

SSD 8859
Proposed Subdivision

1111-1141 Elizabeth Drive, Cecil Park

TRAFFIC AND PARKING ASSESSMENT REPORT

14 August 2020

Ref 20355

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1. INTRODUCTION

This report has been prepared to accompany an amended Environmental Impact Statement SSD 8859 for the proposed subdivision of 1111-1141 Elizabeth Drive, Cecil Park (Figures 1 and 2).

This report has also been prepared in response to the proposed acquisition of part of the site which will reduce the site area by 26,617m². The acquisition of the area of the site proposed by Transport for NSW (TfNSW) has required amendments to be made to the proposed development and development footprint which requires a re-assessment of the impacts and design which responds to the new development site.

The proposed acquisition area will accommodate the new realigned Wallgrove Road and Cecil Road which forms part of the Elizabeth Drive upgrade which extends between the M7 Motorway interchange and Badgery's Creek Road. In the vicinity of the site, Elizabeth Drive will be upgraded to three traffic lanes in each direction plus turning additional turning lanes at key intersections. In particular, the existing Elizabeth Drive and Cecil Road intersection will be upgraded to traffic signals and become the new Elizabeth Drive and Wallgrove Road intersection. Approximately 120m north of the new intersection is where Cecil Road will meet the new Wallgrove Road in another new signalised intersection.

The amended application involves the subdivision of the site to create 12 lots (compared to the previous 14 lots before the proposed land acquisition), comprising a range of uses including a highway service centre, food & drink premises, eco-tourist facility, tourist & visitor accommodation, recreation facilities (indoor, outdoor & major), recreation areas and an information & education facility. The proposed northernmost lot, Lot 12, is to be dedicated as an on-site detention basin.

A new public local road is also proposed to be constructed to serve these future lots, in accordance with Fairfield Council's *DCP 2013* road design requirements, which will connect to the new Wallgrove Road, approximately 170m north-east of the new Cecil Road signalised intersection.

Despite giving *in principle* support to a new slip lane access directly off Elizabeth Drive into the site on the previous concept scheme (for the service station lot only), TfNSW have since withdrawn their support for any direct access (both entry and exit) due to the Elizabeth Drive upgrade works and the potential to impact road safety and network efficiency. All vehicular access is now proposed to be provided via the abovementioned new local through the site, via the new Wallgrove Road.

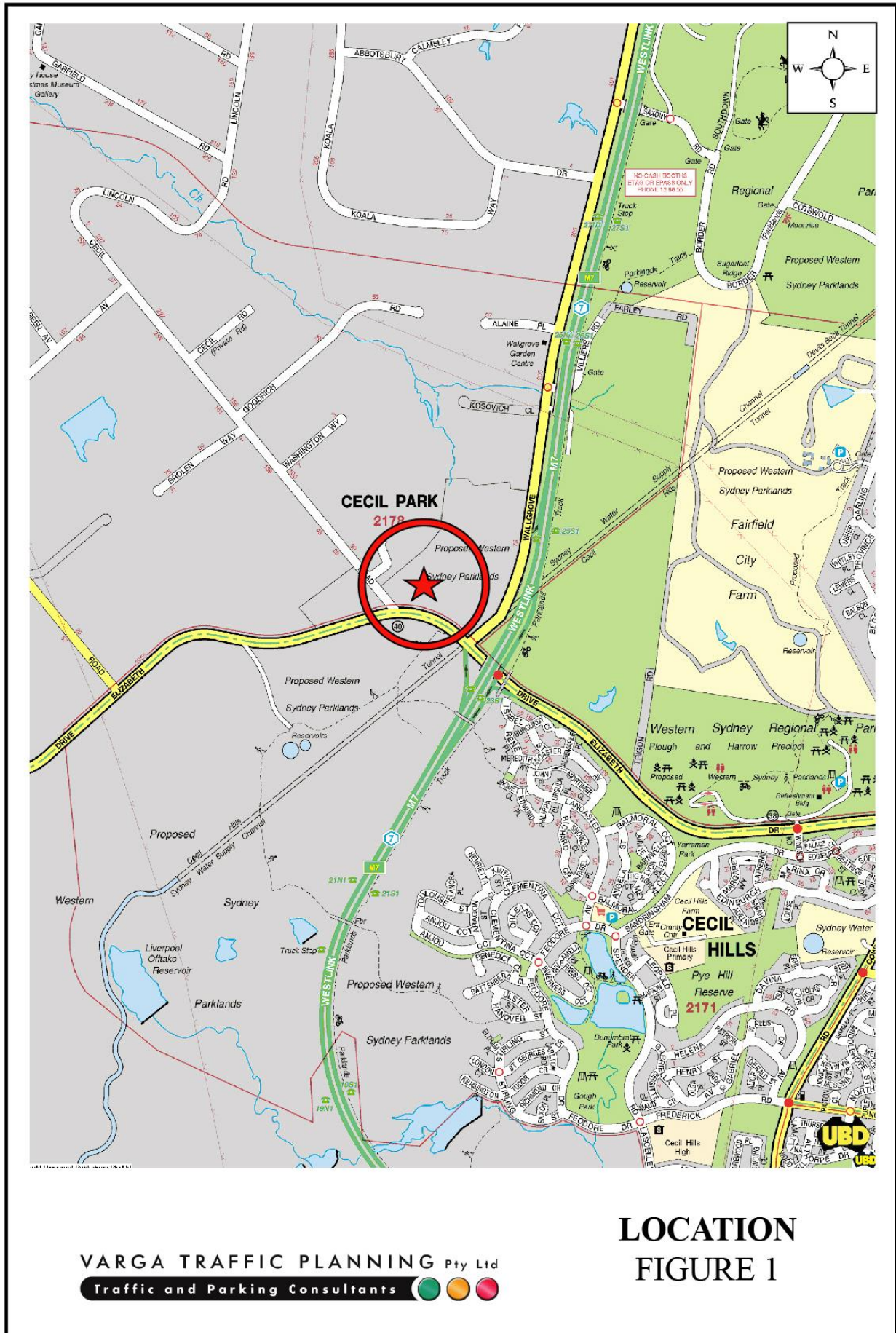
Off-street parking and loading for the various lots will ultimately be provided within the respective lots and comply with Council and/or RMS's numerical requirements, subject to separate development applications.

This report also responds to previous advice and requests from both the Department of Planning & Environment as well as TfNSW/RMS. Notwithstanding, much of the written advice received to date is from early 2019 – i.e. *prior to* the M12 Motorway design progressing to the state which it currently is.

The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the subdivision proposal
- reviews the road network in the vicinity of the site, and the traffic conditions on that road network
- reviews the alternate forms of transport available in the vicinity of the site
- estimates the traffic generation potential of the subdivision proposal and assigns that traffic generation to the road network serving the site
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed subdivision's local road and service road for compliance with the relevant codes and standards

- assesses the intersection treatments to/from the arterial road network as well as to/from the local road network
- assesses the adequacy and suitability of the quantum of off-street car parking provided on the site.



2. PROPOSED DEVELOPMENT

Site

The subject site is located on the north-eastern corner of the Elizabeth Drive and Cecil Road intersection. The existing site has a street frontage of approximately 163m in length to Elizabeth Drive, approximately 134m in length to Cecil Road and occupies an area of approximately 7.38ha.

The subject site is currently occupied by a single dwelling house with a number of associated outbuildings. The remainder of the site consists of maintained lawn, established trees and part of a dam, as indicated in the aerial image below.

Vehicular access to the site is provided via two separate gates located off the Elizabeth Drive site frontage. There is no existing vehicular access provided via Cecil Road.



Source: Nearmap

M12 Motorway & Proposed Acquisition

The subject site is located within close proximity to the future M12 Motorway investigation corridor. The M12 Motorway is proposed by the NSW Government as part of the *Western Sydney Infrastructure Plan* and will provide direct access from Sydney's current motorway network to the future Western Sydney Airport at Badgerys's Creek. The M12 motorway is expected to increase road capacity, reduce congestion and travel time along neighbouring existing roads such as Elizabeth Drive. The NSW Government has recently promised to begin building the motorway in 2022, with completion sometime in 2025.

Since the original subdivision application was submitted, the design of the M12 Motorway investigation corridor has progressed. The road design now includes the realignment of Wallgrove Road and in particular where it intersects with Elizabeth Drive. At present, Wallgrove Road meets Elizabeth Drive just west of the M7 Motorway interchange, with the opposite (southern) leg being the M7 Motorway northbound off-ramp.

The new Wallgrove Road and Elizabeth Drive intersection will shift approximately 375m to the west to what is currently the Cecil Road intersection, with the opposite (southern) leg to be the new M12 Motorway on-ramp.

The proposed Wallgrove Road realignment through the north-west portion of the site requires the proposed acquisition of 26,617m². As consequence, the site will have a revised street frontage of approximately 155m in length to Elizabeth Drive, approximately 340m in length to the new Wallgrove Road and occupy a revised area of approximately 41,377m².

It is pertinent to note that the inability for the future service station to have direct access to/from Elizabeth Drive (*or* the new Wallgrove Road site frontage), as previously supported by RMS, will require all vehicles to access the service station (likely to be Lot 5) via the new internal road. This arrangement will no doubt affect the attractiveness and ultimately sale price of the service station site, as much of their value is based on the volume of vehicles that drive past a site with *direct access* from that frontage road. Putting a figure on that subsequent burden is beyond the scope of this report however it is expected that a detailed economic analysis will be prepared by a specialist consultant in due course.

Proposed Development

The proposed development involves the subdivision of the site to create 12 lots, with an average lot size of approximately 3,448m². The proposed uses of the new lots as well as indicative floor areas are indicated in the table below, including permissible and potential land uses. Notwithstanding, the precise future uses on the site are not yet known. The indicative GFA figures are based on an FSR of 0.25:1. The proposed northernmost lot, Lot 12, is to be dedicated as an on-site detention basin.

| INDICATIVE YIELD | | | |
|------------------|-----------------------------|----------------------------|---|
| LOT NUMBER | LOT AREA | INDICATIVE GFA | POTENTIAL LAND USES |
| 1 | 2,511 m ² | 628 m ² | Highway service centre Food and drinks premises Eco-tourist facility tourist and visitor accommodation Recreation Areas Recreation facilities (indoor) Recreation facilities (outdoor) Recreation facilities (major) Information and education facility |
| 2 | 2,511 m ² | 628 m ² | |
| 3 | 3,879 m ² | 970 m ² | |
| 4 | 3,727 m ² | 932 m ² | |
| 5 | 6,811 m ² | 1,703 m ² | |
| 6 | 2,831 m ² | 708 m ² | Food and drinks premises Eco-tourist facility Recreation Areas Recreation facilities (indoor) Recreation facilities (outdoor) Recreation facilities (major) |
| 7 | 2,087 m ² | 522 m ² | |
| 8 | 2,087 m ² | 522 m ² | |
| 9 | 2,087 m ² | 522 m ² | |
| 10 | 5,084 m ² | 1,271 m ² | |
| 11 | 4,343 m ² | 1,086 m ² | |
| 12 | 3,419 m ² | - | Onsite detention basin |
| TOTAL | 41,377 m² | 9,490 m² | |

In terms of operating hours, it is expected that the service station will operate 24/7. The fast food restaurant(s) will likely operate between at least 6am and 10pm however could also potentially operate 24/7 if demand is there. The accommodation facilities are also likely to have extended operating hours given the site's proximity to the future airport, whilst the recreation facilities could also potentially operate between 6am and 10pm, depending on their nature.

Off-street parking and loading for the 12 lots is to be accommodated within each of the respective lots and will ultimately comply with Council's requirements, subject to a separate development application for each new development.

It is pertinent to note that despite Clause 101(2a) of *SEPP (Infrastructure) 2007* which states that the consent authority must not grant consent to development on land that has a frontage to a classified road unless it is satisfied that, *"where practicable, vehicular access to the land is provided by a road other than the classified road"*, RMS (now TfNSW) provided *"in principle"* support to a left-in/left-out access arrangement on Elizabeth Drive to the potential future service station and fast food premises only, given that service centres cater primarily for passing traffic....on the condition that there is no vehicular connection from the proposed service station and fast food premises to other developments proposed on the site.

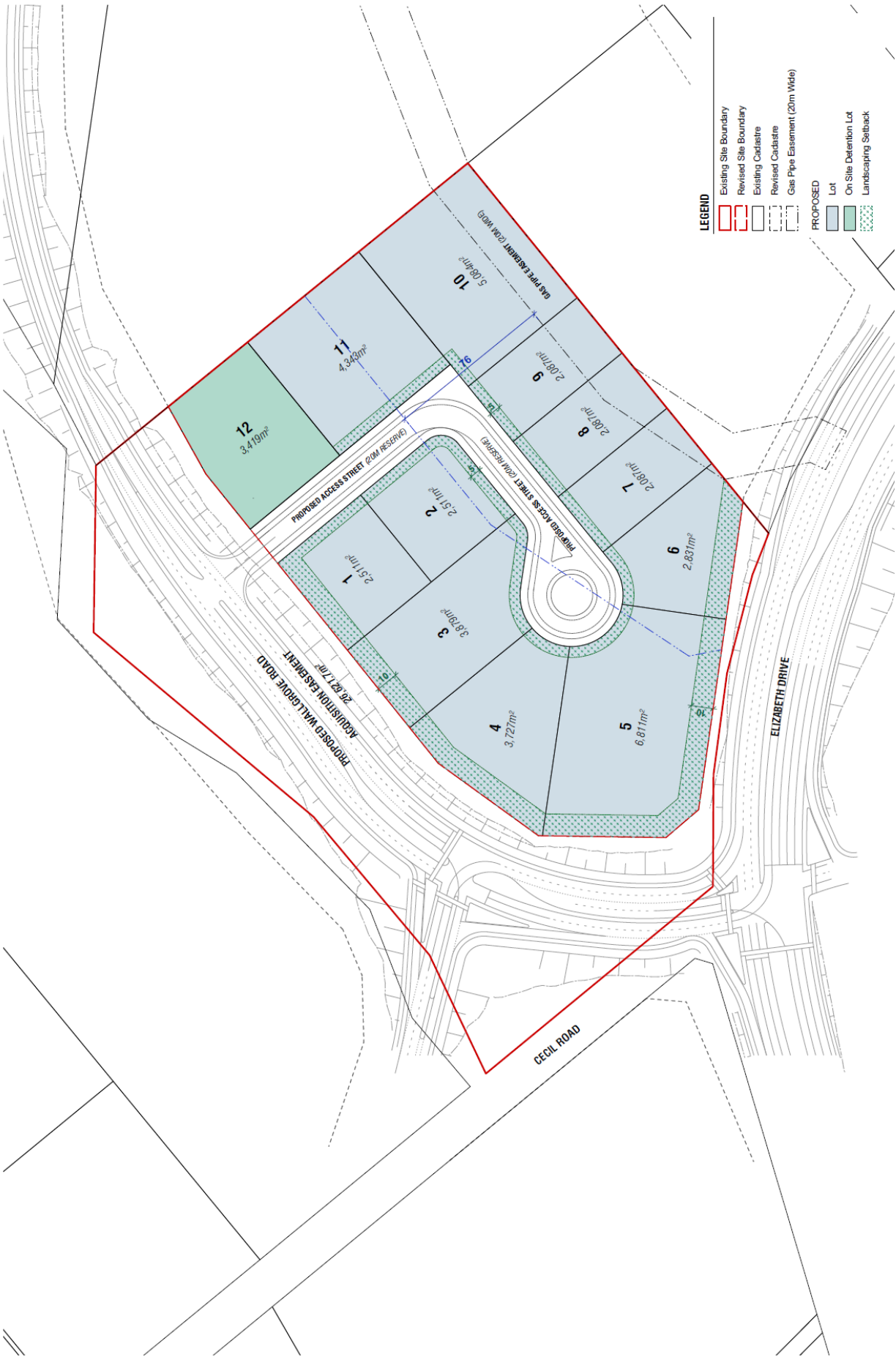
As noted in the foregoing however, despite giving *in principle* support to a new slip lane access directly off Elizabeth Drive into the site on the previous concept scheme (for the service station lot only), TfNSW have since withdrawn their support for direct access (both entry and exit) due to the Elizabeth Drive upgrade works and the potential to impact road safety and network efficiency.

All vehicular access is now proposed to be provided via the abovementioned new local through the site, via the new Wallgrove Road. The proposed new local road will have a road reservation width of 20m, with a carriageway width of 13m, consistent with the Council's *DCP 2013* requirements for "industrial" subdivision roads.

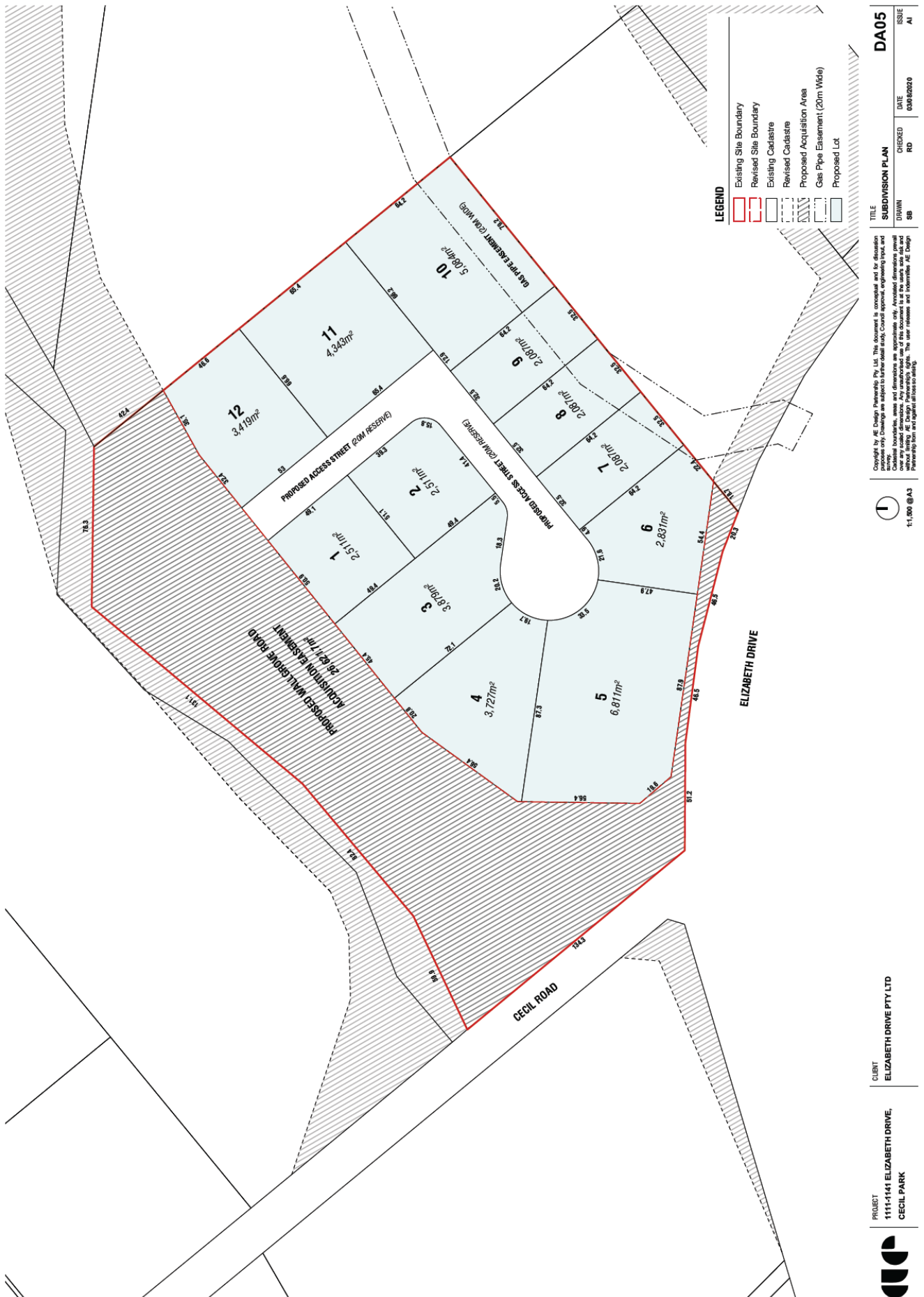
Loading/servicing for the proposed development is expected to be undertaken by a variety of commercial vehicles, ranging from small, medium and large rigid trucks, up to and including articulated semi-trailers, depending on the land use. Appropriate loading facilities will ultimately be provided for the respective uses and comply with Australian Standards.

In this regard, both the proposed new site access intersection with Wallgrove Road as well as the proposed new internal road, have been designed to accommodate the swept turn path requirements of an articulated semi-trailer, allowing it to enter/exit the site and circulate through the site in a forward direction at all times.

Plans of the proposed amended subdivision layout have been prepared by *ae Design Partnership* and are reproduced in the following pages.



| | | | | | | | | | | |
|---|---------|--|--------|-------------------------|---|----|-------|------|------------|---|
|  | PROJECT | 1111-1141 ELIZABETH DRIVE, CECIL PARK | CLIENT | ELIZABETH DRIVE PTY LTD |  | | | | 1:500 @ A3 | Copyright by AE Design Partnership Pty Ltd. This document is confidential and for discussion purposes only. Drawings are subject to further detail study. Council approval, engineering input, and other factors may affect the final design. All dimensions are approximate. Any dimensions shown are for reference only. The client acknowledges and agrees that the client is responsible for obtaining all necessary approvals and permits. The client acknowledges and agrees that the client is responsible for obtaining all necessary approvals and permits. The client acknowledges and agrees that the client is responsible for obtaining all necessary approvals and permits. |
| | | | | | TITLE | | | | | |
| | | | | | STRUCTURE PLAN | | | | | |
| | | | | | DRAWN | | | | | |
| | | | | DATE | CHECKED | RD | ISSUE | DA06 | | |
| | | | | 03/04/2020 | | | | AI | | |



3. TRAFFIC ASSESSMENT

Existing Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

The M7 Motorway is classified by the RMS as a *State Road* which provides the key road link between the M2 Motorway, the M4 Motorway and the M5 Motorway. It typically carries two traffic lanes in each direction in the vicinity of the site, with opposing traffic flows separated by a wide landscaped central median island. All intersections with the M7 Motorway are grade-separated.

Wallgrove Road is also classified by the RMS as a *State Road* and provides the key north-south road link in the area, linking Eastern Creek to Cecil Park. It typically carries one traffic lane in each direction in the vicinity of the site with additional lanes provided at key locations.

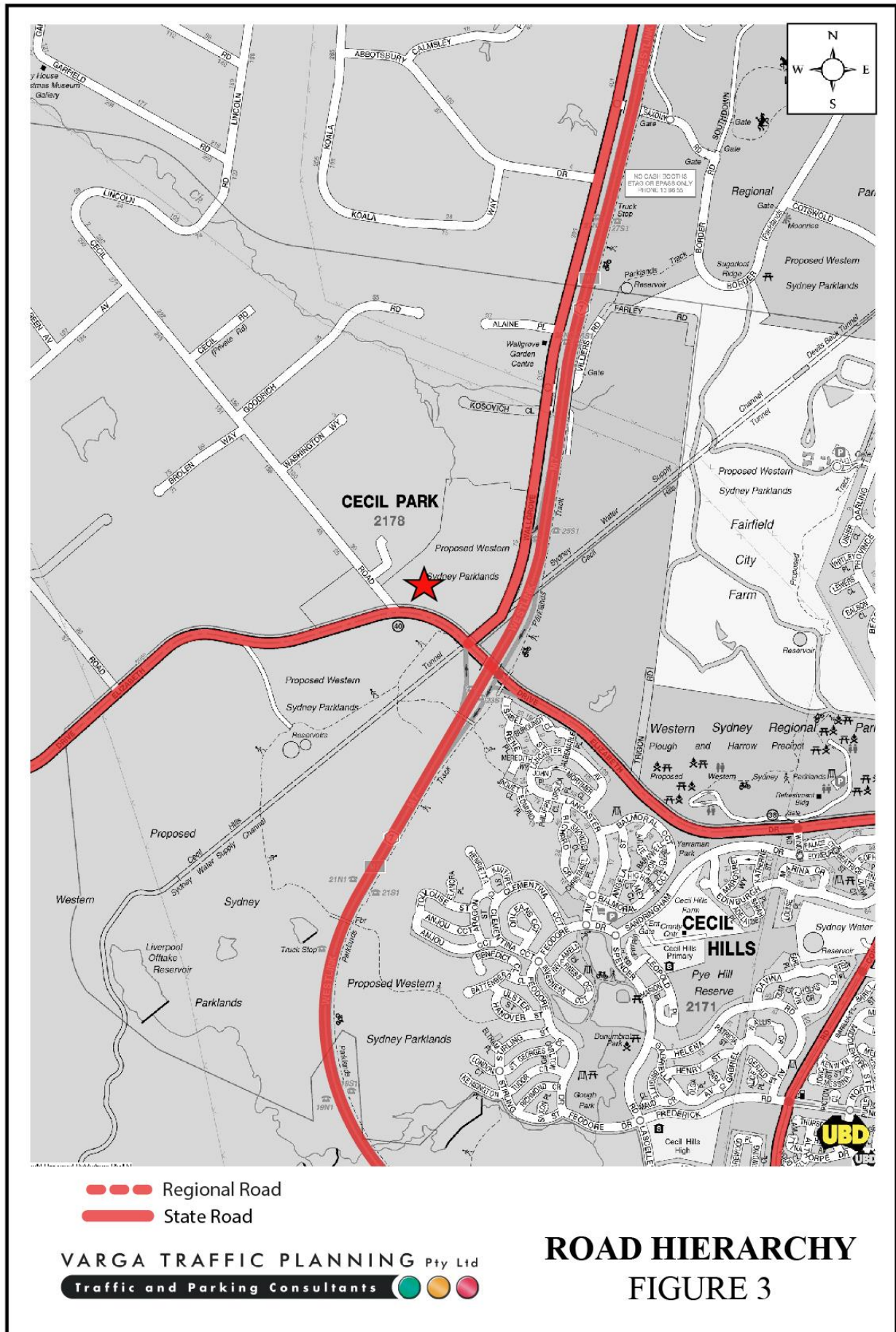
Elizabeth Drive is also classified by the RMS as a *State Road* and provides the key east-west road link in the area, linking Luddenham to Liverpool. It typically carries one to two traffic lanes in each direction in the vicinity of the site with turning bays provided at key locations.

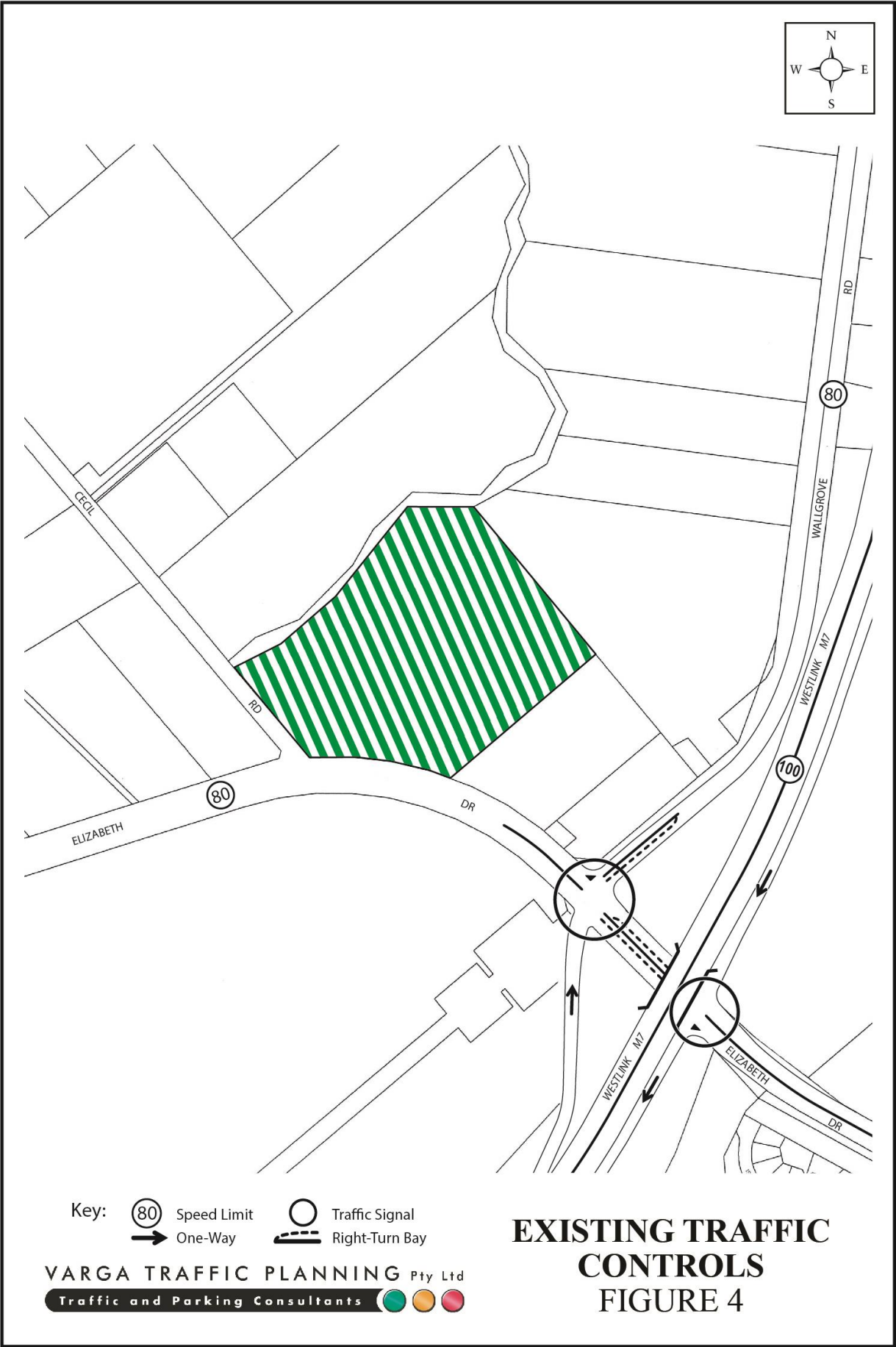
Cecil Road is a local, unclassified semi-rural road which is primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of the road.

Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 100 km/h SPEED LIMIT which applies to the M7 Motorway



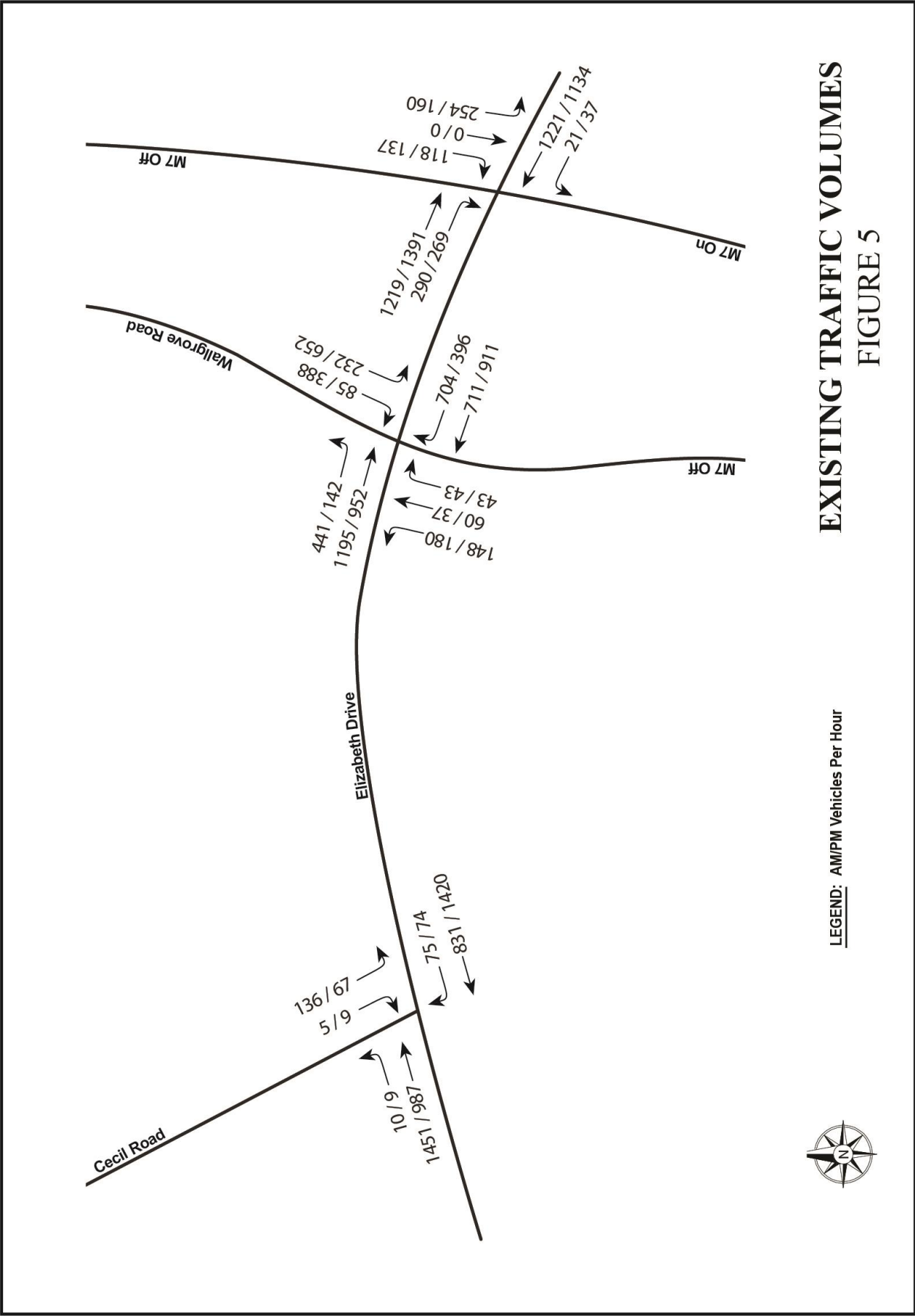


- an 80 km/h SPEED LIMIT which applies to Wallgrove Road and Elizabeth Drive, west of Cecil Road
- a 70 km/h SPEED LIMIT which applies to Elizabeth Drive, east of Cecil Road
- a 60 km/h SPEED LIMIT which applies to Cecil Road and all other local roads in the surrounding area
- TRAFFIC SIGNALS in Elizabeth Drive where it intersects with Wallgrove Road and the Elizabeth Drive M7 Off-Ramp.

Existing Traffic Conditions

An indication of the existing traffic conditions on the road network in the vicinity of the site is provided by peak period traffic surveys undertaken as part of this traffic study. The traffic surveys were undertaken on Wednesday 9th August 2017 in Elizabeth Drive where it intersects with Cecil Road, Wallgrove Road and the M7 On/Off Ramps, with the volumes summarised in Figure 5. In accordance with industry practice, the traffic surveys were undertaken during school term. The results of the traffic surveys are reproduced in full in Appendix A and reveal that:

- the morning network peak hour occurred between 7:45am and 8:45am whilst the afternoon peak hour occurred between 4:45pm and 5:45pm
- two-way traffic flows in Elizabeth Drive past the site frontage are typically in the order of 2,500 vehicles per hour (vph) during the weekday commuter peak periods
- two-way traffic flows in Elizabeth Drive in the vicinity of the Wallgrove Road and M7 Motorway interchange are typically in the order of 3,000 vph during weekday commuter peak periods
- two-way traffic flows in Cecil Road past the site frontage are significantly lower, typically in the order of 160-220 vph during the weekday peak periods.



Existing Public Transport Services

There are currently two bus services which operate in the vicinity of the site, with the nearest bus stops located directly outside the site on Elizabeth Drive and also Cecil Road.

The 801 service operates Monday to Friday between Badgerys Creek and Liverpool via Kemps Creek, Cecil Park, Bonnyrigg and Cabramatta.

The 813 service operates 7 days per week between Bonnyrigg and Fairfield via Cecil Park, Horsley Park, Wetherill Park and Smithfield.

The abovementioned bus services can also be used to interchange with connecting train services at Fairfield and Liverpool railway stations.

Whilst existing public transport options are limited, given the semi-rural nature of the area, this is likely to change in coming years as the surrounding greater area is redeveloped.

Bicycle Network

There are a number of on-road and off-road bicycle routes that are readily accessible from the subject site to/from the greater local Fairfield and Liverpool area, including along Elizabeth Drive (east of the M7 Motorway) and also the Westlink M7 shared path.

In order to enhance the *active* transport options available to future occupants of the site, consideration could be given to constructing a new shared pathway along the northern side of Elizabeth Drive, past the site frontage, connecting to the Westlink M7 shared path which is located approximately 500m east of the site along Elizabeth Drive. TfNSW have also recommended that the shared pathway be extended from Elizabeth Drive along the new Wallgrove Road site frontage.

In order to further enhance the *active* transport options available to future occupants of the site, consideration should also be given to including end-of-trip facilities and suitable bike storage areas.

Existing Intersection Treatment

The existing Elizabeth Drive and Cecil Road intersection currently comprises a Basic Right Turn Treatment (BAR), as indicated on the *Nearmap* aerial and *Streetview* images below. The road reservation width of Elizabeth Drive in the vicinity of the site is in the order of 40.5m, whilst Cecil Road is in the order of 20m – i.e. property boundary to property boundary.

Elizabeth Drive in the vicinity of Cecil Road comprises one traffic lane in each direction with gravel shoulders, widening to two lanes in each direction on approach to the Wallgrove Road signalised intersection.





Cecil Road currently comprises a carriageway width of approximately 7m with one traffic lane in each direction, gravel shoulders and large radii corners to accommodate truck movements, as indicated on the *Streetview* image below.



Proposed Intersection Treatment & Road Configuration

As noted in the foregoing, since the original submission of the application, the design of the M12 Motorway has progressed significantly. Whilst the precise design and road layout has yet to be released to the public, TfNSW have provided details of the road design in the immediate vicinity of the site in order to ensure the proposed subdivision and new local road intersection ties into the design.

In summary, the new road layout in the immediate vicinity of the site comprises:

- Elizabeth Drive upgraded to dual carriageway with three traffic lanes in each direction, *plus* turning lanes
- existing northern leg (Wallgrove Road) of the Elizabeth Drive, M7 off-ramp & Wallgrove Road intersection to be converted to new M7 on-ramp, tying into the existing on-ramp approximately 560m to the north. The intersection will include double left turn lanes onto the new M7 on-ramp for eastbound traffic along Elizabeth Drive
- existing Wallgrove Road to be realigned from north of the existing M7 on-ramp, through the northern portion of the subject site, where it will intersect with Elizabeth Drive at the existing Cecil Road intersection. The new Wallgrove Road will comprise two traffic lanes in each direction, *plus* turning lanes, reducing to one traffic lanes in each direction just north of the subject site
- existing Cecil Road to be realigned from approximately 200m north of Elizabeth Drive, to intersect with the new Wallgrove Road, outside the proposed new Lot 4
- the new intersection of Wallgrove Road and the subject site will permit all turning movements and include a 90m long right turn holding bay for northbound traffic turning into the subject site

The proposed new road layout in the immediate vicinity of the site, including the three new abovementioned intersections, have been designed by TfNSW with a long-term vision in mind. It is therefore expected that the three intersections *and* the surrounding road network will have significant spare capacity for many years to come, including the ability to accommodate the associated future traffic of the subject site.

Projected Traffic Generation Potential

An indication of the traffic generation potential of the subdivision proposal is provided by reference to the Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 3 – Land Use Traffic Generation (October 2002)*.

The RMS *Guidelines* are based on extensive surveys of a wide range of land uses, and nominate the following *peak hour* traffic generation rates which are applicable to the various land uses permissible on the site:

Service Stations

0.66A(F) evening peak hour vehicle trips, including approximately 90% passing trade (assumed)

where A(F) = GFA of convenience store

Daily trip generation depends on the site's operating hours

Take-Away Food Restaurants

180 peak hour vehicle trips per hour (McDonalds), including approximately 35% passing trade

100 peak hour vehicle trips per hour (KFC), including approximately 50% passing trade

Daily trip generation depends on the site's operating hours

Commercial Premises

2.0 peak hour vehicle trips per 100m² GFA

10.0 daily vehicle trips per 100m² GFA

Gymnasiums

9.0 peak hour vehicle trip per 100m² GFA

45.0 daily vehicle trip per 100m² GFA

Motels:

0.4 peak hour vehicle trips per unit

3 daily vehicle trips per unit

It is also pertinent to note that there is likely to be a proportion of *multi-purpose trips* to the site whereby visitors to the service station, employees, customers and guests of the recreation facilities and tourist accommodation, may also be customers of the fast food outlet, and vice-versa.

Furthermore, *passing trade* occurs when a person might visit the proposed service station and/or fast food restaurants on the site on their way home from work. That person is already travelling on the nearby road network, thereby not incurring an additional vehicle trip.

As noted in the foregoing, the precise future uses on the site are not yet known, nor the sizes of any future buildings, such that it is difficult to accurately quantify the traffic generation potential of the proposed subdivision.

Notwithstanding, and based on the above traffic generation rates, for the purposes of this assessment, a traffic generation rate of *6 peak hour vehicle trips per 100m²* has been adopted. By comparison, this rate is considered to be a very conservative figure.

Application of the above traffic generation rate to the potential for 9,490m² GFA, yields a traffic generation potential of 568 *peak hour* vehicle trips, the majority of which are expected to be attributed to the service station and fast food restaurant(s). This estimate represents both IN movements & OUT movements, combined – i.e. potentially 284 trips IN & 284 trips OUT.

Reference to the traffic survey data provided in Appendix A, indicates that the heavy vehicle percentage of the abovementioned traffic volume could be in the order of 6%. Given the future upgrade of the surrounding area, including access to/from the new airport and expected increased freight movements, the future heavy vehicle percentage could be somewhat higher, say closer to 10%, or approximately 57 vehicles.

In terms of *daily* traffic volumes, the RMS *Guidelines* specifies varying rates which differ between land uses and operating hours. As a guide, the *peak hour* traffic generation rates are factored up by 10 to obtain an estimate of the *daily* traffic generation rates. Based on this methodology, the proposed subdivision will have an estimated *daily* traffic generation in the order of 5,680 vehicle movements, including approximately 568 heavy vehicles.

It is also estimated that a significant portion of the above traffic volumes, both *peak* and *daily*, will be passing trade.

In any event, the proposed new road layout in the immediate vicinity of the site, including the three new adjacent intersections, have been designed by TfNSW for long-term future use. It is therefore expected that the three intersections *and* the surrounding road network will have significant spare capacity for many years to come, including the ability to accommodate the associated future traffic of the subject site.

In the circumstances, the associated traffic activity as a consequence of the subdivision proposal is not expected to result in any unacceptable traffic implications in terms of road network capacity, nor will any further upgrade works be required.

Traffic Implications during Construction Activities

The construction activities associated with the proposed subdivision – i.e. site establishment, road construction etc. – are expected to be undertaken over a period of approximately 6-8 months, with all material deliveries to be undertaken wholly within the site using a variety of truck types and sizes.

Truck and contractor vehicular movements during construction are expected to be relatively minor and in any event are not expected to exceed the projected truck movements of the operating subdivision.

All neighbouring properties are to have their access maintained at all times. All nearby residents will be updated at the commencement of works with respect to the construction process, particularly in relation to construction vehicles movements, and be provided with a phone number to contact the site manager.

The site is located a significant distance from residential properties and therefore any disturbance from dust, noise or construction traffic will be *negligible*, if any.

All practicable measures will be taken, including the use of “truck scrubbers”, to ensure that vehicles leaving the site do not deposit mud or debris on the road. Any mud or debris deposited on the road must be cleaned up immediately in a manner that does not pollute waters (i.e. by sweeping or vacuuming).

The site manager will ensure that there is adequate on-site parking available for employee, tradesperson and construction vehicles. Given the size of the subject site, there will be ample on-site parking available for contractors. In addition, staff will be encouraged to utilise public transport which will minimise traffic and parking impacts as a consequence of the construction process.

4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

The existing kerbside parking restrictions which apply to the road network in the vicinity of the site comprise:

- NO STOPPING restrictions in the vicinity of the Elizabeth Drive and Cecil Road intersection
- BUS STOPS located along both sides of Elizabeth Drive and Cecil Road, including directly outside the Elizabeth Drive site frontage
- generally UNRESTRICTED kerbside parking elsewhere throughout the local semi-rural rural area.

Off-Street Parking Provisions

An indication of the off-street parking rates applicable to the various permissible land uses on the subject site are specified in Council's *Development Control Plan – Section 12.1.1 Car Parking Rates* document in the following terms:

Service Station

1 space per 25m² GLA of convenience store

Restaurant / Take Away Food and Drink Premises / Pub

1 space per 7m² GLA

Commercial Premises

1 space per 40m² GLA

Motel Accommodation

1 space per motel room, *plus*

1 space per 2 employees

Recreation Facility (Indoor)

| | |
|----------------------------|----------------------------------|
| Bowling alley: | 3 spaces per lane |
| Gymnasium: | 1 space per 11m ² GLA |
| Indoor cricket: | 16 spaces per pitch |
| Snooker/pool/table tennis: | 3 spaces per table |

Recreation Facility (Major)

| | |
|-----------------|---|
| Sports stadium: | 1 space per 5m ² GLA <i>or</i> 1 space per 6 seats, whichever is greater |
|-----------------|---|

Recreation Facility (Outdoor)

| | |
|-----------------|---|
| Bowling greens: | 30 spaces for first green and 15 spaces for each additional green |
| Squash courts: | 3 spaces per court |
| Tennis courts: | 3 spaces per court |

Recreation Facility (Indoor, Major & Outdoor)

| | |
|---------------|--------------------------|
| Other sports: | subject to parking study |
|---------------|--------------------------|

Tourist & Visitor Accommodation

| | |
|------------------|--|
| Backpackers: | 1 space per 3 beds <i>plus</i> 1 space for the caretaker <i>plus</i> 1 space per 2 staff |
| Bed & breakfast: | 1 space per each lettable room <i>plus</i> 1 space per 2 staff |

As noted in the foregoing, the precise future uses on the site are not yet known, nor the sizes of any future buildings, such that it is difficult to accurately quantify the off-street parking requirements of the proposed subdivision. In any event, off-street car parking for each lot will be the subject of separate development applications.

Furthermore, there is likely to be a proportion of *multi-purpose trips* to the site, whereby visitors to the service station, employees, customers and guests of the recreation facilities and tourist accommodation, may also be customers of the fast food outlet, and vice-versa, such that they only require one parking space.

The future vehicular access and off-street car parking arrangements will be designed in accordance with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1.2004*.

Loading/Service Provisions

The proposed development is expected to be serviced by a variety of commercial vehicles, ranging from small, medium and large rigid trucks, up to and including articulated semi-trailers. Whilst the details are not yet known, it is expected that loading/service component of the developments will also ultimately comply with Council's requirements, allowing all commercial vehicles to enter and exit each lot in a forward direction at all times.

The geometric design layout of the proposed loading facilities will also ultimately comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 2 - Off-Street Commercial Vehicle Facilities AS2890.2:2002*.

Conclusion

The foregoing has found that as a consequence of the M12 Motorway investigation area, the northern portion of the subject site is to be acquired in order to accommodate the redirected Wallgrove Road. TfNSW have also provided the future road layout and configuration in the immediate vicinity of the site which include two to three traffic lanes in each direction *plus* single and twin turning lanes. As such, the future traffic volumes generated by the proposed land uses within the subdivision are not expected to result in any unacceptable traffic implications in terms of road network capacity, nor will any further upgrades works be required.

Furthermore, the proposed subdivision will ultimately satisfy Council's off-street parking and loading requirements, subject to future development applications being lodged for each lot, whilst the design of the vehicular access and car parking/loading facilities will ultimately be designed in accordance with Australian Standards requirements.

Construction vehicle activity will also be managed and it is recommended that a detailed Construction Traffic Management Plan be included as part of any development consent issued for the subdivision.

In the circumstances, it is therefore reasonable to conclude that the proposed subdivision will not have any unacceptable implications in terms of road network capacity, construction-related impacts or off-street parking/loading/access requirements.

APPENDIX A

TRAFFIC SURVEY DATA



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6536 CECIL PARK Elizabeth Dr
Day/Date : Wednesday 9th August 2017

| PEDS | WEST | NORTH | EAST | |
|-------------|--------------|----------|--------------|-----|
| Time Per | Elizabeth Dr | Cecil Rd | Elizabeth Dr | TOT |
| 0630 - 0645 | 0 | 0 | 0 | 0 |
| 0645 - 0700 | 0 | 0 | 0 | 0 |
| 0700 - 0715 | 0 | 0 | 0 | 0 |
| 0715 - 0730 | 0 | 0 | 0 | 0 |
| 0730 - 0745 | 0 | 0 | 0 | 0 |
| 0745 - 0800 | 0 | 0 | 0 | 0 |
| 0800 - 0815 | 0 | 0 | 0 | 0 |
| 0815 - 0830 | 0 | 0 | 0 | 0 |
| 0830 - 0845 | 0 | 0 | 0 | 0 |
| 0845 - 0900 | 0 | 0 | 0 | 0 |
| 0900 - 0915 | 0 | 0 | 0 | 0 |
| 0915 - 0930 | 0 | 0 | 0 | 0 |
| Per End | 0 | 0 | 0 | 0 |

| PEDS | WEST | NORTH | EAST | |
|-------------|--------------|----------|--------------|-----|
| Peak Per | Elizabeth Dr | Cecil Rd | Elizabeth Dr | TOT |
| 0630 - 0730 | 0 | 0 | 0 | 0 |
| 0645 - 0745 | 0 | 0 | 0 | 0 |
| 0700 - 0800 | 0 | 0 | 0 | 0 |
| 0715 - 0815 | 0 | 0 | 0 | 0 |
| 0730 - 0830 | 0 | 0 | 0 | 0 |
| 0745 - 0845 | 0 | 0 | 0 | 0 |
| 0800 - 0900 | 0 | 0 | 0 | 0 |
| 0815 - 0915 | 0 | 0 | 0 | 0 |
| 0830 - 0930 | 0 | 0 | 0 | 0 |
| PEAK HR | 0 | 0 | 0 | 0 |

| Lights | WEST | | NORTH | | EAST | | |
|-------------|--------------|----------|----------|----------|--------------|----------|------|
| | Elizabeth Dr | | Cecil Rd | | Elizabeth Dr | | |
| Time Per | <u>I</u> | <u>L</u> | <u>R</u> | <u>L</u> | <u>R</u> | <u>I</u> | TOT |
| 0630 - 0645 | 274 | 2 | 1 | 11 | 9 | 222 | 519 |
| 0645 - 0700 | 246 | 1 | 3 | 14 | 10 | 167 | 441 |
| 0700 - 0715 | 298 | 4 | 0 | 12 | 10 | 147 | 471 |
| 0715 - 0730 | 362 | 3 | 0 | 16 | 16 | 168 | 565 |
| 0730 - 0745 | 355 | 0 | 0 | 20 | 14 | 195 | 584 |
| 0745 - 0800 | 325 | 2 | 0 | 20 | 11 | 188 | 546 |
| 0800 - 0815 | 342 | 0 | 0 | 33 | 14 | 158 | 547 |
| 0815 - 0830 | 323 | 2 | 0 | 41 | 12 | 167 | 545 |
| 0830 - 0845 | 346 | 1 | 1 | 26 | 13 | 202 | 589 |
| 0845 - 0900 | 348 | 2 | 1 | 13 | 12 | 191 | 567 |
| 0900 - 0915 | 207 | 1 | 0 | 13 | 9 | 121 | 351 |
| 0915 - 0930 | 162 | 1 | 0 | 8 | 6 | 138 | 315 |
| Per End | 3588 | 19 | 6 | 227 | 136 | 2064 | 6040 |

| Heavies | WEST | | NORTH | | EAST | | |
|-------------|--------------|----------|----------|----------|--------------|----------|-----|
| | Elizabeth Dr | | Cecil Rd | | Elizabeth Dr | | |
| Time Per | <u>I</u> | <u>L</u> | <u>R</u> | <u>L</u> | <u>R</u> | <u>I</u> | TOT |
| 0630 - 0645 | 36 | 0 | 0 | 2 | 2 | 29 | 69 |
| 0645 - 0700 | 26 | 1 | 0 | 3 | 2 | 16 | 48 |
| 0700 - 0715 | 32 | 0 | 0 | 0 | 0 | 24 | 56 |
| 0715 - 0730 | 17 | 2 | 1 | 0 | 0 | 21 | 41 |
| 0730 - 0745 | 26 | 1 | 1 | 2 | 2 | 22 | 54 |
| 0745 - 0800 | 30 | 0 | 1 | 4 | 5 | 31 | 71 |
| 0800 - 0815 | 25 | 1 | 1 | 2 | 7 | 35 | 71 |
| 0815 - 0830 | 31 | 2 | 1 | 5 | 9 | 25 | 73 |
| 0830 - 0845 | 29 | 2 | 1 | 5 | 4 | 25 | 66 |
| 0845 - 0900 | 38 | 2 | 2 | 7 | 4 | 27 | 80 |
| 0900 - 0915 | 32 | 1 | 2 | 5 | 1 | 37 | 78 |
| 0915 - 0930 | 26 | 2 | 1 | 3 | 4 | 32 | 68 |
| Per End | 348 | 14 | 11 | 38 | 40 | 324 | 775 |

| Combined | WEST | | NORTH | | EAST | | |
|-------------|--------------|----------|----------|----------|--------------|----------|------|
| | Elizabeth Dr | | Cecil Rd | | Elizabeth Dr | | |
| Time Per | <u>I</u> | <u>L</u> | <u>R</u> | <u>L</u> | <u>R</u> | <u>I</u> | TOT |
| 0630 - 0645 | 310 | 2 | 1 | 13 | 11 | 251 | 588 |
| 0645 - 0700 | 272 | 2 | 3 | 17 | 12 | 183 | 489 |
| 0700 - 0715 | 330 | 4 | 0 | 12 | 10 | 171 | 527 |
| 0715 - 0730 | 379 | 5 | 1 | 16 | 16 | 189 | 606 |
| 0730 - 0745 | 381 | 1 | 1 | 22 | 16 | 217 | 638 |
| 0745 - 0800 | 355 | 2 | 1 | 24 | 16 | 219 | 617 |
| 0800 - 0815 | 367 | 1 | 1 | 35 | 21 | 193 | 618 |
| 0815 - 0830 | 354 | 4 | 1 | 46 | 21 | 192 | 618 |
| 0830 - 0845 | 375 | 3 | 2 | 31 | 17 | 227 | 655 |
| 0845 - 0900 | 386 | 4 | 3 | 20 | 16 | 218 | 647 |
| 0900 - 0915 | 239 | 2 | 2 | 18 | 10 | 158 | 429 |
| 0915 - 0930 | 188 | 3 | 1 | 11 | 10 | 170 | 383 |
| Per End | 3936 | 33 | 17 | 265 | 176 | 2388 | 6815 |

| Lights | WEST | | NORTH | | EAST | | |
|-------------|--------------|----------|----------|----------|--------------|----------|------|
| | Elizabeth Dr | | Cecil Rd | | Elizabeth Dr | | |
| Peak Per | <u>I</u> | <u>L</u> | <u>R</u> | <u>L</u> | <u>R</u> | <u>I</u> | TOT |
| 0630 - 0730 | 1180 | 10 | 4 | 53 | 45 | 704 | 1996 |
| 0645 - 0745 | 1261 | 8 | 3 | 62 | 50 | 677 | 2061 |
| 0700 - 0800 | 1340 | 9 | 0 | 68 | 51 | 698 | 2166 |
| 0715 - 0815 | 1384 | 5 | 0 | 89 | 55 | 709 | 2242 |
| 0730 - 0830 | 1345 | 4 | 0 | 114 | 51 | 708 | 2222 |
| 0745 - 0845 | 1336 | 5 | 1 | 120 | 50 | 715 | 2227 |
| 0800 - 0900 | 1359 | 5 | 2 | 113 | 51 | 718 | 2248 |
| 0815 - 0915 | 1224 | 6 | 2 | 93 | 46 | 681 | 2052 |
| 0830 - 0930 | 1063 | 5 | 2 | 60 | 40 | 652 | 1822 |
| PEAK HR | 1359 | 5 | 2 | 113 | 51 | 718 | 2248 |

| Heavies | WEST | | NORTH | | EAST | | |
|-------------|--------------|----------|----------|----------|--------------|----------|-----|
| | Elizabeth Dr | | Cecil Rd | | Elizabeth Dr | | |
| Peak Per | <u>I</u> | <u>L</u> | <u>R</u> | <u>L</u> | <u>R</u> | <u>I</u> | TOT |
| 0630 - 0730 | 111 | 3 | 1 | 5 | 4 | 90 | 214 |
| 0645 - 0745 | 101 | 4 | 2 | 5 | 4 | 83 | 199 |
| 0700 - 0800 | 105 | 3 | 3 | 6 | 7 | 98 | 222 |
| 0715 - 0815 | 98 | 4 | 4 | 8 | 14 | 109 | 237 |
| 0730 - 0830 | 112 | 4 | 4 | 13 | 23 | 113 | 269 |
| 0745 - 0845 | 115 | 5 | 4 | 16 | 25 | 116 | 281 |
| 0800 - 0900 | 123 | 7 | 5 | 19 | 24 | 112 | 290 |
| 0815 - 0915 | 130 | 7 | 6 | 22 | 18 | 114 | 297 |
| 0830 - 0930 | 125 | 7 | 6 | 20 | 13 | 121 | 292 |
| PEAK HR | 123 | 7 | 5 | 19 | 24 | 112 | 290 |

| Combined | WEST | | NORTH | | EAST | | |
|-------------|--------------|----------|----------|----------|--------------|----------|------|
| | Elizabeth Dr | | Cecil Rd | | Elizabeth Dr | | |
| Peak Per | <u>I</u> | <u>L</u> | <u>R</u> | <u>L</u> | <u>R</u> | <u>I</u> | TOT |
| 0630 - 0730 | 1291 | 13 | 5 | 58 | 49 | 794 | 2210 |
| 0645 - 0745 | 1362 | 12 | 5 | 67 | 54 | 760 | 2260 |
| 0700 - 0800 | 1445 | 12 | 3 | 74 | 58 | 796 | 2388 |
| 0715 - 0815 | 1482 | 9 | 4 | 97 | 69 | 818 | 2479 |
| 0730 - 0830 | 1457 | 8 | 4 | 127 | 74 | 821 | 2491 |
| 0745 - 0845 | 1451 | 10 | 5 | 136 | 75 | 831 | 2508 |
| 0800 - 0900 | 1482 | 12 | 7 | 132 | 75 | 830 | 2538 |
| 0815 - 0915 | 1354 | 13 | 8 | 115 | 64 | 795 | 2349 |
| 0830 - 0930 | 1188 | 12 | 8 | 80 | 53 | 773 | 2114 |
| PEAK HR | 1482 | 12 | 7 | 132 | 75 | 830 | 2538 |



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning

Job No/Name : 6536 CECIL PARK Elizabeth Dr

Day/Date : Wednesday 9th August 2017

1

2

3

4

5

6

7

8

9



**TOTAL VOLUMES
FOR COUNT
PERIOD**

**AM PEAK
0800 - 0900**

Cecil Rd

87
56
31

5
2
7

24
115
139

19
113
132

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130 1364 1494

7 5 12

123 1359 1482

837 720 117

Elizabeth Dr

142 1472 1614

75 51 24

830 718 112

905 769 136

Elizabeth Dr



Cecil Rd

209
155
54

49
233
282

362 3607 3969

Elizabeth Dr

2405 2070 335

386 3815 4201

Elizabeth Dr

2564 2200 364



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6536 CECIL PARK Elizabeth Dr
Day/Date : Wednesday 9th August 2017

| <u>PEDS</u> | <u>WEST</u> | <u>NORTH</u> | <u>EAST</u> | |
|-------------|--------------|--------------|--------------|-----|
| Time Per | Elizabeth Dr | Cecil Rd | Elizabeth Dr | TOT |
| 1530 - 1545 | 0 | 0 | 0 | 0 |
| 1545 - 1600 | 0 | 0 | 0 | 0 |
| 1600 - 1615 | 0 | 0 | 0 | 0 |
| 1615 - 1630 | 0 | 0 | 0 | 0 |
| 1630 - 1645 | 0 | 0 | 0 | 0 |
| 1645 - 1700 | 0 | 0 | 0 | 0 |
| 1700 - 1715 | 0 | 0 | 0 | 0 |
| 1715 - 1730 | 0 | 0 | 0 | 0 |
| 1730 - 1745 | 0 | 0 | 0 | 0 |
| 1745 - 1800 | 0 | 0 | 0 | 0 |
| 1800 - 1815 | 0 | 0 | 0 | 0 |
| 1815 - 1830 | 0 | 0 | 0 | 0 |
| Per End | 0 | 0 | 0 | 0 |

| <u>PEDS</u> | <u>WEST</u> | <u>NORTH</u> | <u>EAST</u> | |
|-------------|--------------|--------------|--------------|-----|
| Peak Per | Elizabeth Dr | Cecil Rd | Elizabeth Dr | TOT |
| 1530 - 1630 | 0 | 0 | 0 | 0 |
| 1545 - 1645 | 0 | 0 | 0 | 0 |
| 1600 - 1700 | 0 | 0 | 0 | 0 |
| 1615 - 1715 | 0 | 0 | 0 | 0 |
| 1630 - 1730 | 0 | 0 | 0 | 0 |
| 1645 - 1745 | 0 | 0 | 0 | 0 |
| 1700 - 1800 | 0 | 0 | 0 | 0 |
| 1715 - 1815 | 0 | 0 | 0 | 0 |
| 1730 - 1830 | 0 | 0 | 0 | 0 |
| PEAK HR | 0 | 0 | 0 | 0 |

| <u>Lights</u> | <u>WEST</u> | | <u>NORTH</u> | | <u>EAST</u> | | |
|---------------|--------------|----------|--------------|----------|--------------|----------|------|
| | Elizabeth Dr | | Cecil Rd | | Elizabeth Dr | | |
| Time Per | <u>I</u> | <u>L</u> | <u>R</u> | <u>L</u> | <u>R</u> | <u>I</u> | TOT |
| 1530 - 1545 | 255 | 3 | 0 | 9 | 18 | 288 | 573 |
| 1545 - 1600 | 212 | 3 | 3 | 14 | 10 | 294 | 536 |
| 1600 - 1615 | 200 | 3 | 1 | 22 | 7 | 312 | 545 |
| 1615 - 1630 | 255 | 4 | 2 | 15 | 13 | 342 | 631 |
| 1630 - 1645 | 191 | 0 | 3 | 19 | 16 | 310 | 539 |
| 1645 - 1700 | 202 | 3 | 3 | 10 | 20 | 352 | 590 |
| 1700 - 1715 | 274 | 2 | 0 | 19 | 13 | 329 | 637 |
| 1715 - 1730 | 226 | 2 | 2 | 16 | 17 | 339 | 602 |
| 1730 - 1745 | 228 | 1 | 1 | 14 | 16 | 345 | 605 |
| 1745 - 1800 | 207 | 2 | 1 | 18 | 24 | 303 | 555 |
| 1800 - 1815 | 174 | 2 | 0 | 17 | 14 | 257 | 464 |
| 1815 - 1830 | 160 | 2 | 2 | 10 | 20 | 243 | 437 |
| Per End | 2584 | 27 | 18 | 183 | 188 | 3714 | 6714 |

| <u>Heavies</u> | <u>WEST</u> | | <u>NORTH</u> | | <u>EAST</u> | | |
|----------------|--------------|----------|--------------|----------|--------------|----------|-----|
| | Elizabeth Dr | | Cecil Rd | | Elizabeth Dr | | |
| Time Per | <u>I</u> | <u>L</u> | <u>R</u> | <u>L</u> | <u>R</u> | <u>I</u> | TOT |
| 1530 - 1545 | 8 | 1 | 1 | 1 | 3 | 30 | 44 |
| 1545 - 1600 | 18 | 0 | 2 | 2 | 4 | 11 | 37 |
| 1600 - 1615 | 20 | 2 | 0 | 3 | 1 | 30 | 56 |
| 1615 - 1630 | 16 | 0 | 1 | 2 | 1 | 20 | 40 |
| 1630 - 1645 | 16 | 1 | 0 | 1 | 1 | 20 | 39 |
| 1645 - 1700 | 16 | 1 | 2 | 1 | 4 | 13 | 37 |
| 1700 - 1715 | 15 | 0 | 0 | 2 | 4 | 17 | 38 |
| 1715 - 1730 | 16 | 0 | 1 | 3 | 0 | 14 | 34 |
| 1730 - 1745 | 10 | 0 | 0 | 2 | 0 | 11 | 23 |
| 1745 - 1800 | 5 | 0 | 1 | 0 | 1 | 18 | 25 |
| 1800 - 1815 | 4 | 0 | 0 | 0 | 0 | 6 | 10 |
| 1815 - 1830 | 6 | 0 | 0 | 1 | 1 | 9 | 17 |
| Per End | 150 | 5 | 8 | 18 | 20 | 199 | 400 |

| <u>Combined</u> | <u>WEST</u> | | <u>NORTH</u> | | <u>EAST</u> | | |
|-----------------|--------------|----------|--------------|----------|--------------|----------|------|
| | Elizabeth Dr | | Cecil Rd | | Elizabeth Dr | | |
| Time Per | <u>I</u> | <u>L</u> | <u>R</u> | <u>L</u> | <u>R</u> | <u>I</u> | TOT |
| 1530 - 1545 | 263 | 4 | 1 | 10 | 21 | 318 | 617 |
| 1545 - 1600 | 230 | 3 | 5 | 16 | 14 | 305 | 573 |
| 1600 - 1615 | 220 | 5 | 1 | 25 | 8 | 342 | 601 |
| 1615 - 1630 | 271 | 4 | 3 | 17 | 14 | 362 | 671 |
| 1630 - 1645 | 207 | 1 | 3 | 20 | 17 | 330 | 578 |
| 1645 - 1700 | 218 | 4 | 5 | 11 | 24 | 365 | 627 |
| 1700 - 1715 | 289 | 2 | 0 | 21 | 17 | 346 | 675 |
| 1715 - 1730 | 242 | 2 | 3 | 19 | 17 | 353 | 636 |
| 1730 - 1745 | 238 | 1 | 1 | 16 | 16 | 356 | 628 |
| 1745 - 1800 | 212 | 2 | 2 | 18 | 25 | 321 | 580 |
| 1800 - 1815 | 178 | 2 | 0 | 17 | 14 | 263 | 474 |
| 1815 - 1830 | 166 | 2 | 2 | 11 | 21 | 252 | 454 |
| Per End | 2734 | 32 | 26 | 201 | 208 | 3913 | 7114 |

| <u>Lights</u> | <u>WEST</u> | | <u>NORTH</u> | | <u>EAST</u> | | |
|---------------|--------------|----------|--------------|----------|--------------|----------|------|
| | Elizabeth Dr | | Cecil Rd | | Elizabeth Dr | | |
| Peak Per | <u>I</u> | <u>L</u> | <u>R</u> | <u>L</u> | <u>R</u> | <u>I</u> | TOT |
| 1530 - 1630 | 922 | 13 | 6 | 60 | 48 | 1236 | 2285 |
| 1545 - 1645 | 858 | 10 | 9 | 70 | 46 | 1258 | 2251 |
| 1600 - 1700 | 848 | 10 | 9 | 66 | 56 | 1316 | 2305 |
| 1615 - 1715 | 922 | 9 | 8 | 63 | 62 | 1333 | 2397 |
| 1630 - 1730 | 893 | 7 | 8 | 64 | 66 | 1330 | 2368 |
| 1645 - 1745 | 930 | 8 | 6 | 59 | 66 | 1365 | 2434 |
| 1700 - 1800 | 935 | 7 | 4 | 67 | 70 | 1316 | 2399 |
| 1715 - 1815 | 835 | 7 | 4 | 65 | 71 | 1244 | 2226 |
| 1730 - 1830 | 769 | 7 | 4 | 59 | 74 | 1148 | 2061 |
| PEAK HR | 930 | 8 | 6 | 59 | 66 | 1365 | 2434 |

| <u>Heavies</u> | <u>WEST</u> | | <u>NORTH</u> | | <u>EAST</u> | | |
|----------------|--------------|----------|--------------|----------|--------------|----------|-----|
| | Elizabeth Dr | | Cecil Rd | | Elizabeth Dr | | |
| Peak Per | <u>I</u> | <u>L</u> | <u>R</u> | <u>L</u> | <u>R</u> | <u>I</u> | TOT |
| 1530 - 1630 | 62 | 3 | 4 | 8 | 9 | 91 | 177 |
| 1545 - 1645 | 70 | 3 | 3 | 8 | 7 | 81 | 172 |
| 1600 - 1700 | 68 | 4 | 3 | 7 | 7 | 83 | 172 |
| 1615 - 1715 | 63 | 2 | 3 | 6 | 10 | 70 | 154 |
| 1630 - 1730 | 63 | 2 | 3 | 7 | 9 | 64 | 148 |
| 1645 - 1745 | 57 | 1 | 3 | 8 | 8 | 55 | 132 |
| 1700 - 1800 | 46 | 0 | 2 | 7 | 5 | 60 | 120 |
| 1715 - 1815 | 35 | 0 | 2 | 5 | 1 | 49 | 92 |
| 1730 - 1830 | 25 | 0 | 1 | 3 | 2 | 44 | 75 |
| PEAK HR | 57 | 1 | 3 | 8 | 8 | 55 | 132 |

| <u>Combined</u> | <u>WEST</u> | | <u>NORTH</u> | | <u>EAST</u> | | |
|-----------------|--------------|----------|--------------|----------|--------------|----------|------|
| | Elizabeth Dr | | Cecil Rd | | Elizabeth Dr | | |
| Peak Per | <u>I</u> | <u>L</u> | <u>R</u> | <u>L</u> | <u>R</u> | <u>I</u> | TOT |
| 1530 - 1630 | 984 | 16 | 10 | 68 | 57 | 1327 | 2462 |
| 1545 - 1645 | 928 | 13 | 12 | 78 | 53 | 1339 | 2423 |
| 1600 - 1700 | 916 | 14 | 12 | 73 | 63 | 1399 | 2477 |
| 1615 - 1715 | 985 | 11 | 11 | 69 | 72 | 1403 | 2551 |
| 1630 - 1730 | 956 | 9 | 11 | 71 | 75 | 1394 | 2516 |
| 1645 - 1745 | 987 | 9 | 9 | 67 | 74 | 1420 | 2566 |
| 1700 - 1800 | 981 | 7 | 6 | 74 | 75 | 1376 | 2519 |
| 1715 - 1815 | 870 | 7 | 6 | 70 | 72 | 1293 | 2318 |
| 1730 - 1830 | 794 | 7 | 5 | 62 | 76 | 1192 | 2136 |
| PEAK HR | 987 | 9 | 9 | 67 | 74 | 1420 | 2566 |



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning

Job No/Name : 6536 CECIL PARK Elizabeth Dr

Day/Date : Wednesday 9th August 2017

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N



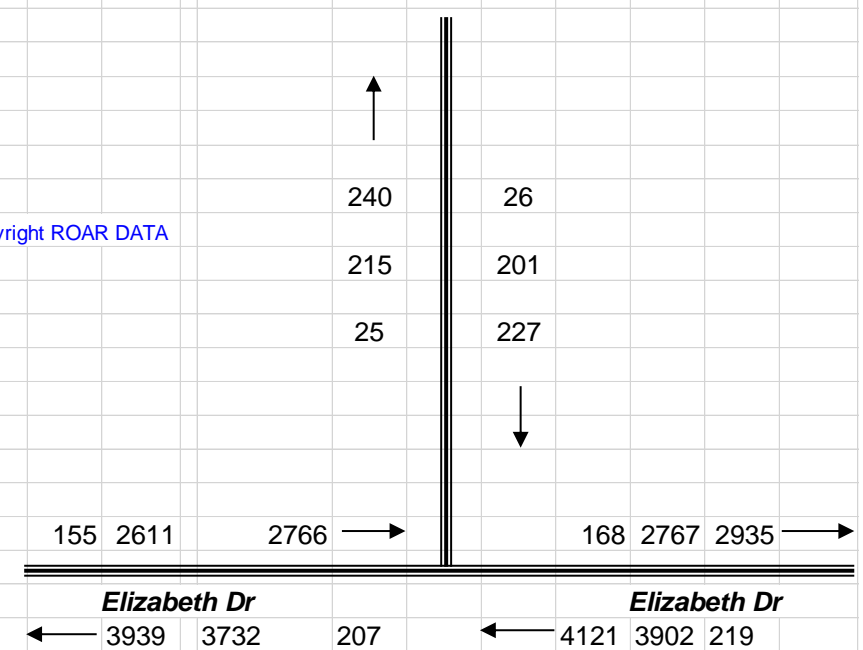
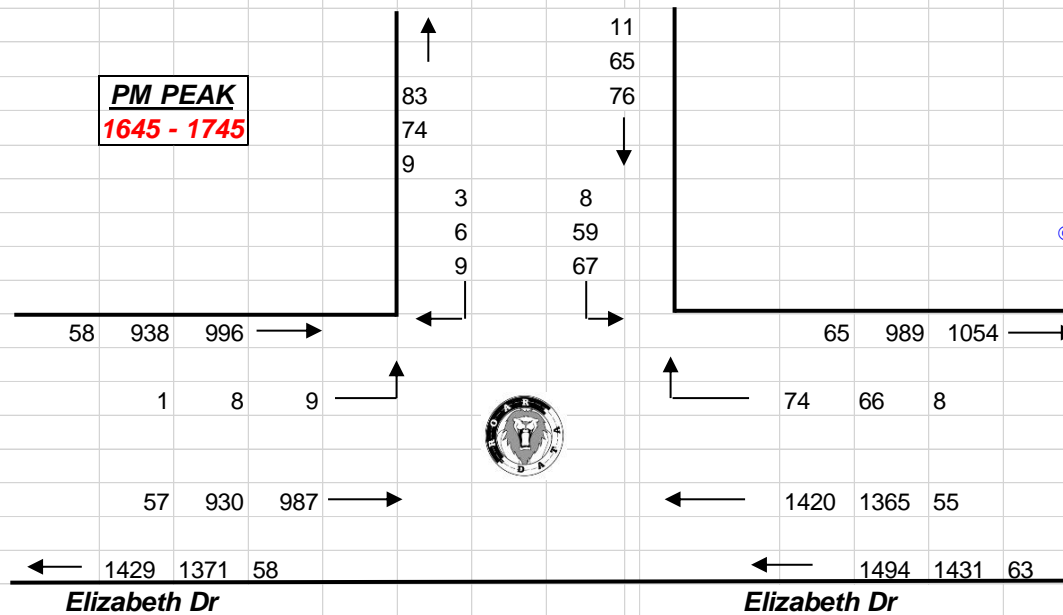
TOTAL VOLUMES
FOR COUNT
PERIOD

Cecil Rd

Cecil Rd

PM PEAK
1645 - 1745

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R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6536 CECIL PARK Elizabeth Dr
Day/Date : Wednesday 9th August 2017

Intersection Details

Obtained via satellite

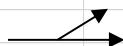
May be incorrect

AM PEAK HOUR
0800 - 0900



Cecil Rd

Elizabeth Dr



| AM | PM | |
|----|----|---|
| 12 | 9 | L |

1482 987 T

| R | L | |
|---|-----|----|
| 7 | 132 | AM |
| 9 | 67 | PM |

| R | L |
|----|------|
| 74 | 75 |
| PM | AM |
| T | 1420 |
| | 830 |



Elizabeth Dr

Combined figures only

PM PEAK HOUR
1645 - 1745

Weather >>>





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

| Lights | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|-------------|---|-----|--------------|------|-----|------------|---|---|--------------|------|---|------|
| | M7 Off Ramp | | | Elizabeth Dr | | | M7 On Ramp | | | Elizabeth Dr | | | |
| Time Per | L | I | R | L | I | R | L | I | R | L | I | R | TOT |
| 0630 - 0645 | 36 | 0 | 18 | 0 | 247 | 42 | 0 | 0 | 0 | 4 | 348 | 0 | 695 |
| 0645 - 0700 | 52 | 0 | 11 | 0 | 232 | 37 | 0 | 0 | 0 | 3 | 282 | 0 | 617 |
| 0700 - 0715 | 43 | 0 | 10 | 0 | 228 | 57 | 0 | 0 | 0 | 2 | 269 | 0 | 609 |
| 0715 - 0730 | 21 | 0 | 17 | 0 | 279 | 60 | 0 | 0 | 0 | 4 | 269 | 0 | 650 |
| 0730 - 0745 | 53 | 0 | 12 | 0 | 250 | 76 | 0 | 0 | 0 | 4 | 327 | 0 | 722 |
| 0745 - 0800 | 61 | 0 | 12 | 0 | 301 | 61 | 0 | 0 | 0 | 2 | 315 | 0 | 752 |
| 0800 - 0815 | 70 | 0 | 8 | 0 | 312 | 57 | 0 | 0 | 0 | 4 | 271 | 0 | 722 |
| 0815 - 0830 | 56 | 0 | 16 | 0 | 282 | 70 | 0 | 0 | 0 | 9 | 270 | 0 | 703 |
| 0830 - 0845 | 56 | 0 | 23 | 0 | 278 | 61 | 0 | 0 | 0 | 4 | 329 | 0 | 751 |
| 0845 - 0900 | 42 | 0 | 21 | 0 | 245 | 43 | 0 | 0 | 0 | 4 | 271 | 0 | 626 |
| 0900 - 0915 | 40 | 0 | 16 | 0 | 248 | 43 | 0 | 0 | 0 | 8 | 208 | 0 | 563 |
| 0915 - 0930 | 46 | 0 | 12 | 0 | 144 | 35 | 0 | 0 | 0 | 2 | 203 | 0 | 442 |
| Period End | 576 | 0 | 176 | 0 | 3046 | 642 | 0 | 0 | 0 | 50 | 3362 | 0 | 7852 |

| Heavies | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|-------------|---|-----|--------------|-----|-----|------------|---|---|--------------|-----|---|-----|
| | M7 Off Ramp | | | Elizabeth Dr | | | M7 On Ramp | | | Elizabeth Dr | | | |
| Time Per | L | I | R | L | I | R | L | I | R | L | I | R | TOT |
| 0630 - 0645 | 4 | 0 | 10 | 0 | 8 | 12 | 0 | 0 | 0 | 0 | 15 | 0 | 49 |
| 0645 - 0700 | 1 | 0 | 3 | 0 | 11 | 14 | 0 | 0 | 0 | 0 | 7 | 0 | 36 |
| 0700 - 0715 | 1 | 0 | 6 | 0 | 6 | 8 | 0 | 0 | 0 | 0 | 13 | 0 | 34 |
| 0715 - 0730 | 6 | 0 | 6 | 0 | 4 | 7 | 0 | 0 | 0 | 0 | 8 | 0 | 31 |
| 0730 - 0745 | 0 | 0 | 9 | 0 | 10 | 9 | 0 | 0 | 0 | 0 | 6 | 0 | 34 |
| 0745 - 0800 | 5 | 0 | 15 | 0 | 14 | 12 | 0 | 0 | 0 | 0 | 11 | 0 | 57 |
| 0800 - 0815 | 0 | 0 | 22 | 0 | 6 | 11 | 0 | 0 | 0 | 0 | 10 | 0 | 49 |
| 0815 - 0830 | 4 | 0 | 9 | 0 | 17 | 8 | 0 | 0 | 0 | 0 | 13 | 0 | 51 |
| 0830 - 0845 | 2 | 0 | 13 | 0 | 9 | 10 | 0 | 0 | 0 | 2 | 2 | 0 | 38 |
| 0845 - 0900 | 0 | 0 | 13 | 0 | 13 | 12 | 0 | 0 | 0 | 4 | 13 | 0 | 55 |
| 0900 - 0915 | 2 | 0 | 13 | 0 | 12 | 15 | 0 | 0 | 0 | 0 | 13 | 0 | 55 |
| 0915 - 0930 | 1 | 0 | 13 | 0 | 13 | 8 | 0 | 0 | 0 | 0 | 6 | 0 | 41 |
| Period End | 26 | 0 | 132 | 0 | 123 | 126 | 0 | 0 | 0 | 6 | 117 | 0 | 530 |

| Combined | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|-------------|---|-----|--------------|------|-----|------------|---|---|--------------|------|---|------|
| | M7 Off Ramp | | | Elizabeth Dr | | | M7 On Ramp | | | Elizabeth Dr | | | |
| Time Per | L | I | R | L | I | R | L | I | R | L | I | R | TOT |
| 0630 - 0645 | 40 | 0 | 28 | 0 | 255 | 54 | 0 | 0 | 0 | 4 | 363 | 0 | 744 |
| 0645 - 0700 | 53 | 0 | 14 | 0 | 243 | 51 | 0 | 0 | 0 | 3 | 289 | 0 | 653 |
| 0700 - 0715 | 44 | 0 | 16 | 0 | 234 | 65 | 0 | 0 | 0 | 2 | 282 | 0 | 643 |
| 0715 - 0730 | 27 | 0 | 23 | 0 | 283 | 67 | 0 | 0 | 0 | 4 | 277 | 0 | 681 |
| 0730 - 0745 | 53 | 0 | 21 | 0 | 260 | 85 | 0 | 0 | 0 | 4 | 333 | 0 | 756 |
| 0745 - 0800 | 66 | 0 | 27 | 0 | 315 | 73 | 0 | 0 | 0 | 2 | 326 | 0 | 809 |
| 0800 - 0815 | 70 | 0 | 30 | 0 | 318 | 68 | 0 | 0 | 0 | 4 | 281 | 0 | 771 |
| 0815 - 0830 | 60 | 0 | 25 | 0 | 299 | 78 | 0 | 0 | 0 | 9 | 283 | 0 | 754 |
| 0830 - 0845 | 58 | 0 | 36 | 0 | 287 | 71 | 0 | 0 | 0 | 6 | 331 | 0 | 789 |
| 0845 - 0900 | 42 | 0 | 34 | 0 | 258 | 55 | 0 | 0 | 0 | 8 | 284 | 0 | 681 |
| 0900 - 0915 | 42 | 0 | 29 | 0 | 260 | 58 | 0 | 0 | 0 | 8 | 221 | 0 | 618 |
| 0915 - 0930 | 47 | 0 | 25 | 0 | 157 | 43 | 0 | 0 | 0 | 2 | 209 | 0 | 483 |
| Period End | 602 | 0 | 308 | 0 | 3169 | 768 | 0 | 0 | 0 | 56 | 3479 | 0 | 8382 |

Client : Varga Traffic Planning
 Job No/Name : 6536 CECIL PARK Elizabeth Dr
 Day/Date : Wednesday 9th August 2017

| Lights | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|-------------|---|----|--------------|------|-----|------------|---|---|--------------|------|---|------|
| | M7 Off Ramp | | | Elizabeth Dr | | | M7 On Ramp | | | Elizabeth Dr | | | |
| Peak Time | L | I | R | L | I | R | L | I | R | L | I | R | TOT |
| 0630 - 0730 | 152 | 0 | 56 | 0 | 986 | 196 | 0 | 0 | 0 | 13 | 1168 | 0 | 2571 |
| 0645 - 0745 | 169 | 0 | 50 | 0 | 989 | 230 | 0 | 0 | 0 | 13 | 1147 | 0 | 2598 |
| 0700 - 0800 | 178 | 0 | 51 | 0 | 1058 | 254 | 0 | 0 | 0 | 12 | 1180 | 0 | 2733 |
| 0715 - 0815 | 205 | 0 | 49 | 0 | 1142 | 254 | 0 | 0 | 0 | 14 | 1182 | 0 | 2846 |
| 0730 - 0830 | 240 | 0 | 48 | 0 | 1145 | 264 | 0 | 0 | 0 | 19 | 1183 | 0 | 2899 |
| 0745 - 0845 | 243 | 0 | 59 | 0 | 1173 | 249 | 0 | 0 | 0 | 19 | 1185 | 0 | 2928 |
| 0800 - 0900 | 224 | 0 | 68 | 0 | 1117 | 231 | 0 | 0 | 0 | 21 | 1141 | 0 | 2802 |
| 0815 - 0915 | 194 | 0 | 76 | 0 | 1053 | 217 | 0 | 0 | 0 | 25 | 1078 | 0 | 2643 |
| 0830 - 0930 | 184 | 0 | 72 | 0 | 915 | 182 | 0 | 0 | 0 | 18 | 1011 | 0 | 2382 |
| PEAK HOUR | 243 | 0 | 59 | 0 | 1173 | 249 | 0 | 0 | 0 | 19 | 1185 | 0 | 2928 |

| Heavies | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|-------------|---|----|--------------|----|----|------------|---|---|--------------|----|---|-----|
| | M7 Off Ramp | | | Elizabeth Dr | | | M7 On Ramp | | | Elizabeth Dr | | | |
| Peak Per | L | I | R | L | I | R | L | I | R | L | I | R | TOT |
| 0630 - 0730 | 12 | 0 | 25 | 0 | 29 | 41 | 0 | 0 | 0 | 0 | 43 | 0 | 150 |
| 0645 - 0745 | 8 | 0 | 24 | 0 | 31 | 38 | 0 | 0 | 0 | 0 | 34 | 0 | 135 |
| 0700 - 0800 | 12 | 0 | 36 | 0 | 34 | 36 | 0 | 0 | 0 | 0 | 38 | 0 | 156 |
| 0715 - 0815 | 11 | 0 | 52 | 0 | 34 | 39 | 0 | 0 | 0 | 0 | 35 | 0 | 171 |
| 0730 - 0830 | 9 | 0 | 55 | 0 | 47 | 40 | 0 | 0 | 0 | 0 | 40 | 0 | 191 |
| 0745 - 0845 | 11 | 0 | 59 | 0 | 46 | 41 | 0 | 0 | 0 | 2 | 36 | 0 | 195 |
| 0800 - 0900 | 6 | 0 | 57 | 0 | 45 | 41 | 0 | 0 | 0 | 6 | 38 | 0 | 193 |
| 0815 - 0915 | 8 | 0 | 48 | 0 | 51 | 45 | 0 | 0 | 0 | 6 | 41 | 0 | 199 |
| 0830 - 0930 | 5 | 0 | 52 | 0 | 47 | 45 | 0 | 0 | 0 | 6 | 34 | 0 | 189 |
| PEAK HOUR | 11 | 0 | 59 | 0 | 46 | 41 | 0 | 0 | 0 | 2 | 36 | 0 | 195 |

| Combined | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|-------------|---|-----|--------------|------|-----|------------|---|---|--------------|------|---|------|
| | M7 Off Ramp | | | Elizabeth Dr | | | M7 On Ramp | | | Elizabeth Dr | | | |
| Peak Per | L | I | R | L | I | R | L | I | R | L | I | R | TOT |
| 0630 - 0730 | 164 | 0 | 81 | 0 | 1015 | 237 | 0 | 0 | 0 | 13 | 1211 | 0 | 2721 |
| 0645 - 0745 | 177 | 0 | 74 | 0 | 1020 | 268 | 0 | 0 | 0 | 13 | 1181 | 0 | 2733 |
| 0700 - 0800 | 190 | 0 | 87 | 0 | 1092 | 290 | 0 | 0 | 0 | 12 | 1218 | 0 | 2889 |
| 0715 - 0815 | 216 | 0 | 101 | 0 | 1176 | 293 | 0 | 0 | 0 | 14 | 1217 | 0 | 3017 |
| 0730 - 0830 | 249 | 0 | 103 | 0 | 1192 | 304 | 0 | 0 | 0 | 19 | 1223 | 0 | 3090 |
| 0745 - 0845 | 254 | 0 | 118 | 0 | 1219 | 290 | 0 | 0 | 0 | 21 | 1221 | 0 | 3123 |
| 0800 - 0900 | 230 | 0 | 125 | 0 | 1162 | 272 | 0 | 0 | 0 | 27 | 1179 | 0 | 2995 |
| 0815 - 0915 | 202 | 0 | 124 | 0 | 1104 | 262 | 0 | 0 | 0 | 31 | 1119 | 0 | 2842 |
| 0830 - 0930 | 189 | 0 | 124 | 0 | 962 | 227 | 0 | 0 | 0 | 24 | 1045 | 0 | 2571 |
| PEAK HOUR | 254 | 0 | 118 | 0 | 1219 | 290 | 0 | 0 | 0 | 21 | 1221 | 0 | 3123 |



R.O.A.R DATA

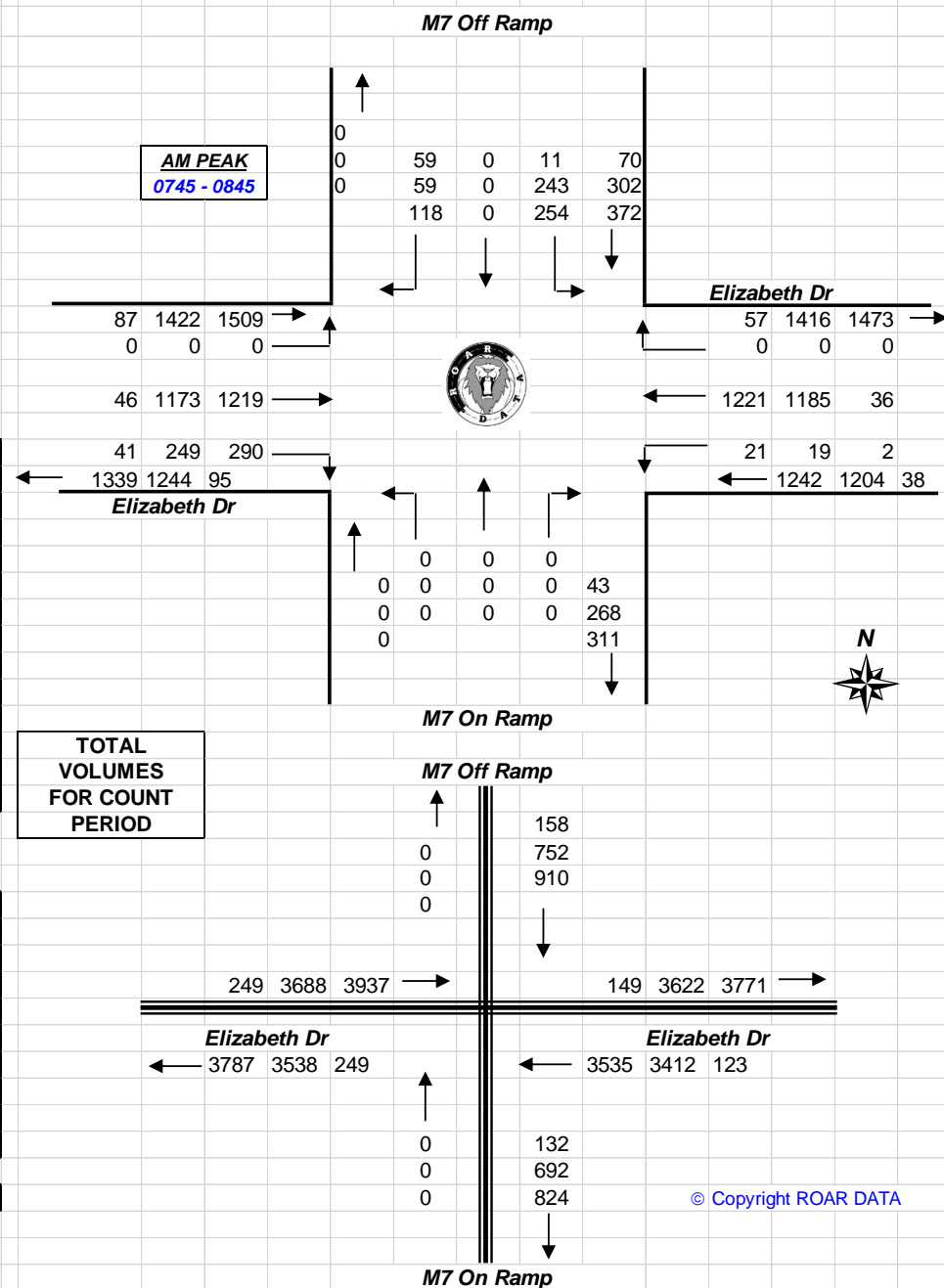
Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
 Job No/Name : 6536 CECIL PARK Elizabeth Dr
 Day/Date : Wednesday 9th August 2017

| Peds | NORTH | WEST | SOUTH | EAST | |
|-------------|--------------|--------------|--------------|--------------|-----|
| | M7 Off Ramp | Elizabeth Dr | M7 On Ramp | Elizabeth Dr | |
| Time Per | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED | TOT |
| 0630 - 0645 | 0 | 0 | 0 | 0 | 0 |
| 0645 - 0700 | 0 | 0 | 0 | 0 | 0 |
| 0700 - 0715 | 0 | 0 | 0 | 0 | 0 |
| 0715 - 0730 | 0 | 0 | 0 | 0 | 0 |
| 0730 - 0745 | 0 | 0 | 0 | 0 | 0 |
| 0745 - 0800 | 0 | 0 | 0 | 0 | 0 |
| 0800 - 0815 | 0 | 0 | 0 | 0 | 0 |
| 0815 - 0830 | 0 | 0 | 0 | 0 | 0 |
| 0830 - 0845 | 0 | 0 | 0 | 0 | 0 |
| 0845 - 0900 | 0 | 0 | 0 | 0 | 0 |
| 0900 - 0915 | 0 | 0 | 0 | 0 | 0 |
| 0915 - 0930 | 0 | 0 | 0 | 0 | 0 |
| Period End | 0 | 0 | 0 | 0 | 0 |

| Peds | NORTH | WEST | SOUTH | EAST | |
|-------------|--------------|--------------|--------------|--------------|-----|
| | M7 Off Ramp | Elizabeth Dr | M7 On Ramp | Elizabeth Dr | |
| Peak Per | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED | TOT |
| 0630 - 0730 | 0 | 0 | 0 | 0 | 0 |
| 0645 - 0745 | 0 | 0 | 0 | 0 | 0 |
| 0700 - 0800 | 0 | 0 | 0 | 0 | 0 |
| 0715 - 0815 | 0 | 0 | 0 | 0 | 0 |
| 0730 - 0830 | 0 | 0 | 0 | 0 | 0 |
| 0745 - 0845 | 0 | 0 | 0 | 0 | 0 |
| 0800 - 0900 | 0 | 0 | 0 | 0 | 0 |
| 0815 - 0915 | 0 | 0 | 0 | 0 | 0 |
| 0830 - 0930 | 0 | 0 | 0 | 0 | 0 |
| PEAK HR | 0 | 0 | 0 | 0 | 0 |





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

| Lights | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|-------------|---|-----|--------------|------|-----|------------|---|---|--------------|------|---|------|
| | M7 Off Ramp | | | Elizabeth Dr | | | M7 On Ramp | | | Elizabeth Dr | | | |
| Time Per | L | T | R | L | T | R | L | T | R | L | T | R | TOT |
| 1530 - 1545 | 56 | 0 | 19 | 0 | 307 | 50 | 0 | 0 | 0 | 7 | 300 | 0 | 739 |
| 1545 - 1600 | 52 | 0 | 26 | 0 | 356 | 35 | 0 | 0 | 0 | 10 | 314 | 0 | 793 |
| 1600 - 1615 | 49 | 0 | 23 | 0 | 314 | 51 | 0 | 0 | 0 | 5 | 280 | 0 | 722 |
| 1615 - 1630 | 50 | 0 | 36 | 0 | 337 | 63 | 0 | 0 | 0 | 15 | 280 | 0 | 781 |
| 1630 - 1645 | 36 | 0 | 36 | 0 | 344 | 57 | 0 | 0 | 0 | 6 | 302 | 0 | 781 |
| 1645 - 1700 | 26 | 0 | 21 | 0 | 290 | 53 | 0 | 0 | 0 | 14 | 275 | 0 | 679 |
| 1700 - 1715 | 48 | 0 | 33 | 0 | 330 | 65 | 0 | 0 | 0 | 7 | 260 | 0 | 743 |
| 1715 - 1730 | 41 | 0 | 30 | 0 | 374 | 62 | 0 | 0 | 0 | 7 | 297 | 0 | 811 |
| 1730 - 1745 | 43 | 0 | 34 | 0 | 359 | 61 | 0 | 0 | 0 | 7 | 283 | 0 | 787 |
| 1745 - 1800 | 59 | 0 | 28 | 0 | 331 | 74 | 0 | 0 | 0 | 6 | 276 | 0 | 774 |
| 1800 - 1815 | 55 | 0 | 32 | 0 | 268 | 56 | 0 | 0 | 0 | 5 | 256 | 0 | 672 |
| 1815 - 1830 | 46 | 0 | 20 | 0 | 250 | 36 | 0 | 0 | 0 | 7 | 227 | 0 | 586 |
| Period End | 561 | 0 | 338 | 0 | 3860 | 663 | 0 | 0 | 0 | 96 | 3350 | 0 | 8868 |

| Heavies | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|-------------|---|----|--------------|----|----|------------|---|---|--------------|----|---|-----|
| | M7 Off Ramp | | | Elizabeth Dr | | | M7 On Ramp | | | Elizabeth Dr | | | |
| Time Per | L | T | R | L | T | R | L | T | R | L | T | R | TOT |
| 1530 - 1545 | 2 | 0 | 12 | 0 | 2 | 6 | 0 | 0 | 0 | 0 | 7 | 0 | 29 |
| 1545 - 1600 | 0 | 0 | 4 | 0 | 9 | 9 | 0 | 0 | 0 | 0 | 3 | 0 | 25 |
| 1600 - 1615 | 0 | 0 | 7 | 0 | 10 | 6 | 0 | 0 | 0 | 0 | 11 | 0 | 34 |
| 1615 - 1630 | 0 | 0 | 4 | 0 | 11 | 9 | 0 | 0 | 0 | 0 | 4 | 0 | 28 |
| 1630 - 1645 | 0 | 0 | 7 | 0 | 5 | 8 | 0 | 0 | 0 | 0 | 8 | 0 | 28 |
| 1645 - 1700 | 0 | 0 | 3 | 0 | 18 | 7 | 0 | 0 | 0 | 1 | 3 | 0 | 32 |
| 1700 - 1715 | 2 | 0 | 6 | 0 | 6 | 10 | 0 | 0 | 0 | 0 | 5 | 0 | 29 |
| 1715 - 1730 | 0 | 0 | 6 | 0 | 11 | 8 | 0 | 0 | 0 | 1 | 7 | 0 | 33 |
| 1730 - 1745 | 0 | 0 | 4 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 4 | 0 | 14 |
| 1745 - 1800 | 3 | 0 | 5 | 0 | -1 | 5 | 0 | 0 | 0 | 0 | 5 | 0 | 17 |
| 1800 - 1815 | 1 | 0 | 4 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 10 |
| 1815 - 1830 | 1 | 0 | 6 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 14 |
| Period End | 9 | 0 | 68 | 0 | 81 | 73 | 0 | 0 | 0 | 2 | 60 | 0 | 293 |

| Combined | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|-------------|---|-----|--------------|------|-----|------------|---|---|--------------|------|---|------|
| | M7 Off Ramp | | | Elizabeth Dr | | | M7 On Ramp | | | Elizabeth Dr | | | |
| Time Per | L | T | R | L | T | R | L | T | R | L | T | R | TOT |
| 1530 - 1545 | 58 | 0 | 31 | 0 | 309 | 56 | 0 | 0 | 0 | 7 | 307 | 0 | 768 |
| 1545 - 1600 | 52 | 0 | 30 | 0 | 365 | 44 | 0 | 0 | 0 | 10 | 317 | 0 | 818 |
| 1600 - 1615 | 49 | 0 | 30 | 0 | 324 | 57 | 0 | 0 | 0 | 5 | 291 | 0 | 756 |
| 1615 - 1630 | 50 | 0 | 40 | 0 | 348 | 72 | 0 | 0 | 0 | 15 | 284 | 0 | 809 |
| 1630 - 1645 | 36 | 0 | 43 | 0 | 349 | 65 | 0 | 0 | 0 | 6 | 310 | 0 | 809 |
| 1645 - 1700 | 26 | 0 | 24 | 0 | 308 | 60 | 0 | 0 | 0 | 15 | 278 | 0 | 711 |
| 1700 - 1715 | 50 | 0 | 39 | 0 | 336 | 75 | 0 | 0 | 0 | 7 | 265 | 0 | 772 |
| 1715 - 1730 | 41 | 0 | 36 | 0 | 385 | 70 | 0 | 0 | 0 | 8 | 304 | 0 | 844 |
| 1730 - 1745 | 43 | 0 | 38 | 0 | 362 | 64 | 0 | 0 | 0 | 7 | 287 | 0 | 801 |
| 1745 - 1800 | 62 | 0 | 33 | 0 | 330 | 79 | 0 | 0 | 0 | 6 | 281 | 0 | 791 |
| 1800 - 1815 | 56 | 0 | 36 | 0 | 270 | 57 | 0 | 0 | 0 | 5 | 258 | 0 | 682 |
| 1815 - 1830 | 47 | 0 | 26 | 0 | 255 | 37 | 0 | 0 | 0 | 7 | 228 | 0 | 600 |
| Period End | 570 | 0 | 406 | 0 | 3941 | 736 | 0 | 0 | 0 | 98 | 3410 | 0 | 9161 |

Client : Varga Traffic Planning
 Job No/Name : 6536 CECIL PARK Elizabeth Dr
 Day/Date : Wednesday 9th August 2017

| Lights | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|-------------|---|-----|--------------|------|-----|------------|---|---|--------------|------|---|------|
| | M7 Off Ramp | | | Elizabeth Dr | | | M7 On Ramp | | | Elizabeth Dr | | | |
| Peak Time | L | T | R | L | T | R | L | T | R | L | T | R | TOT |
| 1530 - 1630 | 207 | 0 | 104 | 0 | 1314 | 199 | 0 | 0 | 0 | 37 | 1174 | 0 | 3035 |
| 1545 - 1645 | 187 | 0 | 121 | 0 | 1351 | 206 | 0 | 0 | 0 | 36 | 1176 | 0 | 3077 |
| 1600 - 1700 | 161 | 0 | 116 | 0 | 1285 | 224 | 0 | 0 | 0 | 40 | 1137 | 0 | 2963 |
| 1615 - 1715 | 160 | 0 | 126 | 0 | 1301 | 238 | 0 | 0 | 0 | 42 | 1117 | 0 | 2984 |
| 1630 - 1730 | 151 | 0 | 120 | 0 | 1338 | 237 | 0 | 0 | 0 | 34 | 1134 | 0 | 3014 |
| 1645 - 1745 | 158 | 0 | 118 | 0 | 1353 | 241 | 0 | 0 | 0 | 35 | 1115 | 0 | 3020 |
| 1700 - 1800 | 191 | 0 | 125 | 0 | 1394 | 262 | 0 | 0 | 0 | 27 | 1116 | 0 | 3115 |
| 1715 - 1815 | 198 | 0 | 124 | 0 | 1332 | 253 | 0 | 0 | 0 | 25 | 1112 | 0 | 3044 |
| 1730 - 1830 | 203 | 0 | 114 | 0 | 1208 | 227 | 0 | 0 | 0 | 25 | 1042 | 0 | 2819 |

| | | | | | | | | | | | | | |
|-----------|-----|---|-----|---|------|-----|---|---|---|----|------|---|------|
| PEAK HOUR | 191 | 0 | 125 | 0 | 1394 | 262 | 0 | 0 | 0 | 27 | 1116 | 0 | 3115 |
|-----------|-----|---|-----|---|------|-----|---|---|---|----|------|---|------|

| Heavies | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|-------------|---|----|--------------|----|----|------------|---|---|--------------|----|---|-----|
| | M7 Off Ramp | | | Elizabeth Dr | | | M7 On Ramp | | | Elizabeth Dr | | | |
| Peak Per | L | T | R | L | T | R | L | T | R | L | T | R | TOT |
| 1530 - 1630 | 2 | 0 | 27 | 0 | 32 | 30 | 0 | 0 | 0 | 0 | 25 | 0 | 116 |
| 1545 - 1645 | 0 | 0 | 22 | 0 | 35 | 32 | 0 | 0 | 0 | 0 | 26 | 0 | 115 |
| 1600 - 1700 | 0 | 0 | 21 | 0 | 44 | 30 | 0 | 0 | 0 | 1 | 26 | 0 | 122 |
| 1615 - 1715 | 2 | 0 | 20 | 0 | 40 | 34 | 0 | 0 | 0 | 1 | 20 | 0 | 117 |
| 1630 - 1730 | 2 | 0 | 22 | 0 | 40 | 33 | 0 | 0 | 0 | 2 | 23 | 0 | 122 |
| 1645 - 1745 | 2 | 0 | 19 | 0 | 38 | 28 | 0 | 0 | 0 | 2 | 19 | 0 | 108 |
| 1700 - 1800 | 5 | 0 | 21 | 0 | 19 | 26 | 0 | 0 | 0 | 1 | 21 | 0 | 93 |
| 1715 - 1815 | 4 | 0 | 19 | 0 | 15 | 17 | 0 | 0 | 0 | 1 | 18 | 0 | 74 |
| 1730 - 1830 | 5 | 0 | 19 | 0 | 9 | 10 | 0 | 0 | 0 | 0 | 12 | 0 | 55 |

| | | | | | | | | | | | | | |
|-----------|---|---|----|---|----|----|---|---|---|---|----|---|----|
| PEAK HOUR | 5 | 0 | 21 | 0 | 19 | 26 | 0 | 0 | 0 | 1 | 21 | 0 | 93 |
|-----------|---|---|----|---|----|----|---|---|---|---|----|---|----|

| Combined | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|-------------|---|-----|--------------|------|-----|------------|---|---|--------------|------|---|------|
| | M7 Off Ramp | | | Elizabeth Dr | | | M7 On Ramp | | | Elizabeth Dr | | | |
| Peak Per | L | T | R | L | T | R | L | T | R | L | T | R | TOT |
| 1530 - 1630 | 209 | 0 | 131 | 0 | 1346 | 229 | 0 | 0 | 0 | 37 | 1199 | 0 | 3151 |
| 1545 - 1645 | 187 | 0 | 143 | 0 | 1386 | 238 | 0 | 0 | 0 | 36 | 1202 | 0 | 3192 |
| 1600 - 1700 | 161 | 0 | 137 | 0 | 1329 | 254 | 0 | 0 | 0 | 41 | 1163 | 0 | 3085 |
| 1615 - 1715 | 162 | 0 | 146 | 0 | 1341 | 272 | 0 | 0 | 0 | 43 | 1137 | 0 | 3101 |
| 1630 - 1730 | 153 | 0 | 142 | 0 | 1378 | 270 | 0 | 0 | 0 | 36 | 1157 | 0 | 3136 |
| 1645 - 1745 | 160 | 0 | 137 | 0 | 1391 | 269 | 0 | 0 | 0 | 37 | 1134 | 0 | 3128 |
| 1700 - 1800 | 196 | 0 | 146 | 0 | 1413 | 288 | 0 | 0 | 0 | 28 | 1137 | 0 | 3208 |
| 1715 - 1815 | 202 | 0 | 143 | 0 | 1347 | 270 | 0 | 0 | 0 | 26 | 1130 | 0 | 3118 |
| 1730 - 1830 | 208 | 0 | 133 | 0 | 1217 | 237 | 0 | 0 | 0 | 25 | 1054 | 0 | 2874 |

| | | | | | | | | | | | | | |
|-----------|-----|---|-----|---|------|-----|---|---|---|----|------|---|------|
| PEAK HOUR | 196 | 0 | 146 | 0 | 1413 | 288 | 0 | 0 | 0 | 28 | 1137 | 0 | 3208 |
|-----------|-----|---|-----|---|------|-----|---|---|---|----|------|---|------|

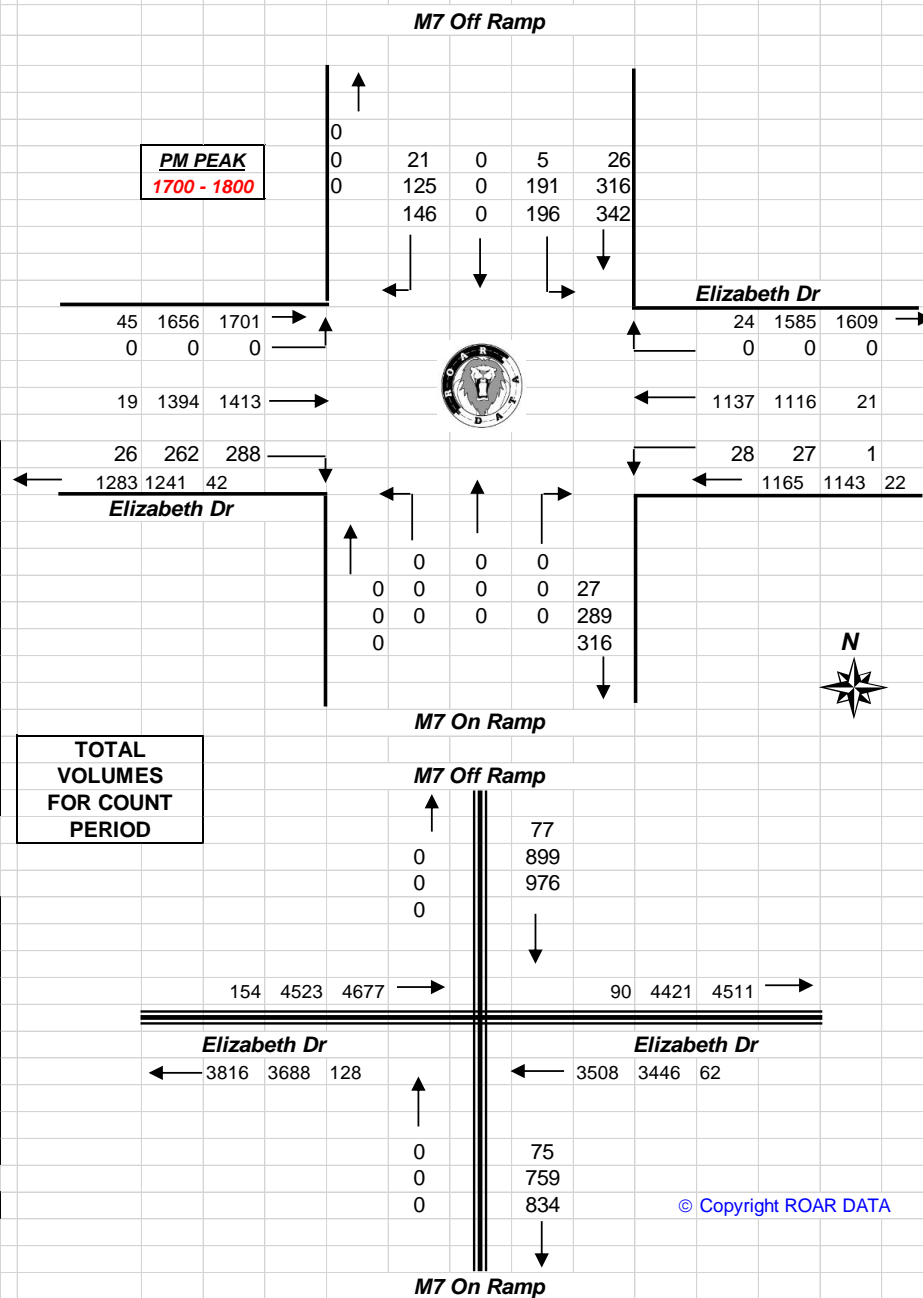


Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

| | |
|-------------|--------------------------------|
| Client | : Varga Traffic Planning |
| Job No/Name | : 6536 CECIL PARK Elizabeth Dr |
| Day/Date | : Wednesday 9th August 2017 |

| <u>Peds</u> | NORTH | WEST | SOUTH | EAST | |
|--------------------|---------------------|---------------------|---------------------|---------------------|------------|
| | <i>M7 Off Ramp</i> | <i>Elizabeth Dr</i> | <i>M7 On Ramp</i> | <i>Elizabeth Dr</i> | |
| Peak Per | <u>UNCLASSIFIED</u> | <u>UNCLASSIFIED</u> | <u>UNCLASSIFIED</u> | <u>UNCLASSIFIED</u> | TOT |
| 1530 - 1630 | 0 | 0 | 0 | 0 | 0 |
| 1545 - 1645 | 0 | 0 | 0 | 0 | 0 |
| 1600 - 1700 | 0 | 0 | 0 | 0 | 0 |
| 1615 - 1715 | 0 | 0 | 0 | 0 | 0 |
| 1630 - 1730 | 0 | 0 | 0 | 0 | 0 |
| 1645 - 1745 | 0 | 0 | 0 | 0 | 0 |
| 1700 - 1800 | 0 | 0 | 0 | 0 | 0 |
| 1715 - 1815 | 0 | 0 | 0 | 0 | 0 |
| 1730 - 1830 | 0 | 0 | 0 | 0 | 0 |
| | | | | | |
| PEAK HR | 0 | 0 | 0 | 0 | 0 |



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R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6536 CECIL PARK Elizabeth Dr
Day/Date : Wednesday 9th August 2017

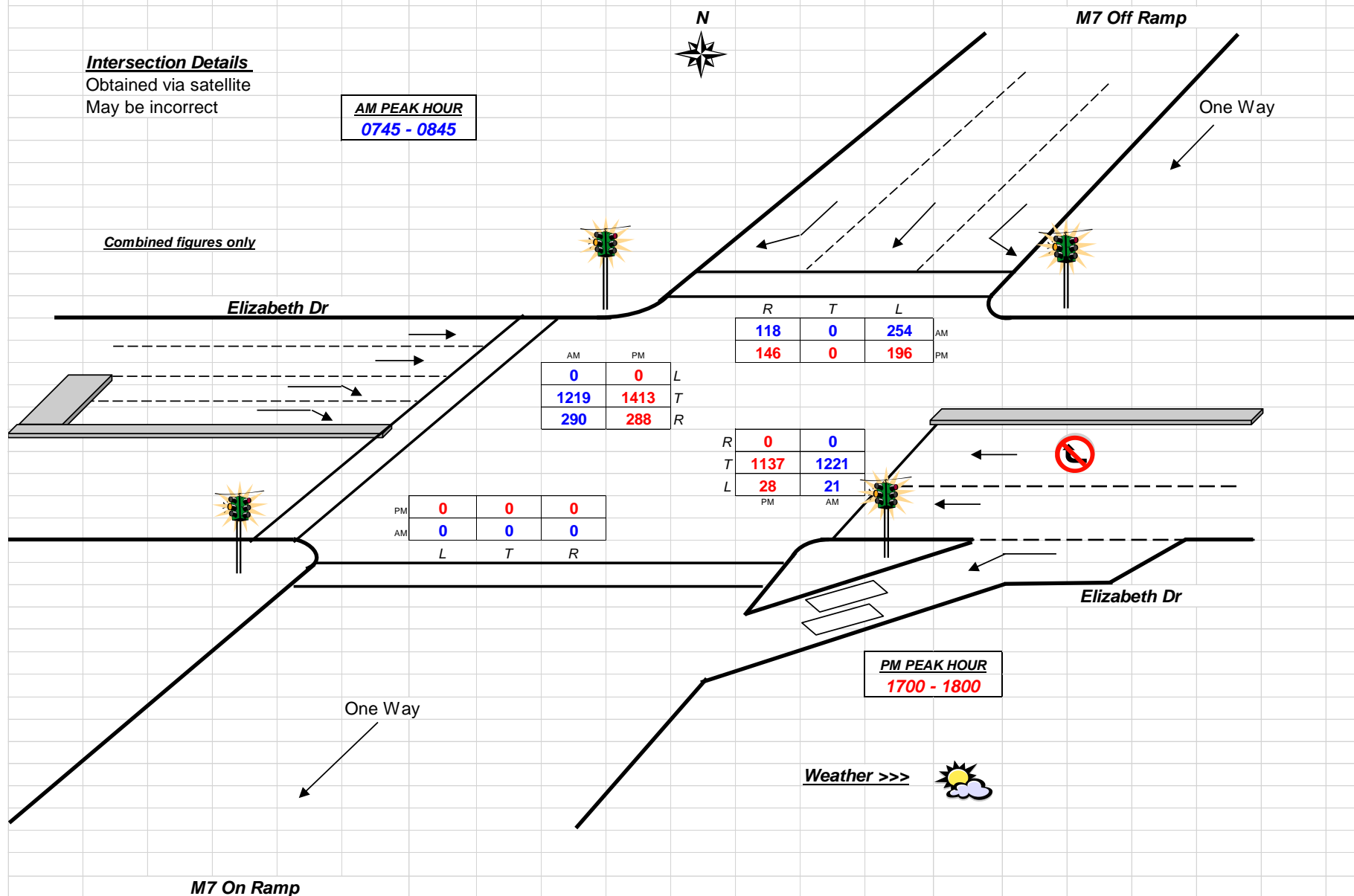
Intersection Details

Obtained via satellite

May be incorrect

AM PEAK HOUR
0745 - 0845

Combined figures only





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6536 CECIL PARK Elizabeth Dr
Day/Date : Wednesday 9th August 2017

| Lights | NORTH Wallgrove Rd | | | WEST Elizabeth Dr | | | SOUTH M7 Off Ramp | | | EAST Elizabeth Dr | | | TOT |
|-------------|-----------------------|---|-----|----------------------|------|---|----------------------|-----|----|----------------------|------|------|------|
| Time Per | L | I | R | L | I | R | L | I | R | L | I | R | TOT |
| 0630 - 0645 | 68 | 0 | 18 | 78 | 211 | 0 | 18 | 8 | 4 | 0 | 163 | 175 | 743 |
| 0645 - 0700 | 45 | 0 | 16 | 88 | 206 | 0 | 23 | 14 | 6 | 0 | 155 | 162 | 715 |
| 0700 - 0715 | 60 | 0 | 16 | 100 | 211 | 0 | 19 | 9 | 1 | 0 | 116 | 176 | 708 |
| 0715 - 0730 | 66 | 0 | 9 | 118 | 271 | 0 | 20 | 16 | 2 | 0 | 148 | 153 | 803 |
| 0730 - 0745 | 68 | 0 | 6 | 93 | 255 | 0 | 23 | 18 | 1 | 0 | 158 | 193 | 815 |
| 0745 - 0800 | 59 | 0 | 20 | 83 | 281 | 0 | 28 | 17 | 6 | 0 | 162 | 188 | 844 |
| 0800 - 0815 | 54 | 0 | 20 | 94 | 289 | 0 | 24 | 18 | 12 | 0 | 139 | 170 | 820 |
| 0815 - 0830 | 54 | 0 | 17 | 96 | 285 | 0 | 29 | 12 | 13 | 0 | 135 | 150 | 791 |
| 0830 - 0845 | 58 | 0 | 18 | 118 | 262 | 0 | 20 | 9 | 11 | 0 | 185 | 182 | 863 |
| 0845 - 0900 | 51 | 0 | 12 | 130 | 232 | 0 | 21 | 11 | 8 | 0 | 156 | 147 | 768 |
| 0900 - 0915 | 57 | 0 | 9 | 59 | 215 | 0 | 16 | 10 | 9 | 0 | 122 | 119 | 616 |
| 0915 - 0930 | 38 | 0 | 11 | 30 | 143 | 0 | 23 | 6 | 4 | 0 | 108 | 104 | 467 |
| Period End | 678 | 0 | 172 | 1087 | 2861 | 0 | 264 | 148 | 77 | 0 | 1747 | 1919 | 8953 |

| Heavies | NORTH Wallgrove Rd | | | WEST Elizabeth Dr | | | SOUTH M7 Off Ramp | | | EAST Elizabeth Dr | | | TOT |
|-------------|-----------------------|---|----|----------------------|-----|---|----------------------|----|---|----------------------|-----|----|-----|
| Time Per | L | I | R | L | I | R | L | I | R | L | I | R | TOT |
| 0630 - 0645 | 1 | 0 | 5 | 23 | 20 | 0 | 6 | 0 | 1 | 0 | 10 | 7 | 73 |
| 0645 - 0700 | 3 | 0 | 2 | 10 | 22 | 0 | 8 | 0 | 1 | 0 | 6 | 3 | 55 |
| 0700 - 0715 | 3 | 0 | 2 | 21 | 13 | 0 | 6 | 1 | 0 | 0 | 14 | 4 | 64 |
| 0715 - 0730 | 1 | 0 | 4 | 4 | 9 | 0 | 6 | 0 | 0 | 0 | 10 | 5 | 39 |
| 0730 - 0745 | 4 | 0 | 3 | 12 | 14 | 0 | 9 | 1 | 0 | 0 | 12 | 4 | 59 |
| 0745 - 0800 | 2 | 0 | 3 | 11 | 23 | 0 | 10 | 1 | 0 | 0 | 23 | 2 | 75 |
| 0800 - 0815 | 1 | 0 | 3 | 9 | 17 | 0 | 13 | 2 | 1 | 0 | 32 | 4 | 82 |
| 0815 - 0830 | 2 | 0 | 2 | 13 | 22 | 0 | 14 | 0 | 0 | 0 | 18 | 4 | 75 |
| 0830 - 0845 | 2 | 0 | 2 | 17 | 16 | 0 | 10 | 1 | 0 | 0 | 17 | 4 | 69 |
| 0845 - 0900 | 7 | 0 | 3 | 19 | 16 | 0 | 13 | 1 | 0 | 0 | 15 | 6 | 80 |
| 0900 - 0915 | 2 | 0 | 4 | 21 | 24 | 0 | 12 | 0 | 2 | 0 | 19 | 5 | 89 |
| 0915 - 0930 | 7 | 0 | 5 | 14 | 14 | 0 | 16 | 4 | 1 | 0 | 17 | 3 | 81 |
| Period End | 35 | 0 | 38 | 174 | 210 | 0 | 123 | 11 | 6 | 0 | 193 | 51 | 841 |

| Combined | NORTH Wallgrove Rd | | | WEST Elizabeth Dr | | | SOUTH M7 Off Ramp | | | EAST Elizabeth Dr | | | TOT |
|-------------|-----------------------|---|-----|----------------------|------|---|----------------------|-----|----|----------------------|------|------|------|
| Time Per | L | I | R | L | I | R | L | I | R | L | I | R | TOT |
| 0630 - 0645 | 69 | 0 | 23 | 101 | 231 | 0 | 24 | 8 | 5 | 0 | 173 | 182 | 816 |
| 0645 - 0700 | 48 | 0 | 18 | 98 | 228 | 0 | 31 | 14 | 7 | 0 | 161 | 165 | 770 |
| 0700 - 0715 | 63 | 0 | 18 | 121 | 224 | 0 | 25 | 10 | 1 | 0 | 130 | 180 | 772 |
| 0715 - 0730 | 67 | 0 | 13 | 122 | 280 | 0 | 26 | 16 | 2 | 0 | 158 | 158 | 842 |
| 0730 - 0745 | 72 | 0 | 9 | 105 | 269 | 0 | 32 | 19 | 1 | 0 | 170 | 197 | 874 |
| 0745 - 0800 | 61 | 0 | 23 | 94 | 304 | 0 | 38 | 18 | 6 | 0 | 185 | 190 | 919 |
| 0800 - 0815 | 55 | 0 | 23 | 103 | 306 | 0 | 37 | 20 | 13 | 0 | 171 | 174 | 902 |
| 0815 - 0830 | 56 | 0 | 19 | 109 | 307 | 0 | 43 | 12 | 13 | 0 | 153 | 154 | 866 |
| 0830 - 0845 | 60 | 0 | 20 | 135 | 278 | 0 | 30 | 10 | 11 | 0 | 202 | 186 | 932 |
| 0845 - 0900 | 58 | 0 | 15 | 149 | 248 | 0 | 34 | 12 | 8 | 0 | 171 | 153 | 848 |
| 0900 - 0915 | 59 | 0 | 13 | 80 | 239 | 0 | 28 | 10 | 11 | 0 | 141 | 124 | 705 |
| 0915 - 0930 | 45 | 0 | 16 | 44 | 157 | 0 | 39 | 10 | 5 | 0 | 125 | 107 | 548 |
| Period End | 713 | 0 | 210 | 1261 | 3071 | 0 | 387 | 159 | 83 | 0 | 1940 | 1970 | 9794 |

| Lights | NORTH Wallgrove Rd | | | WEST Elizabeth Dr | | | SOUTH M7 Off Ramp | | | EAST Elizabeth Dr | | | TOT |
|-------------|-----------------------|---|----|----------------------|------|---|----------------------|----|----|----------------------|-----|-----|------|
| Peak Time | L | I | R | L | I | R | L | I | R | L | I | R | TOT |
| 0630 - 0730 | 239 | 0 | 59 | 384 | 899 | 0 | 80 | 47 | 13 | 0 | 582 | 666 | 2969 |
| 0645 - 0745 | 239 | 0 | 47 | 399 | 943 | 0 | 85 | 57 | 10 | 0 | 577 | 684 | 3041 |
| 0700 - 0800 | 253 | 0 | 51 | 394 | 1018 | 0 | 90 | 60 | 10 | 0 | 584 | 710 | 3170 |
| 0715 - 0815 | 247 | 0 | 55 | 388 | 1096 | 0 | 95 | 69 | 21 | 0 | 607 | 704 | 3282 |
| 0730 - 0830 | 235 | 0 | 63 | 366 | 1110 | 0 | 104 | 65 | 32 | 0 | 594 | 701 | 3270 |
| 0745 - 0845 | 225 | 0 | 75 | 391 | 1117 | 0 | 101 | 56 | 42 | 0 | 621 | 690 | 3318 |
| 0800 - 0900 | 217 | 0 | 67 | 438 | 1068 | 0 | 94 | 50 | 44 | 0 | 615 | 649 | 3242 |
| 0815 - 0915 | 220 | 0 | 56 | 403 | 994 | 0 | 86 | 42 | 41 | 0 | 598 | 598 | 3038 |
| 0830 - 0930 | 204 | 0 | 50 | 337 | 852 | 0 | 80 | 36 | 32 | 0 | 571 | 552 | 2714 |
| PEAK HOUR | 225 | 0 | 75 | 391 | 1117 | 0 | 101 | 56 | 42 | 0 | 621 | 690 | 3318 |

| Heavies | NORTH Wallgrove Rd | | | WEST Elizabeth Dr | | | SOUTH M7 Off Ramp | | | EAST Elizabeth Dr | | | TOT |
|-------------|-----------------------|---|----|----------------------|----|---|----------------------|---|---|----------------------|----|----|-----|
| Peak Per | L | I | R | L | I | R | L | I | R | L | I | R | TOT |
| 0630 - 0730 | 8 | 0 | 13 | 58 | 64 | 0 | 26 | 1 | 2 | 0 | 40 | 19 | 231 |
| 0645 - 0745 | 11 | 0 | 11 | 47 | 58 | 0 | 29 | 2 | 1 | 0 | 42 | 16 | 217 |
| 0700 - 0800 | 10 | 0 | 12 | 48 | 59 | 0 | 31 | 3 | 0 | 0 | 59 | 15 | 237 |
| 0715 - 0815 | 8 | 0 | 13 | 36 | 63 | 0 | 38 | 4 | 1 | 0 | 77 | 15 | 255 |
| 0730 - 0830 | 9 | 0 | 11 | 45 | 76 | 0 | 46 | 4 | 1 | 0 | 85 | 14 | 291 |
| 0745 - 0845 | 7 | 0 | 10 | 50 | 78 | 0 | 47 | 4 | 1 | 0 | 90 | 14 | 301 |
| 0800 - 0900 | 12 | 0 | 10 | 58 | 71 | 0 | 50 | 4 | 1 | 0 | 82 | 18 | 306 |
| 0815 - 0915 | 13 | 0 | 11 | 70 | 78 | 0 | 49 | 2 | 2 | 0 | 69 | 19 | 313 |
| 0830 - 0930 | 18 | 0 | 14 | 71 | 70 | 0 | 51 | 6 | 3 | 0 | 68 | 18 | 319 |
| PEAK HOUR | 7 | 0 | 10 | 50 | 78 | 0 | 47 | 4 | 1 | 0 | 90 | 14 | 301 |

| Combined | NORTH Wallgrove Rd | | | WEST Elizabeth Dr | | | SOUTH M7 Off Ramp | | | EAST Elizabeth Dr | | | TOT |
|-------------|-----------------------|---|----|----------------------|------|---|----------------------|----|----|----------------------|-----|-----|------|
| Peak Per | L | I | R | L | I | R | L | I | R | L | I | R | TOT |
| 0630 - 0730 | 247 | 0 | 72 | 442 | 963 | 0 | 106 | 48 | 15 | 0 | 622 | 685 | 3200 |
| 0645 - 0745 | 250 | 0 | 58 | 446 | 1001 | 0 | 114 | 59 | 11 | 0 | 619 | 700 | 3258 |
| 0700 - 0800 | 263 | 0 | 63 | 442 | 1077 | 0 | 121 | 63 | 10 | 0 | 643 | 725 | 3407 |
| 0715 - 0815 | 255 | 0 | 68 | 424 | 1159 | 0 | 133 | 73 | 22 | 0 | 684 | 719 | 3537 |
| 0730 - 0830 | 244 | 0 | 74 | 411 | 1186 | 0 | 150 | 69 | 33 | 0 | 679 | 715 | 3561 |
| 0745 - 0845 | 232 | 0 | 85 | 441 | 1195 | 0 | 148 | 60 | 43 | 0 | 711 | 704 | 3619 |
| 0800 - 0900 | 229 | 0 | 77 | 496 | 1139 | 0 | 144 | 54 | 45 | 0 | 697 | 667 | 3548 |
| 0815 - 0915 | 233 | 0 | 67 | 473 | 1072 | 0 | 135 | 44 | 43 | 0 | 667 | 617 | 3351 |
| 0830 - 0930 | 222 | 0 | 64 | 408 | 922 | 0 | 131 | 42 | 35 | 0 | 639 | 570 | 3033 |
| PEAK HOUR | 232 | 0 | 85 | 441 | 1195 | 0 | 148 | 60 | 43 | 0 | 711 | 704 | 3619 |



R.O.A.R DATA

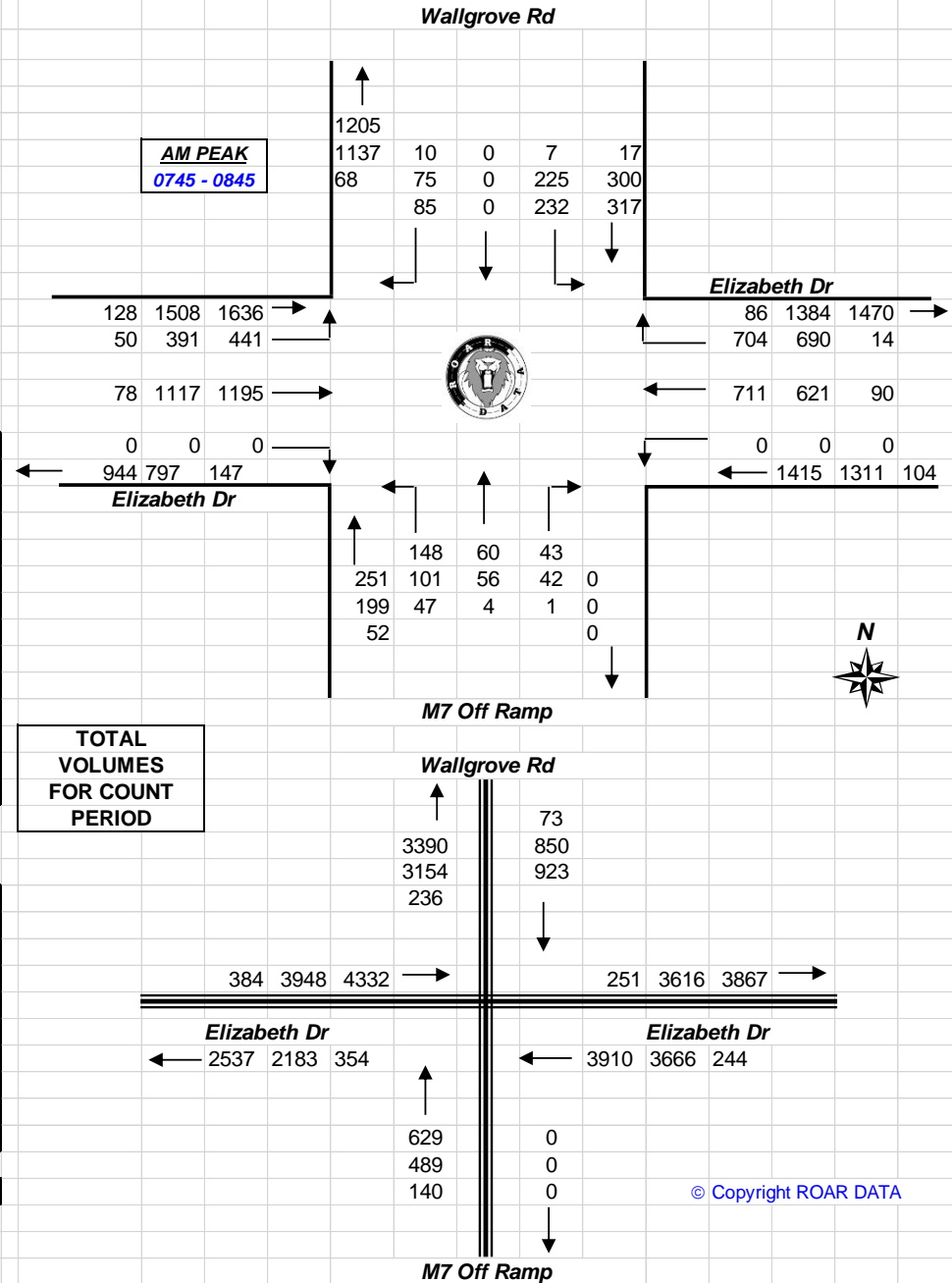
Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6536 CECIL PARK Elizabeth Dr
Day/Date : Wednesday 9th August 2017

| Peds | NORTH Wallgrove Rd | WEST Elizabeth Dr | SOUTH M7 Off Ramp | EAST Elizabeth Dr | |
|-------------|-----------------------|----------------------|----------------------|----------------------|-----|
| Time Per | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED | TOT |
| 0630 - 0645 | 0 | 0 | 0 | 0 | 0 |
| 0645 - 0700 | 0 | 0 | 0 | 0 | 0 |
| 0700 - 0715 | 0 | 0 | 0 | 0 | 0 |
| 0715 - 0730 | 0 | 0 | 0 | 0 | 0 |
| 0730 - 0745 | 0 | 0 | 0 | 0 | 0 |
| 0745 - 0800 | 0 | 0 | 0 | 0 | 0 |
| 0800 - 0815 | 0 | 0 | 0 | 0 | 0 |
| 0815 - 0830 | 0 | 0 | 0 | 0 | 0 |
| 0830 - 0845 | 0 | 0 | 0 | 0 | 0 |
| 0845 - 0900 | 0 | 0 | 0 | 0 | 0 |
| 0900 - 0915 | 0 | 0 | 0 | 0 | 0 |
| 0915 - 0930 | 0 | 0 | 0 | 0 | 0 |
| Period End | 0 | 0 | 0 | 0 | 0 |

| Peds | NORTH Wallgrove Rd | WEST Elizabeth Dr | SOUTH M7 Off Ramp | EAST Elizabeth Dr | |
|-------------|-----------------------|----------------------|----------------------|----------------------|-----|
| Peak Per | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED | TOT |
| 0630 - 0730 | 0 | 0 | 0 | 0 | 0 |
| 0645 - 0745 | 0 | 0 | 0 | 0 | 0 |
| 0700 - 0800 | 0 | 0 | 0 | 0 | 0 |
| 0715 - 0815 | 0 | 0 | 0 | 0 | 0 |
| 0730 - 0830 | 0 | 0 | 0 | 0 | 0 |
| 0745 - 0845 | 0 | 0 | 0 | 0 | 0 |
| 0800 - 0900 | 0 | 0 | 0 | 0 | 0 |
| 0815 - 0915 | 0 | 0 | 0 | 0 | 0 |
| 0830 - 0930 | 0 | 0 | 0 | 0 | 0 |
| PEAK HR | 0 | 0 | 0 | 0 | 0 |





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning

Job No/Name : 6536 CECIL PARK Elizabeth Dr

Day/Date : Wednesday 9th August 2017

| Lights | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|--------------|---|-----|--------------|------|---|-------------|----|-----|--------------|------|------|------|
| | Wallgrove Rd | | | Elizabeth Dr | | | M7 Off Ramp | | | Elizabeth Dr | | | |
| Time Per | L | T | R | L | T | R | L | T | R | L | T | R | TOT |
| 1530 - 1545 | 134 | 0 | 51 | 44 | 209 | 0 | 30 | 7 | 6 | 0 | 212 | 106 | 799 |
| 1545 - 1600 | 153 | 0 | 61 | 39 | 217 | 0 | 43 | 2 | 13 | 0 | 207 | 103 | 838 |
| 1600 - 1615 | 112 | 0 | 67 | 28 | 243 | 0 | 41 | 3 | 13 | 0 | 193 | 72 | 772 |
| 1615 - 1630 | 150 | 0 | 86 | 34 | 236 | 0 | 57 | 11 | 8 | 0 | 199 | 107 | 888 |
| 1630 - 1645 | 162 | 0 | 78 | 23 | 222 | 0 | 30 | 2 | 11 | 0 | 222 | 109 | 859 |
| 1645 - 1700 | 130 | 0 | 106 | 22 | 205 | 0 | 43 | 9 | 10 | 0 | 221 | 75 | 821 |
| 1700 - 1715 | 131 | 0 | 70 | 38 | 259 | 0 | 37 | 6 | 9 | 0 | 203 | 97 | 850 |
| 1715 - 1730 | 198 | 0 | 110 | 33 | 218 | 0 | 47 | 14 | 9 | 0 | 231 | 114 | 974 |
| 1730 - 1745 | 178 | 0 | 89 | 30 | 218 | 0 | 33 | 4 | 15 | 0 | 224 | 106 | 897 |
| 1745 - 1800 | 164 | 0 | 77 | 19 | 221 | 0 | 39 | 4 | 14 | 0 | 211 | 87 | 836 |
| 1800 - 1815 | 145 | 0 | 63 | 16 | 180 | 0 | 28 | 3 | 5 | 0 | 230 | 87 | 757 |
| 1815 - 1830 | 111 | 0 | 55 | 20 | 171 | 0 | 41 | 3 | 8 | 0 | 154 | 88 | 651 |
| Period End | 1768 | 0 | 913 | 346 | 2599 | 0 | 469 | 68 | 121 | 0 | 2507 | 1151 | 9942 |

| Heavies | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|--------------|---|----|--------------|-----|---|-------------|----|---|--------------|-----|----|-----|
| | Wallgrove Rd | | | Elizabeth Dr | | | M7 Off Ramp | | | Elizabeth Dr | | | |
| Time Per | L | T | R | L | T | R | L | T | R | L | T | R | TOT |
| 1530 - 1545 | 2 | 0 | 7 | 2 | 6 | 0 | 12 | 1 | 1 | 0 | 13 | 5 | 49 |
| 1545 - 1600 | 3 | 0 | 2 | 7 | 12 | 0 | 6 | 0 | 1 | 0 | 7 | 0 | 38 |
| 1600 - 1615 | 1 | 0 | 5 | 5 | 14 | 0 | 11 | 1 | 1 | 0 | 12 | 4 | 54 |
| 1615 - 1630 | 3 | 0 | 5 | 4 | 18 | 0 | 14 | 2 | 1 | 0 | 10 | 1 | 58 |
| 1630 - 1645 | 4 | 0 | 3 | 7 | 7 | 0 | 7 | 1 | 0 | 0 | 9 | 4 | 42 |
| 1645 - 1700 | 7 | 0 | 4 | 6 | 21 | 0 | 7 | 0 | 0 | 0 | 6 | 1 | 52 |
| 1700 - 1715 | 4 | 0 | 5 | 4 | 11 | 0 | 2 | 2 | 0 | 0 | 8 | 2 | 38 |
| 1715 - 1730 | 4 | 0 | 2 | 6 | 13 | 0 | 6 | 1 | 0 | 0 | 12 | 1 | 45 |
| 1730 - 1745 | 0 | 0 | 2 | 3 | 7 | 0 | 5 | 1 | 0 | 0 | 6 | 0 | 24 |
| 1745 - 1800 | 0 | 0 | 2 | 2 | 5 | 0 | 12 | 0 | 0 | 0 | 8 | 1 | 30 |
| 1800 - 1815 | 0 | 0 | 0 | 2 | 3 | 0 | 1 | 1 | 1 | 0 | 6 | 0 | 14 |
| 1815 - 1830 | 2 | 0 | 2 | 3 | 5 | 0 | 3 | 0 | 0 | 0 | 7 | 1 | 23 |
| Period End | 30 | 0 | 39 | 51 | 122 | 0 | 86 | 10 | 5 | 0 | 104 | 20 | 467 |

| Combined | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|--------------|---|-----|--------------|------|---|-------------|----|-----|--------------|------|------|-------|
| | Wallgrove Rd | | | Elizabeth Dr | | | M7 Off Ramp | | | Elizabeth Dr | | | |
| Time Per | L | T | R | L | T | R | L | T | R | L | T | R | TOT |
| 1530 - 1545 | 136 | 0 | 58 | 46 | 215 | 0 | 42 | 8 | 7 | 0 | 225 | 111 | 848 |
| 1545 - 1600 | 156 | 0 | 63 | 46 | 229 | 0 | 49 | 2 | 14 | 0 | 214 | 103 | 876 |
| 1600 - 1615 | 113 | 0 | 72 | 33 | 257 | 0 | 52 | 4 | 14 | 0 | 205 | 76 | 826 |
| 1615 - 1630 | 153 | 0 | 91 | 38 | 254 | 0 | 71 | 13 | 9 | 0 | 209 | 108 | 946 |
| 1630 - 1645 | 166 | 0 | 81 | 30 | 229 | 0 | 37 | 3 | 11 | 0 | 231 | 113 | 901 |
| 1645 - 1700 | 137 | 0 | 110 | 28 | 226 | 0 | 50 | 9 | 10 | 0 | 227 | 76 | 873 |
| 1700 - 1715 | 135 | 0 | 75 | 42 | 270 | 0 | 39 | 8 | 9 | 0 | 211 | 99 | 888 |
| 1715 - 1730 | 202 | 0 | 112 | 39 | 231 | 0 | 53 | 15 | 9 | 0 | 243 | 115 | 1019 |
| 1730 - 1745 | 178 | 0 | 91 | 33 | 225 | 0 | 38 | 5 | 15 | 0 | 230 | 106 | 921 |
| 1745 - 1800 | 164 | 0 | 79 | 21 | 226 | 0 | 51 | 4 | 14 | 0 | 219 | 88 | 866 |
| 1800 - 1815 | 145 | 0 | 63 | 18 | 183 | 0 | 29 | 4 | 6 | 0 | 236 | 87 | 771 |
| 1815 - 1830 | 113 | 0 | 57 | 23 | 176 | 0 | 44 | 3 | 8 | 0 | 161 | 89 | 674 |
| Period End | 1798 | 0 | 952 | 397 | 2721 | 0 | 555 | 78 | 126 | 0 | 2611 | 1171 | 10409 |

| Lights | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|--------------|---|-----|--------------|-----|---|-------------|----|----|--------------|-----|-----|------|
| | Wallgrove Rd | | | Elizabeth Dr | | | M7 Off Ramp | | | Elizabeth Dr | | | |
| Peak Time | L | T | R | L | T | R | L | T | R | L | T | R | TOT |
| 1530 - 1630 | 549 | 0 | 265 | 145 | 905 | 0 | 171 | 23 | 40 | 0 | 811 | 388 | 3297 |
| 1545 - 1645 | 577 | 0 | 292 | 124 | 918 | 0 | 171 | 18 | 45 | 0 | 821 | 391 | 3357 |
| 1600 - 1700 | 554 | 0 | 337 | 107 | 906 | 0 | 171 | 25 | 42 | 0 | 835 | 363 | 3340 |
| 1615 - 1715 | 573 | 0 | 340 | 117 | 922 | 0 | 167 | 28 | 38 | 0 | 845 | 388 | 3418 |
| 1630 - 1730 | 621 | 0 | 364 | 116 | 904 | 0 | 157 | 31 | 39 | 0 | 877 | 395 | 3504 |
| 1645 - 1745 | 637 | 0 | 375 | 123 | 900 | 0 | 160 | 33 | 43 | 0 | 879 | 392 | 3542 |
| 1700 - 1800 | 671 | 0 | 346 | 120 | 916 | 0 | 156 | 28 | 47 | 0 | 869 | 404 | 3557 |
| 1715 - 1815 | 685 | 0 | 339 | 98 | 837 | 0 | 147 | 25 | 43 | 0 | 896 | 394 | 3464 |
| 1730 - 1830 | 598 | 0 | 284 | 85 | 790 | 0 | 141 | 14 | 42 | 0 | 819 | 368 | 3141 |

| | | | | | | | | | | | | | |
|-----------|-----|---|-----|-----|-----|---|-----|----|----|---|-----|-----|------|
| PEAK HOUR | 637 | 0 | 375 | 123 | 900 | 0 | 160 | 33 | 43 | 0 | 879 | 392 | 3542 |
|-----------|-----|---|-----|-----|-----|---|-----|----|----|---|-----|-----|------|

| Heavies | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|--------------|---|----|--------------|----|---|-------------|---|---|--------------|----|----|-----|
| | Wallgrove Rd | | | Elizabeth Dr | | | M7 Off Ramp | | | Elizabeth Dr | | | |
| Peak Per | L | T | R | L | T | R | L | T | R | L | T | R | TOT |
| 1530 - 1630 | 9 | 0 | 19 | 18 | 50 | 0 | 43 | 4 | 4 | 0 | 42 | 10 | 199 |
| 1545 - 1645 | 11 | 0 | 15 | 23 | 51 | 0 | 38 | 4 | 3 | 0 | 38 | 9 | 192 |
| 1600 - 1700 | 15 | 0 | 17 | 22 | 60 | 0 | 39 | 4 | 2 | 0 | 37 | 10 | 206 |
| 1615 - 1715 | 18 | 0 | 17 | 21 | 57 | 0 | 30 | 5 | 1 | 0 | 33 | 8 | 190 |
| 1630 - 1730 | 19 | 0 | 14 | 23 | 52 | 0 | 22 | 4 | 0 | 0 | 35 | 8 | 177 |
| 1645 - 1745 | 15 | 0 | 13 | 19 | 52 | 0 | 20 | 4 | 0 | 0 | 32 | 4 | 159 |
| 1700 - 1800 | 8 | 0 | 11 | 15 | 36 | 0 | 25 | 4 | 0 | 0 | 34 | 4 | 137 |
| 1715 - 1815 | 4 | 0 | 6 | 13 | 28 | 0 | 24 | 3 | 1 | 0 | 32 | 2 | 113 |
| 1730 - 1830 | 2 | 0 | 6 | 10 | 20 | 0 | 21 | 2 | 1 | 0 | 27 | 2 | 91 |

| | | | | | | | | | | | | | |
|-----------|----|---|----|----|----|---|----|---|---|---|----|---|-----|
| PEAK HOUR | 15 | 0 | 13 | 19 | 52 | 0 | 20 | 4 | 0 | 0 | 32 | 4 | 159 |
|-----------|----|---|----|----|----|---|----|---|---|---|----|---|-----|

| Combined | NORTH | | | WEST | | | SOUTH | | | EAST | | | |
|-------------|--------------|---|-----|--------------|-----|---|-------------|----|----|--------------|-----|-----|------|
| | Wallgrove Rd | | | Elizabeth Dr | | | M7 Off Ramp | | | Elizabeth Dr | | | |
| Peak Per | L | T | R | L | T | R | L | T | R | L | T | R | TOT |
| 1530 - 1630 | 558 | 0 | 284 | 163 | 955 | 0 | 214 | 27 | 44 | 0 | 853 | 398 | 3496 |
| 1545 - 1645 | 588 | 0 | 307 | 147 | 969 | 0 | 209 | 22 | 48 | 0 | 859 | 400 | 3549 |
| 1600 - 1700 | 569 | 0 | 354 | 129 | 966 | 0 | 210 | 29 | 44 | 0 | 872 | 373 | 3546 |
| 1615 - 1715 | 591 | 0 | 357 | 138 | 979 | 0 | 197 | 33 | 39 | 0 | 878 | 396 | 3608 |
| 1630 - 1730 | 640 | 0 | 378 | 139 | 956 | 0 | 179 | 35 | 39 | 0 | 912 | 403 | 3681 |
| 1645 - 1745 | 652 | 0 | 388 | 142 | 952 | 0 | 180 | 37 | 43 | 0 | 911 | 396 | 3701 |
| 1700 - 1800 | 679 | 0 | 357 | 135 | 952 | 0 | 181 | 32 | 47 | 0 | 903 | 408 | 3694 |
| 1715 - 1815 | 689 | 0 | 345 | 111 | 865 | 0 | 171 | 28 | 44 | 0 | 928 | 396 | 3577 |
| 1730 - 1830 | 600 | 0 | 290 | 95 | 810 | 0 | 162 | 16 | 43 | 0 | 846 | 370 | 3232 |

| | | | | | | | | | | | | | |
|-----------|-----|---|-----|-----|-----|---|-----|----|----|---|-----|-----|------|
| PEAK HOUR | 652 | 0 | 388 | 142 | 952 | 0 | 180 | 37 | 43 | 0 | 911 | 396 | 3701 |
|-----------|-----|---|-----|-----|-----|---|-----|----|----|---|-----|-----|------|



R.O.A.R DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6536 CECIL PARK Elizabeth Dr
Day/Date : Wednesday 9th August 2017

| Peds | NORTH | WEST | SOUTH | EAST | |
|-------------|--------------|--------------|--------------|--------------|-----|
| | Wallgrove Rd | Elizabeth Dr | M7 Off Ramp | Elizabeth Dr | |
| Time Per | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED | TOT |
| 1530 - 1545 | 0 | 0 | 0 | 0 | 0 |
| 1545 - 1600 | 0 | 0 | 0 | 0 | 0 |
| 1600 - 1615 | 0 | 0 | 0 | 0 | 0 |
| 1615 - 1630 | 0 | 0 | 0 | 0 | 0 |
| 1630 - 1645 | 0 | 0 | 0 | 0 | 0 |
| 1645 - 1700 | 0 | 0 | 0 | 0 | 0 |
| 1700 - 1715 | 0 | 0 | 0 | 0 | 0 |
| 1715 - 1730 | 0 | 0 | 0 | 0 | 0 |
| 1730 - 1745 | 0 | 0 | 0 | 0 | 0 |
| 1745 - 1800 | 0 | 0 | 0 | 0 | 0 |
| 1800 - 1815 | 0 | 0 | 0 | 0 | 0 |
| 1815 - 1830 | 0 | 0 | 0 | 0 | 0 |
| Period End | 0 | 0 | 0 | 0 | 0 |

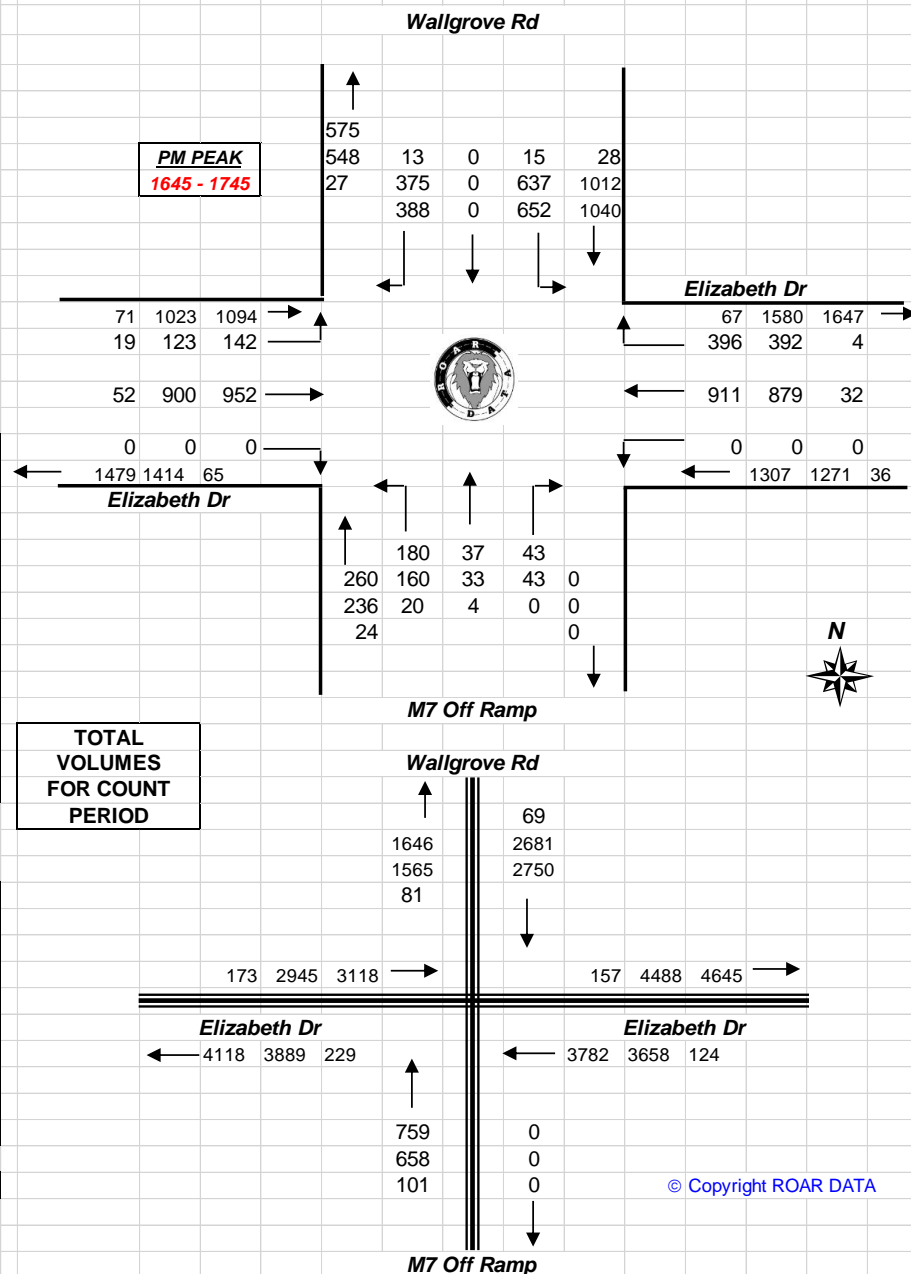
| Peds | NORTH | WEST | SOUTH | EAST | |
|-------------|--------------|--------------|--------------|--------------|-----|
| | Wallgrove Rd | Elizabeth Dr | M7 Off Ramp | Elizabeth Dr | |
| Peak Per | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED | TOT |
| 1530 - 1630 | 0 | 0 | 0 | 0 | 0 |
| 1545 - 1645 | 0 | 0 | 0 | 0 | 0 |
| 1600 - 1700 | 0 | 0 | 0 | 0 | 0 |
| 1615 - 1715 | 0 | 0 | 0 | 0 | 0 |
| 1630 - 1730 | 0 | 0 | 0 | 0 | 0 |
| 1645 - 1745 | 0 | 0 | 0 | 0 | 0 |
| 1700 - 1800 | 0 | 0 | 0 | 0 | 0 |
| 1715 - 1815 | 0 | 0 | 0 | 0 | 0 |
| 1730 - 1830 | 0 | 0 | 0 | 0 | 0 |

| | | | | | |
|---------|---|---|---|---|---|
| PEAK HR | 0 | 0 | 0 | 0 | 0 |
|---------|---|---|---|---|---|

1

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R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning

Job No/Name : 6536 CECIL PARK Elizabeth Dr

Day/Date : Wednesday 9th August 2017

Intersection Details

Obtained via satellite

May be incorrect

AM PEAK HOUR
0745 - 0845

Combined figures only

Elizabeth Dr

| AM | PM | |
|------|-----|---|
| 441 | 142 | L |
| 1195 | 952 | T |
| 0 | 0 | R |

| PM | 180 | 37 | 43 |
|----|-----|----|----|
| AM | 148 | 60 | 43 |
| | L | T | R |

| R | T | L | |
|-----|---|-----|----|
| 85 | 0 | 232 | AM |
| 388 | 0 | 652 | PM |

| R | 396 | 704 |
|---|-----|-----|
| T | 911 | 711 |
| L | 0 | 0 |
| | PM | AM |

Wallgrove Rd / On Ramp

Elizabeth Dr

One Way

PM PEAK HOUR
1645 - 1745

Weather >>>



M7 Off Ramp