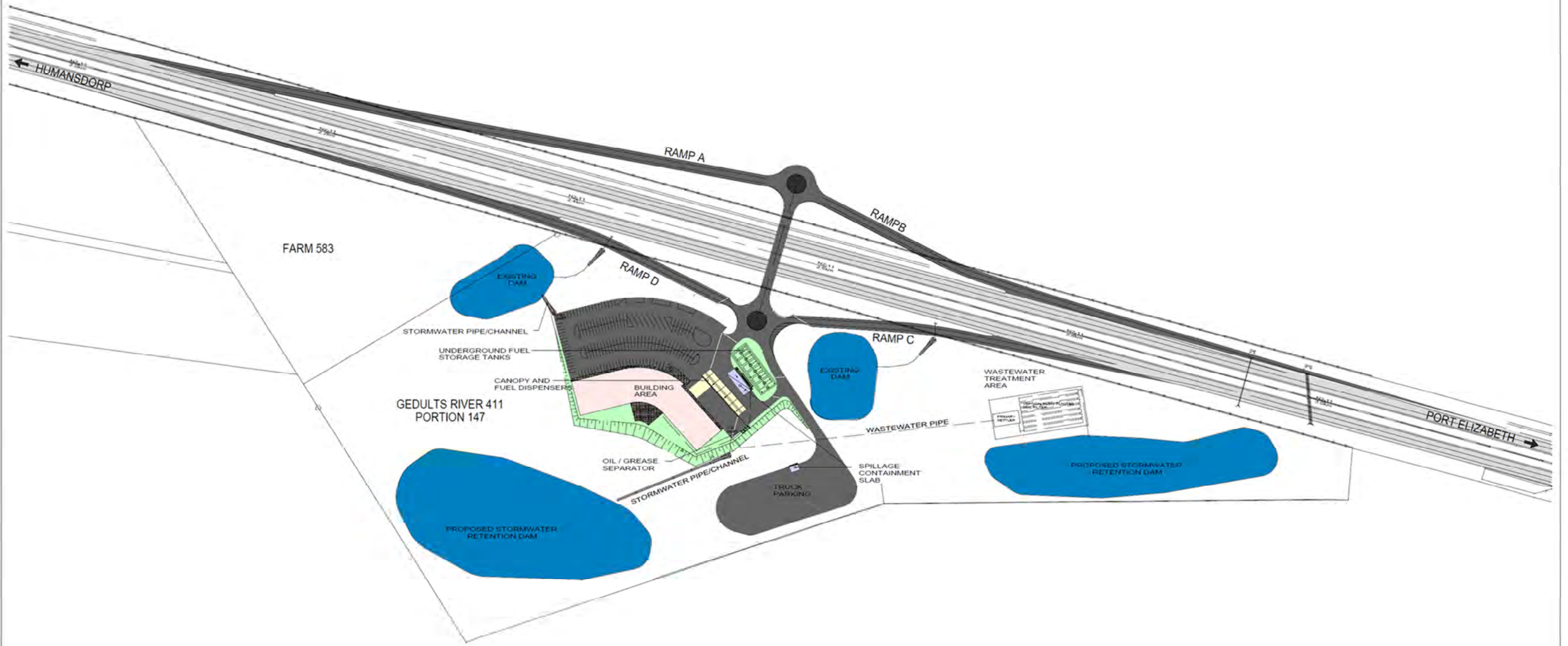


Appendices

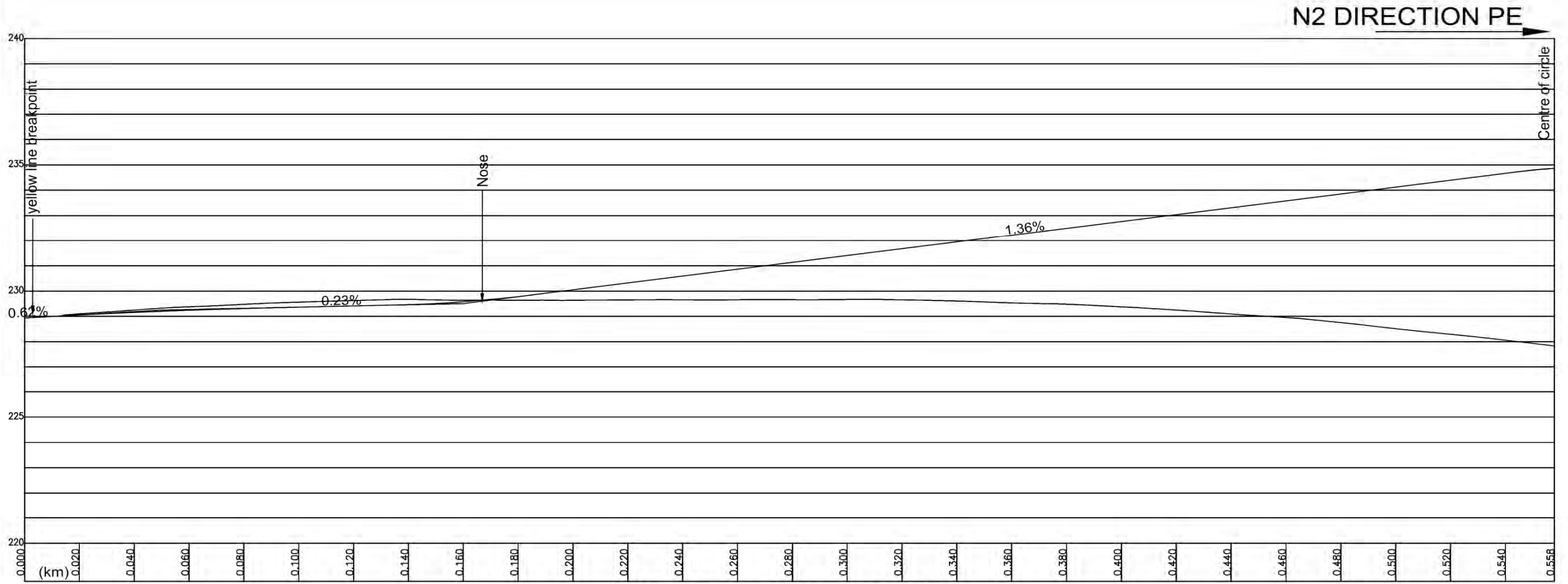
Appendix A1: FACILITY LAYOUT



NOTE:
1. FOR UNDERGROUND FUEL STORAGE DETAILS
SEE DRAWING No. N2PE-PAT-002

DESIGNED BY A. MORRISON		CLIENT	DESIGNED BY INFRASTRUCTURE CONSULTING ENGINEERS cc		PROJECT DESCRIPTION REST AND SERVICE FACILITY PORT ELIZABETH - NATIONAL ROUTE 2		APPROVED (for signature)	DATE 12-03-2012	SHEET A3
CHECKED BY P.G. JOUBERT			PO BOX 186 PERSECUOR PARK 0020		PLAN DESCRIPTION LAYOUT OF FACILITY AND INTERCHANGE			SCALE 1:3000	REVISION 0
DRAWN BY A. MORRISON			Tel (012) 349-2022/3/4/5 Fax(012) 349-2026					PLANNING N2PE-CEPT-001	
NO. DATE DESCRIPTION		REVISOR				DATE			
AMENDMENTS									

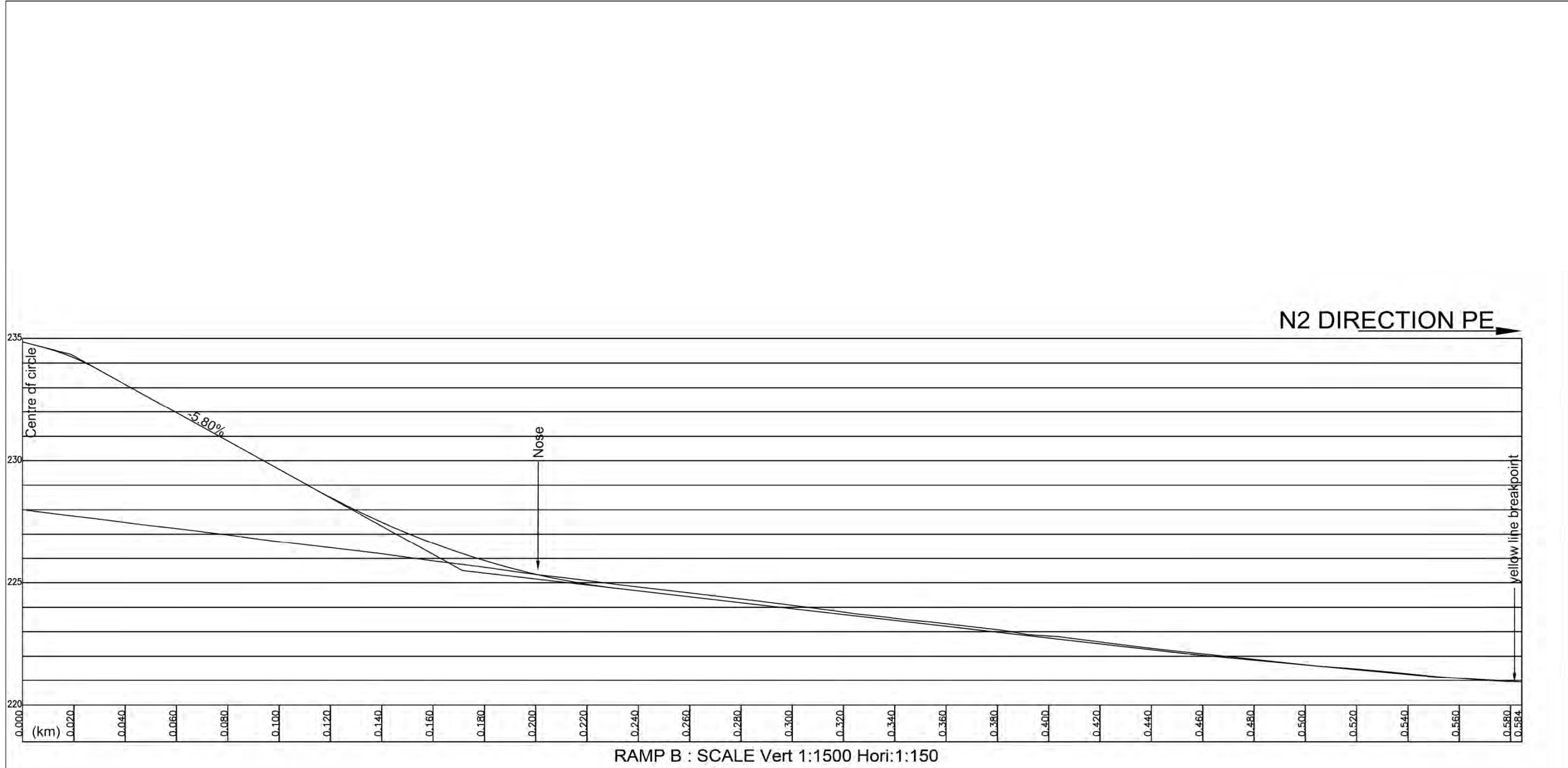
Appendix A2: LONGITUDINAL SECTION RAMP A



RAMP A : SCALE Vert 1:1500 Hori:1:150

DESIGNED BY: A. MORRISON		INFRASTRUCTURE CONSULTING ENGINEERS cc  PO BOX 186 PERSEQUOR PARK 0020 Tel (012) 349-2022/314/5 Fax (012) 349-2026	PROJECT DESCRIPTION: REST AND SERVICE FACILITY PE N2		DATE: 14-02-2012	SHEET: A3	
CHECKED BY: P. LOURENCO			PLAN DESCRIPTION: LONGITUDINAL SECTION RAMP A		SCALE: 1:1500	REVISION: 0	
DRAWN BY: A. MORRISON					TOLERANCE: N2 PE - LSA - 02		
REVIEWED BY:							
AMENDMENTS							

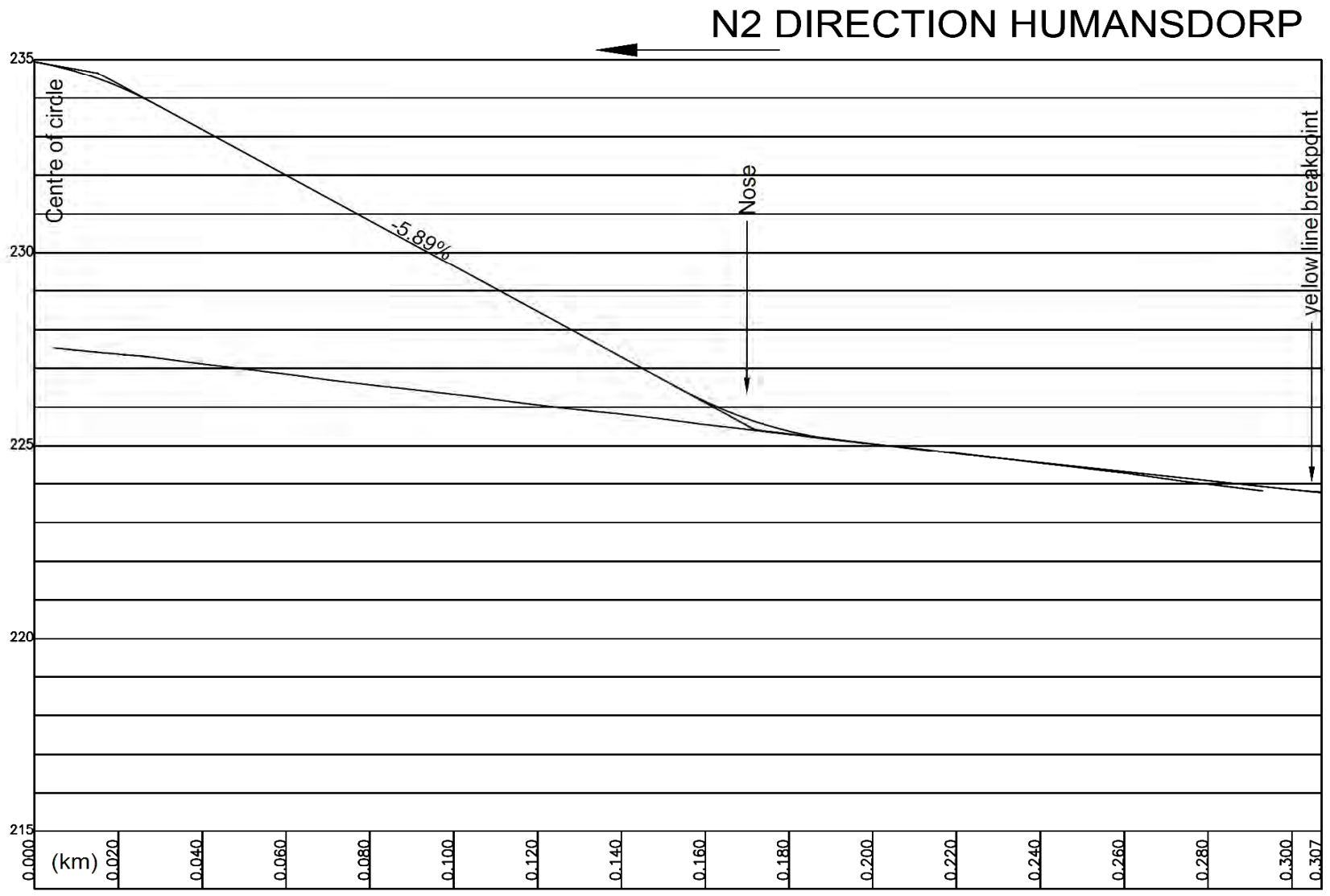
Appendix A3: LONGITUDINAL SECTION RAMP B



RAMP B : SCALE Vert 1:1500 Hori:1:150

DESIGNED BY: J. HARRISON		INFRASTRUCTURE CONSULTING ENGINEERS cc  PO BOX 106 PERSEQUOR PARK 0020 Tel (012) 349-2022/3/4/5 Fax (012) 349-2026	PROJECT DESCRIPTION: REST AND SERVICE FACILITY PE N2		DATE: 14-02-2012	SHEET: A3
CHECKED BY: H. J. J. J.			PLAN DESCRIPTION: LONGITUDINAL SECTION RAMP B		SCALE: 1:1500	POSITION: 0
DRAWN BY: A. CARLSON					TITLE: N2 PE - LSB - 03	
REVISIONS:						
AMENDMENTS:						

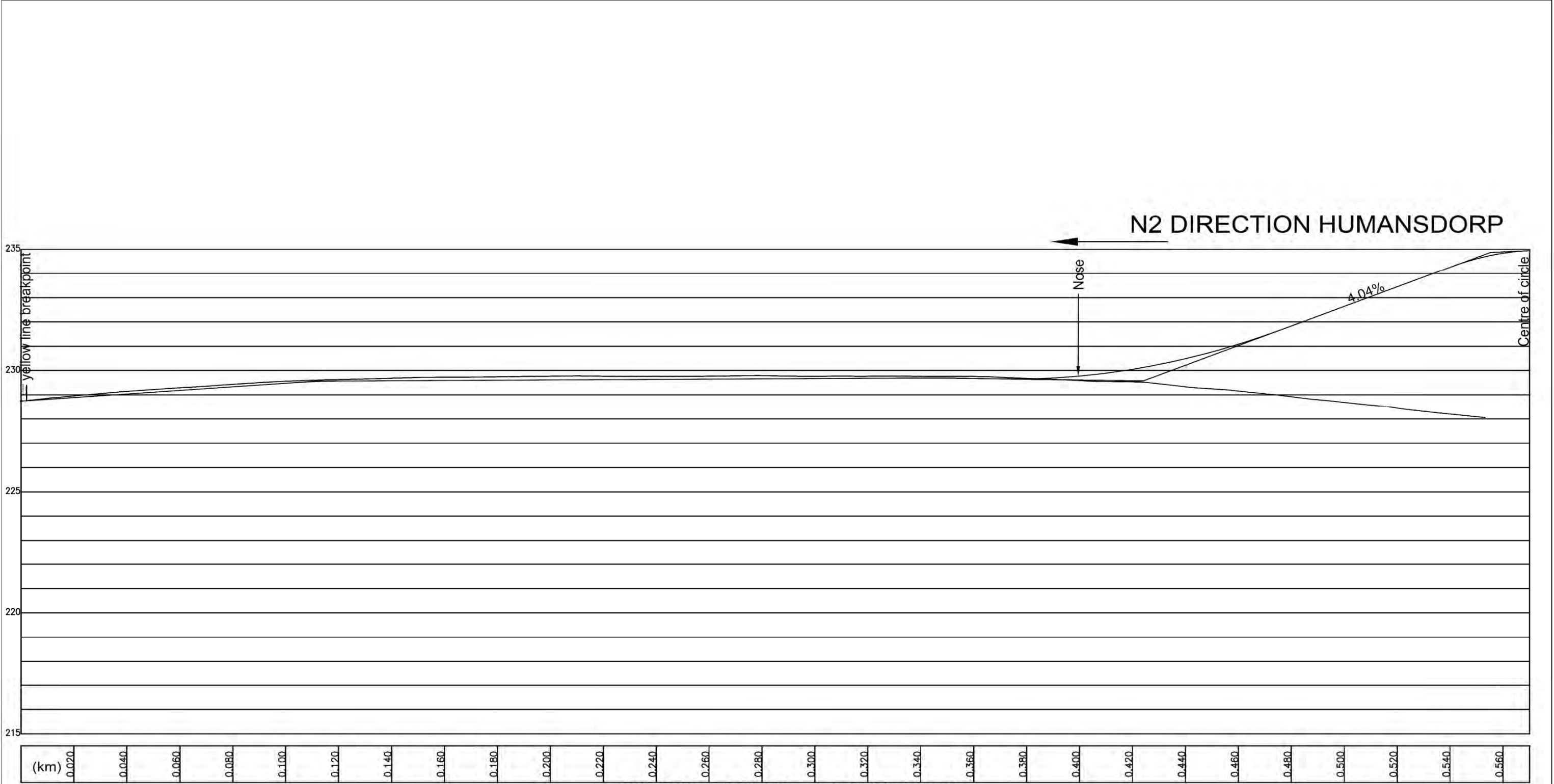
Appendix A4: LONGITUDINAL SECTION RAMP C



RAMP C : SCALE Vert 1:1500 Hori:1:150

DESIGNED BY A. SIBANDA		DRAWN BY A. MOTOBO		INFRASTRUCTURE CONSULTING ENGINEERS cc PO BOX 186 PERSEQUOR PARK 0020 Tel (012) 349 2022/3/4/5 Fax (012) 349 2026	REST AND SERVICE FACILITY PE N2		DATE 14-02-2012	SHEET A3
CHECKED BY P. J. KAMHINI		REVIEWED BY P. J. KAMHINI			LONGITUDINAL SECTION RAMP C		SCALE 1:1500	REVISION 0
NO.		DATE		AMENDMENTS		PROJECT N2 PE - LSC - 04		

Appendix A5: LONGITUDINAL SECTION RAMP D



RAMP D : SCALE Vert 1:1500 Hori:1:150

DESIGNED BY A. MORGAN		INFRASTRUCTURE CONSULTING ENGINEERS cc  PO BOX 186 PERSEQUIOR PARK 0020 Tel: (012) 349-2022/344/5 Fax: (012) 349-2026	PROJECT DESCRIPTION REST AND SERVICE FACILITY PE N2		DATE 14-02-2012	SHEET A3
CHECKED BY P. GILBERT			PLANS DESCRIPTION LONGITUDINAL SECTION RAMP D		SCALE 1:1500	REVISION 0
DRAWN BY A. MORGAN					PLANNING N2 PE - LSD - 05	
REVIEWED BY P. GILBERT						
AMENDMENTS No. Date Description Drawn By Checked By						

Appendix B: TRAFFIC HIGHLIGHTS SITE 736

736

St Albans I/C

TRAFFIC HIGHLIGHTS OF SITE 736				
1.1	Site Identifier		736	
1.2	Site Name		St Albans I/C	
1.3	Site Description		Western side of St Albans I/C	
1.4	Road Description	Route : N002 Road : N002 Section : 11 Distance : 6.8km		
1.5	GPS Position		25.338249E -33.929443S	
1.6	Number of Lanes		6	
1.7	Station Type		Secondary	
1.8	Requested Period		2010/01/01 - 2010/12/31	
1.9	Length of record requested (hours)		8760	
1.10	Actual First & Last Dates		2010/11/02 - 2010/11/24	
1.11	Actual available data (hours)		528	
1.12	Percentage data available for requested period		6.0	
		To Port Elizabeth	To Humansdorp	
			Total	
2.1	Total number of vehicles	89424	88771	178195
2.2	Average daily traffic (ADT)	4061	4031	8092
2.3	Average daily truck traffic (ADTT)	563	559	1122
2.4	Percentage of trucks	13.9	13.9	13.9
2.5	Truck split % (short:medium:long)	39 : 16 : 45	40 : 17 : 43	39 : 17 : 44
2.6	Percentage of night traffic (20:00 - 06:00)	10.0	10.0	10.0
3.1	Speed limit (km/hr)			120
3.2	Average speed (km/hr)	110.8	110.7	110.8
3.3	Average speed - light vehicles (km/hr)	114.3	114.3	114.3
3.4	Average speed - heavy vehicles (km/hr)	88.5	88.3	88.4
3.5	Average night speed (km/hr)	106.7	106.1	106.4
3.6	15th centile speed (km/hr)	89.8	91.7	91.7
3.7	85th centile speed (km/hr)	129.9	129.9	129.9
3.8	Percentage vehicles in excess of speed limit	31.2	31.4	31.3
4.1	Percentage vehicles in flows over 600 vehicles/hr	0.0	0.0	27.7
4.2	Highest volume on the road (vehicles/hr)		2010/11/19 16:00:00	927
4.3	Highest volume in the East (vehs/hr)		2010/11/12 15:00:00	439
4.4	Highest volume in the West (vehs/hr)		2010/11/19 18:00:00	520
4.5	Highest volume in a lane (vehicles/hr)		2010/11/19 18:00:00	343
4.6	15th highest volume on the road (vehicles/hr)		2010/11/18 17:00:00	740
4.7	15th highest volume in the East direction (vehs/hr)		2010/11/18 17:00:00	380
4.8	15th highest volume in the West direction (vehs/hr)		2010/11/05 14:00:00	395
4.9	30th highest volume on the road (vehicles/hr)		2010/11/15 08:00:00	661
4.10	30th highest volume in the East direction (vehs/hr)		2010/11/15 17:00:00	349
4.11	30th highest volume in the West direction (vehs/hr)		2010/11/03 17:00:00	329
5.1	Percentage of vehicles less than 2s behind vehicle ahead	6.0	3.9	4.9
6.1	Total number of heavy vehicles	12401	12314	24715
6.2	Estimated average number of axles per truck	4.8	4.7	4.7
6.3	Estimated truck mass (Ton/truck)	27.4	27.0	27.2
6.4	Estimated average E80/truck	1.6	1.6	1.6
6.5	Estimated daily E80 on the road			1779
6.6	Estimated daily E80 in the East direction			896
6.7	Estimated daily E80 in the West direction			882
6.8	Estimated daily E80 in the worst East lane			823
6.9	Estimated daily E80 in the worst West lane			813
6.10	ASSUMPTION on Axles/Truck (Short:Medium:Long)			(2.0 : 5.0 : 7.0)
6.11	ASSUMPTION on Mass/Truck (Short:Medium:Long)			(10.9 : 31.5 : 39.8)
6.12	ASSUMPTION on E80s/Truck (Short:Medium:Long)			(0.6 : 2.5 : 2.1)

Appendix C: TRAFFIC HIGHLIGHTS SITE 735

735

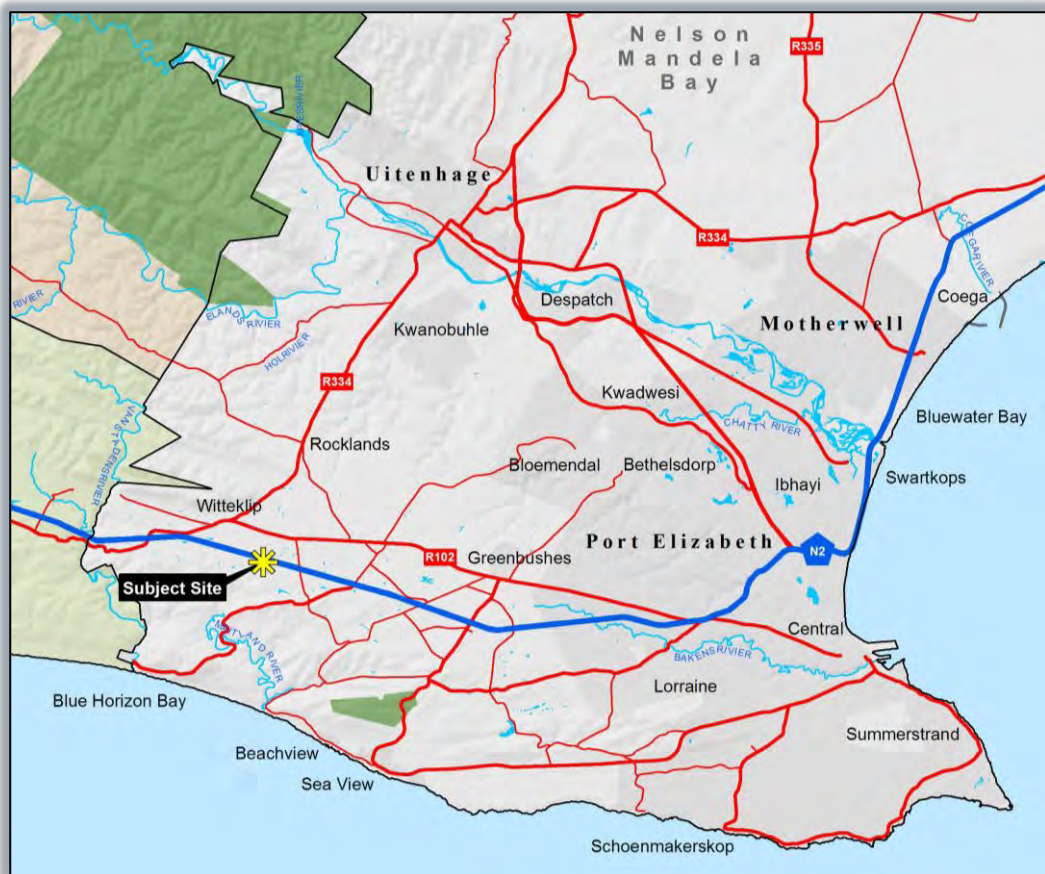
Van Stadens I/C

TRAFFIC HIGHLIGHTS OF SITE 735				
1.1	Site Identifier		735	
1.2	Site Name		Van Stadens I/C	
1.3	Site Description		Western side of Van Stadens I/C	
1.4	Road Description	Route : N002 Road : N002 Section : 10	Distance : 76.2km	
1.5	GPS Position		25.226473E -33.909306S	
1.6	Number of Lanes		6	
1.7	Station Type		Permanent	
1.8	Requested Period		2010/01/01 - 2010/12/31	
1.9	Length of record requested (hours)		8760	
1.10	Actual First & Last Dates		2010/01/01 - 2010/12/31	
1.11	Actual available data (hours)		8760	
1.12	Percentage data available for requested period		100.0	
		To Port Elizabeth	To Humansdorp	
			Total	
2.1	Total number of vehicles	1736369	1781089	3517458
2.2	Average daily traffic (ADT)	4757	4880	9637
2.3	Average daily truck traffic (ADTT)	561	569	1130
2.4	Percentage of trucks	11.8	11.7	11.7
2.5	Truck split % (short:medium:long)	38 : 21 : 41	39 : 19 : 42	39 : 20 : 41
2.6	Percentage of night traffic (20:00 - 06:00)	10.8	10.6	10.7
3.1	Speed limit (km/hr)			120
3.2	Average speed (km/hr)	107.2	101.5	104.3
3.3	Average speed - light vehicles (km/hr)	110.0	104.1	107.0
3.4	Average speed - heavy vehicles (km/hr)	85.8	82.0	83.9
3.5	Average night speed (km/hr)	103.2	98.5	100.8
3.6	15th centile speed (km/hr)	83.7	67.8	77.8
3.7	85th centile speed (km/hr)	129.9	127.9	127.9
3.8	Percentage vehicles in excess of speed limit	27.6	25.5	26.5
4.1	Percentage vehicles in flows over 600 vehicles/hr	2.7	5.3	59.3
4.2	Highest volume on the road (vehicles/hr)		2010/12/27 12:00:00	1461
4.3	Highest volume in the East (vehs/hr)		2010/09/26 18:00:00	921
4.4	Highest volume in the West (vehs/hr)		2010/07/02 20:00:00	1099
4.5	Highest volume in a lane (vehicles/hr)		2010/08/06 16:00:00	701
4.6	15th highest volume on the road (vehicles/hr)		2010/12/27 14:00:00	1288
4.7	15th highest volume in the East direction (vehs/hr)		2010/01/03 13:00:00	758
4.8	15th highest volume in the West direction (vehs/hr)		2010/03/19 16:00:00	801
4.9	30th highest volume on the road (vehicles/hr)		2010/08/06 17:00:00	1250
4.10	30th highest volume in the East direction (vehs/hr)		2010/06/15 13:00:00	705
4.11	30th highest volume in the West direction (vehs/hr)		2010/09/24 10:00:00	758
5.1	Percentage of vehicles less than 2s behind vehicle ahead	6.3	7.6	7.0
6.1	Total number of heavy vehicles	204874	207750	412624
6.2	Estimated average number of axles per truck	4.7	4.7	4.7
6.3	Estimated truck mass (Ton/truck)	27.0	26.9	27.0
6.4	Estimated average E80/truck	1.6	1.6	1.6
6.5	Estimated daily E80 on the road			1809
6.6	Estimated daily E80 in the East direction			903
6.7	Estimated daily E80 in the West direction			907
6.8	Estimated daily E80 in the worst East lane			747
6.9	Estimated daily E80 in the worst West lane			722
6.10	ASSUMPTION on Axles/Truck (Short:Medium:Long)			(2.0 : 5.0 : 7.0)
6.11	ASSUMPTION on Mass/Truck (Short:Medium:Long)			(10.9 : 31.5 : 39.8)
6.12	ASSUMPTION on E80s/Truck (Short:Medium:Long)			(0.6 : 2.5 : 2.1)

Appendix D: Town Planning Report

Application For :

- Rezoning of Portion 147 of the farm Gedults River No. 411, Uitenhage Registration Division



June 2012

Submitted By :
Johan van der Westhuysen

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Tel: 041 374 3980 - Fax: 041 374 3984
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CONTENTS

CHAPTER 1 : BACKGROUND	1
1.0 The Applicant	1
2.0 The Application	1
3.0 Site Description and Ownership	3
4.0 Locality	3
5.0 Existing Zoning	4
6.0 Existing Land Use	4
CHAPTER 2 : SPATIAL DEVELOPMENT CONCEPT	6
1.0 Development Concept	6
2.0 Restrictive Title Conditions	7
3.0 Service Provision	8
4.0 EIA Process and Status	11
5.0 Environmental Impact Assessment	12
6.0 Geotechnical Evaluation	14
7.0 Traffic Impact Assessment	15
8.0 Visual Impact.....	16
9.0 Archaeological Heritage Recommendation	17
10.0 Department of Agriculture	17
11.0 Public Participation	17
12.0 Job Creation and Economic Impact	18
CHAPTER 3 : DESIRABILITY	19
1.0 Concept of Desirability.....	19
2.0 Development Facilitation Act	19
3.0 Sustainable Community Methodology	20
4.0 South African National Roads Agency Limited and National Roads Act.....	21
5.0 SANRAL Policy in Respect of Road Planning and Design	21
6.0 Existing Planning in the Area	22
7.0 Physical Characteristics of the Property	24
8.0 Character of the Area	26
9.0 Location and Accessibility	27
10.0 Potential of the Property	29
11.0 Provision of Services	29
CHAPTER 4 : CONCLUSION (WORK IN PROGRESS).....	30

LIST OF ANNEXURES

1. Application Form
2. Deeds Office Enquiry & Surveyor General Plan
3. Title Deed & Conveyancer's Certificate
4. Power of Attorney & Company Resolution
5. Extract from Basic Assessment Report
6. Traffic Impact Assessment
7. SANRAL's Correspondence dated 28 July 2011 and 1 June 2012
8. Infrastructure Report
9. Electricity supply confirmation letter
10. Geotechnical Investigation
11. Archaeological Heritage Recommendation

LIST OF MAPS

1. Regional Locality
2. Local Locality
3. Aerial View & Terrain Characteristics
4. Surrounding Terrain Characteristics
5. Existing Land Use
6. NMBM Spatial Development Framework
7. Rural Land Use Management Plan
8. Site Development Plan (Indicative)

CHAPTER 1 : BACKGROUND

1.0 The Applicant

Urban Dynamics EC has been appointed by the owners of CDA Boerdery (Pty) Ltd to prepare and submit an application for the rezoning of the property for the development of a Service Station, Tourist Facilities and Commercial mixed use for the travellers on the N2 freeway.

Refer to Annexure 4 : Power of Attorney & Company Resolution

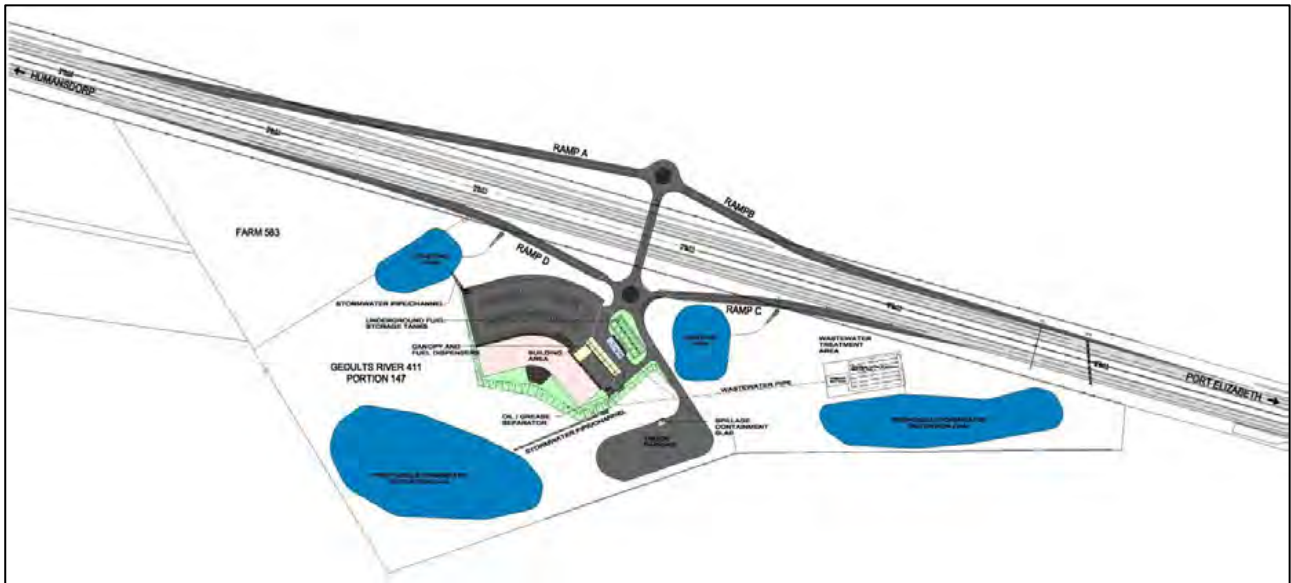
2.0 The Application

The purpose of this application is to rezone the property for Service Station, Tourist Facilities and Commercial mixed use purposes.

This application is hereby submitted in terms of the Land Use Planning Ordinance, 1985 (Ordinance 15 of 1985) and based on the stipulations of the Section 8 Zoning Scheme Regulations for :

- *'Rezoning of Portion 147 of the farm Gedults River No. 411, Uitenhage Registration Division, in terms of Section 17 of the Land Use Planning Ordinance 1985 from 'Agricultural Zone I' to 'Special Zone : Service Station, Tourist Facilities and Commercial mixed use'.*





Refer to Map 8 : Site Development Plan (Indicative)

The application is based on the development parameters as per the relevant Zoning Scheme regulations and described in the table below :

Zoning	Special Zone : Service Station, Tourist Facilities & Commercial mixed use	
Primary Uses	Service Station Tourist Facilities Commercial mixed use	
Size	11,537ha	
Coverage	75%	
FSI	1,5	
Height	2 storeys	
Setback	6,5m or as imposed by SANRAL	
Side Building lines	0m	
Parking	Service Station	1 parking bay per 50m ² of the total floor space, provided that the parking bays be clearly indicated for visitors.
	Tourist Facilities	As determined by Council
	Commercial mixed use	1 parking bays per 25m ² of the total floor space.

The land use components of the proposed development will comprise of the following :

- **Service Station** : Petrol Filling Station, associated infrastructure (service areas providing fuel storage and dispensing facility with 6 islands for light vehicles and 1 island for heavy vehicles), vehicle access and movement areas, landscaping and truck parking.
- **Tourist Facilities** : Restrooms for the customers, restaurant, visitor and driving information, maps of the area, vending machines, pay phones and ATM’s, a play park, touch farm and an eco-educational facility.

- **Commercial mixed use** : shop, take away, kiosk for heavy vehicle drivers, a convenience store, storage and offices.

3.0 Site Description and Ownership

The table below outlines detail with respect to the relevant property :

❖ Portion 147 of the farm Gedults River No. 411

Title Deed	T61346/1995
Owners	C D A Boerdery (Pty) Ltd
Area	11,537ha
Applicable Zoning Scheme	Section 8 Zoning Scheme
Existing Zoning	Agricultural Zone I
Land Use	Natural veld

Refer to Annexures 2 and 3 : Deeds Office Enquiry, SG Diagram and Title Deed

4.0 Locality

The subject property is located ± 25 km west of Port Elizabeth and ± 9 km east of the Van Stadens gorge, adjacent to and south of the N2.

Refer to Map 1 : Regional Locality



Regional Locality

5.0 Existing Zoning

The subject property falls within the jurisdiction of the Standard Cape Province Zoning Scheme as promulgated in terms of Section 8 of the Land Use Planning Ordinance (Ordinance 15 of 1985). The Zoning Scheme manages and regulates land use and land use parameters on the existing land units.

Zoning	Agricultural Zone I
Primary Uses	Agriculture
Definition	<i>Agriculture means the cultivation of land for crops and plants or the breeding of animals, or the operation of a game farm on an extensive basis on the natural veld or land, and includes only such activities and buildings as are reasonable connected with the main farming activities of the farm, but does not include the consent uses applicable to Agriculture Zone 1.</i>

The land is currently utilized in accordance with the zoning.

6.0 Existing Land Use

The property largely comprise unused natural veld with exotic plants and a partially demolished farmstead is situated on the north-western portion of the property. The site has been cleared from the original vegetation for grazing purposes. The N2 Road forms the northern boundary of the property while the property is accessible from the south, by means of a servitude road, linking with the Draaifontein Road, further south-east of the property.

Surrounding land uses include agriculture, small holdings, open space, poultry houses, St Albans prison, small rural residential settlements and the Woodridge School.



Surrounding area



Existing Land Use and Terrain Characteristics

Refer to Map 3 : Aerial View and Map 4 : Surrounding Terrain Characteristics

CHAPTER 2 : SPATIAL DEVELOPMENT CONCEPT

1.0 Development Concept

The purpose of this application is to rezone the property from Agricultural Zone I to Special Zone : Service Station, Tourist Facilities and Commercial mixed use. This will enable the development of a Petroport with all associated facilities and related infrastructure.

The development for the property comprises of the following components :

- Petrol filling station and associated infrastructure and services
- Full interchange consisting of on- and off ramps and a bridge. The area on the site is ± 1 ha.
- Service areas, providing fuel storage and dispensing facility with 6 islands for light vehicles and 1 island for heavy vehicles (canopy of ± 520 m²)
- Provision of on-site parking and landscaping
- Parking area (± 170 vehicle parking bays, 7 caravan parking bays and 3 bus parking bays)
- Covered walkways (500m²)
- Truck parking area
- Kiosk for heavy vehicle drivers
- Tourist Facilities, including a Restaurant (2000m²)
- Rest rooms for the customers, staff rest rooms, visitor and driving information, maps of the area, vending machines, pay phones and ATM's will also be provided.
- Commercial mixed use, consisting of a retail area of 2000m²
- An eco-educational facility
- Play park / Touch farm

1.1 Service Station

The petroleum industry is one of the major contributors to the South African GDP. In recent years, increases in petrol price created a huge challenge for the service station retailers to run sustainable, profitable and viable businesses, as the price increases impacted negatively on sales volumes. The new entrants in the market and new competition from other retail businesses necessitated changes in the industry. The provision of a service station component along National Roads as an integrated part of rest and service facilities created a new business opportunity for the petroleum industry.

1.2 Research and Land Use Model

Rest and Service Facilities are crucial elements of road and transportation systems. This is evident from research that indicates interception rates of between 15% and 20% at similar locations. Research furthermore indicates that less than 50% of vehicles turning into Rest and Service Facilities to refuel at the facility. The facilities are therefore primarily used for relaxation and use of the toilets, convenience store and food offering.

Research showed that the people entering into the service and rest area used the travelling facilities on the following basis :

Fuel	48%
Shop only	29%
Toilets only	28%
Toilet and shop	18%
Toilet and Fast Food	10%
Fast Food Take away only	7%
Fast Food sit down only	2%
Toilet, shop and fast foods	1%

Between 50-60% of persons entering the facility will make use of the toilets. Therefore, the land uses of the proposed development will be prioritized accordingly and the non-fuel component of the service and rest area will be the dominant land uses on the subject property. The facilities are therefore primarily used for relaxation and use of the toilets, convenience store and food offering.

Baseline studies, extensive investigation of the N2 between Port Elizabeth and Jeffrey's Bay and the Traffic Impact Assessment concluded that the most suitable site for the development of a Petroport facility, in accordance with the needs of long distance road users, is at the site of this application.

Refer to Map 8 : Site Development Plan (Indicative)

2.0 Restrictive Title Conditions

Title Deed T61346/1995 is relevant to the subject property.

A Conveyancer Certificate has been obtained and confirms that there are no Restrictive Title Conditions relevant to the development proposal.

Refer to Annexure 3 : Title Deed and Conveyancer's Certificate

3.0 Service Provision

Consulting Engineers prepared a report addressing the availability of water, access, stormwater and sewage treatment for the proposed development and the feasibility of installing internal and on-site services.

Refer to Annexure 8 : Infrastructure Report

The following are a brief outline of the service availability and provision thereof :

3.1 Water

Experience indicates that there is close correlation between water consumption and vehicles entering highway facilities. The average consumption per vehicle entering facilities is approximately 17 litres.

The average consumption will however not be used for purposes of this report, but rather the 85th percentile consumption. A daily demand of 19 litre / vehicle will be used. It is estimated that 1650 vehicles will enter the proposed facility per day. Thus a daily demand of 31.5 m³ with an average anticipated flow of 0.365 l/s.

The water demand can be split into two categories namely :

- potable water and;
- water for toilets and urinals.

A separate fire fighting system is proposed.

❖ **Potable water**

The consumption of potable water is estimated to be 20% of total facility usage. This is water used in the hand wash basins in the restrooms as well as in all other water basins throughout the facility, including restaurants and food preparation areas. The estimated demand for potable water is 6.3 m³ per day.

❖ **Water for toilets / urinals**

It is estimated that 80 % of total daily consumption is for the toilets and urinals, thus 25.2 m³ per day.

❖ **Provision for fire fighting**

A separate fire fighting water supply system is proposed. Fire flow demand of 20 litres per second is required and a storage facility to cope with a 1 hour event must be provided. Thus total volume needed for fire fighting is = 20 x 60 x 60 = 72 m³. For fire fighting purposes 72 m³ will have to be stored on site.

Water will be obtained from 2 sources, namely a municipal trunk main adjacent to the site, and a borehole system. Treated sewage will also be used for secondary purposes.

❖ **Municipal supply**

The municipal trunk main intersects Portions 86 & 148 of farm Gedultrivier no 411. An application has been submitted for a connection on the municipal main to serve the proposed development. Only potable water will be obtained from the municipal trunk main, thus 6,3m³ per day.

❖ **Borehole and treated sewage**

For toilet, urinal and fire fighting purposes borehole water will be used. The demand for toilets and urinals is 25,2m³ per day, whilst 72m³ litres needs to be stored for fire fighting purposes. Treated sewage will only be used for irrigation purposes.

3.2 Sewerage

Sewage from the facility will be treated in a Subterra Vertical Flow natural filter. A report from Subterra Natural filters is attached in Appendix A of the Infrastructure Report. The capacity of the system is designed to cope with the average daily demand as well as peak flows. Subterra natural filters were installed at various Petroport developments in South Africa. The system proved to be reliable and is preferred by Total SA. The effluent from the system will be used for irrigation purposes.

3.3 Stormwater

The stormwater drainage system is designed for the convenience and safety of facility users and to protect the infrastructure and buildings from up to 1 in 50 year floods. A further design parameter is to reduce flood peaks and to enhance groundwater infiltration. Flood peaks are reduced through the introduction of stormwater retention dams as well as unlined earth channels where possible. The series of retention dams discharge into the natural drainage system. Underground pipes will be limited and unlined earth channels will be promoted.

Water from the forecourt area, where vehicles park when refuelling, as well as the spill slabs, where trucks stop to refill the underground tanks, is routed into an oil separator. After the oil and the water have been separated the water flows into the sewage treatment system. The forecourt and the spill slab are the areas where spillage may occur and it must be ensured that no oils or fuels can enter the stormwater network, thus oil separators are implemented that discharge into the sewage treatment system.

3.4 Electricity

The existing electricity connection on the subject property will be utilized for the proposed development.

The NMBM confirmed to the Consulting Electrical Engineers the availability of 315kVA / 400 Volt on the property. The Consulting Electrical Engineers, Veld du Toit Incorporated, confirmed to the developers that the available electricity supply will be sufficient for the proposed development.

Refer to Annexure 9 : Electrical supply confirmation letter

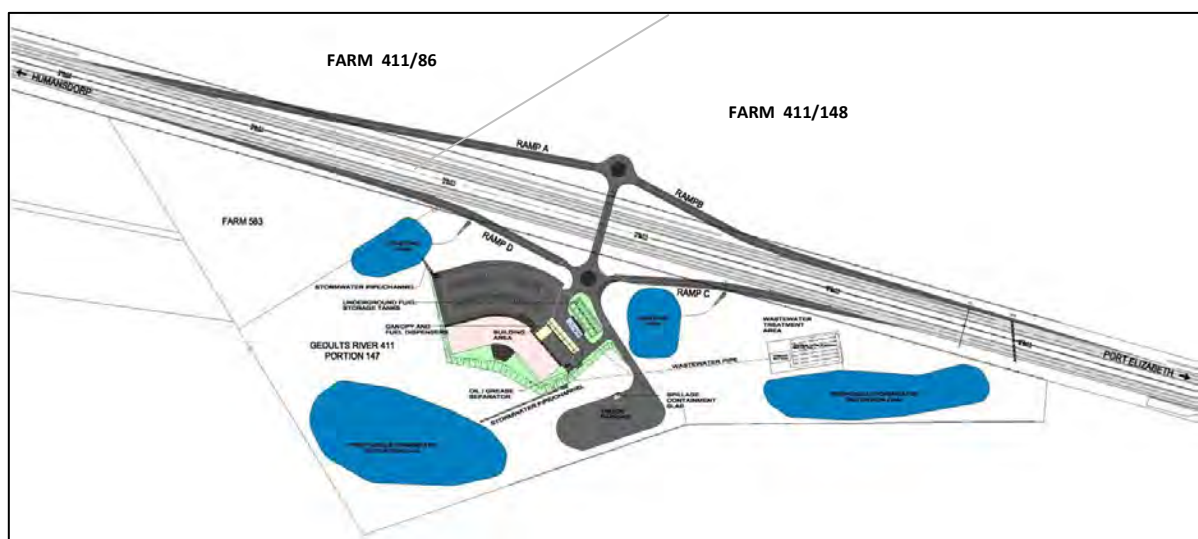
3.5 Solid waste

Construction waste will be removed from the site by the appointed contractor to a registered waste disposal site. Where possible, construction waste will be used as infill material. Solid waste will be stored in normal wheelie bins and will be disposed of by the operator of the facility at a waste disposal site twice a week.

3.6 Access

The N2 is a dual carriageway freeway at the location of the proposed facility. The proposed development will obtain access by means of on-and-off ramps via a diamond shape access interchange. SANRAL required the provision of a bridge at the facility in order to prevent dangerous U-turn movements. The advantage of this access arrangement is that there is only one facility serving both directions of traffic.

Due to the fact that the facility will only be developed on the southern side of the N2, a full interchange is therefore proposed to make the facility accessible to both directions of travel. The proposed off-ramps on the northern side of the N2, on Portions 86 & 148 of the farm Gedults River No. 411 will be registered as servitudes over the relevant properties.



The proposed new bridge for the facility will be visible for a distance of more than 2km in each direction.

The anticipatory sight distance to off ramps and the ramp lengths comply with SANRAL's standards. The facility will only be accessible from the N2 and no access will be provided to vehicles or pedestrians from the south.

The complete second phase of application, according to SANRAL's Procedures for Road Planning and Geometric Design, has been submitted and SANRAL indicated that the application for access from the N2 can proceed to the final design stage.

Refer to Annexure 7 : SANRAL's Correspondence dated 28 July 2011 and 1 June 2012

4.0 EIA Process and Status

❖ NEMA Requirements and Listed Activities

The National Environmental Management Act (Act No. 107 of 1998) (NEMA), as amended, requires that activities be investigated that may have a potential impact on the bio-physical environment, socio-economic conditions and cultural heritage.

Under NEMA the EIA Regulations are published under GNR 385, and the associate Listing Notices GNR 386 and 387. Section 24(5) of NEMA stipulates that certain "*listed activities*" require environmental authorisation by way of either a Basic Assessment (BA) or a full Scoping and Environmental Impact Assessment as defined in the EIA Regulations Listing Notices (July 2006 EIA Regulations).

The EIA Regulations, June 2010 (Government Notice R544, R545 and R546) identify activities which may have a detrimental effect on the environment and the listed activities which may be triggered by the proposed Petroport development. These include:

⇒ **GN 544:**

Activity 9 : *The construction of facilities or infrastructure exceeding 1000 metres in length for the bulk transportation of water, sewage or storm water - (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more, excluding where such facilities or infrastructure are for bulk transportation of water, sewage or storm water or storm water drainage inside a road reserve;*

Activity 10 (i): *'The construction of facilities or infrastructure for the transmission and distribution of electricity - (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts...'*

Activity 13: *'The construction of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 m³ but not exceeding 500 m³.'*

Activity 22 (ii): *'The construction of a road outside urban areas where no reserve exists where the road is wider than 8 metres.'*

Activity 23 : *The transformation of undeveloped, vacant or derelict land to – (ii) residential, retail, commercial, recreational, industrial or institutional use, outside an urban area and where the total area to be transformed is bigger than 1 hectare but less than 20 hectares.*

⇒ **GN 546:**

Activity 14: *'The clearing of an area of 5 hectares or more of vegetation where 75% or more of the vegetation cover constitutes indigenous vegetation.'*

The proposed treatment of sewer effluent on site triggers listed activities published in GNR 718 in terms of Section 19 (1) of the National Environmental Management: Waste Act No. 59 of 2008. These require a Basic Assessment process to be conducted as stipulated in terms EIA Regulations, as part of a Waste Management License (WML) to the National Department of Environmental Affairs:

⇒ **GNR 718**

Activity 11 : *'The treatment of effluent, wastewater or sewage, with an annual throughput capacity of more than 2000 cubic metres but less than 15 000 cubic metres'.*

Activity 18 : *'The construction of facilities for activities listed in Category A of this Schedule'.*

Furthermore, the activity is governed by the principles and provisions of NEMA, specifically Sections 2 and 24. Other relevant legislation that have been considered include :

- The National Cultural Heritage Act (1998)
- The National Forest Act (1998)
- The National Water Act (1998)
- Conservation of Agricultural Resources Act (1983)
- National Environmental Management: Biodiversity Act (2004)
- The South African Roads Agency Ltd

5.0 Environmental Impact Assessment

CEN Integrated Environmental Management Unit has been appointed by the land owners to conduct an assessment in terms of the National Environmental Management Act, 1998 (Act 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2006.

Refer to Annexure 5 : Extract of Basic Assessment Report

❖ **National Vegetation Classification: Mucina and Rutherford (2006)**

Vegetation on site is classified as Algoa Sandstone Fynbos, and the conservation status is rated as 'endangered' and 'poorly protected' on a national scale. The vegetation is described as a grassy shrubland, with grasses becoming dominant in wet habitats. Floral species recorded on-site in the assessment process are not representative of those listed as typical of the vegetation type according to Mucina and Rutherford (2006).

❖ **East Cape Biodiversity Conservation Plan (2007)**

The ECBCP (2007) classifies various parcels of land into Land Management Classes broadly depending on their transformation status and ecological function. According to this plan, the site is classified as a BLMC4 area where the land cover is cultivated land. Land use guidelines are that the area should be managed for sustainable development.

❖ **The Nelson Mandela Bay Metropolitan Open Space System (2009)**

A Conservation Assessment and MOSS plan was done for the Nelson Mandela Bay Municipal area in 2009. Various outcomes relevant to the study site include the following:

- The pre-transformation vegetation type for the site is classified as Rowallan Park Grassy Fynbos. The on-and-off ramp has been positioned in an area classified as Colleen Glen Grassy Fynbos. Species recorded on-site are not representative of the description given in the NMBM MOSS Plan (2009).
- There are no critical biodiversity areas or ecological process areas on the site.

When these descriptions are compared to the list of species occurring on site, it can be seen that vegetation cover is not representative of the original vegetation type. Based on the location of the site adjacent to the N2 and the transformed nature of the vegetation, a high diversity of faunal species is not expected.

❖ **Environmental Impact**

The following impacts have been assessed for construction and operational phases of the proposed Petroport development :

Impact	Construction Phase	Operational Phase
Biodiversity	✓	✓
Surface and groundwater	✓	✓
Traffic	✓	✓
Noise	✓	✓
Dust	✓	
Soil erosion	✓	
Waste management	✓	✓
Archaeological impacts	✓	
Traffic impacts	✓	✓
Visual impacts		✓
Socio-Economic impacts	✓	✓
Health impacts (odour)		✓

Impacts were identified and assessed based on on-site assessments, a review of available literature, input from specialists (e.g. traffic, services, archaeological), and comments raised by interested and affected parties.

The site is not part of a critical biodiversity area or ecological process area in the NMBM MOSS Plan (2009) and is classified as 'cultivated lands' on the East Cape Biodiversity Conservation Plan (2007). Construction impacts on conservation networks are therefore not anticipated. However, surface water from the site will ultimately drain to the Maitlands River corridor to the south – if surface water is contaminated by construction activities, this may impact on biodiversity beyond site boundaries. The Environmental Impact Assessment will address the surface and groundwater impacts.

The final Environmental Impact Assessment Report will be made available on completion.

6.0 Geotechnical Evaluation

A Geotechnical Investigation was undertaken by Knight Hall Hendry (KHH) in order to determine the extent and thickness of the underlying soil at the proposed site and to determine and provide the geotechnical characteristics thereof.

Refer to Annexure 10 : Geotechnical Investigation

The filling station will be constructed on a backfilled platform to compensate for the fall of the ground surface from the N2 Road towards the site. The structures to be erected on the platform comprise buildings, a refuelling forecourt, parking areas as well as the diesel and petrol tanks to be placed below the new constructed ground level.

The filling station requires an engineered fill platform to acquire the necessary elevation relative to the N2 Road. The proposed structures comprise a single storey building, the forecourt, parking areas and the fuel tanks which will be located underground.

The Geotechnical Investigation concluded the findings and recommendations for the design and construction of the proposed platform and the construction thereof will in adherence thereof.



The excavation of test pits on the property

7.0 Traffic Impact Assessment

A Traffic Impact Assessment (TIA) was undertaken by Infrastructure Consulting Engineers.

Refer to Annexure 6 : Traffic Impact Assessment

The TIA examines the access requirements for the development in relation to the road network and analyses the impact on the surrounding road network.

Due to the location of the service facility, it is highly unlikely that the proposed facilities will attract primary traffic and is only likely to attract passer-by traffic from the N2. The proposed facilities will only be accessible from the N2 and no access will be provided to vehicles or pedestrians from the south of the subject property.

The impact of this facility on the road network is limited to the on- and off ramps on the interchange that will give access to the facility. The interchange will be designed according to the SANRAL's Geometric Design Guidelines.

❖ Traffic volumes

The Traffic Impact Assessment (TIA) illustrates the position of the traffic counting stations in close proximity to the subject site. The total number of vehicles counted at the permanent traffic counting station (Site 735) is 3 517 458 vehicles per year.

An interception rate of between 15-25% is anticipated for the proposed development.

❖ Traffic safety aspects

The Traffic Impact Assessment (TIA) also addressed the following traffic safety aspects :

- Visibility of the facility
- Anticipatory sight distances
- Acceleration and deceleration distances

❖ Level of service for merges and diverges

Traffic Impact Assessment (TIA) determined the levels of service for the merge and diverge influence areas by means of the Highway Capacity manual 2000. The TIA concluded that the on and off-ramps to the proposed development comply with SANRAL's standards.

❖ Access and fly-offs

The construction of a new access interchange will provide direct access of the N2 to the proposed facility. The provision of the off ramps will comply with the requirements of *SANRAL Geometric Design Guidelines*. The off- and on-ramps on the northern side of the N2 will be located on servitudes to be registered on Portions 86 & 148 of the farm Gedults River No. 411.

The Traffic Impact Assessment (TIA) concluded and recommended the following :

- That the analysis of the proposed development has shown that it complies with SANRAL’s Geometric Design Standards and the impact on the operation along the N2 is within standards.
- With an anticipated interception rate of between 15-25% the proposed facility will enhance road safety and road user convenience.
- That SANRAL approves the TIA and that consent is given for the 3rd stage of application to commence.

8.0 Visual Impact

The proposed development will be visible for 2km in either direction on the N2 to promote accessibility and for safety reasons.

Petroports are recognised facilities along major transportation routes and a visual impact on road users is not expected. Surrounding land uses are mostly agricultural lands, rural-residential areas and the N2. The total size of the facility, including the interchange on the N2, will be ±3,5 ha.

The proposed service facility will change the visual character of the property from its current status and residents that look over the site will have their viewshed altered. Residences that occur within 1 km of the proposed facility are circled in red on the figure below. The residence north of the N2 looks over the site onto the N2 and a visual impact is expected. The residence south of the site is at a lower altitude than the proposed facility and its viewshed is predominantly in a south, east and westerly direction. However, the facility will still be visible within a relatively close distance and a visual impact is expected. The current view of the two residences includes the N2 and traffic, agricultural lands, grass farm, agri-industrial facilities etc. – this, together with the relatively small disturbance footprint of the facility in relation to the total site size (i.e. 27% of the property) makes the visual impact moderate.



Residence within 1km from the proposed development

9.0 Archaeological Heritage Recommendation

Eastern Cape Heritage Consultants conducted a Phase 1 Archaeological Impact Assessment.

Refer to Annexure 11 : Archaeological Heritage Recommendation

The dense grass cover and other vegetation made archaeological visibility difficult and no archaeological sites/materials were found. The investigation concluded that the proposed area for development is of low cultural sensitivity and it is unlikely that any archaeological remains will be exposed during the development.

If archaeological and historical material and/or human remains are uncovered during the construction of the proposed development, such material will be reported to the nearest museum, archaeologist or to the South African Heritage Resources Agency.

Eastern Cape Heritage Consultants recommended that the proposed construction of a Petroport and associated infrastructure on the subject property is exempted from a full Phase 1 Archaeological Impact Assessment.

10.0 Department of Agriculture

The property is currently zone for Agricultural Zone I purposes. Therefore, the Department of Agriculture is a commenting authority with respect to the proposed development and will be consulted by the NMBM.

According to the Department of Agriculture's Land Capability Index the land is classified as Zone B (IV) (arable) and can be used for wildlife, forestry, veld, pastures and limited crop production.

Refer to Map 6 : Agricultural Land Capability Index

11.0 Public Participation

Public participation with respect to the application for rezoning will be conducted through the normal procedure as outlined in the Land Use Planning Ordinance and followed by the NMB Municipality.

The application will be circulated and published in the local press for comment by possible interested and affected parties. Urban Dynamics, will address any comment and/or objections raised by stakeholders.

12.0 Job Creation and Economic Impact

It is anticipated that a number of short term construction and downstream jobs will be created during the implementation of services and construction. Longer term and more permanent opportunities will be for general operation and maintenance.

The proposed development will not only provide employment opportunities but will also :

- Contribute to the municipal rate base
- Provide economic stability and promote economic sustainability

Constructing the proposed development will result in direct jobs being created for the construction of the various facilities. Indirectly, jobs are also created in industries that provide goods, materials and services. An additional amount of goods used in construction will be required from business and industries related to the construction sector.

In assessing the impact of employment related to the development the following has been determined. To construct a filling station a number of contractors may be required, each with a compliment of staff and sub-contractors / suppliers required to do the work.

To operate the filling station (including facilities such as convenience store with bakery, car wash and restaurant), the following employment can be generated : pump attendants, cashiers, merchandiser, kitchen staff, car wash staff, admin clerks and domestic workers. It is expected that 65 permanent employment opportunities will be created during the operational phase of the proposed development.

It is expected that the proposed development will generate a yearly income of approximately R105 million.

CHAPTER 3 : DESIRABILITY

1.0 Concept of Desirability

The concept of “*desirability*” in the land use planning context may be defined as the degree of acceptability of the land use/s on the land units concerned.

The official application form provides guidelines in this respect and requires the desirability of the proposed change in land use to be discussed with reference to the following aspects :

- *Physical Characteristics of the property*
- *Existing Planning in the Area*
- *Character of planning in the area*
- *Potential of the property*
- *Location and accessibility*
- *Provision of services*

This report motivates the application and development based on these principles of desirability. We conclude that the development is desirable and would have a positive impact on the precinct.

2.0 Development Facilitation Act

The Development Facilitation Act, 1995 (Act 67 of 1995) was promulgated on 22 December 1995 by proclamation in Government Gazette No 16880.

In terms of the provisions of Section 2(b) of the above Act, the General Principles for land development in Section 3 will “*serve to guide the administration of any physical plan, transport plan, guide plan, zoning scheme or any like plan or scheme administered by any competent authority in terms of any law.*”

The development proposal for the property complies with the General Principles contained in Section 3 of the Act. The following, inter alia, are directly applicable :

- Optimise the use of existing resources including such resources relating to agriculture, land, minerals, bulk infrastructure, roads, transportation and social facilities.
- Promote sustainable land development at the required scale.

- Promote the establishment of viable communities.
- Meet the basic needs of all citizens in an affordable way.
- Each proposed land development area should be judged on its own merit and no particular use of land, such as residential, commercial, conservational, industrial, community facility, mining, agriculture or public use, should in advance or in general be regarded as being less important or desirable than any other use of land.

3.0 Sustainable Community Methodology

The Nelson Mandela Bay Metro adopted the principles of sustainable community planning as part of its strategic approach towards Land Development and Land Use Management in general. The basis for Sustainable Community Planning is found in the development principles that have been adopted at Central Government and at Local Municipal level and which are supported by legislation and government policies. The development goals and principles of particular importance for spatial planning in sustainable community units are :

❖ **Development Goals : Integration and Sustainability**

The principle of sustainable communities seeks to create integration and equitable access by ensuring that urban places are not separated. It also seeks to enhance transportation networks and to promote urban areas where all needs can be met in an accessible manner.

❖ **Planning Principles (principles directly applicable to this project)**

- The environment / physical, social and economic
- Local economic development
- Mixed use development
- Variation and flexibility

The policy further notes that these development principles should be reflected in spatial plans and urban development in different ways. The spatial structure of a sustainable community area will have certain characteristics related to a combination of structural elements. These include elements of housing, work, services, transport, community and character and identity.

With respect to the proposed service and rest facility on the subject property, the following key sustainability principles apply :

- More efficient use of land along the N2 freeway.
- Ensure economic sustainability and viability.
- Accessibility of services and facilities.

4.0 South African National Roads Agency Limited and National Roads Act

The South African National Roads Agency Limited (SANRAL) and National Roads Act (Act 7 of 1998) manages and controls the Republic's national roads systems and take charge of the development, maintenance and rehabilitation of national roads.

In terms of Section 44 of Act 7 of 1998 *“only the Board and any person acting on its written authority may provide or authorise an entrance to or an exit from a national road”*.

The South African National Roads Agency Limited granted authorisation to continue to the final stage of the application, which involves the preparation of a preliminary approval for access of the N2. This demonstrates in principle support for the development proposal.

Refer to Annexure 9 : SANRAL Correspondence

5.0 SANRAL Policy in Respect of Road Planning and Design

SANRAL, as the custodian of the National Road network, has a duty of care to ensure that the road planning and geometric design process enhances the safety and mobility of road users in balance with other values. In the development of road projects, social, economic, safety and environmental effects should be ranked alongside technical issues so that the final result is in the best overall public interest.

This Policy governs the Procedures for Road Planning and Geometric Design for proclaimed National Roads, guides and informs applications for permits or permissions required of the SANRAL.

With respect to direct access for roadside service and rest areas, the Policy states that *“road users travelling on the network have a need for roadside services and rest areas along the network of national roads at reasonable intervals, in balance with road safety and sound traffic management”*.

❖ Location

On National Roads, the minimum allowed spacing between service areas will depend on the Average Annual Daily Traffic (AADT) in both directions.

AADT Veh/day	Spacing Kilometre
<5 000	50
5 000 – 50 000	30
>50 000	10

❖ Parking

Adequate parking within the service and rest area is an important requirement and developers must provide space and capacity over a 20 year period.

❖ Safety

Traffic flow and safety are of paramount importance. Any service and rest area must be designed in such a way as to ensure the safety of the road user.

❖ Access from Local and Provincial Roads

It is the SANRAL's policy to only allow access to and from freeways by means of interchanges with local roads, and in the case of non-freeways, through formal intersections. The planning of service areas should, therefore, prevent the possibility of vehicles gaining access from the local road system, through the service area, to the National Road.

The analysis of the proposed facility has shown that it complies with SANRAL's Policy in Respect of Road Planning and Design.

6.0 Existing Planning in the Area

❖ Nelson Mandela Bay Municipality Integrated Development Plan

The IDP is formulated in terms of the Municipal Systems Act (32 of 2000). The Nelson Mandela Bay IDP promotes economic development and job creation through sustainable developments, as one of its major objectives. The proposed development of this subject site will support the Metro's vision for job creation, economic development and sustainability.

❖ Nelson Mandela Bay Municipality Spatial Development Framework

As part of the Nelson Mandela Bay Municipality's Integrated Development Plan, a Spatial Development Framework has been prepared for the Metro.

Although the MSDF is silent with respect to the specific subject site, the proposed development will support the principles of the Metro's Spatial Development Framework, with specific reference to sustainability and more efficient utilisation of space.

❖ The Rural Land Use Management Policy of the NMBM

The Rural Development Policy aims to guide rural development towards the most appropriate places within the Metro area and to maximise the optimal use of existing resources and infrastructure.

The purpose of this planning approach is to achieve environmental sustainability and a long-term balance which ensures that natural and human ecosystems co-exist harmoniously.

It is also imperative to manage the rural zones of the Metropolitan Area to ensure high quality environments that contribute to the overall sustainability of the Metro Area.

The Rural Development Policy addresses the management and development of land beyond the Urban Edge of the Nelson Mandela Bay Metro. In order to achieve this, the Policy demarcates the area into different zones or areas of differentiating development density and land use.

This perspective identifies four areas in the rural area of the metro, namely the Peri-urban Development Zones, Rural Development Zones, Biodiversity Zones and Agricultural Zones.

Guidelines for the management and development of these areas are provided to support the objectives of the spatial perspective.

The subject property is located in the Rural Zone 2.

⇒ **Rural Zone 2**

This area is seen as sparsely developed area, with dispersed ecological sensitivities. The area is not suitable for urban development within the medium to long term (next 10-15 years) and is not easily integrated with the larger built up urban system. No bulk or limited services are currently available or will be made available within the medium term.



Rural Land Use Management Policy : Rural Zone 2

⇒ **Land Uses**

The Rural Land Use Management Policy stipulates the various land uses and densities permitted in the various zones, making provision for a tourist facility. In terms of the Rural Land Use Policy's definitions a Tourist Facility "means land or a building used for tourists or day visitors such as a tea garden, farm stall, gift shop, place of entertainment, outdoor activity, restaurant, wellness centre and a rest room on a limited scale as determined by Council, but does not include overnight accommodation".

With respect to the proposed development on the subject property, the tourist facility component will include a restaurant, take-away, place of entertainment, outdoor activity, gift shop and rest rooms, covering 60% of the proposed land use.

Given the unique nature of the development, combining a service station, tourist facilities and commercial mixed use, on a main route, specifically requires a rural setting and not an urban area, to promote accessibility for long distance and bypass traffic.

The proposed development is considered to be compatible with the development vision of the Rural Zone 2 area.

❖ **Scheme Regulations promulgated in terms of Section 8 of the Land Use Planning Ordinance, 15 of 1985.**

The property is currently zoned in terms of the Section 8 Scheme Regulations for Agriculture Zone I purposes. The application is submitted to rezone the property from Agriculture Zone I to Special Zone: Service Station, Tourist Facilities and Commercial mixed use.

The development proposal will be implemented within these development parameters as indicated. Zonings and land use activities proposed are in line with those in Section 8 Zoning Scheme Regulations (in terms of the Land Use Planning Ordinance 1985, Ordinance 15 of 1985).

7.0 Physical Characteristics of the Property

❖ **Topography**

No adverse or noteworthy conditions that impacts on the proposed change of land use were visible on the site. The property slopes in a south-easterly direction and the topography of the property does not pose any constraints to the proposed development.

❖ **Vegetation & Land Use**

The property is largely unused natural veld with exotic plants and a partially demolished farmstead is situated on the north-western portion of the property. The majority of the site has been cleared from the original vegetation for grazing purposes. The N2 forms the northern boundary of the property while the property is currently accessible from the south, by means of a servitude road, linking with the Draaifontein Road, further south-east of the property.

The property is 11,537ha in size and the required area for the development is ±3ha (27% of the total property). The remainder of the property will be rehabilitated and used as part of the 'rest' centre (i.e. dog walking, picnic area, education signboards etc.).

❖ **Proposed development**

The Site Development Plan illustrates the development of a Service Station, Tourist Facilities and Commercial mixed use on the property.

The service facilities will include a canopy and fuel dispensers with 6 islands for light vehicles and 1 island for heavy vehicles, underground fuel storage tanks and an oil and grease separator (a canopy of 520m²).

The Tourist Facilities and Commercial mixed use will be concentrated within the restaurant and retail area. Rest rooms for the customers, staff rest rooms, visitor and driving information, maps of the area, vending machines, pay phones and ATM's will be provided within these facilities.

❖ **Access**

The N2 freeway borders the northern boundary of the property. The proposed development will obtain access from the N2, as indicated on the Site Development Plan, by means of newly built off- and on-ramps. A Transport Engineer conducted a Traffic Impact Assessment in order to determine the access requirements for the development. The planning and geometric design of the interchanges to and from the freeway will be in accordance with the requirements of SANRAL's Geometric Design Guidelines.

SANRAL required the provision of a bridge at the facility in order to prevent dangerous U-turn movements. Due to the fact that the facility will only be developed on the southern side of the N2, a full interchange is therefore proposed to make the facility accessible to both directions of travel.

The facility will only be accessible from the N2 and no access will be provided to vehicles or pedestrians from the south.

❖ **Parking**

Adequate provision will be made for on-site parking on the property. The following on-site parking will be provided in accordance with Section 8 Zoning Scheme Regulations :

⇒ **Service Station**

- 1 parking bay per 50m² of the total floor space. The 520m² canopy facilities will require 10 parking bays.

⇒ **Commercial Use**

- 1 parking bay per 25m² of the total floor space. The 4000m² commercial building will require 160 parking bays,

The Site Development Plan illustrates the provision of 170 vehicle parking bays, 7 caravan parking bays and 3 bus parking bays. The parking will be provided as per development phasing and implementation.

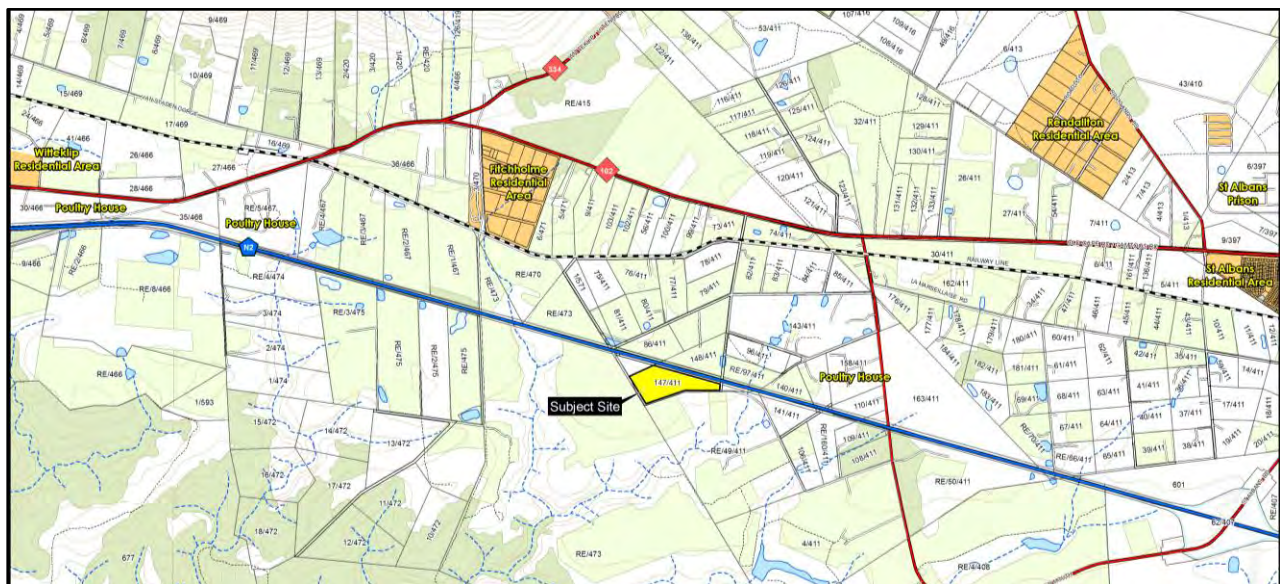
Refer to Map 5 : Site Development Plan (Indicative)

8.0 Character of the Area

The subject property is situated in a rural area characterised by undulating topography, dispersed environmental sensitivity and some agricultural activities.

The surrounding environment consists mainly of natural veld, pastures, rural and non-rural land uses such as :

- Poultry houses (Rocklands Chicken Poultry)
- St Albans prison
- Rural villages i.e. St Albans, Fitchholm, Rendallton, Rochlands, Witteklip and Van Stadens Gorge village.
- Woodridge School
- Van Stadens Wildflower Reserve



Surrounding land uses

The proposed development will therefore be situated within a rural setting. Based on research and the Traffic Impact Assessment, the location of this facility outside the urban edge and along the N2 are critical to fulfil its function as a rest and “pitstop” area.

❖ Tourism

Travel and tourism is an important economic contributor at the national level as well as at local levels in areas in which tourism is effectively promoted. The architecturally designed development aims to reflect a specific brand and introduce A-grade development along the National Road (N2).

The proposed facility on the subject site will be a rest-haven for the long distance driver as well as the tourist, providing rest rooms and toilets, a restaurant / fast food outlet, convenience store, on-site ATM, general seating for customers, entertainment and eco-educational facilities for the children, situated within a peaceful and quite environment.

The mountain vistas, rural atmosphere, commercial farming activities and accessibility are key supporting factors for a development of a Petroport, providing a service and rest area to the travelling public.

9.0 Location and Accessibility

The property is located along the southern boundary of the National Route N2, between Port Elizabeth ($\pm 25\text{km}$) to the east and Humansdorp ($\pm 57\text{km}$) to the west.

Existing similar facilities with direct access of the N2 are :

- *To the west* : Caltex Mentor Plaza at Jeffreys Bay ($\pm 45\text{ km}$ from subject site) and Total Petroport at the Storms River Bridge (140km from subject site).
- *To the east* : BP Service Station at Colchester (69km from the subject site).

According to the SANRAL Policy in Respect of Road Planning and Design the minimum spacing allowed between service areas will depend on the Average Annual Daily Traffic (AADT) in both directions. The total number of vehicles counted at the permanent traffic counting station is 3 517 458 vehicles per year (9637 per day). Therefore, the minimum preferred spacing between service areas on this particular route will be 30 kilometres. The location of the proposed development complies with the SANRAL Policy in this regard.

In terms of SANRAL's classification of service and rest facilities the above mentioned facilities, namely Mentorskraal and BP Colchester, are not listed as a Class 3 direct access rest and service facility, due to the fact that they do not obtain direct access from the N2. Therefore, according to SANRAL's spacing requirements do not apply to the above mentioned facilities.

The proposed development will thus fulfil in a significant need on this section of the road where the spacing between rest facilities is relatively long. Long distance road users do not turn off the national routes into cities and towns for the purpose of refuelling, relaxing or use of toilets.

SANRAL acknowledges the important role of rest and service facilities in their Policy in Respect of Road Planning and Design. The policy states that *"Road users travelling on the network have a need for roadside services and rest areas along the network of national roads at reasonable intervals, in balance with road safety and sound traffic management"*. Refer to paragraph 3.5 of this report in respect of the Policy in Respect of Road Planning and Design.

The proposed development is based on a number of calculations. The following are calculations of the number of people expected to use the facilities per annum:

Daily traffic (Average) :	9 000	
Total number of vehicles passing the facility per year :	3 285 000	
Interception rate :	15%	
Number of vehicles expected to turn into the facility per year :	492 750	
Expected number of passengers per vehicle :	1,7	
Total number of persons in vehicles turning into facility per year :	837 675	
Percentage of persons disembarking :	60%	
Total number of persons expected to utilise the facility per year :	502 605	
Percentage of persons utilising the toilets at the facility per year :	50%	TOILETS
Number of persons utilising the toilets at the facility per year :	276 433	
Percentage of persons utilising the convenience store at the facility per year :	60%	STORE
Number of persons utilising the convenience store at the facility per year :	301 563	
Percentage of persons utilising the restaurant/take-away at the facility per year :	25%	FOOD
Number of persons utilising the restaurant/take-away at the facility per year :	125 651	

Source : Developer

There is a need for long distance road users to relax and use toilet facilities directly accessible from the N2. The majority of the facilities in Jeffreys Bay and Port Elizabeth are designed for the needs of urban road users and do not cater for long distance road users. An application has been submitted for a filling station ±13 km south-east of the property in a mixed use development (Bay West development). However, the filling station is not designed as a rest facility for highway motorists, but rather as part of a shopping complex and new residential development.

For the road user, predictable and efficient travel, and in particular, safety, are paramount. The design of the facility should be affordable in the prevailing financial circumstances, and provide for safe travel. Therefore, the proposed development has been designed to balance the system benefits with national and community goals, plans and values, and must be sustainable in the long term.

It is clear from the above that the provision of the proposed Petroport facility, spaced within 35-50km, can reduce the number of road accidents related to driver fatigued, increase the long distance driver's quality of rest breaks, improve the driving experience on the National Routes and support tourism.

All internal road designs and accessibility have been carefully designed and planned in line with the professional engineers input. The on and off-ramps to the proposed facility will comply with SANRAL's standards.

10.0 Potential of the Property

The following aspects contribute to enhancing the potential of the subject property for the development of a Petroport facility:

- The petroleum industry is one of the major contributors to the South African GDP. In recent years, increases in petrol price created a huge challenge for the service station retailers to run sustainable, profitable and viable businesses, as the price increases impacted negatively on sales volumes. The new entrants in the market and new competition from other retail businesses necessitated changes in the industry. The provision of a service station component along National Roads as an integrated part of rest and service facilities created a new business opportunity for the petroleum industry.
- The property is ideally situated directly adjacent to the N2. The South African National Roads Agency Limited granted authorisation to continue to the final stage of the application, which involves the preparation of a preliminary approval by the consulting engineers.
- The location of the proposed facility complies with SANRAL Policy's spacing between service areas of 30km, based on the Average Annual Daily Traffic.
- The limited agricultural potential and size of the property (11,537ha) necessitates alternative means of income such as the proposed development.
- The proposed development has been designed to create a direct access Petroport facility for motorists and their passengers, providing extensive parking, a fuel station, rest rooms and toilets, a restaurant/take-away food outlet, an entertainment area/play park for children, general seating and an eco-educational trail through the well-established trees on the subject site.

It is clear that the location, accessibility and development possibilities enhance the development potential of the property, making it suitable for the proposed development.

11.0 Provision of Services

Professional Engineers are preparing a report addressing the availability of engineering services for the proposed development and the feasibility of installing internal and on-site services.

The installation of all engineering services will be provided according to the satisfaction of the City Engineer, which will include the provision of water, sewerage, solid waste removal, storm water and electricity.

CHAPTER 4 : CONCLUSION (WORK IN PROGRESS)

It is clear from the above that the proposed development will provide a direct access Petroport facility to serve the travelling public along the National Route N2 between Humansdorp and Grahamstown.

The application further complies with the provisions stipulated in the policy documents governing the development of the area.

We believe that this application puts the Municipality in a position to take a well informed decision.

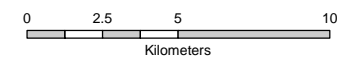
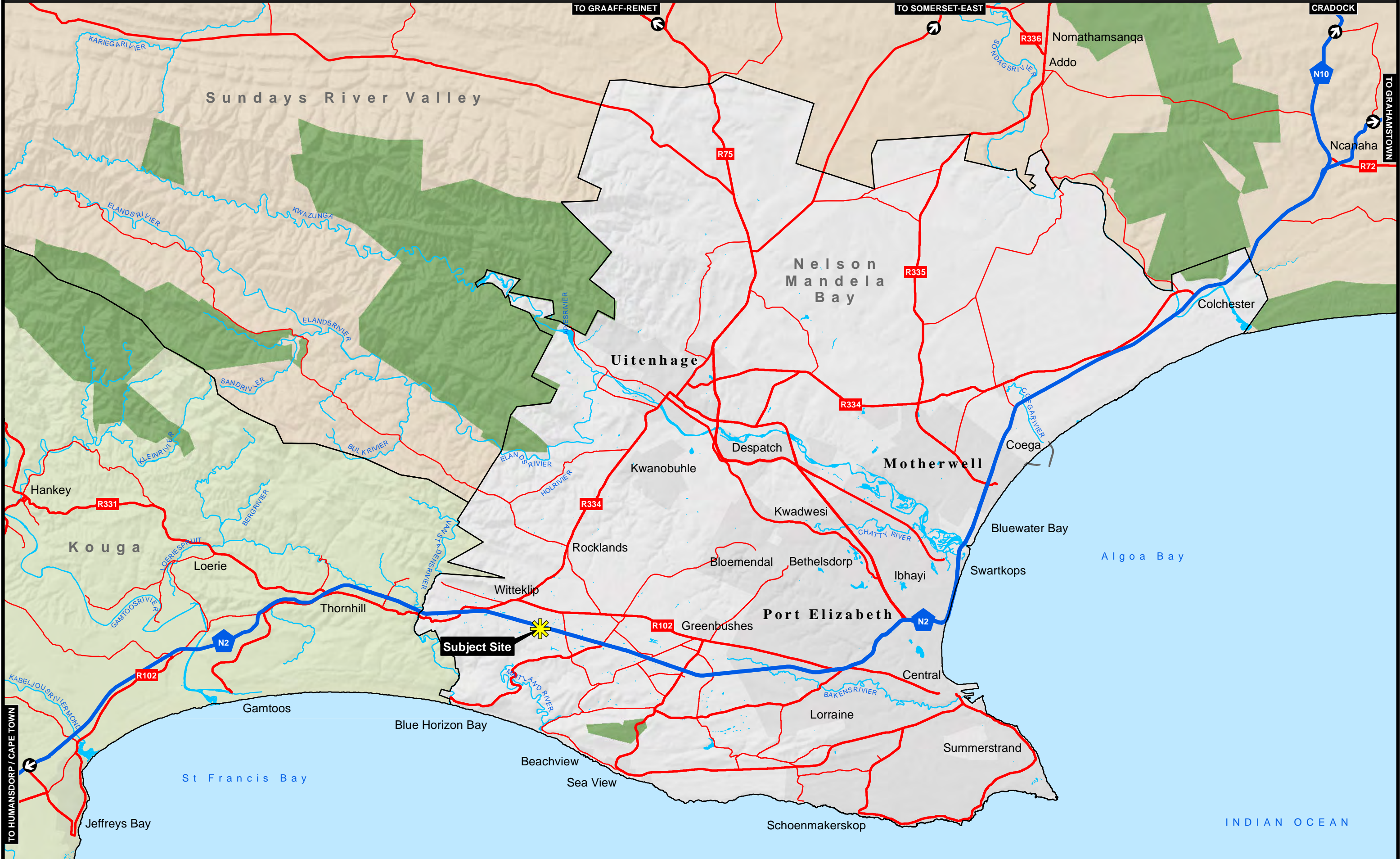
To summarize, the following is highlighted :

- The proposed development has been designed to create a direct access Service Station, Tourist Facilities and Commercial mixed use for motorists and their passengers, providing extensive parking, a fuel station, rest rooms and toilets, a restaurant/take-away food outlet, an entertainment area/play park for children, general seating and an eco-educational trail through the well-established trees on the subject site.
- The limited agricultural potential and size of the property necessitates alternative means of income such as the proposed development.
- The required area for the development is approximately 30% of the property and the remainder of the property will be rehabilitated and used as part of the 'rest' centre (i.e. dog walking, picnic area, education signboards etc.).
- There is a need for long distance road users to relax and use toilet facilities directly accessible from the N2. Existing facilities in Jeffreys Bay and Port Elizabeth are designed for the needs of urban road users and do not cater for long distance road users.
- Research indicates that less than 50% of vehicles turning into a Petroport facility refuel at the facility. The facilities are therefore primarily used for relaxation and use of the toilets, convenience store and food offering.
- The location of the proposed facility complies with SANRAL Policy's spacing between service areas of 30km, based on the Average Annual Daily Traffic.
- The South African National Roads Agency Limited granted authorisation to continue to the second stage of the application, which involves the preparation of a preliminary approval by the consulting engineers.
- The location, accessibility and development possibilities enhance the development potential of the property, making it suitable for the proposed development.

It is therefore recommended from a planning point of view that this application should be supported as it will have a positive impact on development in the area.

PORTION 147 OF THE FARM GEDULTS RIVER NO. 411, UITENHAGE RD

REGIONAL LOCALITY

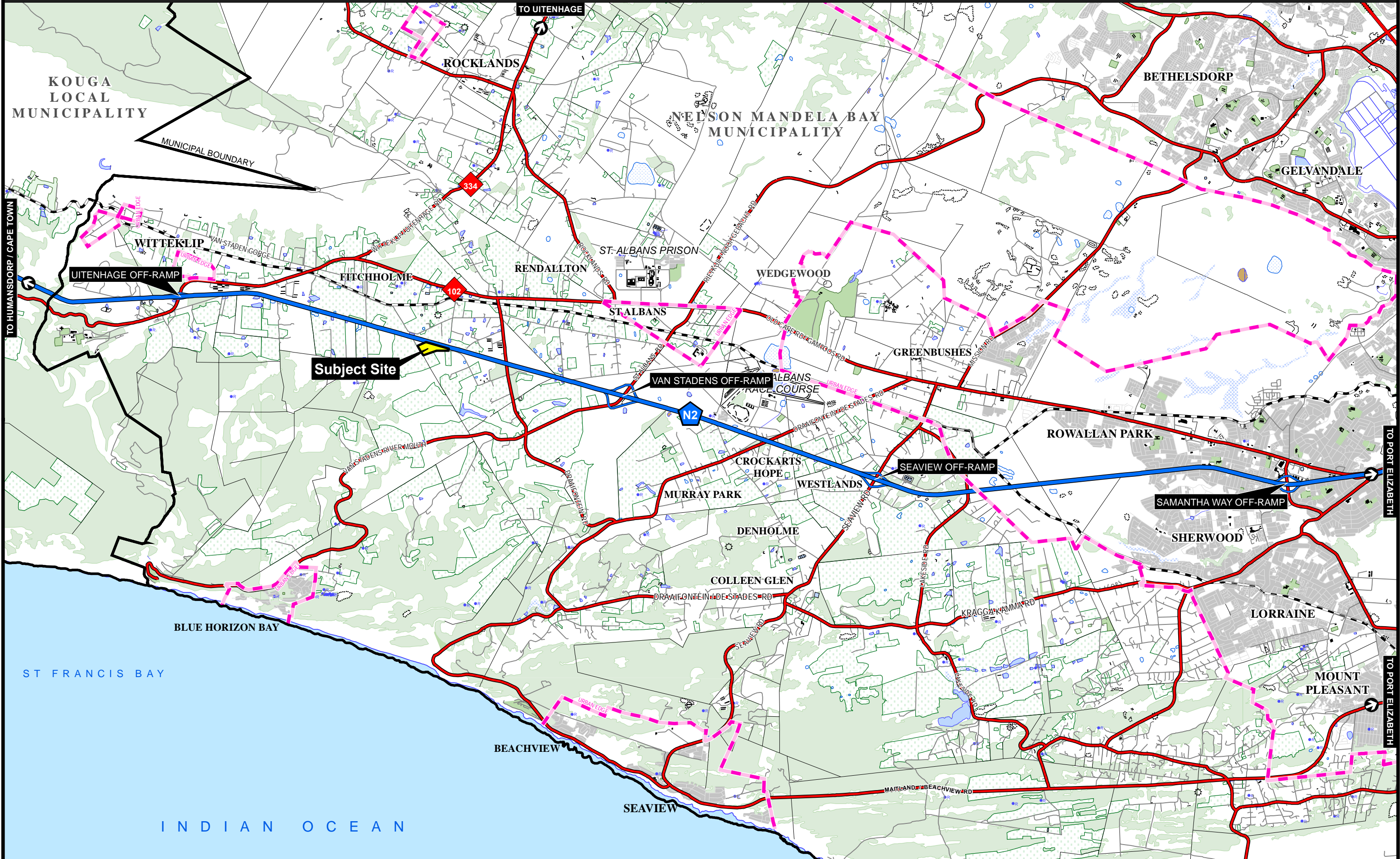


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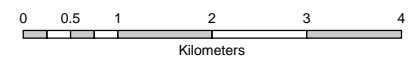
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LOCAL LOCALITY



Date: 03/2012

Drawing Ref: 1372E/LL



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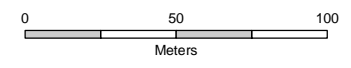
URBAN DYNAMICS
TOWN & REGIONAL PLANNERS
Tel: 041 374 9980 Fax: 041 374 3984 Email: info@udcc.co.za

AERIAL VIEW AND TERRAIN CHARACTERISTICS



Date: 03/2012

Drawing Ref: 1372E/TC



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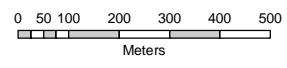
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Tel: 041 374 3980 Fax: 041 374 3984 Email: info@udec.co.za

SURROUNDING TERRAIN CHARACTERISTICS



Date: 03/2012
 Drawing Ref: 1372E/ST

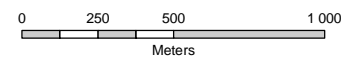
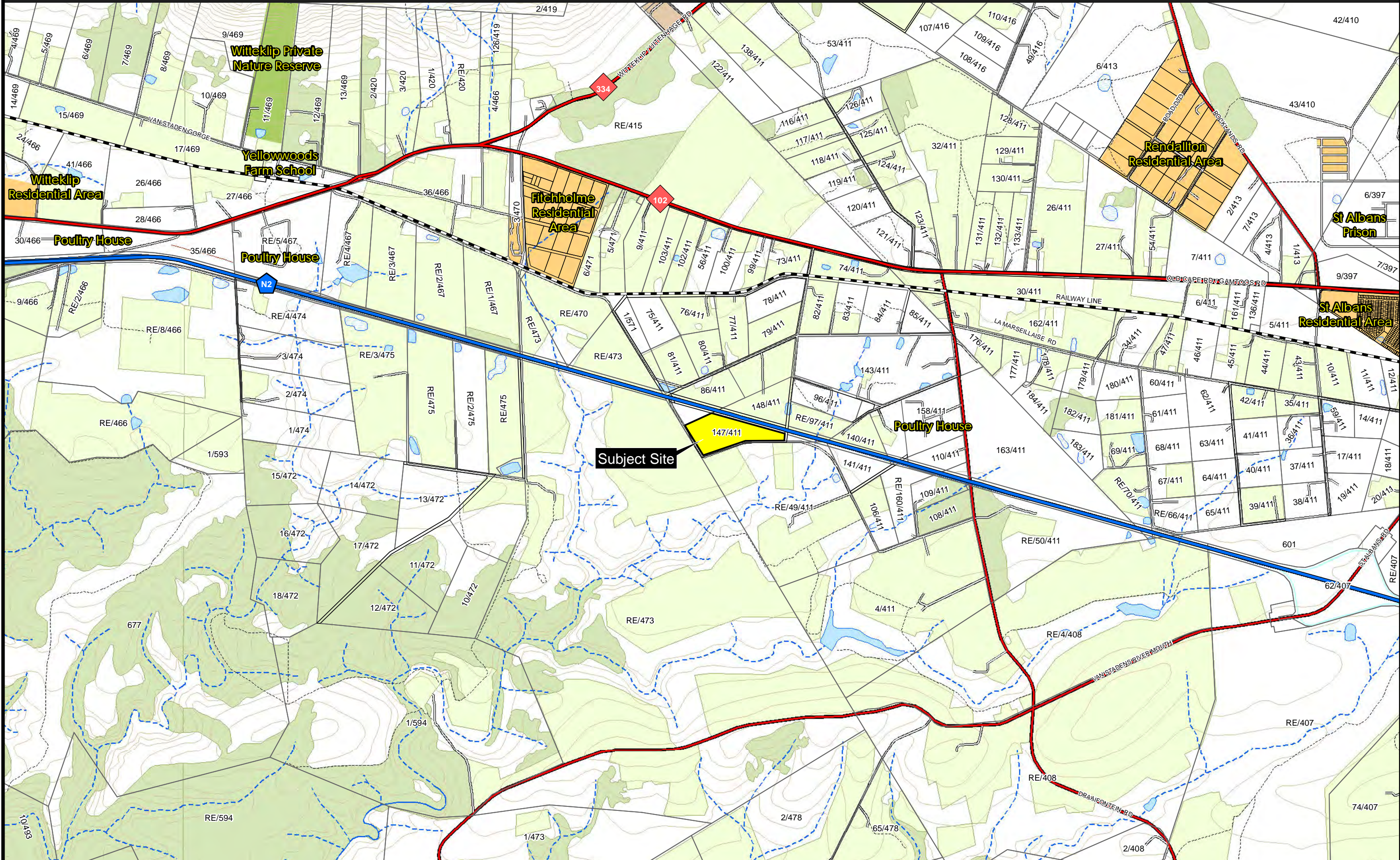


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EXISTING LAND USES



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Spatial Development Framework



Legend

- 2010 Soccer Stadium
 - Abattoir
 - Education
 - Hospitals
 - Proposed Nature Reserve
 - Resorts
 - Rural Villages
 - Railway Station
 - Strategic Intervention Projects
- Business Areas**
- Neighbourhood Node
 - Regional Node
 - Metropolitan Node

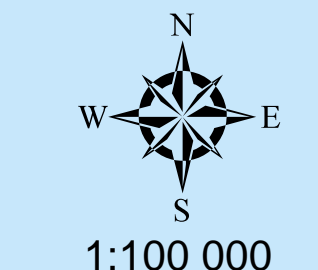
- Urban Growth Boundary
 - Rail
 - Future Rail
 - Rail Narrow Gauge
- Roads**
- National Roads
 - Major Arterial
 - Minor Arterial
 - Future Roads
 - Khulani Corridor

- Airport
- Proposed Future Airport
- Groendal State Forest
- Addo National Park
- Cemeteries
- Coastal Villages
- Coega IDZ
- Eastern Cape Surrounds
- Golf Courses
- Proposed Hazardous Waste Area
- Industrial
- Main Rivers and Inland Water Areas
- Mandela Bay Development Agency (MBDA) Mandate Area
- Marine Protected Area
- Nature Reserves outside NMB boundary
- North End Beach Reclamation Project
- Restructuring Zones
- Sustainable Community Units
- UDZ Boundary
- Waste Landfill Buffer 800m (Approximate only)

- Housing Development**
- < 2010
 - 2011 - 2019
 - 2020 >

- Critical Biodiversity Areas**
- Protected Area 1
 - Protected Area 2
 - Critical Biodiversity Area (Includes Critical Ecological Support Areas 1 & 2 - refer SRK Conservation Assessment Plan for more detail)

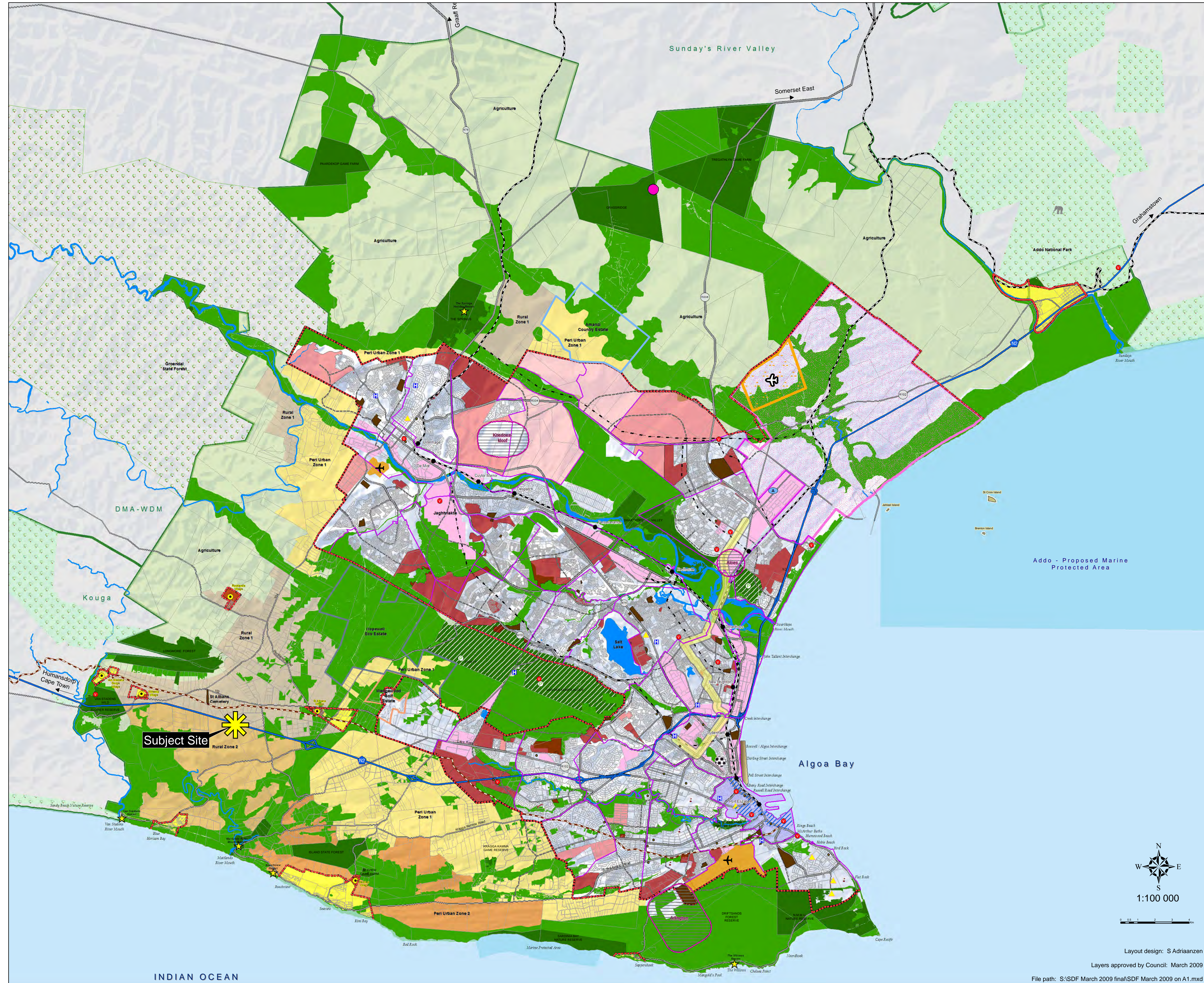
- Rural Policy Areas**
- Agriculture
 - Peri Urban Zone 1 (1,8ha minimum erf size)
 - Peri Urban Zone 2 (5ha minimum erf size)
 - Rural Zone 1 (10ha minimum erf size)
 - Rural Zone 2 (20ha minimum erf size)



Layout design: S Adriaansen

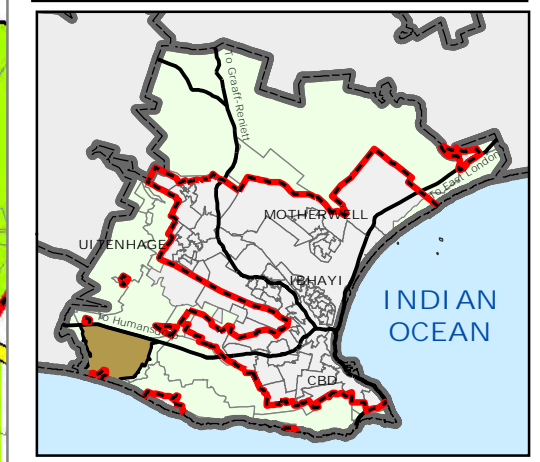
Layers approved by Council: March 2009

File path: S:\SDF March 2009 final\SDF March 2009 on A1.mxd



Rural Land Use Management Policy

Rural Zone 2



Legend:

- Urban Edge
- N2
- Main Road
- Minor Road
- Railway
- Rail
- Resorts
- Rural Policy Areas**
- Agriculture
- Critical Biodiversity Zone 1
- Critical Biodiversity Zone 2
- Peri Urban Zone 1
- Peri Urban Zone 2
- Rural Zone 1
- Rural Zone 2
- Madiba Bay
- Coastal Villages and Rural Settlements

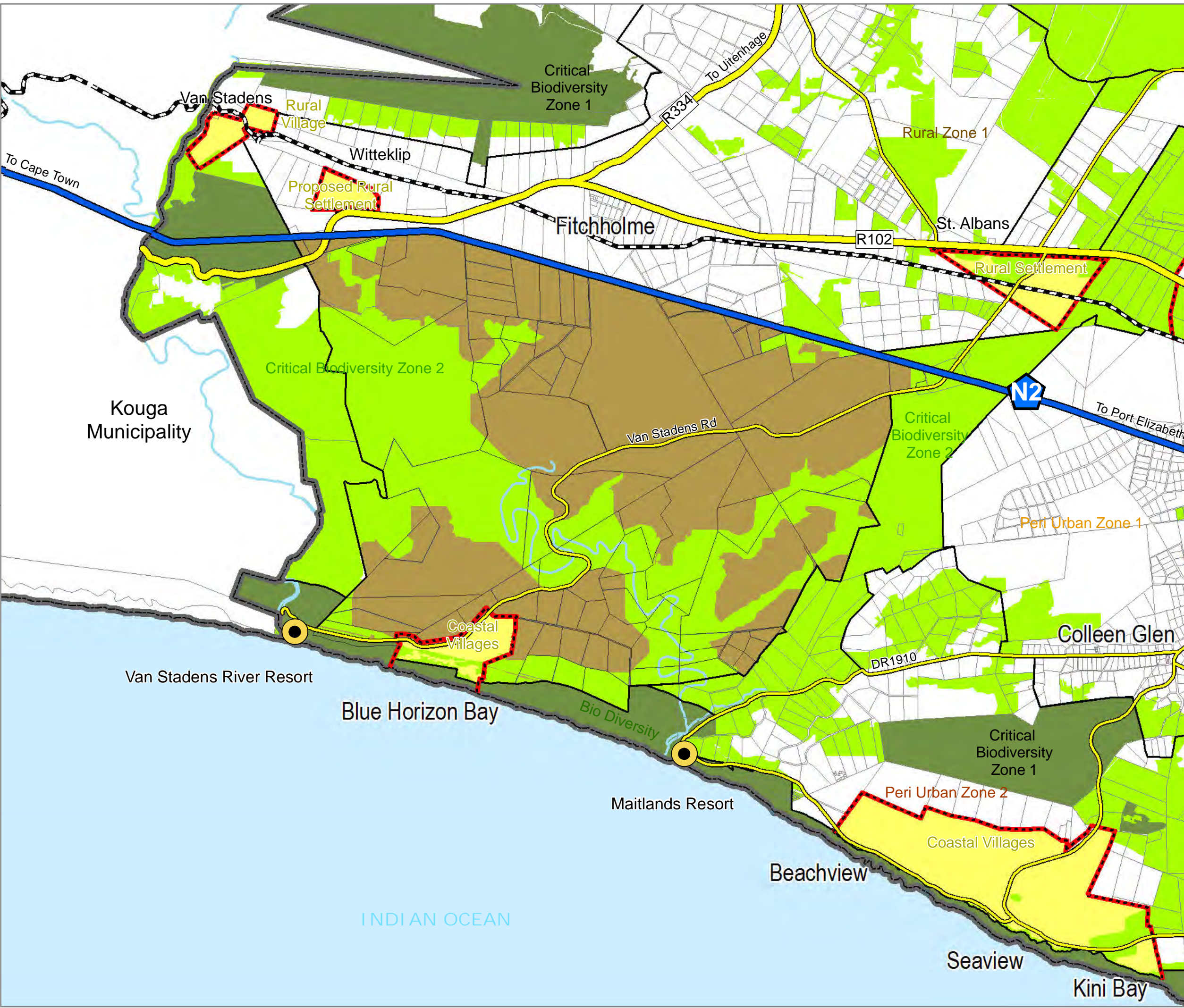


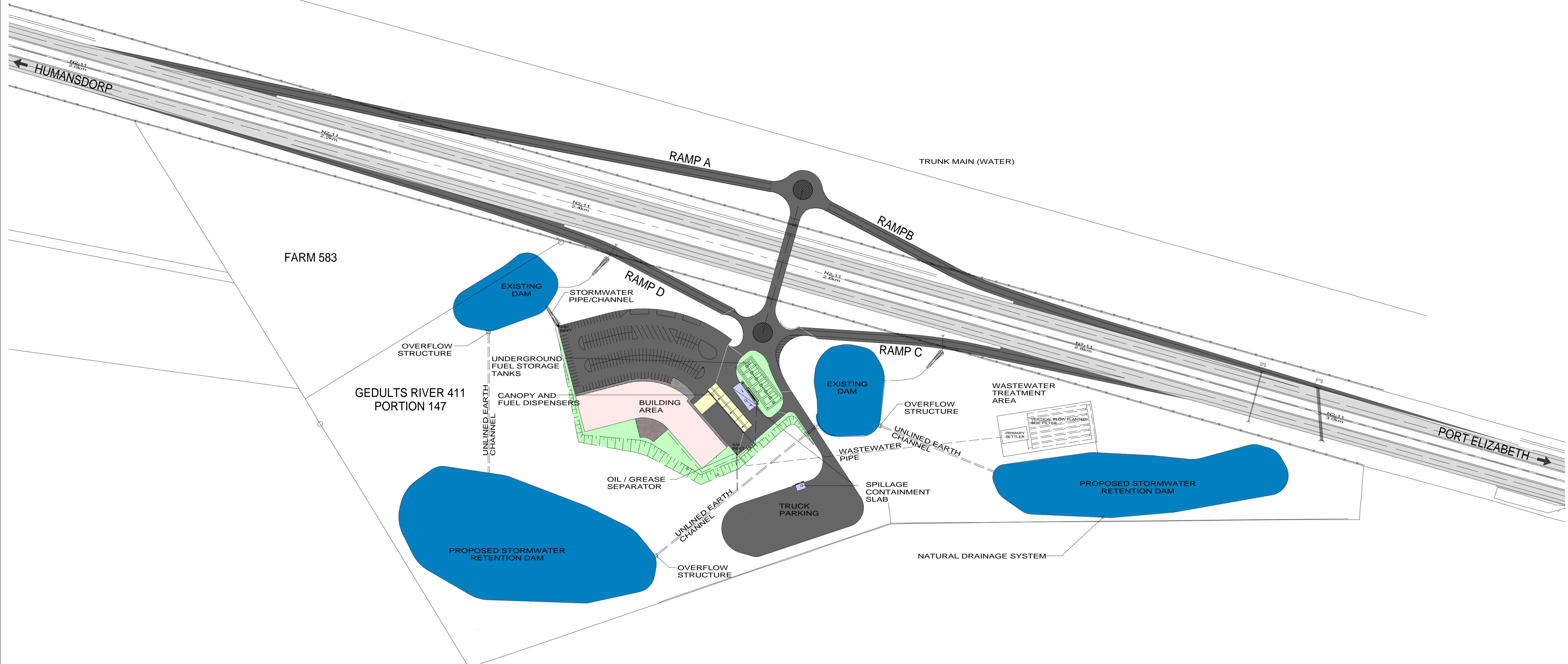
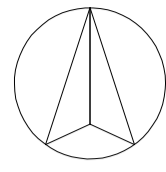
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0 0.45 0.9 1.8 2.7
Kilometers

MAP 4

NELSON MANDELA BAY MUNICIPALITY



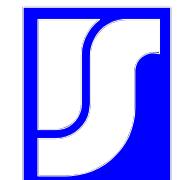


NOTE:
1. FOR UNDERGROUND FUEL STORAGE DETAILS
SEE DRAWING No. N2PE-PAT-002

NO	DATE	DESCRIPTION	REVISED BY	CHECKED BY
0	12-03-2012	ISSUED FOR DISCUSSION	A.M	
AMENDMENTS				

DESIGNED BY	A.MORRISON	CLIENT	
CHECKED BY	PG JOUBERT		
DRAWN BY	A.MORRISON		
CHECKED BY	PG JOUBERT		

DESIGNED BY
INFRASTRUCTURE CONSULTING ENGINEERS cc



PO BOX 186
PERSEQUOR PARK
0020
Tel (012) 349-2022/3/4/5
Fax(012) 349-2026

PROJECT DESCRIPTION	REST AND SERVICE FACILITY PORT ELIZABETH - NATIONAL ROUTE 2
PLAN DESCRIPTION	LAYOUT OF FACILITY AND INTERCHANGE

APPROVED <small>(Full signature)</small>	DATE	SHEET
	12-03-2012	A1
	SCALE	REVISION
	1:1500	0
	PLAN NO.	N2PE-CEPT-001
DATE		

Appendix E: Comments and responses report

Interested and Affected Party	Comment	EAP response
Human Settlements Directorate (Schalk Potgieter)	<ul style="list-style-type: none"> Request to be registered 	<ul style="list-style-type: none"> Registered and will be kept informed of the process
Syd Lippstreu	<ul style="list-style-type: none"> Request to be registered 	<ul style="list-style-type: none"> Registered and will be kept informed of the process
Patrick Cull	<ul style="list-style-type: none"> Request to be registered 	<ul style="list-style-type: none"> Registered and will be kept informed of the process
Terence Liebenberg	<ul style="list-style-type: none"> Request to be registered 	<ul style="list-style-type: none"> Registered and will be kept informed of the process
Riana Nel	<ul style="list-style-type: none"> The BID states that notice boards have been placed in the vicinity of the site. We did not see these? The site falls within an area that is a 'farming community' The site is within the reception area of the Geduldrivier A request was submitted for a detailed project description – i.e. what structures and infrastructure is planned A query was raised regarding the suitability of the site selected based on its location in a farming community and also the relatively close proximity of Jeffreys Bay and Port Elizabeth Why is it necessary to build a new on-and-off ramp when there are other sites nearby to two existing bridges over the freeway? The infrastructure in this particular location is not sufficient as it is a farming community, where further down the road is a better suitable area (towards Jeffreys Bay) – The Van Standens River bridge / Uitenhage interception What roads will be used to carry the building material etc. in construction phase? Currently, the local roads are not in good condition and are not regularly maintained. If heavy trucks use it on 	<ul style="list-style-type: none"> Two notice boards were placed on site on 25 November 2011: On the northern boundary of the site along the N2; and at the start of the gravel access road as it branches off the R102 Noted, thank you. The site falls within an area classified as 'rural zone 2' in the Nelson Mandela Bay Spatial Development Framework Plan (see extract from the SDF in Appendix G). The desirability of the proposed development has been motivated by Urban Dynamics in the town planning report (refer to Appendix D). The report concludes that the development is desirable and would have a positive impact on the precinct. Noted, thank you. We have consulted various environmental guideline documents available for the study area (e.g. the East Cape Biodiversity Conservation Plan, the NMBM Metropolitan Open Space System, and a 1:50

	<p>a daily basis, the roads will deteriorate</p> <ul style="list-style-type: none"> • Will the local people receive the benefit of jobs – building and working at the proposed Petroport? • Will the local people be able to sell their fresh products etc. in the proposed Petroport or can their products be market there? • How will you ensure that the waste water treatment plant will be successful where it has not been anywhere else in the country? • The area is not connected to municipal services • The location will evolve in a Taxi Rank for the unemployed locals • There is a squatter camp 1 km from this location and bring more safety hazards and concerns • Pollution will not only affect and occur in and around the located area, but for kilometres along the N2: <ul style="list-style-type: none"> ○ Who will clean this area on a regular basis? ○ Where will you find the man power for that? • What will be done if sanitation spills etc. flow into the river? <ul style="list-style-type: none"> ○ Who will clean the spills? ○ Monitor the spills? ○ Maintain the situation? ○ If a problem occurs, who can be called out and how long will it take for the situation to be stabilised and resolved? • Why don't you consider building this Petroport at the existing on-and-off ramp to Van Stadens River bridge / Uitenhage? The infrastructure is already there; there is a bridge, on-and-off ramps, there is also incoming traffic from Uitenhage, Port Elizabeth – via the Old Cape Road and the surrounding locals coming from Sunnyside, Thornhill, Hankey, etc. on the Old Cape Road. There is existing roads to travel on when building material etc. need to be delivered. The necessary sanitation, water connection and electricity is existing 	<p>000 topographical map – refer to Appendix G). All maps extracted show that no drainage areas traverse the site boundary or occur within at least 300 m of the site boundary. However, surface water runoff from the site may drain into the Geduldsrivier and impacts associated have been addressed in the environmental assessment. Recommendations have been given to avoid risks of contaminating both surface and groundwater. A geotechnical study has also been done for the site which showed that the site is suitable for underground storage tanks and that based on soil type and depth and the absence of shallow groundwater, treating sanitation effluent should pose a low risk on groundwater.</p> <ul style="list-style-type: none"> • This was sent to the I&AP and is included in this Draft BAR • An investigation of the section of N2 between Port Elizabeth and Humansdorp was done to determine the best location for the facility. The preferred site was selected from a safety and traffic volume point of view. Direct Rest and Service Facilities are crucial elements of road systems. This is evident from research that indicates interception rates of between 15 and 20% at similar locations. Further research indicates that less than 50% of vehicles turning into Rest and Service Facilities refuel at the facility. The facilities are primarily used for relaxation and use of the toilets, convenience stores and food offering. The South African National Roads Agency Limited (SANRAL) acknowledges the need for direct access rest and service facilities. In Paragraph 4.4.1 of their Policy in Respect of Road Planning and Design
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		<p>it states that "Road users travelling on the network have a need for roadside services and rest areas along the network of national roads at reasonable intervals, in balance with road safety and sound traffic management. To this end, the private sector may take the initiative to identify and acquire service area sites."</p> <p>Currently there are no direct access rest and service facilities on the N2 between Grahamstown and Tsitsikamma, a stretch of road of approximately 260 km in length. According to SANRAL Regulations, the minimum spacing between direct access rest and service facilities on national roads with traffic volumes such as at the study site should be 30 km. It must be noted that similar facilities in major towns and cities along the route (e.g. Port Elizabeth, Jeffreys Bay) cannot be considered in the comparison. Research has shown that long distance road users do not turn off the national routes into cities and towns for the purpose of refuelling, relaxing or use of toilets. Existing facilities in Jeffreys bay and Port Elizabeth are designed for the needs of urban road users and do not cater for long distance road users. Research has shown that toilets at urban sites cannot cope with the needs of long distance road users</p> <ul style="list-style-type: none">• It is a requirement of SANRAL that a bridge must be provided at the facility. The reason is to prevent dangerous U-turn movements of delivery trucks and other road users. The existing bridges are not close enough to the proposed facility to prevent dangerous manoeuvres. The proposal is however to build a facility only on the southern side of the N2.
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		<p>For this purpose a full interchange is therefore proposed to make the facility accessible to both directions of travel</p> <ul style="list-style-type: none">• The required infrastructure will be established at the mentioned location. Locations in the close proximity of the Van Stadens pass, R334 Uitenhage interchange will not meet SANRAL's safety requirements• The existing provincial and local road system will be used• Every effort will be made to utilize the local labour force with suitable skills. Specialised work such as fuel installations will be done by specialist contractors• Every effort will be made to source produce sold at the facility from the local community• The waste water treatment technology to be used at the site was originally sourced from Germany and adapted for local conditions. Nine of these plants are currently operational throughout South Africa. Monitoring of effluent quality at these facilities shows that it meets national standards. The Waste Licence application in conjunction with this BAR that is being submitted to the National Department of Environmental Affairs has considered the risks that the treatment plant may pose on the surrounding environment, in particular contamination of surface and groundwater, and odour. Emergency measures will be in place in the event of plant failure or electricity shut down, and the plant will be designed to retain effluent for the minimum of amount of time required to remedy the problem so that untreated effluent is not discharged into the surrounding area. A review of available
--	--	---

		<p>monitoring results of effluent from similar treatment plants used in South Africa shows that effluent quality meets DWA standards for irrigation.</p> <ul style="list-style-type: none"> • A sewage treatment facility will be established on site and the existing water connection on the farm will be utilized • The facility is designed for long distance road users and will provide access from the N2 only. The facility will not provide access to adjacent properties. Taxis will however be welcome to use the facility • Highway rest and service facilities are well managed facilities with on-site security personnel and should therefore not contribute to safety risks to the local community • Highway rest and service facilities are well maintained facilities and are designed to avoid pollution as best as possible. Mitigation measures have been included in the BAR to address waste managed during construction and operational phases • This has been addressed under surface and groundwater impacts • The applicant did an extensive investigation of the N2 between Port Elizabeth and Jeffreys Bay to determine a suitable site for the proposed facility. The investigation concluded that the most suitable site for development of such a facility, in accordance with the needs of long distance road users, is at the proposed site. A 'need and desirability' component has been included in the Basic Assessment report that is available available for public comment
Adriaan Venter Attorneys and Associates	<ul style="list-style-type: none"> • The dispatch of the BID document over the festive season is viewed as inappropriate and not permissible in terms of the National 	<ul style="list-style-type: none"> • Background Information Documents and posters were sent out and placed for public

	<p>Environmental Management Act. The process should be properly and duly repeated after the festive season has terminated, schools have re-opened and people have returned to their offices and normal daily activities</p>	<p>comment on 25 November 2011 until 13 January 2012. Regulation 54(8) states that no public participation should occur between 15 December and 2 January. We have allowed a 30 day comment period –</p> <ul style="list-style-type: none"> o 25 November to 15 December = 20 days o 3 January to 13 January = 10 days o Additional Period = 19 days <ul style="list-style-type: none"> • We extended public participation over the December period to include any potential holiday-makers that travel on the N2 into Port Elizabeth who may be interested in providing comment on the proposed fuel station.
<p>Maartin Friedrich and Andre du Toit on behalf of Engen Petroleum Ltd</p>	<ul style="list-style-type: none"> • The impact of the proposed facility on the proliferation of similar types of facilities (petroports) and filling stations in the sub-region must be considered • The sustainability of the proposed facility in relation to the sustainability of similar facilities (petroports) and filling stations must be considered 	<ul style="list-style-type: none"> • Currently there are no direct access rest and service facilities on the N2 between Grahamstown and Tsitsikamma, a stretch of road of approximately 260 km in length. The closest similar facility to the west of the site is the Total Petroport at Storms River Bridge (~140 km to the west). To the east, the closest facility with rest areas and toilets is at the Nanaga Farm stall (~80km east) – this facility is however not directly accessible off the N2 and has no filling station. According to SANRAL regulations, the minimum spacing between direct access rest and service facilities on national roads with traffic volumes such as at the specific site should be 30 km. It is thus clear that there is a need for a facility. Long distance road users do not turn off the national routes into cities and towns for the purpose of refuelling, relaxing or use of toilets. There is a

need for long distance road users to relax and use toilet facilities. Existing facilities in Jeffreys bay and Port Elizabeth are designed for the needs of urban road users and do not cater for long distance road users. Toilets at urban sites can clearly not cope with the needs of long distance road users.

- SANRAL's **“Policy in Respect of Road Planning and Design”** notes the following:

On National Roads, the minimum allowed spacing between service areas will depend on the Average Annual Daily Traffic in both directions. Spacing less than these limits will not be approved, unless in the sole opinion of SANRAL, the benefits to the road user, the economy and the opportunity for work creation are considered highly desirable.

AADT Veh/day	Spacing Kilometre
<5 000	50
5 000-50 000	30
>50 000	10

The above table has been derived using the estimated traffic volumes required to sustain facilities in the long term. SANRAL thus dictates the spacing according to what

		<p>they deem to be sustainable. There is no similar service and rest facility within 100 km of the site.</p> <p>An application has been submitted for a filling station ~13 km south-east of the site in a mixed-use development. However, the filling station is not designed as a rest facility for highway motorists, but rather as part of a shopping complex and new residential development.</p>
<p>Mazizi Masutu (Bay West Development)</p>	<ul style="list-style-type: none"> • Concern raised over the co-existence of a wastewater treatment plant and the Bay West City Precinct • What will the visual impacts be of the facility on the Bay West City Development? • Air pollution impacts associated with the project • Health risks associated with the project in relation to residential areas located within the precinct 	<ul style="list-style-type: none"> • The site is location ~13 km west of the Bay West development. Potential concerns regarding wastewater treatment plants include odour and surface and groundwater contamination. Considering the significant distance of the Bay West development from the site, if odours were to be created, they would be sufficiently dissipated before reaching the precinct. Surface water runoff and any potential contamination from the site would drain into the Geduldsriver which is part of the Van Standens River corridor. This is in no way connected with the drainage system that occurs in the Bay West precinct (i.e. the Baakens River system). Therefore if contamination were to occur, it would not impact on the precinct. In addition to the above, the waste water treatment plant has been designed to avoid odours and contamination. A geotechnical study has been done which shows that the site is suitable for a waste water treatment plant and that groundwater is not at risk of contamination in the case of plant failure (please refer to the

		<p>Waste Licence application).</p> <ul style="list-style-type: none"> • The facility will be visible for 2 km in either direction, and the Bay West development is ~13 km east of the site. Visual impacts of the facility on the development are therefore not expected. • Dust creation has been identified as a potential impact in construction phase. This can be mitigated through standard measures as listed in this BAR and in the Construction EMPR. • Potential health risks associated with wastewater treatment plants and fuel storage include odour, and surface and groundwater contamination, and safety risks (e.g. fires and explosions). These have been assessed in the BAR.
Department of Water Affairs	<ul style="list-style-type: none"> • commented on the need to apply for a Water Use Authorisation and to supply more detailed information when it is available 	<ul style="list-style-type: none"> • The applicant will apply for a Water Use Authorisation in terms of Section 21 of the National Water Act. DWA is registered as an I&AP and will be sent a copy of the Draft and Final BAR for comment.

Verbatim copies of all comments submitted by Interested and Affected Parties are presented below:

Schalk Potgieter



CEN IEM UNIT

36 River Road, Walmer, Port Elizabeth 6070

Fax 086 504 2549

Email

steenbok@aerosat.co.za

Registration / Comment Sheet

**Environmental Assessment and Waste Licence Application:
Construction and Operation of a Petroport and associated
infrastructure**

25 November 2011

I wish to register as an Interested and / or Affected Party and request that the following issues receive attention during the assessment process

Closing Date for Comments: 13 January 2012

Name of Respondent: Schalk Potgieter

Organisation / Company: NMBM

Address: Human Settlements Directorate

Fax Number: 086 636 1395

Tel Number: 041 5062168

Email: spotgiet@mandelametro.gov.za

Please use additional sheets as necessary

Signature: MSW Potgieter

Date: _____

Terence Liebenberg

Terence Liebenberg is a professor of political science at the University of British Columbia. He is also a senior advisor to the British Columbia government. He has written several books on political theory and practice, including *The Right to Life: A Philosophical and Political Inquiry* and *The Right to a Fair Trial: A Philosophical and Political Inquiry*.

bio

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of the author

Riana Nel



1. The first step in the process of identifying a problem is to recognize that a problem exists. This is often done by comparing current performance with a desired state or goal. Once a problem is identified, the next step is to define the problem more precisely. This involves determining the scope of the problem, the resources available, and the constraints that may be affecting the problem. The final step in this initial phase is to select a specific problem to focus on. This is often done by prioritizing problems based on their importance, urgency, and feasibility.

2. Problem Analysis

2.1. Identifying the Cause of the Problem

2.1.1. The first step in identifying the cause of the problem is to gather information about the problem. This includes identifying the symptoms of the problem, the time and place where the problem occurs, and the people who are affected by the problem.

2.1.2. The next step is to analyze the information gathered in order to identify the cause of the problem. This is often done by using the "5 Whys" technique, which involves asking "why" five times to get to the root cause of the problem.

2.1.3. Another technique for identifying the cause of the problem is to use a fishbone diagram, also known as an Ishikawa diagram. This diagram is used to identify the causes of a problem by drawing a horizontal line (the spine) and then drawing vertical lines (the ribs) that point to the problem.

2.1.4. A third technique for identifying the cause of the problem is to use a Pareto chart. This chart is used to identify the most important causes of a problem by plotting the frequency of each cause on a bar chart.

2.2. Identifying the Effects of the Problem

2.2.1. The first step in identifying the effects of the problem is to identify the symptoms of the problem. This is often done by asking "what" questions, such as "what are the symptoms of the problem?"

2.2.2. The next step is to identify the causes of the problem. This is often done by asking "why" questions, such as "why is the problem occurring?"

2.2.3. The third step is to identify the effects of the problem. This is often done by asking "what" questions, such as "what are the effects of the problem?"

2.2.4. The fourth step is to identify the consequences of the problem. This is often done by asking "what" questions, such as "what are the consequences of the problem?"

2.2.5. The fifth step is to identify the impact of the problem. This is often done by asking "what" questions, such as "what is the impact of the problem?"

2.2.6. The sixth step is to identify the long-term effects of the problem. This is often done by asking "what" questions, such as "what are the long-term effects of the problem?"

2.2.7. The seventh step is to identify the short-term effects of the problem. This is often done by asking "what" questions, such as "what are the short-term effects of the problem?"

2.3. Identifying the Resources Available

Adriaan Venter Attorneys and Associates



Lady Brooks Gebou / Lady Brooks Building
14 - 12de Straat, Menlopark, Pretoria
14 - 12th Street, Menlo Park, Pretoria
1335, Pretoria, 0001
012 346 1075
012 346 1845
012 346 6665
info@avatt.co.za

OUR REF / ONS VERW: JA VENTER/LJ/AE0022
YOUR REF / U VERW:

DATE / DATUM: 2012-01-09

CEM INTEGRATED ENVIRONMENTAL MANAGEMENT UNIT
36 RIVER ROAD
WALMER
PORT ELIZABETH
6070
TELEFAX: 086 504 2549
E-MAIL: steenbok@aerosat.co.za
ATT: DR MIKE COHEN

Sirs

**APPLICATION FOR ENVIRONMENTAL AUTHORIZATION AND WASTE LICENSE
- INTENDED PETRO PORT AND ASSOCIATED INFRASTRUCTURE
PORTIONS 147, 148 AND PORTION 86 OF THE FARM GEDULDSRIVER
PORT ELIZABETH / UITENHAGE**

We refer to the above matter and the background information document which you have dispatched on behalf of your client Suwenda 40 (Pty) Ltd in the above regard.

At the outset, we consider the dispatch of such bid document over the festive season as totally inappropriate and not permissible in terms of the National Environmental Management Act 1998 and the Regulations promulgated by virtue thereof.

**JAN ADRIAAN VENTER
BA B.PROC LLB LIMB**

We consequently hold the view that such process should properly and duly be repeated after the festive season has terminated, schools have reopened and people have returned to their offices and normal daily activities.

Despite the aforementioned abortive public participation process, we confirm that we have been instructed by several stakeholders and institutions with vested interests in the area to register as interested and affected party on their behalf and you are therefore requested to record this firm as an official interested and affected party on behalf of our clients, the details of which shall be disclosed to you in due course.

In the interim you are requested to make copies of all documentation, studies and applications received and submitted or to be submitted in this regard, available to us for scrutiny to enable us to advise our clients accordingly.

We trust you find the above in order and your cooperation in this regard shall be appreciated.

Yours faithfully



ADRIAAN VENTER
ATTORNEYS & ASSOCIATES

Maartin Friedrich

From: Mike Cohen [steenbok@aerosat.co.za]
Sent: Wednesday, December 21, 2011 7:23 AM
To: maartin@adtrp.co.za
Cc: andre@adtrp.co.za; bclark@telkomsa.net
Subject: RE: REGISTER AS I&AP - CONSTRUCTION & OPERATION OF PETRO PORT & ASSOCIATED USES - PORTIONS OF FARM GEDULTS RIVER NO 411

Dear Mr Du Toit

Many thanks for registering your client as an Interested Party for the Petroport project. We will address the issues raised in your letter and keep you informed as the project develops.

We look forward to your further participation.

Best regards

Mike



From: Maartin Friedrich [mailto:maartin@adtrp.co.za]
Sent: 20 December 2011 04:58 PM
To: steenbok@aerosat.co.za
Cc: Andre du Toit
Subject: REGISTER AS I&AP - CONSTRUCTION & OPERATION OF PETRO PORT & ASSOCIATED USES - PORTIONS OF FARM GEDULTS RIVER NO 411

Refer to the attached letter.

Kindly acknowledge receipt by fax or email to all email addresses.

Regards

Maartin Friedrich
Pr. Plan A119/2009
083 230 2800
E mail: maartin@adtrp.co.za
Andre Du Toit Town Planners
Tel: 014 576 2293
Fax: 086 671 6588

ANDRE DU TOIT

TOWN AND REGIONAL PLANNERS Property Development Consultants

Tel: (014) 576 – 2293
Fax: 086 - 671 - 6588
Cell No.: 083-659-4037
E-mail: andre@adtrp.co.za

P.O. Box 1125
Rant en Dal
1751

Our Ref.: -

Date: - Tuesday, 20 December 2011

**CEN Integrated Environmental Management Unit
36 River Road
Walmer
Port Elizabeth
6070**

SENT BY EMAIL

ATTENTION: - Dr Mike Cohen

Tel: (041) 581 2983
Fax: 086 504 2549
Email: steenbok@aerosat.co.za

Proposed Project: Proposed Construction and Operation of a Petro Port on Portion 86, 147 & 148 of the Farm Gedults River No 411 in the Division Uitenhage – south of N2 / Great West Way

REGISTRATION AS INTERESTED AND AFFECTED PARTY TO BASIC ASSESSMENT FOR THE CONSTRUCTION AND OPERATION OF PETRO PORT AND ASSOCIATED INFRASTRUCTURE

NOTICE IN THE HERALD – 25 November 2011

1. We herewith register as an **Interested and Affected Party** on behalf of **Engen Petroleum Limited**, to the proposals indicated in the Background Information Document [BID] dated 25 November 2011.
2. The Identified Issues in the BID are noted and agreed to its importance to be addressed.
3. In addition the following needs to be addressed in your Basic Assessment Report:
 - a) The impact of the proposed new facility on:
 - i) The proliferation of similar type of facilities [petro ports] and filling stations in the sub region.
 - ii) Sustainability of proposed facility in relation to the sustainability of similar facilities [petro ports] and filling stations.

4. We reserve our client's right to address your firm and the relevant department/s on the detail relating to the representations and to further elaborate and comment pertaining to our inputs opposing the proposed project in its entirety.
5. We await your Draft Basic Assessment Reports for perusal and comment.
6. It is imperative that you acknowledge receipt of this document in the space provided. Fax the same to 086 671 6588.

REGARDS



ANDRE DU TOIT

Pr Plan A/835/1995

ACKNOWLEDGEMENT OF RECEIPT:	
Name: _____	
Contact details: Phone: _____	
Email: _____	
Date: _____	
Signature: _____	

Department of Water Affairs



water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

Water Use Authorization, Private Bag X6041, **Port Elizabeth**, 6000

Tel: 041 501 0717

Fax: 086 560 5042

E-mail: bloemm@dwa.gov.za

Enquiries: M. Bloem

Ref: Construction and Operation of a Petroport

CEN Integrated Environmental Man- Unit
36 River Road
Walmer
Port Elizabeth
6070

Attention: Dr. M. Cohen

PROPOSED CONSTRUCTION AND OPERATION OF A PETROPORT AND ASSOCIATED INFRASTRUCTURE.

This office acknowledges the receipt of the Background Information Document (BID) for the aforementioned development from CEN.

Resource Protection Unit

Water Use Entitlements

After the evaluation of the document, this office has the following concerns:

- The proximity development activities to the watercourse; and
- The impact of the activities on the watercourse.

Please note that any proposed development which may take place within the extent of watercourse i.e. 1:100 year floodline or riparian zone (whichever is the greatest), constitutes a Section 21 water use in terms of Chapter 4 of the National Water Act , 1998 (Act No. 36 of 1998) (the Act) and requires authorization obtained from this Department.

Therefore, if the proposed development will take place within the extent of a watercourse, the following activities will require authorization from this department in terms of Section 21 (c) & (i) of the Act:

- Infrastructure and any form of structure constructed within the extent of the watercourse; and
 - The removal of vegetation from the riparian zones of a watercourse to accommodate the project activities will require authorization in terms of Sec 21 (i) of the Act.
-

Additional Information required

- The watercourse in the vicinity of the proposed development area must be delineated to indicate the 1:100 year floodline.
- The description of all the affected watercourses (if any) as well as the assessment of potential impacts of the proposed project and mitigation measures thereof.
- The proposed development should not affect any wetlands. If wetlands will be affected, wetland delineation must be conducted and a technical report reflecting wetland studies should be submitted to this department.

Please note that any activities that fall within 500 meter radius from the boundary of any wetland constitute a water use license in terms of sec 21 (c) and (i) of the Act.

Water Quality Unit

In order to make an informative decision more details on the proposed development is required with special emphasis on the following:

- A detailed description of the development.
- A detailed description of the sewage treatment and disposal method.
- A detailed description of the storm water management plan/system
- Erosion control measures.
- Details regarding the location of the water resources from the development.
- The impact of the proposed development on the receiving environment and mitigation measures
- Management of any hazardous waste material generated pre- and post construction.
- Spill contingency plans
- Environmental Management Plan

Yours Faithfully



Acting CHIEF DIRECTOR: EASTERN CAPE
pp Date: 15/3/12

Mazizi Msutu

Impact Consulting: www.impactconsulting.co.za
Email: mazizi@impactconsulting.co.za
Tel: [+273689650](tel:+273689650)
Address: 6057 Greenacres

Dear Sirs,

I would like to thank you for your invitation to participate in the following:

Water studies to be conducted by a team of consultants with regard to the following, amongst others to be kept:

1. The existence of a water infrastructure plan for the Big Msuthu Community.
2. The need aspects of your client's proposed project to the Big Msuthu Community.
3. Your proposed project's proximity to the Big Msuthu Community.
4. An Environmental Impact Assessment report for your proposed project.
5. The financial assessment of your proposed project to determine its viability and sustainability based on the Project's.

Regards,

Mazizi Msutu

	<p>Mazizi Msutu (IC) Impact Consulting Director 041 368 9650 Work 083 2048 140 Mobile 078 803 5282 Home mazizi.msutu@elitheni.co.za PO Box 63895 Greenacres, 6057 South Africa</p>
---	--

From: Belinda Clark [bclark@telkomsa.net]
Sent: Tuesday, November 29, 2011 7:56 AM
To: mazizi.msutu@elitheni.co.za
Cc: 'Mike Cohen'
Subject: RE: I&.AP Registration

Dear Mazizi

Thank you for registering as an interested and affected party for the project below. We have noted your comments and will ensure that they are addressed in the environmental assessment.

We will notify you as soon as a draft document is available.

Many thanks
Belinda



Belinda Clark

Working to conserve South Africa's dwindling natural resources

CEN

bclark@telkomsa.net
www.environmentcen.co.za

CEN IEM Unit
36 River Road
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mobile: 072 725 8400



CEN IEM UNIT

36 River Road, Walmer, Port Elizabeth 6070

Fax 086 504 2549

Email

steenbok@aerosat.co.za

Registration / Comment Sheet

Environmental Assessment and Waste Licence Application:
Construction and Operation of a Petroport and associated
infrastructure

25 November 2011

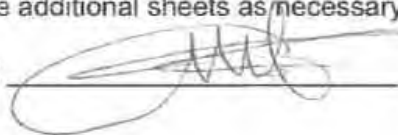
I wish to register as an Interested and / or Affected Party and request that the
following issues receive attention during the assessment process

Closing Date for Comments: 13 January 2012

Name of Respondent: Mazizi Msimu
Organisation / Company: IMPACT CONSULTING
Address: OFFICE ONE, FIRST FLOOR, KINGS COURT, WALMER
Fax Number: 041-3689651
Tel Number: 078 303 5282 or 041 368 9650
Email: mazizi.msimu@eltheni.co.za

I would like to register as
an IAP and to be kept informed
of the process.

Please use additional sheets as necessary

Signature: 

Date: 28 Nov 2011

Syd Lippstreu

From: Mike Cohen [steenbok@aerosat.co.za]
Sent: Saturday, December 03, 2011 8:12 AM
To: lipps@aerosat.co.za
Cc: Belinda Clark
Subject: Petroport
Attachments: BID.pdf

Hi Syd

I am attaching the Petroport BID for information and your input

Best regards

Mike



Dr Mike Cohen
Director

Working to conserve South Africa's dwindling natural resources

CEN

steenbok@aerosat.co.za
www.environmentcen.co.za

CEN IEM Unit
38 River Road
Walmer
Port Elizabeth
South Africa 6070
tel: +27 (041) 581 2983
fax: +27 (086) 504 2549
mobile: 082 320 3111

Patrick Cull

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]



CEN INTEGRATED ENVIRONMENTAL MANAGEMENT UNIT

Environmental and Rural Development Specialist

**Construction Environmental Management
Program for a highway rest and service
facility, tourist facilities and commercial mixed
uses and associated infrastructure, including
a Waste Water Treatment Plant on Ptn 147 of
Farm Gedults River No 411 in the Division of
Uitenhage.**

Table of Contents

Table of Contents	2
Table of Figures	3
Chapter 1: Introduction to the Environmental Management Program	4
1.1 Background	4
1.2 Purpose of the Environmental Management Programme.....	6
1.2.1 For Whom is the Plan Intended?.....	7
Chapter 2: Environmental Management Programme Requirements	8
2.1 Introduction	8
2.1.1 Management actions that must be completed prior to the commencement of all works	8
2.1.2 Response to Public Complaints.....	31
2.1.3 Environmental Compliance Monitoring.....	31
2.1.4 Corrective and Preventive Action / Management of Environmental Problems.....	34
2.1.5 Documentation	35
2.1.6 Roles and Responsibilities for the Implementation of the Environmental Management Programme	36
Chapter 3: Reference List.....	45
Appendix 1: Declared Weeds and Invader Plants	54
Appendix 2: Protected Trees under the National Forest Act.....	82

Appendix 3: List of TOPS (in terms of Biodiversity Act 10of 2004)	85
Appendix 4: Environmental Incident Log and Complaint Form	93
Environmental Log and Incident Report	94
Complaint Form.....	95

Table of Figures

➤ Figure 1: An aerial image showing the approximate location of the site (outlined in black).....	5
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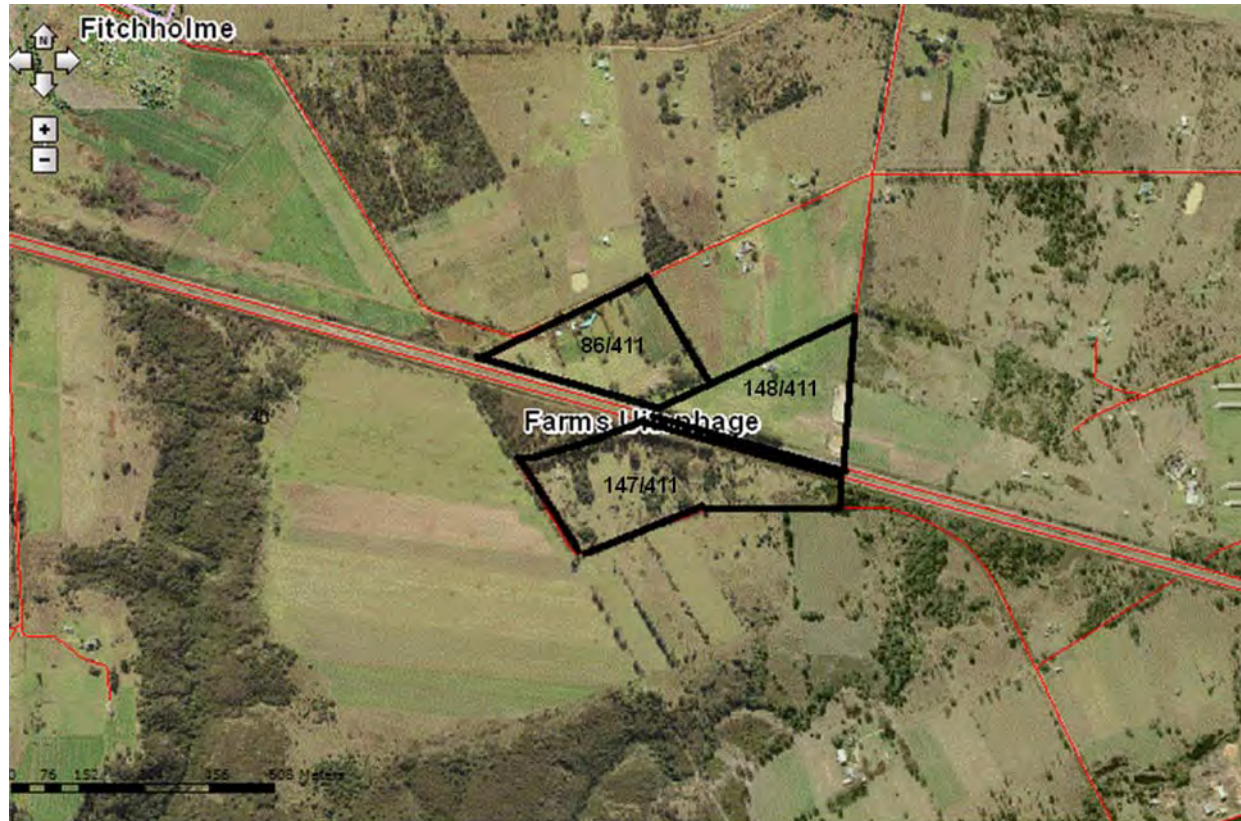
Chapter 1: Introduction to the Environmental Management Program

1.1 Background

CEN Integrated Environmental Management Unit was appointed by Suwenda 40 (Pty) Ltd to compile a Construction Environmental Management Program (EMPr) for the construction of a highway rest and service facility, tourist facilities and commercial mixed uses and associated infrastructure, including a Waste Water Treatment Plant on Ptn 147 of Farm Gedults River No 411 in the Division of Uitenhage. The aspects of the activity that will be covered in this EMPr are:

- ✿ Site planning
- ✿ Site clearing
- ✿ Site establishment
- ✿ Construction and installation of services
- ✿ Rehabilitation

Figure 1 is an aerial image showing the relative site location.



➤ Figure 1: An aerial image showing the approximate location of the site (outlined in black).

1.2 Purpose of the Environmental Management Programme

The purpose of this document is to provide a framework for the management of environmental impacts associated with the above-mentioned activities. This EMPr is a framework plan and does not provide specific management plans detailing how management actions are to be implemented, but rather is structured around a number of construction and operational phase activities and identifies where more detailed Method Statements should be developed by the contractors and the subcontractors respectively.

The appropriate contractors must submit Method Statements to the Resident Engineer or his representative and Site Environmental Control Officer outlining proposed construction activities, phasing and procedures and methods to comply with the targets stipulated in this EMPr. Method Statements should, where applicable, include Site Establishment Drawings and Plans with sufficient detail to assess the potential impact of the site facilities or to assess the degree of safeguarding provided against pollution and other impacts.

Method Statements indicate how the procedures will be applied in order to meet the relevant targets and are central to the proper implementation of the EMPr. It is anticipated that in addition to assessing the systems and performance of the EMPr, the Site Environmental Control Officer will scrutinise the formulation of, and adherence to "Method Statements" in some detail.

Method Statements must be submitted before any work on the project is undertaken. The various method statements must be approved by the Resident Engineer or his representative (in consultation with the Site Environmental Control Officer). The Resident Engineer or his representative must keep copies of these Method Statements and letters of approval (including conditions attached) in a Method Statements file.

The Resident Engineer or his representative (and the Site Environmental Control Officer) must approve any deviations from the approved Method Statements.

All amendments must be in writing and must be submitted to the Resident Engineer or his representative.

Method statements should be submitted to the Environmental Consultant for comment before final approval is issued.

The EMPr should be viewed as a dynamic document, which may require updating and / or revision during the operation and decommissioning of the project.

The successful implementation of this EMPr is dependent on its forming part of the project's management system. Without regular checks on performance and corrections of deviations from the environmental objectives, procedures and targets, the EMPr will fall into disuse and become ineffective. The EMPr, therefore, includes various elements of an Environmental Management System such as objectives and targets, the allocation of responsibilities, checking of corrective action, regular audits, and management review of the system.

1.2.1 For Whom is the Plan Intended?

The plan is a management tool and will be used primarily by the Project Manager, Resident Engineer and the contractors responsible for the onsite work. It is recommended that this EMPr should be available to the public upon request.

Chapter 2: Environmental Management Programme Requirements

2.1 Introduction

The Environmental Management Requirements are designed to address the legislation as well as issues and impacts associated with the proposed activities.

2.1.1 Management actions that must be completed prior to the commencement of all works

Objective:

To ensure that all conditions and requirements of EMPr are met.

Aspect

- ✿ Actions to be completed by the proponent and contractor prior to the commencement of the relevant construction activity

Procedure

- ✿ Review the EMPr and other relevant legislation, and convey the outstanding actions to the responsible team member.

Targets

- ✿ Ensure that all requirements are in place and that any approval is obtained in writing prior to commencing any construction activities

It is recommended that the Resident Engineer or his representative and / or the Contractors obtain copies of all relevant legislation. An updated file of all legislation should be maintained at the Resident Engineer or his representative's office.

The specific requirements in the following section are worded in broad terms and details of the actions to be undertaken must be presented in the Method Statement for each aspect. Method statements are compiled by the contractors or their sub-contractors and approved by the Resident Engineer or his representative and the Site Environmental Control Officer. All method statements are to be reviewed by the Independent Environmental Consultant.

2.1.1.1 Basic Planning

Objective

To plan the construction site to allow for sound environmental management and effective rehabilitation.

Aspect

All activities related to construction of structures and infrastructure.

Procedure

- ✿ Compile an annotated base plan / map of the site indicating the various activity zones, roads and tracks, all stockpile areas, campsites and all other areas which will be used or altered during the construction phase. The plan must also indicate environmentally sensitive and no-go areas.

- ✿ Plans for the removal and disposal of wastes and any hazardous or contaminated materials (such as; fuel drums, soil which has been contaminated with leaked fuel or oil, and alien weed infested soil) should be described as appropriate for the scale of the operation
- ✿ Note the location of registered waste disposal sites
- ✿ Develop an environmental awareness plan for all construction staff. The plan must highlight all possible environmental risks that may result from construction activities. A plan must be in place and provided to all staff on how to deal with these risks, should they occur

Targets

- ✿ Approved site plan before commencing construction
- ✿ Approved environmental awareness plan and training programme for all construction staff prior to construction commencing
- ✿ The following issues must be addressed and where appropriate shown on the Environmental Management Site Plan

Issue	Nature / Description
Sequence of events	Description of the nature of the process required. Briefly describe the sequence of events that will take place from the time that the contractor moves onto site to the time when the site is handed over to the Project Proponent
Health and safety	Potential risks and hazards and precautions that will be taken Cooking area, hazardous materials site, first aid kit, fuel store, security issues, fire management, barricading of work areas to ensure public safety, traffic control when constructing the on-and-off ramps

Issue	Nature / Description
On site toilets	<p>How many required for the particular development? Are there existing ablution facilities that can be used? If not, how many toilets need to be brought to site and how long are the toilets required on site? Location of toilets (Site Plan)</p>
Workforce	<p>Number of onsite workers Training of workforce in terms of environmental awareness Management of workforce, particularly sub-contractors</p>
Transport and traffic	<p>Transport required for site workers Routes to be used by construction vehicles Demarcate location of traffic turning circle and parking areas (Site Plan)</p>
Infrastructure and associated equipment	<p>Nature and extent of infrastructure needed for construction Indicate on site plan</p>
Material storage (e.g. sand needed to build wall)	<p>Approximation of quantity to be excavated Where to be stockpiled (Site Plan) How long to be stockpiled Area required for stockpile</p>

Issue	Nature / Description
Earthworks/cleaning	<p>Volume of material to be excavated/cleaned Duration of operations Where stocks to be kept on site (Site Plan) How long to be kept on site Where, when and how to be disposed of Recycling and/or re-use of materials</p>
Equipment needed for construction activities	<p>Area required for material and equipment storage Duration of works Nature of equipment and necessary materials</p>
Drinking water	<p>Quantity required Duration of period in which required Source of water Location of potable water (Site Plan)</p>
Cooking and rest areas	<p>Area required Equipment required e.g. gas stoves, matches etc. Shelter Location – indicate on site plan</p>
Existing structures	<p>Indication of location of any structures that need to be removed and/or protected</p>

Issue	Nature / Description
Life of project	Working hours Time frame Phasing of work areas
Construction site	Work area required Location of construction site and work area (Site Plan) Demarcation of no-go areas
Environmentally sensitive areas and possible environmental risks associated with construction activities	A plan of environmentally sensitive areas must be drawn up and made available to contractors. A training programme on possible environmental risks that may result from construction activities and how to deal with these (including a reporting structure) must be made available prior to construction commencing.
Waste management	Litter drums - number, type, size, location (Site Plan) Closest registered waste disposal site (Location map) Waste management plan Recycling / material re-use options

2.1.1.2 Restriction of Working Areas

Objective

To keep the demarcated and /or fenced off work area as small as possible. To restrict work to demarcated areas only.

Aspects

The effective demarcation of the construction site

Procedure

- ✿ The demarcated area must cover as small an area as possible.
- ✿ Prior to any construction beginning, the actual site to be worked must be clearly demarcated by means of highly visible durable tape.
- ✿ Once the demarcated area has been approved a written motivation to alter the boundary must be submitted to the Resident Engineer or his representative for consideration and (possible) approval.
- ✿ The markings of the site must be maintained throughout the construction period, as and where determined by the Resident Engineer or his representative. This is to ensure that unnecessary damage is not done to the surrounding areas. It will also ensure the safety of people working on site and people moving in the vicinity of the site.
- ✿ All site workers must be informed of the limits of the site and should be instructed not to utilise areas outside of the defined activity zone.
- ✿ All construction material and machinery required for construction activities should be located within the demarcated activity zone. No activities or dumping may take place outside of the demarcated activity zone
- ✿ A comprehensive set of photographs should be taken of the site prior to commencing any construction.
- ✿ At the end of construction activities all components of the marking system (tape and poles) must be removed, to the satisfaction of the Resident Engineer or his representative.
- ✿ Vehicles must be instructed to remain on the track and deviations from the approved track must not be permitted.