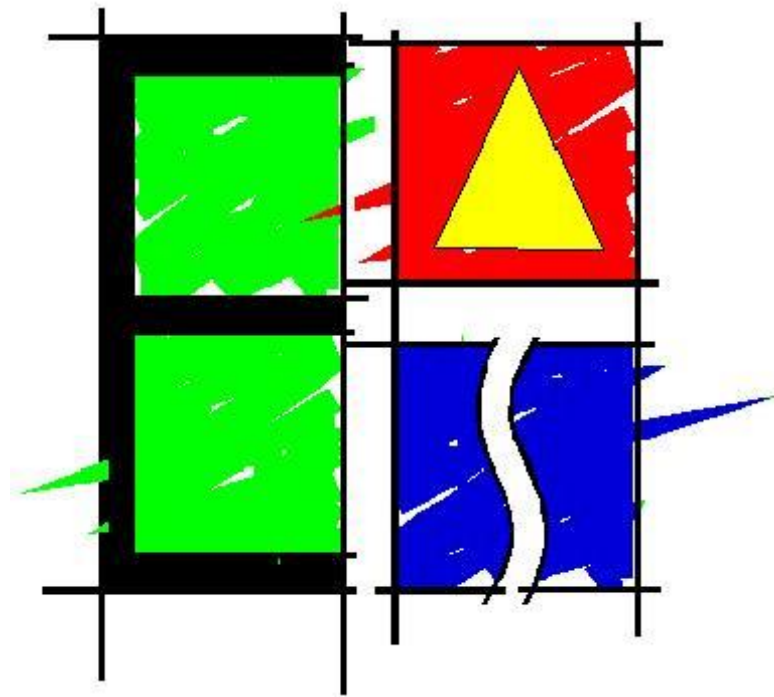


Traffic Impact Assessment

TRAFFIC IMPACT STATEMENT

***FOR A
PROPOSED RESIDENTIAL DEVELOPMENT
ON ERF 3279 & 3280, HUMANSDORP***



June 2020

Prepared for: Calculus Engineering and Project Management (Pty) Ltd

**Prepared by: Engineering Advice and Services (Pty) Ltd
(041) 5812421**

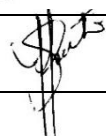
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CLIENT REF: **CALCULUS ENGINEERING AND PROJECT MANAGEMENT (PTY) LTD**

PROJECT NAME: **PROPOSED RESIDENTIAL DEVELOPMENT ON ERF 3279 & ERF 3280, HUMANSDORP**

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1 INTRODUCTION

1.1 BACKGROUND

Engineering Advice & Services (Pty) Ltd was appointed by Calculus Engineering and Project Management during May 2020 to prepare a Traffic Impact Assessment for the proposed residential development of erf 3279 and erf 3280, Humansdorp situated in the Kouga Municipality.

1.2 OBJECTIVES OF THE STUDY

In broad terms, the purpose of this assessment is to determine the extent and nature of the traffic generated by the proposed development, assess the impact of this traffic on the operation of the adjacent road network, and devise solutions for any problems identified. The following key elements, *inter alia*, are addressed in this traffic impact assessment:

- The suitability and safety of proposals for access to and egress from the site;
- The capacity of the existing and future road network within the influence radius; and
- The road upgrading measures required to accommodate traffic generated by the proposed development.

In general, this report serves to satisfy the Kouga Municipality and the Department of Transport of the Province of the Eastern Cape that the traffic impact of the envisaged development is within acceptable limits and that the suggested improvements conform to the standards and parameters set by these authorities.

1.3 METHODOLOGY

The approach followed in conducting the traffic impact assessment was in accordance with the guidelines contained in **TMH 16 Volume 1- South African Traffic Impact and Site Assessment Manual** ⁽¹⁾.

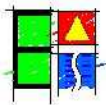
Given the extent of the proposed development and in terms of the aforementioned guidelines, the development is considered to be a small to medium-sized development and this assessment should thus consider impact for the 2020 and 2025 development horizons.

The methodology used was as follows:

- Present traffic flow patterns were obtained and adjusted to reflect normal weekday volumes by making use of historical 24-hour count data and the affected access points and intersections analysed, where after recommendations were made on the present need for road upgrading, without taking the proposed development into account;
- Given the extent of the development, the expected trips that will be generated by the development were determined by using applicable trip generation rates specified in **TMH 17 Volume 1 - South African Trip Data Manual** ⁽²⁾;
- The distribution of the generated trips was estimated where after the generated traffic was assigned to the surrounding road network;
- The operation of the affected intersections and proposed access point was analysed to ensure that they operate at acceptable levels of service and recommendations made on the need for road upgrading taking cognisance of the proposed development for the 2020 and 2025 development horizons; and
- By taking into account the major findings of the study, conclusions were made regarding the financial responsibilities of the affected parties for required road upgrading measures.

2 STUDY AREA

Based on the type and extent of the development and given that its location along Park Road, the study area extended to the adjacent intersections of King Street and Queen Street with Park Road as trips generated by the proposed development will approach along these roads and impact on these intersections.



Engineering Advice
and Services
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LEGEND

SITE BOUNDARY

- ERF 3279
- ERF 3280

Project Title:

TRAFFIC IMPACT STATEMENT FOR A
PROPOSED RESIDENTIAL DEVELOPMENT
ON ERF 3279 & 3280, HUMANSDORP

Drawing Title:

FIGURE 1: LOCALITY
PLAN

Drawing No:

1792-P-001

Drawing Date:

JUNE 2020

Meters
0 50 100 200

Scale 1: 10 000

Prepared by: TF

Checked by: CH

3 LAND USE RIGHTS, DEVELOPMENT AND ENVIRONS

Erf 3279 and erf 3280, currently zoned as Agriculture Zone 1, measure 2.087 ha and 3.21 ha in extent respectively. Copies of the zoning rights are attached as **Annexure A**.

An application for the consolidation, rezoning to Residential 3 purposes in terms of the Section 8 Zoning Scheme, and subdivision will be submitted to the Kouga Municipality in due course.

The proposed development comprises of 28 three- and 30 two-bedroom units on erf 3279 and 27 three-bed, 60 two-bed and 44 single bedroom units in erf 3280. Thus, a total of 189 units will be provided in two residential complexes.



Each erf will have its own access point onto Kort Street. The portion of erf 3280 south of the water-course will be accessed via Piet Uys Street extension. The detailed access arrangements are discussed in further detail in **Chapter 7**.

The land uses surrounding the site are public open space to the east and west, agricultural to the south and residential to the north.

4 DATA COLLECTION

4.1 PEAK HOUR TRAFFIC VOLUMES

Unfortunately, the Covid-19 Lockdown has resulted in changes to normal traffic patterns. As such, it is not possible to obtain accurate current traffic volume information.

The methodology followed in gathering accurate data is to determine the historical growth rate per annum by means of daily traffic counts conducted in the vicinity of the development site.

Counts conducted by the Eastern Cape DoT on Park Road (Station 1903) and the R102 (Station 1902) just west of the development in 2006, 2009, 2012 and 2015 were used to determine average historical growth per annum.

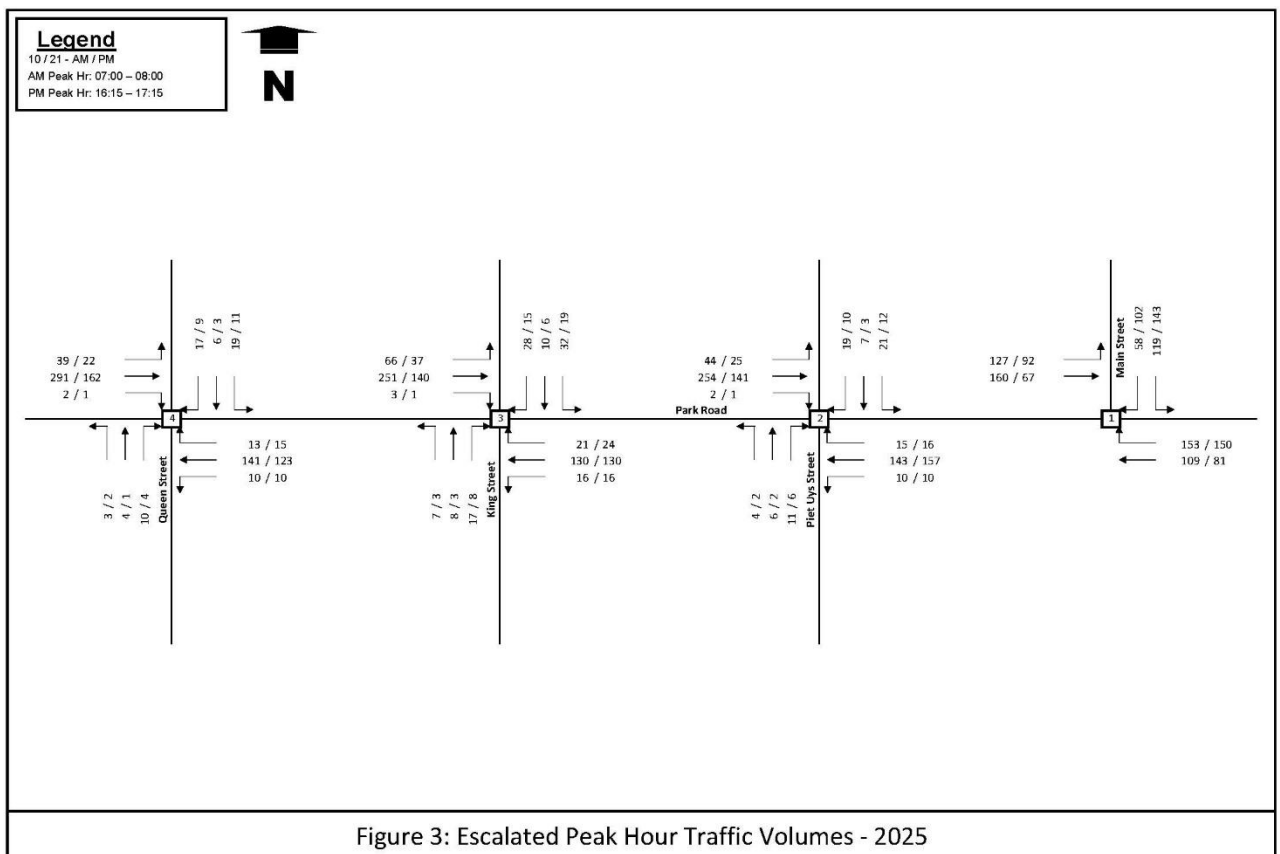
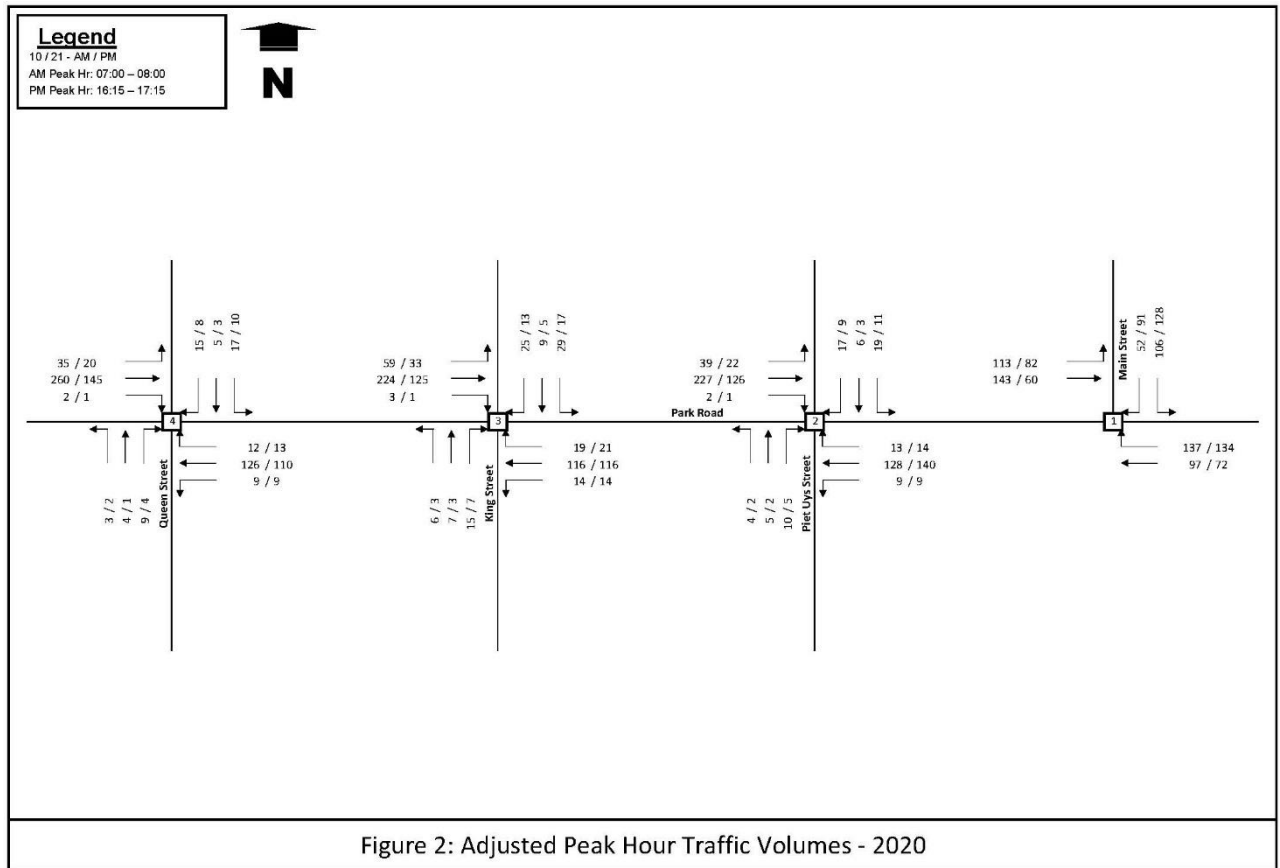
As indicated on **Annexure B**, the average growth rate of these stations is 1.18% per annum. However, the annual growth rate of 2.3% per annum at Station 1903 on Park Road was used as it is situated closer to the development and would more accurately reflect traffic growth

A 12-hour count conducted at the Park Road / Main Street junction on 8 June 2017 as part of the provincial RAMS programme (Station 1363) was then escalated by 2.3% per annum to reflect 2020 traffic levels.

Finally, peak hour traffic turning movement counts conducted during typical weekday AM and PM peak periods on Tuesday 2 June 2020 at the King Street, Queen Street and Piet Uys Street junctions with Park Road were balanced with the escalated 12-hour volumes surveyed in 2017 to reflect normal turning movement volumes.

The peak hour turning movement data for 2020 and the escalated 2025 data are summarised on **Figure 2** and **Figure 3** respectively overleaf. The detailed peak hour data is attached as **Annexure C**.

It is however noted that as we all adapt to changing work arrangements, i.e. staggered working hours and working from home, traffic patterns are likely to change significantly in future. It is thus unlikely that levels after lockdown will return to “normal” levels.



4.2 ROAD NETWORK

- **Park Road (MR00381)** is a provincial main road. The portion west of Main Street functions as a class 4 road in terms of **TRH26: South African Road Classification and Access Management Manual** ⁽³⁾. The road links up with the R102 to the west as well as DR01763 to Oyster Bay. The road consists of a 3.7m wide traffic lane and 1.2m wide surfaced shoulder per direction. The road is in a fair condition with a posted speed limit of 60km/h.
- **King, Queen Street, Piet Uys and Kort Streets** are residential (class 5) roads providing access to residential properties to the south of Park Road. The roads consist of a 7m wide surfaced single carriageway with one lane per direction and are in a poor condition.

The existing road network configuration is indicated on **Figure 4** overleaf.





FOR REPORT		UTSHINTSHO / AMENDMENTS		UMLINGAN-ISELO SCALE	UMLINGANISELO WOMZOBO OHLISIMWEYO SCALE ON REDUCED DRAWING	UMENZI DESIGN	MS	ENGINEERING ADVICE AND SERVICES associated with ULWAZI 73 Heugh Road, Walmer P.O. Box 13867 Humewood Port Elizabeth 6013 tel/fax: (041) 581 2421		IVUNYELWE APPROVED	IVUNYELWE APPROVED	IPROJETI / PROJECT	INANI LESIVUMELWANO CONTRACT NO.
		INANI NO.	UMHLA DATE	INKCAZA DESCRIPTION	IVUNYELWE APPROVED	UMENZI DRAWN	TF			INJINELI/ENG.	UMENZELWA / CLIENT		
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						UMHLA DATE	MAY 2020						
												UMZOBONKCAZA / DWG DESCRIPTION	INANI LOMZOBO DWG. NO.
												FIGURE 4: EXISTING INTERSECTION AND ACCESS CONFIGURATION	1792-P-004

4.3 PUBLIC TRANSPORT

At present, public transport services in the form of informal minibus taxi modes operate along Park Road and Main Street.

4.4 PEDESTRIAN FACILITIES

No pedestrian facilities are in place in the vicinity of the proposed development.

4.5 SPATIAL DEVELOPMENT FRAMEWORK

Figure 5 below is an extract of the **Kouga Spatial Development Framework** ⁽⁴⁾ prepared by Urban Dynamics on behalf of the Kouga Municipality. The SDF provides for medium to high density residential development.

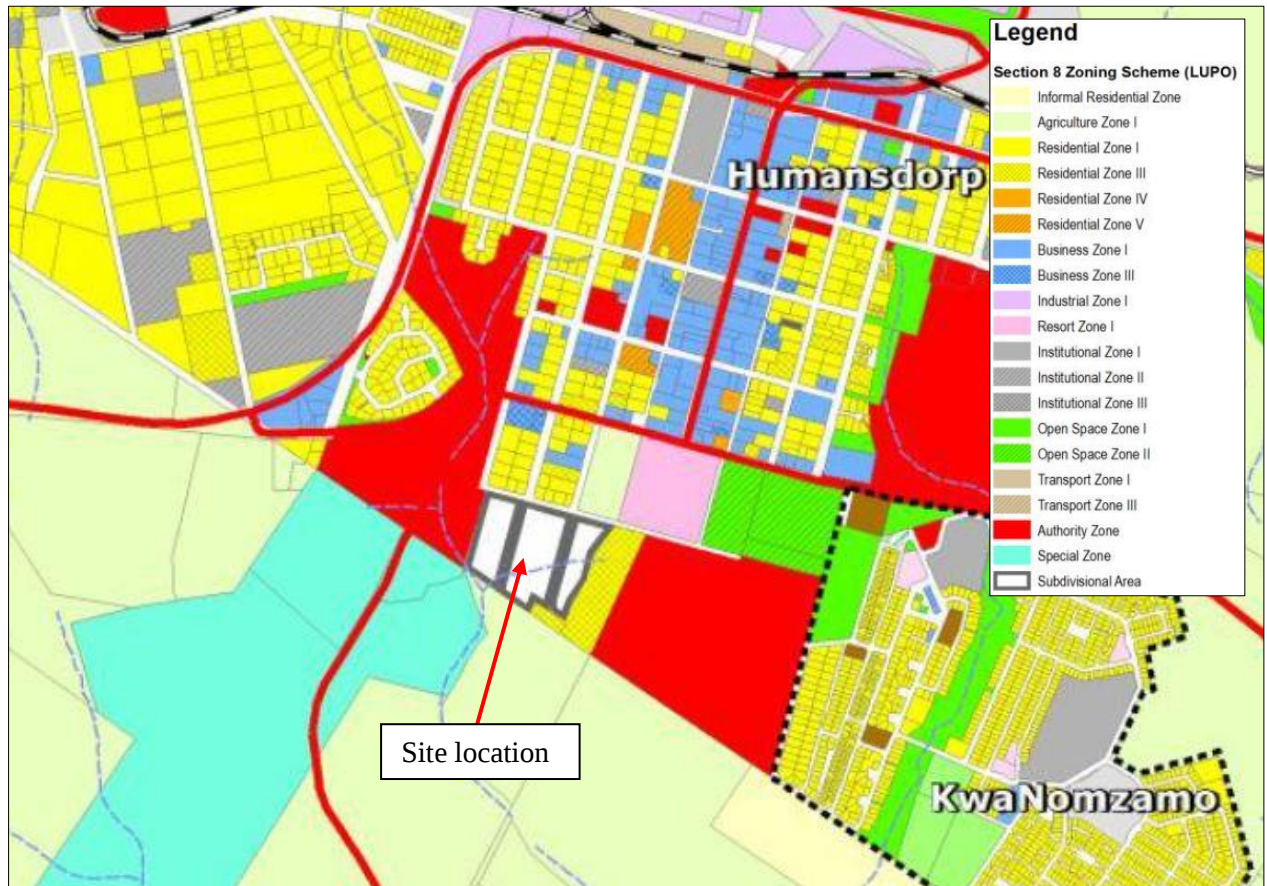


Figure 5: Extract of Kouga Spatial Development Framework

5 CAPACITY ANALYSIS – EXISTING SITUATION

Level of Service (LOS) is defined as the operating condition that may occur at an intersection when it accommodates various traffic volumes. LOS is a qualitative measure of the effect of speed, travel time, traffic interruptions, freedom to manoeuvre, safety, driving comfort and convenience, and operating costs. **LOS D** is considered an acceptable design standard. The LOS applicable to intersections under various control conditions, as defined in the **Highway Capacity Manual** ⁽⁵⁾ are indicated in **Table 1** below:

Table 1: Level of Service definitions for Vehicles (Highway Capacity Manual ⁽⁵⁾ method)

Level of Service	Control delay per vehicle in seconds (d) (including geometric delay)	
	Signals and Roundabouts	Stop Signs and Yield Signs
A	$d \leq 10$	$d \leq 10$
B	$10 < d \leq 20$	$10 < d \leq 15$
C	$20 < d \leq 35$	$15 < d \leq 25$
D	$35 < d \leq 55$	$25 < d \leq 35$
E	$55 < d \leq 80$	$35 < d \leq 50$
F	$80 < d$	$50 < d$

The traffic situation was analysed in order to determine the Level of Service at which the affected intersections would operate before development occurs for the 2020 development horizon.

The capacity analysis was undertaken using the **SIDRA Intersection 9 Network** ⁽⁶⁾ capacity analysis method but applying the **Highway Capacity Manual** ⁽⁵⁾ gap acceptance criteria for unsignalised intersections where applicable.

The results are shown in **Table 2** below and the detailed SIDRA output sheets attached as **Annexure D**.

Table 2: Results of Intersection Capacity Analysis – 2020 Before Development

Configuration	Delay		V/C		LOS*	
	AM	PM	AM	PM	AM	PM
Main Street / Park Road	14.6	15.4	0.399	0.426	B	C
Park Road / Piet Uys Street	2.1	1.6	0.141	0.088	A*	A*
Park Road / King Street	2.8	2.4	0.151	0.084	A*	A*
Park Road / Queen Street	1.8	1.6	0.156	0.087	A*	A*

* - **SIDRA Intersection Network** ⁽⁶⁾ does not calculate intersection LOS for stop-controlled intersections. The LOS indicated is sourced from the **Highway Capacity Manual** ⁽⁵⁾ (**Table 1** above).

As can be seen from the results contained in **Table 2**, no capacity problems are experienced at the affected intersection under current conditions.

6 TRIP GENERATION AND DISTRIBUTION

6.1 PROPOSED DEVELOPMENT TRIPS

TMH 17 Volume 1- South African Trip Data Manual ⁽²⁾ recommends 0.85 peak hour trips per unit for townhouse type residential development. Given total of 170 units, 58 units on erf 3279 and 112 units on erf 3280, this relates to the following peak hour trip generation.

$$\begin{aligned} \text{TGR (Weekday AM/PM) - Erf 3279} &= 0.85 * \text{units} \\ &= 0.85 * 58 \\ &= \mathbf{49 \text{ trips (in and out)}} \end{aligned}$$

$$\begin{aligned} \text{TGR (Weekday AM/PM) - Erf 3280} &= 0.85 * \text{units} \\ &= 0.85 * 131 \\ &= \mathbf{95 \text{ trips (in and out)}} \end{aligned}$$

$$\begin{aligned} \text{Split in out} &= 25 : 75 \text{ (AM)} \\ &= 70 : 30 \text{ (PM)} \end{aligned}$$

The trips generated by the proposed development are summarised in **Table 3** below.

Table 3: Peak Hour Trip Generation Summary

COMPONENT	PRIMARY TRIPS			
	TRIPS IN		TRIPS OUT	
	AM	PM	AM	PM
Erf 3278 – 58 Units	12	34	37	15
Erf 3280 – 131 Units	28	79	83	35
Total	40	113	120	48

6.2 TRIP DISTRIBUTION

The following distribution has been assumed for AM and PM peak hour trips generated by proposed development based on the trip distribution of the current trips.

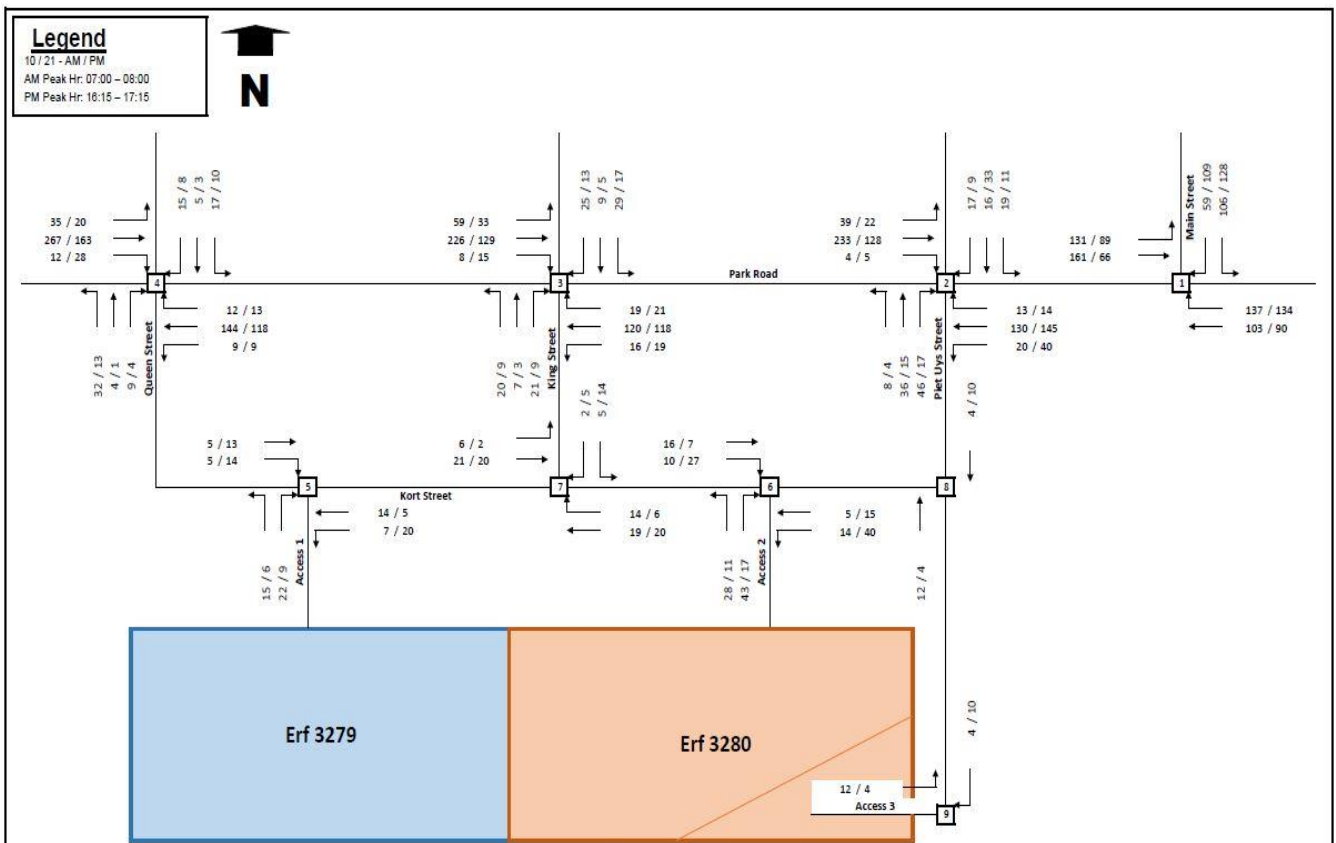
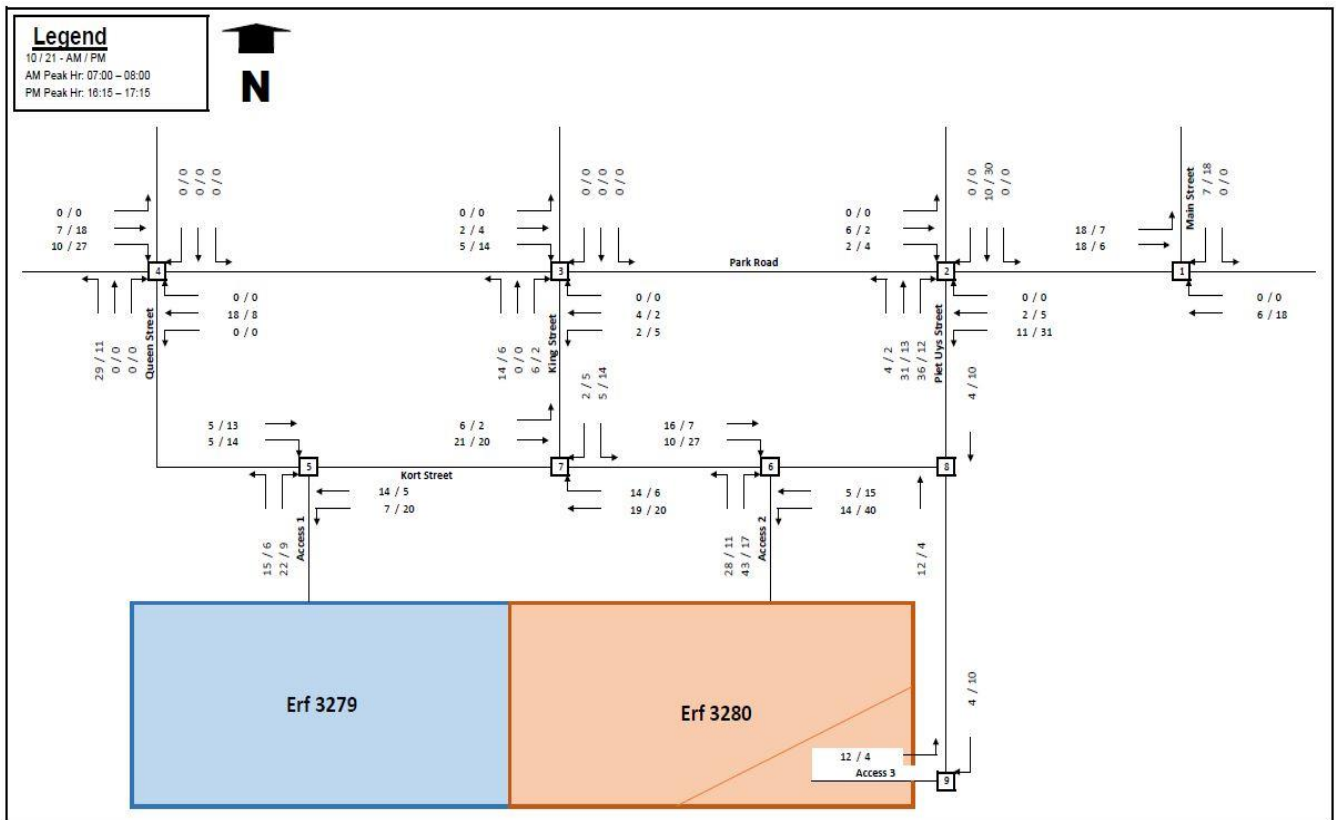
Erf 3279:

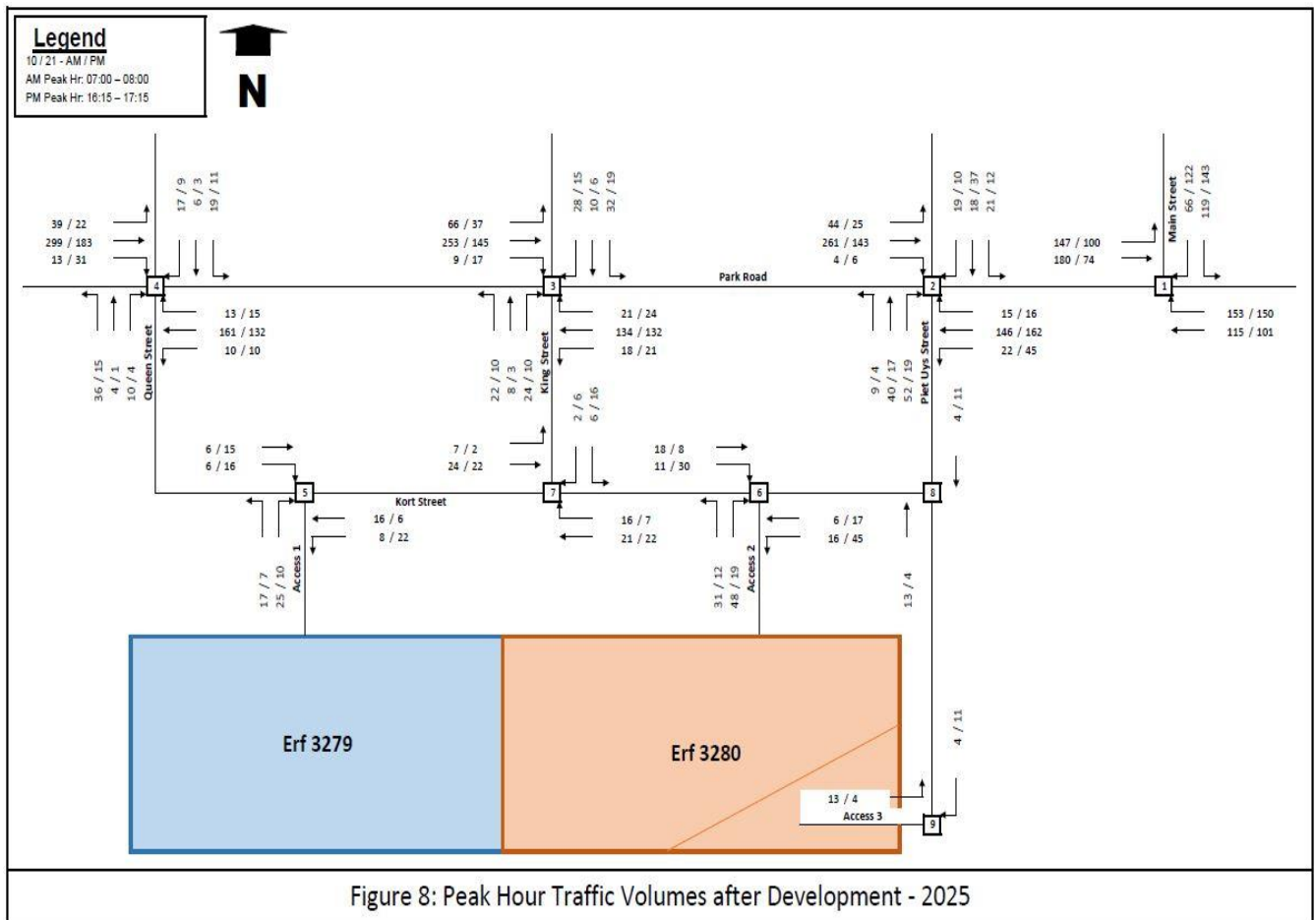
- 15% to and from the east via Park Road and Piet Uys Street and Kort Street;
- 25% to and from the east via Park Road and King Street and Kort Street;
- 30% to and from the north via Park Road and Piet Uys Street and Kort Street; and
- 40% to and from the west via Park Road and Queen Street.

Erf 3280:

- 15% to and from the north via Main Road, Park Road and Piet Uys Street and Kort Street;
- 15% to and from the east via Park Road and Piet Uys Street and Kort Street;
- 20% to and from the west via Park Road and Queen Street and Kort Street;
- 20% to and from the west via Park Road and King Street and Kort Street; ; and
- 30% to and from the north via Park Road and Piet Uys Street and Kort Street.

The generated peak hour trips are indicated on **Figure 6** overleaf and the generated trips added to the weekday AM and PM peak hour volumes are indicated on **Figure 7** overleaf.





7 ACCESS ARRANGEMENTS

Access to each separate complex will be provided onto Park Road. The southeast portion of erf 3280 will gain access from Piet Uys Street Extension, which is a gravel access road.

The entrances to the residential complexes will be access-controlled. The service flow rates at access-controlled entrances in vehicles per hour from Table 30 of **TMH 16 Volume 2- South African Traffic Impact and Site Assessment Standards and Requirements Manual** ⁽⁷⁾ are indicated in **Table 4** below.

Table 4: Access Control Service Flow Rates

Service flow rates (veh/h) for different control types	
Control type	Service flow (vph)
Swipe magnetic card	480
Remote controlled gates	450
Ticket dispenser: Automatic	390 -450
Ticket dispenser: Push button	220 - 360
Pin number operated gates	150
Pay fee on entry	120
Cell-phone operated gates (gate opens when a call is received)	100
Manual recording, Visitor completes form	80
Intercom operated gates (visitor contacts resident by intercom)	50

The number of entry lanes and the number of vehicles queuing in each lane are calculated after determining a Traffic Ratio over all entry lanes using the following formula:

$$\text{Traffic ratio} = \frac{\text{Total Volume / PHF}}{\text{Service flow rate}} \cdot 100$$

The number of lanes and queue length is then determined from **Table 5** below (Table 31 in TM16 Vol 2).

Table 5: Access Control Queue Lengths

95 th Percentile queue length (vehicles per channel) at controlled accesses						
Storage (Vehs)	Traffic ratio (Percentage) for different Numbers of Channels					
N _{Que}	1 Channel	2 Channel	3 Channel	4 Channel	5 Channel	6 Channel
1	23	58	97	140	188	235
2	39	94	155	220	292	363
3	49	115	186	261	341	421
4	56	128	205	283	367	449
5	61	137	216	297	382	466
6	65	143	224	306	392	476
7	68	147	229	312	399	484
8	70	151	233	317	403	489
9	71	153	236	321	407	493
10	73	155	239	324	410	496

A maximum of 67 and 34 vehicles will enter erf 3280 and erf 3279 respectively during the PM peak hour. As such, the service flow rate of 80 vehicles per hour for manual recording (visitor completes form) has been used to determine the required storage length at the gate. This is the worst-case scenario. For these peak hour volumes, the traffic ratios are as follows:

$$\begin{aligned} \text{Traffic Ratio (erf 3280)} &= (\text{Peak hour volume/PHF}/\text{service flow})) \times 100 \\ &= (67/0.9/100)) \times 100 \\ &= 93.056 \end{aligned}$$

$$\begin{aligned} \text{Traffic Ratio (erf 3279)} &= (\text{Peak hour volume/PHF}/\text{service flow})) \times 100 \\ &= (34/0.9/100)) \times 100 \\ &= 47.222 \end{aligned}$$

Table 4 indicates that two lanes with storage for two vehicles from the boom to the road edge is required at the access to erf 3280 and two lanes with storage for one vehicle is required at erf 3279.

8 CAPACITY ANALYSIS – AFTER DEVELOPMENT

8.1 2020 AFTER DEVELOPMENT

After adding generated peak hour traffic volumes to the escalated background peak hour volumes, the traffic situation was analysed in order to determine the LOS at which the affected intersections and access points would operate after development occurs.

The results are shown in **Table 6** below and the detailed SIDRA output sheets attached as **Annexure E**.

Table 6: Results of Intersection Capacity Analysis – 2020 After Development

Configuration	Delay		V/C		LOS*	
	AM	PM	AM	PM	AM	PM
Main Street / Park Road	15.1	16.0	0.456	0.454	C	C
Park Road / Piet Uys Street	3.3	3.0	0.145	0.107	A*	A*
Park Road / King Street	3.1	2.7	0.155	0.095	A*	A*
Park Road / Queen Street	2.2	2.0	0.167	0.115	A*	A*

* **SIDRA Intersection Network** ⁽⁶⁾ does not calculate intersection LOS for stop-controlled intersections. The LOS indicated is sourced from the **Highway Capacity Manual** ⁽⁵⁾ (Table 1 above).

As can be seen from the results contained in **Table 6**, the additional traffic generated by the development has little or no impact on the operation of the affected intersections in terms of capacity.

8.2 2025 AFTER DEVELOPMENT

After adding generated peak hour traffic volumes to the escalated background peak hour volumes, the traffic situation was analysed in order to determine the LOS at which the affected intersections and access points would operate after development occurs.

The results are shown in **Table 7** below and the detailed SIDRA output sheets attached as **Annexure F**.

Table 7: Results of Intersection Capacity Analysis – 2025 After Development

Configuration	Delay		V/C		LOS*	
	AM	PM	AM	PM	AM	PM
Main Street / Park Road	15.9	16.9	0.510	0.508	C	C
Park Road / Piet Uys Street	3.5	3.1	0.167	0.120	A*	A*
Park Road / King Street	3.2	2.7	0.174	0.108	A*	A*
Park Road / Queen Street	2.3	2.1	0.186	0.129	A*	A*

* **SIDRA Intersection Network** ⁽⁶⁾ does not calculate intersection LOS for stop-controlled intersections. The LOS indicated is sourced from the **Highway Capacity Manual** ⁽⁵⁾ (Table 1 above).

As can be seen from the results contained in **Table 4**, the additional traffic generated by the development has little or no impact on the operation of the affected intersections in terms of capacity.



9 PARKING REQUIREMENTS

The parking demand (based on the **DoT Standards** ⁽⁶⁾) for residential development ranges from 1.5 to 2 bays per unit including visitors' bays.

A total of 144 bays are provided on erf 3279 and 294 bays on erf 3280 (in excess of 2 bays per unit).

The required parking can be accommodated on the site and will be indicated on the site development plan.

10 CONCLUSIONS

The following conclusions can be drawn from the study:

- Under current traffic conditions no problems are experienced at the affected intersections in terms of capacity;
- The proposed development generates a total of 49 (erf 3279) and 112 (erf 3280) trips during the AM and PM peak hours;
- The additional traffic generated by the proposed development has minimal impact on affected intersections in terms of capacity;
- Access to the development can safely be accommodated from Kort Street and the private access road as indicated on **Figure 9**;
- Access to erf 3280 should be configured with two entering lanes and any security gates set back a minimum of 12m from the road edge;
- Access to erf 3279 should be configured with two entering lanes and any security gates set back a minimum of 6m from the road edge; and
- Access to the south portion of erf 3280 can be gained via the existing gravel road; and
- .

11 RECOMMENDATIONS

In view of the findings of this study, it is recommended that:

- This TIA be approved by the Kouga Municipality; and
- Access to the development be provided from Kort Street and gravel access road as indicated on **Figure 9** with the cost thereof being met by the developer.

12 REFERENCES

- 1 Joubert, Sampson, et al, **TMH 16 Volume 1- South African Traffic Impact and Site Assessment Manual**, COTO, September 2013.
- 2 Joubert, Sampson, et al, **TMH 17 Volume 1- South African Trip Data Manual**, COTO, September 2013.
- 3 COTO, **TRH26: South African Road Classification and Access Management Manual**, SANRAL, 2012.
- 4 Urban Dynamics, **Kouga Spatial Development Framework**, KM, May 2015.
- 5 Transportation Research Board, **Highway Capacity Manual**, 2000.
- 6 Akcelik & Associates (Pty) Ltd, **SIDRA Intersection Network 9 User Guide**, SIDRA Solutions, April 2020.
- 7 Joubert, Sampson, et al, **TMH 16 Volume 2- South African Traffic Impact and Site Assessment Standards and Requirements Manual**, COTO, September 2013
- 8 Bruinette Kruger Stoffberg Inc, **Parking Standards (Second Edition)**, Department of Transport, November 1985.

ANNEXURE A
Land Use
Rights

08/06/WTP9 **PROPOSED SUBDIVISION AND REZONING - ERVEN 3279 - 3281,**
HUMANSDORP (HD1/3279 - 3281)

Resolved: (30 June 2008) ✓

- i) That the subdivision of Consolidated Erven 3279 – 3281, Humansdorp in terms of Section 24 of the Land Use Planning Ordinance, Ordinance 15 of 1985 into ± 8 and portions be approved in terms of Section 25 of the Land Use Planning Ordinance, Ordinance 15 of 1985 subject to the following conditions:
- ii) That the subsequent rezoning of the subdivided portions in terms of Section 17 of the Land Use Planning Ordinance, Ordinance 15 of 1985 from "Agriculture Zone I" to "Residential Zone III", "Open Space Zone II" and "Transport " for a Private Road subject to the following conditions.
- iii) That the Land Use Restrictions for "Residential III" as set out in the Section 8 Zoning Scheme Regulations be applicable except that the density will be in accordance with Record of Decision EC08/2c/263-05 dated 20 December 2007;
 - a) That the development be in accordance with the revised SDP plan number SDP8Rev2 dated 4 April 2008;
 - b) Submission of a site development plan, compiled to a scale of 1:500 or any other scale as may be approved by the Council and no building shall be erected on the site until such site development plan and building plans in accordance with the site development plan have been approved by the Council.
 - c) That an agreement with regard to bulk service fees be entered into to determine the fee that will be payable before any construction work is commenced with, which will also includes the removal of waste from the site to the registered waste site in the area.
 - d) That the developer be responsible for the installation of electrical services according to the standard guidelines for electrification of townships as approved by Council.
 - e) That the applicant provides proper storm water drainage to comply with the requirements of the Council.
 - f) The owner/developer shall be responsible for all cost (that may escalate) in respect of services, services connections and augmentation / services contribution fees as determined by the Council.

ANNEXURE B
Historical Daily
Traffic Volumes

Traffic Impact Assessment for Proposed Residential Development on erf 3279 and 3280, Humansdorp

24 Hr Count Volumes

Count Station	Location	Authority	2006	2009	2012	2015	Total Growth (%)	Average Growth Per Annum (2006 - 2015)
1902	TR04403 east of MR00381	ECDOT	2656	2544	2654	2673	0.64	0.07 %
1903	MR0381 east of Westgate Road	ECDOT	1761	1805	1912	2160	22.66	2.30
AVERAGE								1.18 %



TRAFFIC SURVEILLANCE SYSTEM

COMPREHENSIVE TRAFFIC OBSERVATIONS



Eastern Cape District Mun

Site: 01903

Site Type: Secondary

Latest Count: 2006/07/30

Assessment Date : 2006/05

Number	Site Name	Road/Street	Location Between	Lanes	Region	Rec. (hrs)
01903		MR00381	R62 - DR01763	2	CACADU	116

Daily Traffic

AADT	1480
ADT	1761
ADHV	286
AWDT	7,044
Heavy Vehicle %	16.2
Busses %	0.0
Heavy S M L %	0 0 0
Night Traffic %	19.0

Speeds (km/h)

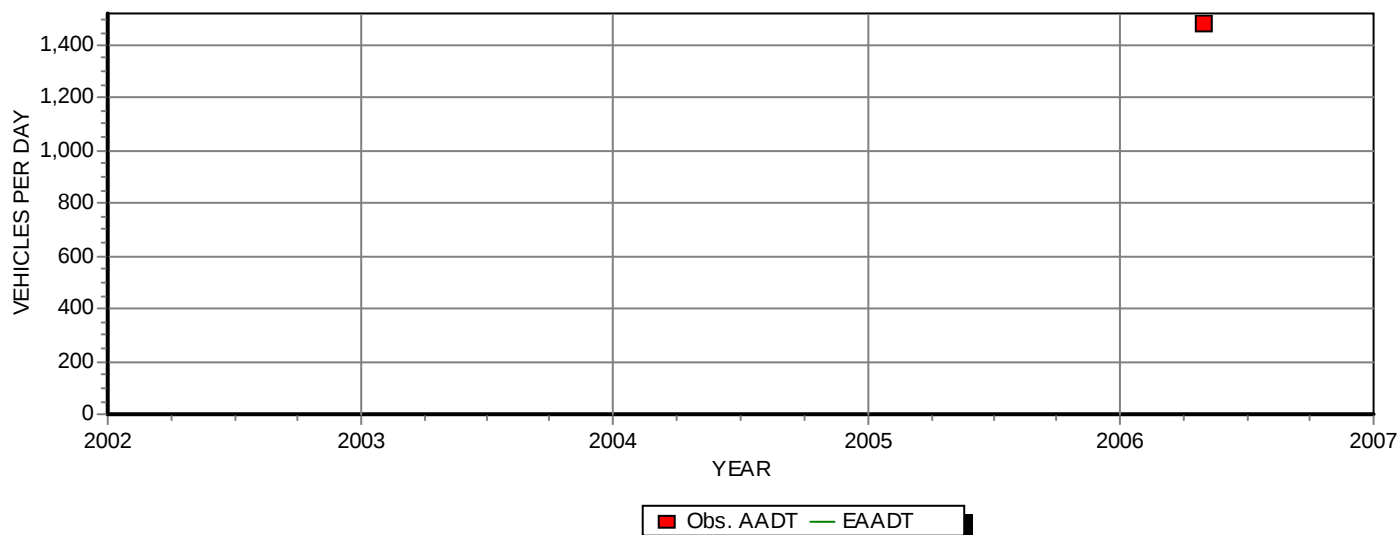
Speed limit	60.0
Arithmetic mean	0.0
Arith mean, light	0.0
Arith mean, heavy	0.0
Harmonic mean	0.0
Exceed limit V %	0.0

Road Loads and Growth

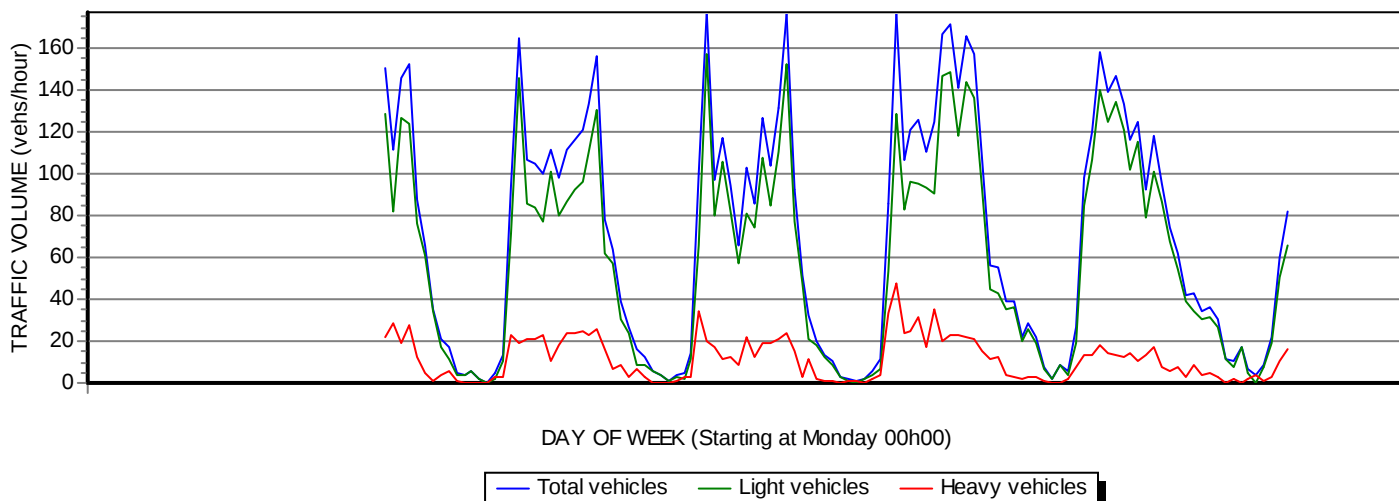
Ave axles / heavy	0.0
Ave mass / heavy	0.0
Ave mass/Short HV	0
Ave mass/Med HV	0
Ave mass/Long HV	0
Ave E80's / heavy	0.0
ADE80 worst lane	0.0
Growth HV Avg Mass	0.00%
Growth: linear est.	
Growth: expon	
Estimated if only vol data available	

Photo:

AADT Variations



TRAFFIC FLOW VARIATIONS
DURING AN AVERAGE WEEK



Disclaimer: Every effort has been made to supply complete and accurate info. However, the user should take full responsibility for the interpretation & application of the data



TRAFFIC SURVEILLANCE SYSTEM

COMPREHENSIVE TRAFFIC OBSERVATIONS

Eastern Cape Province



Site: 01903

Site Type: Secondary

Latest Count: 2015/06/12

Assessment Date : 2015/01

Number	Site Name	Road/Street	Location Between	Lanes	Region	Rec. (hrs)
01903		MR00381	TR04403 - DR01763	2	CACADU	146

Daily Traffic

AADT	*
ADT	2160
ADHV	678
AWDT	2 160
Heavy Vehicle %	31.6
Busses %	0.0
Taxis %	0.0
Heavy S M L %	0 0 0
Night Traffic %	13.9

Speeds (km/h)

Speed limit	60.0
Arithmetic mean	0.0
Arith mean, light	0.0
Arith mean, heavy	0.0
Harmonic mean	0.0
Exceed limit V %	0.0

Road Loads and Growth

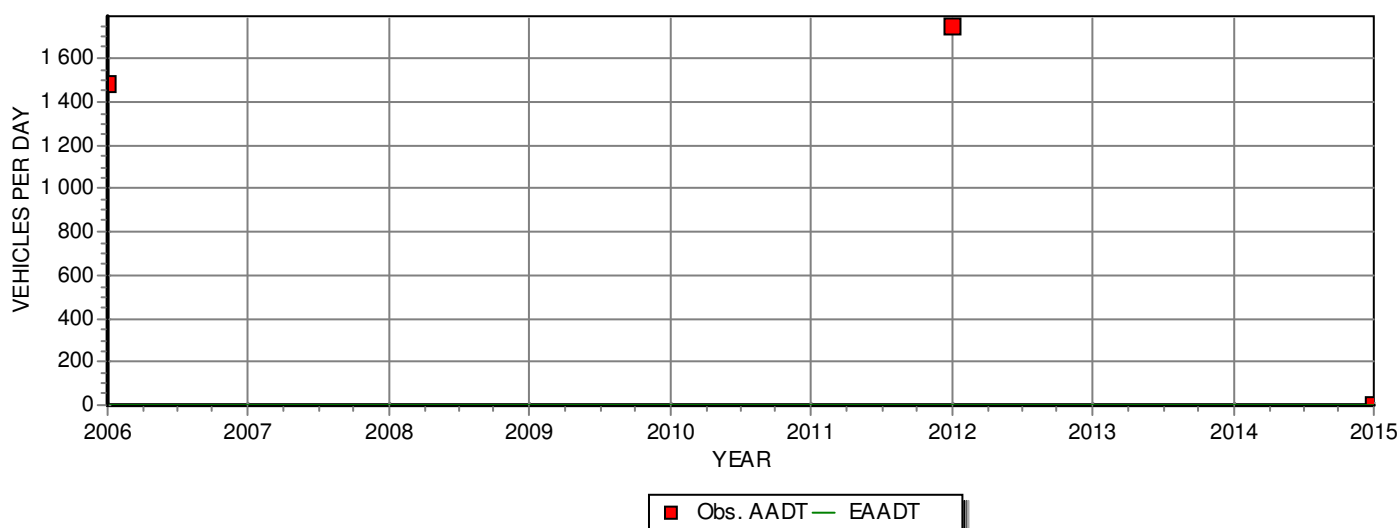
Ave axles / heavy	0.0
Ave mass / heavy	0.0
Ave mass/Short HV	0.0
Ave mass/Med HV	0.0
Ave mass/Long HV	0.0
Ave E80's / heavy	0.0
ADE80 worst lane	0.0
Growth HV Avg Mass	0.00%
Growth: linear est.	
Growth: expon	
Estimated if only vol data available	

Photo:

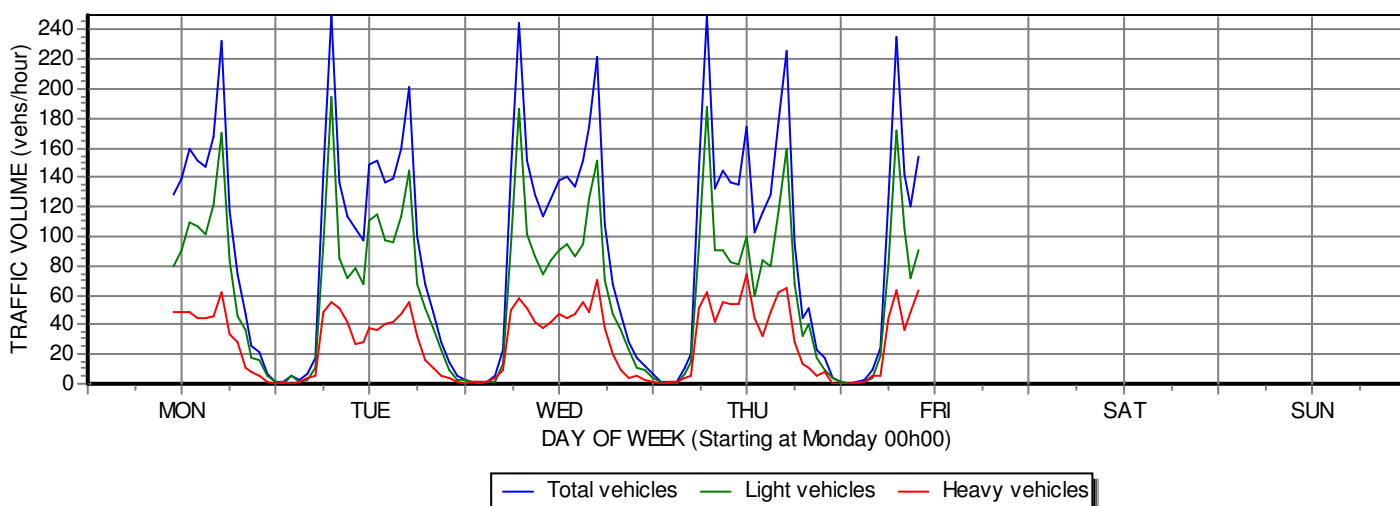


* = Data not sufficient for accurate calculation.

AADT Variations



TRAFFIC FLOW VARIATIONS
DURING AN AVERAGE WEEK



Disclaimer: Every effort has been made to supply complete and accurate info. However, the user should take full responsibility for the interpretation & application of the data



TRAFFIC SURVEILLANCE SYSTEM

COMPREHENSIVE TRAFFIC OBSERVATIONS

Eastern Cape District Mun

**Site: 01902**

Site Type: Secondary

Latest Count: 2006/07/30

Assessment Date : 2006/05

Number	Site Name	Road/Street	Location Between	Lanes	Region	Rec. (hrs)
01902		R62	CA_Road 146 - MR00381	2	CACADU	116

Daily Traffic

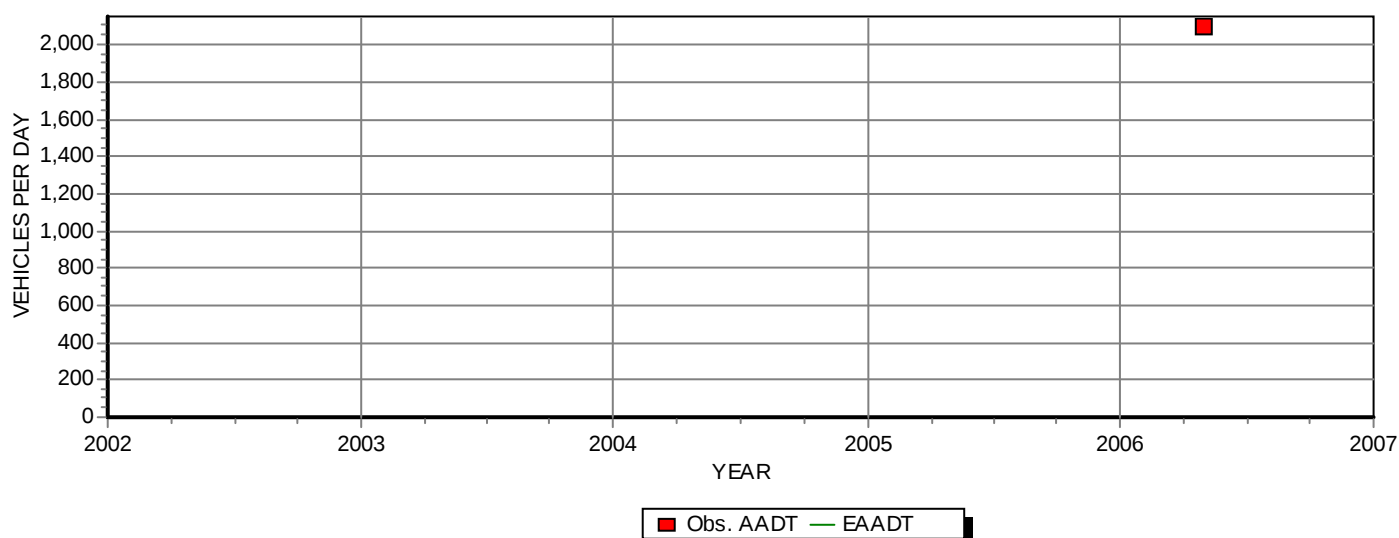
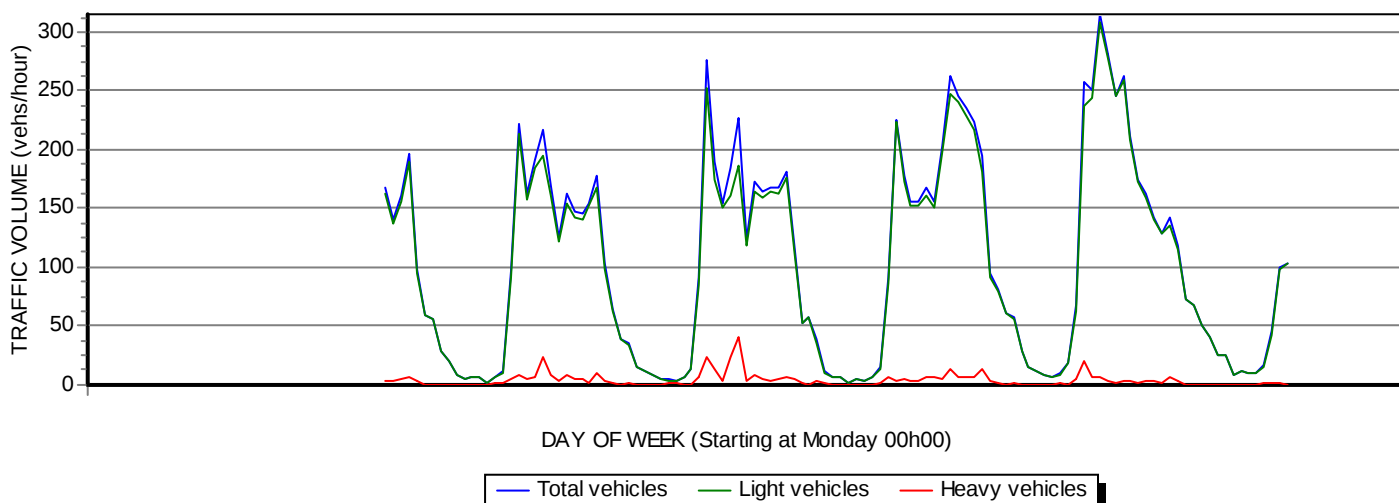
AADT	2101
ADT	2656
ADHV	104
AWDT	10,623
Heavy Vehicle %	3.7
Busses %	0.0
Heavy S M L %	0 0 0
Night Traffic %	17.8

Speeds (km/h)

Speed limit	60.0
Arithmetic mean	0.0
Arith mean, light	0.0
Arith mean, heavy	0.0
Harmonic mean	0.0
Exceed limit V %	0.0

Road Loads and Growth

Ave axles / heavy	0.0
Ave mass / heavy	0.0
Ave mass/Short HV	0
Ave mass/Med HV	0
Ave mass/Long HV	0
Ave E80's / heavy	0.0
ADE80 worst lane	0.0
Growth HV Avg Mass	0.00%
Growth: linear est.	
Growth: expon	
Estimated if only vol data available	

Photo:**AADT Variations****TRAFFIC FLOW VARIATIONS
DURING AN AVERAGE WEEK**

Disclaimer: Every effort has been made to supply complete and accurate info. However, the user should take full responsibility for the interpretation & application of the data



TRAFFIC SURVEILLANCE SYSTEM

COMPREHENSIVE TRAFFIC OBSERVATIONS

Eastern Cape Province



Site: 01902

Site Type: Secondary

Latest Count: 2015/06/12

Assessment Date : 2015/01

Number	Site Name	Road/Street	Location Between	Lanes	Region	Rec. (hrs)
01902		TR04403	MR00381 -	2	CACADU	72

Daily Traffic

AADT	*
ADT	2673
ADHV	586
AWDT	2 673
Heavy Vehicle %	22.1
Busses %	0.0
Taxis %	0.0
Heavy S M L %	0 0 0
Night Traffic %	13.3

Speeds (km/h)

Speed limit	60.0
Arithmetic mean	0.0
Arith mean, light	0.0
Arith mean, heavy	0.0
Harmonic mean	0.0
Exceed limit V %	0.0

Road Loads and Growth

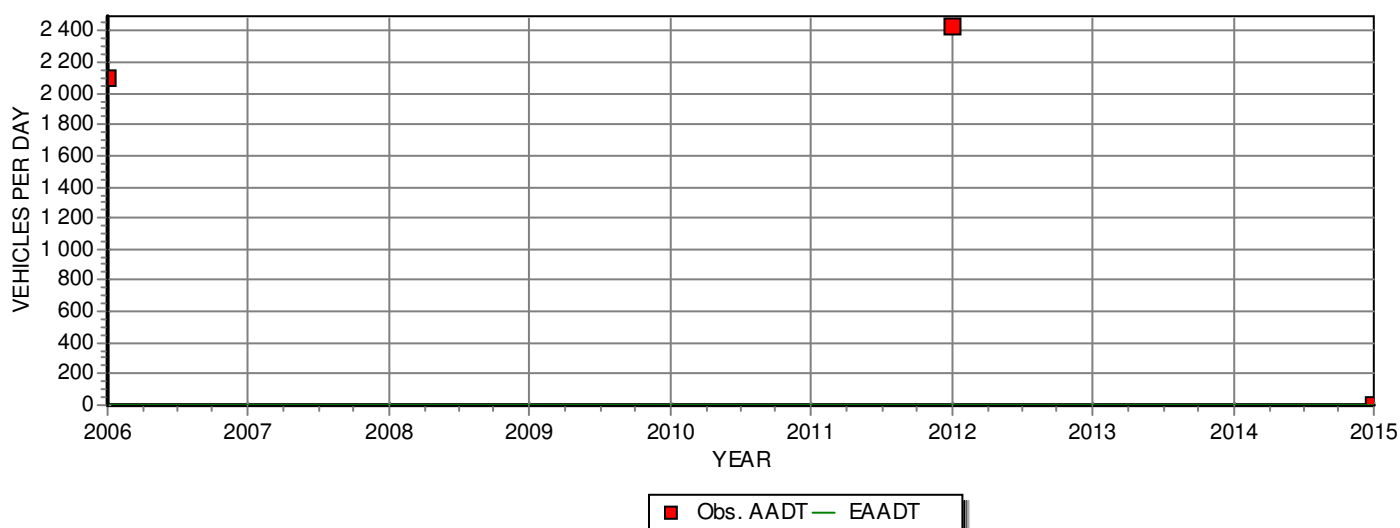
Ave axles / heavy	0.0
Ave mass / heavy	0.0
Ave mass/Short HV	0.0
Ave mass/Med HV	0.0
Ave mass/Long HV	0.0
Ave E80's / heavy	0.0
ADE80 worst lane	0.0
Growth HV Avg Mass	0.00%
Growth: linear est.	
Growth: expon	
Estimated if only vol data available	

Photo:

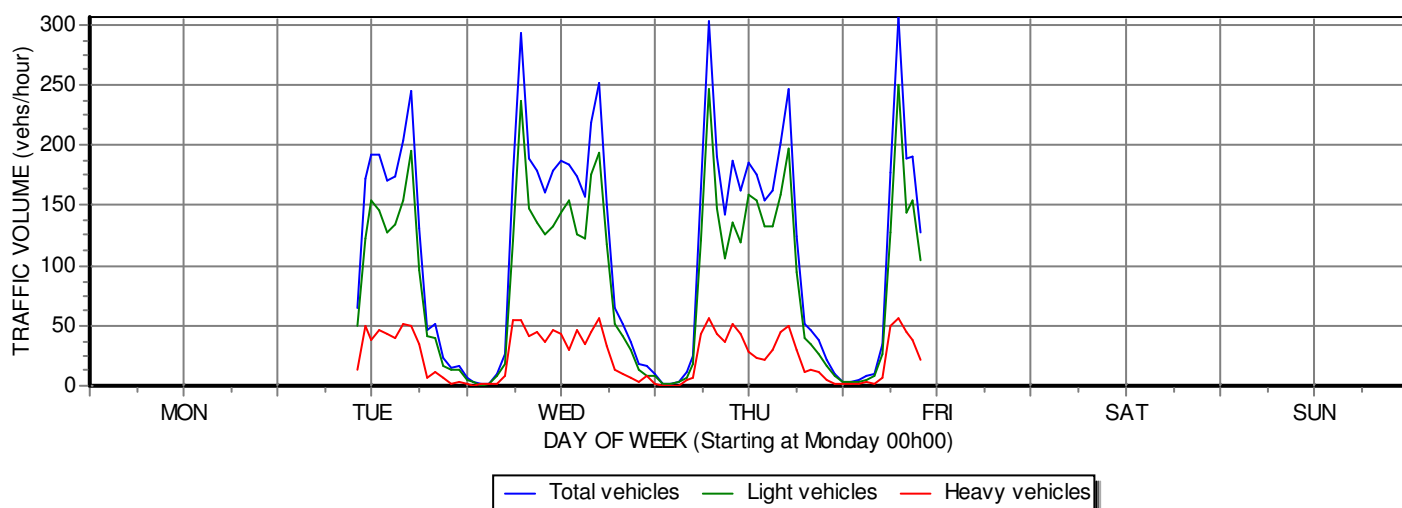


* = Data not sufficient for accurate calculation.

AADT Variations



TRAFFIC FLOW VARIATIONS
DURING AN AVERAGE WEEK



Disclaimer: Every effort has been made to supply complete and accurate info. However, the user should take full responsibility for the interpretation & application of the data

RRAMS INTERSECTION TRAFFIC COUNT OUTPUT

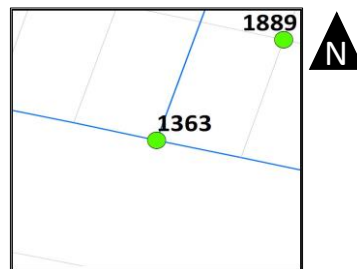
Station ID 1363

Intersection MR00391 / MR00381

Local Municipality Kouga

District Municipality Sarah Baartman

Date: 2017-06-08



Enumerator: Andie Dike

Co-ord : X 24,76918

Y -34,03327

Volumes per movement																	
Direction	NB				WB				SB				EB				TOTAL
Link ID					1002145				1001828				1002154				
Road Name	-				MR00381				MR00391				MR00381				
Movement	Left	Through	Right	Total	Left	Through	Right	Total	Left	Through	Right	Total	Left	Through	Right	Total	
M'ment ID	1	2	3		4	5	6		7	8	9		10	11	12		
12-hr																	
12-hr car	0	0	0	0	0	495	982	1477	913	0	598	1511	725	563	0	1288	4276
12-hr taxi	0	0	0	0	0	38	71	109	69	0	16	85	51	51	0	102	296
12-hr bus	0	0	0	0	0	24	18	42	11	0	3	14	4	29	0	33	89
12-hr HV	0	0	0	0	0	44	55	99	61	0	28	89	36	57	0	93	281
12-hr all veh	0	0	0	0	0	601	1126	1727	1054	0	645	1699	816	700	0	1516	4942
AM peak hr																	
AM peak car	0	0	0	0	0	73	112	185	89	0	44	133	81	99	0	180	498
AM peak taxi	0	0	0	0	0	12	5	17	4	0	1	5	20	20	0	40	62
AM peak bus	0	0	0	0	0	3	5	8	2	0	0	2	0	6	0	6	16
AM peak HV	0	0	0	0	0	3	6	9	4	0	3	7	4	8	0	12	28
AM peak all veh	0	0	0	0	0	91	128	219	99	0	48	147	105	133	0	238	604
OFF peak hr																	
OFF peak car	0	0	0	0	0	51	102	153	97	0	73	170	81	70	0	151	474
OFF peak taxi	0	0	0	0	0	7	5	12	4	0	2	6	8	8	0	16	34
OFF peak bus	0	0	0	0	0	3	4	7	0	0	1	1	0	10	0	10	18
OFF peak HV	0	0	0	0	0	6	4	10	3	0	1	4	5	6	0	11	25
OFF peak all veh	0	0	0	0	0	67	115	182	104	0	77	181	94	94	0	188	551
PM peak hr																	
PM peak car	0	0	0	0	0	62	108	170	105	0	78	183	70	51	0	121	474
PM peak taxi	0	0	0	0	0	1	8	9	6	0	2	8	3	3	0	6	23
PM peak bus	0	0	0	0	0	2	2	4	2	0	1	3	1	1	0	2	9
PM peak HV	0	0	0	0	0	2	7	9	7	0	4	11	3	1	0	4	24
PM peak all veh	0	0	0	0	0	67	125	192	120	0	85	205	77	56	0	133	530
ADT (24-hr)																	
24-hr car	0	0	0	0	0	495	982	1477	913	0	598	1511	725	563	0	1288	4276
24-hr taxi	0	0	0	0	0	38	71	109	69	0	16	85	51	51	0	102	296
24-hr bus	0	0	0	0	0	24	18	42	11	0	3	14	4	29	0	33	89
24-hr HV	0	0	0	0	0	44	55	99	61	0	28	89	36	57	0	93	281
24-hr all veh	0	0	0	0	0	601	1126	1727	1054	0	645	1699	816	700	0	1516	4942

Volumes per approach link (2-way)				
	NB	WB	SB	EB
Link ID		1002145	1001828	1002154
ADT	0	3481	3641	2762
% HV	-	9%	6%	8%

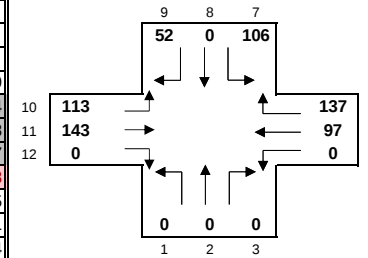
ANNEXURE C
Peak Hour
Traffic Volumes

Project : TIA : PROPOSED DEVELOPMENT ON ERF 3279 & 3280, HUMANSDORP
 Intersection : PARK ROAD (MR0381) / MAIN STREET NO. 1
 Day & date : 02/06/2020
 Time period: 06:00 - 09:00

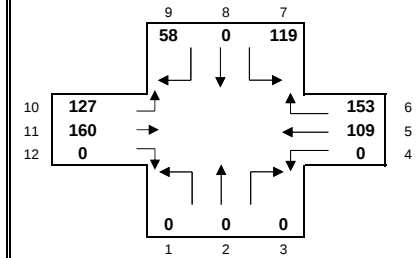
STARTING TIME	- Northbound				PARK ROAD Westbound				MAIN STREET Southbound				PARK ROAD Eastbound				INTER-SECTION	
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Total	Hour
6:00	0	0	0	0	0	11	15	26	15	0	14	29	6	15	0	21	76	
6:15	0	0	0	0	0	6	7	13	22	0	7	29	8	12	0	20	62	
6:30	0	0	0	0	0	17	15	32	34	0	16	50	10	32	0	42	124	
6:45	0	0	0	0	0	22	19	41	29	0	11	40	26	20	0	46	127	389
7:00	0	0	0	0	0	20	41	61	20	0	14	34	28	38	0	66	161	474
7:15	0	0	0	0	0	28	33	61	30	0	15	45	27	43	0	70	176	588
7:30	0	0	0	0	0	30	30	60	29	0	10	39	31	43	0	74	173	637
7:45	0	0	0	0	0	19	33	52	27	0	13	40	27	19	0	46	138	648
8:00	0	0	0	0	0	22	34	56	21	0	18	39	26	27	0	53	148	635
8:15	0	0	0	0	0	10	32	42	16	0	29	45	21	14	0	35	122	581
8:30	0	0	0	0	0	10	24	34	18	0	13	31	14	7	0	21	86	494
8:45	0	0	0	0	0	16	25	41	18	0	18	36	19	15	0	34	111	467
Total	0	0	0	0	0	211	308	519	279	0	178	457	243	285	0	528	1504	
Peak hour	0	0	0	0	0	97	137	234	106	0	52	158	113	143	0	256	648	
Peak 15 min				0				61				45				74	176	
PHF				#DIV/0!				0.96				0.88				0.86	0.92	



AM PEAK HOUR
2020



AM PEAK HOUR
2025

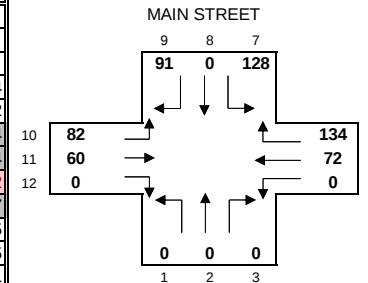


Project : TIA : PROPOSED DEVELOPMENT ON ERF 3279 & 3280, HUMANSDORP
 Intersection : PARK ROAD (MR0381) / MAIN STREET NO. 1
 Day & date : 02/06/2020
 Time period: 15:00 - 18:00

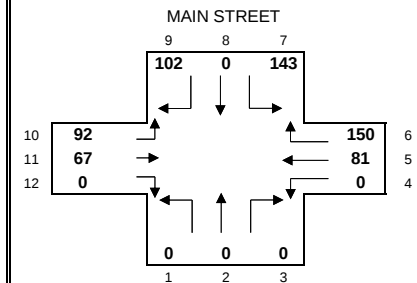
STARTING TIME	- Northbound				PARK ROAD Westbound				MAIN STREET Southbound				PARK ROAD Eastbound				INTER-SECTION	
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Total	Hour
15:00	0	0	0	0	0	7	24	31	24	0	12	36	97	7	0	104	171	
15:15	0	0	0	0	0	9	23	32	24	0	17	41	13	8	0	21	94	
15:30	0	0	0	0	0	11	23	34	33	0	23	56	7	13	0	20	110	
15:45	0	0	0	0	0	8	23	31	31	0	13	44	7	7	0	14	89	464
16:00	0	0	0	0	0	12	31	43	39	0	20	59	12	15	0	27	129	422
16:15	0	0	0	0	0	12	33	45	38	0	32	70	26	15	0	41	156	484
16:30	0	0	0	0	0	8	34	42	45	0	19	64	17	17	0	34	140	514
16:45	0	0	0	0	0	29	38	67	21	0	24	45	23	12	0	35	147	572
17:00	0	0	0	0	0	23	29	52	24	0	16	40	16	16	0	32	124	567
17:15	0	0	0	0	0	17	34	51	0	0	0	0	13	10	0	23	74	485
17:30	0	0	0	0	0	13	15	28	0	0	0	0	7	5	0	12	40	385
17:45	0	0	0	0	0	14	15	29	0	0	0	0	5	9	0	14	43	281
Total	0	0	0	0	0	163	322	485	279	0	176	455	243	134	0	377	1274	
Peak hour	0	0	0	0	0	72	134	206	128	0	91	219	82	60	0	142	567	
Peak 15 min				0				67				70				41	156	
PHF				#DIV/0!				0.77				0.78				0.87	0.91	



PM PEAK HOUR
2020



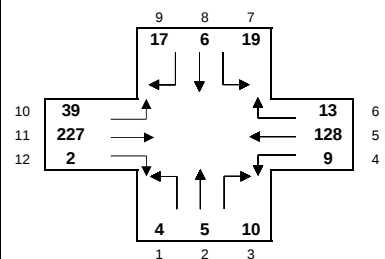
PM PEAK HOUR
2025



Project : TIA : PROPOSED DEVELOPMENT ON ERF 3279 & 3280, HUMANSDORP										Day & date : 02/06/2020									
Intersection : PARK ROAD / PIET UYS STREET										NO. 2					Time period: 06:00 - 09:00				
STARTING TIME	PIET UYS STREET Northbound				PARK ROAD Westbound				PIET UYS STREET Southbound				PARK ROAD Eastbound				INTER-SECTION		
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Total	Hour	
6:00	0	1	1	2	1	21	2	24	2	1	2	5	3	19	0	22	53		
6:15	1	0	1	2	1	12	1	14	1	0	1	2	3	17	0	20	38		
6:30	0	1	1	2	2	28	3	33	3	1	2	6	7	38	1	46	87		
6:45	1	1	2	4	2	28	3	33	4	1	4	9	7	40	0	47	93	271	
7:00	1	1	2	4	2	29	3	34	5	1	4	10	10	59	0	69	117	335	
7:15	1	1	3	5	2	37	3	42	5	2	5	12	11	62	1	74	133	430	
7:30	1	2	3	6	3	34	4	41	5	1	4	10	11	66	0	77	134	477	
7:45	1	1	2	4	2	28	3	33	4	2	4	10	7	40	1	48	95	479	
8:00	1	1	2	4	2	34	3	39	4	1	4	9	9	48	0	57	109	471	
8:15	0	0	1	1	2	34	3	39	2	0	1	3	5	31	0	36	79	417	
8:30	1	1	1	3	2	19	2	23	2	1	2	5	3	18	1	22	53	336	
8:45	0	0	1	1	2	29	3	34	3	1	3	7	5	30	0	35	77	318	
Total	8	10	20	38	23	333	33	389	40	12	36	88	81	468	4	553	1068		
Peak hour	4	5	10	19	9	128	13	150	19	6	17	42	39	227	2	268	479		
Peak 15 min				6				42				12				77	134		
PHF				0.79				0.89				0.88				0.87	0.89		



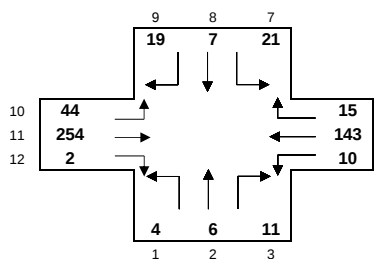
AM PEAK HOUR
2020



PIET UYS STREET



AM PEAK HOUR
2025

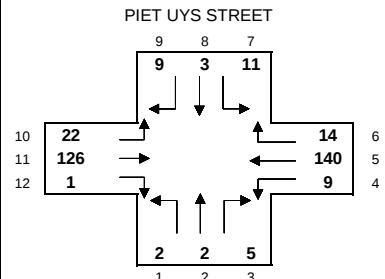


PIET UYS STREET

Project : TIA : PROPOSED DEVELOPMENT ON ERF 3279 & 3280, HUMANSDORP										Day & date : 02/06/2020								
Intersection : PARK ROAD / PIET UYS STREET NO. 2										Time period: 15:00 - 18:00								
STARTING TIME	PIET UYS STREET Northbound				PARK ROAD Westbound				PIET UYS STREET Southbound				PARK ROAD Eastbound				INTER-SECTION	
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Total	Hour
15:00	2	2	4	8	1	16	2	19	8	2	7	17	16	92	1	109	153	
15:15	0	1	1	2	2	23	2	27	1	1	1	3	3	19	0	22	54	
15:30	0	0	1	1	2	29	3	34	2	0	2	4	3	18	0	21	60	
15:45	0	0	0	0	1	18	2	21	1	1	1	3	3	12	0	15	39	306
16:00	1	1	1	3	2	27	2	31	2	0	2	4	4	24	0	28	66	219
16:15	1	1	2	4	2	38	4	44	3	1	2	6	6	36	1	43	97	262
16:30	0	0	1	1	2	23	2	27	3	1	3	7	5	31	0	36	71	273
16:45	0	1	1	2	3	45	5	53	2	1	2	5	6	31	0	37	97	331
17:00	1	0	1	2	2	34	3	39	3	0	2	5	5	28	0	33	79	344
17:15	0	1	1	2	1	14	2	17	1	1	1	3	3	20	1	24	46	293
17:30	1	0	1	2	1	12	1	14	1	0	1	2	2	11	0	13	31	253
17:45	0	0	0	0	1	12	1	14	1	0	1	2	2	12	0	14	30	186
Total	6	7	14	27	20	291	29	340	28	8	25	61	58	334	3	395	670	
Peak hour	2	2	5	9	9	140	14	163	11	3	9	23	22	126	1	149	344	
Peak 15 min				4				53				7				43	97	
PHF				0.56				0.77				0.82				0.87	0.89	



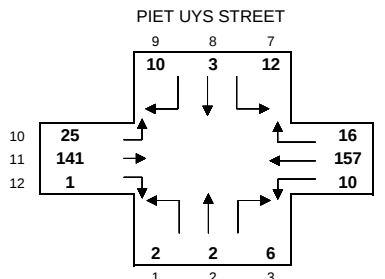
PM PEAK HOUR
2020



PIET UYS STREET



PM PEAK HOUR
2025

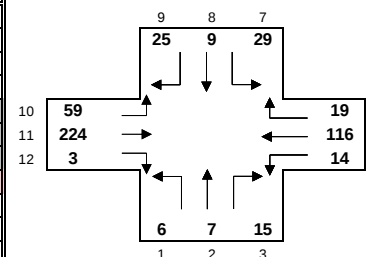


PIET UYS STREET

Project : TIA : PROPOSED DEVELOPMENT ON ERF 3279 & 3280, HUMANSDORP													Day & date :		02/06/2020			
Intersection : PARK ROAD / KING STREET													NO. 3		Time period:		06:00 - 09:00	
STARTING TIME	KING STREET Northbound				PARK ROAD Westbound				KING STREET Southbound				PARK ROAD Eastbound				INTER-SECTION	
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Total	Hour
6:00	0	2	2	4	2	18	3	23	3	2	3	8	5	17	0	22	57	
6:15	2	0	1	3	1	11	2	14	2	0	2	4	4	17	0	21	42	
6:30	0	1	2	3	3	23	4	30	4	1	3	8	11	40	2	53	94	
6:45	1	2	3	6	3	25	5	33	6	2	6	14	10	38	0	48	101	294
7:00	2	1	3	6	3	27	4	34	8	1	6	15	15	58	0	73	128	365
7:15	1	2	4	7	3	35	5	43	7	3	7	17	17	63	1	81	148	471
7:30	2	3	5	10	5	28	6	39	8	2	6	16	16	64	0	80	145	522
7:45	1	1	3	5	3	26	4	33	6	3	6	15	11	39	2	52	105	526
8:00	2	2	3	7	3	31	5	39	6	1	6	13	13	48	0	61	120	518
8:15	0	0	1	1	3	28	4	35	3	0	2	5	8	32	0	40	81	451
8:30	1	1	2	4	3	16	3	22	3	2	3	8	4	17	1	22	56	362
8:45	0	0	1	1	3	24	5	32	4	1	4	9	8	30	0	38	80	337
Total	12	15	30	57	35	292	50	377	60	18	54	132	122	463	6	591	1157	
Peak hour	6	7	15	28	14	116	19	149	29	9	25	63	59	224	3	286	526	
Peak 15 min				10				43				17				81	148	
PHF				0.70				0.87				0.93				0.88	0.89	



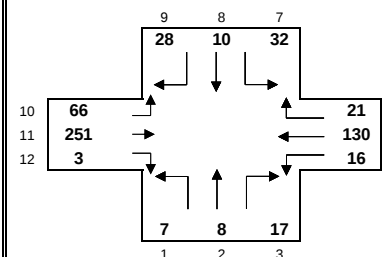
AM PEAK HOUR
2020



KING STREET



AM PEAK HOUR
2025

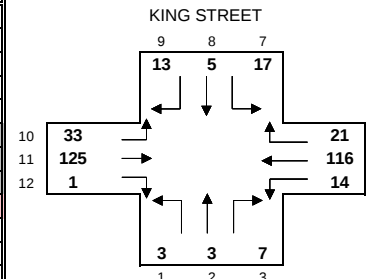


KING STREET

Project : TIA : PROPOSED DEVELOPMENT ON ERF 3279 & 3280, HUMANSDORP													Day & date : 02/06/2020					
Intersection : PARK ROAD / KING STREET NO. 3													Time period: 15:00 - 18:00					
STARTING TIME	KING STREET Northbound				PARK ROAD Westbound				KING STREET Southbound				PARK ROAD Eastbound				INTER-SECTION	
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Total	Hour
15:00	3	3	6	12	2	20	3	25	12	3	11	26	24	91	2	117	180	
15:15	0	2	2	4	3	18	3	24	2	2	1	5	5	18	0	23	56	
15:30	0	0	1	1	3	23	5	31	3	0	3	6	4	17	0	21	59	
15:45	0	0	0	0	1	15	3	19	1	1	2	4	5	14	0	19	42	337
16:00	2	1	2	5	3	24	3	30	3	0	3	6	6	23	0	29	70	227
16:15	1	2	3	6	3	32	6	41	5	2	3	10	9	35	1	45	102	273
16:30	0	0	1	1	3	20	3	26	4	1	4	9	7	31	0	38	74	288
16:45	0	1	2	3	5	35	7	47	3	2	3	8	9	32	0	41	99	345
17:00	2	0	1	3	3	29	5	37	5	0	3	8	8	27	0	35	83	358
17:15	0	2	2	4	1	11	3	15	1	1	2	4	4	21	2	27	50	306
17:30	1	0	1	2	2	11	1	14	2	0	1	3	3	10	0	13	32	264
17:45	0	0	0	0	1	10	2	13	1	0	2	3	3	13	0	16	32	197
Total	9	11	21	41	30	248	44	322	42	12	38	92	87	332	5	424	879	
Peak hour	3	3	7	13	14	116	21	151	17	5	13	35	33	125	1	159	358	
Peak 15 min				6				47				10				45	102	
PHF				0.54				0.80				0.88				0.88	0.88	



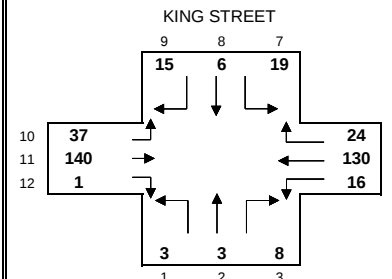
PM PEAK HOUR
2020



KING STREET



PM PEAK HOUR
2025

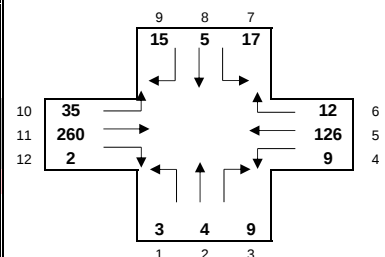


KING STREET

Project : TIA : PROPOSED DEVELOPMENT ON ERF 3279 & 3280, HUMANSDORP										Day & date : 02/06/2020								
Intersection : PARK ROAD / QUEEN STREET NO. 4										Time period: 06:00 - 09:00								
STARTING TIME	QUEEN STREET Northbound				PARK ROAD Westbound				QUEEN STREET Southbound				PARK ROAD Eastbound				INTER-SECTION	
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Total	Hour
6:00	0	1	1	2	1	18	2	21	2	1	2	5	3	19	0	22	50	
6:15	1	0	1	2	1	13	1	15	1	0	1	2	2	19	0	21	40	
6:30	0	1	1	2	2	22	2	26	2	1	2	5	7	50	1	58	91	
6:45	1	1	2	4	1	28	3	32	4	1	3	8	6	42	0	48	92	273
7:00	1	1	2	4	2	30	3	35	5	1	4	10	9	66	0	75	124	347
7:15	1	1	2	4	2	38	3	43	4	1	4	9	10	75	1	86	142	449
7:30	1	2	3	6	3	30	3	36	5	2	4	11	10	72	0	82	135	493
7:45	0	0	2	2	2	28	3	33	3	1	3	7	6	47	1	54	96	497
8:00	2	1	2	5	2	34	3	39	4	1	4	9	8	55	0	63	116	489
8:15	0	0	0	0	1	27	2	30	2	0	1	3	5	38	0	43	76	423
8:30	0	1	1	2	2	16	2	20	2	1	2	5	2	19	1	22	49	337
8:45	0	0	1	1	2	23	3	28	2	1	2	5	5	35	0	40	74	315
Total	7	9	18	34	21	307	30	358	36	11	32	79	73	537	4	614	1085	
Peak hour	3	4	9	16	9	126	12	147	17	5	15	37	35	260	2	297	497	
Peak 15 min				6				43				11				86	142	
PHF				0.67				0.85				0.84				0.86	0.88	



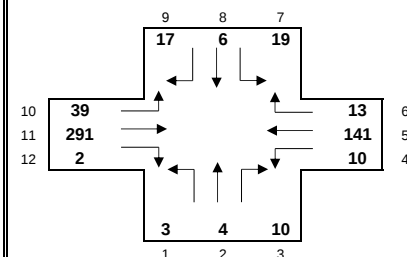
AM PEAK HOUR
2020



QUEEN STREET



AM PEAK HOUR
2025

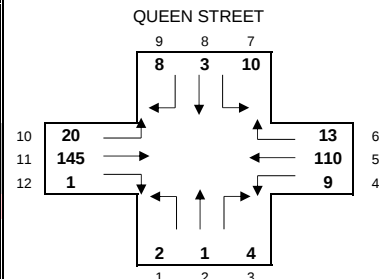


QUEEN STREET

Project :		TIA : PROPOSED DEVELOPMENT ON ERF 3279 & 3280, HUMANSDORP												Day & date :		02/06/2020		
Intersection :		PARK ROAD / QUEEN STREET								NO. 4		Time period:		15:00 - 18:00				
STARTING TIME	QUEEN STREET Northbound				PARK ROAD Westbound				QUEEN STREET Southbound				PARK ROAD Eastbound				INTER-SECTION	
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Total	Hour
15:00	2	2	4	8	1	31	2	34	7	2	7	16	14	106	1	121	179	
15:15	0	1	1	2	2	15	2	19	1	1	0	2	3	21	0	24	47	
15:30	0	0	0	0	2	21	3	26	2	0	2	4	3	19	0	22	52	
15:45	0	0	0	0	0	16	1	17	1	1	1	3	3	18	0	21	41	319
16:00	1	1	2	4	2	25	2	29	2	0	2	4	3	25	0	28	65	205
16:15	1	1	1	3	2	30	4	36	3	1	2	6	6	41	1	48	93	251
16:30	0	0	1	1	2	20	2	24	2	0	2	4	4	35	0	39	68	267
16:45	0	0	1	1	3	31	4	38	2	2	2	6	5	38	0	43	88	314
17:00	1	0	1	2	2	29	3	34	3	0	2	5	5	31	0	36	77	326
17:15	0	2	1	3	0	11	2	13	0	0	1	1	3	26	1	30	47	280
17:30	0	0	1	1	1	12	0	13	2	0	1	3	1	10	0	11	28	240
17:45	0	0	0	0	1	10	1	12	0	0	1	1	2	16	0	18	31	183
Total	5	7	13	25	18	251	26	295	25	7	23	55	52	386	3	441	816	
Peak hour	2	1	4	7	9	110	13	132	10	3	8	21	20	145	1	166	326	
Peak 15 min				3				38				6				48	93	
PHF				0.58				0.87				0.88				0.86	0.88	



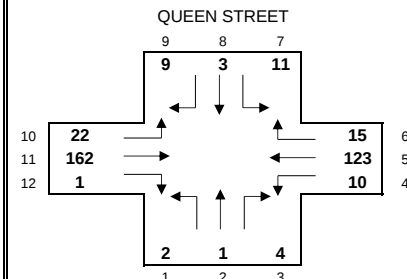
PM PEAK HOUR
2020



QUEEN STREET



PM PEAK HOUR
2025



QUEEN STREET

ANNEXURE D
SIDRA
OUTPUT
SHEETS 2020
Before
Development

MOVEMENT SUMMARY

 Site: 01 [01 AM ND (Site Folder: General)]

 Network: N101 [AM Before Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 Before Development
Site Category: (None)
Stop (All-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
East: Park Street														
5	T1	102	0.0	102	0.0	0.265	10.9	LOS B	0.5	3.7	0.62	1.31	1.98	45.5
6	R2	144	0.0	144	0.0	0.265	11.1	LOS B	0.5	3.7	0.62	1.31	1.98	50.3
Approach		246	0.0	246	0.0	0.265	11.0	LOS B	0.5	3.7	0.62	1.31	1.98	49.0
North: Main Street														
7	L2	112	0.0	112	0.0	0.388	19.7	LOS C	1.0	6.9	0.92	1.37	2.54	45.5
9	R2	55	0.0	55	0.0	0.388	19.5	LOS C	1.0	6.9	0.92	1.37	2.54	38.1
Approach		166	0.0	166	0.0	0.388	19.6	LOS C	1.0	6.9	0.92	1.37	2.54	43.8
West: Park Street														
10	L2	119	0.0	119	0.0	0.399	14.9	LOS B	1.0	6.9	0.81	1.38	2.46	44.9
11	T1	151	0.0	151	0.0	0.399	14.5	LOS B	1.0	6.9	0.81	1.38	2.46	44.8
Approach		269	0.0	269	0.0	0.399	14.7	LOS B	1.0	6.9	0.81	1.38	2.46	44.8
All Vehicles		682	0.0	682	0.0	0.399	14.6	LOS B	1.0	6.9	0.77	1.35	2.31	46.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 Site: 01 [01 PM ND (Site Folder: General)]

 Network: N101 [PM Before Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 Before Development
Site Category: (None)
Stop (All-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
East: Park Street														
5	T1	76	0.0	76	0.0	0.269	11.7	LOS B	0.6	3.9	0.69	1.31	2.06	44.8
6	R2	141	0.0	141	0.0	0.269	12.0	LOS B	0.6	3.9	0.69	1.31	2.06	49.9
Approach		217	0.0	217	0.0	0.269	11.9	LOS B	0.6	3.9	0.69	1.31	2.06	48.7
North: Main Street														
7	L2	135	0.0	135	0.0	0.426	17.5	LOS C	1.1	7.8	0.88	1.39	2.61	46.7
9	R2	96	0.0	96	0.0	0.426	17.4	LOS C	1.1	7.8	0.88	1.39	2.61	39.8
Approach		231	0.0	231	0.0	0.426	17.5	LOS C	1.1	7.8	0.88	1.39	2.61	44.6
West: Park Street														
10	L2	86	0.0	86	0.0	0.325	17.6	LOS C	0.8	5.4	0.89	1.33	2.36	43.0
11	T1	63	0.0	63	0.0	0.325	17.2	LOS C	0.8	5.4	0.89	1.33	2.36	42.9
Approach		149	0.0	149	0.0	0.325	17.4	LOS C	0.8	5.4	0.89	1.33	2.36	43.0
All Vehicles		597	0.0	597	0.0	0.426	15.4	LOS C	1.1	7.8	0.82	1.35	2.35	45.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 02 [02 AM ND (Site Folder: General)]

Network: N101 [AM Before Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 Before Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Piet Uys Street														
1	L2	4	0.0	4	0.0	0.027	8.5	LOS A	0.0	0.3	0.37	0.89	0.37	46.2
2	T1	5	0.0	5	0.0	0.027	10.0	LOS B	0.0	0.3	0.37	0.89	0.37	50.7
3	R2	11	0.0	11	0.0	0.027	10.3	LOS B	0.0	0.3	0.37	0.89	0.37	46.2
Approach		20	0.0	20	0.0	0.027	9.9	LOS A	0.0	0.3	0.37	0.89	0.37	48.0
East: Park Street														
4	L2	9	0.0	9	0.0	0.082	6.2	LOS A	0.1	0.4	0.09	0.09	0.09	56.2
5	T1	135	0.0	135	0.0	0.082	0.1	LOS A	0.1	0.4	0.09	0.09	0.09	55.0
6	R2	14	0.0	14	0.0	0.082	6.5	LOS A	0.1	0.4	0.09	0.09	0.09	55.8
Approach		158	0.0	158	0.0	0.082	1.1	NA	0.1	0.4	0.09	0.09	0.09	55.4
North: Piet Uys Street														
7	L2	20	0.0	20	0.0	0.055	9.0	LOS A	0.1	0.5	0.39	0.89	0.39	46.5
8	T1	6	0.0	6	0.0	0.055	10.0	LOS A	0.1	0.5	0.39	0.89	0.39	50.8
9	R2	18	0.0	18	0.0	0.055	10.6	LOS B	0.1	0.5	0.39	0.89	0.39	46.5
Approach		44	0.0	44	0.0	0.055	9.8	LOS A	0.1	0.5	0.39	0.89	0.39	47.5
West: Park Street														
10	L2	41	0.0	41	0.0	0.141	5.6	LOS A	0.0	0.1	0.01	0.09	0.01	56.2
11	T1	239	0.0	239	0.0	0.141	0.0	LOS A	0.0	0.1	0.01	0.09	0.01	53.8
12	R2	2	0.0	2	0.0	0.141	6.0	LOS A	0.0	0.1	0.01	0.09	0.01	55.4
Approach		282	0.0	282	0.0	0.141	0.9	NA	0.0	0.1	0.01	0.09	0.01	54.9
All Vehicles		504	0.0	504	0.0	0.141	2.1	NA	0.1	0.5	0.08	0.19	0.08	52.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 02 [02 PM ND (Site Folder: General)]

Network: N101 [PM Before Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 Before Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Piet Uys Street														
1	L2	2	0.0	2	0.0	0.011	8.5	LOS A	0.0	0.1	0.33	0.86	0.33	47.0
2	T1	2	0.0	2	0.0	0.011	9.2	LOS A	0.0	0.1	0.33	0.86	0.33	51.2
3	R2	5	0.0	5	0.0	0.011	9.4	LOS A	0.0	0.1	0.33	0.86	0.33	47.0
Approach		9	0.0	9	0.0	0.011	9.2	LOS A	0.0	0.1	0.33	0.86	0.33	48.4
East: Park Street														
4	L2	9	0.0	9	0.0	0.088	5.9	LOS A	0.0	0.3	0.06	0.08	0.06	56.4
5	T1	147	0.0	147	0.0	0.088	0.1	LOS A	0.0	0.3	0.06	0.08	0.06	55.6
6	R2	15	0.0	15	0.0	0.088	6.0	LOS A	0.0	0.3	0.06	0.08	0.06	56.0
Approach		172	0.0	172	0.0	0.088	0.9	NA	0.0	0.3	0.06	0.08	0.06	55.8
North: Piet Uys Street														
7	L2	12	0.0	12	0.0	0.026	8.5	LOS A	0.0	0.3	0.28	0.88	0.28	47.1
8	T1	3	0.0	3	0.0	0.026	9.2	LOS A	0.0	0.3	0.28	0.88	0.28	51.2
9	R2	9	0.0	9	0.0	0.026	9.6	LOS A	0.0	0.3	0.28	0.88	0.28	47.1
Approach		24	0.0	24	0.0	0.026	9.0	LOS A	0.0	0.3	0.28	0.88	0.28	48.0
West: Park Street														
10	L2	23	0.0	23	0.0	0.078	5.6	LOS A	0.0	0.0	0.01	0.09	0.01	56.1
11	T1	133	0.0	133	0.0	0.078	0.0	LOS A	0.0	0.0	0.01	0.09	0.01	53.8
12	R2	1	0.0	1	0.0	0.078	6.0	LOS A	0.0	0.0	0.01	0.09	0.01	55.4
Approach		157	0.0	157	0.0	0.078	0.9	NA	0.0	0.0	0.01	0.09	0.01	54.9
All Vehicles		362	0.0	362	0.0	0.088	1.6	NA	0.0	0.3	0.06	0.16	0.06	53.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 03 [03 AM ND (Site Folder: General)]

Network: N101 [AM Before Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 Before Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: King Street														
1	L2	6	0.0	6	0.0	0.040	8.5	LOS A	0.1	0.4	0.36	0.90	0.36	46.1
2	T1	7	0.0	7	0.0	0.040	10.2	LOS B	0.1	0.4	0.36	0.90	0.36	50.6
3	R2	16	0.0	16	0.0	0.040	10.5	LOS B	0.1	0.4	0.36	0.90	0.36	46.1
Approach		29	0.0	29	0.0	0.040	10.0	LOS A	0.1	0.4	0.36	0.90	0.36	47.8
East: Park Street														
4	L2	15	0.0	15	0.0	0.083	6.3	LOS A	0.1	0.5	0.14	0.13	0.14	54.8
5	T1	122	0.0	122	0.0	0.083	0.2	LOS A	0.1	0.5	0.14	0.13	0.14	48.3
6	R2	20	0.0	20	0.0	0.083	6.5	LOS A	0.1	0.5	0.14	0.13	0.14	54.3
Approach		157	0.0	157	0.0	0.083	1.6	NA	0.1	0.5	0.14	0.13	0.14	51.8
North: King Street														
7	L2	31	0.0	31	0.0	0.082	9.0	LOS A	0.1	0.8	0.40	0.90	0.40	46.4
8	T1	9	0.0	9	0.0	0.082	10.1	LOS B	0.1	0.8	0.40	0.90	0.40	50.8
9	R2	26	0.0	26	0.0	0.082	10.8	LOS B	0.1	0.8	0.40	0.90	0.40	46.4
Approach		66	0.0	66	0.0	0.082	9.9	LOS A	0.1	0.8	0.40	0.90	0.40	47.4
West: Park Street														
10	L2	62	0.0	62	0.0	0.151	5.6	LOS A	0.0	0.1	0.01	0.13	0.01	55.7
11	T1	236	0.0	236	0.0	0.151	0.0	LOS A	0.0	0.1	0.01	0.13	0.01	51.6
12	R2	3	0.0	3	0.0	0.151	5.9	LOS A	0.0	0.1	0.01	0.13	0.01	54.9
Approach		301	0.0	301	0.0	0.151	1.2	NA	0.0	0.1	0.01	0.13	0.01	53.8
All Vehicles		554	0.0	554	0.0	0.151	2.8	NA	0.1	0.8	0.11	0.26	0.11	51.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 Site: 03 [03 PM ND (Site Folder: General)]

 Network: N101 [PM Before Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 Before Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: King Street														
1	L2	3	0.0	3	0.0	0.016	8.4	LOS A	0.0	0.2	0.31	0.88	0.31	47.0
2	T1	3	0.0	3	0.0	0.016	9.2	LOS A	0.0	0.2	0.31	0.88	0.31	51.2
3	R2	7	0.0	7	0.0	0.016	9.4	LOS A	0.0	0.2	0.31	0.88	0.31	47.0
Approach		14	0.0	14	0.0	0.016	9.1	LOS A	0.0	0.2	0.31	0.88	0.31	48.5
East: Park Street														
4	L2	15	0.0	15	0.0	0.083	5.9	LOS A	0.1	0.5	0.11	0.13	0.11	55.0
5	T1	122	0.0	122	0.0	0.083	0.1	LOS A	0.1	0.5	0.11	0.13	0.11	48.8
6	R2	22	0.0	22	0.0	0.083	6.0	LOS A	0.1	0.5	0.11	0.13	0.11	54.5
Approach		159	0.0	159	0.0	0.083	1.5	NA	0.1	0.5	0.11	0.13	0.11	52.2
North: King Street														
7	L2	18	0.0	18	0.0	0.039	8.5	LOS A	0.1	0.4	0.28	0.89	0.28	47.1
8	T1	5	0.0	5	0.0	0.039	9.2	LOS A	0.1	0.4	0.28	0.89	0.28	51.2
9	R2	14	0.0	14	0.0	0.039	9.6	LOS A	0.1	0.4	0.28	0.89	0.28	47.1
Approach		37	0.0	37	0.0	0.039	9.0	LOS A	0.1	0.4	0.28	0.89	0.28	48.1
West: Park Street														
10	L2	35	0.0	35	0.0	0.084	5.6	LOS A	0.0	0.0	0.01	0.13	0.01	55.7
11	T1	132	0.0	132	0.0	0.084	0.0	LOS A	0.0	0.0	0.01	0.13	0.01	51.8
12	R2	1	0.0	1	0.0	0.084	5.9	LOS A	0.0	0.0	0.01	0.13	0.01	54.9
Approach		167	0.0	167	0.0	0.084	1.2	NA	0.0	0.0	0.01	0.13	0.01	54.0
All Vehicles		377	0.0	377	0.0	0.084	2.4	NA	0.1	0.5	0.09	0.23	0.09	51.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 04 [04 AM ND (Site Folder: General)]

Network: N101 [AM Before Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 Before Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Queen Street														
1	L2	3	0.0	3	0.0	0.024	8.5	LOS A	0.0	0.2	0.38	0.89	0.38	46.4
2	T1	4	0.0	4	0.0	0.024	10.2	LOS B	0.0	0.2	0.38	0.89	0.38	50.6
3	R2	9	0.0	9	0.0	0.024	10.6	LOS B	0.0	0.2	0.38	0.89	0.38	46.0
Approach		17	0.0	17	0.0	0.024	10.1	LOS B	0.0	0.2	0.38	0.89	0.38	47.7
East: Park Street														
4	L2	9	0.0	9	0.0	0.080	6.3	LOS A	0.0	0.3	0.10	0.08	0.10	55.7
5	T1	133	0.0	133	0.0	0.080	0.1	LOS A	0.0	0.3	0.10	0.08	0.10	55.4
6	R2	13	0.0	13	0.0	0.080	6.6	LOS A	0.0	0.3	0.10	0.08	0.10	55.2
Approach		155	0.0	155	0.0	0.080	1.1	NA	0.0	0.3	0.10	0.08	0.10	55.4
North: Queen Street														
7	L2	18	0.0	18	0.0	0.050	9.1	LOS A	0.1	0.5	0.41	0.89	0.41	46.3
8	T1	5	0.0	5	0.0	0.050	10.2	LOS B	0.1	0.5	0.41	0.89	0.41	50.7
9	R2	16	0.0	16	0.0	0.050	10.9	LOS B	0.1	0.5	0.41	0.89	0.41	46.2
Approach		39	0.0	39	0.0	0.050	10.0	LOS A	0.1	0.5	0.41	0.89	0.41	47.2
West: Park Street														
10	L2	37	0.0	37	0.0	0.156	5.6	LOS A	0.0	0.1	0.01	0.07	0.01	56.4
11	T1	274	0.0	274	0.0	0.156	0.0	LOS A	0.0	0.1	0.01	0.07	0.01	54.8
12	R2	2	0.0	2	0.0	0.156	6.0	LOS A	0.0	0.1	0.01	0.07	0.01	55.6
Approach		313	0.0	313	0.0	0.156	0.7	NA	0.0	0.1	0.01	0.07	0.01	55.4
All Vehicles		523	0.0	523	0.0	0.156	1.8	NA	0.1	0.5	0.08	0.16	0.08	53.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 04 [04 PM ND (Site Folder: General)]

Network: N101 [PM Before Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 Before Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Queen Street														
1	L2	2	0.0	2	0.0	0.009	8.4	LOS A	0.0	0.1	0.29	0.87	0.29	47.3
2	T1	1	0.0	1	0.0	0.009	9.1	LOS A	0.0	0.1	0.29	0.87	0.29	51.2
3	R2	4	0.0	4	0.0	0.009	9.3	LOS A	0.0	0.1	0.29	0.87	0.29	47.1
Approach		7	0.0	7	0.0	0.009	9.0	LOS A	0.0	0.1	0.29	0.87	0.29	48.1
East: Park Street														
4	L2	9	0.0	9	0.0	0.071	5.9	LOS A	0.0	0.3	0.08	0.10	0.08	55.6
5	T1	116	0.0	116	0.0	0.071	0.1	LOS A	0.0	0.3	0.08	0.10	0.08	55.2
6	R2	14	0.0	14	0.0	0.071	6.0	LOS A	0.0	0.3	0.08	0.10	0.08	55.1
Approach		139	0.0	139	0.0	0.071	1.1	NA	0.0	0.3	0.08	0.10	0.08	55.2
North: Queen Street														
7	L2	11	0.0	11	0.0	0.024	8.6	LOS A	0.0	0.2	0.30	0.87	0.30	47.2
8	T1	3	0.0	3	0.0	0.024	9.1	LOS A	0.0	0.2	0.30	0.87	0.30	51.3
9	R2	8	0.0	8	0.0	0.024	9.5	LOS A	0.0	0.2	0.30	0.87	0.30	47.0
Approach		22	0.0	22	0.0	0.024	9.0	LOS A	0.0	0.2	0.30	0.87	0.30	48.0
West: Park Street														
10	L2	21	0.0	21	0.0	0.087	5.6	LOS A	0.0	0.0	0.00	0.08	0.00	56.4
11	T1	153	0.0	153	0.0	0.087	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	54.8
12	R2	1	0.0	1	0.0	0.087	5.9	LOS A	0.0	0.0	0.00	0.08	0.00	55.6
Approach		175	0.0	175	0.0	0.087	0.7	NA	0.0	0.0	0.00	0.08	0.00	55.4
All Vehicles		343	0.0	343	0.0	0.087	1.6	NA	0.0	0.3	0.06	0.15	0.06	53.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

ANNEXURE E
SIDRA
OUTPUT
SHEETS 2020
After
Development

MOVEMENT SUMMARY

 Site: 01 [01 AM AD (Site Folder: General)]

 Network: N101 [AM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 After Development
Site Category: (None)
Stop (All-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
East: Park Street														
5	T1	108	0.0	108	0.0	0.277	11.1	LOS B	0.6	3.9	0.63	1.31	2.01	45.4
6	R2	144	0.0	144	0.0	0.277	11.3	LOS B	0.6	3.9	0.63	1.31	2.01	50.2
Approach		253	0.0	253	0.0	0.277	11.2	LOS B	0.6	3.9	0.63	1.31	2.01	48.8
North: Main Street														
7	L2	112	0.0	112	0.0	0.401	19.8	LOS C	1.0	7.2	0.92	1.38	2.58	45.4
9	R2	62	0.0	62	0.0	0.401	19.7	LOS C	1.0	7.2	0.92	1.38	2.58	38.0
Approach		174	0.0	174	0.0	0.401	19.8	LOS C	1.0	7.2	0.92	1.38	2.58	43.5
West: Park Street														
10	L2	138	0.0	138	0.0	0.456	15.8	LOS C	1.2	8.5	0.83	1.41	2.65	44.3
11	T1	169	0.0	169	0.0	0.456	15.4	LOS C	1.2	8.5	0.83	1.41	2.65	44.1
Approach		307	0.0	307	0.0	0.456	15.6	LOS C	1.2	8.5	0.83	1.41	2.65	44.2
All Vehicles		734	0.0	734	0.0	0.456	15.1	LOS C	1.2	8.5	0.78	1.37	2.41	45.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 Site: 01 [01 PM AD (Site Folder: General)]

 Network: N101 [PM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 After Development
Site Category: (None)
Stop (All-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
East: Park Street														
5	T1	95	0.0	95	0.0	0.303	12.2	LOS B	0.7	4.6	0.72	1.32	2.15	44.3
6	R2	141	0.0	141	0.0	0.303	12.5	LOS B	0.7	4.6	0.72	1.32	2.15	49.6
Approach		236	0.0	236	0.0	0.303	12.4	LOS B	0.7	4.6	0.72	1.32	2.15	48.1
North: Main Street														
7	L2	135	0.0	135	0.0	0.454	18.0	LOS C	1.2	8.6	0.89	1.41	2.70	46.4
9	R2	115	0.0	115	0.0	0.454	17.8	LOS C	1.2	8.6	0.89	1.41	2.70	39.5
Approach		249	0.0	249	0.0	0.454	17.9	LOS C	1.2	8.6	0.89	1.41	2.70	44.1
West: Park Street														
10	L2	94	0.0	94	0.0	0.362	18.5	LOS C	0.9	6.2	0.91	1.35	2.46	42.4
11	T1	69	0.0	69	0.0	0.362	18.1	LOS C	0.9	6.2	0.91	1.35	2.46	42.3
Approach		163	0.0	163	0.0	0.362	18.3	LOS C	0.9	6.2	0.91	1.35	2.46	42.3
All Vehicles		648	0.0	648	0.0	0.454	16.0	LOS C	1.2	8.6	0.83	1.37	2.44	45.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specfied in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 02 [02 AM AD (Site Folder: General)]

Network: N101 [AM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 After Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Piet Uys Street														
1	L2	8	0.0	8	0.0	0.139	8.6	LOS A	0.2	1.4	0.45	0.95	0.45	45.7
2	T1	38	0.0	38	0.0	0.139	10.4	LOS B	0.2	1.4	0.45	0.95	0.45	50.4
3	R2	48	0.0	48	0.0	0.139	10.9	LOS B	0.2	1.4	0.45	0.95	0.45	45.7
Approach		95	0.0	95	0.0	0.139	10.5	LOS B	0.2	1.4	0.45	0.95	0.45	48.2
East: Park Street														
4	L2	21	0.0	21	0.0	0.089	6.0	LOS A	0.1	0.4	0.10	0.11	0.10	55.9
5	T1	137	0.0	137	0.0	0.089	0.1	LOS A	0.1	0.4	0.10	0.11	0.10	53.9
6	R2	14	0.0	14	0.0	0.089	6.5	LOS A	0.1	0.4	0.10	0.11	0.10	55.4
Approach		172	0.0	172	0.0	0.089	1.4	NA	0.1	0.4	0.10	0.11	0.10	54.7
North: Piet Uys Street														
7	L2	20	0.0	20	0.0	0.071	9.0	LOS A	0.1	0.7	0.42	0.91	0.42	46.2
8	T1	17	0.0	17	0.0	0.071	10.2	LOS B	0.1	0.7	0.42	0.91	0.42	50.7
9	R2	18	0.0	18	0.0	0.071	11.1	LOS B	0.1	0.7	0.42	0.91	0.42	46.2
Approach		55	0.0	55	0.0	0.071	10.1	LOS B	0.1	0.7	0.42	0.91	0.42	48.2
West: Park Street														
10	L2	41	0.0	41	0.0	0.145	5.6	LOS A	0.0	0.1	0.01	0.09	0.01	56.1
11	T1	245	0.0	245	0.0	0.145	0.0	LOS A	0.0	0.1	0.01	0.09	0.01	53.5
12	R2	4	0.0	4	0.0	0.145	6.0	LOS A	0.0	0.1	0.01	0.09	0.01	55.3
Approach		291	0.0	291	0.0	0.145	0.9	NA	0.0	0.1	0.01	0.09	0.01	54.7
All Vehicles		612	0.0	612	0.0	0.145	3.3	NA	0.2	1.4	0.14	0.30	0.14	51.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 02 [02 PM AD (Site Folder: General)]

Network: N101 [PM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 After Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Piet Uys Street														
1	L2	4	0.0	4	0.0	0.049	8.6	LOS A	0.1	0.5	0.39	0.90	0.39	46.6
2	T1	16	0.0	16	0.0	0.049	9.5	LOS A	0.1	0.5	0.39	0.90	0.39	50.9
3	R2	18	0.0	18	0.0	0.049	10.0	LOS A	0.1	0.5	0.39	0.90	0.39	46.6
Approach		38	0.0	38	0.0	0.049	9.6	LOS A	0.1	0.5	0.39	0.90	0.39	49.0
East: Park Street														
4	L2	42	0.0	42	0.0	0.107	5.7	LOS A	0.1	0.4	0.06	0.15	0.06	55.6
5	T1	153	0.0	153	0.0	0.107	0.1	LOS A	0.1	0.4	0.06	0.15	0.06	53.1
6	R2	15	0.0	15	0.0	0.107	6.0	LOS A	0.1	0.4	0.06	0.15	0.06	55.1
Approach		209	0.0	209	0.0	0.107	1.6	NA	0.1	0.4	0.06	0.15	0.06	54.4
North: Piet Uys Street														
7	L2	12	0.0	12	0.0	0.065	8.5	LOS A	0.1	0.7	0.35	0.91	0.35	46.8
8	T1	35	0.0	35	0.0	0.065	9.6	LOS A	0.1	0.7	0.35	0.91	0.35	51.0
9	R2	9	0.0	9	0.0	0.065	9.9	LOS A	0.1	0.7	0.35	0.91	0.35	46.8
Approach		56	0.0	56	0.0	0.065	9.4	LOS A	0.1	0.7	0.35	0.91	0.35	50.0
West: Park Street														
10	L2	23	0.0	23	0.0	0.082	5.7	LOS A	0.0	0.1	0.03	0.10	0.03	55.8
11	T1	135	0.0	135	0.0	0.082	0.0	LOS A	0.0	0.1	0.03	0.10	0.03	52.4
12	R2	5	0.0	5	0.0	0.082	6.1	LOS A	0.0	0.1	0.03	0.10	0.03	55.1
Approach		163	0.0	163	0.0	0.082	1.0	NA	0.0	0.1	0.03	0.10	0.03	54.0
All Vehicles		466	0.0	466	0.0	0.107	3.0	NA	0.1	0.7	0.11	0.29	0.11	52.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 03 [03 AM AD (Site Folder: General)]

Network: N101 [AM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 After Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: King Street														
1	L2	21	0.0	21	0.0	0.063	8.5	LOS A	0.1	0.6	0.31	0.91	0.31	46.3
2	T1	7	0.0	7	0.0	0.063	10.4	LOS B	0.1	0.6	0.31	0.91	0.31	50.8
3	R2	22	0.0	22	0.0	0.063	10.7	LOS B	0.1	0.6	0.31	0.91	0.31	46.3
Approach		51	0.0	51	0.0	0.063	9.7	LOS A	0.1	0.6	0.31	0.91	0.31	47.4
East: Park Street														
4	L2	17	0.0	17	0.0	0.086	6.2	LOS A	0.1	0.5	0.14	0.13	0.14	54.8
5	T1	126	0.0	126	0.0	0.086	0.2	LOS A	0.1	0.5	0.14	0.13	0.14	48.2
6	R2	20	0.0	20	0.0	0.086	6.6	LOS A	0.1	0.5	0.14	0.13	0.14	54.3
Approach		163	0.0	163	0.0	0.086	1.6	NA	0.1	0.5	0.14	0.13	0.14	51.8
North: King Street														
7	L2	31	0.0	31	0.0	0.084	9.0	LOS A	0.1	0.8	0.40	0.91	0.40	46.3
8	T1	9	0.0	9	0.0	0.084	10.2	LOS B	0.1	0.8	0.40	0.91	0.40	50.7
9	R2	26	0.0	26	0.0	0.084	11.0	LOS B	0.1	0.8	0.40	0.91	0.40	46.3
Approach		66	0.0	66	0.0	0.084	10.0	LOS A	0.1	0.8	0.40	0.91	0.40	47.3
West: Park Street														
10	L2	62	0.0	62	0.0	0.155	5.6	LOS A	0.0	0.2	0.02	0.13	0.02	55.5
11	T1	238	0.0	238	0.0	0.155	0.0	LOS A	0.0	0.2	0.02	0.13	0.02	50.9
12	R2	8	0.0	8	0.0	0.155	6.0	LOS A	0.0	0.2	0.02	0.13	0.02	54.7
Approach		308	0.0	308	0.0	0.155	1.3	NA	0.0	0.2	0.02	0.13	0.02	53.5
All Vehicles		588	0.0	588	0.0	0.155	3.1	NA	0.1	0.8	0.12	0.29	0.12	50.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 03 [03 PM AD (Site Folder: General)]

Network: N101 [PM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 After Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: King Street														
1	L2	9	0.0	9	0.0	0.025	8.5	LOS A	0.0	0.2	0.28	0.88	0.28	47.0
2	T1	3	0.0	3	0.0	0.025	9.3	LOS A	0.0	0.2	0.28	0.88	0.28	51.2
3	R2	9	0.0	9	0.0	0.025	9.6	LOS A	0.0	0.2	0.28	0.88	0.28	47.0
Approach		22	0.0	22	0.0	0.025	9.1	LOS A	0.0	0.2	0.28	0.88	0.28	48.0
East: Park Street														
4	L2	20	0.0	20	0.0	0.087	5.9	LOS A	0.1	0.5	0.11	0.14	0.11	54.8
5	T1	124	0.0	124	0.0	0.087	0.1	LOS A	0.1	0.5	0.11	0.14	0.11	48.2
6	R2	22	0.0	22	0.0	0.087	6.0	LOS A	0.1	0.5	0.11	0.14	0.11	54.3
Approach		166	0.0	166	0.0	0.087	1.6	NA	0.1	0.5	0.11	0.14	0.11	52.0
North: King Street														
7	L2	18	0.0	18	0.0	0.040	8.5	LOS A	0.1	0.4	0.29	0.89	0.29	47.0
8	T1	5	0.0	5	0.0	0.040	9.3	LOS A	0.1	0.4	0.29	0.89	0.29	51.2
9	R2	14	0.0	14	0.0	0.040	9.8	LOS A	0.1	0.4	0.29	0.89	0.29	47.0
Approach		37	0.0	37	0.0	0.040	9.1	LOS A	0.1	0.4	0.29	0.89	0.29	48.0
West: Park Street														
10	L2	35	0.0	35	0.0	0.095	5.7	LOS A	0.1	0.4	0.07	0.15	0.07	54.9
11	T1	136	0.0	136	0.0	0.095	0.1	LOS A	0.1	0.4	0.07	0.15	0.07	48.6
12	R2	16	0.0	16	0.0	0.095	5.9	LOS A	0.1	0.4	0.07	0.15	0.07	54.2
Approach		186	0.0	186	0.0	0.095	1.6	NA	0.1	0.4	0.07	0.15	0.07	52.4
All Vehicles		412	0.0	412	0.0	0.095	2.7	NA	0.1	0.5	0.11	0.25	0.11	51.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 04 [04 AM AD (Site Folder: General)]

Network: N101 [AM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 After Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Queen Street														
1	L2	34	0.0	34	0.0	0.050	8.6	LOS A	0.1	0.5	0.28	0.89	0.28	47.1
2	T1	4	0.0	4	0.0	0.050	10.7	LOS B	0.1	0.5	0.28	0.89	0.28	51.0
3	R2	9	0.0	9	0.0	0.050	11.1	LOS B	0.1	0.5	0.28	0.89	0.28	46.8
Approach		47	0.0	47	0.0	0.050	9.3	LOS A	0.1	0.5	0.28	0.89	0.28	47.5
East: Park Street														
4	L2	9	0.0	9	0.0	0.090	6.3	LOS A	0.1	0.4	0.09	0.07	0.09	55.9
5	T1	152	0.0	152	0.0	0.090	0.1	LOS A	0.1	0.4	0.09	0.07	0.09	55.8
6	R2	13	0.0	13	0.0	0.090	6.6	LOS A	0.1	0.4	0.09	0.07	0.09	55.3
Approach		174	0.0	174	0.0	0.090	0.9	NA	0.1	0.4	0.09	0.07	0.09	55.7
North: Queen Street														
7	L2	18	0.0	18	0.0	0.053	9.2	LOS A	0.1	0.5	0.43	0.90	0.43	45.9
8	T1	5	0.0	5	0.0	0.053	10.5	LOS B	0.1	0.5	0.43	0.90	0.43	50.5
9	R2	16	0.0	16	0.0	0.053	11.6	LOS B	0.1	0.5	0.43	0.90	0.43	46.0
Approach		39	0.0	39	0.0	0.053	10.3	LOS B	0.1	0.5	0.43	0.90	0.43	46.9
West: Park Street														
10	L2	37	0.0	37	0.0	0.167	5.7	LOS A	0.1	0.4	0.04	0.09	0.04	56.0
11	T1	281	0.0	281	0.0	0.167	0.0	LOS A	0.1	0.4	0.04	0.09	0.04	53.1
12	R2	13	0.0	13	0.0	0.167	6.0	LOS A	0.1	0.4	0.04	0.09	0.04	55.2
Approach		331	0.0	331	0.0	0.167	0.9	NA	0.1	0.4	0.04	0.09	0.04	54.3
All Vehicles		591	0.0	591	0.0	0.167	2.2	NA	0.1	0.5	0.10	0.20	0.10	52.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 Site: 04 [04 PM AD (Site Folder: General)]

 Network: N101 [PM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2020 After Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Queen Street														
1	L2	14	0.0	14	0.0	0.018	8.5	LOS A	0.0	0.2	0.24	0.88	0.24	47.4
2	T1	1	0.0	1	0.0	0.018	9.5	LOS A	0.0	0.2	0.24	0.88	0.24	51.3
3	R2	4	0.0	4	0.0	0.018	9.8	LOS A	0.0	0.2	0.24	0.88	0.24	47.3
Approach		19	0.0	19	0.0	0.018	8.8	LOS A	0.0	0.2	0.24	0.88	0.24	47.7
East: Park Street														
4	L2	9	0.0	9	0.0	0.076	6.0	LOS A	0.0	0.3	0.08	0.09	0.08	55.7
5	T1	124	0.0	124	0.0	0.076	0.1	LOS A	0.0	0.3	0.08	0.09	0.08	55.4
6	R2	14	0.0	14	0.0	0.076	6.1	LOS A	0.0	0.3	0.08	0.09	0.08	55.2
Approach		147	0.0	147	0.0	0.076	1.0	NA	0.0	0.3	0.08	0.09	0.08	55.4
North: Queen Street														
7	L2	11	0.0	11	0.0	0.025	8.6	LOS A	0.0	0.2	0.32	0.87	0.32	46.9
8	T1	3	0.0	3	0.0	0.025	9.5	LOS A	0.0	0.2	0.32	0.87	0.32	51.1
9	R2	8	0.0	8	0.0	0.025	10.0	LOS B	0.0	0.2	0.32	0.87	0.32	46.7
Approach		22	0.0	22	0.0	0.025	9.3	LOS A	0.0	0.2	0.32	0.87	0.32	47.7
West: Park Street														
10	L2	21	0.0	21	0.0	0.115	5.8	LOS A	0.1	0.7	0.09	0.13	0.09	55.1
11	T1	172	0.0	172	0.0	0.115	0.1	LOS A	0.1	0.7	0.09	0.13	0.09	49.3
12	R2	29	0.0	29	0.0	0.115	5.9	LOS A	0.1	0.7	0.09	0.13	0.09	54.3
Approach		222	0.0	222	0.0	0.115	1.4	NA	0.1	0.7	0.09	0.13	0.09	52.3
All Vehicles		411	0.0	411	0.0	0.115	2.0	NA	0.1	0.7	0.11	0.19	0.11	52.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

ANNEXURE F
SIDRA
OUTPUT
SHEETS 2020
After
Development

MOVEMENT SUMMARY

 Site: 01 [01 AM AD (Site Folder: General)]

 Network: N101 [AM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2025 After Development
Site Category: (None)
Stop (All-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
East: Park Street														
5	T1	121	0.0	121	0.0	0.309	11.3	LOS B	0.6	4.5	0.64	1.33	2.09	45.1
6	R2	161	0.0	161	0.0	0.309	11.6	LOS B	0.6	4.5	0.64	1.33	2.09	50.1
Approach		282	0.0	282	0.0	0.309	11.5	LOS B	0.6	4.5	0.64	1.33	2.09	48.6
North: Main Street														
7	L2	125	0.0	125	0.0	0.449	21.0	LOS C	1.2	8.6	0.94	1.41	2.73	44.8
9	R2	69	0.0	69	0.0	0.449	20.8	LOS C	1.2	8.6	0.94	1.41	2.73	37.2
Approach		195	0.0	195	0.0	0.449	20.9	LOS C	1.2	8.6	0.94	1.41	2.73	42.9
West: Park Street														
10	L2	155	0.0	155	0.0	0.510	16.8	LOS C	1.5	10.2	0.85	1.46	2.87	43.5
11	T1	189	0.0	189	0.0	0.510	16.4	LOS C	1.5	10.2	0.85	1.46	2.87	43.4
Approach		344	0.0	344	0.0	0.510	16.6	LOS C	1.5	10.2	0.85	1.46	2.87	43.4
All Vehicles		821	0.0	821	0.0	0.510	15.9	LOS C	1.5	10.2	0.80	1.40	2.57	45.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 Site: 01 [01 PM AD (Site Folder: General)]

 Network: N101 [PM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2025 After Development
Site Category: (None)
Stop (All-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
East: Park Street														
5	T1	106	0.0	106	0.0	0.339	12.6	LOS B	0.8	5.3	0.73	1.34	2.24	43.9
6	R2	158	0.0	158	0.0	0.339	12.8	LOS B	0.8	5.3	0.73	1.34	2.24	49.3
Approach		264	0.0	264	0.0	0.339	12.7	LOS B	0.8	5.3	0.73	1.34	2.24	47.8
North: Main Street														
7	L2	151	0.0	151	0.0	0.508	19.3	LOS C	1.5	10.4	0.90	1.45	2.91	45.7
9	R2	128	0.0	128	0.0	0.508	19.1	LOS C	1.5	10.4	0.90	1.45	2.91	38.4
Approach		279	0.0	279	0.0	0.508	19.2	LOS C	1.5	10.4	0.90	1.45	2.91	43.2
West: Park Street														
10	L2	105	0.0	105	0.0	0.406	19.4	LOS C	1.0	7.3	0.92	1.38	2.58	41.8
11	T1	78	0.0	78	0.0	0.406	19.0	LOS C	1.0	7.3	0.92	1.38	2.58	41.7
Approach		183	0.0	183	0.0	0.406	19.2	LOS C	1.0	7.3	0.92	1.38	2.58	41.8
All Vehicles		726	0.0	726	0.0	0.508	16.9	LOS C	1.5	10.4	0.84	1.39	2.58	44.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 02 [02 AM AD (Site Folder: General)]

Network: N101 [AM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2025 After Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Piet Uys Street														
1	L2	9	0.0	9	0.0	0.167	8.6	LOS A	0.2	1.7	0.48	0.97	0.48	45.1
2	T1	42	0.0	42	0.0	0.167	11.0	LOS B	0.2	1.7	0.48	0.97	0.48	50.0
3	R2	55	0.0	55	0.0	0.167	11.6	LOS B	0.2	1.7	0.48	0.97	0.48	45.1
Approach		106	0.0	106	0.0	0.167	11.1	LOS B	0.2	1.7	0.48	0.97	0.48	47.8
East: Park Street														
4	L2	23	0.0	23	0.0	0.100	6.1	LOS A	0.1	0.5	0.11	0.11	0.11	55.8
5	T1	154	0.0	154	0.0	0.100	0.2	LOS A	0.1	0.5	0.11	0.11	0.11	53.8
6	R2	16	0.0	16	0.0	0.100	6.7	LOS A	0.1	0.5	0.11	0.11	0.11	55.3
Approach		193	0.0	193	0.0	0.100	1.4	NA	0.1	0.5	0.11	0.11	0.11	54.6
North: Piet Uys Street														
7	L2	22	0.0	22	0.0	0.084	9.2	LOS A	0.1	0.8	0.45	0.92	0.45	45.8
8	T1	19	0.0	19	0.0	0.084	10.7	LOS B	0.1	0.8	0.45	0.92	0.45	50.4
9	R2	20	0.0	20	0.0	0.084	11.8	LOS B	0.1	0.8	0.45	0.92	0.45	45.8
Approach		61	0.0	61	0.0	0.084	10.5	LOS B	0.1	0.8	0.45	0.92	0.45	47.9
West: Park Street														
10	L2	46	0.0	46	0.0	0.163	5.6	LOS A	0.0	0.1	0.01	0.09	0.01	56.1
11	T1	275	0.0	275	0.0	0.163	0.0	LOS A	0.0	0.1	0.01	0.09	0.01	53.5
12	R2	4	0.0	4	0.0	0.163	6.1	LOS A	0.0	0.1	0.01	0.09	0.01	55.3
Approach		325	0.0	325	0.0	0.163	0.9	NA	0.0	0.1	0.01	0.09	0.01	54.7
All Vehicles		685	0.0	685	0.0	0.167	3.5	NA	0.2	1.7	0.15	0.31	0.15	51.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 02 [02 PM AD (Site Folder: General)]

Network: N101 [PM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2025 After Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Piet Uys Street														
1	L2	4	0.0	4	0.0	0.058	8.7	LOS A	0.1	0.6	0.42	0.91	0.42	46.3
2	T1	18	0.0	18	0.0	0.058	9.8	LOS A	0.1	0.6	0.42	0.91	0.42	50.7
3	R2	20	0.0	20	0.0	0.058	10.4	LOS B	0.1	0.6	0.42	0.91	0.42	46.3
Approach		42	0.0	42	0.0	0.058	10.0	LOS A	0.1	0.6	0.42	0.91	0.42	48.8
East: Park Street														
4	L2	47	0.0	47	0.0	0.120	5.7	LOS A	0.1	0.5	0.07	0.16	0.07	55.5
5	T1	171	0.0	171	0.0	0.120	0.1	LOS A	0.1	0.5	0.07	0.16	0.07	53.0
6	R2	17	0.0	17	0.0	0.120	6.1	LOS A	0.1	0.5	0.07	0.16	0.07	55.1
Approach		235	0.0	235	0.0	0.120	1.6	NA	0.1	0.5	0.07	0.16	0.07	54.3
North: Piet Uys Street														
7	L2	13	0.0	13	0.0	0.077	8.6	LOS A	0.1	0.8	0.38	0.91	0.38	46.5
8	T1	39	0.0	39	0.0	0.077	9.9	LOS A	0.1	0.8	0.38	0.91	0.38	50.9
9	R2	11	0.0	11	0.0	0.077	10.3	LOS B	0.1	0.8	0.38	0.91	0.38	46.5
Approach		62	0.0	62	0.0	0.077	9.7	LOS A	0.1	0.8	0.38	0.91	0.38	49.8
West: Park Street														
10	L2	26	0.0	26	0.0	0.093	5.7	LOS A	0.0	0.2	0.04	0.10	0.04	55.8
11	T1	151	0.0	151	0.0	0.093	0.0	LOS A	0.0	0.2	0.04	0.10	0.04	52.1
12	R2	6	0.0	6	0.0	0.093	6.2	LOS A	0.0	0.2	0.04	0.10	0.04	55.0
Approach		183	0.0	183	0.0	0.093	1.1	NA	0.0	0.2	0.04	0.10	0.04	53.9
All Vehicles		522	0.0	522	0.0	0.120	3.1	NA	0.1	0.8	0.12	0.29	0.12	52.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 03 [03 AM AD (Site Folder: General)]

Network: N101 [AM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2025 After Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: King Street														
1	L2	23	0.0	23	0.0	0.075	8.6	LOS A	0.1	0.7	0.34	0.91	0.34	46.0
2	T1	8	0.0	8	0.0	0.075	10.9	LOS B	0.1	0.7	0.34	0.91	0.34	50.5
3	R2	25	0.0	25	0.0	0.075	11.2	LOS B	0.1	0.7	0.34	0.91	0.34	46.0
Approach		57	0.0	57	0.0	0.075	10.1	LOS B	0.1	0.7	0.34	0.91	0.34	47.0
East: Park Street														
4	L2	19	0.0	19	0.0	0.097	6.4	LOS A	0.1	0.6	0.15	0.13	0.15	54.8
5	T1	141	0.0	141	0.0	0.097	0.3	LOS A	0.1	0.6	0.15	0.13	0.15	48.0
6	R2	22	0.0	22	0.0	0.097	6.7	LOS A	0.1	0.6	0.15	0.13	0.15	54.2
Approach		182	0.0	182	0.0	0.097	1.7	NA	0.1	0.6	0.15	0.13	0.15	51.6
North: King Street														
7	L2	34	0.0	34	0.0	0.099	9.2	LOS A	0.1	1.0	0.43	0.92	0.43	45.9
8	T1	11	0.0	11	0.0	0.099	10.7	LOS B	0.1	1.0	0.43	0.92	0.43	50.5
9	R2	29	0.0	29	0.0	0.099	11.6	LOS B	0.1	1.0	0.43	0.92	0.43	45.9
Approach		74	0.0	74	0.0	0.099	10.4	LOS B	0.1	1.0	0.43	0.92	0.43	46.9
West: Park Street														
10	L2	69	0.0	69	0.0	0.174	5.6	LOS A	0.0	0.3	0.03	0.13	0.03	55.5
11	T1	266	0.0	266	0.0	0.174	0.0	LOS A	0.0	0.3	0.03	0.13	0.03	50.8
12	R2	9	0.0	9	0.0	0.174	6.0	LOS A	0.0	0.3	0.03	0.13	0.03	54.7
Approach		345	0.0	345	0.0	0.174	1.3	NA	0.0	0.3	0.03	0.13	0.03	53.4
All Vehicles		658	0.0	658	0.0	0.174	3.2	NA	0.1	1.0	0.13	0.29	0.13	50.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 03 [03 PM AD (Site Folder: General)]

Network: N101 [PM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2025 After Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: King Street														
1	L2	11	0.0	11	0.0	0.028	8.5	LOS A	0.0	0.3	0.30	0.88	0.30	46.8
2	T1	3	0.0	3	0.0	0.028	9.6	LOS A	0.0	0.3	0.30	0.88	0.30	51.1
3	R2	11	0.0	11	0.0	0.028	9.9	LOS A	0.0	0.3	0.30	0.88	0.30	46.8
Approach		24	0.0	24	0.0	0.028	9.3	LOS A	0.0	0.3	0.30	0.88	0.30	47.7
East: Park Street														
4	L2	22	0.0	22	0.0	0.097	5.9	LOS A	0.1	0.6	0.12	0.14	0.12	54.7
5	T1	139	0.0	139	0.0	0.097	0.1	LOS A	0.1	0.6	0.12	0.14	0.12	48.0
6	R2	25	0.0	25	0.0	0.097	6.1	LOS A	0.1	0.6	0.12	0.14	0.12	54.2
Approach		186	0.0	186	0.0	0.097	1.6	NA	0.1	0.6	0.12	0.14	0.12	51.9
North: King Street														
7	L2	20	0.0	20	0.0	0.047	8.6	LOS A	0.1	0.5	0.31	0.89	0.31	46.8
8	T1	6	0.0	6	0.0	0.047	9.6	LOS A	0.1	0.5	0.31	0.89	0.31	51.1
9	R2	16	0.0	16	0.0	0.047	10.1	LOS B	0.1	0.5	0.31	0.89	0.31	46.8
Approach		42	0.0	42	0.0	0.047	9.3	LOS A	0.1	0.5	0.31	0.89	0.31	47.8
West: Park Street														
10	L2	39	0.0	39	0.0	0.108	5.7	LOS A	0.1	0.5	0.07	0.15	0.07	54.9
11	T1	153	0.0	153	0.0	0.108	0.1	LOS A	0.1	0.5	0.07	0.15	0.07	48.5
12	R2	18	0.0	18	0.0	0.108	6.0	LOS A	0.1	0.5	0.07	0.15	0.07	54.1
Approach		209	0.0	209	0.0	0.108	1.6	NA	0.1	0.5	0.07	0.15	0.07	52.3
All Vehicles		462	0.0	462	0.0	0.108	2.7	NA	0.1	0.6	0.13	0.25	0.13	50.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 04 [04 AM AD (Site Folder: General)]

Network: N101 [AM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2025 After Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Queen Street														
1	L2	38	0.0	38	0.0	0.058	8.7	LOS A	0.1	0.6	0.31	0.89	0.31	46.9
2	T1	4	0.0	4	0.0	0.058	11.2	LOS B	0.1	0.6	0.31	0.89	0.31	50.9
3	R2	11	0.0	11	0.0	0.058	11.8	LOS B	0.1	0.6	0.31	0.89	0.31	46.6
Approach		53	0.0	53	0.0	0.058	9.5	LOS A	0.1	0.6	0.31	0.89	0.31	47.3
East: Park Street														
4	L2	11	0.0	11	0.0	0.100	6.5	LOS A	0.1	0.4	0.09	0.07	0.09	55.8
5	T1	169	0.0	169	0.0	0.100	0.2	LOS A	0.1	0.4	0.09	0.07	0.09	55.8
6	R2	14	0.0	14	0.0	0.100	6.8	LOS A	0.1	0.4	0.09	0.07	0.09	55.3
Approach		194	0.0	194	0.0	0.100	1.0	NA	0.1	0.4	0.09	0.07	0.09	55.7
North: Queen Street														
7	L2	20	0.0	20	0.0	0.064	9.4	LOS A	0.1	0.6	0.46	0.92	0.46	45.5
8	T1	6	0.0	6	0.0	0.064	11.0	LOS B	0.1	0.6	0.46	0.92	0.46	50.2
9	R2	18	0.0	18	0.0	0.064	12.3	LOS B	0.1	0.6	0.46	0.92	0.46	45.6
Approach		44	0.0	44	0.0	0.064	10.8	LOS B	0.1	0.6	0.46	0.92	0.46	46.5
West: Park Street														
10	L2	41	0.0	41	0.0	0.186	5.7	LOS A	0.1	0.4	0.04	0.09	0.04	56.0
11	T1	315	0.0	315	0.0	0.186	0.0	LOS A	0.1	0.4	0.04	0.09	0.04	53.1
12	R2	14	0.0	14	0.0	0.186	6.1	LOS A	0.1	0.4	0.04	0.09	0.04	55.2
Approach		369	0.0	369	0.0	0.186	0.9	NA	0.1	0.4	0.04	0.09	0.04	54.3
All Vehicles		660	0.0	660	0.0	0.186	2.3	NA	0.1	0.6	0.10	0.20	0.10	52.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 Site: 04 [04 PM AD (Site Folder: General)]

 Network: N101 [PM After Development (Network Folder: General)]

Traffic Impact Statement for a Proposed Residential Development on Erf 3279 & 3280, Humansdorp
2025 After Development
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Queen Street														
1	L2	16	0.0	16	0.0	0.020	8.5	LOS A	0.0	0.2	0.26	0.87	0.26	47.4
2	T1	1	0.0	1	0.0	0.020	9.8	LOS A	0.0	0.2	0.26	0.87	0.26	51.3
3	R2	4	0.0	4	0.0	0.020	10.1	LOS B	0.0	0.2	0.26	0.87	0.26	47.2
Approach		21	0.0	21	0.0	0.020	8.9	LOS A	0.0	0.2	0.26	0.87	0.26	47.6
East: Park Street														
4	L2	11	0.0	11	0.0	0.085	6.0	LOS A	0.1	0.4	0.09	0.09	0.09	55.6
5	T1	139	0.0	139	0.0	0.085	0.1	LOS A	0.1	0.4	0.09	0.09	0.09	55.2
6	R2	16	0.0	16	0.0	0.085	6.2	LOS A	0.1	0.4	0.09	0.09	0.09	55.1
Approach		165	0.0	165	0.0	0.085	1.1	NA	0.1	0.4	0.09	0.09	0.09	55.2
North: Queen Street														
7	L2	12	0.0	12	0.0	0.029	8.7	LOS A	0.0	0.3	0.35	0.88	0.35	46.7
8	T1	3	0.0	3	0.0	0.029	9.8	LOS A	0.0	0.3	0.35	0.88	0.35	51.0
9	R2	9	0.0	9	0.0	0.029	10.4	LOS B	0.0	0.3	0.35	0.88	0.35	46.5
Approach		24	0.0	24	0.0	0.029	9.5	LOS A	0.0	0.3	0.35	0.88	0.35	47.5
West: Park Street														
10	L2	23	0.0	23	0.0	0.129	5.9	LOS A	0.1	0.8	0.10	0.13	0.10	55.1
11	T1	193	0.0	193	0.0	0.129	0.1	LOS A	0.1	0.8	0.10	0.13	0.10	49.2
12	R2	33	0.0	33	0.0	0.129	6.0	LOS A	0.1	0.8	0.10	0.13	0.10	54.3
Approach		248	0.0	248	0.0	0.129	1.4	NA	0.1	0.8	0.10	0.13	0.10	52.3
All Vehicles		459	0.0	459	0.0	0.129	2.1	NA	0.1	0.8	0.12	0.19	0.12	52.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.