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*Traffic Engineering
Transportation Planning
Transport Economy
Project Management
Project Financing & Viability*

TRAFFIC IMPACT STUDY & VIABILITY STUDY

PROPOSED FILLING STATION ON STAND 1869

CAPITAL PARK

May 2014

TRAFFIC IMPACT STUDY: PROPOSED FILLING STATION ON
STAND 1869 CAPITAL PARK, CITY OF TSHWANE



APPLICATION TO ROAD AUTHORITY

OUR REFERENCE	REP01/TW668/20May14/v1
DATE	20 May 2014
AGENCY	CITY OF TSHWANE Service Delivery Department
MANAGER	The General Manager Roads and Storm Water Division
ADDRESS	PO Box 14013, Lyttelton, 0140
FOR ATTENTION	Herbert Phahlane
SUBJECT	TRAFFIC IMPACT STUDY AND VIABILITY STUDY: PROPOSED FILLING STATION ON STAND 1869 CAPITAL PARK

An application is lodged to develop a filling station in the south-eastern corner of the Paul Kruger / Malherbe Street intersection with direct access from Paul Kruger Street (only southbound direction) and from Malherbe Street (both directions).

The traffic impact study showed that the proposed development is viable from a technical viewpoint; i.e. mostly access related, and from a financial viewpoint; i.e. based on the expected fuel sales, and are thus supported by the traffic investigation.

No road improvements are required from the applicant apart from the construction of the required accesses. The applicant however has to provide the necessary land for a proposed road widening along Malherbe Street to accommodate the BRT proposals at this intersection. Refer to *Appendix A: Proposed Access Arrangements and Site Circulation*.

Your consideration and approval of this traffic impact study at your earliest convenience is hereby requested. Please do not hesitate to contact us immediately for any discussions or enquiries.

A handwritten signature in black ink, appearing to read 'Pieter Kruger', is written over a white rectangular background.

Kind Regards

Pieter Kruger for TECHWORLD

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TITLE PAGE OF REPORT

TITLE OF REPORT	Traffic Impact Study: Proposed Filling Station on Stand 1869 Capital Park, City of Tshwane	
DESCRIPTION	This traffic study evaluates the traffic impact and determines the viability of a new filling station in Capital Park.	
DATE		STATUS OF REPORT
May 2014		Final Report
CLIENT		PROJECT MANAGER
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PROJECT NUMBER		REPORT NUMBER
TW668		REP01/TW668/22May14
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PROJECT TEAM		COPYRIGHT
P Kruger, J Daling, ML Wilson		TECHWORLD

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1 APPLICATION

Description of the application and property in terms of location, extent, current, and future usage

THE TYPE OF LAND USE APPLICATION IS THE FOLLOWING

Type	Rezoning application for a filling station in Capital Park.	Refer to: <i>Figure 1: Locality Plan and Study Area</i>
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THE LOCATION OF THE SITE IN TERMS OF THE PROPERTY DESCRIPTION IS THE FOLLOWING

Erf / Portion	Stand 1869
Suburb / Farm	Capital Park

THE LOCATION OF THE SITE IN TERMS OF BORDERING AND/OR NEIGHBOURING ROADS ARE THE FOLLOWING

Roads to the North	Malherbe Street	Directly bordering
Roads to the East	None	
Roads to the South	None	
Roads to the West	Paul Kruger Street	Directly bordering

THE SIZE AND/OR EXTENT OF THE SITE IS THE FOLLOWING

Extent of Total Development Area	3019 m ²
----------------------------------	---------------------

THE EXISTING ZONING IS THE FOLLOWING

Existing Zoning	"Residential 1"
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THE EXISTING USAGE OF THE SITE IS THE FOLLOWING

Existing Usage	Trading of Nursery and Garden Products
----------------	--

THE REQUIRED ZONING AND EXTENT IS THE FOLLOWING

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Required zoning	Public Garage with Places of Refreshment: FAR = 0.30 Height 2 Storeys Maximum Coverage 30% Building lines of 5m on all street boundaries and 2m on internal boundaries	
Planned development	The filling station development will comprise of the following components: (1) Retail Filling Station with supporting facilities (2) Convenience Store 150 m ² (3) Fast Food Outlet 100 m ²	
PHASING OF DEVELOPMENT		
Phasing	No phasing is planned	
THE LOCATION IS SHOWN ON THE ATTACHED LOCALITY PLAN		
Locality Plan		Refer to: <i>Figure 1: Locality Plan and Study Area</i>
2 METHODOLOGY		<i>The approach and methodology followed in the execution of this study is described in this section</i>
THE FOLLOWING GENERAL APPROACH AND METHODOLOGY WAS UTILIZED		
Access	Generally accepted geometric guidelines of the City of Tshwane for the design of accesses to filling stations.	
Viability	Acceptable market standards and methodology.	
THE FOLLOWING CRITICAL PEAK HOURS WERE ANALYZED		
Design Period	Average Daily Traffic Demand	
THE STUDY PERIOD FOR THE DEVELOPMENT IS THE FOLLOWING		
Base Year (Existing Situation)	2014	

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THE FOLLOWING ROAD NETWORK ALTERNATIVES WERE INVESTIGATED

Network alternatives	The traffic investigation has taken into account the BRT Line 1 along Paul Kruger Street that is currently under construction.
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THE FOLLOWING TRAFFIC REPORTS WERE TAKEN INTO ACCOUNT

Traffic Reports	<i>City of Tshwane, Tshwane Rapid Transit (TRT) System, Traffic Impact Assessment Report: Line 1A Updated, September 2013.</i>
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3 STUDY AREA AND NETWORK

This section describes the identification of an appropriate study area, and the characteristics of the network included in the study area.

3.1 LATENT DEVELOPMENT RIGHTS AND COMMITTED ROAD IMPROVEMENTS IN THE AREA

THE FOLLOWING LATENT (EXISTING AND UNDEVELOPED) LAND USE RIGHTS EXIST IN THE STUDY AREA

Latent Land Use Rights	The application is in a build-up urban environment.
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Traffic Growth Rate	It is expected that a low / average traffic growth rate of about 3% p.a. will be maintained during the 20-year design period of the filling station.
---------------------	--

THE FOLLOWING ROAD IMPROVEMENTS ARE COMMITTED IN THE STUDY AREA

Committed Road Improvements	BRT Planning (Line 1)	Refer to: <i>Appendix C: BRT Implementation along Paul Kruger Street</i>
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3.2 STUDY AREA

THE STUDY AREA WAS DETERMINED BASED ON THE FOLLOWING

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Central North-South Corridor	The proposed filling station will serve the central north-south corridor that is defined by Paul Kruger Street / Mansfield Avenue between the CBD of the City of Tshwane and the Magaliesberge.	Refer to: <i>Figure 2: Existing Facilities Serving the North-South Corridors</i>
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THE FOLLOWING INTERSECTIONS WERE INCLUDED IN THE STUDY AREA (THE EXISTING TYPE OF TRAFFIC CONTROL IS ALSO INDICATED)

Intersection 1	Paul Kruger / Malherbe Streets	Traffic Signals
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THE LAYOUT OF THE INTERSECTIONS IN THE STUDY AREA IS INDICATED SCHEMATICALLY ON THE ATTACHED FIGURE

Schematic Layout		Refer to: <i>Figure 3: Current and Committed Road Network and Lane Layout</i>
------------------	--	--

3.3 ROAD NETWORK DESCRIPTION

ROAD NETWORK PLANNING IN AREA

BRT Line 1 – Section 1 – along Paul Kruger Street	Paul Kruger Street is currently being upgraded to provide two dedicated bus lanes in the median of the road. Two lanes per direction will remain open and available to private transportation, although all the exclusive turning lanes at intersections will be eliminated. Although the median will be closed at some intersections in the study area; e.g. Van Heerden Street and Myburgh Street, Malherbe Street will remain open and function as a full signalized intersection.	Refer to: <i>Appendix C: BRT Implementation along Paul Kruger Street</i>
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ACCESSIBILITY OF THE SITE IS PROVIDED BY THE FOLLOWING ROAD NETWORK

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Paul Kruger Street and Malherbe Street	<p>Paul Kruger Street is one of three north-south Class 3 Distributors (4-lane major arterials potentially with BRT lanes) that connects the CBD of the City of Tshwane with the areas north of the Magaliesberge.</p> <p>Malherbe Street is an east-west Class 4B Collector that connects the Steve Biko / Johan Heyns One-way Street Pair with Paul Kruger Street.</p> <p>Access to the filling station can be obtained from both streets although only in a southbound direction from Paul Kruger Street.</p>	<p>Refer to:</p> <p><i>Figure 2: Existing Facilities Serving the North-South Corridors</i></p>
--	--	--

3.4 ACCESS AND CIRCULATION

ACCESS TO THE FILLING STATION WILL BE OBTAINED FROM THE FOLLOWING STREETS

Paul Kruger Street and Malherbe Street	<p>The accesses to the filling station will be provided as far as possible from the intersection of the neighbouring streets; i.e. about 25m from the downstream “stop line” along Paul Kruger Street and about 45m from the stop line along Malherbe Street.</p> <p>Access from Malherbe Street is unrestricted in both directions while the curb median and BRT Line along Paul Kruger Street will only allow access in the southbound direction.</p>	<p>Refer to:</p> <p><i>Appendix A: Proposed Access Arrangements and Site Circulation</i></p>
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CIRCULATION BY FUEL TANKERS WILL BE AS FOLLOWS

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Circulation	The fuel filler points will be provided in the vicinity of the Malherbe Street access to allow fuel tankers to enter the site from Paul Kruger Street and to exit into Malherbe Street in a westbound direction; i.e. on the approach to the signalized intersection which allows movement in both northbound and southbound directions along Paul Kruger Street.	Refer to: <i>Appendix A: Proposed Access Arrangements and Site Circulation</i>
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4 EXISTING TRAFFIC CHARACTERISTICS	<i>The existing traffic demand is described in this section.</i>
---	--

TRAFFIC COUNTS WERE CONDUCTED DURING THE FOLLOWING PERIODS

Weekday 12-Hour Count	Friday 09/05/2014: Counting Period - 06:00 to 18:00
-----------------------	--

THE EXISTING TRAFFIC DEMAND IS SHOWN SCHEMATICALLY ON THE ATTACHED FIGURE

Schematic presentation of traffic counts		Refer to: <i>Figure 4: Weekday Traffic Demand</i>
--	--	--

THE CURRENT 12-HOUR TRAFFIC DEMAND AT THE PAUL KRUGER / MALHERBE STREET INTERSECTION IS AS FOLLOWS

Paul Kruger	Southbound	±7,470
	Northbound	±8,010
Malherbe Street	Westbound	±1,460
	Eastbound	±1,240
Intersection	All Approaches	±18,180

THE CURRENT MODAL SPLIT (VEHICLE CLASSIFICATION) AT THE INTERSECTION IS AS FOLLOWS

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12-Hour Vehicle Classification	Light Vehicles	73.2%
	Taxi's	22.1%
	Buses	2.1%
	Heavy Vehicles	2.6%

THE DETAILED TRAFFIC COUNTS ARE ATTACHED AS AN APPENDIX

Detailed traffic counts	Refer to: <i>Appendix D: Traffic Counts</i>
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5 TRIP CHARACTERISTICS

The expected trip characteristics of the development are described in this section in terms of trip generation, trip distribution, modal split, and trip assignment.

5.1 TRIP GENERATION

THE EXPECTED TRIP GENERATION WAS BASED ON THE FOLLOWING

Trip Generation of a Filling Station	<p>A filling station is not a primary trip generator since about 85% of the total trips generated are passer-by trips that are intercepted from the adjacent road network. About 75% of the 85% intercepted trips are fuel related while the remainder are generated by the ancillary uses on the site such as the C-Store.</p> <p>Very successful filling stations generally generate (primary plus intercepted trips) less than 1000 vehicle trips per day of which less than 10% occur during the respective peak hours.</p>
Proposed Fast Food Outlet	<p>The traffic impact of a small fast food component even at a high trip rate of 50 trips per 100 m² GLA is not significant given that only 50 trips will be generated by a typical 100 m² outlet of which only a proportion will be primary trips.</p>

5.2 EXPECTED TRAFFIC IMPACT

THE EXPECTED PEAK HOUR TRAFFIC IMPACT OF THE FILLING STATION IS THE FOLLOWING

Capacity and Operational Analyses	It is generally accepted that the peak hour traffic impact of a filling station on the road network is not significant from a capacity and operational point of view and does not warrant any capacity and operational analyses.
6 VIABILITY OF PLANNED FILLING STATION	<i>The capacity and operational analyses were subsequently done to determine the required road improvements for the various scenarios</i>
6.1 APPROACH AND METHODOLOGY	
THE FOLLOWING APPROACH AND METHODOLOGY WAS UTILIZED	
Viability	<p>A Filling Station can have several profit centres in addition to fuel sales; i.e. possibly a convenience store, a fast food outlet, car wash, and ATM. A conservative approach – if possible - is to determine the viability only on the basis of fuel sales. The future growth in traffic also have to be taken into account since it can be expected that the fuel sales will grow hand in hand with the growth in bypassing traffic. However it follows that a filling station that is viable from its opening will only improve in viability given no other changes.</p> <p>The viability of a filling station is furthermore directly related to the expected fuel sales based on the assumption that the development cost of filling stations – in urban areas under similar circumstances – are approximately the same.</p> <p>Expected fuel sales of 250,000 litres/month is generally accepted as a viable filling station given average parameters in terms of traffic and development cost.</p> <p>This viability study shows that the proposed filling station is very viable on the basis of expected fuel sales of 350,000 litres/month after its opening.</p>
Fuel Sales	<p>The expected fuel sales of a filling station depends on the prevailing traffic demand (i.e. market), the interception rates, the average fill, and the average trading days per month.</p> <p>The interception rate(s) depend on the traffic demand, the configuration and quality of access, and the number of competing filling stations in the market area.</p>

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Vehicle Classification	<p>The average vehicle classification during the survey period was 73.2% light vehicles, 22.1% taxi's, 2.1% buses, and 2.6% heavy vehicles.</p> <p>The market of the proposed filling station will typically include only light vehicles and mini-bus taxis. Although some of the heavy vehicles may also use the filling station, heavy vehicles are generally refuelling at diesel depots and other specific outlets that specialises in diesel sales. The retail price of diesel is not regulated resulting in the specialisation in diesel sales.</p>
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6.2 PREVAILING TRAFFIC DEMAND

AVERAGE ANNUAL DAILY TRAFFIC DEMAND (AADT)

12-Hour Weekday Traffic Demand	<p>The current traffic demand is shown in <i>Table 1</i> as about 18,000 vehicles during a 12-hour period on a weekday (Friday).</p>	<p>Refer to: <i>Table 1: Existing Weekday 12-Hour Traffic Count at Paul Kruger / Malherbe Intersection (09 May 2014)</i></p>
Average Weekday Traffic Demand (AWDT)	<p>A conversion factor of 1.25 is appropriate to convert 12-hour Friday traffic counts to AWDT traffic counts - based on typical traffic patterns in urban areas along major roads.</p>	
Average Annual Daily Traffic Demand (AADT)	<p>Since the expected monthly or annual fuel sales is based on factored daily fuel sales, it is common practice to use a number of average trading days per month which is less than the calendar average of 30.5 days.</p> <p>In this instance – based on the prevailing traffic characteristics - it is recommended to use 25 average trading days per month.</p>	

6.3 INTERCEPTION RATES AND AVERAGE FILL

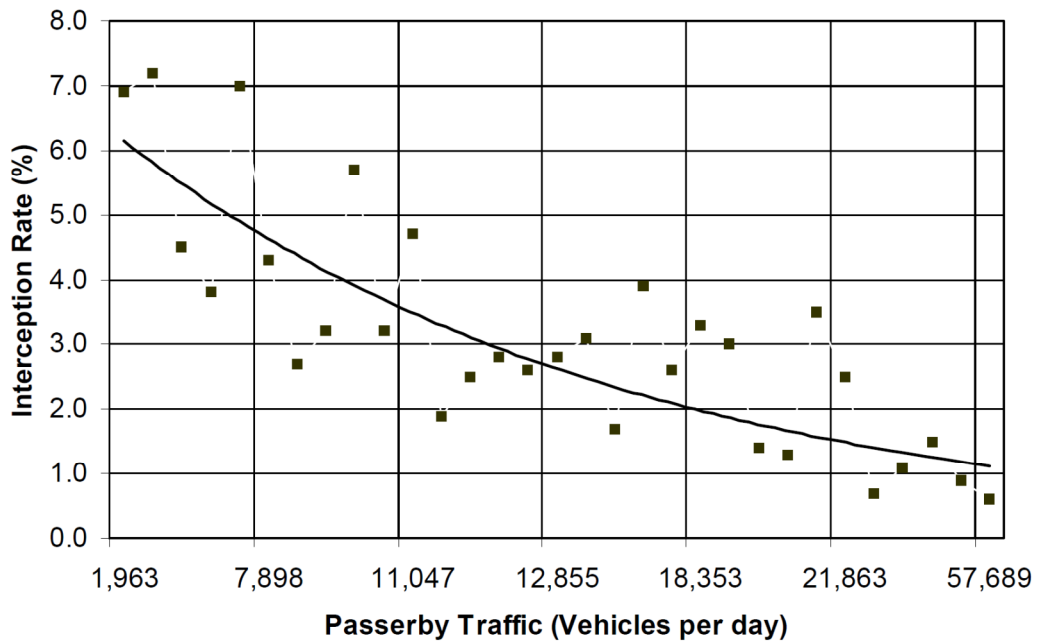
RESULTS FROM TRAFFIC SURVEYS AT THREE SIMILAR FILLING STATIONS

Empirical Results	<p>The average interception rate and average fill were determined at three comparable filling stations along Steve Biko and Johan Heyns. Inspection of the attached table</p>	<p>Refer to: <i>Table 2: Interception Rates and Average Fill/Vehicle at Similar Sites</i></p>
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	<p>shows a typical trend, namely declining interception rates from routes that serve higher traffic flows. The surveyed results give a good indication of the interception rates that can be expected at the planned filling station.</p> <p>Average fills per vehicle of 16.0, 22.3, and 21.3 litres/vehicle were measured at the three respective filling stations (average of 104 measurements at each site).</p>	
Recommended Average Fill (litres) for Proposed Filling Station.	An average fill of 20 litres per vehicle is assumed for the proposed filling station.	
Recommended Interception Rates for Proposed Filling Station.	Paul Kruger Street in Southbound Direction	4.0%
	Paul Kruger Street in Northbound Direction	2.0%
	Malherbe Street in Westbound Direction	6.0%
	Malherbe Street in Eastbound Direction	3.0%
Expected Daily Patrons (light vehicles)	The expected number of daily vehicles (light vehicles) is calculated as 700 vehicles	Refer to: <i>Table 3: Expected Daily Patrons (vehicles / day)</i>
Guidelines for Access to Filling Stations, October 2002	Traffic Surveys conducted at 35 filling stations shows clearly this parabolic declining relationship - from $\pm 6\%$ @ 2,000 VPD to $\pm 4\%$ @ 10,000 VPD to $\pm 2\%$ @ 18,000 VPD.	



Graph 6.2: Interception rate versus passerby traffic

6.4 EXPECTED FUEL SALES

THE EXPECTED FUEL SALES IS CALCULATED AS FOLLOWS

Fuel Sales per month =	= vehicles/day x litres/vehicle x days / month
	= 700 x 20 x 25
	= 350,000 litres / month

6.5 EXPECTED IMPACT ON OTHER FILLING STATIONS

THE EXPECTED IMPACT ON COMPETING FILLING STATIONS - IN TERMS OF FUEL SALES - IS AS FOLLOWS

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Expected Impact	<p>The total fuel market is shared by all the available retail facilities. In an urban context approximately 5 filling stations are required to serve a single traffic stream in full assuming an average interception rate of 3% and refuelling once a week ($100 / 3\% \times 7$). The overall generalized impact is thus in the order of about 6 / 5. However it should be remembered that the general growth in traffic of about 3% p.a. continuously warrants new entries into the fuel market.</p> <p>Inspection of the attached figure shows that the particular central north-south corridor is currently not well served by facilities since the facilities along the northern section of Paul Kruger Street do not serve the through traffic along Mansfield Road.</p>	<p>Refer to:</p> <p><i>Figure 2: Existing Facilities Serving the North-South Corridors</i></p>
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<p>7 ROAD IMPROVEMENTS AND MITIGATION MEASURES</p>	<p><i>All the required road improvements on the road network, the subsequent apportionment of cost, and the required road improvements by the applicant is discussed in this section.</i></p>
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7.1 REQUIRED ROAD IMPROVEMENTS IN STUDY AREA

THE REQUIRED ROAD IMPROVEMENTS BY THE APPLICANT ARE THE FOLLOWING:

Intersection Improvements	<p>No road network improvements – apart from the proposed access arrangements - are required to accommodate the proposed filling station since the majority of traffic</p>	<p>Refer to:</p> <p><i>Appendix A: Proposed Access Arrangements and Site Circulation</i></p>
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	will be attracted from the bypassing traffic.	
BRT Planning in the area	<p>The BRT planning along Paul Kruger Street for Line 1 has previously shown a road widening - from two to three lanes - on both approaches of Malherbe Street. The latest planning however only shows a road widening on the western approach of Malherbe Street.</p> <p>It is recommended that the applicant provides the required road reserve to also widen the eastern approach to three lanes since the BRT will result in a large reduction in private vehicle capacity along Paul Kruger Street.</p>	<p>Refer to:</p> <p><i>Appendix A: Proposed Access Arrangements and Site Circulation</i></p> <p><i>Figure 3: Current and Committed Road Network and Lane Layout</i></p>

7.2 ROAD RESERVE REQUIREMENTS

THE ROAD RESERVE REQUIREMENTS BY THE APPLICANT ARE AS FOLLOWS.

Road Reserve Requirements	The application site has to provide about 3 to 4m along Malherbe Street to make provision for three approach lanes at the stop line.	<p>Refer to:</p> <p><i>Appendix A: Proposed Access Arrangements and Site Circulation</i></p>
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8 PUBLIC TRANSPORT AND PEDESTRIANS REQUIREMENTS

This section describes requirements in terms of facilities for public transport and pedestrians (non-motorised forms of transport).

8.1 PUBLIC TRANSPORT BACKGROUND

THE FOLLOWING ASSESSMENT IS REQUIRED

In terms of the National Land Transport Transition Act, Act 22 of 2000 (Section 29), it is also required to carry out a public transport assessment for all new developments. The assessment need to address aspects such as the number of new employment opportunities that will be created for public transport users, the expected travelling pattern of these users, as well as the impact it may have on the existing public transport network.

THE ESTIMATED DEMAND FOR PUBLIC TRANSPORT USERS ARE THE FOLLOWING

Demand	The proposed fillings station will generate a small number of public transportation trips, by employees, which will be well served by the planned BRT Station immediately north of the site along Paul Kruger Street.	Refer to: <i>Figure 3: Current and Committed Road Network and Lane Layout</i>
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THE FOLLOWING PUBLIC TRANSPORT FACILITIES ARE RECOMMENDED

The objectives of the National Transport Policy (published by the Department of Transport in September 1996) are to limit walking distances for public transport users to less than 1 km in urban areas.

Public Transport Facilities required.	None
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8.2 PEDESTRIAN AND NMT FACILITIES

THE FOLLOWING PEDESTRIAN AND NMT FACILITIES ARE REQUIRED

NMT Facilities	The construction of a 1.5m wide paved sidewalk is recommended on all the street boundaries of the application site.
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9 PARKING REQUIREMENTS

This section describes the parking requirements of the site based on the relevant town planning scheme conditions

THE FOLLOWING NUMBER OF PARKING BAYS WILL BE PROVIDED ON THE SITE

Parking Supply

The following parking requirements are recommended:

- (1) 6 bays/100 m² for the C-store;
- (2) 10 bays /100 m² for the Fast Food;
- (3) 3 bays for the ATM

The parking requirement for the planned 150m² C-store and 100m² Fast Food Outlet plus an ATM is 22 bays. The SDP shows that 23 parking bays are provided.

10 SITE DEVELOPMENT PLAN (SDP) ISSUES

Internal circulation and parking issues which are important for the site development plan (SDP) are discussed in this section.

A SITE DEVELOPMENT PLAN (SDP) IS AVAILABLE FOR THE DEVELOPMENT

SDP

Yes

TRAFFIC ENGINEERING INPUT WILL BE PROVIDED FOR THE FINAL SDP

Traffic Engineering Input

Affirmative

11 CONCLUSIONS AND RECOMMENDATIONS

This section contains the conclusions and recommendations of the report.

11.1 CONCLUSIONS

THE FOLLOWING IS CONCLUDED

Proposed Development

Rezoning application for a filling station in Capital Park.

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Location	South-eastern corner of the Paul Kruger Street / Mansfield Road intersection.	Refer to: <i>Figure 1: Locality Plan and Study Area</i>
Planned development	<p>The filling station development will comprise of the following components:</p> <p>(1) Retail Filling Station with supporting facilities</p> <p>(2) Convenience Store 150 m²</p> <p>(3) Fast Food Outlet 100 m²</p>	
Proposed Access Arrangements	<p>The accesses to the filling station will be provided as far as possible from the intersection of the neighbouring streets; i.e. about 25m from the downstream “stop line” along Paul Kruger Street and about 45m from the stop line along Malherbe Street.</p> <p>Access from Malherbe Street is unrestricted in both directions while the curb median and BRT Line along Paul Kruger Street will only allow access in the southbound direction.</p>	
Circulation	<p>The fuel filler points will be provided in the vicinity of the Malherbe Street access to allow fuel tankers to enter the site from Paul Kruger Street and to exit into Malherbe Street in a westbound direction; i.e. on the approach to the signalized intersection which allows movement in both northbound and southbound directions along Paul Kruger Street.</p>	
Trip Generation of a Filling Station	<p>A filling station is not a primary trip generator since about 85% of the total trips generated are passer-by trips that are intercepted from the adjacent road network. About 75% of the 85% intercepted trips are fuel related while the remainder are generated by the ancillary uses on the site such as the C-Store.</p> <p>Very successful filling stations generally generate (primary plus intercepted trips) less than 1000 vehicle trips per day of which less than 10% occur during the respective peak hours.</p>	
Proposed Fast Food Outlet	<p>The traffic impact of a small fast food component even at a high trip rate of 50 trips per 100 m² GLA is not significant given that only 50 trips will be generated by a typical 100 m² outlet of which only a proportion will be primary trips.</p>	

*TRAFFIC IMPACT STUDY: PROPOSED FILLING STATION ON
STAND 1869 CAPITAL PARK, CITY OF TSHWANE*



Capacity and Operational Analyses	It is generally accepted that the peak hour traffic impact of a filling station on the road network is not significant from a capacity and operational point of view and does not warrant any capacity and operational analyses.
Viability	The proposed fuel station is viable based on an expected fuel sales of 350,000 litres/month after the opening year.
BRT Planning in the area	<p>The BRT planning along Paul Kruger Street for Line 1 has previously shown a road widening - from two to three lanes - on both approaches of Malherbe Street. The latest planning however only shows a road widening on the western approach of Malherbe Street.</p> <p>It is recommended that the applicant provides the required road reserve to also widen the eastern approach to three lanes since the BRT will result in a large reduction in private vehicle capacity along Paul Kruger Street.</p>
Road Reserve Requirements	The application site has to provide about 3 to 4m along Malherbe Street to make provision for three approach lanes at the stop line.
Public Transport facilities	The proposed fillings station will generate a small number of public transportation trips, by employees, which will be well served by the planned BRT Station immediately north of the site along Paul Kruger Street.
Pedestrian and NMT Facilities	The construction of a 1.5m wide paved sidewalk is recommended on all the street boundaries of the application site.
Parking Supply	<p>The following parking requirements are recommended:</p> <ul style="list-style-type: none"> (4) 6 bays/100 m² for the C-store; (5) 10 bays /100 m² for the Fast Food; (6) 3 bays for the ATM <p>The parking requirement for the planned 150m² C-store and 100m² Fast Food Outlet plus an ATM is 22 bays. The SDP shows that 23 parking bays are provided.</p>

11.2 RECOMMENDATIONS

THE FOLLOWING IS RECOMMENDED

Recommendation		
	<p>It is recommended that the application be approved subject to the provision of the required road reserve as indicated on the attachment. The filling station will be financially viable based on forecasted fuel sales of 350,000 litres / month after opening and the traffic impact of the filling station is acceptable given the proposed access arrangements.</p>	<p>Refer to: <i>Appendix A: Proposed Access Arrangements and Site Circulation</i></p>

TABLES

Table 1: Existing Weekday 12-Hour Traffic Count at Paul Kruger / Malherbe Intersection (09 May 2014)

MOVEMENT		LIGHT VEHICLES	MINI-BUS TAXIS	BUSES	HEAVY VEHICLES	TOTAL VEHICLES
SB	1	144	6	4	8	162
	2	5293	1549	165	208	7215
	3	76	7	1	7	91
WB	4	378	71	3	10	462
	5	853	38	1	7	899
	6	91	9	1	1	102
NB	7	224	25	16	27	292
	8	4804	2227	181	171	7383
	9	309	16	0	5	330
EB	10	113	11	6	5	135
	11	543	30	5	10	588
	12	478	33	1	5	517
12-HOUR COUNT		13306	4022	384	464	18176
CLASSIFICATION		73.2%	22.1%	2.1%	2.6%	100.0%

Table 2: Interception Rates and Average Fill/Vehicle at Similar Sites

SITE	BRAND	DIREC-TION	STREET	12-HOUR BYPASS TRAFFIC	12-HOUR ATTRACTED TRAFFIC	12-HOUR TOTAL TRAFFIC	INTERCEP-TION RATES	AVERAGE FILL (litres)
Site 01	TOTAL	SB	Steve Biko	11420	491	11911	4.1%	16.0
		East-West	De Beer	5834	427	6261	6.8%	
		Sub-Total	ALL	17254	918	18172	5.1%	
Site 02	SASOL 01	NB	Steve Biko	12399	609	13008	4.7%	22.3
		East-West	Hertzog	1852	185	2037	9.1%	
		SB	Johan Heyns	16224	293	16517	1.8%	
		Sub-Total	ALL	30475	1087	31562	3.4%	
Site 03	SASOL 02	SB	Johan Heyns	20141	673	20814	3.2%	21.3
		East-West	Ben Swart	7210	187	7397	2.5%	
		Sub-Total	ALL	27351	860	28211	3.0%	

TABLES

Table 3: Expected Daily Patrons (vehicles / day)

APPROACH		12-HOUR TRAFFIC DEMAND		AWDT	ATTRACTION RATE	DAILY TRIPS
		Total Vehicles	Light Vehicles and Taxi's	Light Vehicles and Taxi's		
				1.25		
SB	1	162	7075	8844	4.0%	354
	2	7215				
	3	91				
WB	4	462	1440	1800	6.0%	108
	5	899				
	6	102				
NB	7	292	7605	9506	2.0%	190
	8	7383				
	9	330				
EB	10	135	1208	1510	3.0%	45
	11	588				
	12	517				
TOTAL		18176	17328	21660	±3.2%	697

FIGURES



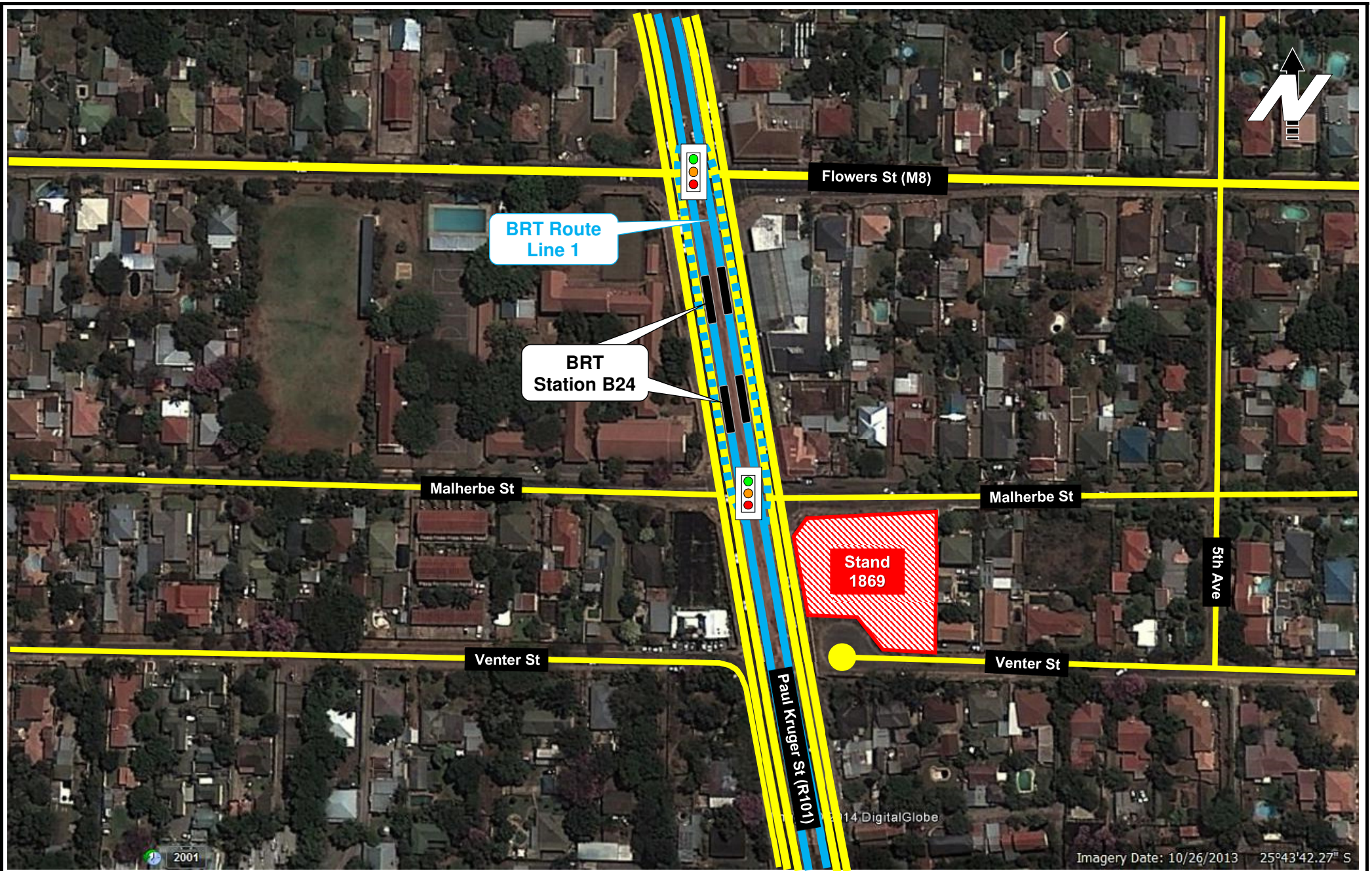
FIGURES

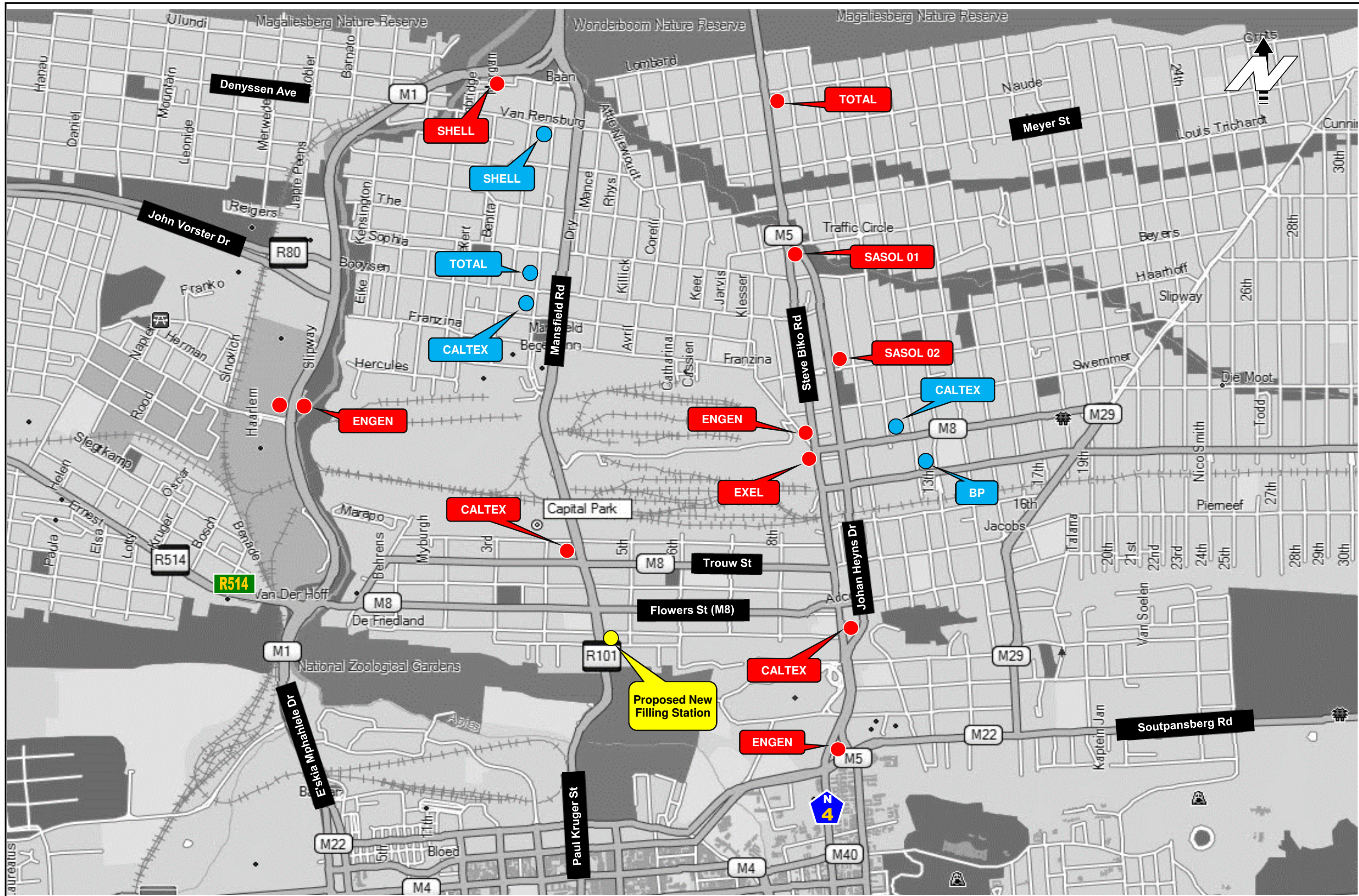
Figure 1: Locality Plan and Study Area

Figure 2: Existing Facilities Serving the North-South Corridors

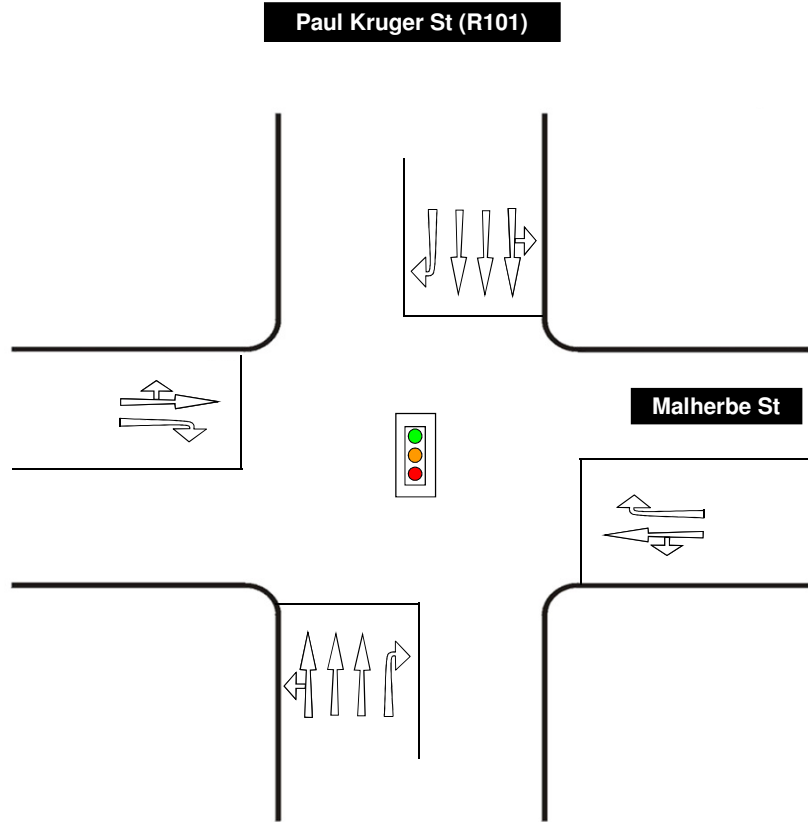
Figure 3: Current and Committed Road Network and Lane Layout

Figure 4: Weekday Traffic Demand

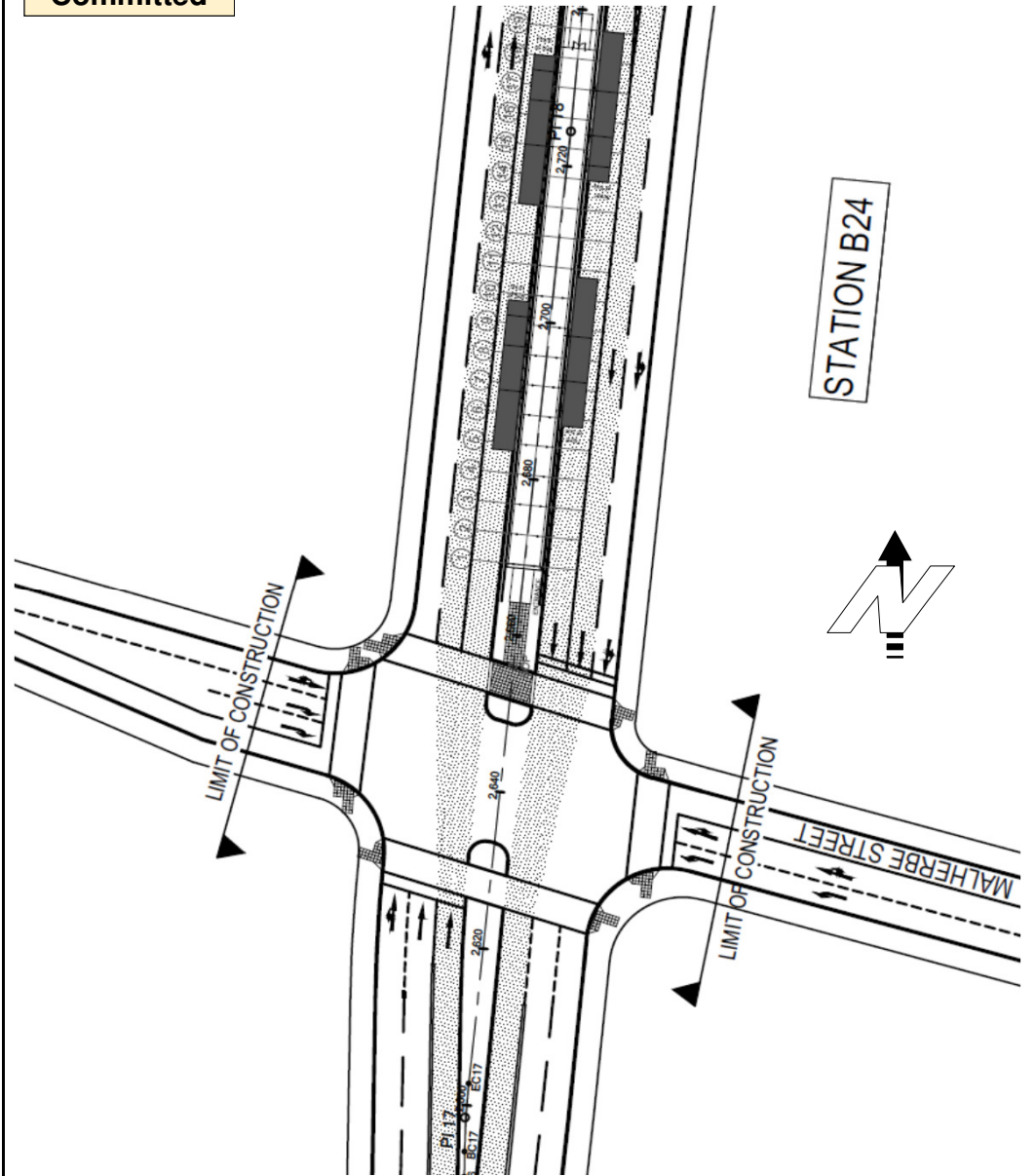




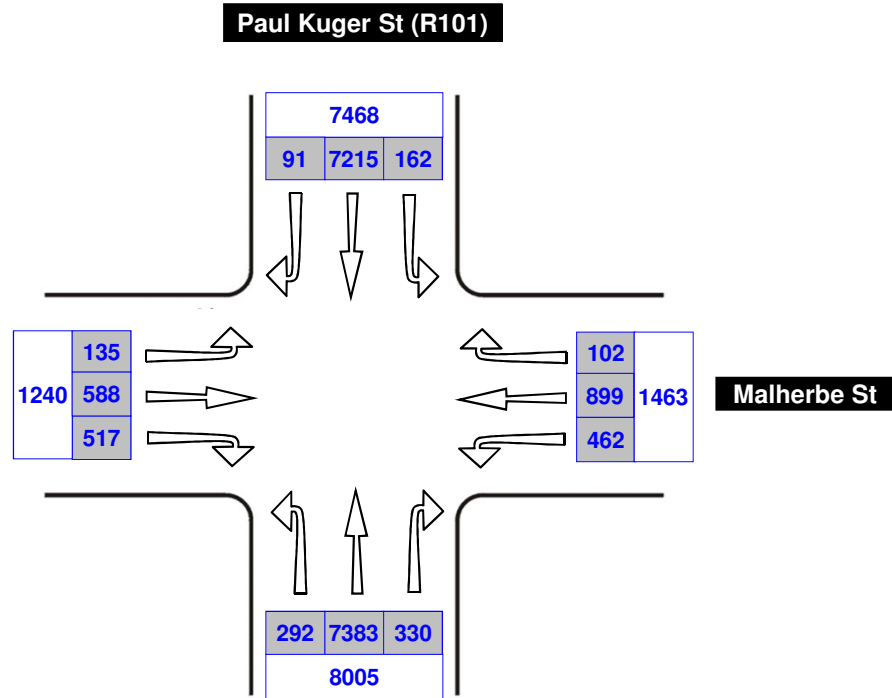
Existing



Committed



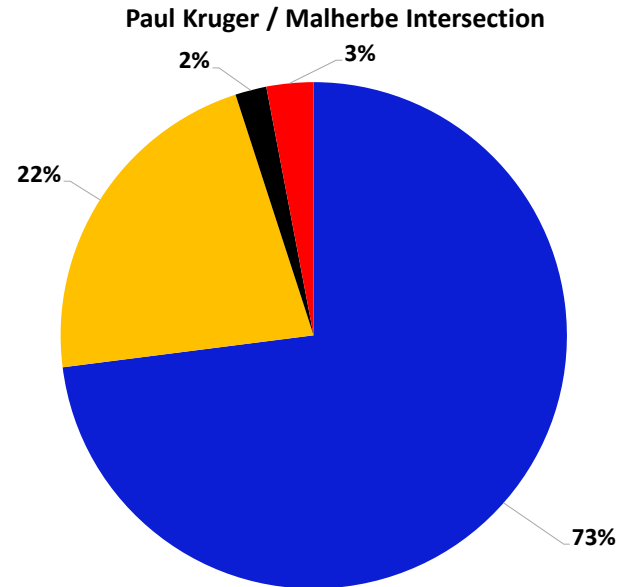
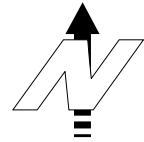
Existing 12-Hour Peak Hour Traffic Demand



LEGEND	
292	12-Hour Peak Hour Traffic Demand per Movement
8005	Total 12-Hour Peak Hour Traffic Demand per Approach

Survey Date: Friday 09 May 2014

Vehicle Classification



APPENDICES



APPENDICES

Appendix A: Proposed Access Arrangements and Site Circulation

Appendix B: Proposed Site Layout Plan

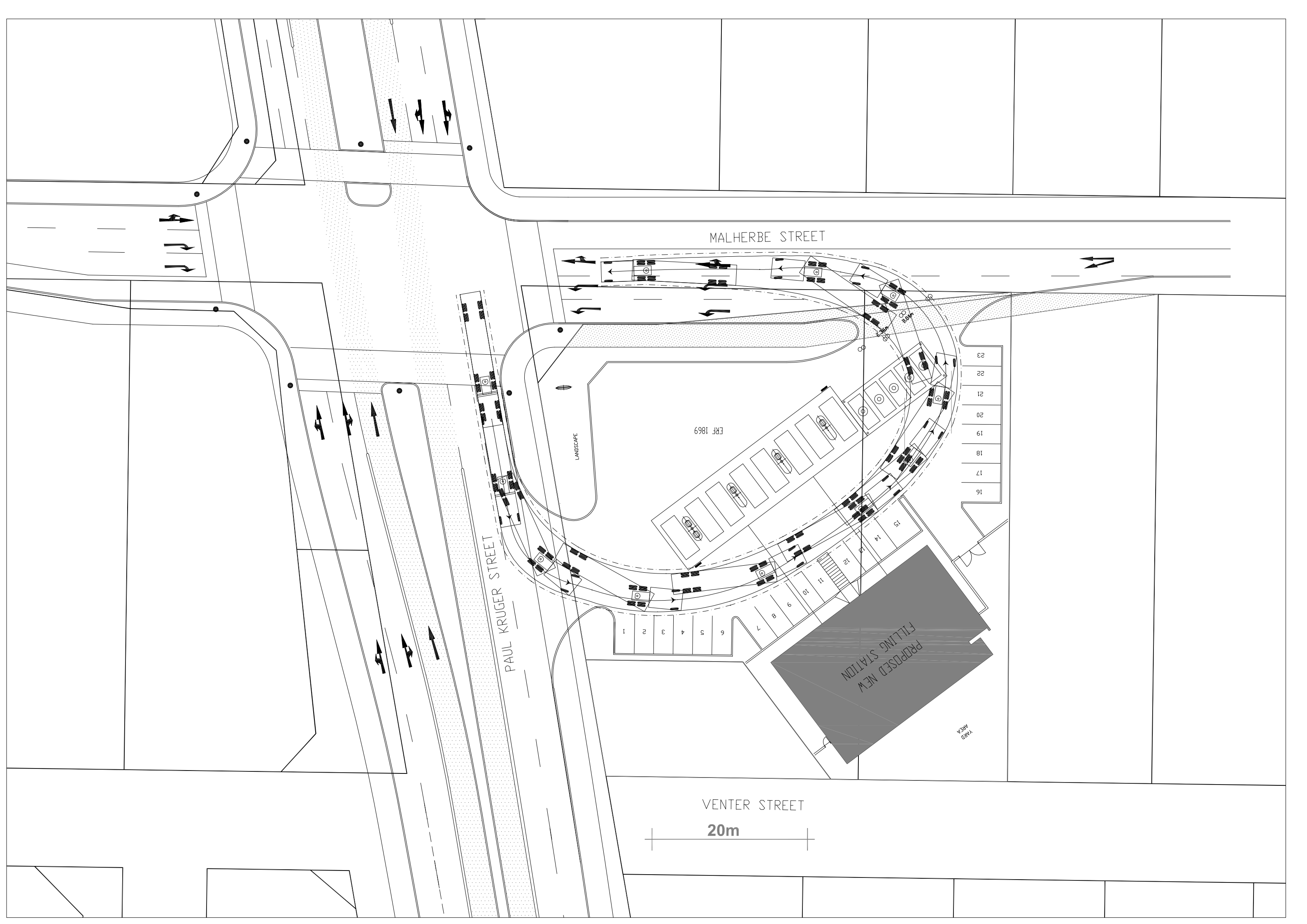
Appendix C: BRT Implementation along Paul Kruger Street

Appendix D: Traffic Counts

APPENDICES



Appendix A: Proposed Access Arrangements and Site Circulation



MALHERBE STREET

PAUL KRUGER STREET

VENTER STREET

20m

ERT 1869

LANDSCAPE

PREPARED NEW
FILLING STATION

YARD
AREA

23
22
21
20
19
18
17
16

1

2

3

4

5

6

7

8

9

10

11

12

13

14

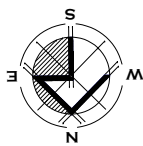
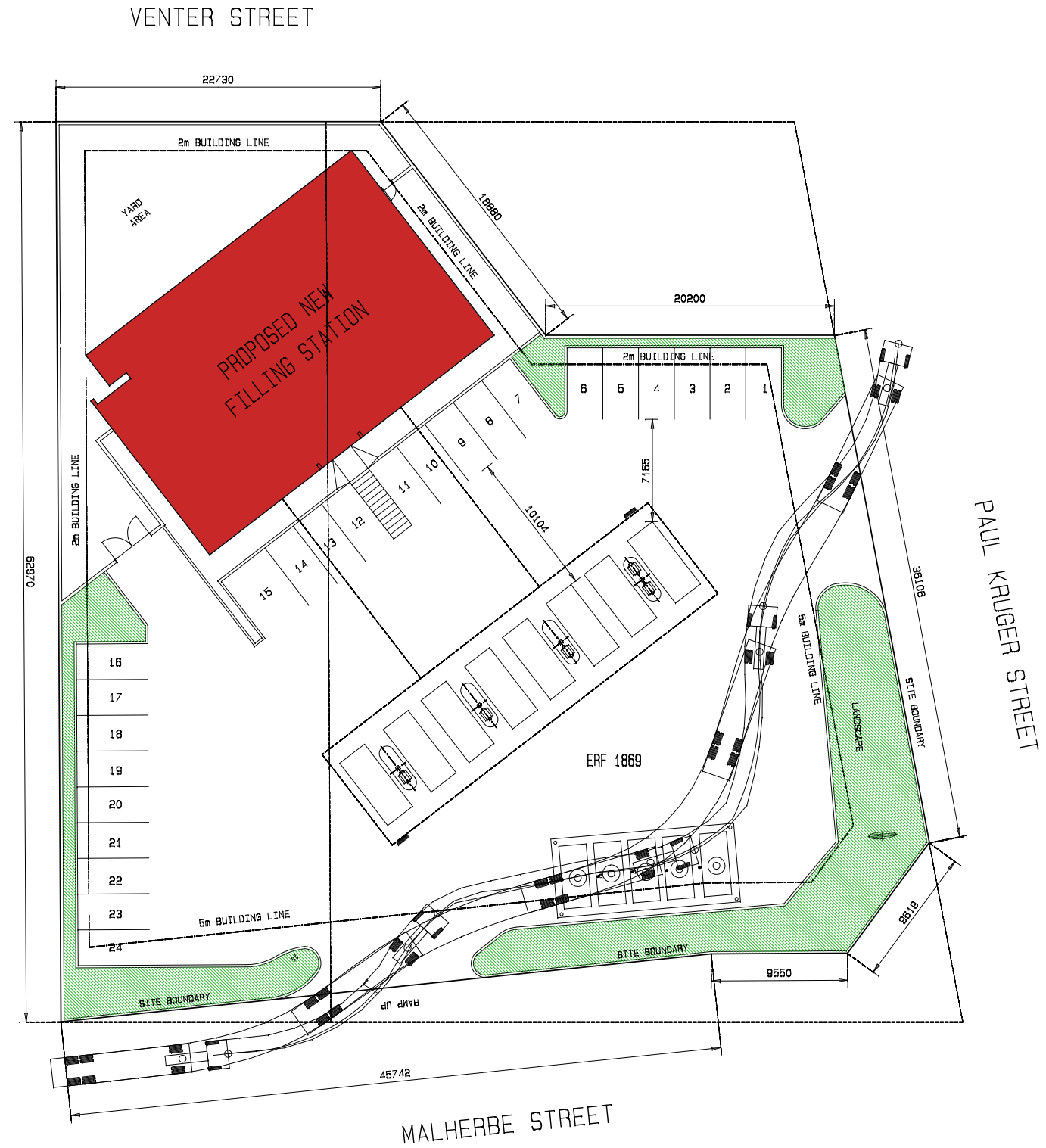
15

APPENDICES

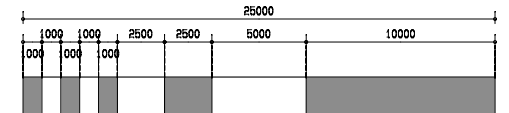


Appendix B: Proposed Site Layout Plan

	LAND USE RIGHTS AS INDICATED IN ANNEXURE B	LAND USE RIGHTS AS PROPOSED ON S. D. P.
SITE AREA	3030 sqm	3030 sqm
BUILDING AREA	---	400 sqm
CANOPY AREA	---	385 sqm
CARWASH AREA	N/A	N/A
TOTAL	---	785 sqm
COVERAGE	----	26.20%
FSR	N/A	N/A
HEIGHT	SINGLE STOREY	6650mm (CANOPY HEIGHT)
SIDE OPEN SPACES	0000mm BUILDING LINE	2000mm BUILDING LINE
REAR OPEN SPACES	0000mm BUILDING LINE	2000mm BUILDING LINE
STREET OPEN SPACES	0000mm BUILDING LINE	5000mm BUILDING LINE
PARKING SHOP	6 / 100 sqm TOTAL REQUIRED = 24 BAYS	23 PARKING BAYS 1 DISABLED TOTAL PROVIDED = 24 BAYS



**SITE PLAN LAYOUT
SCALE 1:200**



NOTE
THE CONTRACTOR MUST REPORT TO THE ARCHITECT ANY CONTRADICTIONARY INFORMATION BEFORE ANY WORK COMMENCES
CHECK ALL DIMENSIONS ON SITE
DO NOT SCALE - USE DIMENSIONS SHOWN
IT IS ASSUMED THAT ALL CONTRACT DOCUMENTS ARE IN THE POSSESSION OF THE CONTRACTOR
ALSO REFER TO GENERAL SPECIFICATION

VARIATIONS		WYSIGINGS
NO.	DATE	DESCRIPTION
1.	---	---
2.	---	---
3.	---	---

DATE ISSUED: **10-02-2014**
DATE UTTERED:



PROJECT ARCHITECT: E. VAN GASS B ARCH (UDVS) MIA
PROJECT TITLE:

**PROPOSED FILLING STATION
FOR EXDEV
ON STAND 1869
CAPITALPARK**

DESCRIPTION: **SITE PLAN LAYOUT**

DOCUMENTATION DOCUMENT NO.:	DATE:	REVISION NO.:
CLF:	SAS-100	REV. 000
SCALE:	1:200	

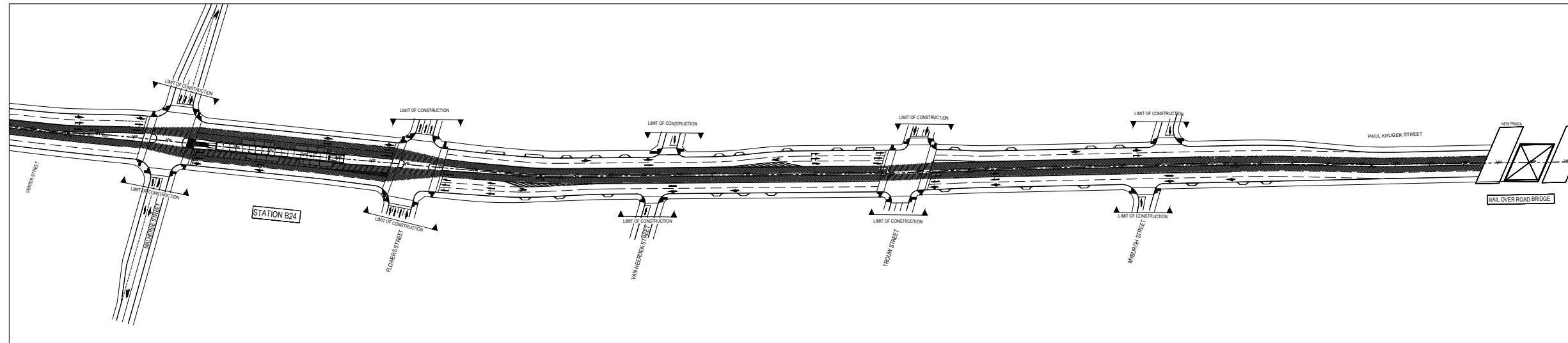
APPENDICES



Appendix C: BRT Implementation along Paul Kruger Street

NOTES:

1. THE POSITIONS & LEVELS OF EXISTING SERVICES ARE APPROXIMATE AND ARE TO BE VERIFIED ON SITE BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF PROPOSED CONSTRUCTION.
2. THE CONTRACTOR IS TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCEMENT OF PROPOSED CONSTRUCTION.
3. A SITE INSPECTION IS TO BE ARRANGED WITH THE RELEVANT SERVICE PROVIDERS, POINTING OUT THE EXTENT OF THE WORKS, TO ENSURE THAT ALL SERVICES ARE ACCOUNTED FOR PRIOR TO THE COMMENCEMENT OF PROPOSED CONSTRUCTION. CONTRACTOR TO LIAISE WITH THE CITY OF TSHWANE - ROADS AND STORMWATER DIVISION W.R.T. THE REINSTATEMENT OF ROAD SURFACING AND SIDEWALKS.
4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH CITY OF TSHWANE - STANDARD CONSTRUCTION DETAILS AND DESIGN STANDARDS FOR ROADS AND STORMWATER DRAINAGE INFRASTRUCTURE (SEPT 2008) OBTAINABLE FROM WEBSITE: <http://www.tshwane.gov.za/Services/RoadsandStormwater/Pages/Standard-Detail-Document.aspx>



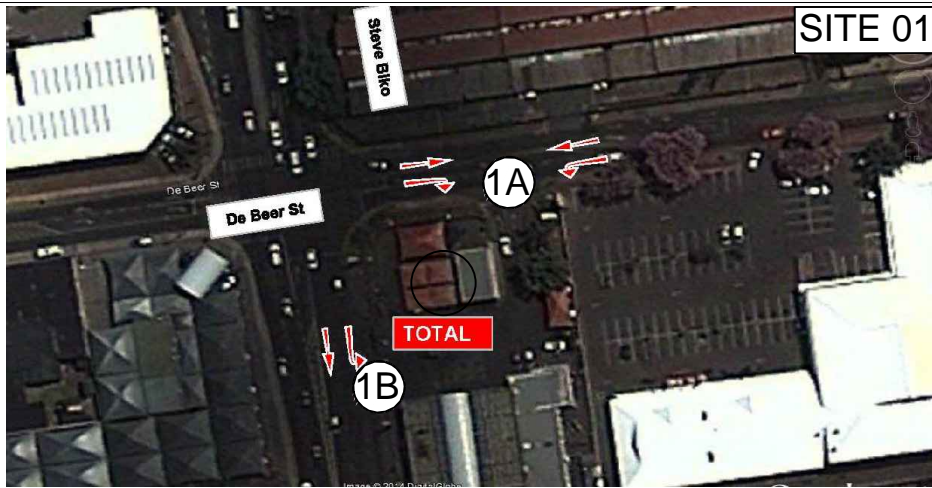
ISSUED FOR PLANNING

				DEPARTMENT	APPROVED	DESIGNATION	DATE	DESIGNED	M. NDLOVU	CLIENT:	PROJECT	CONSULTANT:	DESIGNING TEAM:	DRAWING No.		
								DESIGN CHECKED	C. RAMAN	TRANSPORT AND ROADS DEPARTMENT BUS RAPID TRANSIT SPECIAL UNIT	CITY OF TSHWANE B.R.T. (BUS RAPID TRANSIT) LINE 1 WORKS PACKAGE NO. 2 - SHEET 1 of 3	No. 400 16TH ROAD CENTRAL PARK MIDRAND 1685	ILISO CONSULTING	NETWORK & FORWARD PLANNING	1200058-T-0000-BRTL1-WP2-001	
								DRAWN	P. ADONIS		MANSFIELD AVENUE FROM LOUIS TRICHARDT STREET TO RAINBOW JUNCTION BRT LINE 1 - SECTION 1 - WP2 (SV 2560 - 3460)			SENIOR DESIGN ENGINEER	DATE	
								DRAWING CHECKED	M. NDLOVU					PO BOX 1409 PRETORIA 0001	PO BOX 8582 MIDRAND 1685	for: CONSULTING ENGINEERS
REV	DATE	DESCRIPTION	CONSULT. ENG.													

APPENDICES



Appendix D: Traffic Counts



TrafSol

PROJECT:

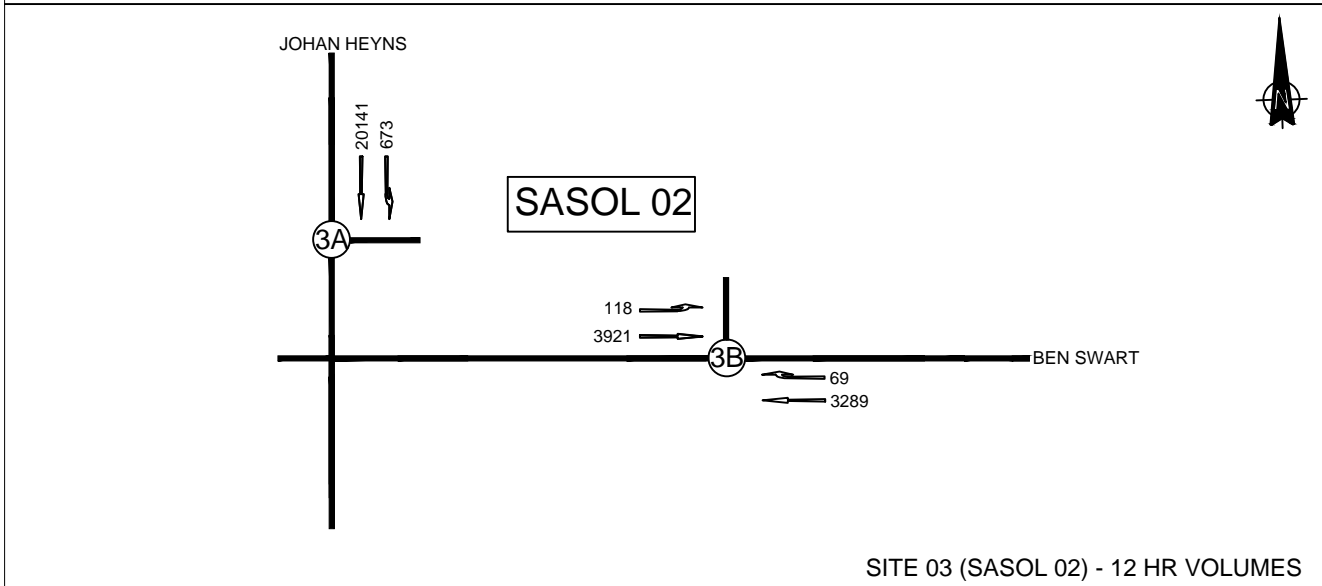
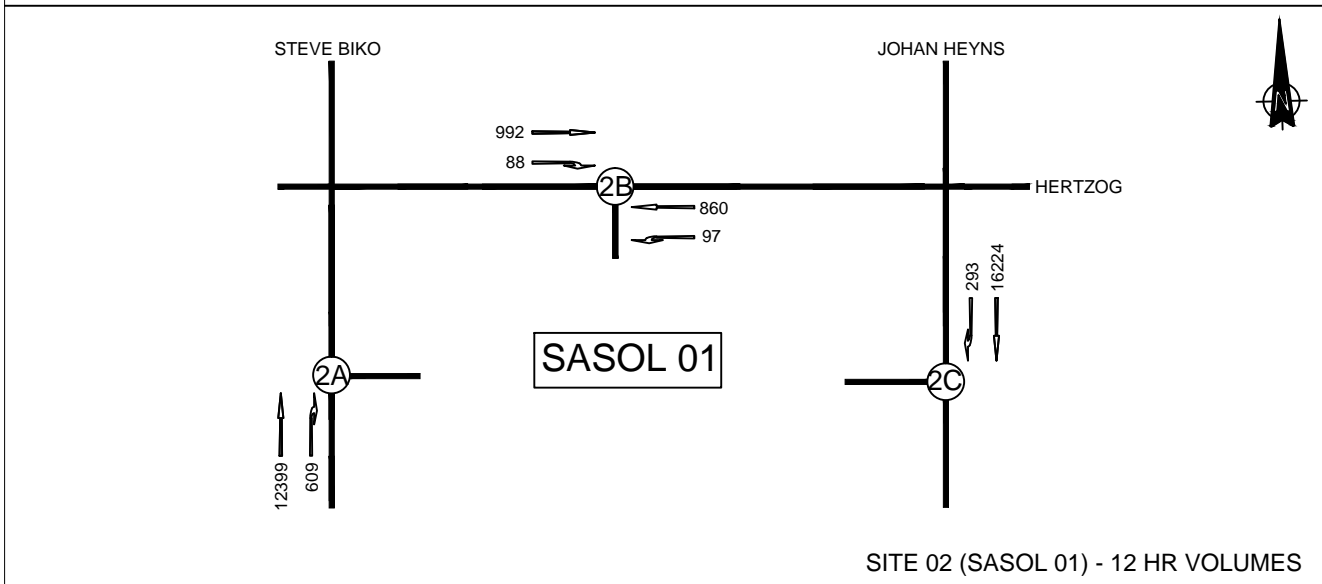
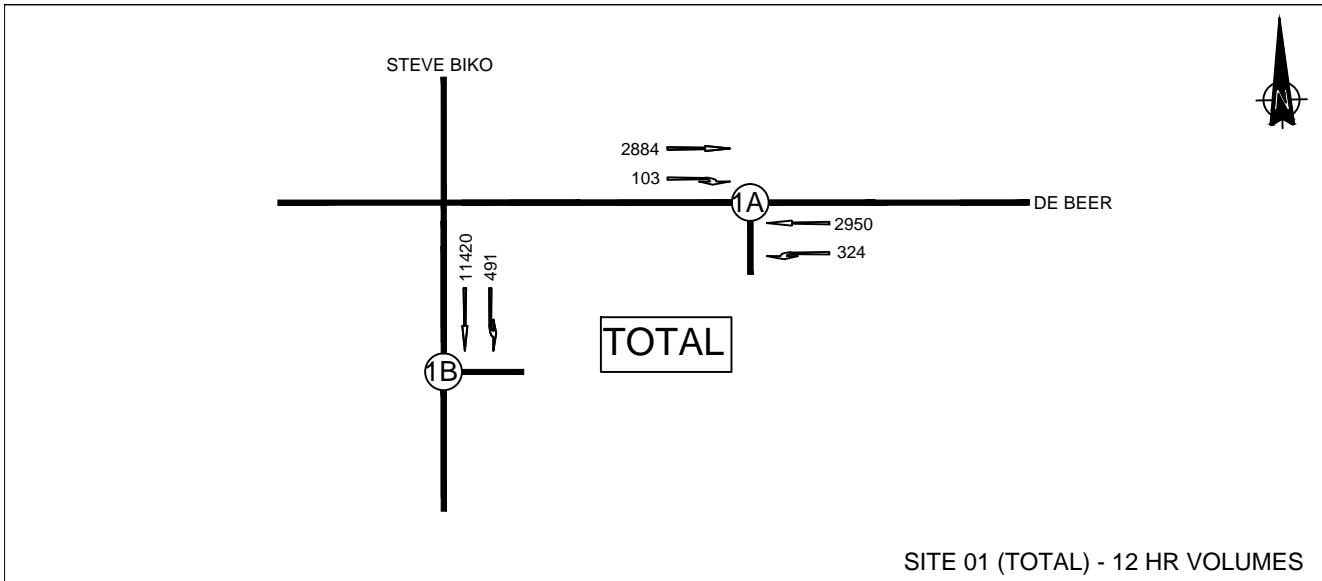
CAPITAL PARK
FILLING STATION SURVEYS

FIGURE:

SURVEY
LOCATIONS

Nr.

FIGURE 01



AVERAGE FILLS - SITE 01 -TOTAL

TUESDAY 15 APRIL 2014 - 104 FILLS RECORDED

20.8	13.9	7	14.1	32	27.7	14.1	10.5
20.8	60.7	54.4	7	28.2	7	2.8	6.9
27.8	14.1	7	16.5	2.1	21.1	14.1	2.8
24.3	13.8	7	13.9	3.5	6.9	21.1	10.5
3.5	39.1	43.9	7	10.5	14.1	2.8	14.1
6.9	3.5	13.9	14.1	13.9	16.2	10.5	10.5
34.7	3.5	50.7	13.9	49.6	35.3	2	74.8
14.1	20.8	29.5	7	14.1	6.9	35.3	10.5
27.8	55	7	7	7	4.2	14.1	34.7
3.5	6.9	3.5	3.5	21.1	14.1	21.1	17.6
7	7	7	7	14.1	14.1	7	1.41
5.6	7	21.9	7	14.1	28.2	5	13.8
6.2	21.1	3.4	3.5	7	0.35	34.2	7

AVERAGE FILLS - SITE 02 -SASOL 01

TUESDAY 15 APRIL 2014 - 104 FILLS RECORDED

35.3	7	7	20.7	13.9	3.5	6.9	20.7
14.1	14.1	20.7	28	28.2	34.7	53.4	14.1
6.9	7	39.9	38.9	25.9	25	28.2	4.8
14.1	39.9	10.5	0.38	7	3.5	10	7.6
7	35.3	14.1	17.3	7	21.1	6.9	42.2
14.1	18	7	35.31	24.7	21.1	28.2	2.2
7	28.7	49.7	14.1	13.8	13.8	40.9	13.9
21.3	13.9	17.3	35.31	12.7	41.6	6.9	20.7
6.9	39.8	17.3	27.7	7	14.1	7	7
39.8	20.7	27.9	20	28.2	53.4	1	34.6
34.6	31.6	66.3	7	45	43.9	21.1	14.1
7	34.6	55.5	21.1	41.6	49.5	53.7	70.8
7	3.5	7	6.9	17.1	35.3	31.8	14.4

AVERAGE FILLS - SITE 03 -SASOL 02**TUESDAY 15 APRIL 2014 - 104 FILLS RECORDED**

13.3	3.5	40	14.2	6.9	7	10.4	14.1
16.3	68.1	24.1	3.7	7	10.4	13.9	40.8
52.4	10.5	14.1	7	24.7	13.9	34.6	3.5
27.7	20.5	37.2	10.5	13.8	3.5	6.9	13.9
7	21.1	4.9	41.5	7	10.4	27.8	7
6.9	42.4	2.8	13.8	70	21.1	6.9	20.8
42.3	7	14.1	14.1	7	7	45.9	24.7
3.5	41.7	17.66	4.9	55.5	54.4	20.6	35.3
7	35.3	7	14.1	14.1	48.7	21.1	47
31.9	34.7	41.5	84.9	24.5	3.5	42.3	28.2
21.9	7	7	13.8	13.8	27.8	6.9	21.1
6.9	43.5	13.8	13.8	10.4	13.9	45.9	14.1
21.1	3.5	14.1	25	58.3	7	14.1	7

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 01A	SITE 01A (TOTAL) ACCESS FROM DE BEER	2014/04/15
TUESDAY	TOTAL VEHICLES	12 HOUR COUNT



ACCESS TO TOTAL (SITE 01)

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	123	4	0	0	0	19	66	0	0	0	0	
6:15	0	124	2	0	0	0	12	82	0	0	0	0	
6:30	0	136	3	0	0	0	14	109	0	0	0	0	
6:45	0	163	4	0	0	0	23	138	0	0	0	0	1 022
7:00	0	153	0	0	0	0	11	101	0	0	0	0	1 075
7:15	0	114	1	0	0	0	8	96	0	0	0	0	1 074
7:30	0	86	0	0	0	0	10	67	0	0	0	0	975
7:45	0	77	0	0	0	0	12	67	0	0	0	0	803
8:00	0	43	1	0	0	0	10	61	0	0	0	0	653
8:15	0	38	2	0	0	0	11	56	0	0	0	0	541
8:30	0	27	1	0	0	0	4	44	0	0	0	0	454
8:45	0	29	0	0	0	0	6	51	0	0	0	0	384
9:00	0	25	0	0	0	0	4	41	0	0	0	0	339
9:15	0	26	5	0	0	0	8	51	0	0	0	0	322
9:30	0	32	3	0	0	0	1	27	0	0	0	0	309
9:45	0	30	1	0	0	0	4	16	0	0	0	0	274
10:00	0	23	3	0	0	0	7	28	0	0	0	0	265
10:15	0	24	3	0	0	0	3	28	0	0	0	0	233
10:30	0	24	2	0	0	0	4	29	0	0	0	0	229
10:45	0	43	5	0	0	0	1	29	0	0	0	0	256
11:00	0	42	4	0	0	0	3	49	0	0	0	0	293
11:15	0	43	4	0	0	0	7	38	0	0	0	0	327
11:30	0	49	3	0	0	0	9	47	0	0	0	0	376
11:45	0	50	2	0	0	0	7	54	0	0	0	0	411
12:00	0	37	4	0	0	0	5	47	0	0	0	0	406
12:15	0	39	3	0	0	0	8	55	0	0	0	0	419
12:30	0	42	2	0	0	0	5	50	0	0	0	0	410
12:45	0	62	3	0	0	0	4	44	0	0	0	0	410
13:00	0	46	2	0	0	0	5	58	0	0	0	0	428
13:15	0	69	3	0	0	0	7	52	0	0	0	0	454
13:30	0	81	4	0	0	0	6	61	0	0	0	0	507
13:45	0	85	4	0	0	0	8	67	0	0	0	0	558
14:00	0	96	2	0	0	0	11	108	0	0	0	0	664
14:15	0	74	2	0	0	0	5	92	0	0	0	0	706
14:30	0	53	1	0	0	0	6	52	0	0	0	0	666
14:45	0	54	2	0	0	0	5	46	0	0	0	0	609
15:00	0	55	3	0	0	0	4	79	0	0	0	0	533
15:15	0	49	0	0	0	0	3	53	0	0	0	0	465
15:30	0	46	2	0	0	0	4	56	0	0	0	0	461
15:45	0	32	3	0	0	0	5	58	0	0	0	0	452
16:00	0	62	3	0	0	0	7	86	0	0	0	0	469
16:15	0	60	2	0	0	0	4	75	0	0	0	0	505
16:30	0	56	0	0	0	0	4	83	0	0	0	0	540
16:45	0	65	1	0	0	0	2	73	0	0	0	0	583
17:00	0	53	0	0	0	0	4	72	0	0	0	0	554
17:15	0	56	2	0	0	0	7	83	0	0	0	0	561
17:30	0	49	1	0	0	0	4	73	0	0	0	0	545
17:45	0	39	1	0	0	0	3	52	0	0	0	0	499
Total	0	2 884	103	0	0	0	324	2 950	0	0	0	0	6 261

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 01A	SITE 01A (TOTAL) ACCESS FROM DE BEER	2014/04/15
TUESDAY	CARS	12 HOUR COUNT



ACCESS TO TOTAL (SITE 01)

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	122	4	0	0	0	18	66	0	0	0	0	
6:15	0	124	2	0	0	0	12	82	0	0	0	0	
6:30	0	134	2	0	0	0	14	108	0	0	0	0	
6:45	0	162	3	0	0	0	22	138	0	0	0	0	1 013
7:00	0	148	0	0	0	0	11	101	0	0	0	0	1 063
7:15	0	112	1	0	0	0	8	93	0	0	0	0	1 057
7:30	0	86	0	0	0	0	10	65	0	0	0	0	960
7:45	0	76	0	0	0	0	12	67	0	0	0	0	790
8:00	0	42	1	0	0	0	10	61	0	0	0	0	644
8:15	0	37	2	0	0	0	11	55	0	0	0	0	535
8:30	0	26	1	0	0	0	4	44	0	0	0	0	449
8:45	0	28	0	0	0	0	6	50	0	0	0	0	378
9:00	0	23	0	0	0	0	4	39	0	0	0	0	330
9:15	0	24	5	0	0	0	8	49	0	0	0	0	311
9:30	0	30	3	0	0	0	1	26	0	0	0	0	296
9:45	0	28	1	0	0	0	4	14	0	0	0	0	259
10:00	0	22	3	0	0	0	7	28	0	0	0	0	253
10:15	0	24	3	0	0	0	3	27	0	0	0	0	224
10:30	0	23	2	0	0	0	4	29	0	0	0	0	222
10:45	0	39	4	0	0	0	1	29	0	0	0	0	248
11:00	0	42	4	0	0	0	3	48	0	0	0	0	285
11:15	0	42	4	0	0	0	7	37	0	0	0	0	318
11:30	0	47	3	0	0	0	9	44	0	0	0	0	363
11:45	0	49	2	0	0	0	7	52	0	0	0	0	400
12:00	0	36	4	0	0	0	5	45	0	0	0	0	393
12:15	0	37	3	0	0	0	8	55	0	0	0	0	406
12:30	0	42	2	0	0	0	5	49	0	0	0	0	401
12:45	0	62	3	0	0	0	4	44	0	0	0	0	404
13:00	0	45	2	0	0	0	5	58	0	0	0	0	424
13:15	0	65	3	0	0	0	7	51	0	0	0	0	447
13:30	0	79	4	0	0	0	6	58	0	0	0	0	496
13:45	0	84	4	0	0	0	8	65	0	0	0	0	544
14:00	0	92	2	0	0	0	10	105	0	0	0	0	643
14:15	0	72	2	0	0	0	5	86	0	0	0	0	682
14:30	0	52	1	0	0	0	6	49	0	0	0	0	643
14:45	0	54	2	0	0	0	4	45	0	0	0	0	587
15:00	0	52	3	0	0	0	4	77	0	0	0	0	514
15:15	0	49	0	0	0	0	3	53	0	0	0	0	454
15:30	0	46	2	0	0	0	4	55	0	0	0	0	453
15:45	0	32	3	0	0	0	5	58	0	0	0	0	446
16:00	0	62	3	0	0	0	7	85	0	0	0	0	467
16:15	0	60	2	0	0	0	4	75	0	0	0	0	503
16:30	0	56	0	0	0	0	4	81	0	0	0	0	537
16:45	0	63	1	0	0	0	2	72	0	0	0	0	577
17:00	0	53	0	0	0	0	4	70	0	0	0	0	547
17:15	0	56	2	0	0	0	6	83	0	0	0	0	553
17:30	0	49	1	0	0	0	4	72	0	0	0	0	538
17:45	0	38	1	0	0	0	3	52	0	0	0	0	494
Total	0	2 826	100	0	0	0	319	2 895	0	0	0	0	6 140

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 01A	SITE 01A (TOTAL) ACCESS FROM DE BEER	2014/04/15
TUESDAY	MINIBUSES	12 HOUR COUNT



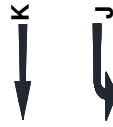
ACCESS TO TOTAL (SITE 01)

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	0	0	0	0	0	
6:15	0	0	0	0	0	0	0	0	0	0	0	0	
6:30	0	0	1	0	0	0	0	0	0	0	0	0	
6:45	0	1	1	0	0	0	0	0	0	0	0	0	3
7:00	0	2	0	0	0	0	0	0	0	0	0	0	5
7:15	0	0	0	0	0	0	0	1	0	0	0	0	6
7:30	0	0	0	0	0	0	0	0	0	0	0	0	5
7:45	0	0	0	0	0	0	0	0	0	0	0	0	3
8:00	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00	0	0	0	0	0	0	0	1	0	0	0	0	1
9:15	0	0	0	0	0	0	0	0	0	0	0	0	1
9:30	0	0	0	0	0	0	0	0	0	0	0	0	1
9:45	0	1	0	0	0	0	0	1	0	0	0	0	3
10:00	0	0	0	0	0	0	0	0	0	0	0	0	2
10:15	0	0	0	0	0	0	0	0	0	0	0	0	2
10:30	0	0	0	0	0	0	0	0	0	0	0	0	2
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	1	0	0	0	0	0	0	0	0	0	0	1
12:15	0	0	0	0	0	0	0	0	0	0	0	0	1
12:30	0	0	0	0	0	0	0	0	0	0	0	0	1
12:45	0	0	0	0	0	0	0	0	0	0	0	0	1
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	1	0	0	0	0	1
13:45	0	0	0	0	0	0	0	1	0	0	0	0	2
14:00	0	2	0	0	0	0	0	0	0	0	0	0	4
14:15	0	0	0	0	0	0	0	0	0	0	0	0	4
14:30	0	0	0	0	0	0	0	1	0	0	0	0	4
14:45	0	0	0	0	0	0	0	1	0	0	0	0	4
15:00	0	0	0	0	0	0	0	0	0	0	0	0	2
15:15	0	0	0	0	0	0	0	0	0	0	0	0	2
15:30	0	0	0	0	0	0	0	0	0	0	0	0	1
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	1	0	0	0	0	1
16:15	0	0	0	0	0	0	0	0	0	0	0	0	1
16:30	0	0	0	0	0	0	0	1	0	0	0	0	2
16:45	0	0	0	0	0	0	0	0	0	0	0	0	2
17:00	0	0	0	0	0	0	0	1	0	0	0	0	2
17:15	0	0	0	0	0	0	1	0	0	0	0	0	3
17:30	0	0	0	0	0	0	0	1	0	0	0	0	3
17:45	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	7	2	0	0	0	1	11	0	0	0	0	21

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 01B	SITE 01B (TOTAL) ACCESS FROM STEVE BIKO	2014/04/15
TUESDAY	TOTAL VEHICLES	12 HOUR COUNT

STEVE BIKO



ACCESS TO TOTAL
(SITE 01)

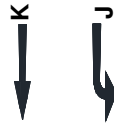
STEVE BIKO

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	0	0	9	268	0	
6:15	0	0	0	0	0	0	0	0	0	15	303	0	
6:30	0	0	0	0	0	0	0	0	0	13	358	0	
6:45	0	0	0	0	0	0	0	0	0	18	341	0	1 325
7:00	0	0	0	0	0	0	0	0	0	17	436	0	1 501
7:15	0	0	0	0	0	0	0	0	0	17	233	0	1 433
7:30	0	0	0	0	0	0	0	0	0	12	354	0	1 428
7:45	0	0	0	0	0	0	0	0	0	13	365	0	1 447
8:00	0	0	0	0	0	0	0	0	0	14	312	0	1 320
8:15	0	0	0	0	0	0	0	0	0	17	276	0	1 363
8:30	0	0	0	0	0	0	0	0	0	10	304	0	1 311
8:45	0	0	0	0	0	0	0	0	0	4	236	0	1 173
9:00	0	0	0	0	0	0	0	0	0	8	244	0	1 099
9:15	0	0	0	0	0	0	0	0	0	9	214	0	1 029
9:30	0	0	0	0	0	0	0	0	0	7	224	0	946
9:45	0	0	0	0	0	0	0	0	0	6	136	0	848
10:00	0	0	0	0	0	0	0	0	0	10	199	0	805
10:15	0	0	0	0	0	0	0	0	0	12	234	0	828
10:30	0	0	0	0	0	0	0	0	0	7	212	0	816
10:45	0	0	0	0	0	0	0	0	0	8	175	0	857
11:00	0	0	0	0	0	0	0	0	0	6	262	0	916
11:15	0	0	0	0	0	0	0	0	0	16	236	0	922
11:30	0	0	0	0	0	0	0	0	0	6	280	0	989
11:45	0	0	0	0	0	0	0	0	0	9	233	0	1 048
12:00	0	0	0	0	0	0	0	0	0	11	285	0	1 076
12:15	0	0	0	0	0	0	0	0	0	8	213	0	1 045
12:30	0	0	0	0	0	0	0	0	0	10	212	0	981
12:45	0	0	0	0	0	0	0	0	0	9	224	0	972
13:00	0	0	0	0	0	0	0	0	0	2	200	0	878
13:15	0	0	0	0	0	0	0	0	0	6	195	0	858
13:30	0	0	0	0	0	0	0	0	0	10	269	0	915
13:45	0	0	0	0	0	0	0	0	0	15	224	0	921
14:00	0	0	0	0	0	0	0	0	0	11	235	0	965
14:15	0	0	0	0	0	0	0	0	0	10	152	0	926
14:30	0	0	0	0	0	0	0	0	0	12	197	0	856
14:45	0	0	0	0	0	0	0	0	0	8	170	0	795
15:00	0	0	0	0	0	0	0	0	0	14	182	0	745
15:15	0	0	0	0	0	0	0	0	0	9	216	0	808
15:30	0	0	0	0	0	0	0	0	0	7	194	0	800
15:45	0	0	0	0	0	0	0	0	0	9	187	0	818
16:00	0	0	0	0	0	0	0	0	0	10	206	0	838
16:15	0	0	0	0	0	0	0	0	0	10	246	0	869
16:30	0	0	0	0	0	0	0	0	0	8	211	0	887
16:45	0	0	0	0	0	0	0	0	0	5	185	0	881
17:00	0	0	0	0	0	0	0	0	0	12	206	0	883
17:15	0	0	0	0	0	0	0	0	0	16	226	0	869
17:30	0	0	0	0	0	0	0	0	0	8	166	0	824
17:45	0	0	0	0	0	0	0	0	0	8	184	0	826
Total	0	0	0	0	0	0	0	0	0	491	11 420	0	11 911

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 01B	SITE 01B (TOTAL) ACCESS FROM STEVE BIKO	2014/04/15
TUESDAY	CARS	12 HOUR COUNT

STEVE BIKO

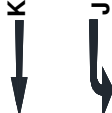


ACCESS TO TOTAL
(SITE 01)

STEVE BIKO

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	0	0	8	268	0	
6:15	0	0	0	0	0	0	0	0	0	15	301	0	
6:30	0	0	0	0	0	0	0	0	0	13	351	0	
6:45	0	0	0	0	0	0	0	0	0	18	335	0	1 309
7:00	0	0	0	0	0	0	0	0	0	17	433	0	1 483
7:15	0	0	0	0	0	0	0	0	0	16	233	0	1 416
7:30	0	0	0	0	0	0	0	0	0	12	353	0	1 417
7:45	0	0	0	0	0	0	0	0	0	13	361	0	1 438
8:00	0	0	0	0	0	0	0	0	0	14	308	0	1 310
8:15	0	0	0	0	0	0	0	0	0	17	275	0	1 353
8:30	0	0	0	0	0	0	0	0	0	9	301	0	1 298
8:45	0	0	0	0	0	0	0	0	0	4	231	0	1 159
9:00	0	0	0	0	0	0	0	0	0	8	240	0	1 085
9:15	0	0	0	0	0	0	0	0	0	9	211	0	1 013
9:30	0	0	0	0	0	0	0	0	0	7	221	0	931
9:45	0	0	0	0	0	0	0	0	0	6	134	0	836
10:00	0	0	0	0	0	0	0	0	0	10	192	0	790
10:15	0	0	0	0	0	0	0	0	0	12	226	0	808
10:30	0	0	0	0	0	0	0	0	0	7	209	0	796
10:45	0	0	0	0	0	0	0	0	0	8	169	0	833
11:00	0	0	0	0	0	0	0	0	0	6	257	0	894
11:15	0	0	0	0	0	0	0	0	0	15	232	0	903
11:30	0	0	0	0	0	0	0	0	0	6	270	0	963
11:45	0	0	0	0	0	0	0	0	0	9	226	0	1 021
12:00	0	0	0	0	0	0	0	0	0	11	276	0	1 045
12:15	0	0	0	0	0	0	0	0	0	8	211	0	1 017
12:30	0	0	0	0	0	0	0	0	0	10	209	0	960
12:45	0	0	0	0	0	0	0	0	0	9	220	0	954
13:00	0	0	0	0	0	0	0	0	0	2	195	0	864
13:15	0	0	0	0	0	0	0	0	0	6	191	0	842
13:30	0	0	0	0	0	0	0	0	0	10	265	0	898
13:45	0	0	0	0	0	0	0	0	0	15	221	0	905
14:00	0	0	0	0	0	0	0	0	0	9	227	0	944
14:15	0	0	0	0	0	0	0	0	0	10	148	0	905
14:30	0	0	0	0	0	0	0	0	0	12	191	0	833
14:45	0	0	0	0	0	0	0	0	0	6	164	0	767
15:00	0	0	0	0	0	0	0	0	0	14	177	0	722
15:15	0	0	0	0	0	0	0	0	0	8	213	0	785
15:30	0	0	0	0	0	0	0	0	0	7	190	0	779
15:45	0	0	0	0	0	0	0	0	0	9	186	0	804
16:00	0	0	0	0	0	0	0	0	0	10	202	0	825
16:15	0	0	0	0	0	0	0	0	0	10	237	0	851
16:30	0	0	0	0	0	0	0	0	0	8	207	0	869
16:45	0	0	0	0	0	0	0	0	0	5	182	0	861
17:00	0	0	0	0	0	0	0	0	0	12	203	0	864
17:15	0	0	0	0	0	0	0	0	0	16	223	0	856
17:30	0	0	0	0	0	0	0	0	0	7	163	0	811
17:45	0	0	0	0	0	0	0	0	0	8	182	0	814
Total	0	0	0	0	0	0	0	0	0	481	11 220	0	11 701

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 01B	SITE 01B (TOTAL) ACCESS FROM STEVE BIKO											2014/04/15	
TUESDAY	MINIBUSES											12 HOUR COUNT	
<p>STEVE BIKO</p>  <p style="text-align: right;">ACCESS TO TOTAL (SITE 01)</p>													
STEVE BIKO													
Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	0	0	1	0	0	
6:15	0	0	0	0	0	0	0	0	0	0	2	0	
6:30	0	0	0	0	0	0	0	0	0	0	6	0	
6:45	0	0	0	0	0	0	0	0	0	0	5	0	14
7:00	0	0	0	0	0	0	0	0	0	0	3	0	16
7:15	0	0	0	0	0	0	0	0	0	1	0	0	15
7:30	0	0	0	0	0	0	0	0	0	0	1	0	10
7:45	0	0	0	0	0	0	0	0	0	0	3	0	8
8:00	0	0	0	0	0	0	0	0	0	0	3	0	8
8:15	0	0	0	0	0	0	0	0	0	0	1	0	8
8:30	0	0	0	0	0	0	0	0	0	0	2	0	9
8:45	0	0	0	0	0	0	0	0	0	0	2	0	8
9:00	0	0	0	0	0	0	0	0	0	0	3	0	8
9:15	0	0	0	0	0	0	0	0	0	0	0	0	7
9:30	0	0	0	0	0	0	0	0	0	0	1	0	6
9:45	0	0	0	0	0	0	0	0	0	0	0	0	4
10:00	0	0	0	0	0	0	0	0	0	0	3	0	4
10:15	0	0	0	0	0	0	0	0	0	0	5	0	9
10:30	0	0	0	0	0	0	0	0	0	0	1	0	9
10:45	0	0	0	0	0	0	0	0	0	0	2	0	11
11:00	0	0	0	0	0	0	0	0	0	0	3	0	11
11:15	0	0	0	0	0	0	0	0	0	1	2	0	9
11:30	0	0	0	0	0	0	0	0	0	0	3	0	11
11:45	0	0	0	0	0	0	0	0	0	0	3	0	12
12:00	0	0	0	0	0	0	0	0	0	0	6	0	15
12:15	0	0	0	0	0	0	0	0	0	0	0	0	12
12:30	0	0	0	0	0	0	0	0	0	0	1	0	10
12:45	0	0	0	0	0	0	0	0	0	0	1	0	8
13:00	0	0	0	0	0	0	0	0	0	0	3	0	5
13:15	0	0	0	0	0	0	0	0	0	0	2	0	7
13:30	0	0	0	0	0	0	0	0	0	0	0	0	6
13:45	0	0	0	0	0	0	0	0	0	0	1	0	6
14:00	0	0	0	0	0	0	0	0	0	2	5	0	10
14:15	0	0	0	0	0	0	0	0	0	0	2	0	10
14:30	0	0	0	0	0	0	0	0	0	0	4	0	14
14:45	0	0	0	0	0	0	0	0	0	1	3	0	17
15:00	0	0	0	0	0	0	0	0	0	0	0	0	10
15:15	0	0	0	0	0	0	0	0	0	1	1	0	10
15:30	0	0	0	0	0	0	0	0	0	0	2	0	8
15:45	0	0	0	0	0	0	0	0	0	0	0	0	4
16:00	0	0	0	0	0	0	0	0	0	0	2	0	6
16:15	0	0	0	0	0	0	0	0	0	0	7	0	11
16:30	0	0	0	0	0	0	0	0	0	0	3	0	12
16:45	0	0	0	0	0	0	0	0	0	0	1	0	13
17:00	0	0	0	0	0	0	0	0	0	0	2	0	13
17:15	0	0	0	0	0	0	0	0	0	0	2	0	8
17:30	0	0	0	0	0	0	0	0	0	0	3	0	8
17:45	0	0	0	0	0	0	0	0	0	0	1	0	8
Total	0	0	0	0	0	0	0	0	0	7	106	0	113

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 02B	SITE 02B (SASOL01) ACCESS FROM HERTZOG	2014/04/15
TUESDAY	CARS	12 HOUR COUNT



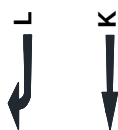
SASOL 01 ACCESS

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	64	5	0	0	0	0	15	0	0	0	0	
6:15	0	95	11	0	0	0	7	22	0	0	0	0	
6:30	0	66	6	0	0	0	5	18	0	0	0	0	
6:45	0	68	2	0	0	0	6	14	0	0	0	0	404
7:00	0	46	1	0	0	0	1	22	0	0	0	0	390
7:15	0	52	1	0	0	0	2	24	0	0	0	0	334
7:30	0	42	3	0	0	0	10	14	0	0	0	0	308
7:45	0	25	5	0	0	0	2	13	0	0	0	0	263
8:00	0	9	2	0	0	0	1	5	0	0	0	0	210
8:15	0	12	3	0	0	0	1	9	0	0	0	0	156
8:30	0	4	0	0	0	0	1	7	0	0	0	0	99
8:45	0	13	2	0	0	0	1	11	0	0	0	0	81
9:00	0	13	1	0	0	0	1	9	0	0	0	0	88
9:15	0	4	0	0	0	0	0	12	0	0	0	0	79
9:30	0	3	0	0	0	0	0	12	0	0	0	0	82
9:45	0	6	2	0	0	0	0	7	0	0	0	0	70
10:00	0	12	5	0	0	0	0	13	0	0	0	0	76
10:15	0	10	0	0	0	0	1	7	0	0	0	0	78
10:30	0	10	0	0	0	0	0	11	0	0	0	0	84
10:45	0	9	0	0	0	0	0	3	0	0	0	0	81
11:00	0	2	0	0	0	0	1	4	0	0	0	0	58
11:15	0	4	2	0	0	0	2	10	0	0	0	0	58
11:30	0	3	0	0	0	0	0	9	0	0	0	0	49
11:45	0	5	1	0	0	0	0	3	0	0	0	0	46
12:00	0	7	0	0	0	0	0	10	0	0	0	0	56
12:15	0	9	1	0	0	0	1	10	0	0	0	0	59
12:30	0	12	3	0	0	0	5	18	0	0	0	0	85
12:45	0	7	0	0	0	0	1	11	0	0	0	0	95
13:00	0	10	0	0	0	0	0	15	0	0	0	0	103
13:15	0	12	1	0	0	0	0	13	0	0	0	0	108
13:30	0	7	1	0	0	0	2	19	0	0	0	0	99
13:45	0	4	0	0	0	0	1	13	0	0	0	0	98
14:00	0	6	0	0	0	0	2	11	0	0	0	0	92
14:15	0	13	3	0	0	0	1	15	0	0	0	0	98
14:30	0	9	6	0	0	0	3	18	0	0	0	0	105
14:45	0	4	0	0	0	0	0	6	0	0	0	0	97
15:00	0	19	1	0	0	0	3	27	0	0	0	0	128
15:15	0	12	2	0	0	0	0	14	0	0	0	0	124
15:30	0	19	0	0	0	0	0	23	0	0	0	0	130
15:45	0	10	3	0	0	0	8	14	0	0	0	0	155
16:00	0	30	0	0	0	0	0	28	0	0	0	0	163
16:15	0	24	0	0	0	0	3	32	0	0	0	0	194
16:30	0	26	5	0	0	0	8	33	0	0	0	0	224
16:45	0	27	1	0	0	0	6	43	0	0	0	0	266
17:00	0	30	2	0	0	0	1	33	0	0	0	0	274
17:15	0	32	1	0	0	0	2	57	0	0	0	0	307
17:30	0	21	2	0	0	0	2	54	0	0	0	0	314
17:45	0	45	1	0	0	0	0	21	0	0	0	0	304
Total	0	972	85	0	0	0	91	812	0	0	0	0	1 960

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 02C	SITE 02C (SASOL01) ACCESS FROM JOHAN HEYNS	2014/04/15
TUESDAY	TOTAL VEHICLES	12 HOUR COUNT

JOHAN HEYNS



SASOL 01 ACCESS

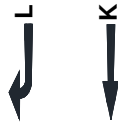
JOHAN HEYNS

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	0	0	0	488	17	
6:15	0	0	0	0	0	0	0	0	0	0	523	14	
6:30	0	0	0	0	0	0	0	0	0	0	597	15	
6:45	0	0	0	0	0	0	0	0	0	0	463	8	2 125
7:00	0	0	0	0	0	0	0	0	0	0	552	6	2 178
7:15	0	0	0	0	0	0	0	0	0	0	425	16	2 082
7:30	0	0	0	0	0	0	0	0	0	0	495	14	1 979
7:45	0	0	0	0	0	0	0	0	0	0	510	6	2 024
8:00	0	0	0	0	0	0	0	0	0	0	488	5	1 959
8:15	0	0	0	0	0	0	0	0	0	0	446	9	1 973
8:30	0	0	0	0	0	0	0	0	0	0	400	8	1 872
8:45	0	0	0	0	0	0	0	0	0	0	389	6	1 751
9:00	0	0	0	0	0	0	0	0	0	0	412	7	1 677
9:15	0	0	0	0	0	0	0	0	0	0	343	6	1 571
9:30	0	0	0	0	0	0	0	0	0	0	326	4	1 493
9:45	0	0	0	0	0	0	0	0	0	0	341	7	1 446
10:00	0	0	0	0	0	0	0	0	0	0	325	4	1 356
10:15	0	0	0	0	0	0	0	0	0	0	333	5	1 345
10:30	0	0	0	0	0	0	0	0	0	0	290	3	1 308
10:45	0	0	0	0	0	0	0	0	0	0	292	6	1 258
11:00	0	0	0	0	0	0	0	0	0	0	308	5	1 242
11:15	0	0	0	0	0	0	0	0	0	0	263	6	1 173
11:30	0	0	0	0	0	0	0	0	0	0	321	5	1 206
11:45	0	0	0	0	0	0	0	0	0	0	319	6	1 233
12:00	0	0	0	0	0	0	0	0	0	0	319	5	1 244
12:15	0	0	0	0	0	0	0	0	0	0	296	3	1 274
12:30	0	0	0	0	0	0	0	0	0	0	264	5	1 217
12:45	0	0	0	0	0	0	0	0	0	0	317	4	1 213
13:00	0	0	0	0	0	0	0	0	0	0	309	3	1 201
13:15	0	0	0	0	0	0	0	0	0	0	278	8	1 188
13:30	0	0	0	0	0	0	0	0	0	0	309	4	1 232
13:45	0	0	0	0	0	0	0	0	0	0	286	7	1 204
14:00	0	0	0	0	0	0	0	0	0	0	297	4	1 193
14:15	0	0	0	0	0	0	0	0	0	0	340	3	1 250
14:30	0	0	0	0	0	0	0	0	0	0	319	6	1 262
14:45	0	0	0	0	0	0	0	0	0	0	311	4	1 284
15:00	0	0	0	0	0	0	0	0	0	0	265	4	1 252
15:15	0	0	0	0	0	0	0	0	0	0	258	3	1 170
15:30	0	0	0	0	0	0	0	0	0	0	264	4	1 113
15:45	0	0	0	0	0	0	0	0	0	0	248	2	1 048
16:00	0	0	0	0	0	0	0	0	0	0	240	5	1 024
16:15	0	0	0	0	0	0	0	0	0	0	253	2	1 018
16:30	0	0	0	0	0	0	0	0	0	0	240	4	994
16:45	0	0	0	0	0	0	0	0	0	0	234	4	982
17:00	0	0	0	0	0	0	0	0	0	0	245	4	986
17:15	0	0	0	0	0	0	0	0	0	0	268	6	1 005
17:30	0	0	0	0	0	0	0	0	0	0	213	7	981
17:45	0	0	0	0	0	0	0	0	0	0	202	4	949
Total	0	0	0	0	0	0	0	0	0	0	16 224	293	16 517

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 02C	SITE 02C (SASOL01) ACCESS FROM JOHAN HEYNS	2014/04/15
TUESDAY	CARS	12 HOUR COUNT

JOHAN HEYNS



SASOL 01 ACCESS

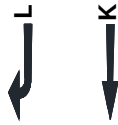
JOHAN HEYNS

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	0	0	0	485	17	
6:15	0	0	0	0	0	0	0	0	0	0	522	14	
6:30	0	0	0	0	0	0	0	0	0	0	588	14	
6:45	0	0	0	0	0	0	0	0	0	0	460	8	2 108
7:00	0	0	0	0	0	0	0	0	0	0	550	6	2 162
7:15	0	0	0	0	0	0	0	0	0	0	423	16	2 065
7:30	0	0	0	0	0	0	0	0	0	0	489	14	1 966
7:45	0	0	0	0	0	0	0	0	0	0	503	6	2 007
8:00	0	0	0	0	0	0	0	0	0	0	483	5	1 939
8:15	0	0	0	0	0	0	0	0	0	0	436	9	1 945
8:30	0	0	0	0	0	0	0	0	0	0	396	8	1 846
8:45	0	0	0	0	0	0	0	0	0	0	386	6	1 729
9:00	0	0	0	0	0	0	0	0	0	0	405	7	1 653
9:15	0	0	0	0	0	0	0	0	0	0	338	6	1 552
9:30	0	0	0	0	0	0	0	0	0	0	320	4	1 472
9:45	0	0	0	0	0	0	0	0	0	0	335	7	1 422
10:00	0	0	0	0	0	0	0	0	0	0	318	4	1 332
10:15	0	0	0	0	0	0	0	0	0	0	317	5	1 310
10:30	0	0	0	0	0	0	0	0	0	0	281	3	1 270
10:45	0	0	0	0	0	0	0	0	0	0	286	6	1 220
11:00	0	0	0	0	0	0	0	0	0	0	301	5	1 204
11:15	0	0	0	0	0	0	0	0	0	0	257	6	1 145
11:30	0	0	0	0	0	0	0	0	0	0	306	5	1 172
11:45	0	0	0	0	0	0	0	0	0	0	315	6	1 201
12:00	0	0	0	0	0	0	0	0	0	0	304	5	1 204
12:15	0	0	0	0	0	0	0	0	0	0	291	3	1 235
12:30	0	0	0	0	0	0	0	0	0	0	258	5	1 187
12:45	0	0	0	0	0	0	0	0	0	0	308	4	1 178
13:00	0	0	0	0	0	0	0	0	0	0	300	3	1 172
13:15	0	0	0	0	0	0	0	0	0	0	269	8	1 155
13:30	0	0	0	0	0	0	0	0	0	0	301	4	1 197
13:45	0	0	0	0	0	0	0	0	0	0	278	7	1 170
14:00	0	0	0	0	0	0	0	0	0	0	290	4	1 161
14:15	0	0	0	0	0	0	0	0	0	0	323	3	1 210
14:30	0	0	0	0	0	0	0	0	0	0	310	5	1 220
14:45	0	0	0	0	0	0	0	0	0	0	306	4	1 245
15:00	0	0	0	0	0	0	0	0	0	0	256	3	1 210
15:15	0	0	0	0	0	0	0	0	0	0	254	3	1 141
15:30	0	0	0	0	0	0	0	0	0	0	258	4	1 088
15:45	0	0	0	0	0	0	0	0	0	0	241	2	1 021
16:00	0	0	0	0	0	0	0	0	0	0	239	5	1 006
16:15	0	0	0	0	0	0	0	0	0	0	247	1	997
16:30	0	0	0	0	0	0	0	0	0	0	233	4	972
16:45	0	0	0	0	0	0	0	0	0	0	225	4	958
17:00	0	0	0	0	0	0	0	0	0	0	241	3	958
17:15	0	0	0	0	0	0	0	0	0	0	263	6	979
17:30	0	0	0	0	0	0	0	0	0	0	207	7	956
17:45	0	0	0	0	0	0	0	0	0	0	198	4	929
Total	0	0	0	0	0	0	0	0	0	0	15 900	288	16 188

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 02C	SITE 02C (SASOL01) ACCESS FROM JOHAN HEYNS	2014/04/15
TUESDAY	MINIBUSES	12 HOUR COUNT

JOHAN HEYNS



SASOL 01 ACCESS

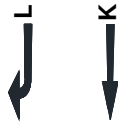
JOHAN HEYNS

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	0	0	0	2	0	
6:15	0	0	0	0	0	0	0	0	0	0	1	0	
6:30	0	0	0	0	0	0	0	0	0	0	7	1	
6:45	0	0	0	0	0	0	0	0	0	0	2	0	13
7:00	0	0	0	0	0	0	0	0	0	0	2	0	13
7:15	0	0	0	0	0	0	0	0	0	0	1	0	13
7:30	0	0	0	0	0	0	0	0	0	0	1	0	6
7:45	0	0	0	0	0	0	0	0	0	0	3	0	7
8:00	0	0	0	0	0	0	0	0	0	0	1	0	6
8:15	0	0	0	0	0	0	0	0	0	0	2	0	7
8:30	0	0	0	0	0	0	0	0	0	0	1	0	7
8:45	0	0	0	0	0	0	0	0	0	0	3	0	7
9:00	0	0	0	0	0	0	0	0	0	0	3	0	9
9:15	0	0	0	0	0	0	0	0	0	0	0	0	7
9:30	0	0	0	0	0	0	0	0	0	0	1	0	7
9:45	0	0	0	0	0	0	0	0	0	0	2	0	6
10:00	0	0	0	0	0	0	0	0	0	0	4	0	7
10:15	0	0	0	0	0	0	0	0	0	0	3	0	10
10:30	0	0	0	0	0	0	0	0	0	0	3	0	12
10:45	0	0	0	0	0	0	0	0	0	0	2	0	12
11:00	0	0	0	0	0	0	0	0	0	0	4	0	12
11:15	0	0	0	0	0	0	0	0	0	0	0	0	9
11:30	0	0	0	0	0	0	0	0	0	0	2	0	8
11:45	0	0	0	0	0	0	0	0	0	0	1	0	7
12:00	0	0	0	0	0	0	0	0	0	0	6	0	9
12:15	0	0	0	0	0	0	0	0	0	0	1	0	10
12:30	0	0	0	0	0	0	0	0	0	0	1	0	9
12:45	0	0	0	0	0	0	0	0	0	0	0	0	8
13:00	0	0	0	0	0	0	0	0	0	0	2	0	4
13:15	0	0	0	0	0	0	0	0	0	0	3	0	6
13:30	0	0	0	0	0	0	0	0	0	0	1	0	6
13:45	0	0	0	0	0	0	0	0	0	0	1	0	7
14:00	0	0	0	0	0	0	0	0	0	0	4	0	9
14:15	0	0	0	0	0	0	0	0	0	0	6	0	12
14:30	0	0	0	0	0	0	0	0	0	0	3	1	15
14:45	0	0	0	0	0	0	0	0	0	0	0	0	14
15:00	0	0	0	0	0	0	0	0	0	0	2	0	12
15:15	0	0	0	0	0	0	0	0	0	0	1	0	7
15:30	0	0	0	0	0	0	0	0	0	0	1	0	4
15:45	0	0	0	0	0	0	0	0	0	0	1	0	5
16:00	0	0	0	0	0	0	0	0	0	0	0	0	3
16:15	0	0	0	0	0	0	0	0	0	0	4	1	7
16:30	0	0	0	0	0	0	0	0	0	0	4	0	10
16:45	0	0	0	0	0	0	0	0	0	0	1	0	10
17:00	0	0	0	0	0	0	0	0	0	0	0	1	11
17:15	0	0	0	0	0	0	0	0	0	0	3	0	9
17:30	0	0	0	0	0	0	0	0	0	0	3	0	8
17:45	0	0	0	0	0	0	0	0	0	0	3	0	10
Total	0	0	0	0	0	0	0	0	0	0	102	4	106

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 02C	SITE 02C (SASOL01) ACCESS FROM JOHAN HEYNS	2014/04/15
TUESDAY	HEAVY VEHICLES	12 HOUR COUNT

JOHAN HEYNS



SASOL 01 ACCESS

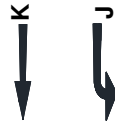
JOHAN HEYNS

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	0	0	0	1	0	
6:15	0	0	0	0	0	0	0	0	0	0	0	0	
6:30	0	0	0	0	0	0	0	0	0	0	2	0	
6:45	0	0	0	0	0	0	0	0	0	0	1	0	4
7:00	0	0	0	0	0	0	0	0	0	0	0	0	3
7:15	0	0	0	0	0	0	0	0	0	0	1	0	4
7:30	0	0	0	0	0	0	0	0	0	0	5	0	7
7:45	0	0	0	0	0	0	0	0	0	0	4	0	10
8:00	0	0	0	0	0	0	0	0	0	0	4	0	14
8:15	0	0	0	0	0	0	0	0	0	0	8	0	21
8:30	0	0	0	0	0	0	0	0	0	0	3	0	19
8:45	0	0	0	0	0	0	0	0	0	0	0	0	15
9:00	0	0	0	0	0	0	0	0	0	0	4	0	15
9:15	0	0	0	0	0	0	0	0	0	0	5	0	12
9:30	0	0	0	0	0	0	0	0	0	0	5	0	14
9:45	0	0	0	0	0	0	0	0	0	0	4	0	18
10:00	0	0	0	0	0	0	0	0	0	0	3	0	17
10:15	0	0	0	0	0	0	0	0	0	0	13	0	25
10:30	0	0	0	0	0	0	0	0	0	0	6	0	26
10:45	0	0	0	0	0	0	0	0	0	0	4	0	26
11:00	0	0	0	0	0	0	0	0	0	0	3	0	26
11:15	0	0	0	0	0	0	0	0	0	0	6	0	19
11:30	0	0	0	0	0	0	0	0	0	0	13	0	26
11:45	0	0	0	0	0	0	0	0	0	0	3	0	25
12:00	0	0	0	0	0	0	0	0	0	0	9	0	31
12:15	0	0	0	0	0	0	0	0	0	0	4	0	29
12:30	0	0	0	0	0	0	0	0	0	0	5	0	21
12:45	0	0	0	0	0	0	0	0	0	0	9	0	27
13:00	0	0	0	0	0	0	0	0	0	0	7	0	25
13:15	0	0	0	0	0	0	0	0	0	0	6	0	27
13:30	0	0	0	0	0	0	0	0	0	0	7	0	29
13:45	0	0	0	0	0	0	0	0	0	0	7	0	27
14:00	0	0	0	0	0	0	0	0	0	0	3	0	23
14:15	0	0	0	0	0	0	0	0	0	0	11	0	28
14:30	0	0	0	0	0	0	0	0	0	0	6	0	27
14:45	0	0	0	0	0	0	0	0	0	0	5	0	25
15:00	0	0	0	0	0	0	0	0	0	0	7	1	30
15:15	0	0	0	0	0	0	0	0	0	0	3	0	22
15:30	0	0	0	0	0	0	0	0	0	0	5	0	21
15:45	0	0	0	0	0	0	0	0	0	0	6	0	22
16:00	0	0	0	0	0	0	0	0	0	0	1	0	15
16:15	0	0	0	0	0	0	0	0	0	0	2	0	14
16:30	0	0	0	0	0	0	0	0	0	0	3	0	12
16:45	0	0	0	0	0	0	0	0	0	0	8	0	14
17:00	0	0	0	0	0	0	0	0	0	0	4	0	17
17:15	0	0	0	0	0	0	0	0	0	0	2	0	17
17:30	0	0	0	0	0	0	0	0	0	0	3	0	17
17:45	0	0	0	0	0	0	0	0	0	0	1	0	10
Total	0	0	0	0	0	0	0	0	0	0	222	1	223

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 03A	SITE 03A (SASOL02) ACCESS FROM JOHAN HEYNS	2014/04/15
TUESDAY	TOTAL VEHICLES	12 HOUR COUNT

JOHAN HEYNS



SASOL02 ACCESS

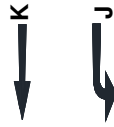
JOHAN HEYNS

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	0	0	26	474	0	
6:15	0	0	0	0	0	0	0	0	0	30	631	0	
6:30	0	0	0	0	0	0	0	0	0	34	654	0	
6:45	0	0	0	0	0	0	0	0	0	38	608	0	2 495
7:00	0	0	0	0	0	0	0	0	0	33	516	0	2 544
7:15	0	0	0	0	0	0	0	0	0	45	594	0	2 522
7:30	0	0	0	0	0	0	0	0	0	23	457	0	2 314
7:45	0	0	0	0	0	0	0	0	0	14	463	0	2 145
8:00	0	0	0	0	0	0	0	0	0	28	550	0	2 174
8:15	0	0	0	0	0	0	0	0	0	17	505	0	2 057
8:30	0	0	0	0	0	0	0	0	0	16	482	0	2 075
8:45	0	0	0	0	0	0	0	0	0	6	473	0	2 077
9:00	0	0	0	0	0	0	0	0	0	18	405	0	1 922
9:15	0	0	0	0	0	0	0	0	0	12	365	0	1 777
9:30	0	0	0	0	0	0	0	0	0	10	356	0	1 645
9:45	0	0	0	0	0	0	0	0	0	10	425	0	1 601
10:00	0	0	0	0	0	0	0	0	0	13	423	0	1 614
10:15	0	0	0	0	0	0	0	0	0	10	447	0	1 694
10:30	0	0	0	0	0	0	0	0	0	3	405	0	1 736
10:45	0	0	0	0	0	0	0	0	0	6	410	0	1 717
11:00	0	0	0	0	0	0	0	0	0	4	422	0	1 707
11:15	0	0	0	0	0	0	0	0	0	8	357	0	1 615
11:30	0	0	0	0	0	0	0	0	0	6	365	0	1 578
11:45	0	0	0	0	0	0	0	0	0	4	410	0	1 576
12:00	0	0	0	0	0	0	0	0	0	9	402	0	1 561
12:15	0	0	0	0	0	0	0	0	0	9	426	0	1 631
12:30	0	0	0	0	0	0	0	0	0	4	430	0	1 694
12:45	0	0	0	0	0	0	0	0	0	9	412	0	1 701
13:00	0	0	0	0	0	0	0	0	0	10	449	0	1 749
13:15	0	0	0	0	0	0	0	0	0	9	427	0	1 750
13:30	0	0	0	0	0	0	0	0	0	18	440	0	1 774
13:45	0	0	0	0	0	0	0	0	0	5	375	0	1 733
14:00	0	0	0	0	0	0	0	0	0	11	383	0	1 668
14:15	0	0	0	0	0	0	0	0	0	16	364	0	1 612
14:30	0	0	0	0	0	0	0	0	0	9	382	0	1 545
14:45	0	0	0	0	0	0	0	0	0	6	388	0	1 559
15:00	0	0	0	0	0	0	0	0	0	8	361	0	1 534
15:15	0	0	0	0	0	0	0	0	0	13	394	0	1 561
15:30	0	0	0	0	0	0	0	0	0	12	369	0	1 551
15:45	0	0	0	0	0	0	0	0	0	12	347	0	1 516
16:00	0	0	0	0	0	0	0	0	0	14	320	0	1 481
16:15	0	0	0	0	0	0	0	0	0	13	347	0	1 434
16:30	0	0	0	0	0	0	0	0	0	5	326	0	1 384
16:45	0	0	0	0	0	0	0	0	0	11	349	0	1 385
17:00	0	0	0	0	0	0	0	0	0	13	336	0	1 400
17:15	0	0	0	0	0	0	0	0	0	15	313	0	1 368
17:30	0	0	0	0	0	0	0	0	0	13	291	0	1 341
17:45	0	0	0	0	0	0	0	0	0	15	313	0	1 309
Total	0	0	0	0	0	0	0	0	0	673	20 141	0	20 814

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 03A	SITE 03A (SASOL02) ACCESS FROM JOHAN HEYNS	2014/04/15
TUESDAY	CARS	12 HOUR COUNT

JOHAN HEYNS



SASOL02 ACCESS

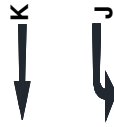
JOHAN HEYNS

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	0	0	25	473	0	
6:15	0	0	0	0	0	0	0	0	0	30	627	0	
6:30	0	0	0	0	0	0	0	0	0	33	642	0	
6:45	0	0	0	0	0	0	0	0	0	37	603	0	2 470
7:00	0	0	0	0	0	0	0	0	0	33	511	0	2 516
7:15	0	0	0	0	0	0	0	0	0	44	590	0	2 493
7:30	0	0	0	0	0	0	0	0	0	23	450	0	2 291
7:45	0	0	0	0	0	0	0	0	0	14	458	0	2 123
8:00	0	0	0	0	0	0	0	0	0	28	543	0	2 150
8:15	0	0	0	0	0	0	0	0	0	15	495	0	2 026
8:30	0	0	0	0	0	0	0	0	0	16	478	0	2 047
8:45	0	0	0	0	0	0	0	0	0	6	469	0	2 050
9:00	0	0	0	0	0	0	0	0	0	18	400	0	1 897
9:15	0	0	0	0	0	0	0	0	0	12	358	0	1 757
9:30	0	0	0	0	0	0	0	0	0	10	347	0	1 620
9:45	0	0	0	0	0	0	0	0	0	10	414	0	1 569
10:00	0	0	0	0	0	0	0	0	0	13	418	0	1 582
10:15	0	0	0	0	0	0	0	0	0	10	442	0	1 664
10:30	0	0	0	0	0	0	0	0	0	3	399	0	1 709
10:45	0	0	0	0	0	0	0	0	0	6	405	0	1 696
11:00	0	0	0	0	0	0	0	0	0	4	417	0	1 686
11:15	0	0	0	0	0	0	0	0	0	8	350	0	1 592
11:30	0	0	0	0	0	0	0	0	0	6	353	0	1 549
11:45	0	0	0	0	0	0	0	0	0	4	401	0	1 543
12:00	0	0	0	0	0	0	0	0	0	7	391	0	1 520
12:15	0	0	0	0	0	0	0	0	0	9	418	0	1 589
12:30	0	0	0	0	0	0	0	0	0	4	422	0	1 656
12:45	0	0	0	0	0	0	0	0	0	9	407	0	1 667
13:00	0	0	0	0	0	0	0	0	0	10	443	0	1 722
13:15	0	0	0	0	0	0	0	0	0	9	417	0	1 721
13:30	0	0	0	0	0	0	0	0	0	17	431	0	1 743
13:45	0	0	0	0	0	0	0	0	0	5	369	0	1 701
14:00	0	0	0	0	0	0	0	0	0	11	376	0	1 635
14:15	0	0	0	0	0	0	0	0	0	16	352	0	1 577
14:30	0	0	0	0	0	0	0	0	0	9	372	0	1 510
14:45	0	0	0	0	0	0	0	0	0	6	383	0	1 525
15:00	0	0	0	0	0	0	0	0	0	7	355	0	1 500
15:15	0	0	0	0	0	0	0	0	0	13	389	0	1 534
15:30	0	0	0	0	0	0	0	0	0	12	365	0	1 530
15:45	0	0	0	0	0	0	0	0	0	12	341	0	1 494
16:00	0	0	0	0	0	0	0	0	0	14	317	0	1 463
16:15	0	0	0	0	0	0	0	0	0	13	340	0	1 414
16:30	0	0	0	0	0	0	0	0	0	5	313	0	1 355
16:45	0	0	0	0	0	0	0	0	0	11	339	0	1 352
17:00	0	0	0	0	0	0	0	0	0	13	332	0	1 366
17:15	0	0	0	0	0	0	0	0	0	15	310	0	1 338
17:30	0	0	0	0	0	0	0	0	0	13	284	0	1 317
17:45	0	0	0	0	0	0	0	0	0	14	305	0	1 286
Total	0	0	0	0	0	0	0	0	0	662	19 814	0	20 476

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 03A	SITE 03A (SASOL02) ACCESS FROM JOHAN HEYNS	2014/04/15
TUESDAY	MINIBUSES	12 HOUR COUNT

JOHAN HEYNS



SASOL02 ACCESS

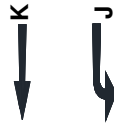
JOHAN HEYNS

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	0	0	0	0	0	
6:15	0	0	0	0	0	0	0	0	0	0	2	0	
6:30	0	0	0	0	0	0	0	0	0	1	8	0	
6:45	0	0	0	0	0	0	0	0	0	1	5	0	17
7:00	0	0	0	0	0	0	0	0	0	0	5	0	22
7:15	0	0	0	0	0	0	0	0	0	1	2	0	23
7:30	0	0	0	0	0	0	0	0	0	0	2	0	16
7:45	0	0	0	0	0	0	0	0	0	0	1	0	11
8:00	0	0	0	0	0	0	0	0	0	0	3	0	9
8:15	0	0	0	0	0	0	0	0	0	2	1	0	9
8:30	0	0	0	0	0	0	0	0	0	0	1	0	8
8:45	0	0	0	0	0	0	0	0	0	0	0	0	7
9:00	0	0	0	0	0	0	0	0	0	0	1	0	5
9:15	0	0	0	0	0	0	0	0	0	0	0	0	2
9:30	0	0	0	0	0	0	0	0	0	0	1	0	2
9:45	0	0	0	0	0	0	0	0	0	0	1	0	3
10:00	0	0	0	0	0	0	0	0	0	0	2	0	4
10:15	0	0	0	0	0	0	0	0	0	0	0	0	4
10:30	0	0	0	0	0	0	0	0	0	0	1	0	4
10:45	0	0	0	0	0	0	0	0	0	0	1	0	4
11:00	0	0	0	0	0	0	0	0	0	0	2	0	4
11:15	0	0	0	0	0	0	0	0	0	0	1	0	5
11:30	0	0	0	0	0	0	0	0	0	0	0	0	4
11:45	0	0	0	0	0	0	0	0	0	0	1	0	4
12:00	0	0	0	0	0	0	0	0	0	0	2	0	4
12:15	0	0	0	0	0	0	0	0	0	0	3	0	6
12:30	0	0	0	0	0	0	0	0	0	0	0	0	6
12:45	0	0	0	0	0	0	0	0	0	0	2	0	7
13:00	0	0	0	0	0	0	0	0	0	0	2	0	7
13:15	0	0	0	0	0	0	0	0	0	0	2	0	6
13:30	0	0	0	0	0	0	0	0	0	0	1	0	7
13:45	0	0	0	0	0	0	0	0	0	0	1	0	6
14:00	0	0	0	0	0	0	0	0	0	0	5	0	9
14:15	0	0	0	0	0	0	0	0	0	0	3	0	10
14:30	0	0	0	0	0	0	0	0	0	0	4	0	13
14:45	0	0	0	0	0	0	0	0	0	0	0	0	12
15:00	0	0	0	0	0	0	0	0	0	0	1	0	8
15:15	0	0	0	0	0	0	0	0	0	0	3	0	8
15:30	0	0	0	0	0	0	0	0	0	0	1	0	5
15:45	0	0	0	0	0	0	0	0	0	0	2	0	7
16:00	0	0	0	0	0	0	0	0	0	0	0	0	6
16:15	0	0	0	0	0	0	0	0	0	0	1	0	4
16:30	0	0	0	0	0	0	0	0	0	0	7	0	10
16:45	0	0	0	0	0	0	0	0	0	0	2	0	10
17:00	0	0	0	0	0	0	0	0	0	0	1	0	11
17:15	0	0	0	0	0	0	0	0	0	0	1	0	11
17:30	0	0	0	0	0	0	0	0	0	0	3	0	7
17:45	0	0	0	0	0	0	0	0	0	1	1	0	7
Total	0	0	0	0	0	0	0	0	0	6	89	0	95

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 03A	SITE 03A (SASOL02) ACCESS FROM JOHAN HEYNS	2014/04/15
TUESDAY	HEAVY VEHICLES	12 HOUR COUNT

JOHAN HEYNS



SASOL02 ACCESS

JOHAN HEYNS

Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	0	0	1	1	0	
6:15	0	0	0	0	0	0	0	0	0	0	2	0	
6:30	0	0	0	0	0	0	0	0	0	0	4	0	
6:45	0	0	0	0	0	0	0	0	0	0	0	0	8
7:00	0	0	0	0	0	0	0	0	0	0	0	0	6
7:15	0	0	0	0	0	0	0	0	0	0	2	0	6
7:30	0	0	0	0	0	0	0	0	0	0	5	0	7
7:45	0	0	0	0	0	0	0	0	0	0	4	0	11
8:00	0	0	0	0	0	0	0	0	0	0	4	0	15
8:15	0	0	0	0	0	0	0	0	0	0	9	0	22
8:30	0	0	0	0	0	0	0	0	0	0	3	0	20
8:45	0	0	0	0	0	0	0	0	0	0	4	0	20
9:00	0	0	0	0	0	0	0	0	0	0	4	0	20
9:15	0	0	0	0	0	0	0	0	0	0	7	0	18
9:30	0	0	0	0	0	0	0	0	0	0	8	0	23
9:45	0	0	0	0	0	0	0	0	0	0	10	0	29
10:00	0	0	0	0	0	0	0	0	0	0	3	0	28
10:15	0	0	0	0	0	0	0	0	0	0	5	0	26
10:30	0	0	0	0	0	0	0	0	0	0	5	0	23
10:45	0	0	0	0	0	0	0	0	0	0	4	0	17
11:00	0	0	0	0	0	0	0	0	0	0	3	0	17
11:15	0	0	0	0	0	0	0	0	0	0	6	0	18
11:30	0	0	0	0	0	0	0	0	0	0	12	0	25
11:45	0	0	0	0	0	0	0	0	0	0	8	0	29
12:00	0	0	0	0	0	0	0	0	0	2	9	0	37
12:15	0	0	0	0	0	0	0	0	0	0	5	0	36
12:30	0	0	0	0	0	0	0	0	0	0	8	0	32
12:45	0	0	0	0	0	0	0	0	0	0	3	0	27
13:00	0	0	0	0	0	0	0	0	0	0	4	0	20
13:15	0	0	0	0	0	0	0	0	0	0	8	0	23
13:30	0	0	0	0	0	0	0	0	0	1	8	0	24
13:45	0	0	0	0	0	0	0	0	0	0	5	0	26
14:00	0	0	0	0	0	0	0	0	0	0	2	0	24
14:15	0	0	0	0	0	0	0	0	0	0	9	0	25
14:30	0	0	0	0	0	0	0	0	0	0	6	0	22
14:45	0	0	0	0	0	0	0	0	0	0	5	0	22
15:00	0	0	0	0	0	0	0	0	0	1	5	0	26
15:15	0	0	0	0	0	0	0	0	0	0	2	0	19
15:30	0	0	0	0	0	0	0	0	0	0	3	0	16
15:45	0	0	0	0	0	0	0	0	0	0	4	0	15
16:00	0	0	0	0	0	0	0	0	0	0	3	0	12
16:15	0	0	0	0	0	0	0	0	0	0	6	0	16
16:30	0	0	0	0	0	0	0	0	0	0	6	0	19
16:45	0	0	0	0	0	0	0	0	0	0	8	0	23
17:00	0	0	0	0	0	0	0	0	0	0	3	0	23
17:15	0	0	0	0	0	0	0	0	0	0	2	0	19
17:30	0	0	0	0	0	0	0	0	0	0	4	0	17
17:45	0	0	0	0	0	0	0	0	0	0	7	0	16
Total	0	0	0	0	0	0	0	0	0	5	238	0	243

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 03B	SITE 03B (SASOL02) ACCESS FROM BEN SWART	2014/04/15
TUESDAY	TOTAL VEHICLES	12 HOUR COUNT

SASOL02 ACCESS



Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	4	14	0	0	0	0	0	42	1	0	0	0	
6:15	6	158	0	0	0	0	0	87	6	0	0	0	
6:30	4	97	0	0	0	0	0	56	3	0	0	0	
6:45	4	130	0	0	0	0	0	59	5	0	0	0	676
7:00	3	155	0	0	0	0	0	87	5	0	0	0	865
7:15	6	163	0	0	0	0	0	95	6	0	0	0	878
7:30	3	124	0	0	0	0	0	72	4	0	0	0	921
7:45	2	65	0	0	0	0	0	55	6	0	0	0	851
8:00	2	89	0	0	0	0	0	55	4	0	0	0	751
8:15	2	70	0	0	0	0	0	68	5	0	0	0	626
8:30	1	55	0	0	0	0	0	61	2	0	0	0	542
8:45	6	59	0	0	0	0	0	61	3	0	0	0	543
9:00	2	92	0	0	0	0	0	75	0	0	0	0	562
9:15	2	56	0	0	0	0	0	26	0	0	0	0	501
9:30	1	62	0	0	0	0	0	65	0	0	0	0	510
9:45	1	55	0	0	0	0	0	50	0	0	0	0	487
10:00	3	69	0	0	0	0	0	59	0	0	0	0	449
10:15	4	78	0	0	0	0	0	74	0	0	0	0	521
10:30	1	65	0	0	0	0	0	44	0	0	0	0	503
10:45	2	70	0	0	0	0	0	57	0	0	0	0	526
11:00	0	82	0	0	0	0	0	68	0	0	0	0	545
11:15	1	60	0	0	0	0	0	56	0	0	0	0	506
11:30	0	65	0	0	0	0	0	84	0	0	0	0	545
11:45	0	60	0	0	0	0	0	75	0	0	0	0	551
12:00	2	69	0	0	0	0	0	52	0	0	0	0	524
12:15	2	46	0	0	0	0	0	60	0	0	0	0	515
12:30	0	74	0	0	0	0	0	51	0	0	0	0	491
12:45	3	84	0	0	0	0	0	66	0	0	0	0	509
13:00	1	71	0	0	0	0	0	59	0	0	0	0	517
13:15	0	87	0	0	0	0	0	67	0	0	0	0	563
13:30	0	92	0	0	0	0	0	70	0	0	0	0	600
13:45	0	67	0	0	0	0	0	68	0	0	0	0	582
14:00	1	57	0	0	0	0	0	65	0	0	0	0	574
14:15	2	56	0	0	0	0	0	80	2	0	0	0	560
14:30	2	66	0	0	0	0	0	73	1	0	0	0	540
14:45	3	80	0	0	0	0	0	71	1	0	0	0	560
15:00	4	83	0	0	0	0	0	55	0	0	0	0	579
15:15	5	90	0	0	0	0	0	83	0	0	0	0	617
15:30	0	76	0	0	0	0	0	80	1	0	0	0	632
15:45	2	75	0	0	0	0	0	75	1	0	0	0	630
16:00	4	93	0	0	0	0	0	90	0	0	0	0	675
16:15	6	92	0	0	0	0	0	99	3	0	0	0	697
16:30	3	85	0	0	0	0	0	78	1	0	0	0	707
16:45	2	102	0	0	0	0	0	80	2	0	0	0	740
17:00	4	104	0	0	0	0	0	69	2	0	0	0	732
17:15	1	96	0	0	0	0	0	71	3	0	0	0	703
17:30	8	109	0	0	0	0	0	79	1	0	0	0	733
17:45	3	74	0	0	0	0	0	117	1	0	0	0	742
Total	118	3 921	0	0	0	0	0	3 289	69	0	0	0	7 397

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 03B	SITE 03B (SASOL02) ACCESS FROM BEN SWART	2014/04/15
TUESDAY	CARS	12 HOUR COUNT

SASOL02 ACCESS



Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	4	14	0	0	0	0	0	40	1	0	0	0	
6:15	6	155	0	0	0	0	0	86	6	0	0	0	
6:30	4	96	0	0	0	0	0	54	3	0	0	0	
6:45	4	125	0	0	0	0	0	59	5	0	0	0	662
7:00	3	154	0	0	0	0	0	85	4	0	0	0	849
7:15	6	155	0	0	0	0	0	94	6	0	0	0	857
7:30	3	119	0	0	0	0	0	71	4	0	0	0	897
7:45	2	62	0	0	0	0	0	55	5	0	0	0	828
8:00	2	85	0	0	0	0	0	50	4	0	0	0	723
8:15	2	67	0	0	0	0	0	65	5	0	0	0	601
8:30	1	54	0	0	0	0	0	60	2	0	0	0	521
8:45	6	58	0	0	0	0	0	55	3	0	0	0	519
9:00	2	85	0	0	0	0	0	70	0	0	0	0	535
9:15	2	50	0	0	0	0	0	26	0	0	0	0	474
9:30	0	59	0	0	0	0	0	65	0	0	0	0	481
9:45	1	50	0	0	0	0	0	48	0	0	0	0	458
10:00	2	66	0	0	0	0	0	56	0	0	0	0	425
10:15	4	74	0	0	0	0	0	71	0	0	0	0	496
10:30	1	59	0	0	0	0	0	44	0	0	0	0	476
10:45	2	68	0	0	0	0	0	57	0	0	0	0	504
11:00	0	78	0	0	0	0	0	67	0	0	0	0	525
11:15	1	57	0	0	0	0	0	53	0	0	0	0	487
11:30	0	60	0	0	0	0	0	81	0	0	0	0	524
11:45	0	59	0	0	0	0	0	69	0	0	0	0	525
12:00	2	65	0	0	0	0	0	48	0	0	0	0	495
12:15	2	44	0	0	0	0	0	57	0	0	0	0	487
12:30	0	70	0	0	0	0	0	47	0	0	0	0	463
12:45	3	79	0	0	0	0	0	61	0	0	0	0	478
13:00	1	66	0	0	0	0	0	55	0	0	0	0	485
13:15	0	85	0	0	0	0	0	65	0	0	0	0	532
13:30	0	90	0	0	0	0	0	69	0	0	0	0	574
13:45	0	62	0	0	0	0	0	64	0	0	0	0	557
14:00	1	56	0	0	0	0	0	61	0	0	0	0	553
14:15	2	51	0	0	0	0	0	76	2	0	0	0	534
14:30	2	62	0	0	0	0	0	71	1	0	0	0	511
14:45	3	79	0	0	0	0	0	68	1	0	0	0	536
15:00	3	80	0	0	0	0	0	54	0	0	0	0	555
15:15	4	86	0	0	0	0	0	81	0	0	0	0	595
15:30	0	71	0	0	0	0	0	77	1	0	0	0	608
15:45	2	72	0	0	0	0	0	74	1	0	0	0	606
16:00	4	89	0	0	0	0	0	88	0	0	0	0	650
16:15	6	89	0	0	0	0	0	99	3	0	0	0	676
16:30	3	83	0	0	0	0	0	77	0	0	0	0	690
16:45	2	102	0	0	0	0	0	79	2	0	0	0	726
17:00	4	103	0	0	0	0	0	66	2	0	0	0	720
17:15	1	91	0	0	0	0	0	67	3	0	0	0	685
17:30	8	108	0	0	0	0	0	78	1	0	0	0	717
17:45	3	73	0	0	0	0	0	117	1	0	0	0	726
Total	114	3 765	0	0	0	0	0	3 180	66	0	0	0	7 125

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 03B	SITE 03B (SASOL02) ACCESS FROM BEN SWART	2014/04/15
TUESDAY	MINIBUSES	12 HOUR COUNT

SASOL02 ACCESS



Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	1	0	0	0	0	
6:15	0	1	0	0	0	0	0	1	0	0	0	0	
6:30	0	0	0	0	0	0	0	0	0	0	0	0	
6:45	0	3	0	0	0	0	0	0	0	0	0	0	6
7:00	0	1	0	0	0	0	0	0	1	0	0	0	7
7:15	0	4	0	0	0	0	0	0	0	0	0	0	9
7:30	0	0	0	0	0	0	0	0	0	0	0	0	9
7:45	0	1	0	0	0	0	0	0	0	0	0	0	7
8:00	0	0	0	0	0	0	0	1	0	0	0	0	6
8:15	0	1	0	0	0	0	0	1	0	0	0	0	4
8:30	0	0	0	0	0	0	0	0	0	0	0	0	4
8:45	0	0	0	0	0	0	0	0	0	0	0	0	3
9:00	0	1	0	0	0	0	0	3	0	0	0	0	6
9:15	0	1	0	0	0	0	0	0	0	0	0	0	5
9:30	0	1	0	0	0	0	0	0	0	0	0	0	6
9:45	0	0	0	0	0	0	0	0	0	0	0	0	6
10:00	0	1	0	0	0	0	0	0	0	0	0	0	3
10:15	0	0	0	0	0	0	0	0	0	0	0	0	2
10:30	0	0	0	0	0	0	0	0	0	0	0	0	1
10:45	0	0	0	0	0	0	0	0	0	0	0	0	1
11:00	0	1	0	0	0	0	0	0	0	0	0	0	1
11:15	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30	0	1	0	0	0	0	0	0	0	0	0	0	2
11:45	0	0	0	0	0	0	0	1	0	0	0	0	3
12:00	0	2	0	0	0	0	0	3	0	0	0	0	7
12:15	0	1	0	0	0	0	0	1	0	0	0	0	9
12:30	0	0	0	0	0	0	0	1	0	0	0	0	9
12:45	0	2	0	0	0	0	0	1	0	0	0	0	11
13:00	0	3	0	0	0	0	0	1	0	0	0	0	10
13:15	0	1	0	0	0	0	0	1	0	0	0	0	10
13:30	0	0	0	0	0	0	0	1	0	0	0	0	10
13:45	0	1	0	0	0	0	0	0	0	0	0	0	8
14:00	0	0	0	0	0	0	0	2	0	0	0	0	6
14:15	0	0	0	0	0	0	0	2	0	0	0	0	6
14:30	0	0	0	0	0	0	0	0	0	0	0	0	5
14:45	0	0	0	0	0	0	0	1	0	0	0	0	5
15:00	1	0	0	0	0	0	0	0	0	0	0	0	4
15:15	1	1	0	0	0	0	0	0	0	0	0	0	4
15:30	0	0	0	0	0	0	0	1	0	0	0	0	5
15:45	0	1	0	0	0	0	0	0	0	0	0	0	5
16:00	0	1	0	0	0	0	0	1	0	0	0	0	6
16:15	0	0	0	0	0	0	0	0	0	0	0	0	4
16:30	0	0	0	0	0	0	0	0	0	0	0	0	3
16:45	0	0	0	0	0	0	0	0	0	0	0	0	2
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	2	31	0	0	0	0	0	24	1	0	0	0	58

CAPITAL PARK FILLING STATION SITE SURVEYS

LOCATION 03B	SITE 03B (SASOL02) ACCESS FROM BEN SWART	2014/04/15
TUESDAY	HEAVY VEHICLES	12 HOUR COUNT

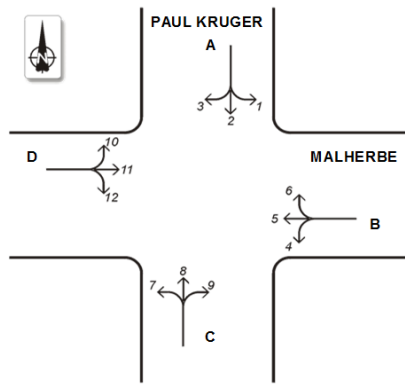
SASOL02 ACCESS



Time	West			South			East			North			Hourly
	A	B	C	D	E	F	G	H	I	J	K	L	
6:00	0	0	0	0	0	0	0	1	0	0	0	0	
6:15	0	2	0	0	0	0	0	0	0	0	0	0	
6:30	0	1	0	0	0	0	0	2	0	0	0	0	
6:45	0	2	0	0	0	0	0	0	0	0	0	0	8
7:00	0	0	0	0	0	0	0	2	0	0	0	0	9
7:15	0	4	0	0	0	0	0	1	0	0	0	0	12
7:30	0	5	0	0	0	0	0	1	0	0	0	0	15
7:45	0	2	0	0	0	0	0	0	1	0	0	0	16
8:00	0	4	0	0	0	0	0	4	0	0	0	0	22
8:15	0	2	0	0	0	0	0	2	0	0	0	0	21
8:30	0	1	0	0	0	0	0	1	0	0	0	0	17
8:45	0	1	0	0	0	0	0	6	0	0	0	0	21
9:00	0	6	0	0	0	0	0	2	0	0	0	0	21
9:15	0	5	0	0	0	0	0	0	0	0	0	0	22
9:30	1	2	0	0	0	0	0	0	0	0	0	0	23
9:45	0	5	0	0	0	0	0	2	0	0	0	0	23
10:00	1	2	0	0	0	0	0	3	0	0	0	0	21
10:15	0	4	0	0	0	0	0	3	0	0	0	0	23
10:30	0	6	0	0	0	0	0	0	0	0	0	0	26
10:45	0	2	0	0	0	0	0	0	0	0	0	0	21
11:00	0	3	0	0	0	0	0	1	0	0	0	0	19
11:15	0	3	0	0	0	0	0	3	0	0	0	0	18
11:30	0	4	0	0	0	0	0	3	0	0	0	0	19
11:45	0	1	0	0	0	0	0	5	0	0	0	0	23
12:00	0	2	0	0	0	0	0	1	0	0	0	0	22
12:15	0	1	0	0	0	0	0	2	0	0	0	0	19
12:30	0	4	0	0	0	0	0	3	0	0	0	0	19
12:45	0	3	0	0	0	0	0	4	0	0	0	0	20
13:00	0	2	0	0	0	0	0	3	0	0	0	0	22
13:15	0	1	0	0	0	0	0	1	0	0	0	0	21
13:30	0	2	0	0	0	0	0	0	0	0	0	0	16
13:45	0	4	0	0	0	0	0	4	0	0	0	0	17
14:00	0	1	0	0	0	0	0	2	0	0	0	0	15
14:15	0	5	0	0	0	0	0	2	0	0	0	0	20
14:30	0	4	0	0	0	0	0	2	0	0	0	0	24
14:45	0	1	0	0	0	0	0	2	0	0	0	0	19
15:00	0	3	0	0	0	0	0	1	0	0	0	0	20
15:15	0	3	0	0	0	0	0	2	0	0	0	0	18
15:30	0	5	0	0	0	0	0	2	0	0	0	0	19
15:45	0	2	0	0	0	0	0	1	0	0	0	0	19
16:00	0	3	0	0	0	0	0	1	0	0	0	0	19
16:15	0	3	0	0	0	0	0	0	0	0	0	0	17
16:30	0	2	0	0	0	0	0	1	1	0	0	0	14
16:45	0	0	0	0	0	0	0	1	0	0	0	0	12
17:00	0	1	0	0	0	0	0	3	0	0	0	0	12
17:15	0	5	0	0	0	0	0	4	0	0	0	0	18
17:30	0	0	0	0	0	0	0	1	0	0	0	0	15
17:45	0	1	0	0	0	0	0	0	0	0	0	0	15
Total	2	125	0	0	0	0	0	85	2	0	0	0	214

TECHWORLD: CLASSIFIED MANUAL INTERSECTION COUNTS CAPITAL PARK

1 Intersection of Paul Kruger & Malherbe
 Survey Date: 09-05-2014 Friday



PERIOD	MOVEMENT 1				MOVEMENT 2				MOVEMENT 3				MOVEMENT 4				MOVEMENT 5				MOVEMENT 6				MOVEMENT 7				MOVEMENT 8				MOVEMENT 9				MOVEMENT 10				MOVEMENT 11				MOVEMENT 12						
	Light	Taxi	Bus	Heavy	Light	Taxi	Bus	Heavy	Light	Taxi	Bus	Heavy	Light	Taxi	Bus	Heavy	Light	Taxi	Bus	Heavy	Light	Taxi	Bus	Heavy	Light	Taxi	Bus	Heavy	Light	Taxi	Bus	Heavy	Light	Taxi	Bus	Heavy	Light	Taxi	Bus	Heavy	Light	Taxi	Bus	Heavy	Light	Taxi	Bus	Heavy	Light	Taxi	Bus
06:00 - 06:15	2	3	1	0	227	34	8	0	1	0	0	0	19	0	0	0	8	0	0	0	1	0	0	0	1	0	0	0	37	50	4	1	0	0	0	0	1	0	0	0	18	1	0	0	27	0	0	0			
06:15 - 06:30	1	0	0	0	226	42	10	1	3	1	0	0	28	8	1	0	2	0	0	0	0	0	0	0	1	0	0	0	44	46	3	0	2	0	0	0	0	0	0	0	26	1	1	0	43	3	0	0			
06:30 - 06:45	3	0	0	0	252	48	14	0	3	0	0	0	31	10	1	0	12	0	0	0	1	0	0	0	1	0	0	0	62	60	5	0	4	0	0	0	7	0	0	0	30	2	0	0	54	1	0	0			
06:45 - 07:00	4	0	0	0	181	47	8	2	4	1	0	0	44	15	1	2	15	3	0	0	0	0	0	4	1	6	3	60	53	5	6	7	2	0	0	4	0	1	0	39	4	1	0	54	3	0	0				
07:00 - 07:15	3	0	0	0	201	50	11	1	3	1	0	0	34	16	0	0	12	4	0	0	3	0	0	0	7	0	0	0	50	56	2	1	5	0	0	0	2	2	0	0	26	5	0	0	42	6	0	0			
07:15 - 07:30	3	1	0	0	162	34	11	1	6	0	0	1	36	10	0	0	14	2	0	0	2	0	0	0	7	1	0	0	43	53	5	3	6	1	0	0	0	3	1	0	0	21	2	0	0	31	1	0	0		
07:30 - 07:45	7	0	0	0	194	47	3	6	1	0	0	0	24	6	0	0	19	6	0	0	2	1	0	0	3	2	0	0	47	61	3	1	1	0	0	0	4	0	2	1	19	1	0	0	28	2	0	0			
07:45 - 08:00	2	0	0	0	147	38	4	5	1	0	0	0	13	0	0	0	12	1	0	0	2	0	0	0	4	1	0	0	41	53	5	4	5	0	0	0	1	0	0	0	22	0	0	0	12	0	0	0			
08:00 - 08:15	2	0	0	0	136	47	7	2	1	0	0	1	6	0	0	0	4	1	0	0	1	0	0	0	2	1	0	0	41	62	2	1	3	0	0	1	3	0	0	1	13	1	0	0	12	1	0	0			
08:15 - 08:30	1	0	0	0	112	28	2	5	2	0	0	0	4	0	0	0	8	5	1	0	1	0	0	0	4	0	0	0	51	55	4	10	1	0	0	0	0	0	0	11	0	0	0	4	2	0	0				
08:30 - 08:45	4	0	0	0	131	32	0	7	0	0	0	0	8	0	0	0	9	0	0	1	2	0	0	1	1	0	0	61	45	2	9	3	0	0	0	2	0	0	0	8	0	0	0	12	0	0	0				
08:45 - 09:00	2	0	0	0	123	36	3	2	0	0	0	0	5	0	0	0	6	0	0	0	2	0	0	0	2	0	0	0	58	38	0	4	4	0	0	0	1	0	0	0	4	0	0	0	6	1	0	0			
09:00 - 09:15	3	0	0	0	117	31	1	7	1	0	0	0	6	0	0	0	4	0	0	0	0	0	0	0	1	0	0	0	85	41	0	6	4	0	0	0	1	0	0	0	7	1	0	0	6	0	0	0			
09:15 - 09:30	6	0	0	2	123	28	6	4	0	0	0	0	8	0	0	0	5	0	0	1	0	0	0	1	0	0	0	91	44	2	4	6	0	0	0	1	0	0	0	5	1	0	1	4	0	0	0				
09:30 - 09:45	4	0	0	0	128	27	6	3	2	0	0	0	8	0	0	0	4	0	0	0	1	0	0	0	1	0	0	0	93	33	2	6	6	0	0	0	2	0	0	0	5	0	0	1	2	0	0	0			
09:45 - 10:00	2	0	0	0	123	22	0	2	3	0	0	0	3	0	0	0	2	0	0	0	2	0	0	0	4	0	4	3	84	42	0	3	1	0	0	0	3	0	0	0	4	0	0	0	5	0	0	0			
10:00 - 10:15	1	0	0	1	115	25	4	8	7	0	0	1	4	0	0	0	5	1	0	1	0	0	0	2	0	0	0	81	38	1	7	5	0	0	1	0	2	0	1	9	0	0	1	5	0	0	0				
10:15 - 10:30	6	0	0	0	93	29	2	3	3	1	0	0	6	0	0	0	5	0	0	0	1	0	0	0	1	0	0	0	94	49	2	4	5	0	0	0	2	0	0	0	7	0	0	0	2	0	0	0			
10:30 - 10:45	6	0	0	1	112	22	0	6	1	0	0	0	0	0	0	0	4	0	0	0	1	1	0	0	2	0	3	3	95	30	0	4	3	0	0	2	4	0	0	1	7	0	0	0	4	0	0	1			
10:45 - 11:00	8	0	0	0	86	26	1	6	1	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	65	10	0	1	3	0	0	0	1	0	0	0	8	1	0	0	4	0	0	0				
11:00 - 11:15	6	0	0	0	120	18	1	7	3	0	0	1	2	1	0	0	5	0	0	0	2	0	0	0	3	0	0	0	97	41	0	6	5	0	0	0	0	0	0	3	0	0	0	1	0	0	0				
11:15 - 11:30	1	0	0	0	101	19	0	3	0	0	0	0	6	0	0	1	8	1	0	0	2	0	0	0	2	1	0	0	86	32	2	1	1	0	0	0	2	0	0	0	10	0	0	0	4	0	0	0			
11:30 - 11:45	4	0	0	1	116	27	1	4	2	0	0	0	3	0	0	0	7	0	0	0	1	0	0	0	3	0	0	0	77	32	0	4	3	0	0	0	2	0	0	0	8	0	0	0	4	0	0	0			
11:45 - 12:00	3	0	0	0	113	27	1	8	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0	2	0	0	0	110	37	0	8	3	0	0	0	3	0	0	0	1	0	0	0	1	1	0	0				
12:00 - 12:15	2	0	0	0	108	27	0	5	1	0	0	0	2	0	0	1	7	0	0	0	2	0	0	0	0	0	0	111	34	0	4	7	0	0	0	1	0	0	0	6	0	0	0	5	0	0	0				
12:15 - 12:30	4	0	0	0	111	19	2	1	2	1	0	0	4	0	0	1	10	0	0	0	0	0	1	0	1	0	0	100	36	4	5	1	0	0	0	1	0	0	0	6	1	0	0	4	0	0	0				
12:30 - 12:45	2	0	0	0	112	18	2	6	0	0	0	0	4	1	0	0	9	1	0	0	1	1	0	0	2	1	0	0	113	41	2	3	4	0	0	0	1	0	0	0	12	2	0	2	4	0	0	0			
12:45 - 13:00	0	0	0	0	89	23	2	5	0	0	0	0	4	0	0	0	10	0	0	1	1	0	0	0	8	0	0	0	109	53	1	3	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0			
13:00 - 13:15	0	0	0	0	101	30	1	6	0	0	0	0	1	1	0	1	6	1	0	0	4	0	0	0	3	0	0	0	112	39	2	3	4	0	0	0	1	0	0	0	11	0	0	0	6	1	0	0			
13:15 - 13:30	1	0	0	0	74	32	2	7	3	1	0	1	3	0	0	0	19	1	0	1	0	0	0	10	0	0	0	109	48	0	3	4	1	0	0	9	0	0	0	5	2	0	0	5	0	0	0				
13:30 - 13:45	1	0	0	0	97	28	4	8	1	0	0	0	3	0	0	0	7	0	0	0	0	0	0	0	10	0	0	0	111	45	3	2	3	0	0	0	10	0	0	1	19	1	2	2	8	3	0	1			
13:45 - 14:00	1	0	0	1	112	23	2	6	5	0	0	1	4	1	0	0	15	0	0	0	3	0	0	0	1	1	0	3	99	34	6	4	8	2	0	0	4	0	0	0	11	1	0	0	5	0	0	1			
14:00 - 14:15	5	0	0	0	114	33	0	2	0	0	0	0	1	0	0	1	10	1	0	0	4	1	0	0	7	3	0	2	89	63	3	3	14	1	0	0	4	3	1	0	10	3	0	1	8	3	0	1			
14:15 - 14:30	6	2	0	0	116	32	1	8	2	1	0	0	1	0	0	0	10	0	0	0	3	0	0	0	9	0	0	0	103	50	6	2	17	1	0	0	0	0	0	0	6	0	0	0	9	0	0	0			
14:30 - 14:45	7	0	3	0	83	24	6	9	1	0	0	0	3	1	0	0	8	0	0	0	2	0	0	0	9	1	0	0	124	59	4	4	10	1	0	0	2	0	0	0	8	0	0	0	3	1	0	1			
14:45 - 15:00	2	0	0	0	76	31	2	6	4	0	0	0	0	0	0	0	16	0	0	0	0	0	0	2	2	0	1	131	58	2	3	15	1	0	1	7	0	0	0	9	0	0	0	5	0	0	0				
15:00 - 15:15	3	0	0	1	83	25	4	6	0	0	0	0	6	0	0	2	14	0	0	0	0	0	0	8	2																										