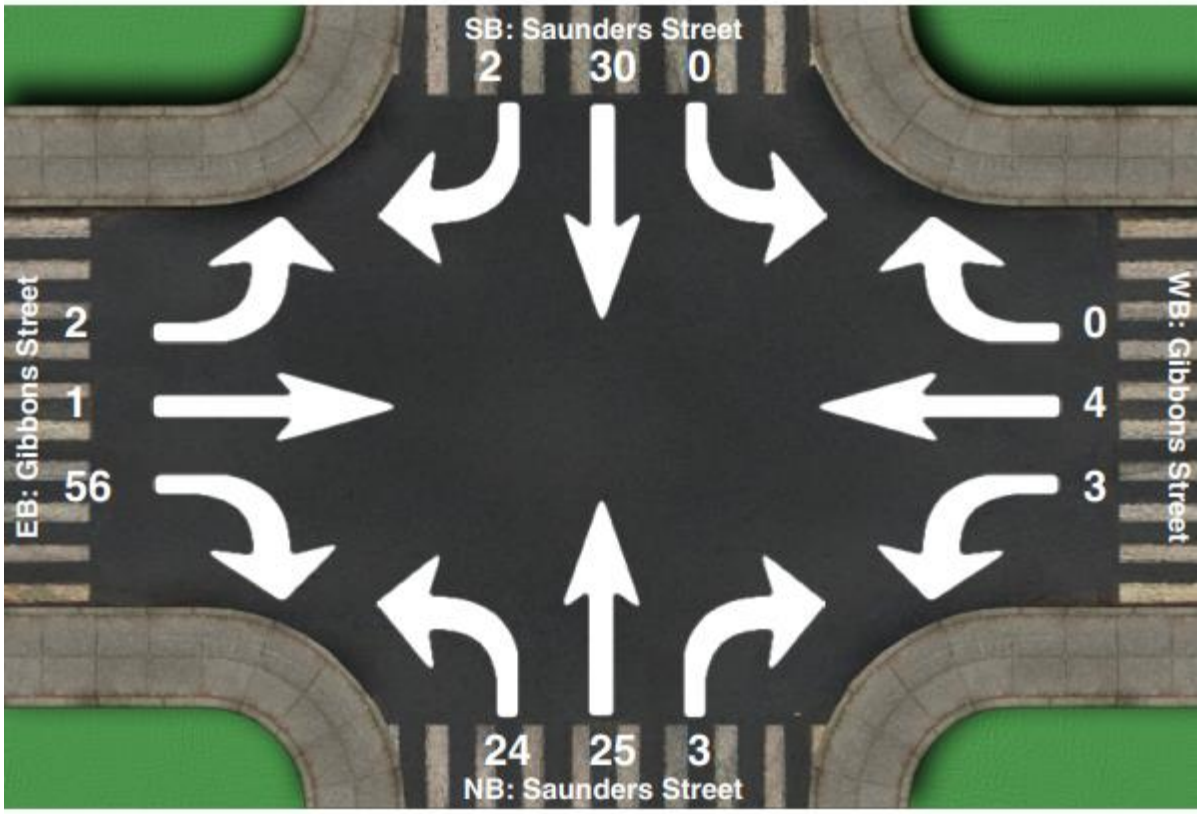
- **AM Peak 256 vph**
- **PM Peak 216 vph**
- **Estimated AADT 2,360vpd**

Gibbons Street

- **AM Peak 162 vph**
- **PM Peak 103 vph**
- **Estimated AADT 1,320vpd**

Intersection Count Summ

Location: Saunders Street at Gibbons Street, Wynyard
GPS Coordinates: Lat=-41.443828, Lon=147.141768
Date: 2022-08-30
Day of week: Tuesday
Weather: Raining
Analyst: Gary Neil



Intersection Count Summary

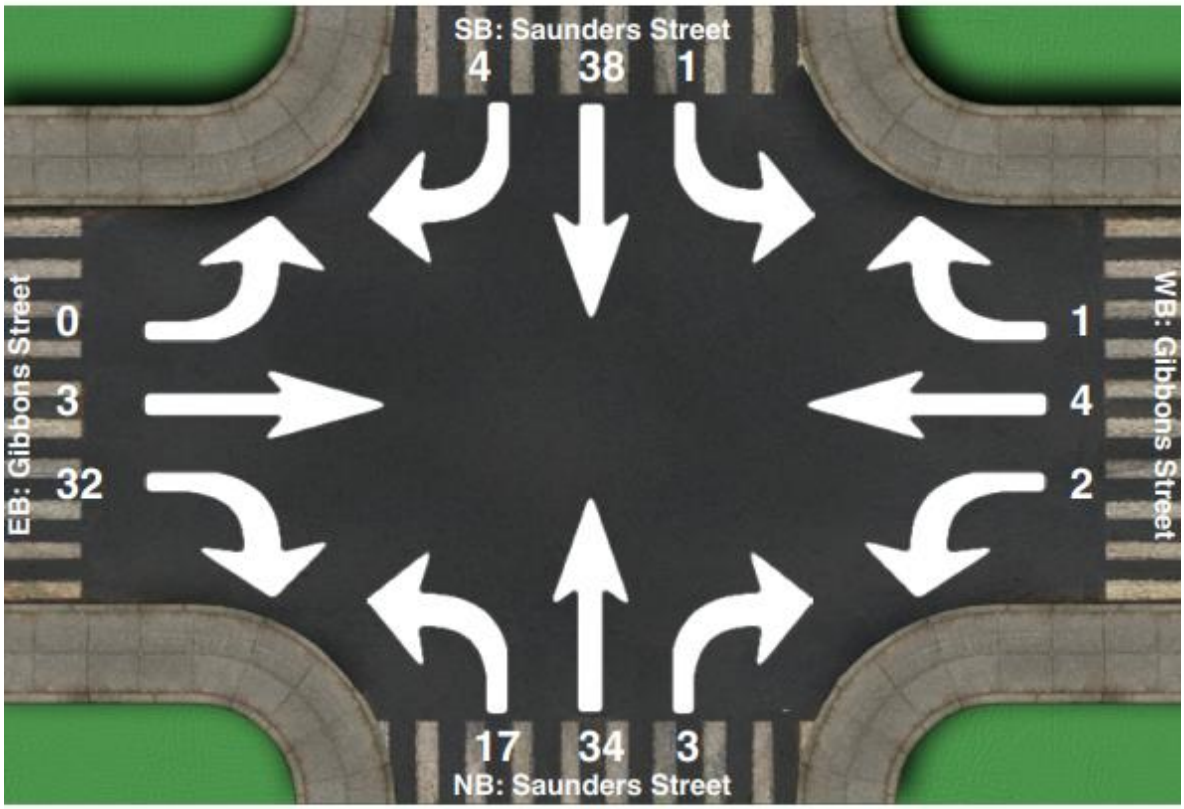
08:16 - 08:49

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	0	30	2	3	4	0	24	25	3	2	1	56	150

Saunders / Gibbons PM

Intersection Count Summary

Location: Saunders Street at Gibbons Street, Wynyard
GPS Coordinates: Lat=-41.443828, Lon=147.141768
Date: 2022-08-30
Day of week: Tuesday
Weather: Overcast
Analyst: Gary Neil



Intersection Count Summary

14:35 - 15:10

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	1	38	4	2	4	1	17	34	3	0	3	32	139

Hales / Gibbons AM

Intersection Count Summ

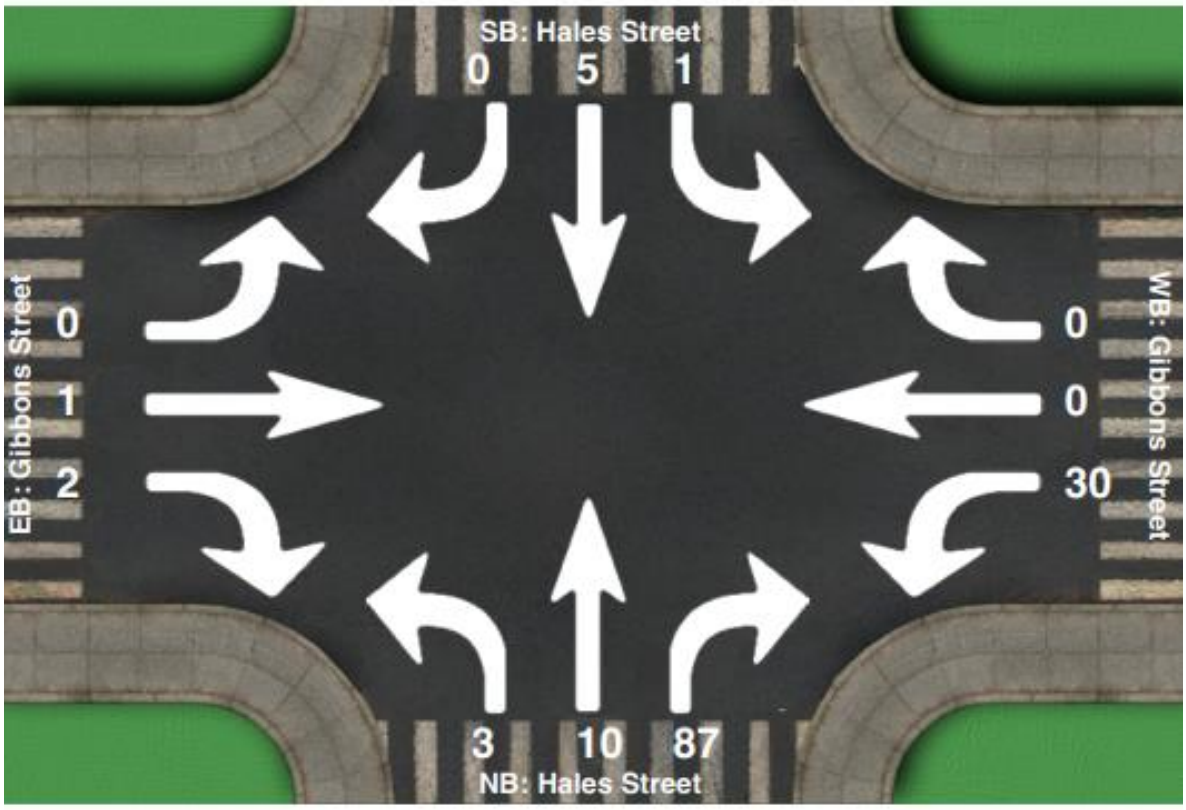
Location: Hales Street at Gibbons Street, Wynyard
GPS Coordinates: Lat=-41.443828, Lon=147.141768
Date: 2022-08-29
Day of week: Monday
Weather: Sunny
Analyst: Gary Neil

Hales Street (West)

- AM Peak 257 vph
- PM Peak 192 vph
- Estimated AADT 2,245vpd

Gibbons Street

- AM Peak 216 vph
- PM Peak 135 vph
- Estimated AADT 1,755vpd



Intersection Count Summary

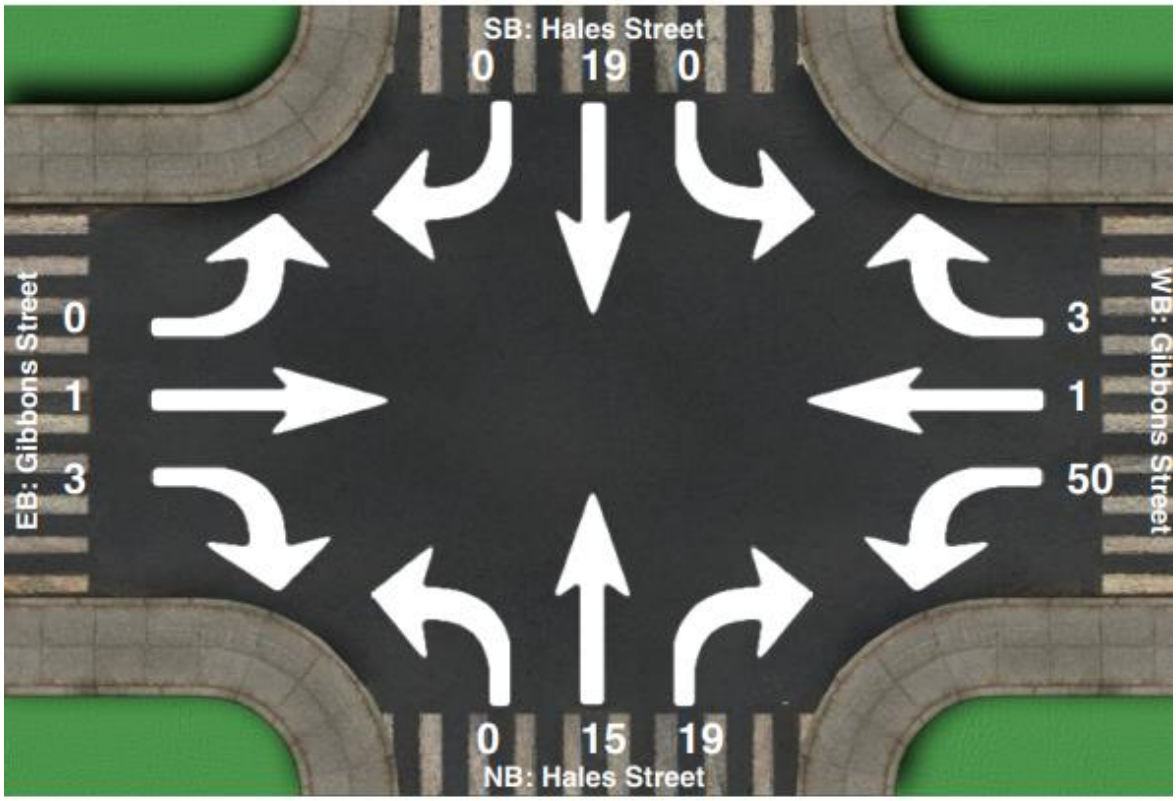
08:17 - 08:49

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	1	5	0	30	0	0	3	10	87	0	1	2	139

Hales / Gibbons PM

Intersection Count Summary

Location: Hales Street at Gibbons Street, Wynyard
GPS Coordinates: Lat=-41.443828, Lon=147.141768
Date: 2022-08-29
Day of week: Monday
Weather: Showers
Analyst: Gary Neil



Intersection Count Summary

14:36 - 15:09

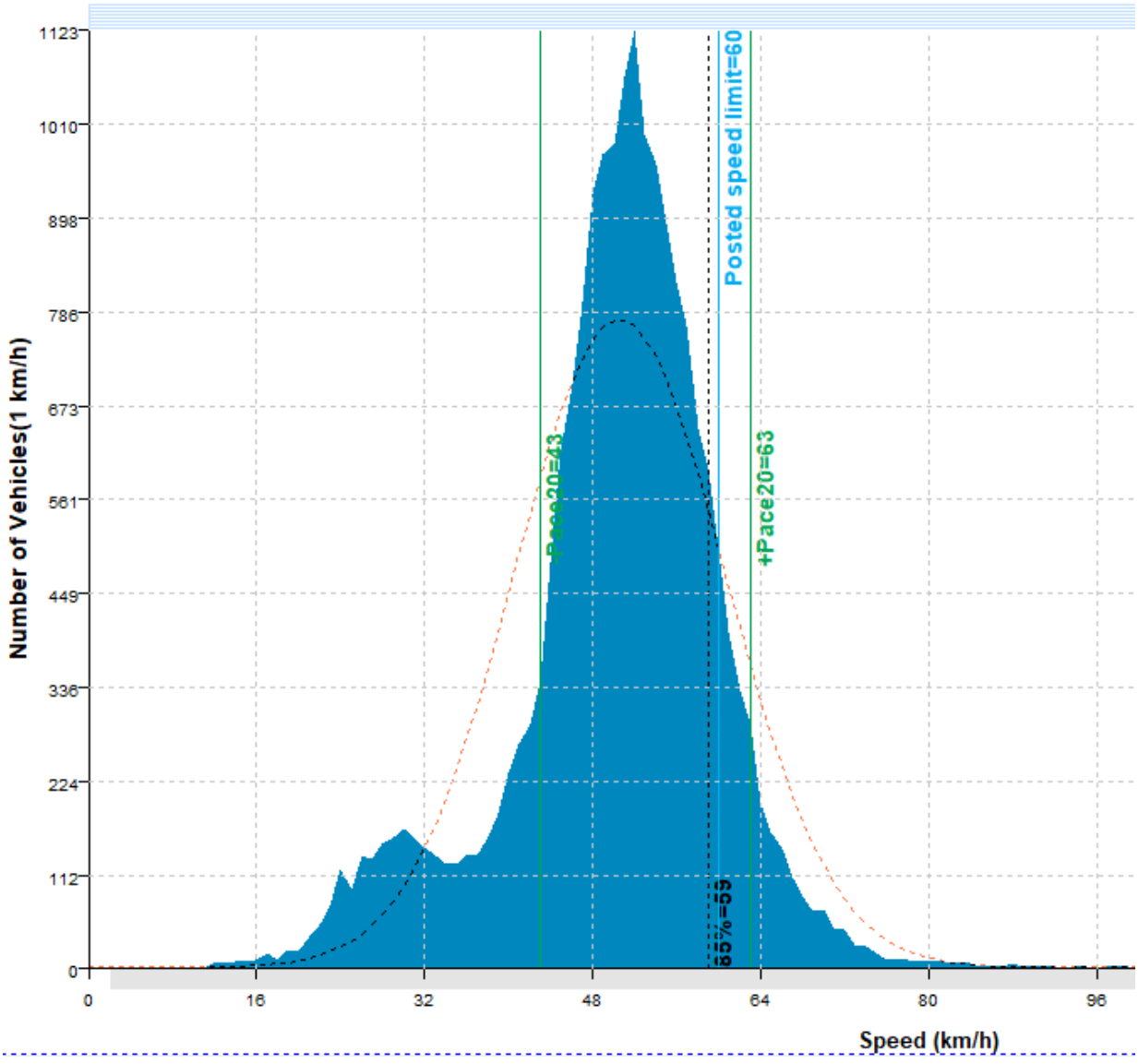
	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	0	19	0	50	1	3	0	15	19	0	1	3	111

Appendix C - WWC Traffic Survey Data

Austin Street – Power Pole 510206

Speed Histogram

SpeedHist-12 (Metric) **Site:** Austin St.0.0N
Description: Power Pole #510206
Filter time: 0:00 Friday, 25 November 2022 => 16:19 Friday, 16 December 2022
Filter: Cls(1-12) Dir(NESW) Sp(10,160) Headway(>0) Span(0 - 100) Lane(0-16)
Scheme: Vehicle classification (AustRoads94)



MetroCount

MetroCount Traffic Executive
Speed Histogram

SpeedHist-12 -- English (ENA)

Datasets:

Site:	**[Austin St] Power Pole #510206**
Attribute:	5006
Direction:	1 - North bound, A trigger first. **Lane:** 0
Survey Duration:	0:00 Friday, 25 November 2022 => 16:19 Friday, 16 December 2022,
Zone:	
File:	Austin Street 6052_161222.EC0 (Plus)
Identifier:	QG68E9VB MC5900-X13 (c)MetroCount 09Nov16
Algorithm:	Factory default axle (v5.08)
Data type:	Axle sensors - Paired (Class/Speed/Count)

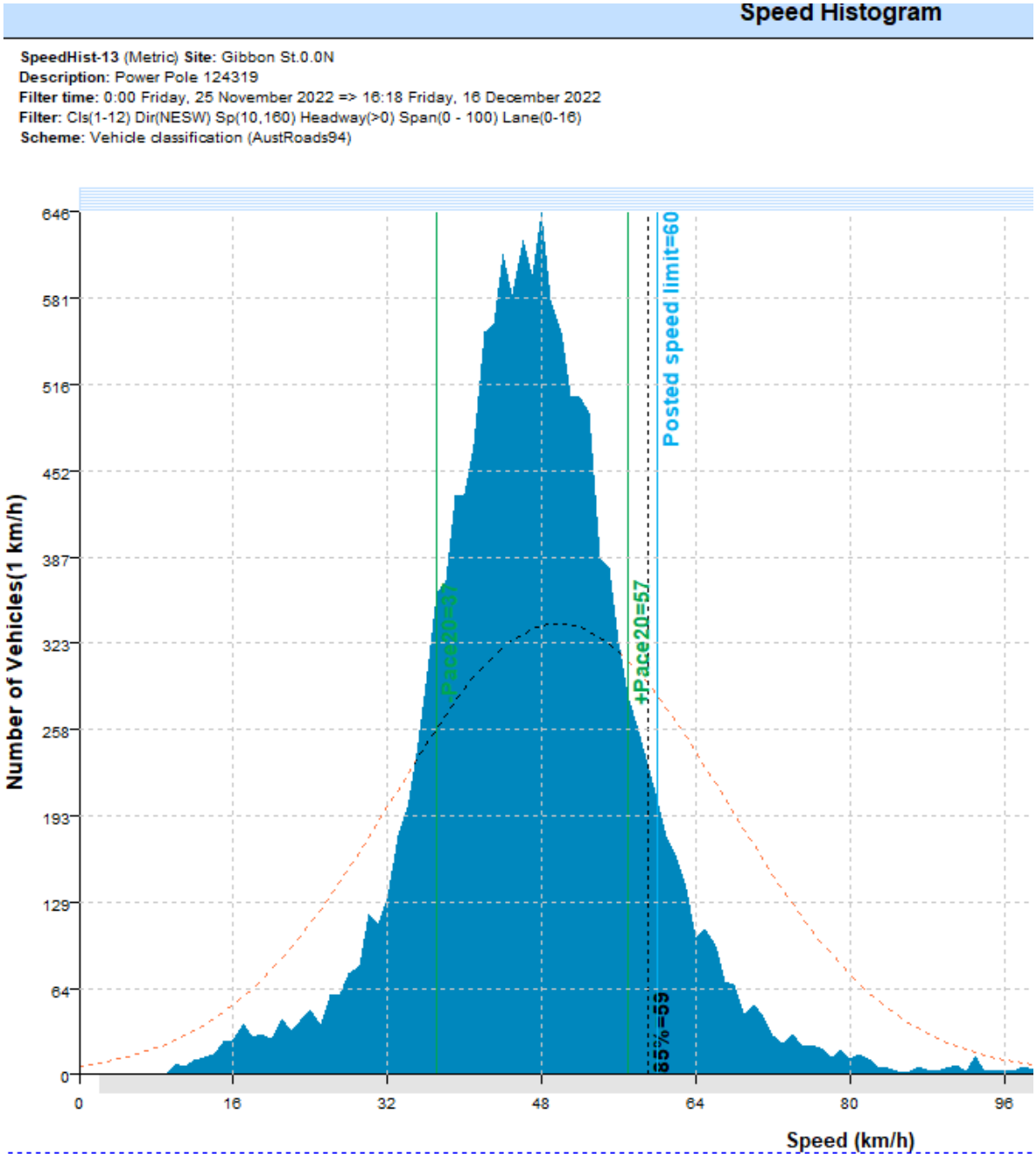
Profile:

Filter time:	**0:00 Friday, 25 November 2022 => 16:19 Friday, 16 December 2022 (21.6803)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	10 - 160 km/h.
Direction:	North, East, South, West (bound), P = North, Lane = 0-16
Separation:	Headway > 0 sec, Span 0 - 100 metre
Name:	Default Profile
Scheme:	Vehicle classification (AustRoads94)
Units:	Metric (metre, kilometre, m/s, km/h, kg, tonne)
In profile:	Vehicles = 19600 / 19625 (99.87%)

Speed Statistics

Direction: NS
Vehicles = 19600
Posted speed limit = 60 km/h, Exceeding = 2620 (13.37%), Mean Exceeding = 64.90 km/h
Maximum = 119.5 km/h, **Minimum** = 10.7 km/h, **Mean** = 50.6 km/h
85% Speed = 59.40 km/h, **95% Speed** = 64.61 km/h, **Median** = 51.66 km/h
20 km/h Pace = 43 - 63, **Number in Pace** = 14920 (76.12%)
Variance = 101.76, **Standard Deviation** = 10.09 km/h

Gibbon Street – Power Pole 124319



MetroCount

MetroCount Traffic Executive
Speed Histogram

SpeedHist-13 -- English (ENA)

Datasets:

Site:	**[Gibbon St] Power Pole 124319**
Attribute:	5010
Direction:	1 - North bound, A trigger first. **Lane:** 0
Survey Duration:	0:00 Friday, 25 November 2022 => 16:18 Friday, 16 December 2022,
Zone:	
File:	GIBBONS_6057_161222.EC0 (Plus)
Identifier:	QH222PMC MC5900-X13 (c)MetroCount 09Nov16
Algorithm:	Factory default axle (v5.08)
Data type:	Axle sensors - Paired (Class/Speed/Count)

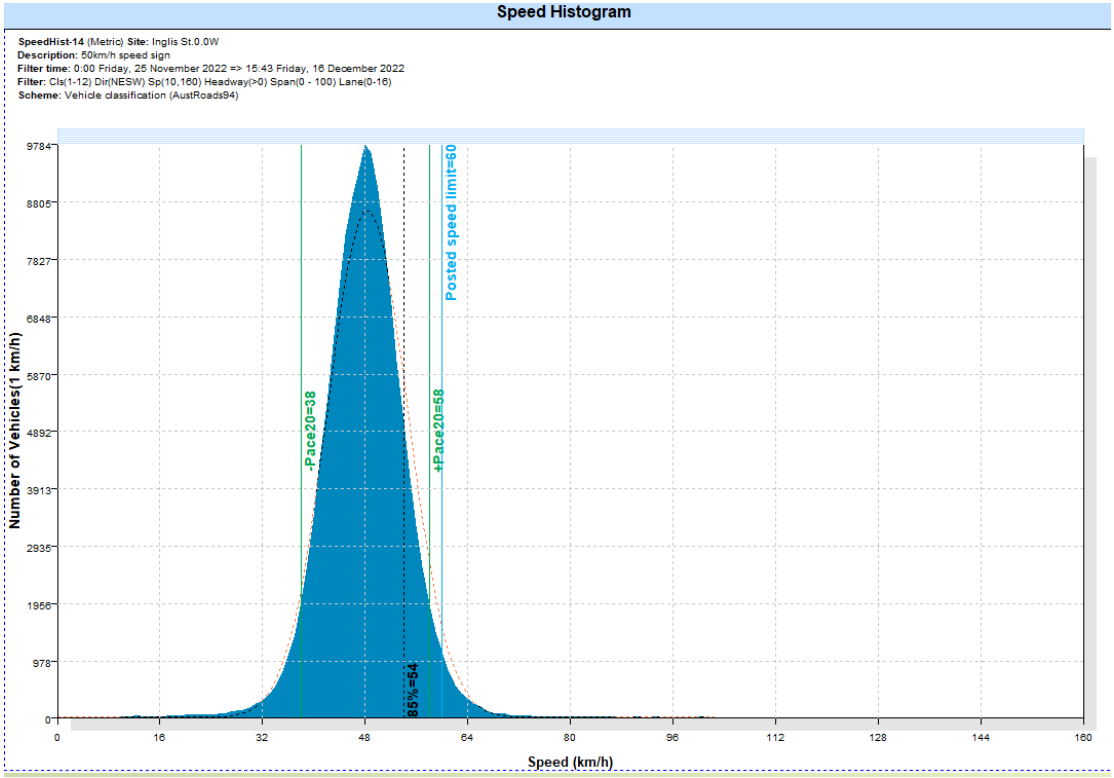
Profile:

Filter time:	**0:00 Friday, 25 November 2022 => 16:18 Friday, 16 December 2022 (21.6795)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	10 - 160 km/h.
Direction:	North, East, South, West (bound), P = North, Lane = 0-16
Separation:	Headway > 0 sec, Span 0 - 100 metre
Name:	Default Profile
Scheme:	Vehicle classification (AustRoads94)
Units:	Metric (metre, kilometre, m/s, km/h, kg, tonne)
In profile:	Vehicles = 14653 / 14857 (98.63%)

Speed Statistics

Direction: NS
Vehicles = 14653
Posted speed limit = 60 km/h, Exceeding = 1943 (13.26%), Mean Exceeding = 79.98 km/h
Maximum = 159.6 km/h, **Minimum** = 10.3 km/h, **Mean** = 49.7 km/h
85% Speed = 58.86 km/h, **95% Speed** = 70.92 km/h, **Median** = 47.70 km/h
20 km/h Pace = 37 - 57, **Number in Pace** = 9982 (68.12%)
Variance = 301.94, **Standard Deviation** = 17.38 km/h

Inglis Street – 50km/h Speed Limit Sign



MetroCount

MetroCount Traffic Executive
Speed Histogram

SpeedHist-14 -- English (ENA)

Datasets:

Site:	**[Inglis St] 50km/h speed sign**
Attribute:	1498
Direction:	4 - West bound, A trigger first. **Lane:** 0
Survey Duration:	0:00 Friday, 25 November 2022 => 15:43 Friday, 16 December 2022,
Zone:	
File:	INGLIS_6054_161222.EC0 (Plus)
Identifier:	QH37D42Z MC5900-X13 (c)MetroCount 09Nov16
Algorithm:	Factory default axle (v5.08)
Data type:	Axle sensors - Paired (Class/Speed/Count)

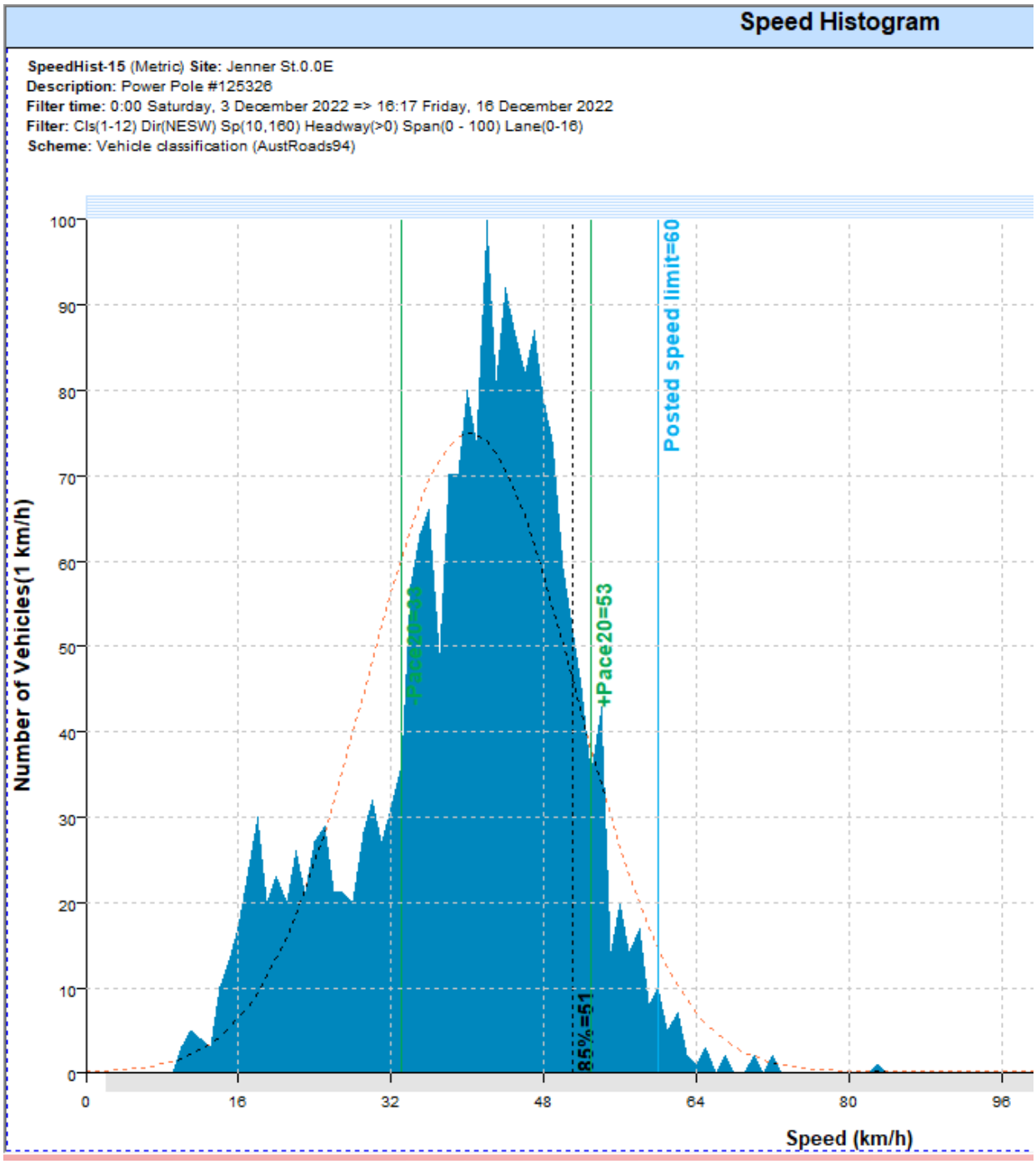
Profile:

Filter time:	**0:00 Friday, 25 November 2022 => 15:43 Friday, 16 December 2022 (21.6552)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	10 - 160 km/h.
Direction:	North, East, South, West (bound), P = West, Lane = 0-16
Separation:	Headway > 0 sec, Span 0 - 100 metre
Name:	Default Profile
Scheme:	Vehicle classification (AustRoads94)
Units:	Metric (metre, kilometre, m/s, km/h, kg, tonne)
In profile:	Vehicles = 135893 / 135962 (99.95%)

Speed Statistics

Direction: EW
Vehicles = 135893
Posted speed limit = 60 km/h, Exceeding = 4117 (3.030%), Mean Exceeding = 63.31 km/h
Maximum = 132.5 km/h, **Minimum** = 10.3 km/h, **Mean** = 48.4 km/h
85% Speed = 54.36 km/h, **95% Speed** = 58.32 km/h, **Median** = 48.42 km/h
20 km/h Pace = 38 - 58, **Number in Pace** = 122749 (90.33%)
Variance = 39.17, **Standard Deviation** = 6.26 km/h

Jenner Street – Power Pole 125326



MetroCount

MetroCount Traffic Executive
Speed Histogram

SpeedHist-15 -- English (ENA)

Datasets:

Site:	**[Jenner St] Power Pole #125326**
Attribute:	5009
Direction:	2 - East bound, A trigger first. **Lane:** 0
Survey Duration:	0:00 Saturday, 3 December 2022 => 16:17 Friday, 16 December 2022,
Zone:	
File:	JENNER_6056_161222.EC0 (Plus)
Identifier:	QG76NMWM MC5900-X13 (c)MetroCount 09Nov16
Algorithm:	Factory default axle (v5.08)
Data type:	Axle sensors - Paired (Class/Speed/Count)

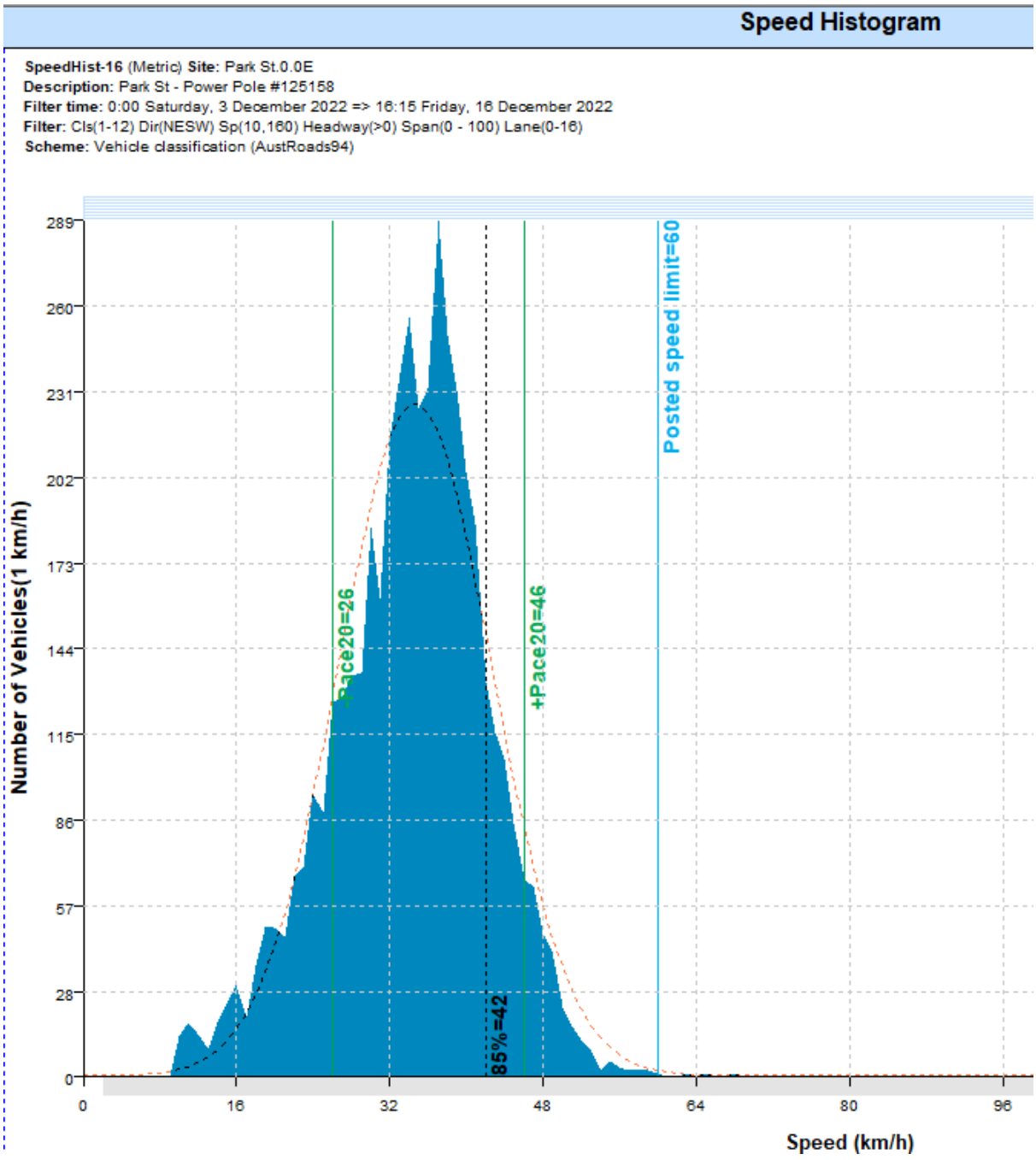
Profile:

Filter time:	**0:00 Saturday, 3 December 2022 => 16:17 Friday, 16 December 2022 (13.6786)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	10 - 160 km/h.
Direction:	North, East, South, West (bound), P = East, Lane = 0-16
Separation:	Headway > 0 sec, Span 0 - 100 metre
Name:	Default Profile
Scheme:	Vehicle classification (AustRoads94)
Units:	Metric (metre, kilometre, m/s, km/h, kg, tonne)
In profile:	Vehicles = 2044 / 2062 (99.13%)

Speed Statistics

Direction: EW
Vehicles = 2044
Posted speed limit = 60 km/h, Exceeding = 35 (1.712%), Mean Exceeding = 63.95 km/h
Maximum = 83.4 km/h, **Minimum** = 10.2 km/h, **Mean** = 40.2 km/h
85% Speed = 50.58 km/h, **95% Speed** = 55.44 km/h, **Median** = 42.12 km/h
20 km/h Pace = 33 - 53, **Number in Pace** = 1408 (68.88%)
Variance = 118.72, **Standard Deviation** = 10.90 km/h

Park Street – Power Pole 125158



MetroCount

MetroCount Traffic Executive
Speed Histogram

SpeedHist-16 -- English (ENA)

Datasets:

Site:	**[Park St] Park St - Power Pole #125158**
Attribute:	5005
Direction:	2 - East bound, A trigger first. **Lane:** 0
Survey Duration:	0:00 Saturday, 3 December 2022 => 16:15 Friday, 16 December 2022,
Zone:	
File:	PARK_6055_161222.EC0 (Plus)
Identifier:	QG74JQTN MC5900-X13 (c)MetroCount 09Nov16
Algorithm:	Factory default axle (v5.08)
Data type:	Axle sensors - Paired (Class/Speed/Count)

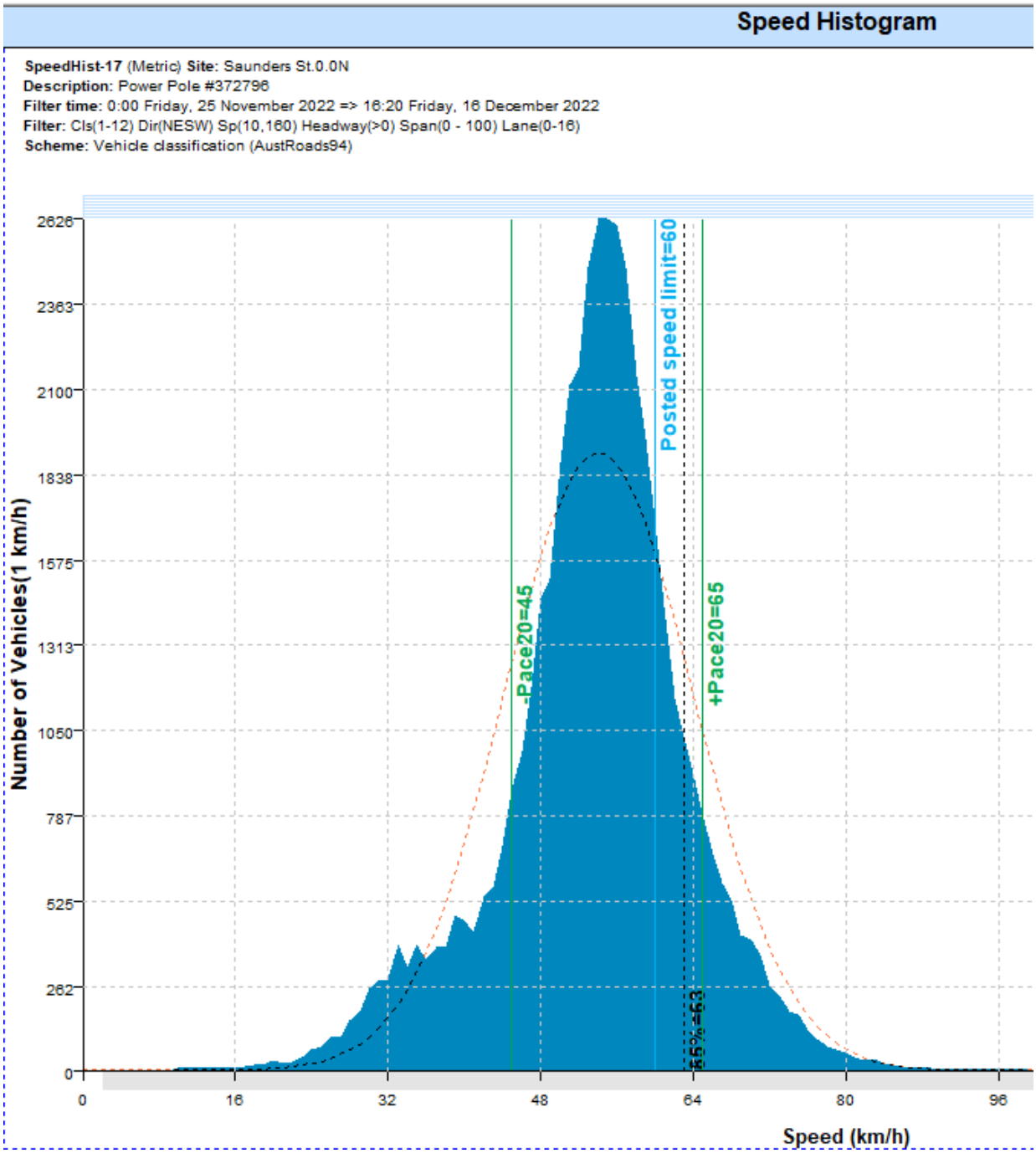
Profile:

Filter time:	**0:00 Saturday, 3 December 2022 => 16:15 Friday, 16 December 2022 (13.6777)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	10 - 160 km/h.
Direction:	North, East, South, West (bound), P = East, Lane = 0-16
Separation:	Headway > 0 sec, Span 0 - 100 metre
Name:	Default Profile
Scheme:	Vehicle classification (AustRoads94)
Units:	Metric (metre, kilometre, m/s, km/h, kg, tonne)
In profile:	Vehicles = 4588 / 4662 (98.41%)

Speed Statistics

Direction: EW
Vehicles = 4588
Posted speed limit = 60 km/h, Exceeding = 4 (0.087%), Mean Exceeding = 64.33 km/h
Maximum = 68.3 km/h, **Minimum** = 10.1 km/h, **Mean** = 34.6 km/h
85% Speed = 42.48 km/h, **95% Speed** = 47.16 km/h, **Median** = 35.28 km/h
20 km/h Pace = 26 - 46, **Number in Pace** = 3639 (79.32%)
Variance = 65.03, **Standard Deviation** = 8.06 km/h

Saunders Street – Power Pole 372796



MetroCount

MetroCount Traffic Executive
Speed Histogram

SpeedHist-17 -- English (ENA)

Datasets:

Site:	**[Saunders St] Power Pole #372796**
Attribute:	5008
Direction:	1 - North bound, A trigger first. **Lane:** 0
Survey Duration:	0:00 Friday, 25 November 2022 => 16:20 Friday, 16 December 2022,
Zone:	
File:	SAUNDERS_6058_161222.EC0 (Plus)
Identifier:	QG9495NY MC5900-X13 (c)MetroCount 09Nov16
Algorithm:	Factory default axle (v5.08)
Data type:	Axle sensors - Paired (Class/Speed/Count)

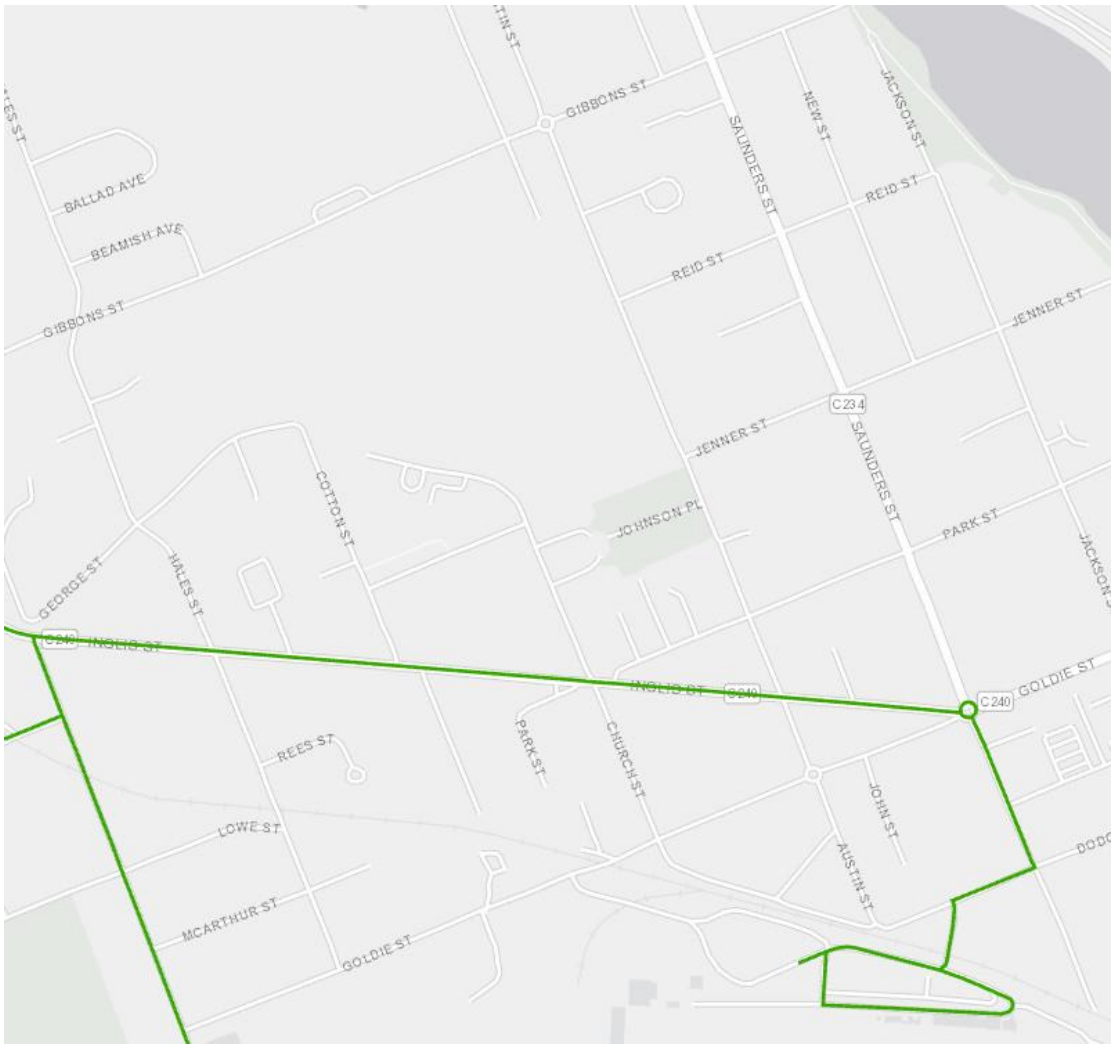
Profile:

Filter time:	**0:00 Friday, 25 November 2022 => 16:20 Friday, 16 December 2022 (21.6807)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	10 - 160 km/h.
Direction:	North, East, South, West (bound), P = North, Lane = 0-16
Separation:	Headway > 0 sec, Span 0 - 100 metre
Name:	Default Profile
Scheme:	Vehicle classification (AustRoads94)
Units:	Metric (metre, kilometre, m/s, km/h, kg, tonne)
In profile:	Vehicles = 47455 / 47548 (99.80%)

Speed Statistics

Direction: NS
Vehicles = 47455
Posted speed limit = 60 km/h, Exceeding = 11385 (23.99%), Mean Exceeding = 65.93 km/h
Maximum = 123.1 km/h, **Minimum** = 10.0 km/h, **Mean** = 54.1 km/h
85% Speed = 63.00 km/h, **95% Speed** = 69.66 km/h, **Median** = 54.72 km/h
20 km/h Pace = 45 - 65, **Number in Pace** = 35212 (74.20%)
Variance = 99.02, **Standard Deviation** = 9.95 km/h

Appendix D - Tas 26m B Double Network



Legend

Network Access - not State Growth

B Double (26m) Structures with conditions

- Conditionally approved B-Double overpass
- Conditionally approved B-Double bridge
- Restricted Structure

B Double (26m)

- 26m B-Double access
- Conditionally Approved 26m B-Double access
- Restricted Road

Appendix E - Safe System Assessment

Safe System Assessment — **Existing Austin Street (Inglis Street to Gibbons Street)**

		Run-off-road	Head-on	Intersection	Buses	Pedestrian	Cyclist	Motorcyclist	
Exposure	**AADT (1,050 vpd)**	Low traffic volume, with 1 Serious crash	Low traffic volume, with no crashes	Inglis St Int. (1 Serious, 1 Minor and 2 PDO crashes involving cross traffic crashes) with some 6,500 vpd.	Bus route	Pedestrian activity	Cyclist activity	Motorcyclist activity	
	Score / 4	1	1	3	1	2	2	1	
Likelihood	**Justification**	Wide straight road with on street parking	Wide straight road with on street parking	Cross Intersection with Simple Layout and junction islands on side roads	Bus stops	Foothpaths along East side of road	Wide road with footpath one side and no specific cyclist facilities	Consistent seal condition with 4m wide traffic lanes	
	Score / 4	1	1	3	1	1	1	1	
Severity	**Justification (50 km/h speed limit)**	Low speed environment	Low speed environment	Low speed environment	Low speed environment	Medium - High speed environment for pedestrians	Medium - High speed environment for cyclists	Medium - High speed environment for motor cyclists	
	Score / 4	1	1	1	1	3	3	3	**Total /448**
Product	**Total Score /64**	**1**	**1**	**9**	**1**	**6**	**6**	**3**	**27**

Safe System Assessment — Existing Gibbons Street (Hales Street to Saunders Street)

		Run-off-road	Head-on	Intersection	Buses	Pedestrian	Cyclist	Motorcyclist	
Exposure	**AADT (1,500 vpd)**	Low traffic volume, with no crashes	Low traffic volume, with no crashes	Cross intersection and a roundabout with low volumes and no crashes	Bus route	Pedestrian activity	Cyclist activity	Motorcyclist activity	
	Score / 4	1	1	1	1	2	1	1	
Likelihood	**Justification**	Wide straight road with on street parking	Wide straight road with on street parking	Cross Intersections	Bus stops	Foothpaths both sides. School Crossing with 40 ESL	Wide road with footpath both sides and no specific cyclist facilities	Consistent seal condition with 4m wide traffic lanes	
	Score / 4	1	1	3	1	1	1	1	
Severity	**Justification (50 km/h speed limit)**	Low speed environment	Low speed environment	Low speed environment	Low speed environment	Medium - High speed environment for pedestrians with 40 ESL	Medium - High speed environment for cyclists	Medium - High speed environment for motor cyclists	
	Score / 4	1	1	1	1	2	3	3	**Total /448**
Product	**Total Score /64**	**1**	**1**	**3**	**1**	**4**	**3**	**3**	**16**

Safe System Assessment — Existing Hales Street (Inglis Street to Gibbons Street)

		Run-off-road	Head-on	Intersection	Buses	Pedestrian	Cyclist	Motorcyclist	
Exposure	**AADT (2,300 vpd)**	Low traffic volume, with 1 Serious crash	Low traffic volume, with no crashes	Gibbons St Cross Intersection with 1,500vpd	Bus route	Pedestrian activity	Cyclist activity	Motorcyclist activity, 1 Serious motorcyclist crash	
	Score / 4	1	1	1	1	2	1	2	
Likelihood	**Justification**	Wide straight road with on street parking	Wide straight road with on street parking	Cross Intersection with unfavourable offsets for right turns to side roads	Bus stops	Foothpaths mostly both sides.	Wide road with footpath mostly both sides and no specific cyclist facilities	Consistent seal condition with 4m wide traffic lanes	
	Score / 4	1	1	3	1	1	1	1	
Severity	**Justification (50 km/h speed limit)**	Low speed environment	Low speed environment	Low speed environment	Low speed environment	Medium - High speed environment for pedestrians	Medium - High speed environment for cyclists	Medium - High speed environment for motor cyclists	
	Score / 4	1	1	1	1	3	3	3	**Total /448**
Product	**Total Score /64**	**1**	**1**	**3**	**1**	**6**	**3**	**6**	**21**

Safe System Assessment — Existing Inglis Street (Hales Street to Saunders Street)

		Run-off-road	Head-on	Intersection	Buses	Pedestrian	Cyclist	Motorcyclist	
Exposure	**AADT 6,500 vpd**	Moderate traffic volume, with 1 PDO crash	Moderate traffic volume, with no crashes	Saunders St Rabt (8 PDO & 1 Minor crash) with some 2,500vpd. Austin St Int. (1 Serious, 1 Minor and 2 PDO crashes involving cross traffic crashes) with some 1,050 vpd.	Bus route	Pedestrian activity	Cyclist activity	Motorcyclist activity	
	Score / 4	2	2	3	2	2	2	2	
Likelihood	**Justification**	Wide straight road with on street parking and adequate delineation	Wide straight road with on street parking and adequate delineation	Roundabout and Cross type intersection with junction islands and Simple Layout	Bus bays	Foothpaths both sides of road and pedestrian refuge islands.	Wide road with footpaths both sides and no specific cyclist facilities	Consistent seal condition with 4m wide traffic lanes	
	Score / 4	1	1	2	1	1	1	1	
Severity	**Justification (50 & 60km/h speed limit)**	Low speed environment	Low speed environment	Low speed environment	Low speed environment	High speed environment for pedestrians	High speed environment for cyclists	High speed environment for motor cyclists	
	Score / 4	1	1	1	1	4	4	4	**Total /448**
Product	**Total Score /64**	**2**	**2**	**6**	**2**	**8**	**8**	**8**	**36**

Safe System Assessment — Existing Jenner Street (Austin Street to Saunders Street)

		Run-off-road	Head-on	Intersection	Buses	Pedestrian	Cyclist	Motorcyclist	
Exposure	**AADT (220 vpd)**	Low traffic volume, no crashes	Low traffic volume, with no crashes	Austin Street intersections with 2,500 vpd and no crashes. Saunders Street intersection with 2,500 vpd and a Minor Crash	Some coaches	Pedestrian activity	Cyclist activity	Motorcyclist activity	
	Score / 4	1	1	1	1	1	1	1	
Likelihood	**Justification**	Wide straight road with on street parking	Wide straight road with on street parking	Cross Intersections with Simple Layouts	On Street parking	Foothpath along North side of road	Wide road with footpath along one side and no specific cyclist facilities	Consistent seal condition with 3m wide traffic lanes	
	Score / 4	1	1	3	1	1	1	1	
Severity	**Justification (50 km/h speed limit)**	Low speed environment	Low speed environment	Low speed environment	Low speed environment	Medium - High speed environment for pedestrians	Medium - High speed environment for cyclists	Medium - High speed environment for motor cyclists	
	Score / 4	1	1	1	1	3	3	3	**Total /448**
Product	**Total Score /64**	**1**	**1**	**3**	**1**	**3**	**3**	**3**	**15**

Safe System Assessment **Existing Park Street (Austin Street to Saunders Street)**

		Run-off-road	Head-on	Intersection	Buses	Pedestrian	Cyclist	Motorcyclist	
Exposure	**AADT (300 vpd)**	Low traffic volume, no crashes	Low traffic volume, with no crashes	Austin Street intersections with 2,500 vpd and 2 PDO crashes. Saunders Street intersection with 2,500 vpd and a Minor and 1 PDO Crash	Some coaches	Pedestrian activity	Cyclist activity	Motorcyclist activity	
	Score / 4	1	1	1	1	2	1	1	
Likelihood	**Justification**	Wide straight road with on street parking	Wide straight road with on street parking	Cross Intersections with Simple Layouts	On Street parking	Foothpaths along both sides of road	Wide road with footpath both sides and no specific cyclist facilities	Consistent seal condition with 3m wide traffic lanes	
	Score / 4	1	1	3	1	1	1	1	
Severity	**Justification (50 km/h speed limit)**	Low speed environment	Low speed environment	Low speed environment	Low speed environment	Medium - High speed environment for pedestrians	Medium - High speed environment for cyclists	Medium - High speed environment for motor cyclists	
	Score / 4	1	1	1	1	3	3	3	**Total /448**
Product	**Total Score /64**	**1**	**1**	**3**	**1**	**6**	**3**	**3**	**18**

Safe System Assessment — Existing Saunders Street (Inglis Street to Gibbons Street)

		Run-off-road	Head-on	Intersection	Buses	Pedestrian	Cyclist	Motorcyclist	
Exposure	**AADT (2,500 vpd)**	Low traffic volume, with no crashes	Low traffic volume, with no crashes	Inglis / Goldie Rabt. (Minor and 8 PDO crashes involving 4 cross traffic crashes) with some 6,500 vpd. Saunders / Park Int 1 Minor and 1 PDO crash.	Bus route	Pedestrian activity	Cyclist activity	Motorcyclist activity	
	Score / 4	1	1	2	1	2	1	1	
Likelihood	**Justification**	Wide straight road with on street parking	Wide straight road with on street parking	Roundabout and Cross Intersection with Simple Layout	Bus stops	Foothpaths along both sides of road	Wide road with footpath both sides and no specific cyclist facilities	Consistent seal condition with 4m wide traffic lanes	
	Score / 4	1	1	2	1	1	1	1	
Severity	**Justification (60 km/h speed limit)**	Low speed environment	Low speed environment	Low speed environment	Low speed environment	High speed environment for pedestrians	High speed environment for cyclists	High speed environment for motor cyclists	
	Score / 4	1	1	1	1	4	4	4	**Total /448**
Product	**Total Score /64**	**1**	**1**	**4**	**1**	**8**	**4**	**4**	**23**

Appendix F - SIDRA Models

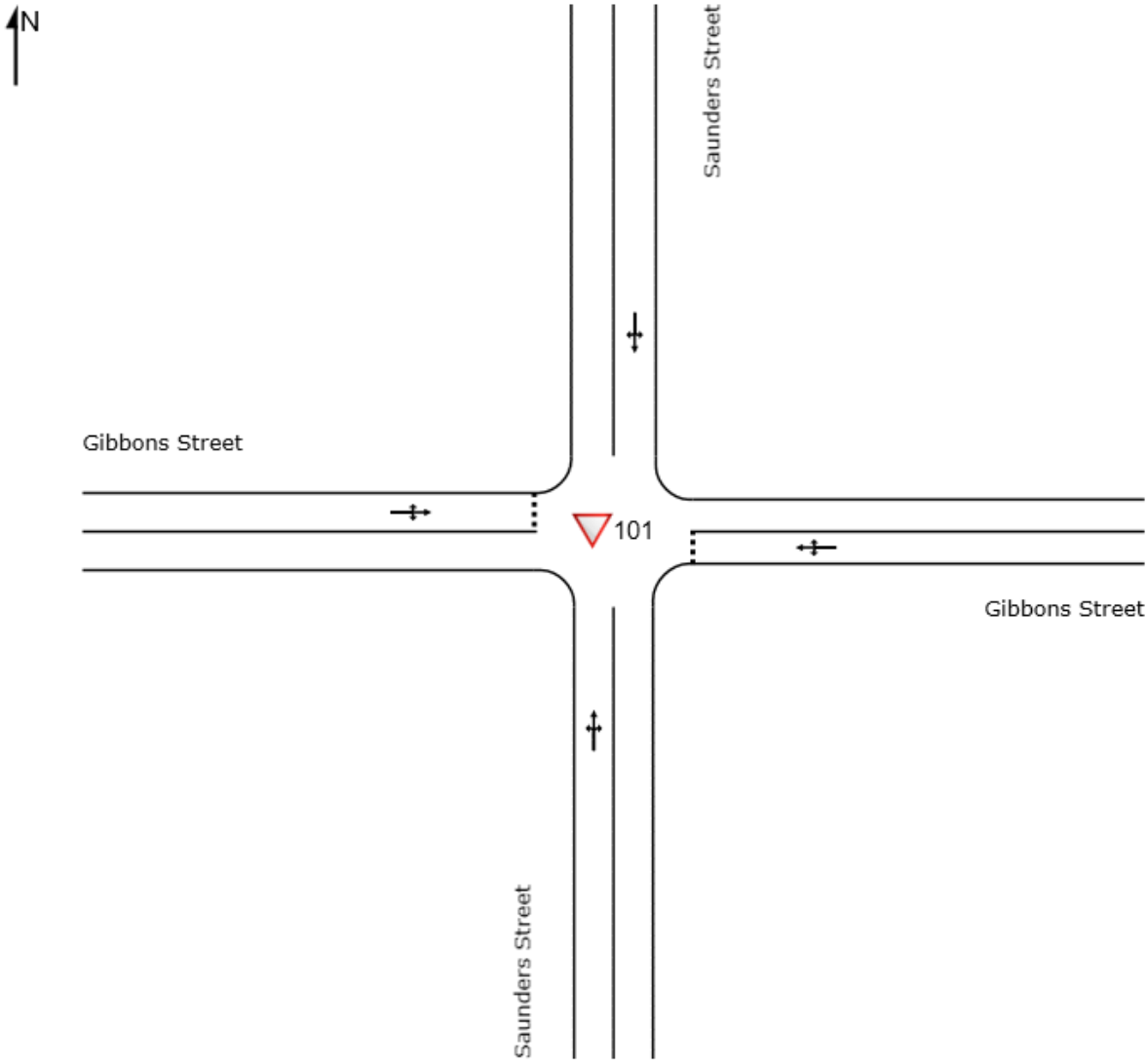
Saunders / Gibbons Intersection

SITE LAYOUT

Site: 101 [Saunders / Gibbons Street Intersection (Site Folder: General)]

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

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



Appendix G - SIDRA Analysis

Saunders / Gibbons Intersection 2042 AM Peak – Option 1

MOVEMENT SUMMARY

Site: 101 [Saunders / Gibbons St Int. AM Op1 (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h]	INPUT VOLUMES HV] %	DEMAND FLOWS [Total veh/h]	DEMAND FLOWS HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh]	95% BACK OF QUEUE Dist] m
South: Saunders Street										
1	L2	1	0.0	1	0.0	0.036	4.9	LOS A	0.0	0.2
2	T1	66	0.0	69	0.0	0.036	0.0	LOS A	0.0	0.2
3	R2	4	0.0	4	0.0	0.036	4.9	LOS A	0.0	0.2
Approach		71	0.0	75	0.0	0.036	0.4	NA	0.0	0.2
East: Gibbons Street										
4	L2	4	0.0	4	0.0	0.169	4.7	LOS A	0.6	4.4
5	T1	1	0.0	1	0.0	0.169	4.2	LOS A	0.6	4.4
6	R2	150	0.0	158	0.0	0.169	5.5	LOS A	0.6	4.4
Approach		155	0.0	163	0.0	0.169	5.4	LOS A	0.6	4.4
North: Saunders Street										
7	L2	62	0.0	65	0.0	0.060	4.6	LOS A	0.0	0.1
8	T1	54	0.0	57	0.0	0.060	0.0	LOS A	0.0	0.1
9	R2	1	0.0	1	0.0	0.060	4.8	LOS A	0.0	0.1
Approach		117	0.0	123	0.0	0.060	2.5	NA	0.0	0.1
West: Gibbons Street										
10	L2	1	0.0	1	0.0	0.003	4.7	LOS A	0.0	0.1
11	T1	1	0.0	1	0.0	0.003	4.1	LOS A	0.0	0.1
12	R2	1	0.0	1	0.0	0.003	5.1	LOS A	0.0	0.1
Approach		3	0.0	3	0.0	0.003	4.7	LOS A	0.0	0.1
All Vehicles		346	0.0	364	0.0	0.169	3.4	NA	0.6	4.4

MOVEMENT SUMMARY

Site: 101 [Saunders / Gibbons St Int. PM Op1 - Copy (Site Folder: General)]

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

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m
South: Saunders Street										
1	L2	1	0.0	1	0.0	0.036	4.9	LOS A	0.0	0.2
2	T1	66	0.0	69	0.0	0.036	0.0	LOS A	0.0	0.2
3	R2	4	0.0	4	0.0	0.036	4.9	LOS A	0.0	0.2
Approach		71	0.0	75	0.0	0.036	0.4	NA	0.0	0.2
East: Gibbons Street										
4	L2	4	0.0	4	0.0	0.169	4.7	LOS A	0.6	4.4
5	T1	1	0.0	1	0.0	0.169	4.2	LOS A	0.6	4.4
6	R2	150	0.0	158	0.0	0.169	5.5	LOS A	0.6	4.4
Approach		155	0.0	163	0.0	0.169	5.4	LOS A	0.6	4.4
North: Saunders Street										
7	L2	62	0.0	65	0.0	0.060	4.6	LOS A	0.0	0.1
8	T1	54	0.0	57	0.0	0.060	0.0	LOS A	0.0	0.1
9	R2	1	0.0	1	0.0	0.060	4.8	LOS A	0.0	0.1
Approach		117	0.0	123	0.0	0.060	2.5	NA	0.0	0.1
West: Gibbons Street										
10	L2	1	0.0	1	0.0	0.003	4.7	LOS A	0.0	0.1
11	T1	1	0.0	1	0.0	0.003	4.1	LOS A	0.0	0.1
12	R2	1	0.0	1	0.0	0.003	5.1	LOS A	0.0	0.1
Approach		3	0.0	3	0.0	0.003	4.7	LOS A	0.0	0.1
All Vehicles		346	0.0	364	0.0	0.169	3.4	NA	0.6	4.4

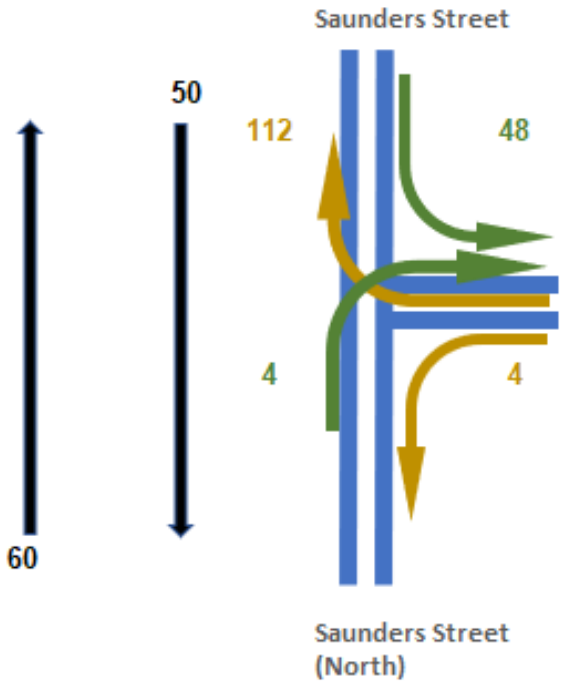
Appendix H - Level of Service Descriptions

Level of service A	A condition of free-flow in which individual drivers are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to manoeuvre within the traffic stream is extremely high, and the general level of comfort and convenience provided is excellent.
Level of service B	In the zone of stable flow where drivers still have reasonable freedom to select their desired speed and to manoeuvre within the traffic stream. The general level of comfort and convenience is a little less than with level of service A.
Level of service C	Also in the zone of stable flow, but most drivers are restricted to some extent in their freedom to select their desired speed and to manoeuvre within the traffic stream. The general level of comfort and convenience declines noticeably at this level.
Level of service D	Close to the limit of stable flow and approaching unstable flow. All drivers are severely restricted in their freedom to select their desired speed and to manoeuvre within the traffic stream. The general level of comfort and convenience is poor, and small increases in traffic flow will generally cause operational problems.
Level of service E	Traffic volumes are at or close to capacity, and there is virtually no freedom to select desired speeds or to manoeuvre within the traffic stream. Flow is unstable and minor disturbances within the traffic stream will cause breakdown.
Level of service F	In the zone of forced flow, where the amount of traffic approaching the point under consideration exceeds that which can pass it. Flow breakdown occurs, and queuing and delays result.

Appendix I - Traffic Assignments 2022

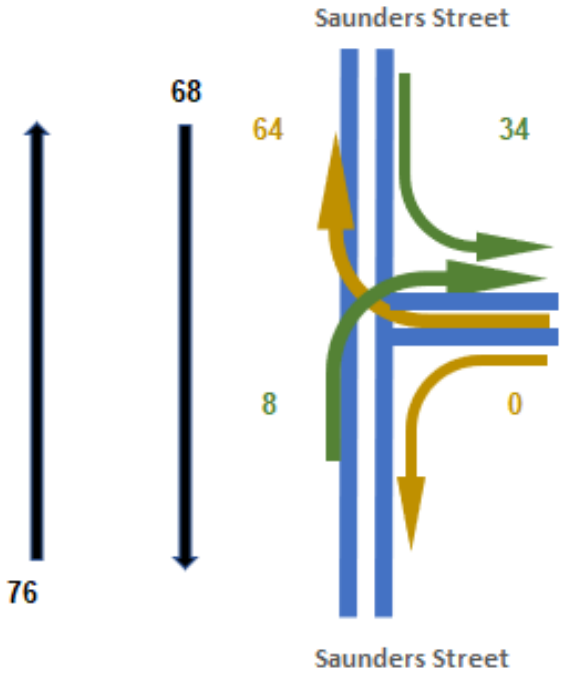
Gibbons / Saunders

AM Peak - 2022



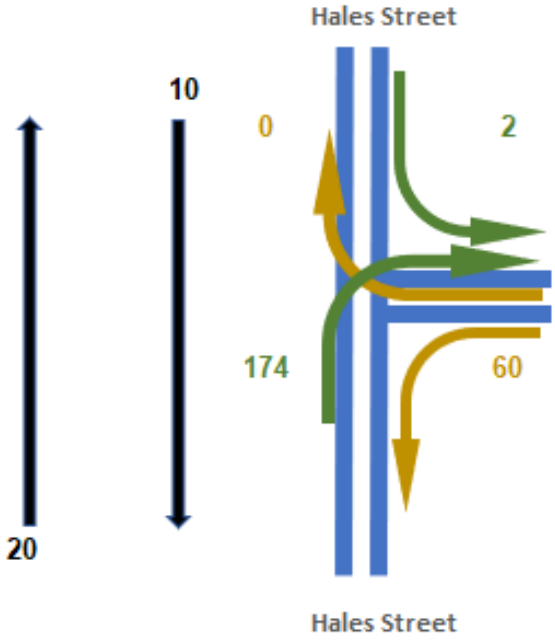
	Peak Hr Summary (vph)		
	Movement	Turn	TEF
AM	Left In	48	50
	Right In	4	158
PM	Left In	34	68
	Right In	8	178

PM Peak - 2022



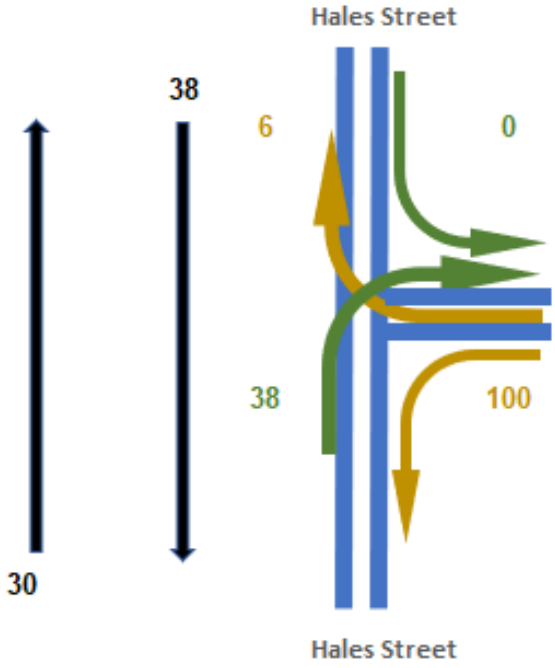
Gibbons / Hales

AM Peak - 2022

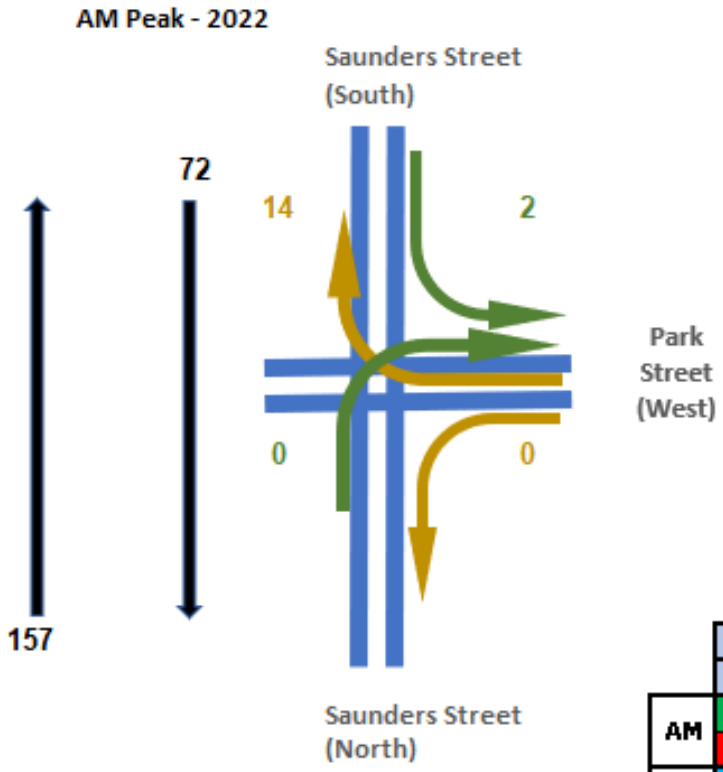


	Peak Hr Summary (vph)		
	Movement	Turn	TEF
AM	Left In	2	10
	Right In	174	32
PM	Left In	0	38
	Right In	38	68

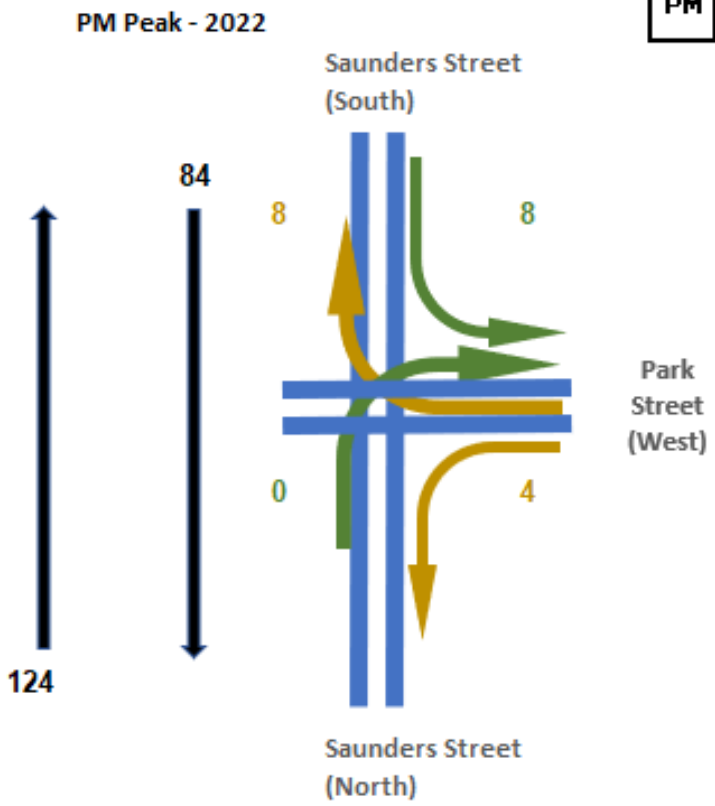
PM Peak - 2022



Saunders / Park

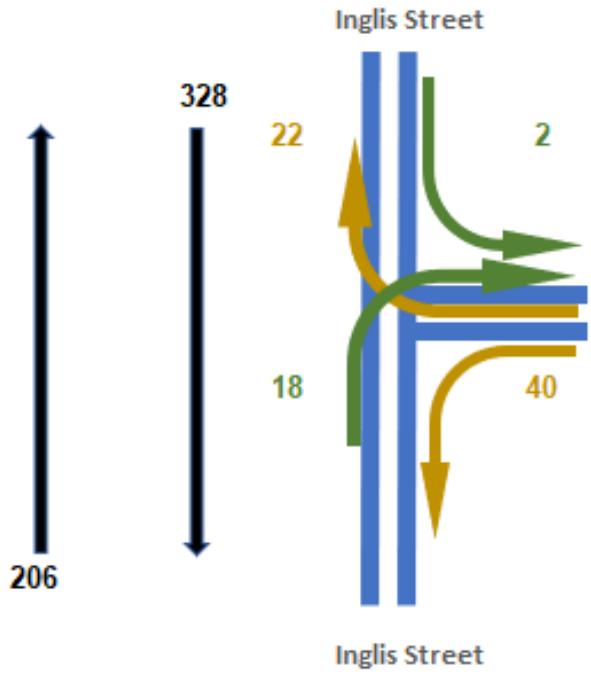


	Peak Hr Summary (vph)		
	Movement	Turn	TEF
AM	Left In	2	72
	Right In	0	231
PM	Left In	8	84
	Right In	0	216



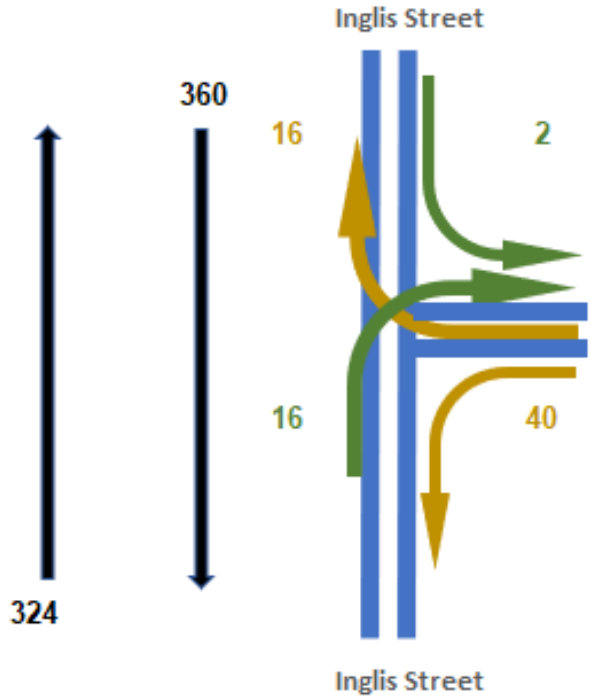
Inglis / Austin

AM Peak - 2022



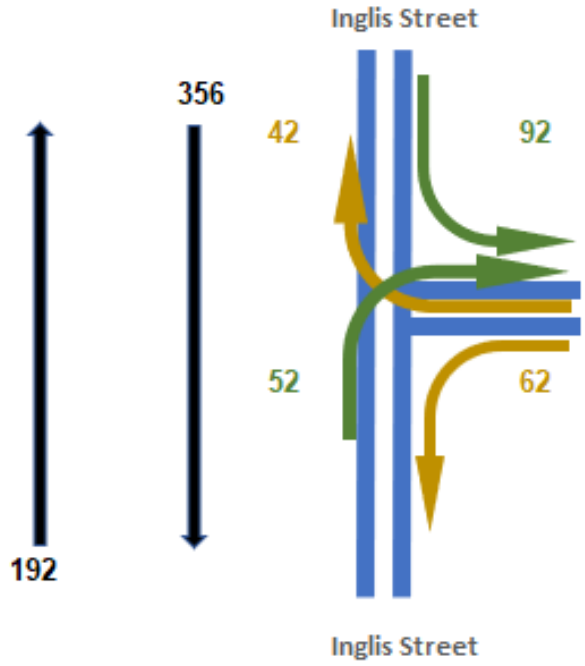
	Peak Hr Summary (vph)		
	Movement	Turn	TEF
AM	Left In	2	328
	Right In	18	536
PM	Left In	2	360
	Right In	16	686

PM Peak - 2022



Inglis / Hales

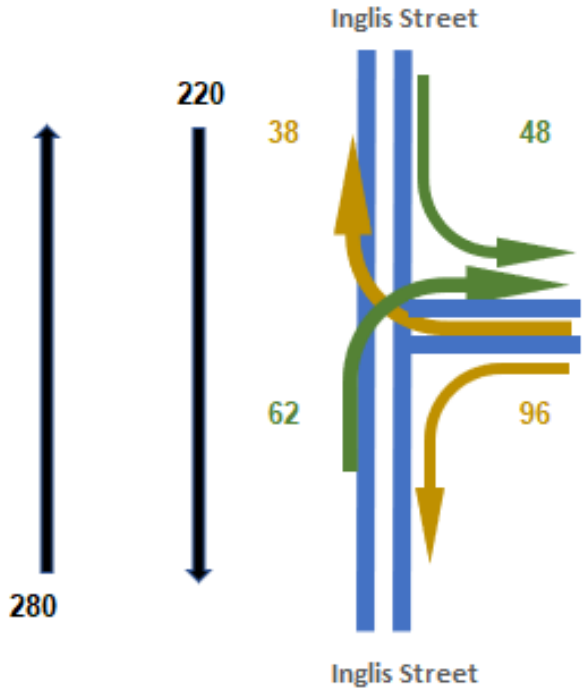
AM Peak - 2022



Hales Street (North)

	Peak Hr Summary (vph)		
	Movement	Turn	TEF
AM	Left In	92	356
	Right In	52	640
PM	Left In	48	220
	Right In	62	548

PM Peak - 2022



Hales Street (North)

Appendix J - 5 Year Reported Crash History

Austin Street (Inglis to Gibbons)

Crash Id	Description	Date	Time	Severity	Light	location	Units
2035121	110 - Cross traffic	20-Apr-2017	18:43	PDO	Dusk	Austin St / Park St. Int.	LV & LV
49947027	110 - Cross traffic	30-Mar-2019	18:49	PDO	Dusk	Austin St / Inglis St. Int.	LV & LV
50569937	110 - Cross traffic	01-Feb-2020	12:25	PDO	Day	Austin St / Park St.Int.	LV & LV
50670434	110 - Cross traffic	01-Jun-2020	14:40	PDO	Day	Austin St / Inglis St. Int.	LV & LV
50920431	169 - Other on path	30-Dec-2020	18:20	Serious	Day	Austin St.	LV & LV
51433715	169 - Other on path	21-Oct-2021	00:43	Minor	Night	Austin St / Inglis St. Int.	LV & LV
51754304	110 - Cross traffic	28-Aug-2022	11:50	Serious	Day	Austin St / Inglis St. Int.	LV & LV

PDO	Property Damage Only
LV	Light Vehicle

Gibbons St (Hales St – Saunders St)

No reported crashes over last 5 years

Hales St (Inglis St – Gibbons St)

Crash Id	Description	Date	Time	Severity	Light	location	Units
2015503	189 - Other curve	04-Mar-2017	01:50	Serious	Night	Hales St.	Motorcycle

Inglis St (Hales St – Saunders St)

Crash Id	Description	Date	Time	Severity	Light	location	Units
2018286	100 - Near side	11-Mar-2017	10:50	PDO	Day	Inglis / Saunders Int.	LV & Ped
2064102	110 - Cross traffic	01-Jul-2017	18:50	PDO	Night	Inglis / Saunders Int.	LV & LV
48779573	110 - Cross traffic	27-Nov-2017	00:00	PDO	Night	Inglis / Saunders Int.	LV & LV
49968034	100 - Near side	17-Apr-2019	13:20	Minor	Day	Inglis / Saunders Int.	LV & Ped
49979475	110 - Cross traffic	01-May-2019	13:00	PDO	Day	Inglis / Saunders Int.	LV & LV
50197148	164 - Permanent obst. on c/way	31-Jul-2019	08:00	PDO	Day	Inglis / Saunders Int.	HV
50614207	179 - Other straight	01-Apr-2020	03:15	PDO	Night	Inglis / Saunders Int.	LV
51041591	121 - Right through	27-Apr-2021	08:00	PDO	Day	Inglis / Saunders Int.	LV & LV
51347266	110 - Cross traffic	13-Aug-2021	18:40	PDO	Night	Inglis / Saunders Int.	LV & LV
48812170	144 - Parking vehicles only	28-Dec-2017	11:00	PDO	Day	Inglis St.	LV & LV
51426689	132 - Veh. in same lane/ right rear	13-Oct-2021	17:00	Minor	Day	Inglis St.	LV & LV
51502400	173 - Right off c/way into obj. or pkd. Veh.	01-Jan-2022	16:15	PDO	Day	Inglis St.	LV
49384258	121 - Right through	06-Jun-2018	08:50	PDO	Day	Inglis / Church Int.	LV & LV
49557790	137 - Veh. in parallel lane/ left turn side swipe	29-Aug-2018	11:50	First Aid	Day	Inglis / Park Int.	LV & Bicycle
49947027	110 - Cross traffic	30-Mar-2019	18:49	PDO	Dusk	Inglis / Austin Int.	LV & LV
50670434	110 - Cross traffic	01-Jun-2020	14:40	PDO	Day	Inglis / Austin Int.	LV & LV
51433715	169 - Other on path	21-Oct-2021	00:43	Minor	Night	Inglis / Austin Int.	LV & LV
51754304	110 - Cross traffic	28-Aug-2022	11:50	Serious	Day	Inglis / Austin Int.	LV & LV
51468821	132 - Vehicles in same lane/ right rear	02-Dec-2021	10:15	PDO	Day	Inglis / Cotton Int.	LV & LV

Jenner St (Austin St – Saunders St)

Crash Id	Description	Date	Time	Severity	Light	Location	Units
50891718	110 - Cross traffic	05-Dec-2020	11:30	Minor	Day	Jenner / Saunders Int.	
51501151	149 - Other maneuvering	23-Dec-2021	17:35	PDO	Day	Jenner St.	

Park St (Austin St – Saunders St)

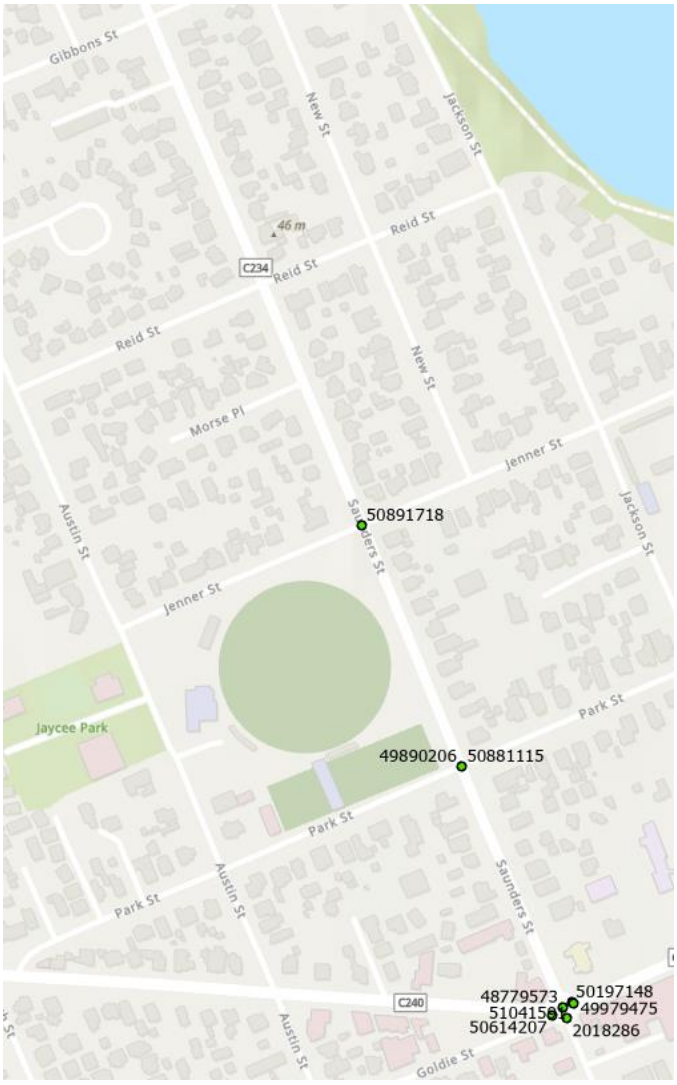
Crash Id	Description	Date	Time	Severity	Light	Location	Units
2035121	110 - Cross traffic	20-Apr-2017	18:43	PDO	Dusk	Austin St. / Park St. Int.	LV & LV
49890206	110 - Cross traffic	09-Mar-2019	13:15	Minor	Day	Saunders St. / Park St. Int.	LV & LV
50569937	110 - Cross traffic	01-Feb-2020	12:25	PDO	Day	Austin St. / Park St. Int.	LV & LV
50881115	110 - Cross traffic	30-Nov-2020	09:50	PDO	Day	Saunders St. / Park St. Int.	LV & LV
51440817	145 - Reversing	30-Oct-2021	11:00	PDO	Day	Park St.	HV & LV
51452943	169 - Other on path	10-Nov-2021	21:00	PDO	Night	Park St.	LV & LV

PDO	Property Damage Only
LV	Light Vehicle

Saunders St (Inglis St - Gibbons St)

Crash Id	Description	Date	Time	Severity	Light	Location	Units
2018286	100 - Near side	11-Mar-2017	10:50	PDO	Day	Inglis / Saunders Rabt	LV & Ped.
2064102	110 - Cross traffic	01-Jul-2017	18:50	PDO	Night	Inglis / Saunders Rabt	LV & LV
48779573	110 - Cross traffic	27-Nov-2017	00:00	PDO	Night	Inglis / Saunders Rabt	LV & LV
49890206	110 - Cross traffic	09-Mar-2019	13:15	Minor	Day	Saunders / Park Int.	LV & LV
49968034	100 - Near side	17-Apr-2019	13:20	Minor	Day	Inglis / Saunders Rabt	LV & Ped.
49979475	110 - Cross traffic	01-May-2019	13:00	PDO	Day	Inglis / Saunders Rabt	LV & LV
50197148	164 - Perm. Obst. on /way	31-Jul-2019	08:00	PDO	Day	Inglis / Saunders Rabt	HV
50614207	179 - Other straight	01-Apr-2020	03:15	PDO	Night	Inglis / Saunders Rabt	LV
50881115	110 - Cross traffic	30-Nov-2020	09:50	PDO	Day	Saunders / Park Int.	LV & LV
50891718	110 - Cross traffic	05-Dec-2020	11:30	Minor	Day	Saunders / Jenner Int.	LV & LV
51041591	121 - Right through	27-Apr-2021	08:00	PDO	Day	Inglis / Saunders Rabt	LV & LV
51347266	110 - Cross traffic	13-Aug-2021	18:40	PDO	Night	Inglis / Saunders Rabt	LV & LV

PDO	Property Damage Only
LV	Light Vehicle
HV	Heavy Vehicle



Appendix K - WWC Road Hierarchy Management Plan

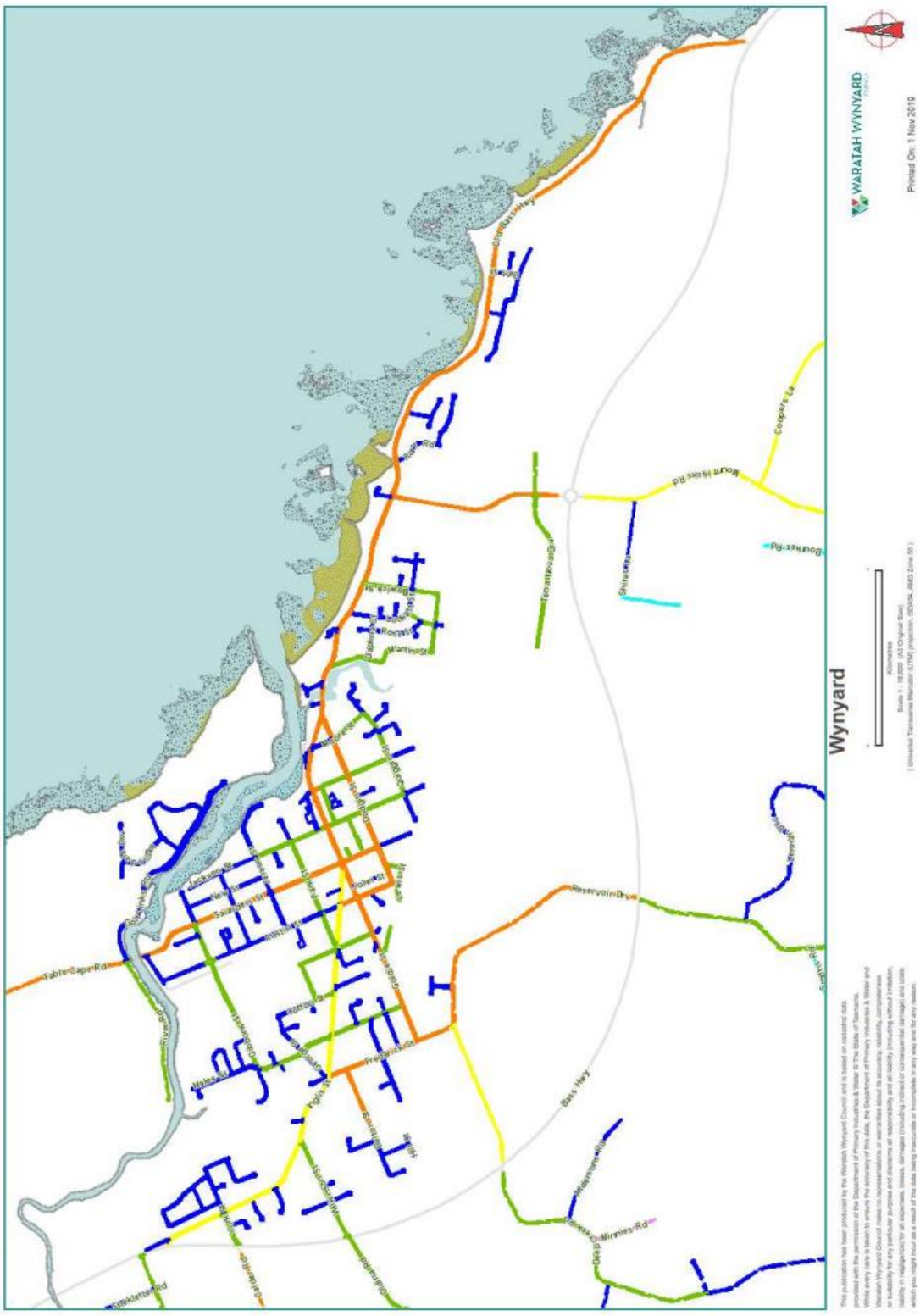


Figure 6: Road Network: Wynyard

7. HIERARCHY

A key aspect of Council's approach is to recognise that some roads are of greater 'importance' than others in the sense that a specific hazard in a certain location might pose greater risk to the public than a similar hazard elsewhere in the network. A section of road may be identified in this manner because it is subject to particularly high levels of use or is used to freight goods and connect towns.

Council will also take into consideration future trends in projected population growth and the selecting of a preferred strategic route for heavy traffic.

The Local Government Road Hierarchy has been adopted as an extension to the Tasmanian State Road Hierarchy as proposed in the Expert's Report contained within the Report of the Auditor General No.5 of 2013-14: Infrastructure Financial Accounting in Local Government.

See Table 2 for a description of each of the hierarchy classes and Tables 3 and 4 to demonstrate how the road hierarchies are determined.

Appendix A contains the full inventory of Council's rural road network categorised by their ranking within the road hierarchy. Appendix B shows this information on a thematic map.

Table 2: Hierarchy Definitions

HIERARCHY CLASS	ROAD FUNCTION
6 –Arterial	Major link for traffic flow within urban areas, between towns, major tourist destinations and industrial areas
7 – Collector	Connect from arterial roads and link roads
8 – Link	Access for properties and link to collector roads
9 – Local Access	Access for residential and commercial properties
10 – Minor Access	Access for residential properties
11 – Unformed	Roads not maintained by Council

Table 3: Hierarchy Determination - Urban

CLASSIFICATION	6. ARTERIAL	7. COLLECTOR	8. LINK	9. LOCAL ACCESS	10. MINOR ACCESS	11. UNFORMED
Functional Criteria						
Function/Predominate Purpose	Provides for the principle links between urban centres and rural regions	Connect arterial roads to local areas and supplement arterial roads in providing for traffic movements between urban areas, or in some cases rural population centres	Provide a link between arterial or collector roads and local access roads	Provide access to residential properties and, in some cases, commercial properties at a local level	Provide access to residential properties and irregular access to community facilities such as parks and reserves	Roads not maintained by Council or non-constructed/ maintained road reserves or roads that have a very low level of service.
Connectivity Description	High – connecting precincts, localities, suburbs, and rural population centres.	High – supplements arterial roads in connecting suburbs, business districts and localised facilities.	Medium – connects traffic at a neighbourhood level with collector and arterial roads.	Low – connects individual properties within a neighbourhood to link roads.	Low – provides access to properties.	Future roads or roads that have a very low level of service.
Guidance Metrics						
Average Annual Daily Traffic (AADT) – vehicles per day	> 10,000 vpd	3,000 - 10,000 vpd	1,000 – 3,000 vpd	50 – 1,000 vpd	< 50 vpd	N/A
Heavy Vehicles Permitted	Yes – thoroughfare	Yes – thoroughfare	Yes – some through traffic	No thoroughfare, local access only	No thoroughfare, local access only	N/A
Average Annual Daily Truck Traffic or Equivalent Heavy Vehicles (AADTT / EHV)	> 1,000 AADTT or > 10% EHV	250 – 1,000 AADTT or > 10% EHV	< 250 AADTT or > 10% EHV	N/A	N/A	N/A
Public transport route	Yes	Yes	Yes	No	No	N/A
Carriageway Form	2 lanes	2 lanes	2 lanes	1 or 2 lanes	1 or 2 lanes	N/A
Running Surface	Sealed	Sealed	Sealed / Unsealed	Sealed / Unsealed	Sealed / Unsealed	N/A
Approved Residential Properties (ARP)	Refer to AADT/AADTT guidelines	Refer to AADT/AADTT guidelines	Refer to AADT/AADTT guidelines	Refer to AADT/AADTT guidelines	> 2 approved residential properties	N/A

Appendix L - WWC Traffic Count Surveys

Traffic Survey Sites

Austin Street (Park St to Jenner St)

Datasets:

Site:	**[Austin St] Power Pole #510206**
Attribute:	5006
Direction:	1 - North bound, A trigger first. **Lane:** 0
Survey Duration:	0:00 Friday, 25 November 2022 => 16:19 Friday, 16 December 2022,
Zone:	
File:	Austin St 0 2022-12-16 1619.EC0 (Plus)
Identifier:	QG68E9VB MC5900-X13 (c) Metro Count 09Nov16
Algorithm:	Factory default axle (v5.08)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: (21.6803)	**0:00 Friday, 25 November 2022 => 16:19 Friday, 16 December 2022**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	10 - 160 km/h.
Direction:	North, East, South, West (bound), P = North, Lane = 0-16
Separation:	Headway > 0 sec, Span 0 - 100 metre
Name:	Default Profile
Scheme:	Vehicle classification (AustRoads94)
Units:	Metric (metre, kilometre, m/s, km/h, kg, tonne)
In profile:	Vehicles = 19600 / 19625 (99.87%)

Day	Hits	RawVol	DayFac	MonFac	AdjVol	- Date
0	1	1065.000	1.000	1.000	1065.000	- Friday, 25 November 2022
1	**1**	**737.000**	**1.000**	**1.000**	**737.000**	**- Saturday, 26 November 2022**
2	**1**	**621.000**	**1.000**	**1.000**	**621.000**	**- Sunday, 27 November 2022**
3	1	934.000	1.000	1.000	934.000	- Monday, 28 November 2022
4	1	990.000	1.000	1.000	990.000	- Tuesday, 29 November 2022
5	1	949.000	1.000	1.000	949.000	- Wednesday, 30 November 2022
6	1	1066.000	1.000	1.000	1066.000	- Thursday, 1 December 2022
7	1	1070.000	1.000	1.000	1070.000	- Friday, 2 December 2022
8	**1**	**686.000**	**1.000**	**1.000**	**686.000**	**- Saturday, 3 December 2022**
9	**1**	**790.000**	**1.000**	**1.000**	**790.000**	**- Sunday, 4 December 2022**
10	1	828.000	1.000	1.000	828.000	- Monday, 5 December 2022
11	1	967.000	1.000	1.000	967.000	- Tuesday, 6 December 2022
12	1	859.000	1.000	1.000	859.000	- Wednesday, 7 December 2022
13	1	957.000	1.000	1.000	957.000	- Thursday, 8 December 2022
14	1	1101.000	1.000	1.000	1101.000	- Friday, 9 December 2022
15	**1**	**731.000**	**1.000**	**1.000**	**731.000**	**- Saturday, 10 December 2022**
16	**1**	**669.000**	**1.000**	**1.000**	**669.000**	**- Sunday, 11 December 2022**
17	1	937.000	1.000	1.000	937.000	- Monday, 12 December 2022
18	1	827.000	1.000	1.000	827.000	- Tuesday, 13 December 2022
19	1	1007.000	1.000	1.000	1007.000	- Wednesday, 14 December 2022
20	1	1024.000	1.000	1.000	1024.000	- Thursday, 15 December 2022
21	----	----------	------	------	----------	- Friday, 16 December 2022

Total days = 21, Coverage = 5.75%

ADT = 895.952, SD = 146.244

AADT = 895.952, SD = 146.244

Weekdays = 15, Coverage = 4.11%

AWDT = 972.067, SD = 86.998

AAWDT = 972.067, SD = 86.998

Weekend days = 6, Coverage = 1.64%

AWET = 705.667, SD = 59.389

AAWET = 705.667, SD = 59.389

Gibbons Street (Austin St to Hales St)

Datasets:

Site:	**[Gibbon St] Power Pole 124319**
Attribute:	5010
Direction:	1 - North bound, A trigger first. **Lane:** 0
Survey Duration:	0:00 Friday, 25 November 2022 => 16:18 Friday, 16 December 2022,
Zone:	
File:	Gibbon St 0 2022-12-16 1618.EC0 (Plus)
Identifier:	QH222PMC MC5900-X13 (c) Metro Count 09Nov16
Algorithm:	Factory default axle (v5.08)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: (21.6795)	**0:00 Friday, 25 November 2022 => 16:18 Friday, 16 December 2022**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	10 - 160 km/h.
Direction:	North, East, South, West (bound), P = North, Lane = 0-16
Separation:	Headway > 0 sec, Span 0 - 100 metre
Name:	Default Profile
Scheme:	Vehicle classification (AustRoads94)
Units:	Metric (metre, kilometre, m/s, km/h, kg, tonne)
In profile:	Vehicles = 14653 / 14857 (98.63%)

Day	Hits	RawVol	DayFac	MonFac	AdjVol	- Date
0	1	635.000	1.000	1.000	635.000	- Friday, 25 November 2022
1	**1**	**374.000**	**1.000**	**1.000**	**374.000**	**- Saturday, 26 November 2022**
2	**1**	**302.000**	**1.000**	**1.000**	**302.000**	**- Sunday, 27 November 2022**
3	1	598.000	1.000	1.000	598.000	- Monday, 28 November 2022
4	1	686.000	1.000	1.000	686.000	- Tuesday, 29 November 2022
5	1	791.000	1.000	1.000	791.000	- Wednesday, 30 November 2022
6	1	808.000	1.000	1.000	808.000	- Thursday, 1 December 2022
7	1	791.000	1.000	1.000	791.000	- Friday, 2 December 2022
8	**1**	**439.000**	**1.000**	**1.000**	**439.000**	**- Saturday, 3 December 2022**
9	**1**	**393.000**	**1.000**	**1.000**	**393.000**	**- Sunday, 4 December 2022**
10	1	758.000	1.000	1.000	758.000	- Monday, 5 December 2022
11	1	867.000	1.000	1.000	867.000	- Tuesday, 6 December 2022
12	1	808.000	1.000	1.000	808.000	- Wednesday, 7 December 2022
13	1	848.000	1.000	1.000	848.000	- Thursday, 8 December 2022
14	1	936.000	1.000	1.000	936.000	- Friday, 9 December 2022
15	**1**	**463.000**	**1.000**	**1.000**	**463.000**	**- Saturday, 10 December 2022**
16	**1**	**347.000**	**1.000**	**1.000**	**347.000**	**- Sunday, 11 December 2022**
17	1	772.000	1.000	1.000	772.000	- Monday, 12 December 2022
18	1	831.000	1.000	1.000	831.000	- Tuesday, 13 December 2022
19	1	703.000	1.000	1.000	703.000	- Wednesday, 14 December 2022
20	1	825.000	1.000	1.000	825.000	- Thursday, 15 December 2022
21	----	----------	------	------	----------	- Friday, 16 December 2022

Total days = 21, Coverage = 5.75%

ADT = 665.476, SD = 198.033

AADT = 665.476, SD = 198.033

Weekdays = 15, Coverage = 4.11%

AWDT = 777.133, SD = 89.564

AAWDT = 777.133, SD = 89.564

Weekend days = 6, Coverage = 1.64%

AWET = 386.333, SD = 59.173

AAWET = 386.333, SD = 59.173

Inglis Street (Park St to Austin St)

Datasets:

Site:	**[Inglis St] 50km/h speed sign**
Attribute:	1498
Direction:	4 - West bound, A trigger first. **Lane:** 0
Survey Duration:	0:00 Friday, 25 November 2022 => 15:43 Friday, 16 December 2022,
Zone:	
File:	Inglis St 0 2022-12-16 1543.EC0 (Plus)
Identifier:	QH37D42Z MC5900-X13 (c)MetroCount 09Nov16
Algorithm:	Factory default axle (v5.08)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: (21.6552)	**0:00 Friday, 25 November 2022 => 15:43 Friday, 16 December 2022**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	10 - 160 km/h.
Direction:	North, East, South, West (bound), P = West, Lane = 0-16
Separation:	Headway > 0 sec, Span 0 - 100 metre
Name:	Default Profile
Scheme:	Vehicle classification (AustRoads94)
Units:	Metric (metre, kilometre, m/s, km/h, kg, tonne)
In profile:	Vehicles = 135893 / 135962 (99.95%)

Day	Hits	RawVol	DayFac	MonFac	AdjVol	- Date
0	1	7017.000	1.000	1.000	7017.000	- Friday, 25 November 2022
1	**1**	**5610.000**	**1.000**	**1.000**	**5610.000**	**- Saturday, 26 November 2022**
2	**1**	**4904.000**	**1.000**	**1.000**	**4904.000**	**- Sunday, 27 November 2022**
3	1	6064.000	1.000	1.000	6064.000	- Monday, 28 November 2022
4	1	6389.000	1.000	1.000	6389.000	- Tuesday, 29 November 2022
5	1	6293.000	1.000	1.000	6293.000	- Wednesday, 30 November 2022
6	1	6766.000	1.000	1.000	6766.000	- Thursday, 1 December 2022
7	1	6903.000	1.000	1.000	6903.000	- Friday, 2 December 2022
8	**1**	**5602.000**	**1.000**	**1.000**	**5602.000**	**- Saturday, 3 December 2022**
9	**1**	**5294.000**	**1.000**	**1.000**	**5294.000**	**- Sunday, 4 December 2022**
10	1	6162.000	1.000	1.000	6162.000	- Monday, 5 December 2022
11	1	6633.000	1.000	1.000	6633.000	- Tuesday, 6 December 2022
12	1	6647.000	1.000	1.000	6647.000	- Wednesday, 7 December 2022
13	1	6812.000	1.000	1.000	6812.000	- Thursday, 8 December 2022
14	1	7102.000	1.000	1.000	7102.000	- Friday, 9 December 2022
15	**1**	**5637.000**	**1.000**	**1.000**	**5637.000**	**- Saturday, 10 December 2022**
16	**1**	**4689.000**	**1.000**	**1.000**	**4689.000**	**- Sunday, 11 December 2022**
17	1	6422.000	1.000	1.000	6422.000	- Monday, 12 December 2022
18	1	6256.000	1.000	1.000	6256.000	- Tuesday, 13 December 2022
19	1	6838.000	1.000	1.000	6838.000	- Wednesday, 14 December 2022
20	1	7061.000	1.000	1.000	7061.000	- Thursday, 15 December 2022
21	----	----------	------	------	----------	- Friday, 16 December 2022

Total days = 21, Coverage = 5.75%

ADT = 6242.905, SD = 710.288

AADT = 6242.905, SD = 710.288

Weekdays = 15, Coverage = 4.11%

AWDT = 6624.333, SD = 340.348

AAWDT = 6624.333, SD = 340.348

Weekend days = 6, Coverage = 1.64%

AWET = 5289.333, SD = 407.520

AAWET = 5289.333, SD = 407.520

Jenner Street (Austin St to Saunders St)

Datasets:

Site:	**[Jenner St] Power Pole #125326**
Attribute:	5009
Direction:	2 - East bound, A trigger first. **Lane:** 0
Survey Duration:	0:00 Saturday, 3 December 2022 => 16:17 Friday, 16 December 2022,
Zone:	
File:	Jenner St 0 2022-12-16 1617.EC0 (Plus)
Identifier:	QG76NMWM MC5900-X13 (c)MetroCount 09Nov16
Algorithm:	Factory default axle (v5.08)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**0:00 Saturday, 3 December 2022 => 16:17 Friday, 16 December 2022 (13.6786)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	10 - 160 km/h.
Direction:	North, East, South, West (bound), P = East, Lane = 0-16
Separation:	Headway > 0 sec, Span 0 - 100 metre
Name:	Default Profile
Scheme:	Vehicle classification (AustRoads94)
Units:	Metric (metre, kilometre, m/s, km/h, kg, tonne)
In profile:	Vehicles = 2044 / 2062 (99.13%)

Day	Hits	RawVol	DayFac	MonFac	AdjVol	- Date
0	**1**	**141.000**	**1.000**	**1.000**	**141.000**	**- Saturday, 3 December 2022**
1	**1**	**112.000**	**1.000**	**1.000**	**112.000**	**- Sunday, 4 December 2022**
2	1	139.000	1.000	1.000	139.000	- Monday, 5 December 2022
3	1	154.000	1.000	1.000	154.000	- Tuesday, 6 December 2022
4	1	138.000	1.000	1.000	138.000	- Wednesday, 7 December 2022
5	1	193.000	1.000	1.000	193.000	- Thursday, 8 December 2022
6	1	179.000	1.000	1.000	179.000	- Friday, 9 December 2022
7	**1**	**122.000**	**1.000**	**1.000**	**122.000**	**- Saturday, 10 December 2022**
8	**1**	**107.000**	**1.000**	**1.000**	**107.000**	**- Sunday, 11 December 2022**
9	1	204.000	1.000	1.000	204.000	- Monday, 12 December 2022
10	1	130.000	1.000	1.000	130.000	- Tuesday, 13 December 2022
11	1	153.000	1.000	1.000	153.000	- Wednesday, 14 December 2022
12	1	156.000	1.000	1.000	156.000	- Thursday, 15 December 2022
13	----	----------	------	------	----------	- Friday, 16 December 2022

Total days = 13, Coverage = 3.56%

ADT = 148.308, SD = 29.514

AADT = 148.308, SD = 29.514

Weekdays = 9, Coverage = 2.47%

AWDT = 160.667, SD = 25.758

AAWDT = 160.667, SD = 25.758

Weekend days = 4, Coverage = 1.10%

AWET = 120.500, SD = 15.022

AAWET = 120.500, SD = 15.022

Park Street (Austin St to Saunders St)

Datasets:

Site:	**[Park St] Park St - Power Pole #125158**
Attribute:	5005
Direction:	2 - East bound, A trigger first. **Lane:** 0
Survey Duration:	0:00 Saturday, 3 December 2022 => 16:15 Friday, 16 December 2022,
Zone:	
File:	Park St 0 2022-12-16 1616.EC0 (Plus)
Identifier:	QG74JQTN MC5900-X13 (c)MetroCount 09Nov16
Algorithm:	Factory default axle (v5.08)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**0:00 Saturday, 3 December 2022 => 16:15 Friday, 16 December 2022 (13.6777)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	10 - 160 km/h.
Direction:	North, East, South, West (bound), P = East, Lane = 0-16
Separation:	Headway > 0 sec, Span 0 - 100 metre
Name:	Default Profile
Scheme:	Vehicle classification (AustRoads94)
Units:	Metric (metre, kilometre, m/s, km/h, kg, tonne)
In profile:	Vehicles = 4588 / 4662 (98.41%)

Day	Hits	RawVol	DayFac	MonFac	AdjVol	- Date
0	**1**	**126.000**	**1.000**	**1.000**	**126.000**	**- Saturday, 3 December 2022**
1	**1**	**227.000**	**1.000**	**1.000**	**227.000**	**- Sunday, 4 December 2022**
2	1	334.000	1.000	1.000	334.000	- Monday, 5 December 2022
3	1	354.000	1.000	1.000	354.000	- Tuesday, 6 December 2022
4	1	382.000	1.000	1.000	382.000	- Wednesday, 7 December 2022
5	1	399.000	1.000	1.000	399.000	- Thursday, 8 December 2022
6	1	411.000	1.000	1.000	411.000	- Friday, 9 December 2022
7	**1**	**330.000**	**1.000**	**1.000**	**330.000**	**- Saturday, 10 December 2022**
8	**1**	**209.000**	**1.000**	**1.000**	**209.000**	**- Sunday, 11 December 2022**
9	1	388.000	1.000	1.000	388.000	- Monday, 12 December 2022
10	1	396.000	1.000	1.000	396.000	- Tuesday, 13 December 2022
11	1	352.000	1.000	1.000	352.000	- Wednesday, 14 December 2022
12	1	423.000	1.000	1.000	423.000	- Thursday, 15 December 2022
13	----	----------	------	------	----------	- Friday, 16 December 2022

Total days = 13, Coverage = 3.56%

ADT = 333.154, SD = 90.465

AADT = 333.154, SD = 90.465

Weekdays = 9, Coverage = 2.47%

AWDT = 382.111, SD = 29.646

AAWDT = 382.111, SD = 29.646

Weekend days = 4, Coverage = 1.10%

AWET = 223.000, SD = 83.805

AAWET = 223.000, SD = 83.805

Saunders Street (Jenner St to Park St)

Datasets:

Site:	**[Saunders St] Power Pole #372796**
Attribute:	5008
Direction:	1 - North bound, A trigger first. **Lane:** 0
Survey Duration:	0:00 Friday, 25 November 2022 => 16:20 Friday, 16 December 2022,
Zone:	
File:	Saunders St 0 2022-12-16 1620.EC0 (Plus)
Identifier:	QG9495NY MC5900-X13 (c)MetroCount 09Nov16
Algorithm:	Factory default axle (v5.08)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: (21.6807)	**0:00 Friday, 25 November 2022 => 16:20 Friday, 16 December 2022**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	10 - 160 km/h.
Direction:	North, East, South, West (bound), P = North, Lane = 0-16
Separation:	Headway > 0 sec, Span 0 - 100 metre
Name:	Default Profile
Scheme:	Vehicle classification (AustRoads94)
Units:	Metric (metre, kilometre, m/s, km/h, kg, tonne)
In profile:	Vehicles = 47455 / 47548 (99.80%)

Day	Hits	RawVol	DayFac	MonFac	AdjVol	- Date
0	1	2313.000	1.000	1.000	2313.000	- Friday, 25 November 2022
1	**1**	**1805.000**	**1.000**	**1.000**	**1805.000**	**- Saturday, 26 November 2022**
2	**1**	**1561.000**	**1.000**	**1.000**	**1561.000**	**- Sunday, 27 November 2022**
3	1	2067.000	1.000	1.000	2067.000	- Monday, 28 November 2022
4	1	2160.000	1.000	1.000	2160.000	- Tuesday, 29 November 2022
5	1	2168.000	1.000	1.000	2168.000	- Wednesday, 30 November 2022
6	1	2470.000	1.000	1.000	2470.000	- Thursday, 1 December 2022
7	1	2420.000	1.000	1.000	2420.000	- Friday, 2 December 2022
8	**1**	**1974.000**	**1.000**	**1.000**	**1974.000**	**- Saturday, 3 December 2022**
9	**1**	**1877.000**	**1.000**	**1.000**	**1877.000**	**- Sunday, 4 December 2022**
10	1	2181.000	1.000	1.000	2181.000	- Monday, 5 December 2022
11	1	2389.000	1.000	1.000	2389.000	- Tuesday, 6 December 2022
12	1	2291.000	1.000	1.000	2291.000	- Wednesday, 7 December 2022
13	1	2442.000	1.000	1.000	2442.000	- Thursday, 8 December 2022
14	1	2469.000	1.000	1.000	2469.000	- Friday, 9 December 2022
15	**1**	**2308.000**	**1.000**	**1.000**	**2308.000**	**- Saturday, 10 December 2022**
16	**1**	**1527.000**	**1.000**	**1.000**	**1527.000**	**- Sunday, 11 December 2022**
17	1	2280.000	1.000	1.000	2280.000	- Monday, 12 December 2022
18	1	2219.000	1.000	1.000	2219.000	- Tuesday, 13 December 2022
19	1	2275.000	1.000	1.000	2275.000	- Wednesday, 14 December 2022
20	1	2495.000	1.000	1.000	2495.000	- Thursday, 15 December 2022
21	----	----------	------	------	----------	- Friday, 16 December 2022

Total days = 21, Coverage = 5.75%

ADT = 2175.762, SD = 282.939

AADT = 2175.762, SD = 282.939

Weekdays = 15, Coverage = 4.11%

AWDT = 2309.267, SD = 133.629

AAWDT = 2309.267, SD = 133.629

Weekend days = 6, Coverage = 1.64%

AWET = 1842.000, SD = 288.222

AAWET = 1842.000, SD = 288.222

Appendix M – Stakeholder Consultation

Request for Stakeholder Feedback

RE: Waratah- Wynyard Council - Wynyard Sports Precinct Development

B Bookings | Wynyard Bus Lines <bookings@wynyardbuslines.cc
To Richard Burk
5/12/2022

From: Richard Burk <richard.burk@trafficandcivil.com.au>
Sent: Thursday, 1 December 2022 15:45
To: Bookings | Wynyard Bus Lines <bookings@wynyardbuslines.com.au>
Subject: Waratah- Wynyard Council - Wynyard Sports Precinct Development

Dear Stakeholder,

This email is to advise that Waratah – Wynard Council (WWC)has employed Traffic and Civil Services Pty Ltd(TCS) to prepare a traffic impact assessment and consult with key stakeholders on the proposed Wynyard Sports Precinct Development.

Your organisation has been identified by WWC as a key stakeholder.

Background:

- WWC has endorsed a Master Plan for the development of the Wynyard Sports Precinct. The sport precinct is intersected by Austin Street.
- The safety of precinct users in crossing Austin Street is a key community concern.
- WWC has identified a preferred solution to address pedestrian safety and reduce the speed environment in the vicinity of the proposed sports precinct.
- The preferred solution is a road closure as indicated on the attached concept plan.
- As a consequence of the Austin Street closure through traffic would use Saunders Street.

Your feedback:

Please provide feedback on your organisations views regarding the proposal by Friday 16th Dec 2022. Feedback in the form of dot points is sufficient and I can be contacted on 0456 535 746 if you have any queries.
Feedback to TCS can be provided by way of reply to me at my email address:
Richard.burk@trafficandcivil.com.au

Thank you in anticipation of your assistance.

Regards

Feedback received

Re: feedback on Wynyard Sports Precinct Development road closure

Snooks, Dean

To: Richard Burk
Attachments: image001.jpg
Sent: 15/12/2022 2:37 PM

I have canvassed my team and this is the only feedback I have received which is worthy of consideration.

The feedback was:-

The only foreseeable issue may be during football season when the Wynyard Cats have their home games. With Austin Street closed at the proposed point, and the entrance to the football grounds just being slightly south of that, it will possibly cause issues at the intersections of Austin and Park Streets, and Austin and Inglis Streets, with overflow traffic driving north along Austin Street looking for street parking near the grounds, and then trying to do a u-turn and travel back out if/when no parks are available.

Many thanks,

Dean

Dean Snooks
Sergeant No. 1511
Officer in Charge
WYNYARD POLICE STATION

PH: 64 777267
EMAIL: dean.snooks@police.tas.gov.au

RE: Waratah- Wynyard Council - Wynyard Sports Prec...

B Bookings | Wynyard Bus Li
To Richard Burk
5/12/2022

Hi Richard,

Thanks for this! Its great to see some development in this area.

I have spoken to our drivers, and the only concerns they have raised is that as it appears that there is only 1 coach bay and 1 turning bay, when you have more than 2 coaches, it's going to be pretty cramped/busy.

For example, we do the transport for the Gone Nuts Fun Run and they have about 7 buses that pick up from here. All buses will be required to use the reversing bay inside the car park, as they will not be able to turn around anywhere else. And also, will have to wait on the road – which isn't a huge problem.

My only suggestions for this would be to use the area that is carpark – closest to the road as a turn around point and coach area, and use the proposed coach area as parking for cars.

The only other issue (not really) is that our contracted school runs use Austin Street, so these will need to be re-routed. This is really not an issue.

I hope that makes sense. Feel free to give me a call if you need any other information.

Kind regards,

Abi Wood *(She / Her)*

Wynyard Bus Lines Pty Ltd
ABN: 76 137 089 868

Head Office
2-6 York St | Wynyard, TAS | 7325
tel: (03) 6442 2891

Mobile: 0400 546 696
Web: www.wynyardbuslines.com.au

Appendix N – Local Gov. (Highways) Act 1982 Extract

Local Government (Highways) Act 1982

Version current from 1 January 2022 to date (accessed 12 January 2023 at 15:56)

14. Closure and diversion of highways

(1) If, in the opinion of the corporation, a local highway or part of a local highway should be diverted or closed for the public benefit, in the interests of public safety or because of lack of use, it may –

(a) if it is satisfied, in the case of a diversion of a highway, that standard requirements, if applicable, have been complied with; and

(b) not less than 28 days after a written notice of its intention to do so –

(i) has been served on each of the owners and occupiers affected;

(ii) has been served on the Transport Commission;

(iii) has been displayed in a prominent position at each end of the highway; and

(iv) has been published twice in separate issues of a local newspaper circulating in the municipality in which the highway is situated –

close or divert the highway in respect of all traffic or particular types of traffic or subject to the reservation of a footpath or some other highway that may be used only for limited purposes.

(2) A notice under subsection (1) may apply to 2 or more highways that are connected with one another.

(3) Subject to subsection (4) , a notice under subsection (1) shall contain a map or plan showing the proposed closure or diversion to which it relates.

(4) A notice under subsection (1) that is required to be published in a newspaper may, instead of containing such a map or plan as is referred to in subsection (3) , contain a statement of a place in the municipality in which the highway is situated where the plan may be inspected free of charge at all reasonable hours.

(5) An interested person may, before the expiration of a notice under subsection (1) , give written notice to the corporation of his objection to the proposed closure or diversion.

(6) The corporation is to refer each objection that it is notified of under subsection (5) to the Magistrates Court (Administrative Appeals Division).

(7) The Magistrates Court (Administrative Appeals Division) has power to receive and determine the objection as if it were an application to review the decision relating to the proposed closure or diversion and, in addition to its powers under the Magistrates Court (Administrative Appeals Division) Act 2001 , the Court may make a local highway order –

(a) upholding the objection; or

(b) authorizing the proposed closure or diversion.

(8) An order under subsection (7)(b) may prohibit, in whole or in part, the closure or diversion authorized by the order until such conditions as may be specified in the order have been fulfilled, being conditions that the Magistrates Court (Administrative Appeals Division) considers proper to impose for the provision or preservation of the means of communication by highway or the means of access to a highway.

(9) Where the Magistrates Court (Administrative Appeals Division) makes an order under subsection (7)(b) , the Minister shall, as soon as possible after the making of the order, cause a notice containing particulars of the order to be published in the *Gazette*.

(10) A diversion of a highway that is opened under this section by a corporation is maintainable by the corporation.


TRAFFIC & CIVIL SERVICES