

Canelands Industrial
Traffic Impact Assessment for the
Rezoning of Canelands Portion
2026

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**ETHEKWINI TRANSPORT AUTHORITY
ROAD SYSTEM MANAGEMENT**

VERIFICATION FOR TRAFFIC IMPACT ASSESSMENTS

**Canelands Industrial
Rezoning of Portion 2026**

The undersigned hereby confirms that Aurecon SA (Pty) Ltd has applied due diligence to the content of this Traffic Impact Assessment Report and takes full responsibility for its contents.

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Yours faithfully


D J Kellock PrEng
AURECON SOUTH AFRICA (PTY) LTD

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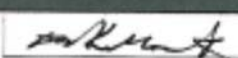
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1 Introduction

Tongaat Hulett Developments (Pty) Ltd propose to extend the Canelands industrial area located in Canelands, eThekweni Municipality. The proposed site, on which the rezoning is to take place lies immediately north of Chem Spec Paints and is bounded to the north by Vincent Dickenson Road (P100) and in the south by Chem Spec Paints. The existing access to the site is taken off Vincent Dickenson Road via road D499. This extension will involve a rezoning of Canelands Portion 2026 from Undetermined to General Industry.

This report contains a traffic impact assessment of the traffic generated by the proposed extension to the Canelands industrial area, on the surrounding road network. The report analyses the existing traffic conditions at the proposed access point serving the planned extension, a minor intersection nearby and at the major intersection to the south at the main access to Canelands industrial area.

The report also addresses the impact on pedestrian activity and public transport as well as on road safety conditions on the road network. Lastly the report makes recommendations for any improvements required to accommodate the additional traffic and pedestrians generated by the proposed extension to the Canelands industrial area.

2 Location of the Site and the Surrounding Transport Network

The Canelands industrial area is situated in the northern region of the eThekweni Municipality and on the northern edge of Verulam. Portion 2026 is situated in the north eastern quadrant of Canelands industrial area, adjacent to the north coast railway line.

The major road in this area is the R102, a Provincial Main Road (MR2) and a major north-south regional route linking Durban with the northern sector of the eThekweni Municipality and beyond.

Vincent Dickenson Road lies west of and parallel to, the R102 and it is also a Provincial Main Road (P100) located close to the east of the site and aligned in a north-south direction.

The north coast railway line lies to the west of Vincent Dickenson Road and to the east of the proposed development.

As mentioned above, access to the development is taken off Vincent Dickenson Road via road D499, a divisional road. This road is short, looping to the south to provide access to the back of Canelands Industrial and having an off-shoot to the west to an area known as Palmer's Estate which houses, inter alia, the Umgeni Water Hazelmere Treatment Plant. Both of these areas are bounded by the Mdloti River in the south/west.

To the south, New Glasgow Road is the main local access road serving the existing Canelands industrial area. New Glasgow Road is a Provincial Main Road (P530-1) that intersects with Vincent Dickenson Road. The location of the site in relation to the surrounding road network is shown in Figure 1.



	SITE LOCATION	PROJECT: 110172
		FIGURE: 1
FEBRUARY 2014	CANELANDS INDUSTRIAL	SCALE: Not to Scale

Figure 1: Site Location

3 Existing Traffic Conditions

3.1 Data Source

The existing peak hour traffic volumes on the surrounding road network were obtained from 12-hour classified, all movement traffic counts undertaken by Bala Survey & Research on 12 September 2012 at the following two intersections:

1. The Vincent Dickenson / D499 intersection
2. The minor intersection between D499 and the access to Umgeni Water

The intersection of Vincent Dickenson and New Glasgow Roads was also counted on 6 August 2013 for this study. All intersections are shown in **Figure 2**.

The results and analysis of these traffic counts are contained in Appendix A of this report. The existing AM and PM peak hour volumes on the road network surrounding the Canelands industrial area are shown on Error! Reference source not found..

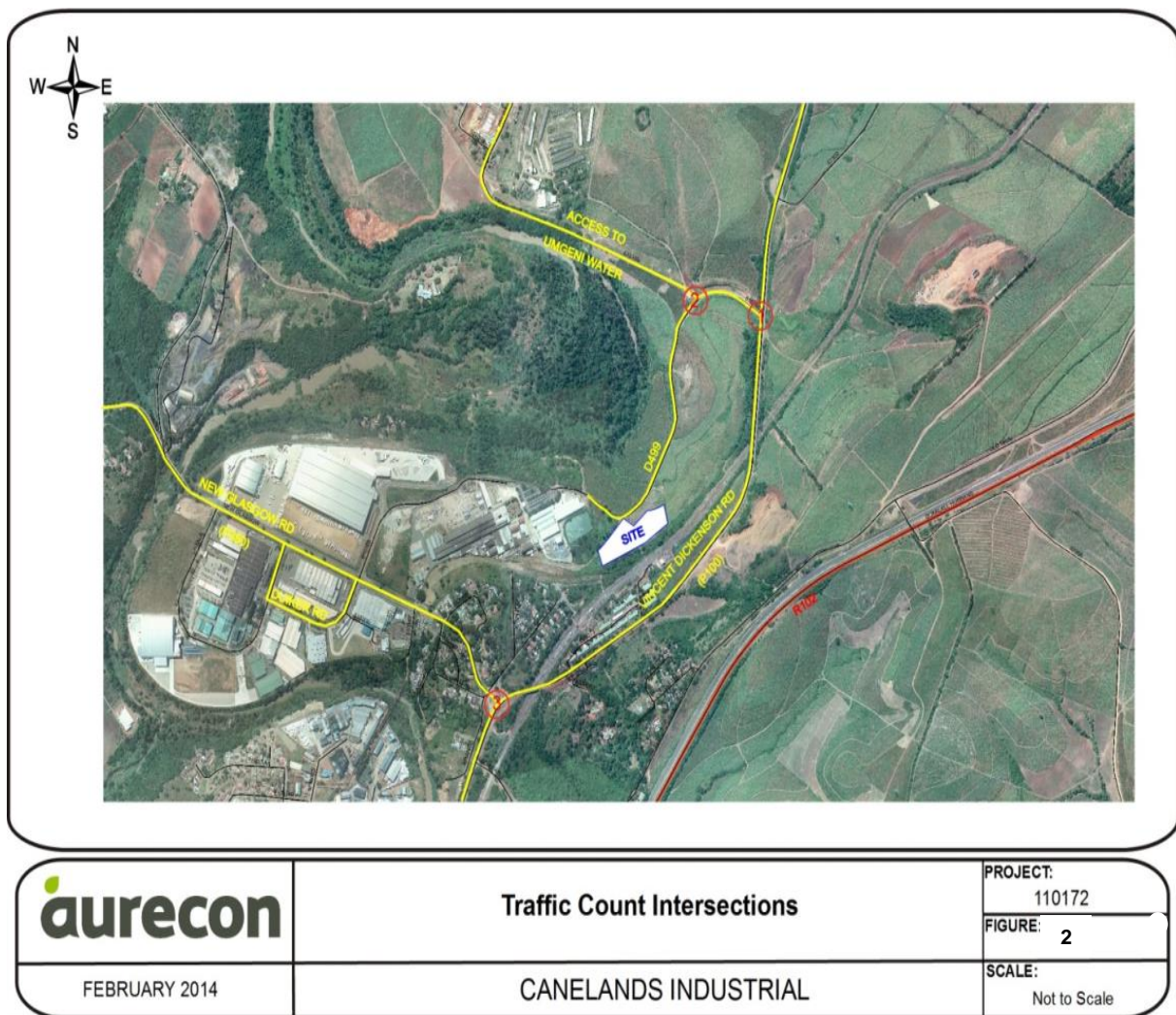
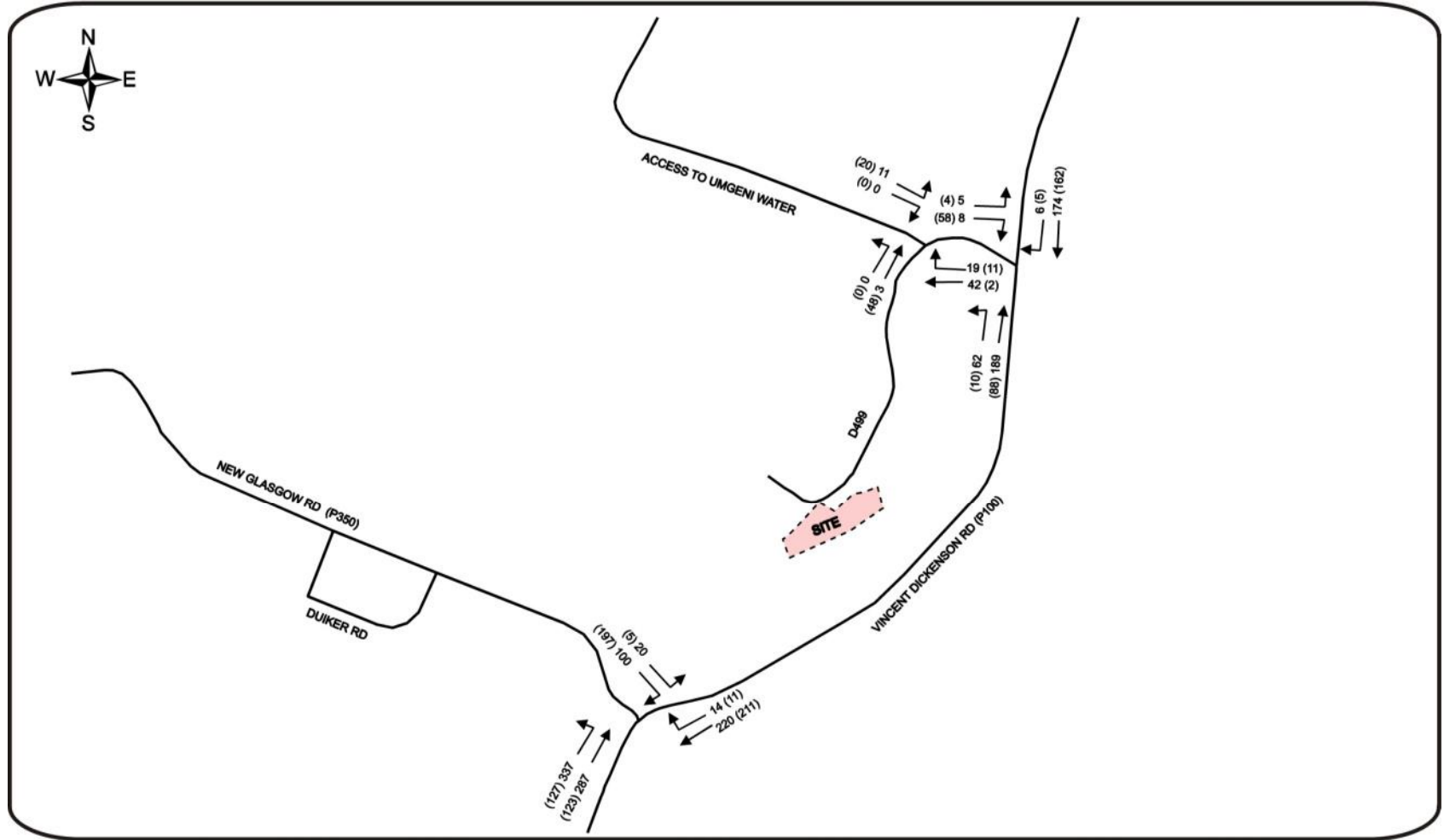


Figure 2: Intersection at which Traffic Counts done




	Existing AM and PM Peak Hour Traffic Volumes	PROJECT: 110172
		FIGURE: 3
FEBRUARY 2014	CANELANDS INDUSTRIAL	SCALE: Not to Scale

Figure 3: Existing Peak Hour Traffic Volumes

3.2 Analysis of Intersections

3.1.1 Vincent Dickenson Road and D499 Intersection

This is an unsignalised rural T-junction with D499 under stop control. Vincent Dickenson Road has a single lane in each direction, each 3.5 metres wide, with 1 metre shoulders on each side. D499 is a 2 lane road with 3.5 metre lanes and no shoulders.

Volumes on both roads are generally low throughout the day as can be seen from the traffic counts.

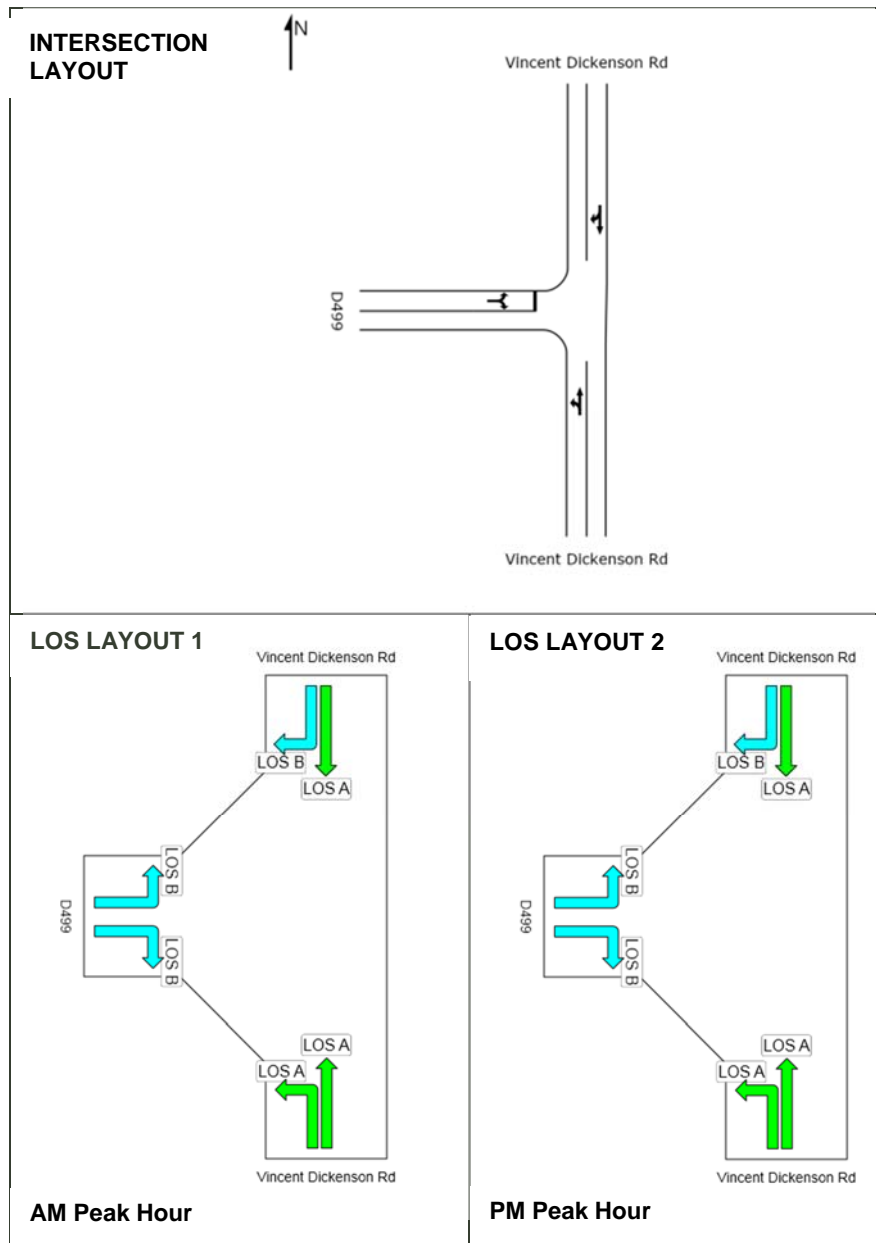


Table 1: Existing Peak Hour SIDRA results for Vincent Dickenson Rd and D499

A SIDRA priority controlled intersection analysis of the Vincent Dickenson Road and D499 intersection showed that all movements along Vincent Dickenson Road are operating at a very good LOS A during both peak hours except for the northern approach right-turn

movement which experiences minor delay and is operating at LOS B during the peak hours. The D499 western approach is operating at a LOS B during the peak hours, for both the right and left turn movements. The intersection operates at a good LOS, with an average delay for all vehicles of 3,4 and 3,3 seconds during the AM and PM peak hours respectively.

3.1.2 D499 and Access to Umgeni Water Intersection

This is a somewhat informal T-junction with no visible road markings or signs to indicate priority. Both roads have 2 lanes, each 3.3 – 3.5 metres wide and no shoulders.

Traffic volumes are very low on both roads.

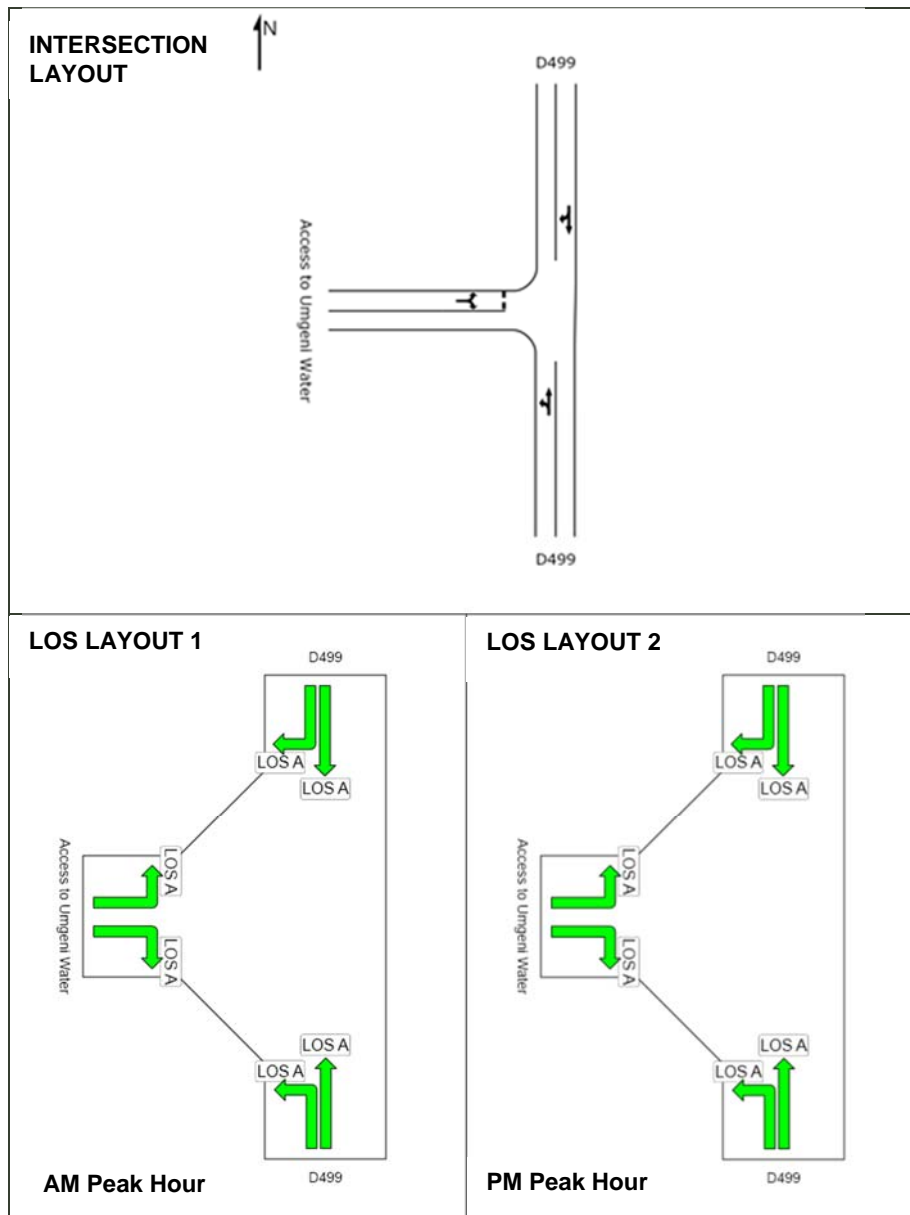


Table 2: Existing Peak Hour SIDRA results for D499 and Access to Umgeni Water

A SIDRA priority controlled intersection analysis of the D499 and the Access to Umgeni Water intersection showed that all movements along the D499 and the Access to Umgeni Water Road are operating at a very good LOS A during both peak hours, with an average delay for all vehicles of 3,7 and 3,5 seconds during the AM and PM peak hours respectively.

3.1.3 New Glasgow Road and Vincent Dickenson Road Intersection

This is an un-signalised T-Junction with New Glasgow Road under stop control. A review of the existing AM peak hour traffic volumes showed that 66% of the traffic entering the Canelands industrial area during the AM peak hour comes from the south and 34% comes from the north along Vincent Dickenson Road. About 98% of the traffic leaving the Canelands industrial area during the PM peak hour turns to the south into Vincent Dickenson Road and only 2% turns to the north into Vincent Dickenson Road. As expected, the busiest approach during the AM peak hour is the Vincent Dickenson Road southern approach. During the PM peak hour, the New Glasgow Road western approach is the busiest, followed by the Vincent Dickenson Road northern approach.

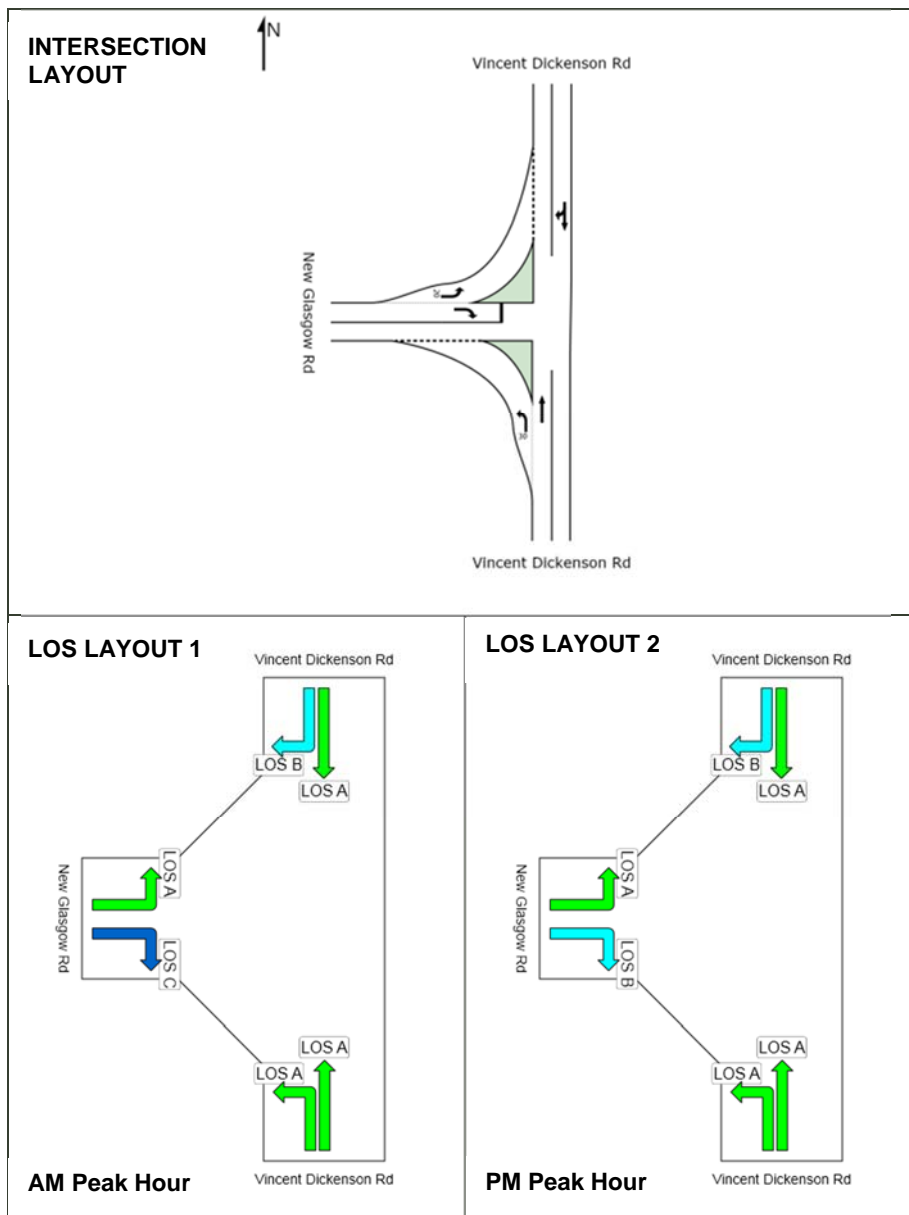


Table 3: Existing Peak Hour SIDRA results for Vincent Dickenson Rd and New Glasgow Rd

A SIDRA priority controlled intersection analysis of the New Glasgow Road and Vincent Dickenson Road intersection showed that all movements along Vincent Dickenson Road are operating at a very good LOS A during both peak hours except for the northern approach right-turn movement which experiences minor delay and is operating at LOS B during the AM peak hour. The New Glasgow Road western approach is operating at a LOS C during the AM peak hour and LOS B during the PM peak hour, for the right turn movement. The left turning movement operates at a LOS A during both peak hours.

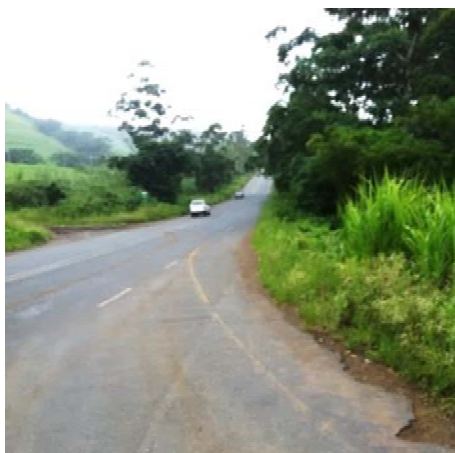
The intersection is operating at an acceptable level of service due to the recent addition of a left turn slip way on the Vincent Dickenson Road southern approach and the New Glasgow Road western approach. The intersection has average delays for all vehicles of 6,3 seconds and 6,8 seconds for the AM and PM peak hours respectively.

3.2 Existing Pedestrian Activity

The pedestrian activity in the vicinity of the site is fairly high during peak commuter periods but low outside of these periods. This pedestrian activity is associated with workers walking to and from the employment opportunities in Canelands. The site only has one frontage, D499, along its northern boundary having no sidewalks. The grass verges are, however, approximately 1,5m wide and pedestrians were observed walking along these verges on both sides of this road. Pedestrians in the area were observed walking along dirt foot parts when travelling from the south, New Glasgow Road, it can be assumed this route shortens both distance and time for pedestrians.

3.3 Condition of Roads

Vincent Dickenson Road, being a Provincial Main Road, is generally in good condition through the study area. See photographs below.



Photograph 1 : P100 looking south



Photograph 2: P100 looking north

P499 is in variable condition with good areas and poor areas along its length and considerable pot-holing and edge break visible in places. The pavement appears to be light,

being a thin chip and spray layer over gravel base which will not be adequate for heavy industrial traffic.



Photograph 3: P499 – Good Condition



Photograph 4: P499 – Bad condition

The intersection of these two roads is unsatisfactory as road markings are worn out and the Stop sign is old and faded. In addition, a plethora of signs appear to have been illegally erected within the intersection and these are intrusive to the extent that they mask the Stop sign.



Photograph 5: Signs at Intersection of P100 and P499

3.4 Road Safety

Road safety conditions for both motorists and pedestrians are generally good in the vicinity of the site. D499 is flat with a sharp curve past the site, visibility and sight distance around the site is good in all directions. The D499 does not have street lighting and this may cause a visibility problem along the road at night. The main road leading to the site, D499, in some areas experiences bad pavement conditions, potholes, which could be of danger to motorists.



4. The Proposed Extension to the Canelands Industrial Area

4.1 The Development Proposal

Tongaat Hulett Developments (Pty) Ltd propose to extend the Canelands industrial area on vacant land situated just north of Chem Spec Paints, in the Canelands Industrial Area. This extension will involve a rezoning of Canelands Portion 2026 from Undetermined to General Industry and the gross area of the proposed extension is 1.56ha and it will have a Floor Area Ratio (FAR) of 0.6.

4.2 Trip Generation

The total trips generated by a proposed Industrial development with a floor area of less than 10 000 m², is 0.9 two way trips per 100 m² in the peak hours with a 75:25 split for General Industry. The trip generation rate is in accordance with the *South African Trip Generation Rates* published by the national DOT, RR 92/228 (1995).

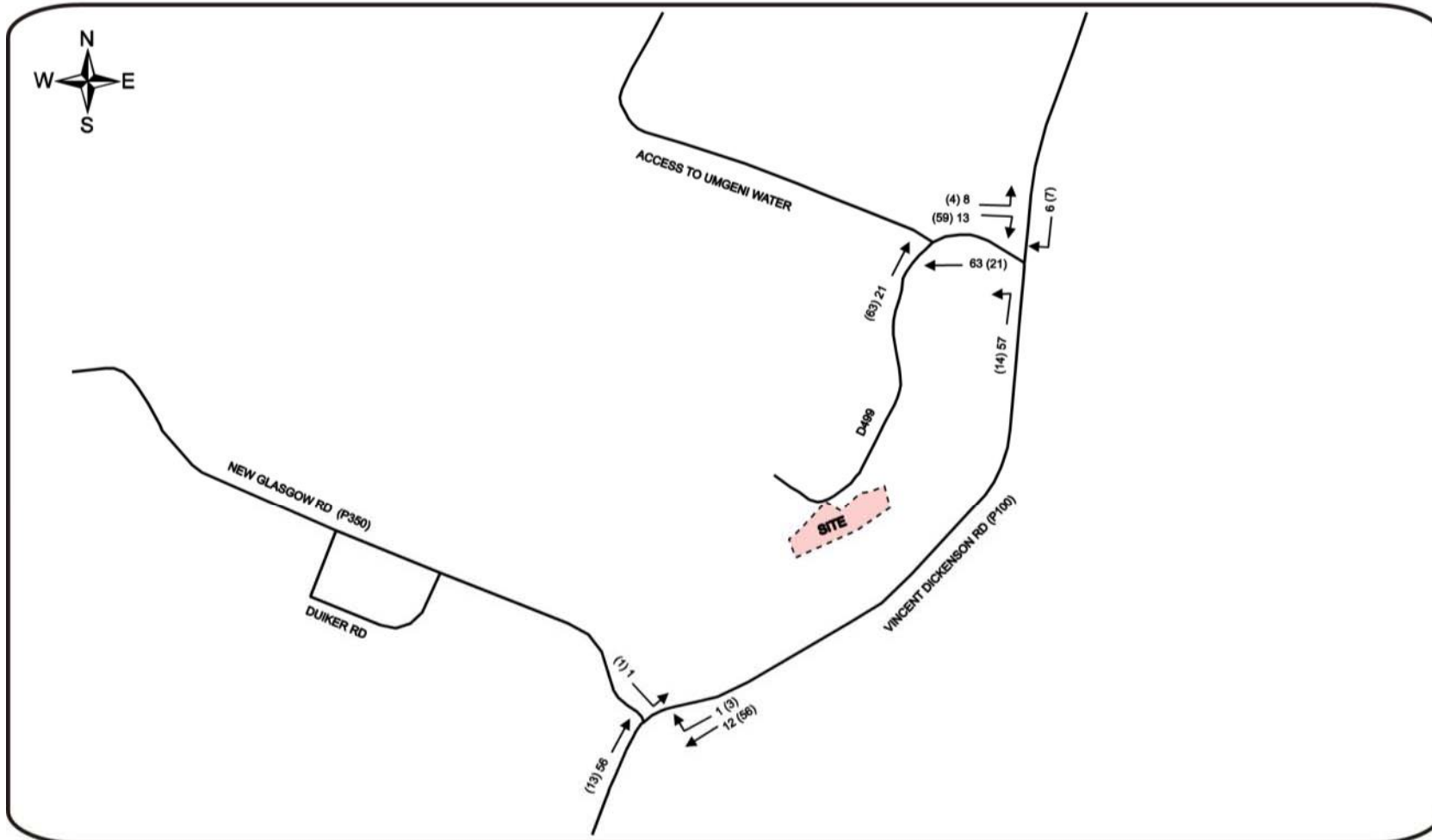
Due to the size of the development, a small number of trips will be generated by the addition of the industrial area at the proposed Canelands Portion 2026. The total trips generated in the AM/PM peak are 84 trips, with 63 trips inbound and 21 trips outbound in the AM, and the reverse in the PM.

4.3 Trip Distribution

All traffic generated by the proposed rezoning of the Canelands Portion 2026 Industrial area is expected to come off the Provincial Main Road, Vincent Dickenson Road (P100).

The distribution of the new traffic generated by the proposed rezoning is assumed to be in the same proportions as the existing AM and PM peak hour traffic passing through the intersections being analysed.

Based on the above distribution pattern, the AM and PM traffic generated by the rezoning has been distributed on the surrounding road network, around the assumed access point to the Industrial area, as shown in Figure 3.




	Development Generated AM and PM Peak Hour Traffic Volumes	PROJECT: 110172
		FIGURE: 4
FEBRUARY 2014	CANELANDS INDUSTRIAL	SCALE: Not to Scale

Figure 4: Development Generated Peak Hour Traffic Volumes

4.4 Access Proposal

The proposed rezoning site has just one access serving as entrance and exit to the area, the intersection of P100 and D499. Upon site inspection it was seen that the access is currently under distress, see photographs, and will need to be upgraded with the Industrial rezoning.



Photograph 6: Edge Failure



Photograph 7: Delamination

The access into the site, will be taken from D499 on the apex of a right angle bend adjacent to the Chem Spec boundary. The proposed access way to the development provides adequate sight distance along the north and west approaches. The proposed access will and will serve as an access and egress to the industrial area. The proposed option is shown in Figure 5 below.



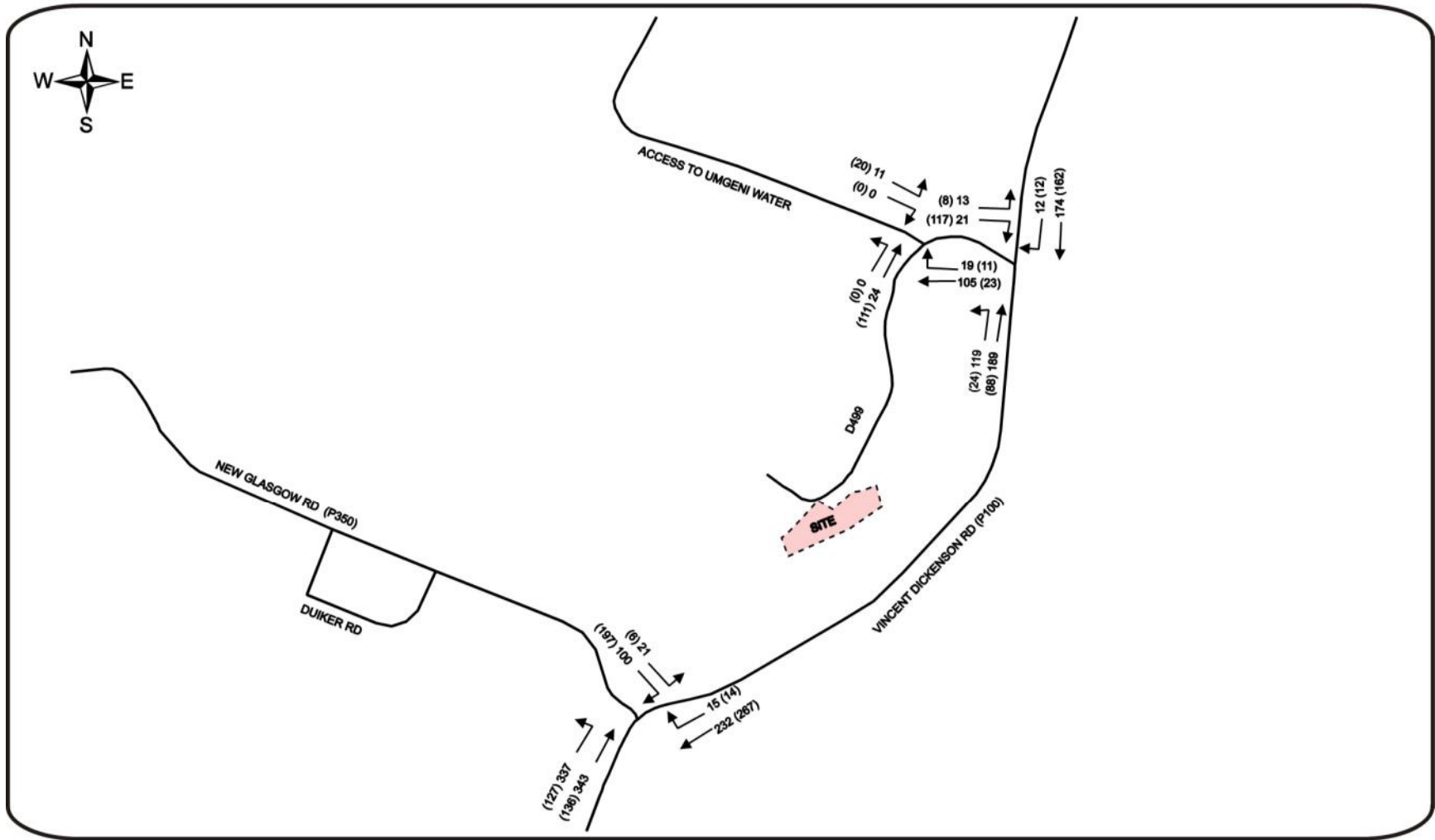
Figure 5: Proposed Access to Industrial Development



5. Traffic Impact Analysis

The traffic impact analyses for the proposed development has been undertaken based on the existing AM and PM peak hour traffic volumes on the surrounding network, shown in Figure 4, together with the estimated AM and PM peak hour traffic volumes generated by the proposed industrial development. The estimated traffic generated for this industrial development is low, due to the proposed size of the development.

The combined existing and generated traffic volumes for the AM and PM peak hours are shown in Figure 6 below.




	Existing and Generated AM and PM Peak Hour Traffic Volumes	PROJECT: 110172
		FIGURE: 6
FEBRUARY 2014	CANELANDS INDUSTRIAL	SCALE: Not to Scale

Figure 6: Existing plus Generated Peak Hour Traffic Volumes

5.1 Analysis of Intersections

5.1.1 Vincent Dickenson Road and the D499 Intersection

An additional 84 vehicles pass through this intersection during both the AM and PM peak hours, with a 75:25 peak split during the respective peaks.

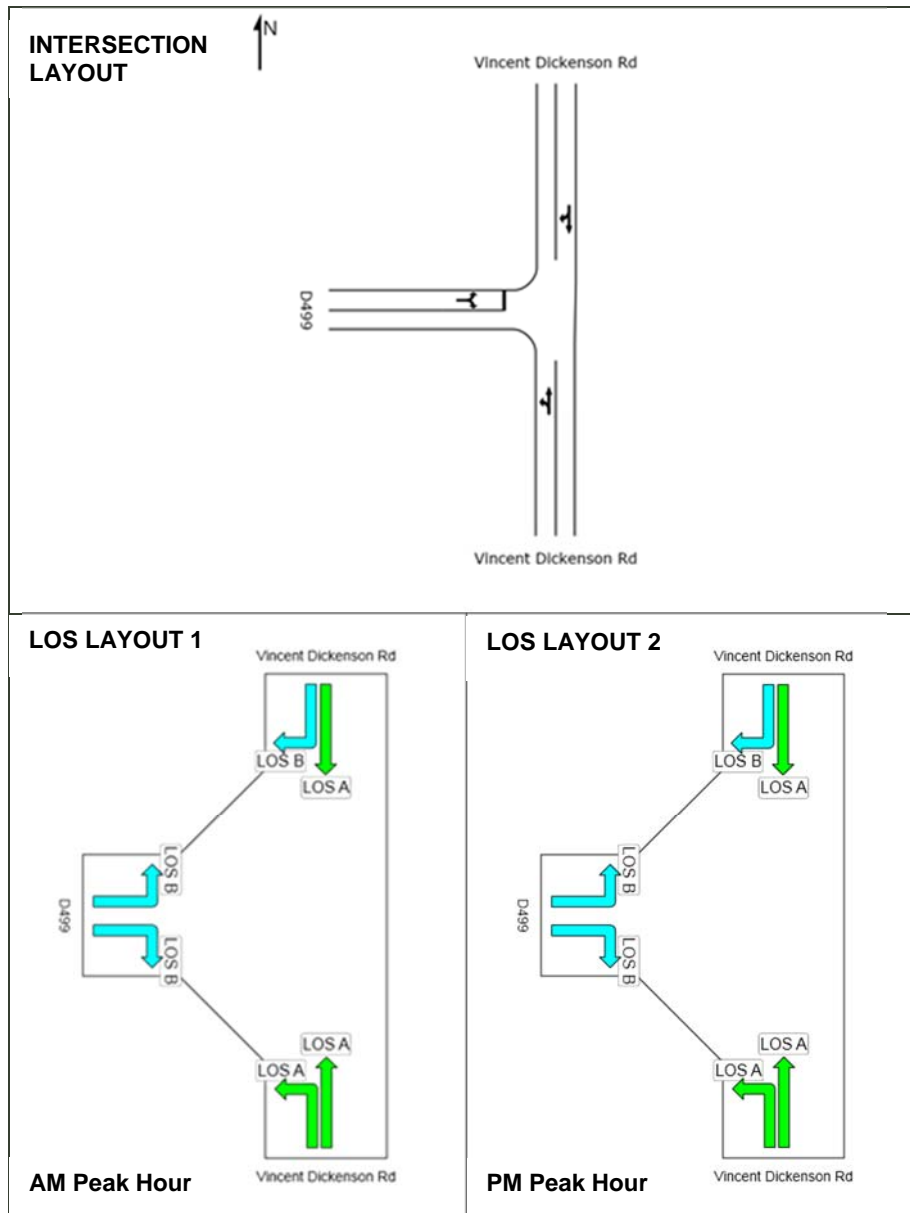


Table 4: Existing plus Generated Peak Hour SIDRA results for Vincent Dickenson Rd and D499

A SIDRA priority controlled intersection analysis of the combined existing and additional traffic generated by the proposed rezoning at the Vincent Dickenson Road and the D499 intersection showed that all movements along each approach operate at the same LOS as before the addition of the development generated traffic.

5.1.2 D499 and Access to Umgeni Water Intersection

An additional 84 vehicles pass through this intersection during both the AM and PM peak hours, with a 75:25 peak split during the respective peaks.

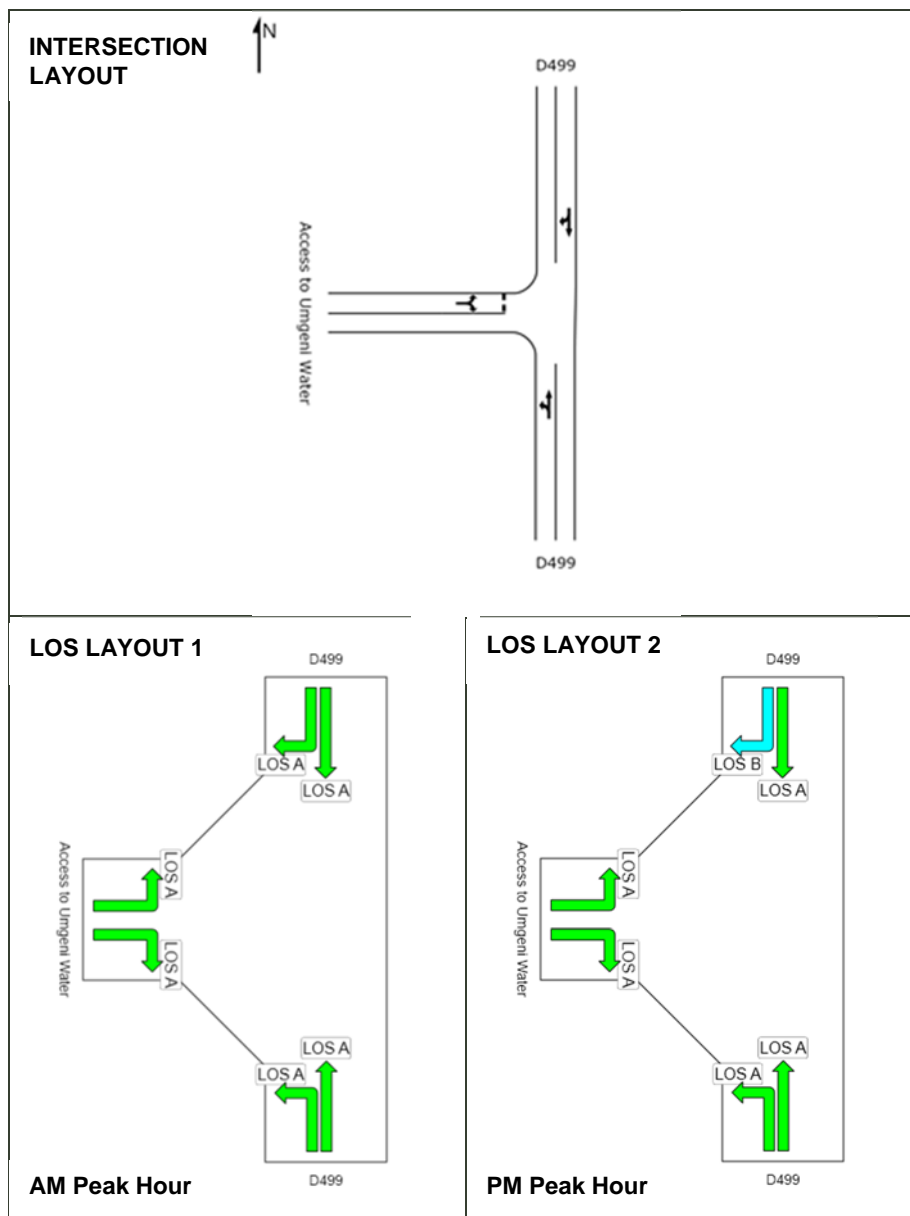


Table 5: Existing plus Generated Peak Hour SIDRA results for Vincent D499 and Access to Umgeni Water

A SIDRA priority controlled intersection analysis of the combined existing and additional traffic generated by the proposed rezoning at the D499 and Access to Umgeni Water Road intersection showed that all movements along each approach operate at the same LOS as before the addition of the development generated traffic, with the exception of the right-turn movement on the D499 north approach, reduced from LOS A to LOS B.

Increase in average delays per vehicle and maximum queue lengths will be minimal during both peak hours, however the improvements below will be required to ensure an efficient intersection:

- Improved intersection signage and road markings
- Inclusion of a 0.5m verge on all intersection approaches, for pedestrian movement
- Drop off, layby areas close to intersection to prevent stoppage at intersection

5.1.3 New Glasgow Road and Vincent Dickenson Road Intersection

An additional 70 vehicles pass through this intersection during the AM and 73 in the PM peak hour, with a 75:25 peak split during the respective peaks.

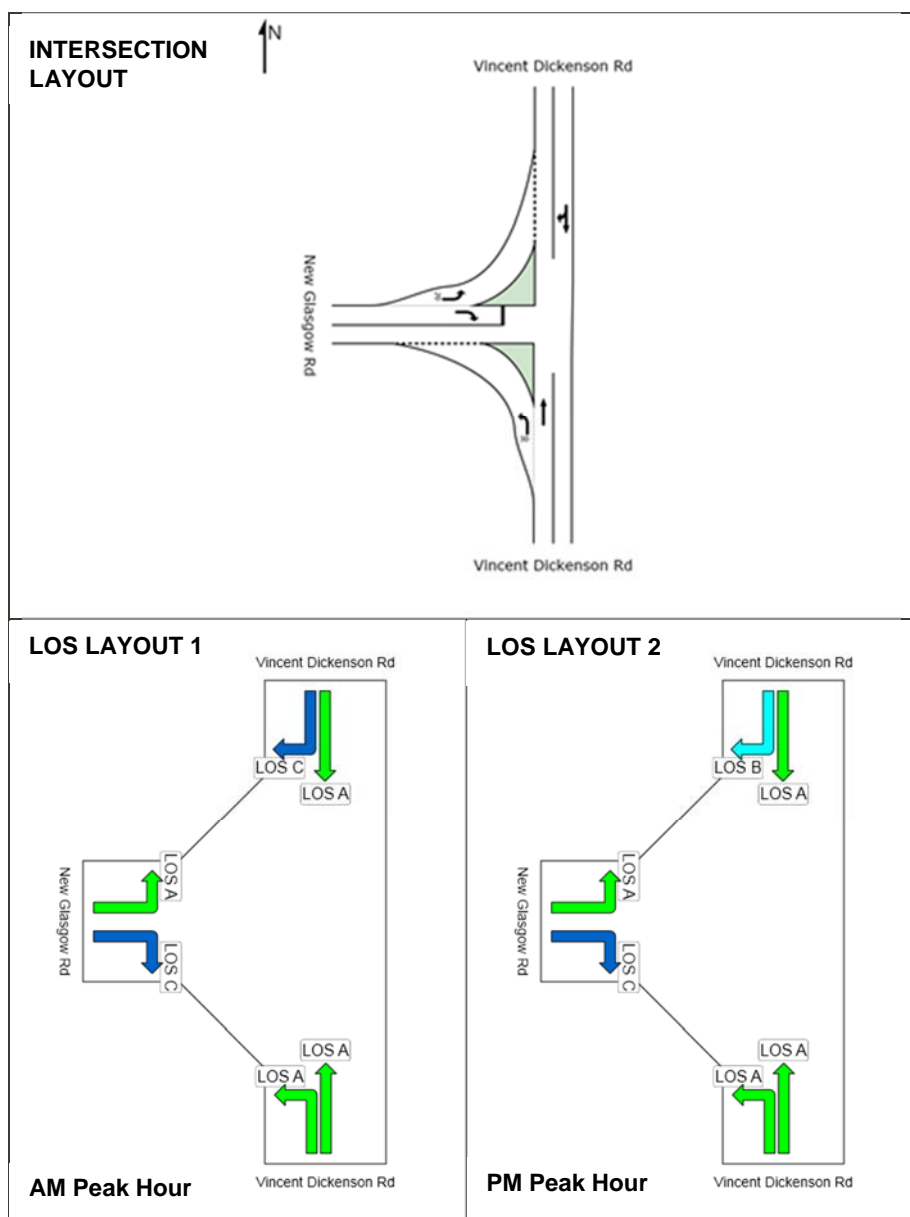



Table 6: Existing plus Generated Peak Hour SIDRA results for Vincent Dickenson Rd and New Glasgow Rd



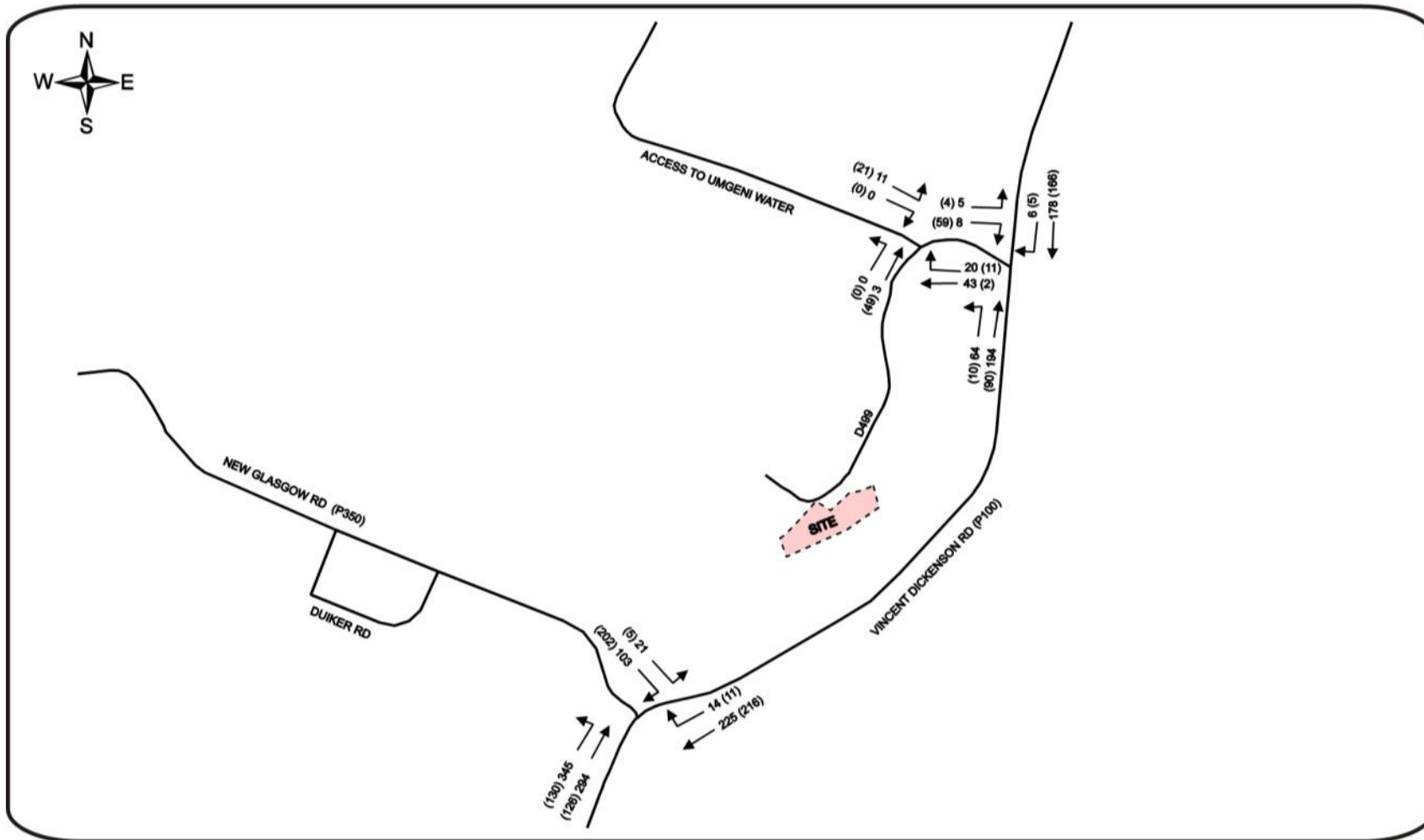
A SIDRA priority controlled intersection analysis, showed that the additional traffic to the intersection reduced the AM peak LOS of the right turning movement on the Vincent Dickenson Road north approach to LOS C. The New Glasgow Road right turning movement, western approach, PM peak was reduced from a LOS B to and LOS C. The average delay per vehicle and maximum queue lengths will be minimal during both peak hours and no improvements will be required.



6. Traffic Impact Assessment for Five Year Forecast Traffic Flows

The Department of Transport, Manual for Traffic Impact Studies RR 93/635 recommends that for single phase developments, producing up to 2 000 trips in the peak hour, a five year forecast traffic flow must be analysed. A compound growth of 3% was applied to the existing traffic and each intersection was re-analysed.

This five year forecast AM and PM peak hour traffic volumes on the surrounding traffic network are shown in Figure 7. The five year forecast on existing volumes plus the proposed development generated AM and PM peak hour traffic volumes are shown in Figure 8.




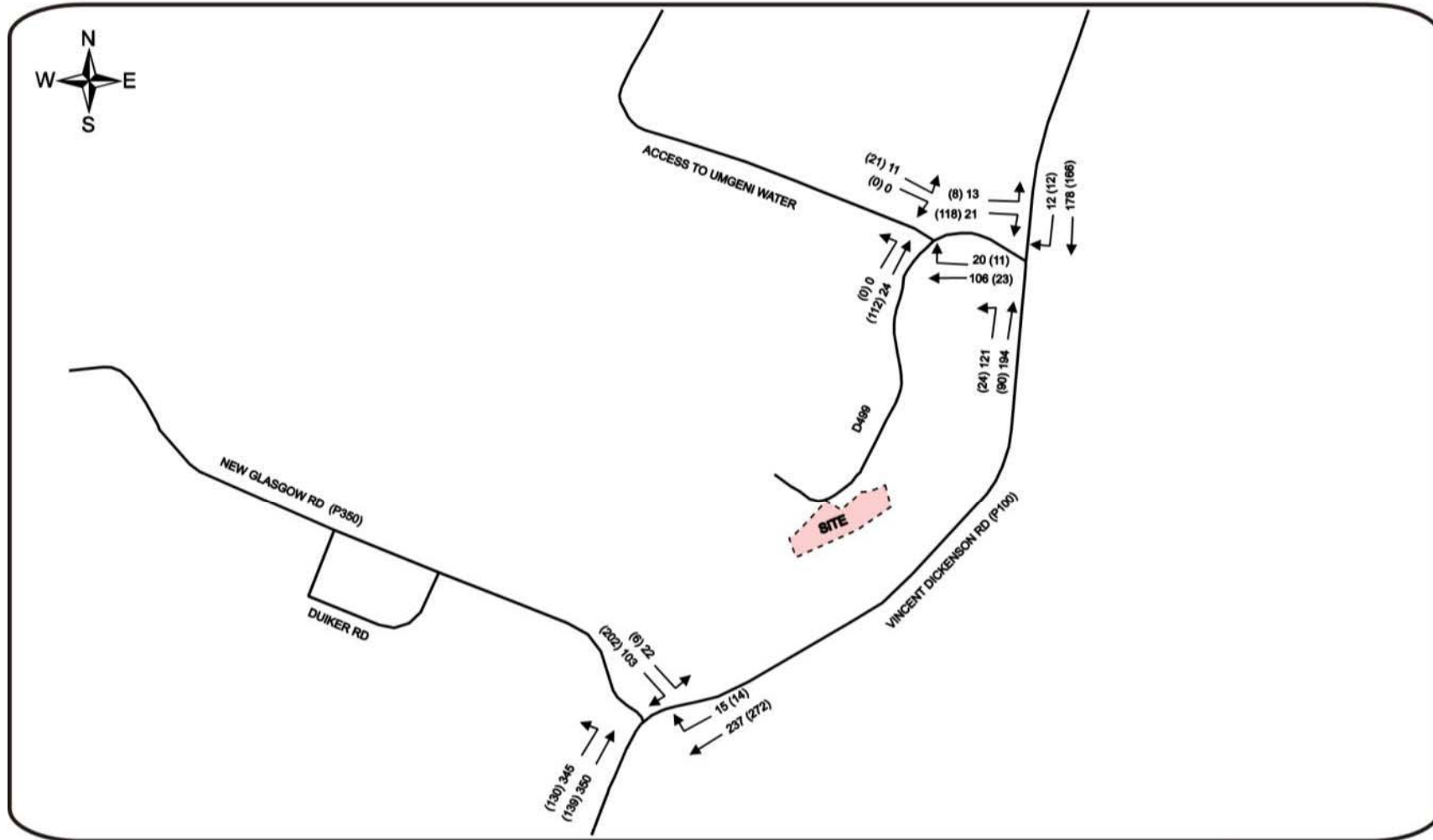
	5 Year Forecast on Existing AM and PM Peak Hour Traffic Volumes	PROJECT: .10172
		FIGURE: 7
FEBRUARY 2014	CANELANDS INDUSTRIAL	SCALE: Not to Scale

Figure 7: Five Year Forecast on Existing Traffic




	5 Year Forecast on Existing plus Development Generated AM and PM Peak Hour Traffic Volumes	PROJECT: 110172
		FIGURE: 8
FEBRUARY 2014	CANELANDS INDUSTRIAL	SCALE: Not to Scale

Figure 8: Five Year Forecast on Existing Traffic plus Development Generated

6.1.1 Vincent Dickenson Road and D499 Intersection

The results of the SIDRA analysis for the five year forecast on the existing traffic volumes plus the development generated AM and PM peak hour traffic at the intersection of Vincent Dickenson Road and D499 are shown below.

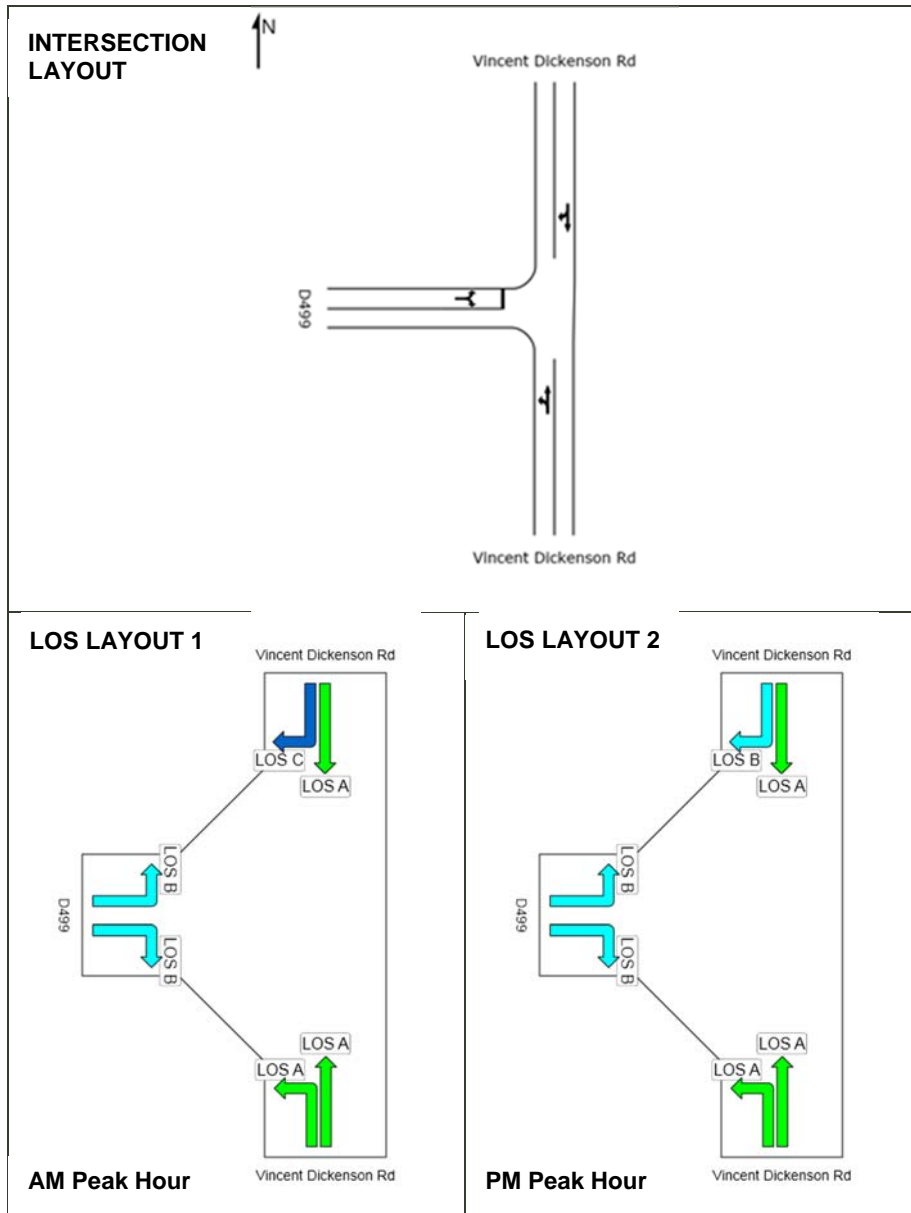


Table 7: Five Year Forecast plus Development Generated SIDRA results for Vincent Dickenson Rd and D499

The above results show that all movements for this intersection remain at the same LOS for both the AM and PM peak hours, with the addition of the five year traffic volumes, except the right turning movement on Vincent Dickenson Road north approach which reduced to a LOS C. No improvements will be required to accommodate the additional traffic.

6.1.2 D499 and Access to Umgeni Water Intersection

The results of the SIDRA analysis for the five year forecast on the existing traffic volumes plus the development generated AM and PM peak hour traffic at the intersection of D499 and the Access Umgeni Water are shown below.

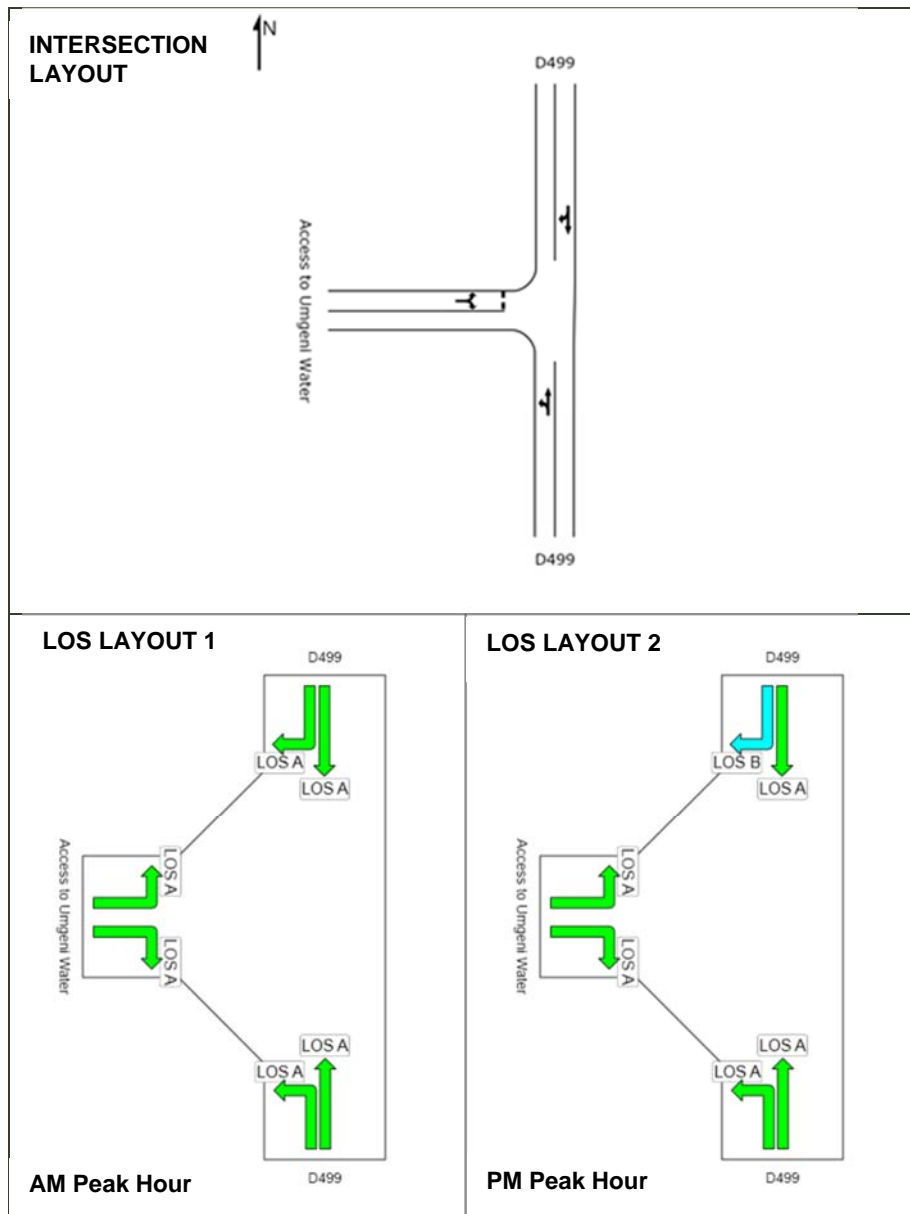


Table 8: Five Year Forecast plus Development Generated SIDRA results for D499 and Access to Umgeni Water

The results show that all movements for this intersection remain at the same LOS for both the AM and PM peak hours, with the addition of the five year traffic volumes. The prior improvements listed hold for an efficient intersection.

6.1.3 New Glasgow Road and Vincent Dickenson Road Intersection

The results of the SIDRA analysis for the five year forecast on the existing traffic volumes plus the development generated AM and PM peak hour traffic at the intersection of New Glasgow Road and the Vincent Dickenson Road are shown below.

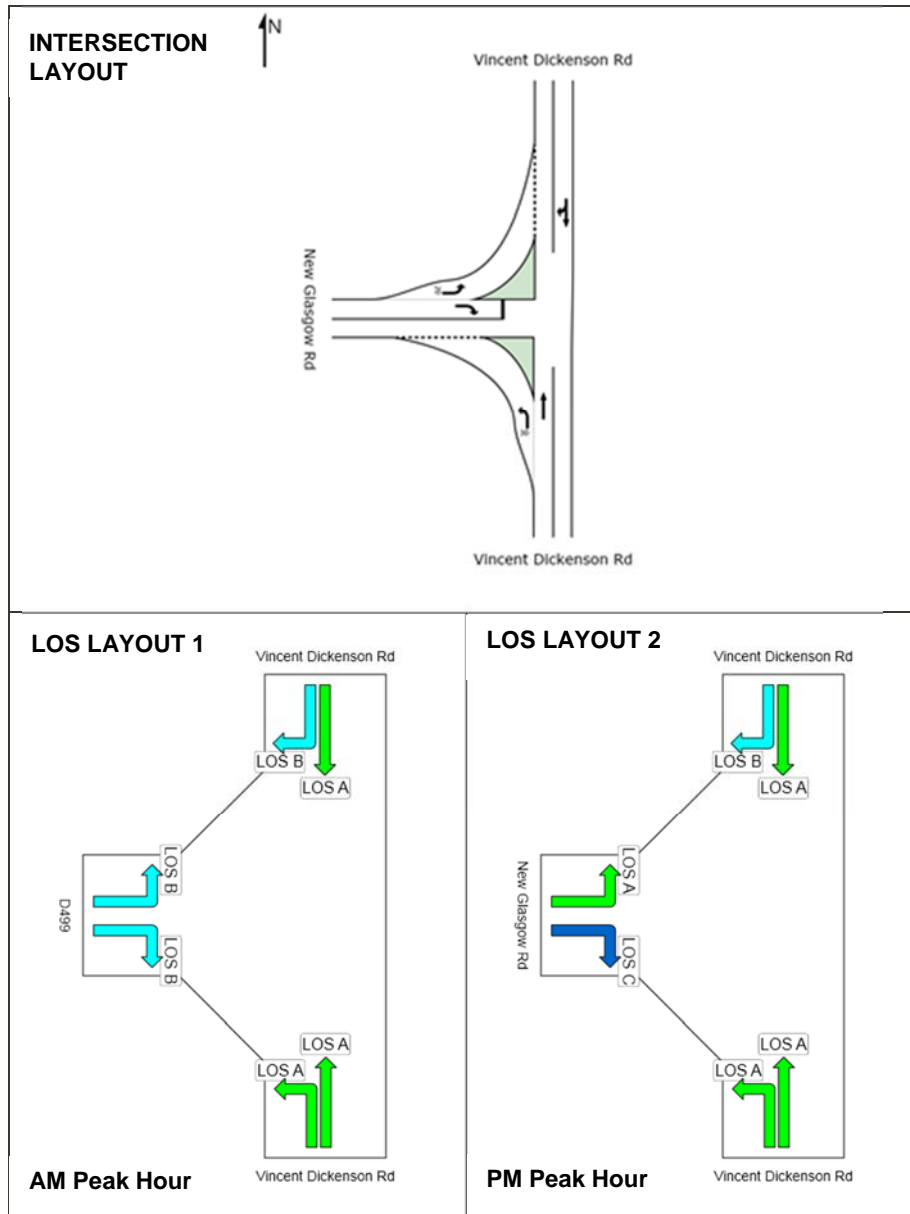


Table 9: Five Year Forecast plus Development Generated for Vincent Dickenson Rd and New Glasgow Rd

The results show that all movements for this intersection remain at the same LOS for both the AM and PM peak hours, with the addition of the five year traffic volumes. Although all right turning movements operate at LOS C, except the PM peak north approach on Vincent Dickenson Road, the intersection operates at an acceptable level, therefore no improvements to the intersection are required.

7. Pedestrians and Public Transport

The proposed Industrial development is expected to generate some pedestrian volumes. Due to the social standing of the area, the current pedestrian volume is quite high therefore it is recommended that D499 be provided with a sidewalk along at least one side to accommodate all pedestrian movement.

The new development will generate the use of public transport but the proposed site is lacking in facilities for these vehicles to offload passengers, resulting in vehicles staging at the intersection for this purpose. See picture below.

It is recommended that a layby facility be included on Vincent Dickenson Road just downstream of the D499 intersection for both directions of travel. This will ensure safety of all road users.



Photograph 8: Truck staging in intersection



8. Road Safety

The additional traffic generated by the development will not influence the safety of the roads. The current safety conditions in the area are poor. To ensure safety of all road users, the following safety precautions must be included:

- Removal of all illegal sign boards at intersections
- Addition of road signage at intersections, yield and stop signs, maximum speed and improved road markings
- A 1.5m sidewalk on the D499, on at least one side from P100 to the site
- Layby areas for public transportation on Vincent Dickenson Road.
- Street lighting along the above sidewalk and at the Vincent Dickenson intersection.



9. Conclusions and Recommendations

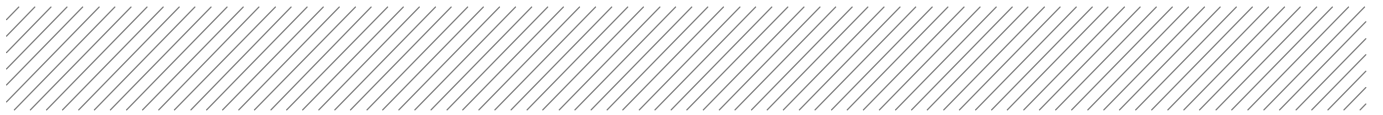
9.1 Conclusions

Based on the above analysis the following conclusion can be drawn with regards to the traffic impact of the proposed Canelands Industrial rezoning in eThekweni:

- All intersections are currently working at an excellent level of service, however the Vincent Dickenson and D499 intersection needs to be upgraded which could be a result of the design life of the intersection being reached.
- The Vincent Dickenson Road/New Glasgow Road intersection operates at a good level of service despite the relatively high traffic volumes experienced during the peak hours. This is due to the recent upgrades completed at this intersection.
- The Sidra analysis of the additional development traffic and the five year predicted traffic show the intersections operate at a good level of service, with minimal delays and queue lengths at intersections.
- The impacts to the surrounding road network are negligible, due to the small size of the development.
- Due to the rural nature of the community, pedestrian movement and public transport usage in the area are high.
- The road safety around the development area is poor, providing no pedestrian sidewalks, road signage, road marking and laybys for public transport.
- The pavement of D499 is very light and it will have to be upgraded over its entire length to carry additional industrial traffic

9.2 Recommendations

- Road user safety must be improved on the D499 and the following improvements are recommended:
 1. Improve road signage in the area, including road markings indicating priority and maximum speed limit.
 2. Include laybys for public transport close to intersection D499 and P100.
 3. Improve lighting at intersection D499 and P100.
 4. Include a 1.5 m pedestrian sidewalk on at least one side of the D499
- Illegal signage at the Vincent Dickenson Road and D499 must be removed, allowing road users clear view of statutory road signage.
- D499 from P100 to the industrial development will have to be structurally upgraded to carry industrial traffic.



Appendix A

Traffic Count Data

Existing Traffic Counts

Vincent Dickenson Road and D499

TRAFFIC SURVEY ANALYSIS																
CLIENT:	AURECON															
SITE:	INTERSECTION OF P100 (VINCENT DICKENS DRIVE) AND D400															
DATE:	12 HOUR COUNT ON WEDNESDAY 12 SEPTEMBER 2012															
UNITS:	CLASSIFIED															
APPROACH FROM NAME MOVEMENT TIME	NORTH P100 / VINCENT DICKENS DRIVE														TOTAL	
	LEFT TURN				STRAIGHT				RIGHT TURN				ALL MOVEMENTS			
	C	T	H	B	TOTAL	C	T	H	B	TOTAL	C	T		H	B	TOTAL
06:00 - 06:15	0	0	0	0	0	21	16	1	1	39	1	0	0	0	1	40
06:15 - 06:30	0	0	0	0	0	18	18	1	0	37	1	0	0	0	1	38
06:30 - 06:45	0	0	0	0	0	22	15	3	5	45	2	0	0	0	2	47
06:45 - 07:00	0	0	0	0	0	33	18	0	2	53	2	0	0	0	2	55
07:00 - 07:15	0	0	0	0	0	23	14	1	1	39	0	0	1	0	1	40
07:15 - 07:30	0	0	0	0	0	31	14	1	2	48	1	0	0	0	1	49
07:30 - 07:45	0	0	0	0	0	21	7	2	1	31	1	0	1	0	2	33
07:45 - 08:00	0	0	0	0	0	18	10	1	0	29	0	0	0	0	0	29
08:00 - 08:15	0	0	0	0	0	16	9	0	0	25	2	0	0	0	2	27
08:15 - 08:30	0	0	0	0	0	14	5	0	1	20	0	0	0	0	0	20
08:30 - 08:45	0	0	0	0	0	22	11	5	0	38	1	0	1	0	2	40
08:45 - 09:00	0	0	0	0	0	11	6	2	3	22	0	0	0	0	0	22
09:00 - 09:15	0	0	0	0	0	22	6	0	0	28	2	0	1	0	3	31
09:15 - 09:30	0	0	0	0	0	8	4	1	1	14	1	0	0	0	1	15
09:30 - 09:45	0	0	0	0	0	21	5	1	0	27	0	0	0	0	0	27
09:45 - 10:00	0	0	0	0	0	16	6	4	0	26	1	0	0	0	1	27
10:00 - 10:15	0	0	0	0	0	23	9	1	1	34	0	0	0	0	0	34
10:15 - 10:30	0	0	0	0	0	24	4	1	1	30	1	0	0	0	1	31
10:30 - 10:45	0	0	0	0	0	25	4	0	0	29	0	0	0	0	0	29
10:45 - 11:00	0	0	0	0	0	19	6	1	1	27	2	0	1	0	3	30
11:00 - 11:15	0	0	0	0	0	17	3	3	0	23	0	0	2	0	2	25
11:15 - 11:30	0	0	0	0	0	16	4	3	1	24	0	0	1	0	1	25
11:30 - 11:45	0	0	0	0	0	25	6	0	0	31	0	0	0	0	0	31
11:45 - 12:00	0	0	0	0	0	19	7	1	0	27	4	0	0	0	4	31
12:00 - 12:15	0	0	0	0	0	24	3	2	0	29	1	0	0	0	1	30
12:15 - 12:30	0	0	0	0	0	16	1	1	0	18	0	0	0	0	0	18
12:30 - 12:45	0	0	0	0	0	21	6	6	0	33	1	0	0	0	1	34
12:45 - 13:00	0	0	0	0	0	18	4	2	0	24	0	0	1	0	1	25
13:00 - 13:15	0	0	0	0	0	15	3	0	0	18	0	0	0	0	0	18
13:15 - 13:30	0	0	0	0	0	14	4	1	0	19	1	0	0	0	1	20
13:30 - 13:45	0	0	0	0	0	15	5	1	0	21	4	0	0	0	4	25
13:45 - 14:00	0	0	0	0	0	34	6	1	3	44	0	0	0	0	0	44
14:00 - 14:15	0	0	0	0	0	21	4	1	1	27	0	0	0	0	0	27
14:15 - 14:30	0	0	0	0	0	32	4	0	3	39	2	0	2	0	4	43
14:30 - 14:45	0	0	0	0	0	32	5	2	0	39	0	0	0	0	0	39
14:45 - 15:00	0	0	0	0	0	56	3	0	0	59	2	0	0	0	2	61
15:00 - 15:15	0	0	0	0	0	54	7	1	0	62	2	0	0	0	2	64
15:15 - 15:30	0	0	0	0	0	39	12	2	2	55	0	0	0	0	0	55
15:30 - 15:45	0	0	0	0	0	23	8	3	0	34	2	0	0	0	2	36
15:45 - 16:00	0	0	0	0	0	32	7	1	0	40	0	0	1	0	1	41
16:00 - 16:15	0	0	0	0	0	26	5	1	1	33	2	0	0	0	2	35
16:15 - 16:30	0	0	0	0	0	33	6	2	0	41	1	0	0	0	1	42
16:30 - 16:45	0	0	0	0	0	15	3	0	1	19	3	0	0	0	3	22
16:45 - 17:00	0	0	0	0	0	35	6	4	0	45	1	0	0	0	1	46
17:00 - 17:15	0	0	0	0	0	23	8	2	0	33	1	0	0	0	1	34
17:15 - 17:30	0	0	0	0	0	19	10	1	0	30	0	0	0	0	0	30
17:30 - 17:45	0	0	0	0	0	15	11	3	0	29	0	0	0	0	0	29
17:45 - 18:00	0	0	0	0	0	11	13	0	0	24	0	0	0	0	0	24
TOTAL	0	0	0	0	0	1108	351	70	32	1561	45	0	12	0	57	1618



TRAFFIC SURVEY ANALYSIS																
CLIENT:	AURECON															
SITE:	INTERSECTION OF P100 (VINCENT DICKENS DRIVE) AND D400															
DATE:	12 HOUR COUNT ON WEDNESDAY 12 SEPTEMBER 2012															
UNITS:	CLASSIFIED															
APPROACH FROM NAME MOVEMENT TIME	SOUTH P100 / VINCENT DICKENS DRIVE															TOTAL
	LEFT TURN					STRAIGHT					RIGHT TURN					ALL MOVEMENTS
	C	T	H	B	TOTAL	C	T	H	B	TOTAL	C	T	H	B	TOTAL	
06:00 - 06:15	2	0	3	0	5	7	5	4	0	16	0	0	0	0	0	21
06:15 - 06:30	7	0	0	0	7	5	10	4	0	19	0	0	0	0	0	26
06:30 - 06:45	19	0	1	0	20	18	18	5	0	41	0	0	0	0	0	61
06:45 - 07:00	19	0	0	0	19	35	13	6	3	57	0	0	0	0	0	76
07:00 - 07:15	16	0	0	0	16	45	22	3	2	72	0	0	0	0	0	88
07:15 - 07:30	24	1	0	0	25	60	9	1	1	71	0	0	0	0	0	96
07:30 - 07:45	16	0	0	0	16	42	8	1	2	53	0	0	0	0	0	69
07:45 - 08:00	19	0	0	0	19	24	6	0	2	32	0	0	0	0	0	51
08:00 - 08:15	16	0	0	0	16	20	8	1	0	29	0	0	0	0	0	45
08:15 - 08:30	5	0	0	0	5	19	5	0	0	24	0	0	0	0	0	29
08:30 - 08:45	6	0	0	1	7	24	1	1	1	27	0	0	0	0	0	34
08:45 - 09:00	6	0	0	0	6	25	8	2	0	35	0	0	0	0	0	41
09:00 - 09:15	7	0	0	0	7	20	3	2	0	25	0	0	0	0	0	32
09:15 - 09:30	9	0	0	0	9	18	6	2	0	26	0	0	0	0	0	35
09:30 - 09:45	6	0	0	0	6	10	3	0	0	13	0	0	0	0	0	19
09:45 - 10:00	2	0	0	0	2	11	2	1	0	14	0	0	0	0	0	16
10:00 - 10:15	5	0	0	0	5	20	3	0	1	24	0	0	0	0	0	29
10:15 - 10:30	7	0	0	0	7	18	5	1	0	24	0	0	0	0	0	31
10:30 - 10:45	3	0	0	0	3	27	2	1	0	30	0	0	0	0	0	33
10:45 - 11:00	3	0	0	0	3	26	3	3	0	32	0	0	0	0	0	35
11:00 - 11:15	3	0	1	0	4	25	4	3	0	32	0	0	0	0	0	36
11:15 - 11:30	4	0	0	0	4	13	3	1	0	17	0	0	0	0	0	21
11:30 - 11:45	4	0	0	0	4	18	4	1	0	23	0	0	0	0	0	27
11:45 - 12:00	5	0	0	0	5	13	2	0	1	16	0	0	0	0	0	21
12:00 - 12:15	3	0	1	0	4	13	6	1	0	20	0	0	0	0	0	24
12:15 - 12:30	11	0	1	0	12	14	3	1	1	19	0	0	0	0	0	31
12:30 - 12:45	6	0	0	0	6	13	7	0	1	21	0	0	0	0	0	27
12:45 - 13:00	5	0	0	0	5	19	0	1	1	21	0	0	0	0	0	26
13:00 - 13:15	6	0	0	0	6	18	5	4	0	27	0	0	0	0	0	33
13:15 - 13:30	7	0	1	0	8	12	2	1	2	17	0	0	0	0	0	25
13:30 - 13:45	6	0	0	0	6	11	5	4	0	20	0	0	0	0	0	26
13:45 - 14:00	4	0	0	0	4	15	3	1	3	22	0	0	0	0	0	26
14:00 - 14:15	6	0	0	0	6	20	4	1	1	26	0	0	0	0	0	32
14:15 - 14:30	8	0	0	0	8	17	4	1	2	24	0	0	0	0	0	32
14:30 - 14:45	1	0	0	0	1	14	4	0	0	18	0	0	0	0	0	19
14:45 - 15:00	4	0	0	0	4	26	6	2	2	36	0	0	0	0	0	40
15:00 - 15:15	3	0	0	0	3	26	6	0	0	32	0	0	0	0	0	35
15:15 - 15:30	2	0	0	0	2	19	6	1	0	26	0	0	0	0	0	28
15:30 - 15:45	2	0	0	0	2	19	2	0	0	21	0	0	0	0	0	23
15:45 - 16:00	3	0	1	0	4	23	7	0	0	30	0	0	0	0	0	34
16:00 - 16:15	1	1	0	0	2	6	4	1	0	11	0	0	0	0	0	13
16:15 - 16:30	3	0	1	0	4	20	10	0	1	31	0	0	0	0	0	35
16:30 - 16:45	1	0	0	0	1	20	6	1	1	28	0	0	0	0	0	29
16:45 - 17:00	5	0	0	0	5	26	12	1	0	39	0	0	0	0	0	44
17:00 - 17:15	0	0	0	0	0	23	11	1	1	36	0	0	0	0	0	36
17:15 - 17:30	0	0	0	0	0	21	14	1	0	36	0	0	0	0	0	36
17:30 - 17:45	0	0	0	0	0	37	19	0	1	57	0	0	0	0	0	57
17:45 - 18:00	1	0	0	0	1	32	14	1	0	47	0	0	0	0	0	48
TOTAL	301	2	10	1	314	1007	313	67	30	1417	0	0	0	0	0	1731



TRAFFIC SURVEY ANALYSIS																
CLIENT:	AURECON															
SITE:	INTERSECTION OF P100 (VINCENT DICKENS DRIVE) AND D400															
DATE:	12 HOUR COUNT ON WEDNESDAY 12 SEPTEMBER 2012															
UNITS:	CLASSIFIED															

APPROACH FROM NAME MOVEMENT TIME	EAST															TOTAL
	LEFT TURN					STRAIGHT					RIGHT TURN					ALL
	C	T	H	B	TOTAL	C	T	H	B	TOTAL	C	T	H	B	TOTAL	MOVEMENTS
06:00 - 06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 - 06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 - 06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 - 07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 - 07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 - 07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 - 07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 - 08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 - 08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 - 08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 - 08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 - 09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 - 09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 - 09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 - 09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00 - 16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



TRAFFIC SURVEY ANALYSIS															
CLIENT:	AURECON														
SITE:	INTERSECTION OF P100 (VINCENT DICKENS DRIVE) AND D400														
DATE:	12 HOUR COUNT ON WEDNESDAY 12 SEPTEMBER 2012														
UNITS:	CLASSIFIED														

APPROACH FROM NAME MOVEMENT TIME	WEST D400															TOTAL
	LEFT TURN					STRAIGHT					RIGHT TURN					ALL
	C	T	H	B	TOTAL	C	T	H	B	TOTAL	C	T	H	B	TOTAL	MOVEMENTS
06:00 - 06:15	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
06:15 - 06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
06:30 - 06:45	2	0	1	0	3	0	0	0	0	0	3	0	0	0	3	6
06:45 - 07:00	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	2
07:00 - 07:15	1	0	0	0	1	0	0	0	0	0	2	0	0	0	2	3
07:15 - 07:30	1	0	0	0	1	0	0	0	0	0	3	1	0	0	4	5
07:30 - 07:45	1	0	0	0	1	0	0	0	0	0	4	0	0	0	4	5
07:45 - 08:00	0	0	1	0	1	0	0	0	0	0	2	0	0	0	2	3
08:00 - 08:15	1	0	0	0	1	0	0	0	0	0	5	0	0	0	5	6
08:15 - 08:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:30 - 08:45	0	0	1	0	1	0	0	0	0	0	2	0	0	0	2	3
08:45 - 09:00	4	0	0	0	4	0	0	0	0	0	1	0	0	0	1	5
09:00 - 09:15	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
09:15 - 09:30	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
09:30 - 09:45	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
09:45 - 10:00	3	0	2	0	5	0	0	0	0	0	4	0	0	0	4	9
10:00 - 10:15	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2	4
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	6
10:30 - 10:45	1	0	0	0	1	0	0	0	0	0	5	0	0	0	5	6
10:45 - 11:00	1	0	0	0	1	0	0	0	0	0	4	0	0	0	4	5
11:00 - 11:15	1	0	0	0	1	0	0	0	0	0	8	0	0	0	8	9
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
11:30 - 11:45	1	0	0	0	1	0	0	0	0	0	2	0	0	0	2	3
11:45 - 12:00	2	0	0	0	2	0	0	0	0	0	6	0	0	0	6	8
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	7
12:15 - 12:30	1	0	0	0	1	0	0	0	0	0	8	0	0	0	8	9
12:30 - 12:45	0	0	1	0	1	0	0	0	0	0	5	0	1	0	6	7
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
13:00 - 13:15	0	0	1	0	1	0	0	0	0	0	2	0	0	0	2	3
13:15 - 13:30	1	0	2	0	3	0	0	0	0	0	6	0	1	0	7	10
13:30 - 13:45	2	0	0	0	2	0	0	0	0	0	11	0	0	0	11	13
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	8
14:00 - 14:15	0	0	2	0	2	0	0	0	0	0	6	0	0	0	6	8
14:15 - 14:30	1	0	0	0	1	0	0	0	0	0	6	0	0	0	6	7
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	8
14:45 - 15:00	2	0	0	0	2	0	0	0	0	0	6	0	0	0	6	8
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	9	0	0	1	10	10
15:15 - 15:30	1	0	0	0	1	0	0	0	0	0	6	0	0	0	6	7
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	11	0	0	0	11	11
16:00 - 16:15	2	0	1	0	3	0	0	0	0	0	37	0	0	0	37	40
16:15 - 16:30	1	0	0	0	1	0	0	0	0	0	26	0	1	0	27	28
16:30 - 16:45	0	0	1	0	1	0	0	0	0	0	16	0	2	0	18	19
16:45 - 17:00	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	7
17:00 - 17:15	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	7
17:15 - 17:30	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
17:30 - 17:45	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
17:45 - 18:00	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5
TOTAL	34	0	13	0	47	0	0	0	0	0	287	1	7	1	296	343

D499 and Access to Umgeni Water

TRAFFIC SURVEY ANALYSIS																
CLIENT:	AURECON															
SITE:	INTERSECTION OF D400 AND ACCESS TO UMGENI WATER															
DATE:	12 HOUR COUNT ON WEDNESDAY 12 SEPTEMBER 2012															
UNITS:	CLASSIFIED															
APPROACH FROM NAME MOVEMENT TIME	NORTH D400															TOTAL
	LEFT TURN					STRAIGHT					RIGHT TURN					ALL
	C	T	H	B	TOTAL	C	T	H	B	TOTAL	C	T	H	B	TOTAL	MOVEMENTS
06:00 - 06:15	0	0	0	0	0	0	0	0	0	0	3	0	3	0	6	6
06:15 - 06:30	0	0	0	0	0	5	0	0	0	5	3	0	0	0	3	8
06:30 - 06:45	0	0	0	0	0	15	0	1	0	16	7	0	0	0	7	23
06:45 - 07:00	0	0	0	0	0	14	0	0	0	14	6	0	0	0	6	20
07:00 - 07:15	0	0	0	0	0	7	0	0	0	7	2	0	1	0	3	10
07:15 - 07:30	0	0	0	0	0	18	0	0	0	18	8	0	0	0	8	26
07:30 - 07:45	0	0	0	0	0	13	1	0	0	14	5	0	1	0	6	20
07:45 - 08:00	0	0	0	0	0	12	0	0	0	12	8	0	0	0	8	20
08:00 - 08:15	0	0	0	0	0	5	0	0	0	5	8	0	0	0	8	13
08:15 - 08:30	0	0	0	0	0	3	0	0	0	3	3	0	1	0	4	7
08:30 - 08:45	0	0	0	0	0	1	0	1	1	3	4	0	1	0	5	8
08:45 - 09:00	0	0	0	0	0	1	0	0	0	1	2	0	0	0	2	3
09:00 - 09:15	0	0	0	0	0	2	0	0	0	2	6	0	1	0	7	9
09:15 - 09:30	0	0	0	0	0	2	0	0	0	2	6	0	0	0	6	8
09:30 - 09:45	0	0	0	0	0	3	0	0	0	3	5	0	0	0	5	8
09:45 - 10:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
10:00 - 10:15	0	0	0	0	0	3	0	0	0	3	2	0	0	0	2	5
10:15 - 10:30	0	0	0	0	0	5	0	0	0	5	3	0	0	0	3	8
10:30 - 10:45	0	0	0	0	0	1	0	0	0	1	2	0	0	0	2	3
10:45 - 11:00	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	2
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	2	0	1	0	3	3
11:15 - 11:30	0	0	0	0	0	1	0	0	0	1	3	0	1	0	4	5
11:30 - 11:45	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	3
11:45 - 12:00	0	0	0	0	0	3	0	0	0	3	5	0	0	0	5	8
12:00 - 12:15	0	0	0	0	0	2	0	0	0	2	4	0	1	0	5	7
12:15 - 12:30	0	0	0	0	0	2	0	0	0	2	9	0	1	0	10	12
12:30 - 12:45	0	0	0	0	0	1	0	0	0	1	4	0	1	0	5	6
12:45 - 13:00	0	0	0	0	0	3	0	0	0	3	2	0	0	0	2	5
13:00 - 13:15	0	0	0	0	0	2	0	0	0	2	6	0	0	0	6	8
13:15 - 13:30	0	0	0	0	0	2	0	0	0	2	3	0	1	0	4	6
13:30 - 13:45	0	0	0	0	0	4	0	0	0	4	4	0	0	0	4	8
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
14:00 - 14:15	0	0	0	0	0	1	0	0	0	1	4	0	0	0	4	5
14:15 - 14:30	0	0	0	0	0	6	0	0	0	6	6	0	2	0	8	14
14:30 - 14:45	0	0	0	0	0	1	0	0	0	1	2	0	0	0	2	3
14:45 - 15:00	0	0	0	0	0	5	0	0	0	5	2	0	0	0	2	7
15:00 - 15:15	0	0	0	0	0	2	0	0	0	2	2	0	0	0	2	4
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	2	0	1	0	3	3
16:00 - 16:15	0	0	0	0	0	1	1	0	0	2	3	0	0	0	3	5
16:15 - 16:30	0	0	0	0	0	2	0	0	0	2	1	0	1	0	2	4
16:30 - 16:45	0	0	0	0	0	1	0	0	0	1	3	0	0	0	3	4
16:45 - 17:00	0	0	0	0	0	1	0	0	0	1	4	0	0	0	4	5
17:00 - 17:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
17:15 - 17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
TOTAL	0	0	0	0	0	153	2	2	1	158	167	0	18	0	185	343

TRAFFIC SURVEY ANALYSIS

CLIENT:	AURECON
SITE:	INTERSECTION OF D400 AND ACCESS TO UMGENI WATER
DATE:	12 HOUR COUNT ON WEDNESDAY 12 SEPTEMBER 2012
UNITS:	CLASSIFIED

APPROACH FROM NAME MOVEMENT TIME	SOUTH D400															TOTAL
	LEFT TURN					STRAIGHT					RIGHT TURN					ALL MOVEMENTS
	C	T	H	B	TOTAL	C	T	H	B	TOTAL	C	T	H	B	TOTAL	
06:00 - 06:15	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
06:15 - 06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 - 06:45	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
06:45 - 07:00	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
07:00 - 07:15	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
07:15 - 07:30	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
07:30 - 07:45	0	0	0	0	0	2	1	0	0	3	0	0	0	0	3	3
07:45 - 08:00	0	0	0	0	0	2	0	0	0	2	0	0	0	0	2	2
08:00 - 08:15	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
08:15 - 08:30	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
08:30 - 08:45	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
08:45 - 09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 - 09:15	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
09:15 - 09:30	0	0	0	0	0	2	0	0	0	2	0	0	0	0	2	2
09:30 - 09:45	0	0	0	0	0	2	0	0	0	2	0	0	0	0	2	2
09:45 - 10:00	0	0	0	0	0	2	0	0	0	2	0	0	0	0	2	2
10:00 - 10:15	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
10:15 - 10:30	0	0	0	0	0	3	0	0	0	3	0	0	0	0	3	3
10:30 - 10:45	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
10:45 - 11:00	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
11:00 - 11:15	0	0	0	0	0	2	0	0	0	2	0	0	0	0	2	2
11:15 - 11:30	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
11:30 - 11:45	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
11:45 - 12:00	0	0	0	0	0	3	0	0	0	3	0	0	0	0	3	3
12:00 - 12:15	0	0	0	0	0	4	0	0	0	4	0	0	0	0	4	4
12:15 - 12:30	0	0	0	0	0	3	0	0	0	3	0	0	0	0	3	3
12:30 - 12:45	0	0	0	0	0	3	0	1	0	4	0	0	0	0	4	4
12:45 - 13:00	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
13:00 - 13:15	0	0	0	0	0	2	0	0	0	2	0	0	0	0	2	2
13:15 - 13:30	0	0	0	0	0	4	0	0	0	4	0	0	0	0	4	4
13:30 - 13:45	0	0	0	0	0	4	0	0	0	4	0	0	0	0	4	4
13:45 - 14:00	0	0	0	0	0	4	0	0	0	4	0	0	0	0	4	4
14:00 - 14:15	0	0	0	0	0	5	0	0	0	5	0	0	0	0	5	5
14:15 - 14:30	0	0	0	0	0	2	0	0	0	2	0	0	0	0	2	2
14:30 - 14:45	0	0	0	0	0	8	0	0	0	8	0	0	0	0	8	8
14:45 - 15:00	0	0	0	0	0	5	0	0	0	5	0	0	0	0	5	5
15:00 - 15:15	1	0	0	0	1	4	0	0	0	4	0	0	0	0	4	4
15:15 - 15:30	0	0	0	0	0	2	0	0	0	2	0	0	0	0	2	2
15:30 - 15:45	0	0	0	0	0	4	0	0	0	4	0	0	0	0	4	4
15:45 - 16:00	0	0	0	0	0	4	0	0	0	4	0	0	0	0	4	4
16:00 - 16:15	0	0	0	0	0	37	1	0	0	38	0	0	0	0	38	38
16:15 - 16:30	0	0	0	0	0	22	0	1	0	23	0	0	0	0	23	23
16:30 - 16:45	0	0	0	0	0	13	0	0	0	13	0	0	0	0	13	13
16:45 - 17:00	0	0	0	0	0	3	0	0	0	3	0	0	0	0	3	3
17:00 - 17:15	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
17:15 - 17:30	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
17:30 - 17:45	0	0	0	0	0	3	0	0	0	3	0	0	0	0	3	3
17:45 - 18:00	0	0	0	0	0	5	0	0	0	5	0	0	0	0	5	5
TOTAL	1	0	0	0	1	176	2	2	0	180	0	0	0	0	0	181

TRAFFIC SURVEY ANALYSIS

CLIENT: AURECON
 SITE: INTERSECTION OF D400 AND ACCESS TO UMGENI WATER
 DATE: 12 HOUR COUNT ON WEDNESDAY 12 SEPTEMBER 2012
 UNITS: CLASSIFIED

APPROACH FROM NAME MOVEMENT TIME	EAST															TOTAL	
	LEFT TURN					STRAIGHT					RIGHT TURN					ALL MOVEMENTS	
	C	T	H	B	TOTAL	C	T	H	B	TOTAL	C	T	H	B	TOTAL		
06:00 - 06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 - 06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 - 06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 - 07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 - 07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 - 07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 - 07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 - 08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 - 08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 - 08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 - 08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 - 09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 - 09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 - 09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 - 09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00 - 16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TRAFFIC SURVEY ANALYSIS

CLIENT: AURECON
 SITE: INTERSECTION OF D400 AND ACCESS TO UMGENI WATER
 DATE: 12 HOUR COUNT ON WEDNESDAY 12 SEPTEMBER 2012
 UNITS: CLASSIFIED

APPROACH FROM NAME MOVEMENT TIME	WEST ACCESS TO UMGENI WATER															TOTAL ALL MOVEMENTS
	LEFT TURN					STRAIGHT					RIGHT TURN					
	C	T	H	B	TOTAL	C	T	H	B	TOTAL	C	T	H	B	TOTAL	
06:00 - 06:15	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
06:15 - 06:30	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	2
06:30 - 06:45	4	0	1	0	5	0	0	0	0	0	0	0	0	0	0	5
06:45 - 07:00	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
07:00 - 07:15	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
07:15 - 07:30	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
07:30 - 07:45	3	0	1	0	4	0	0	0	0	0	1	0	0	0	1	5
07:45 - 08:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:00 - 08:15	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:15 - 08:30	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
08:30 - 08:45	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
08:45 - 09:00	3	0	1	0	4	0	0	0	0	0	0	0	0	0	0	4
09:00 - 09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 - 09:30	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
09:30 - 09:45	2	0	2	0	4	0	0	0	0	0	0	0	0	0	0	4
09:45 - 10:00	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
10:00 - 10:15	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6
10:15 - 10:30	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
10:30 - 10:45	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
10:45 - 11:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11:00 - 11:15	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6
11:15 - 11:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11:30 - 11:45	3	0	1	0	4	0	0	0	0	0	0	0	0	0	0	4
11:45 - 12:00	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
12:00 - 12:15	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
12:15 - 12:30	9	0	0	0	9	0	0	0	0	0	1	0	0	0	1	10
12:30 - 12:45	3	0	1	0	4	0	0	0	0	0	0	0	0	0	0	4
12:45 - 13:00	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	3
13:00 - 13:15	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
13:15 - 13:30	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	3
13:30 - 13:45	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	9
13:45 - 14:00	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
14:00 - 14:15	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	3
14:15 - 14:30	9	0	1	0	10	0	0	0	0	0	0	0	0	0	0	10
14:30 - 14:45	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
14:45 - 15:00	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
15:00 - 15:15	5	0	0	1	6	0	0	0	0	0	0	0	1	0	1	7
15:15 - 15:30	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
15:30 - 15:45	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
15:45 - 16:00	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
16:00 - 16:15	7	0	1	0	8	0	0	0	0	0	0	0	0	0	0	8
16:15 - 16:30	4	0	3	0	7	0	0	0	0	0	0	0	0	0	0	7
16:30 - 16:45	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6
16:45 - 17:00	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
17:00 - 17:15	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	7
17:15 - 17:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30 - 17:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45 - 18:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL	162	0	20	1	183	0	0	0	0	0	2	0	1	0	3	186

Vincent Dickenson Road and New Glasgow Road

TRAFFIC SURVEY ANALYSIS																
CLIENT:	SASOL OIL															
SITE:	INTERSECTION OF VINCENT DICKENSON ROAD AND NEW GLASGOW ROAD															
DATE:	12 HOUR COUNT ON TUESDAY 06 AUGUST 2013															
UNITS:	CLASSIFIED															
APPROACH FROM NAME MOVEMENT TIME	NORTH VINCENT DICKENSON ROAD															TOTAL ALL MOVEMENTS
	LEFT TURN					(1) STRAIGHT					(2) RIGHT TURN					
	C	T	H	B	TOTAL	C	T	H	B	TOTAL	C	T	H	B	TOTAL	
06:00 - 06:15	0	0	0	0	0	25	7	1	2	35	5	1	0	0	6	41
06:15 - 06:30	0	0	0	0	0	28	21	1	0	50	3	1	1	0	5	55
06:30 - 06:45	0	0	0	0	0	31	19	2	4	56	3	1	0	0	4	60
06:45 - 07:00	0	0	0	0	0	27	17	1	2	47	1	0	2	0	3	50
07:00 - 07:15	0	0	0	0	0	52	13	0	2	67	1	1	0	0	2	69
07:15 - 07:30	0	0	0	0	0	30	7	1	1	39	0	3	1	0	4	43
07:30 - 07:45	0	0	0	0	0	25	7	0	2	34	1	0	0	0	1	35
07:45 - 08:00	0	0	0	0	0	24	14	1	0	39	0	0	0	0	0	39
08:00 - 08:15	0	0	0	0	0	23	7	3	0	33	1	0	0	0	1	34
08:15 - 08:30	0	0	0	0	0	9	5	0	1	15	2	0	0	0	2	17
08:30 - 08:45	0	0	0	0	0	5	2	1	0	8	0	0	1	0	1	9
08:45 - 09:00	0	0	0	0	0	10	2	0	0	12	2	0	0	0	2	14
09:00 - 09:15	0	0	0	0	0	23	6	2	1	32	0	0	0	0	0	32
09:15 - 09:30	0	0	0	0	0	22	8	1	0	31	0	0	0	0	0	31
09:30 - 09:45	0	0	0	0	0	13	5	1	1	20	2	1	0	0	3	23
09:45 - 10:00	0	0	0	0	0	21	7	1	0	29	2	0	1	0	3	32
10:00 - 10:15	0	0	0	0	0	18	8	0	1	27	1	0	1	0	2	29
10:15 - 10:30	0	0	0	0	0	31	9	3	1	44	0	1	1	0	2	46
10:30 - 10:45	0	0	0	0	0	20	1	1	0	22	0	0	0	0	0	22
10:45 - 11:00	0	0	0	0	0	28	10	1	1	40	0	0	2	0	2	42
11:00 - 11:15	0	0	0	0	0	19	4	1	0	24	0	0	0	0	0	24
11:15 - 11:30	0	0	0	0	0	14	8	3	1	26	0	0	0	0	0	26
11:30 - 11:45	0	0	0	0	0	18	4	1	0	23	0	0	0	0	0	23
11:45 - 12:00	0	0	0	0	0	38	9	5	0	52	0	0	1	0	1	53
12:00 - 12:15	0	0	0	0	0	22	4	1	0	27	0	0	0	0	0	27
12:15 - 12:30	0	0	0	0	0	19	9	0	0	28	0	0	0	0	0	28
12:30 - 12:45	0	0	0	0	0	20	7	2	0	29	1	1	0	0	2	31
12:45 - 13:00	0	0	0	0	0	18	4	3	0	25	0	0	0	0	0	25
13:00 - 13:15	0	0	0	0	0	22	10	1	1	34	0	2	0	0	2	36
13:15 - 13:30	0	0	0	0	0	10	1	1	0	12	1	0	0	0	1	13
13:30 - 13:45	0	0	0	0	0	7	0	0	1	8	0	0	0	0	0	8
13:45 - 14:00	0	0	0	0	0	9	4	1	0	14	1	1	0	0	2	16
14:00 - 14:15	0	0	0	0	0	18	6	1	0	25	0	0	0	0	0	25
14:15 - 14:30	0	0	0	0	0	39	9	7	0	55	0	2	1	1	4	59
14:30 - 14:45	0	0	0	0	0	45	2	1	1	49	0	1	2	0	3	52
14:45 - 15:00	0	0	0	0	0	40	6	4	1	51	0	1	2	0	3	54
15:00 - 15:15	0	0	0	0	0	45	9	1	0	55	0	1	0	0	1	56
15:15 - 15:30	0	0	0	0	0	45	9	2	2	58	2	2	0	0	4	62
15:30 - 15:45	0	0	0	0	0	28	8	1	0	37	0	0	1	0	1	38
15:45 - 16:00	0	0	0	0	0	45	8	1	1	55	1	4	1	0	6	61
16:00 - 16:15	0	0	0	0	0	52	9	0	0	61	0	0	0	0	0	61
16:15 - 16:30	0	0	0	0	0	29	10	2	0	41	2	1	0	0	3	44
16:30 - 16:45	0	0	0	0	0	46	7	3	0	56	0	1	0	0	1	57
16:45 - 17:00	0	0	0	0	0	34	11	3	1	49	0	1	0	0	1	50
17:00 - 17:15	0	0	0	0	0	34	11	1	0	46	0	1	0	0	1	47
17:15 - 17:30	0	0	0	0	0	23	9	1	0	33	0	1	0	0	1	34
17:30 - 17:45	0	0	0	0	0	12	13	0	0	25	0	0	0	0	0	25
17:45 - 18:00	0	0	0	0	0	18	5	0	1	24	1	2	0	0	3	27
TOTAL	0	0	0	0	0	1234	371	68	29	1702	33	31	18	1	83	1785

TRAFFIC SURVEY ANALYSIS

CLIENT:	SASOL OIL
SITE:	INTERSECTION OF VINCENT DICKENSON ROAD AND NEW GLASGOW ROAD
DATE:	12 HOUR COUNT ON TUESDAY 06 AUGUST 2013
UNITS:	CLASSIFIED

APPROACH FROM NAME MOVEMENT TIME	SOUTH VINCENT DICKENSON ROAD															TOTAL ALL MOVEMENTS
	(3) LEFT TURN					(4) STRAIGHT					RIGHT TURN					
	C	T	H	B	TOTAL	C	T	H	B	TOTAL	C	T	H	B	TOTAL	
06:00 - 06:15	11	1	1	0	13	12	5	1	0	18	0	0	0	0	0	31
06:15 - 06:30	38	3	5	0	46	32	11	2	0	45	0	0	0	0	0	91
06:30 - 06:45	78	2	8	2	90	30	14	2	1	47	0	0	0	0	0	137
06:45 - 07:00	118	4	4	4	130	51	20	0	2	73	0	0	0	0	0	203
07:00 - 07:15	56	5	10	0	71	97	22	1	2	122	0	0	0	0	0	193
07:15 - 07:30	21	2	6	0	29	30	8	0	1	39	0	0	0	0	0	68
07:30 - 07:45	34	4	5	0	43	57	6	1	0	64	0	0	0	0	0	107
07:45 - 08:00	74	3	6	1	84	47	13	2	1	63	0	0	0	0	0	147
08:00 - 08:15	23	2	10	0	35	18	7	6	0	31	0	0	0	0	0	66
08:15 - 08:30	16	1	10	0	27	19	3	2	0	24	0	0	0	0	0	51
08:30 - 08:45	8	2	5	0	15	7	2	2	0	11	0	0	0	0	0	26
08:45 - 09:00	27	0	20	0	47	33	3	5	2	43	0	0	0	0	0	90
09:00 - 09:15	17	3	4	0	24	15	0	3	0	18	0	0	0	0	0	42
09:15 - 09:30	16	0	8	0	24	20	4	0	0	24	0	0	0	0	0	48
09:30 - 09:45	15	0	6	0	21	11	1	1	0	13	0	0	0	0	0	34
09:45 - 10:00	16	0	11	1	28	14	1	0	0	15	0	0	0	0	0	43
10:00 - 10:15	13	2	11	0	26	20	1	1	0	22	0	0	0	0	0	48
10:15 - 10:30	14	0	6	0	20	18	5	2	0	25	0	0	0	0	0	45
10:30 - 10:45	12	1	13	0	26	22	1	1	0	24	0	0	0	0	0	50
10:45 - 11:00	27	2	6	0	35	21	3	4	0	28	0	0	0	0	0	63
11:00 - 11:15	23	0	7	0	30	13	3	2	0	18	0	0	0	0	0	48
11:15 - 11:30	22	0	5	0	27	14	2	0	0	16	0	0	0	0	0	43
11:30 - 11:45	22	0	12	0	34	8	1	1	0	10	0	0	0	0	0	44
11:45 - 12:00	22	0	5	0	27	16	7	1	0	24	0	0	0	0	0	51
12:00 - 12:15	6	0	1	0	7	12	0	0	1	13	0	0	0	0	0	20
12:15 - 12:30	28	1	16	1	46	30	0	2	1	33	0	0	0	0	0	79
12:30 - 12:45	8	0	6	0	14	19	3	0	0	22	0	0	0	0	0	36
12:45 - 13:00	17	0	7	0	24	25	0	0	1	26	0	0	0	0	0	50
13:00 - 13:15	4	0	14	0	18	35	0	5	1	41	0	0	0	0	0	59
13:15 - 13:30	16	1	14	0	31	28	14	2	0	44	0	0	0	0	0	75
13:30 - 13:45	7	3	12	0	22	16	1	1	0	18	0	0	0	0	0	40
13:45 - 14:00	19	0	12	0	31	23	8	3	0	34	0	0	0	0	0	65
14:00 - 14:15	18	1	9	0	28	9	3	0	0	12	0	0	0	0	0	40
14:15 - 14:30	13	1	10	0	24	15	4	0	2	21	0	0	0	0	0	45
14:30 - 14:45	11	3	7	0	21	17	5	1	1	24	0	0	0	0	0	45
14:45 - 15:00	13	0	12	0	25	13	3	0	1	17	0	0	0	0	0	42
15:00 - 15:15	24	0	13	0	37	25	2	2	0	29	0	0	0	0	0	66
15:15 - 15:30	20	2	12	0	34	26	1	2	2	31	0	0	0	0	0	65
15:30 - 15:45	13	2	12	0	27	18	8	0	0	26	0	0	0	0	0	53
15:45 - 16:00	32	6	7	0	45	33	7	0	0	40	0	0	0	0	0	85
16:00 - 16:15	13	1	7	0	21	22	4	0	0	26	0	0	0	0	0	47
16:15 - 16:30	14	5	5	1	25	9	2	1	0	12	0	0	0	0	0	37
16:30 - 16:45	19	3	10	0	32	32	2	0	0	34	0	0	0	0	0	66
16:45 - 17:00	4	2	10	0	16	24	6	0	0	30	0	0	0	0	0	46
17:00 - 17:15	9	0	5	0	14	36	10	0	2	48	0	0	0	0	0	62
17:15 - 17:30	6	2	3	0	11	30	10	1	0	41	0	0	0	0	0	52
17:30 - 17:45	5	1	2	0	8	13	6	0	0	19	0	0	0	0	0	27
17:45 - 18:00	9	0	2	0	11	21	10	1	1	33	0	0	0	0	0	44
TOTAL	1051	71	392	10	1524	1156	252	61	22	1491	0	0	0	0	0	3015

TRAFFIC SURVEY ANALYSIS

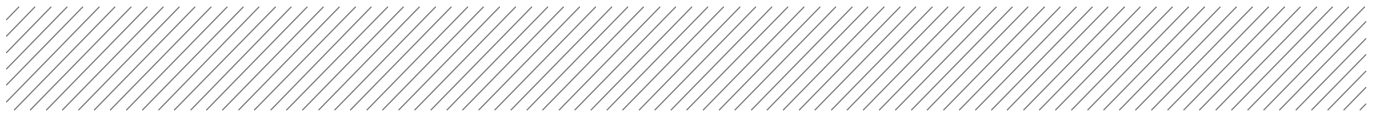
CLIENT:	SASOL OIL
SITE:	INTERSECTION OF VINCENT DICKENSON ROAD AND NEW GLASGOW ROAD
DATE:	12 HOUR COUNT ON TUESDAY 06 AUGUST 2013
UNITS:	CLASSIFIED

APPROACH FROM NAME MOVEMENT TIME	EAST															TOTAL	
	LEFT TURN					STRAIGHT					RIGHT TURN					ALL MOVEMENTS	
	C	T	H	B	TOTAL	C	T	H	B	TOTAL	C	T	H	B	TOTAL		
06:00 - 06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 - 06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 - 06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 - 07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 - 07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 - 07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 - 07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 - 08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 - 08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 - 08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 - 08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 - 09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 - 09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 - 09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 - 09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00 - 16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TRAFFIC SURVEY ANALYSIS

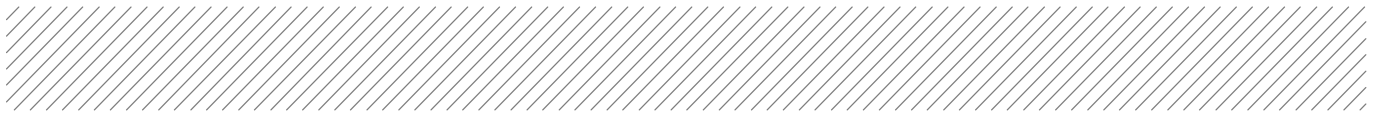
CLIENT:	SASOL OIL
SITE:	INTERSECTION OF VINCENT DICKENSON ROAD AND NEW GLASGOW ROAD
DATE:	12 HOUR COUNT ON TUESDAY 06 AUGUST 2013
UNITS:	CLASSIFIED

APPROACH FROM NAME MOVEMENT TIME	WEST NEW GLASGOW ROAD															TOTAL
	(5) LEFT TURN					STRAIGHT					(6) RIGHT TURN					ALL
	C	T	H	B	TOTAL	C	T	H	B	TOTAL	C	T	H	B	TOTAL	MOVEMENTS
06:00 - 06:15	2	0	0	0	2	0	0	0	0	0	7	7	1	0	15	17
06:15 - 06:30	3	0	1	0	4	0	0	0	0	0	9	1	4	0	14	18
06:30 - 06:45	3	1	1	0	5	0	0	0	0	0	14	5	9	1	29	34
06:45 - 07:00	5	2	0	0	7	0	0	0	0	0	6	8	7	0	21	28
07:00 - 07:15	0	4	0	0	4	0	0	0	0	0	23	7	5	1	36	40
07:15 - 07:30	2	0	0	0	2	0	0	0	0	0	12	2	3	0	17	19
07:30 - 07:45	2	1	0	0	3	0	0	0	0	0	18	2	5	2	27	30
07:45 - 08:00	1	1	0	1	3	0	0	0	0	0	17	1	5	0	23	26
08:00 - 08:15	1	0	0	0	1	0	0	0	0	0	11	1	0	0	12	13
08:15 - 08:30	0	0	0	0	0	0	0	0	0	0	12	1	0	0	13	13
08:30 - 08:45	0	0	0	0	0	0	0	0	0	0	8	0	5	0	13	13
08:45 - 09:00	0	0	0	0	0	0	0	0	0	0	16	0	15	0	31	31
09:00 - 09:15	1	0	1	0	2	0	0	0	0	0	3	2	6	0	11	13
09:15 - 09:30	4	0	0	0	4	0	0	0	0	0	8	0	8	0	16	20
09:30 - 09:45	2	0	1	0	3	0	0	0	0	0	7	1	10	0	18	21
09:45 - 10:00	1	1	1	0	3	0	0	0	0	0	12	1	10	0	23	26
10:00 - 10:15	2	0	0	0	2	0	0	0	0	0	24	1	7	1	33	35
10:15 - 10:30	2	0	0	0	2	0	0	0	0	0	22	2	12	0	36	38
10:30 - 10:45	1	0	0	0	1	0	0	0	0	0	19	0	9	0	28	29
10:45 - 11:00	1	0	1	0	2	0	0	0	0	0	26	1	12	0	39	41
11:00 - 11:15	1	0	0	0	1	0	0	0	0	0	12	0	11	0	23	24
11:15 - 11:30	2	0	2	0	4	0	0	0	0	0	10	1	5	0	16	20
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	13	0	7	0	20	20
11:45 - 12:00	2	0	1	0	3	0	0	0	0	0	23	0	2	0	25	28
12:00 - 12:15	1	0	0	0	1	0	0	0	0	0	19	0	5	0	24	25
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	24	0	3	1	28	28
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	12	0	2	0	14	14
12:45 - 13:00	1	0	0	0	1	0	0	0	0	0	8	0	3	0	11	12
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	16	0	9	0	25	25
13:15 - 13:30	5	0	0	0	5	0	0	0	0	0	15	1	10	0	26	31
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	21	0	6	1	28	28
13:45 - 14:00	2	1	1	0	4	0	0	0	0	0	23	2	14	0	39	43
14:00 - 14:15	3	0	0	0	3	0	0	0	0	0	25	1	13	0	39	42
14:15 - 14:30	1	0	0	0	1	0	0	0	0	0	26	3	17	0	46	47
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	23	3	12	0	38	38
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	14	2	8	0	24	24
15:00 - 15:15	1	0	0	0	1	0	0	0	0	0	26	2	8	1	37	38
15:15 - 15:30	0	0	1	0	1	0	0	0	0	0	30	0	16	0	46	47
15:30 - 15:45	0	1	0	0	1	0	0	0	0	0	24	3	13	0	40	41
15:45 - 16:00	2	0	0	0	2	0	0	0	0	0	36	3	14	0	53	55
16:00 - 16:15	1	0	0	0	1	0	0	0	0	0	49	3	6	0	58	59
16:15 - 16:30	0	2	0	0	2	0	0	0	0	0	66	7	3	1	77	79
16:30 - 16:45	4	1	0	0	5	0	0	0	0	0	59	4	9	0	72	77
16:45 - 17:00	2	2	0	0	4	0	0	0	0	0	32	4	4	0	40	44
17:00 - 17:15	0	0	0	0	0	0	0	0	0	0	53	0	11	0	64	64
17:15 - 17:30	0	0	1	0	1	0	0	0	0	0	27	0	7	0	34	35
17:30 - 17:45	0	1	0	0	1	0	0	0	0	0	7	0	0	0	7	8
17:45 - 18:00	1	0	0	0	1	0	0	0	0	0	12	0	3	0	15	16
TOTAL	62	18	12	1	93	0	0	0	0	0	979	82	354	9	1424	1517



Appendix B

SIDRA Data



Movement Summary for Existing Traffic Volumes

Vincent Dickenson Road and D499

MOVEMENT SUMMARY

Site: Canelands (P100 and D499 am)

P100 and D499 AM
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service		Prop. Queued	Effective Stop Rate	Average Speed

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
 Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (HCM).
 Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

Site: Canelands (P100 and D499 pm)

P100 and D499 AM
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service		Prop. Queued	Effective Stop Rate	Average Speed

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
 Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (HCM).
 Approach LOS values are based on the worst delay for any vehicle movement.

D499 and Access to Umgeni water



MOVEMENT SUMMARY

Site: Canelands (D499 and Access to Umgeni Water am)

D499 and Access to Umgeni Water AM Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	Prop. Queued	Effective Stop Rate	Average Speed

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (HCM).
Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

Site: Canelands (D499 and Access to Umgeni Water pm)

D499 and Access to Umgeni Water AM Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	Prop. Queued	Effective Stop Rate	Average Speed

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (HCM).
Approach LOS values are based on the worst delay for any vehicle movement.

Vincent Dickenson Road and New Glasgow Road

MOVEMENT SUMMARY

Site: Canelands (Vincent Dickenson and New Glasgow Rd am)

Vincent Dickenson and New Glasgow Rd AM
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	Prop. Queued	Effective Stop Rate	Average Speed
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LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.

Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (HCM).

Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

Site: Canelands (Vincent Dickenson and New Glasgow Rd pm)

Vincent Dickens and New Glasgow Rd AM
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	Prop. Queued	Effective Stop Rate	Average Speed
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LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.

Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (HCM).

Approach LOS values are based on the worst delay for any vehicle movement.

Movement Summary for Existing plus Development Generated Traffic Volumes

Vincent Dickenson Road and D499

MOVEMENT SUMMARY

Site: Canelands (P100 and D499 am) - Existing plus generated

P100 and D499 AM
Stop (Two-Way)

Movement Performance - Vehicles										
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service		Prop. Queued	Effective Stop Rate	Average Speed	

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
 Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (HCM).
 Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

Site: Canelands (P100 and D499 pm) - Existing plus generated

P100 and D499 AM
Stop (Two-Way)

Movement Performance - Vehicles										
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service		Prop. Queued	Effective Stop Rate	Average Speed	

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
 Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (HCM).
 Approach LOS values are based on the worst delay for any vehicle movement.



D499 and Access to Umgeni water

MOVEMENT SUMMARY

Site: Canelands (D499 and
Access to Umgeni Water am)
- Existing plus generated

D499 and Access to Umgeni Water AM
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service		Prop. Queued	Effective Stop Rate	Average Speed

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (HCM).
Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

Site: Canelands (D499 and
Access to Umgeni Water pm)
- Existing plus generated

D499 and Access to Umgeni Water AM
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service		Prop. Queued	Effective Stop Rate	Average Speed

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (HCM).
Approach LOS values are based on the worst delay for any vehicle movement.

Vincent Dickenson Road and New Glasgow Road

MOVEMENT SUMMARY

Site: Canelands (Vincent Dickenson and New Glasgow Rd am) - Existing plus generated

Vincent Dickenson and New Glasgow Rd AM
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	Prop. Queued	Effective Stop Rate	Average Speed

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (HCM).
Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

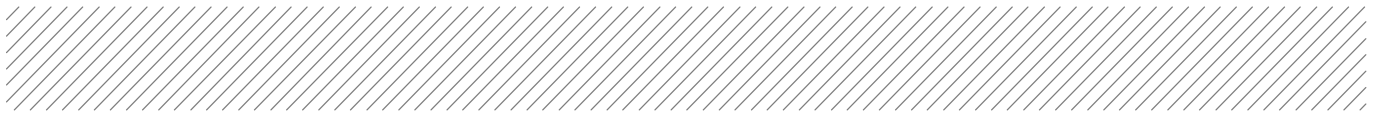
Site: Canelands (Vincent Dickenson and New Glasgow Rd pm) - Existing plus generated

Vincent Dickens and New Glasgow Rd AM
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	Prop. Queued	Effective Stop Rate	Average Speed

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (HCM).
Approach LOS values are based on the worst delay for any vehicle movement.



Movement Summary for Five Year Forecast plus Development Generated Traffic Volumes

Vincent Dickenson Road and D499

MOVEMENT SUMMARY

Site: Canelands (P100 and
D499 am) - 5yr plus
generated

P100 and D499 AM
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service		Prop. Queued	Effective Stop Rate	Average Speed
--------	------	-------------	--------------	---------------	------------------	--	--------------	---------------------	---------------

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (HCM).
Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

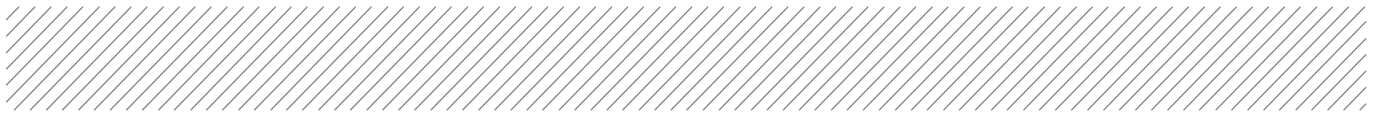
Site: Canelands (P100 and
D499 pm) - 5yr plus
generated

P100 and D499 AM
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service		Prop. Queued	Effective Stop Rate	Average Speed
--------	------	-------------	--------------	---------------	------------------	--	--------------	---------------------	---------------

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (HCM).
Approach LOS values are based on the worst delay for any vehicle movement.



D499 and Access to Umgeni water

MOVEMENT SUMMARY

Site: Canelands (D499 and
Access to Umgeni Water am)
- 5yr plus generated

D499 and Access to Umgeni Water AM
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service		Prop. Queued	Effective Stop Rate	Average Speed
--------	------	----------------	--------------	------------------	---------------------	--	-----------------	------------------------	------------------

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (HCM).
Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

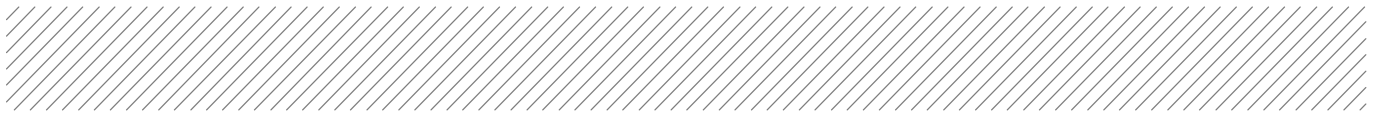
Site: Canelands (D499 and
Access to Umgeni Water pm)
- 5yr plus generated

D499 and Access to Umgeni Water AM
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service		Prop. Queued	Effective Stop Rate	Average Speed
--------	------	----------------	--------------	------------------	---------------------	--	-----------------	------------------------	------------------

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.



Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (HCM).
 Approach LOS values are based on the worst delay for any vehicle movement.

Vincent Dickenson Road and New Glasgow Road

MOVEMENT SUMMARY

Site: Canelands (Vincent Dickenson and New Glasgow Rd am) - 5yr plus generated

Vincent Dickenson and New Glasgow Rd AM
 Stop (Two-Way)

Movement Performance - Vehicles									
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service		Prop. Queued	Effective Stop Rate	Average Speed

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
 Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (HCM).
 Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

Site: Canelands (Vincent Dickenson and New Glasgow Rd pm) - 5yr plus generated

Vincent Dickens and New Glasgow Rd AM
 Stop (Two-Way)

Movement Performance - Vehicles									
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service		Prop. Queued	Effective Stop Rate	Average Speed

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
 Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (HCM).
 Approach LOS values are based on the worst delay for any vehicle movement.



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Swaziland, Tanzania, Thailand, Uganda,
United Arab Emirates, Vietnam.