

LEGEND	
	CADASTRAL
	EXISTING ROADS
	EXISTING ISLANDS
	EXISTING GRAVEL ROAD
	PROPOSED ROAD
	PROPOSED DEVELOPMENT
	PROPOSED GAS/LNG PIPELINES

SCALE 1: 6000

SCALE 1:6000

SCALE 1:4000

UTSHINTSHO / AMENDMENTS		UMLINGAN-ISELO SCALE	UMLINGANISELO WOMZOBO OHLISWIYO SCALE ON REDUCED DRAWING	UMENZI DESIGN	MSJIC	ENGINEERING ADVICE AND SERVICES associated with ULWAZI	IVUNYELWE APPROVED	IVUNYELWE APPROVED	PROJECT / PROJECT	INANI LESIVUMELWANO CONTRACT NO.
TRANT NO.	INCICAZA DESCRIPTION	IVUNYELWE APPROVED	AS SHOWN	UMZOSI DRAWN	TF	73 Hough Road, Welmer P.O. Box 13887 Hurmeewood Port Elizabeth 6013 Tel: (041) 881 2421	INJINELL/ENG.	UMENZELWA / CLIENT	TRAFFIC IMPACT ASSESSMENT FOR A PROPOSED LIQUID NATURAL GAS TERMINAL AND VEHICLE DISTRIBUTION FACILITY IN ZONE 10 OF THE COEGA SPECIAL ECONOMIC ZONE	INANI LOMZOBO DWG. NO. 1768-P-012
			20mm KUMZOBO WANGAPHAMBILI 20mm ON ORIGINAL DRAWING	IVUNYELWE APPROVED	CH		UMHLA / DATE	UMHLA / DATE	UMZOBONKCAZA / DWG DESCRIPTION	
				UMHLA DATE	JULY 2020				FIGURE 12: PROPOSED ACCESS ARRANGEMENTS	

## 6 CAPACITY ANALYSIS

### 6.1 INTERSECTION CAPACITY

**Level of Service (LOS)** is defined as the operating condition that may occur at an intersection when it accommodates various traffic volumes. LOS is a qualitative measure of the effect of speed, travel time, traffic interruptions, freedom to manoeuvre, safety, driving comfort and convenience, and operating costs. **LOS C** is considered an acceptable design standard for SANRAL roads. The LOS applicable to intersections under various control conditions, as defined in the **Highway Capacity Manual** <sup>(8)</sup> are indicated in **Table 5** below:

**Table 4: Level of Service definitions for Vehicles (Highway Capacity Manual <sup>(8)</sup> method)**

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

The capacity analysis for each scenario was undertaken using the **SIDRA Intersection 9** <sup>(9)</sup> capacity analysis method and applying the **Highway Capacity Manual** <sup>(8)</sup> gap acceptance criteria for unsignalised intersections where applicable.

#### 6.1.1 Current Situation - 2020

In this scenario, the traffic situation was analysed in order to determine the Level of Service at which the affected intersections and access point would operate under current conditions - 2020 development horizon.

The results are shown in **Table 5** below and the detailed SIDRA output sheets attached as **Annexure F**.

**Table 5: Results of Intersection Capacity Analysis – 2020 Existing**

Intersection	Delay		V/C		LOS*	
	AM	PM	AM	PM	AM	PM
N2 / Ring Road North	5.1 (8.4)	2.9 (7.8)	0.048 (0.048)	0.016 (0.016)	A* (A)	A* (A)
N2 / Ring Road South	3.4 (9.3)	4.7 (7.8)	0.030 (0.017)	0.039 (0.039)	A* (A)	A* (A*)

\* - **SIDRA Intersection Network 9** <sup>(9)</sup> does not calculate intersection LOS for stop-controlled intersections. The LOS indicated is sourced from the **Highway Capacity Manual** <sup>(8)</sup> (**Table 4** **Error! Reference source not found.** above).

(B) – Side Road Delay and LOS

The results of the analysis indicate that the affected junctions operate at LOS A with no problems in terms of capacity.

### 6.1.2 Construction - 2020

In this scenario, the impact of peak hour construction traffic for the Liquefied Natural Gas terminal and distribution facility on the affected junctions is assessed.

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

**Table 6: Results of Intersection Capacity Analysis – 2020 - Construction**

Intersection	Delay		V/C		LOS*	
	AM	PM	AM	PM	AM	PM
N2 / Ring Road North	6.8 (7.8)	5.2 (8.0)	0.280 (0.280)	0.062 (0.062)	A* (A)	A* (A)
N2 / Ring Road South	2.4 (9.2)	4.3 (8.3)	0.143 (0.071)	0.178 (0.050)	A* (A)	A* (A)

\* - **SIDRA Intersection Network 9** <sup>(9)</sup> does not calculate intersection LOS for stop-controlled intersections. The LOS indicated is sourced from the **Highway Capacity Manual** <sup>(8)</sup> (Table 4 above).

(B) – Side Road Delay and LOS

The results of the capacity analysis in **Table 6** indicate that the affected junctions operate at LOS A with no problems in terms of capacity.

Given the significantly lower peak hour volumes generated after construction, i.e. during operation of the Liquefied Natural Gas terminal and distribution facility, it is submitted that it is not necessary to conduct analysis for the operational situation as the LOS will be better than that of the construction situation.

### 6.1.3 After Development - 2030

It is not possible to accurately determine turning movements for traffic generated by the full development of Zones 7 and 10 for the 2030 development horizon given the uncertainty regarding future development, and that only link volumes are output from the Transport Demand Model.

This scenario assesses the impact of peak hour operational traffic for the Liquefied Natural Gas terminal and distribution facility and the Zone 10 North and South and Zone 13 power plants combined, added to escalated background traffic volumes as well as operational traffic volumes for known other developments on the affected junctions, namely, the ENGIE Zone 13 power plant, the Tank Farm and OGTC.

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

**Table 7: Results of Intersection Capacity Analysis - 2030**

Intersection	Delay		V/C		LOS*	
	AM	PM	AM	PM	AM	PM
N2 / Ring Road North	4.0 (10.6)	1.6 (11.0)	0.323 (0.323)	0.158 (0.112)	A* (B)	A* (B)
N2 / Ring Road South	2.8 (8.5)	4.9 (8.7)	0.090 (0.039)	0.106 (0.062)	A* (A)	A (A)

\* - **SIDRA Intersection Network 9** <sup>(9)</sup> does not calculate intersection LOS for stop-controlled intersections. The LOS indicated is sourced from the **Highway Capacity Manual** <sup>(8)</sup> (Table 4 above).

(B) – Side Road Delay and LOS

The results of the capacity analysis in **Table 7** indicate that the affected junctions operate at LOS A with no problems in terms of capacity and that the proposed roads and junctions can adequately accommodate traffic volumes generated by the Liquefied Natural Gas terminal and distribution facility and both power plants.

## 6.2 LINK CAPACITY

Vehicle/Capacity (V/C) ratios are based on the **Highway Capacity Manual** <sup>(8)</sup>. The V/C categories have been grouped as follows: 20%, 40%, 60%, 80%, 100% and >100%. These ratios can be roughly equated to Level of Service (LOS), which is based on the average through vehicle speed for the link of the urban street under consideration. The LOS categories with estimated V/C ratios are described in **Table 8** below.

**Table 8: V/C and Estimated Corresponding LOS with Qualitative Description of LOS**

V/C	LOS	Qualitative description
0-20	A	Free flow; individual drivers are virtually unaffected by the presence of other vehicles on the road. (Travel speeds of approx. 90% of free flow speed).
21-40	B	A region of stable traffic flow but the presence of other vehicles on the road begins to be noticeable. (Travel speeds of approx. 70% of free flow speed).
41-60	C	A region of stable flow; individual drivers begin to be significantly affected by other vehicles. (Travel speeds of approx. 50% of free flow speed).
61-80	D	The onset of unstable flow; the two opposing directions of traffic begin to operate separately as overtaking becomes extremely difficult. (Travel speeds of approx. 40% of free flow speed).
81-100	E	Operating conditions are at/or near the capacity level. (Travel speeds of approx. 33% or less of free flow speed).
>100	F	Unacceptable to drivers, traffic volumes greater than the available capacity, operations characterised by stop-and-start waves. (Travel speeds of approx. 25 to 33% of free flow speed).

Considering the link volumes and minimum lane requirements along Ring Road for the Full SEZ development horizon, the links are expected to operate at LOS B to D as indicated in **Table 9** below.

Note that these volumes are AM peak hour volumes. The volumes are expected to reverse during the PM peak hour.

**Table 9: V/C and Estimated Corresponding LOS for Full SEZ Development - 2030**

Description	Direction	AM Peak Traffic Volume (Max)	Theoretical Peak Capacity <sup>#</sup>	Lanes per Direction	V/C	Level of Service
Ring Road – N2 to Circle	SB	1556	3300	2	0.47	C
	NB	910	3300	2	0.28	B
Ring Road – Circle to Zone 8 * (Assumed 50% of N2 to circle)	WB	778	2200	2	0.35	B
	EB	455	2200	2	0.21	B

\* Assumed 50% of N2 to circle volumes

# Hourly lane capacities on arterial and collector roads are 1 650 and 1100 vehicles per hour respectively.

It is noted that Ring Road would require two lanes by direction at this stage to ensure that it operates at level of service E or better – preferably LOS D.

The portion of Ring Road would only require two lanes per direction should LOS exceed 80% of capacity, i.e. > 800 veh / hour.

In summary, it is considered that the current and future road network can comfortably accommodate the peak hour traffic volumes generated by the proposed Liquefied Natural Gas Terminal and distribution facility

## **7 PEDESTRIAN, PARKING AND LOADING REQUIREMENTS**

### **7.1 PARKING REQUIREMENTS**

Parking requirements for manufacturing developments is currently provided in terms of the in terms of the **Department of Transport Parking Standards** <sup>(10)</sup> namely, 1 bay per 100m<sup>2</sup> in respect of warehouse or manufacturing space and 2.5 bays per 100m<sup>2</sup> in terms of office space.

Specific requirements for the Liquefied Natural Gas terminal and distribution facility will be determined at Site Development Plan submission stage.

### **7.2 PEDESTRIAN ARRANGEMENTS**

The road cross-sections for each category of road in the Coega IDZ have been planned to accommodate pedestrian sidewalks. Provision for 2m sidewalks has been made along Ring Road 1 although final surface treatment has yet to be applied.

Given that the Liquefied Natural Gas terminal and distribution facility is located far from busy public transport routes and residential areas, pedestrian facilities will only be provided between sites and possible future public transport stops.

### **7.3 LOADING REQUIREMENTS**

Specific areas for deliveries will be specified at Site Development Plan submission stage.

## 8 POTENTIAL IMPACTS

### 8.1 IMPACTS

The following potential traffic related impacts relating to the proposed Liquefied Natural Gas terminal and distribution facility have been identified. Note that the impacts will occur both in the short-term (i.e. during the construction phase) and medium to long-term once the plant is completed (operational phase).

- Road Capacity

Additional vehicle trips generated by the proposed development (up to 323 and 29 additional trips during the AM and PM peak hours for the construction and operational scenarios respectively) will have minimal impact in terms of road capacity given the current low hourly volumes along the road links and at the affected intersections and low trips generated by the proposed power plant.

- Access

Access to the development will be provided from Ring Road as indicated on **Figure 12**.

- Road Pavement

The **Coega IDZ Demand Modelling Report** <sup>(5)</sup> indicates that all Class 2 roads would likely need to accommodate 7.5 million E80s per lane over a 20-year period. Given that the Ring Road is a class 2 road it has likely been designed for these volumes. As such the number of E80s generated by the Gas Distribution plant traffic over the 20-year period is minimal.

- Traffic Safety

Safety issues may initially be a concern given low traffic volumes as traffic is likely to operate at high speeds in low traffic environments.

### 8.2 IMPACT ASSESSMENT

A general assessment has been undertaken of the identified impacts for both the construction/development and operational phases of the development. Cumulative operational impacts are also assessed. Note that this assessment does not deal with issues relating to noise, emissions, job creation or environmental matters, as the author is not qualified to comment on these. If necessary, such key issues will be addressed in separate specialist assessments.

The significance of an impact is defined as a combination of the consequence of the impact occurring and the probability that the impact will occur. The criteria used to determine the impact consequences from which a consequence rating is developed, the probability of the impact occurring and the rating system used to determine the overall significance of impacts is attached as **Annexure I**.

The end result will be presentation of the significance rating for each identified impact as follows:

**Table 10: Significance rating for specific impact (Example: Additional Lane capacity at access)**

	Spatial Extent	Intensity	Duration	Consequence	Probability	Significance	+-	Confidence	Reversibility
<b>Before Management</b>	Local	Medium	Medium term	Low	Definite	Low	-	High	Medium
<b>Management Measures</b>									
<ul style="list-style-type: none"> <li>• Construct new traffic lane approaching access</li> <li>• Ensure designs prepared as per specified standards;</li> <li>• Designs submitted to all relevant authorities;</li> <li>• Ensure suitable traffic accommodation measures in place to safeguard other road users;</li> </ul>									
<b>After Management</b>	Local	Low	Short-term	Very Low	Probable	Very Low	-	High	High

The results of the impact assessment for each identified impact are indicated in **Tables 11 to 15** in sections 8.2.1, 8.2.2 and 8.2.3 overleaf. The assessment process for each impact is attached as **Annexure J**.

### 8.2.1 Construction Phase

**Table 11: Significance rating: Additional traffic volumes**

	Spatial Extent	Intensity	Duration	Consequence	Probability	Significance	+-	Confidence	Reversibility
<b>Before Management</b>	Local	Low	Short-term	Very Low	Definite	<b>Very Low</b>	-	High	High
Management Measures - Essential									
<ul style="list-style-type: none"> <li>• Provide suitable traffic accommodation measures as part of construction contract to inform other road users of presence of construction related traffic;</li> <li>• Traffic accommodation measures to be provided in terms of Chapter 13 of the South African Road Traffic Signs Manual;</li> <li>• Measures to be provided subject to approval by the Engineer; and</li> <li>• Ensure construction traffic is confined to site area.</li> </ul>									
<b>After Management</b>	Local	Low	Short-term	Very Low	Definite	Very Low	-	High	High

**Table 12: Significance rating: Additional Axle Loading**

	Spatial Extent	Intensity	Duration	Consequence	Probability	Significance	+-	Confidence	Reversibility
<b>Before Management</b>	Local	Low	Medium term	Very Low	Definite	<b>Very Low</b>	-	High	Medium
Management Measures - Essential									
<ul style="list-style-type: none"> <li>• Minimise need for continuous construction traffic on Ring Road by confining construction traffic to the site;</li> <li>• Ensure that vehicle loads are within legislated limits, i.e. maximum Gross vehicle mass of 56 000kg; and</li> <li>• Source relevant permits from the ECDoT should abnormal loads be required for transport of components.</li> </ul>									
<b>After Management</b>	Local	Low	Medium-term	Very Low	Definite	<b>Very Low</b>	+	High	Medium

**Table 13: Significance rating: Traffic Safety Impact due to high-speed traffic**

	Spatial Extent	Intensity	Duration	Consequence	Probability	Significance	+-	Confidence	Reversibility
<b>Before Management</b>	Local	Low	Medium-term	Very Low	Probable	<b>Very Low</b>	-	High	Medium
Management Measures - Essential									
<ul style="list-style-type: none"> <li>• Provide suitable traffic accommodation measures as part of construction contract to inform other road users of presence of construction related traffic, including speed restriction signage; and</li> <li>• Increased law enforcement protocols.</li> </ul>									
<b>After Management</b>	Local	Low	Medium-term	Very Low	Probable	Very Low	+	High	High

## 8.2.2 Operational Phase – Distribution Facility

**Table 14: Significance rating: Road and Intersection capacity (additional traffic loading)**

	Spatial Extent	Intensity	Duration	Consequence	Probability	Significance	+-	Confidence	Reversibility
Before Management	Local	Low	Long-term	Very Low	Definite	Very Low	-	High	Low
Management Measures									
<ul style="list-style-type: none"> <li>No measures required to accommodate additional traffic.</li> </ul>									
After Management	Local	Low	Long-term	Very Low	Definite	Very Low	-	High	Low

**Table 15: Significance rating: Traffic Safety Impact due to additional traffic**

	Spatial Extent	Intensity	Duration	Consequence	Probability	Significance	+-	Confidence	Reversibility
Before Management	Local	Low	Long-term	Very Low	Definite	Very Low	-	High	Medium
Management Measures - Essential									
<ul style="list-style-type: none"> <li>Suitable warning traffic signage be provided to ensure safe operation along Ring Road; and</li> <li>Ongoing enforcement along access roads.</li> </ul>									
After Management	Local	Low	Long-term	Very Low	Definite	Very Low	-	High	Medium

## 8.2.3 Cumulative Impacts - Operational Phase

**Table 16: Significance rating: Road and Intersection capacity (additional traffic loading)**

	Spatial Extent	Intensity	Duration	Consequence	Probability	Significance	+-	Confidence	Reversibility
Before Management	Local	Low	Long-term	Very Low	Definite	Very Low	-	High	Low
Management Measures									
<ul style="list-style-type: none"> <li>No measures required to accommodate additional traffic.</li> </ul>									
After Management	Local	Low	Long-term	Very Low	Definite	Very Low	-	High	Low

**Table 17: Significance rating: Traffic Safety Impact due to additional traffic**

	Spatial Extent	Intensity	Duration	Consequence	Probability	Significance	+-	Confidence	Reversibility
Before Management	Local	Low	Long-term	Very Low	Definite	Very Low	-	High	Medium
Management Measures - Essential									
<ul style="list-style-type: none"> <li>Suitable warning traffic signage be provided to ensure safe operation along Ring Road; and</li> <li>Ongoing enforcement along access roads.</li> </ul>									
After Management	Local	Low	Long-term	Very Low	Definite	Very Low	-	High	Medium



## 9 PROPOSED MITIGATORY MEASURES

Measures to improve the safety of the existing road and to mitigate against the impact of the additional traffic volumes generated are listed below.

### 9.1 ROAD CAPACITY MEASURES

As discussed in **Chapter 6** the additional generated peak hour traffic volumes are unlikely to impact on road and junction capacity.

Additional road capacity (widening) is thus not required apart from specific requirements at the proposed access point. A minimum of two entering lanes set back at least one truck length from the site boundary is required to ensure no impact on through traffic flow.

### 9.2 PAVEMENT LOADING MEASURES

As discussed in **Chapter 6** the additional generated daily traffic volumes are unlikely to impact on the road pavement as the road has been designed to accommodate the required axle loading for full SEZ development.

As such no additional road upgrades are necessary to accommodate the generated axle loads, provided that transported loads are within legislated limits.

### 9.3 TRAFFIC SAFETY MEASURES

Suitable traffic accommodation and speed control signage must be provided both during construction and operation of the Liquefied Natural Gas terminal and distribution facility to ensure traffic safety, particularly in the initial development of Zones 7 and 10 when low traffic volumes may lead to higher operational speeds.

## 10 MANAGEMENT ACTIONS

The following management actions should be implemented in order to minimise the impact of the development on other road users:

- Traffic Accommodation Measures  
Suitable traffic accommodation measures be provided during construction to ensure safety of all road users;
- Warning traffic signs

Appropriate warning traffic signs (in accordance with the South African Road Traffic Signs Manual <sup>(10)</sup>) should be erected to warn road users.

## 11 CONCLUSIONS

The following conclusions can be drawn from the study:

- Access to the proposed development can be provided directly from an Extension of the Ring Road from the existing roundabout as indicated on **Figure 12**;
- The development generates approximately 323 AM and PM peak hour trips during the Construction Phase which equates to approximately 13 % of projected peak hour volumes on Ring Road, although these vehicle trips are only during the construction phase it is important to note that there is plenty of spare capacity on Ring Road;
- The development generates 29 AM and PM peak hour trips during the Operational Phase which equates to approximately 1.2 % of projected peak hour volumes on Ring Road;
- The existing roads have been designed to accommodate traffic generated by the full SEZ development;
- No impact is expected provided that all heavy vehicle loading is within legislated limits;
- During full utilization capacity analysis indicates that no capacity concerns are realized; and
- Capacity analysis indicates that the affected junctions operate at high LOS for the construction scenario and with the Liquefied Natural Gas terminal and distribution facility and both power plants as well as the ENGIE Zone 13 power plant and Karpowership operational.

## 12 RECOMMENDATIONS

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

- The relevant mitigatory measures be implemented by the developer during and after construction; and
- Access to the site be provided as indicated on **Figure 12**.

## 13 REFERENCES

1. *Joubert, Sampson, et al, TMH 16 Vol 1- South African Traffic Impact and Site Assessment Manual*, COTO, September 2013.
2. *Joubert, Sampson, et al, TMH 17 Vol 1- South African Trip Data Manual*, COTO, September 2013.
3. *COTO, TRH26 - South African Road Classification and Access Management Manual*, South African National Roads Agency, August 2012.
4. *SRK Consulting, Draft Scoping report for Proposed Coega 3000MW Integrated Gas to Power Project*, Coega Development Corporation, September 2019.
5. *BKS associated with EAS, Coega Industrial Development Zone Transport Study – Vol 3: Demand Modelling Report*, Coega Development Corporation, September 2007.
6. *BKS associated with EAS, Coega Industrial Development Zone Transport Study – Vol 4: Public Transport Report*, Coega Development Corporation, September 2007.
7. *Prism Environmental Management Services, EIA Report Bay Terminals Group Coega Tank Farm*, Bay Terminals Group, November 2018.
8. *Transportation Research Board, Highway Capacity Manual*, 2000.
9. *Akcelik & Associates (Pty) Ltd, SIDRA Intersection 8 User Guide*, SIDRA Solutions, April 2018.
10. *COLTO Roads Coordinating Committee, SADC Road Traffic Signs Manual*, Department of Transport, 2003.
11. *Department of Transport, PG3/85 - Parking Standards*, Department of Transport, November 1985.

**ANNEXURE A**  
**Land Use**  
**Approvals**

**NELSON MANDELA METROPOLITAN MUNICIPALITY**  
(PORT ELIZABETH)

**Office of the Director : Administration**

✉ 116, Port Elizabeth 6000  
☎ (041) 506-3111  
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Your Reference:	DEALS WITH THIS MATTER:	<b>MRS V CAMERON</b>
Our Reference: <b>E01/26/00001P116</b>	Telephone:	<b>506-3321</b>
Date: <b>3 December 2001</b>	Facsimile:	<b>506-3430</b>

Messrs Metroplan  
P O Box 12313  
**CENTRAHIL**  
6006

Dear Madam

**TOWN PLANNING AMENDMENT 4753 : REZONING OF FARM NEPTUNE 690, PORTIONS 12, 13, 22, 24, 29, 33, 34 AND 35 OF THE FARM SWARTEKOPPEN 302, REMAINDER OF PORTION 6 OF THE FARM SWARTEKOPPEN 302, PORTION 1 OF ERF 551, WELLS ESTATE, ERVEN 9 AND 10, WELLS ESTATE AND PORTION OF REMAINDER ERF 1, WELLS ESTATE (COEGA IDZ)**

I refer to previous correspondence in this regard and wish to advise that the Executive Mayor, at its meeting held on 28 November 2001, resolved as follows:

- (a) That the Development Framework Plan, dated September 2000 be adopted as the policy document to regulate development in the Coega IDZ, subject to any amendments being submitted to Council for approval.
- (b) That, notwithstanding the objections received and in terms of Provincial Circular LDC/GOK 9/1988, the Port Elizabeth Zoning Scheme be amended (TPA 4735) by the rezoning of Portion 1, Portion of Remainder Erf 1, Erven 9 and 10 of Wells Estate no. 551, from Undetermined to Special purposes, subject to the following conditions:
  - (i) the approved Development Framework Plan being complied with;
  - (ii) architecture, infrastructure and landscaping guidelines, which should specifically address advertising signage on buildings that may be visible from the National Road (N2), being to the satisfaction of the City Engineer;
  - (iii) the services agreements to be concluded between Council and the CDC being complied with;
  - (iv) the development management plan being to the satisfaction of the City Engineer;

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- (v) an open space system, that will not only ensure the protection of environmentally sensitive areas, but also provide passive or active recreation areas where the general public has freedom of movement, being formulated for the IDZ. This system also being integrated into the city's Metropolitan Open Space System (MOSS) to the satisfaction of the City Engineer;
- (vi) a landscaped "green belt" (30 m wide) being provided along the northern and western boundaries of St George's Village with emphasis on visual screening methods (e.g. tree planting and berming) to act as a buffer between the zone and the residential area. A proposal being submitted to the satisfaction and for the approval of the City Engineer;
- (vii) the Integrated Transportation study and procedures and responsibility for the management, operation, maintenance and implementation of the transportation system as further amplified and specified in agreements between the CDC and NMMM, being implemented;
- (viii) the standard conditions in respect of the preparation of localised traffic impact assessments where deemed necessary by the Council applying;
- (ix) Permitted uses : being in accordance with the approved Development Framework Plan;
- (x) Prohibited uses : residential uses;
- (xi) minimum development controls as specified by the approved Architecture, Infrastructure and Landscaping Guidelines;
- (xii) the following legislation being complied with:
  - Environmental Conservation Act, 1989 (Act no.73 of 1989)
  - National Roads Act, 1971 (Act no. 54 of 1971)
  - Advertising on Roads and Ribbon Development Act, 1940 (Act No. 21 of 1940)
  - Sea Shores Act, 1935 (Act no. 21 of 1935)
  - Physical planning Act, 1991 (Act 125 of 1991)
  - Land Use Planning Ordinance (Ordinance 15 of 1985)
  - National Building Regulations and Building Standards Act, 1977 (Act 103 of 1977)
  - Development Facilitation Act, 1995 (Act no. 67 of 1995)
  - Removal of Restrictions Act, 1967 (Act no. 84 of 1967)
  - Development Management Act, 1993 (Act no. 187 of 1993)
  - Port of Coega Establishment Bill, 1998 (Bill no 73 of 1998)
  - National Land Transition Act, 2000 (Act no. 22 of 2000)
- (xiii) should the IDZ fail to materialise within two years from the approval date of this application, Council may initiate steps for the land to revert back to its original zoning.

- (c) That, notwithstanding the objections received and in terms of the Section 8 Regulations of the Land Use Planning Ordinance, Farm Neptune 580, and Portions 12, 13, 22, 24, 29, 33, 34, 35 and Remainder of Portion 6 of the Farm Swartkoppen, be rezoned (TPA4735) from Agriculture Zone 1 to Special Zone (IDZ), subject to the following conditions:
- (i) the approved Development Framework Plan being complied with;
  - (ii) architecture, infrastructure and landscaping guidelines, which should specifically address advertising signage on buildings that may be visible from the National Road (N2), being to the satisfaction of the City Engineer;
  - (iii) the services agreements to be concluded between Council and the CDC being complied with;
  - (iv) the development management plan being to the satisfaction of the City Engineer;
  - (v) an open space system, that will not only ensure the protection of environmentally sensitive areas, but also provide passive or active recreation areas where the general public have freedom of movement, being formulated for the IDZ. This system should also be integrated into the city's Metropolitan Open Space System (MOSS). The open space system being to the satisfaction of the City Engineer;
  - (vi) a landscaped "green belt" (30 m wide) being provided along the northern and western boundaries of St George's Village with emphasis on visual screening methods (e.g. tree planting and berming) to act as a buffer between the zone and the residential area. A proposal being submitted to the satisfaction and for the approval of the City Engineer;
  - (vii) the Integrated Transportation study and procedures and responsibility for the management, operation, maintenance and implementation of the transportation system as further amplified and specified in agreements between the CDC and NMMM, being implemented;
  - (viii) the standard conditions in respect of the preparation of localised traffic impact assessments where deemed necessary by the Council applying;
  - (ix) Permitted uses : being in accordance with the approved Development Framework Plan;
  - (x) Prohibited uses : residential uses;
  - (xi) minimum development controls as specified by the approved Architecture, Infrastructure and Landscaping Guidelines;
  - (xii) the following legislation being complied with:
    - Environmental Conservation Act, 1989 (Act no.73 of 1989)
    - National Roads Act, 1971 (Act no. 54 of 1971)
    - Advertising on Roads and Ribbon Development Act, 1940 (Act No. 21 of 1940)
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    - Physical planning Act, 1991 (Act 125 of 1991)

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- National Building Regulations and Building Standards Act, 1977 (Act 103 of 1977)
- Development Facilitation Act, 1995 (Act no. 67 of 1995)
- Removal of Restrictions Act, 1967 (Act no. 84 of 1967)
- Development Management Act, 1993 (Act no. 187 of 1993)
- Port of Coega Establishment Bill, 1998 (Bill no 73 of 1998)
- National Land Transition Act, 2000 (Act no. 22 of 2000)

(xiii) should the IDZ fail to materialise within two years from the approval date of this application, Council may initiate steps for the land to revert back to its original zoning.

Please advise your client that:

- (i) the subject properties may not be used for the intended purpose until such time as all the conditions of rezoning have been complied with and, therefore, I would urge your client's early compliance therewith; and
- (ii) should the subject properties be used for the intended purposes before all the conditions of rezoning are complied with, legal action will be instituted to ensure cessation of same.

Kindly note that the above decision was taken in terms of Provincial Circular LDC/GOK 8/1988, in terms of which your client has the right of appeal against same.

Should your client wish to exercise this right, please note that the appeal should be in writing, fully motivated and addressed to the Regional Director: Regional Office for Housing and Local Government, Private Bag X6005, Port Elizabeth 6000, with a copy thereof submitted to this office, same to reach both on or before 21 December 2001.

Please also note that the objectors in this regard have a similar right of appeal and should same be exercised, I will write to you again.

Yours faithfully

**DIRECTOR : ADMINISTRATION**

VC-1U-3/BK

# NELSON MANDELA METROPOLITAN MUNICIPALITY



## Office of the Business Unit Manager Housing and Land Affairs

116, Port Elizabeth 6001  
Tel: (041) 506-3111  
Fax: (041) 506-3430

Your Reference:

DEALS WITH THIS MATTER: **MRS V CAMERON**

Our Reference: **E01/26/00001P116**

Telephone: **506-3321**

Date: **28 January 2003**

Facsimile: **506-3430**

Messrs Metroplan  
P O Box 12313  
**CENTRAHIL**  
6006

**FAX TO:** A. Zeiss

COMPANY: \_\_\_\_\_ PAGE 1 OF 3

FAX NO: 5855445 DATE: 27/1/2003

FROM: A. Pausse

COMPANY: Metroplan PHONE NO: 3731843

FAX NO: 373828

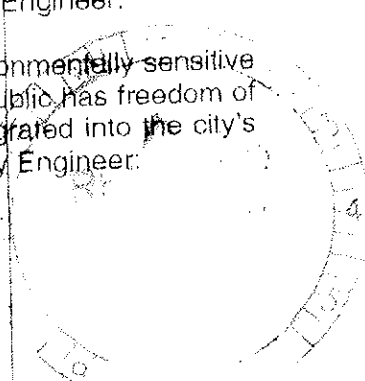
Dear Madam

### TOWN PLANNING AMENDMENT 4908 : REZONING OF PORTIONS 13 AND 15 (PORTIONS OF PORTION 2) OF THE FARM SWARTEKOPPEN NO. 302; PORTION 36 (A PORTION OF PORTION 14) OF THE FARM SWARTEKOPPEN NO. 302, PORTION 47 OF THE FARM SWARTEKOPPEN NO. 302 AND REMAINDER OF PORTION 14 (A PORTION OF PORTION 2) OF THE FARM SWARTEKOPPEN NO. 302 (COEGA IDZ)

I refer to previous correspondence in this regard and wish to advise that the Executive Mayor on 4 December 2002, resolved that, in terms of Provincial Circular LDC/GOK 9/1988, the Section 8 Scheme Regulations as contained in Land Use Planning Ordinance (Ordinance 15 of 1985) be amended (TPA 4908) by the rezoning of Portions 13 and 15 (portions of Portion 2) of the farm Swartekoppen no. 302, Portion 36 (portion of Portion 14) of the Farm Swartekoppen no. 302, Portion 47 of the Farm Swartekoppen no. 302 and Remainder of Portion 14 (a portion of Portion 2) of the Farm Swartekoppen no. 302, from Agricultural Zone 1 to Special Zone (IDZ), subject to the following conditions:

- (i) the approved Development Framework Plan being complied with;
- (ii) architecture, and landscaping guidelines, which should specifically address advertising signage on buildings that may be visible from the National Road (N2), being to the satisfaction of the City Engineer;
- (iii) the services agreements to be concluded between Council and the CDC being complied with;
- (iv) the development management plan being to the satisfaction of the City Engineer;
- (v) an open space system, that will not only ensure the protection of environmentally sensitive areas, but also provide passive or active recreation areas where the public has freedom of movement, being formulated for the IDZ. This system also being integrated into the city's Metropolitan Open Space System (MOSS) to the satisfaction of the City Engineer.

*file*





- (vi) the Integrated Transportation study and procedures and responsibility for the management, operation, maintenance and implementation of the transportation system as further amplified and specified in agreements between the CDC and NMMM, being implemented;
- (vii) the standard conditions in respect of the preparation of localised traffic impact assessments where deemed necessary by the Council applying;
- (viii) Permitted uses : being in accordance with the approved Development Framework Plan;
- (ix) Prohibited uses : residential uses;
- (x) development standards as specified by the approved Architecture, and Landscaping Guidelines;
- (xi) the following legislation being complied with:
  - Environmental Conservation Act, 1989 (Act no.73 of 1989)
  - National Roads Act, 1971 (Act no. 54 of 1971)
  - Advertising on Roads and Ribbon Development Act, 1940 (Act No. 21 of 1940)
  - Sea Shores Act, 1935 (Act no. 21 of 1935)
  - Physical planning Act, 1991 (Act 125 of 1991)
  - Land Use Planning Ordinance (Ordinance 15 of 1985)
  - National Building Regulations and Building Standards Act, 1977 (Act 103 of 1977)
  - Development Facilitation Act, 1995 (Act no. 67 of 1995)
  - Removal of Restrictions Act, 1967 (Act no. 84 of 1967)
  - Development Management Act, 1993 (Act no. 187 of 1993)
  - Port of Coega Establishment Bill, 1998 (Bill no 73 of 1998)
  - National Land Transition Act, 2000 (Act no. 22 of 2000)
- (xii) should the IDZ fail to materialise within two years from the approval date of this application, Council may initiate steps for the land to revert back to its original zoning.

Please advise your client that:

- (i) the subject properties may not be used for the intended purpose until such time as all the conditions of rezoning have been complied with and, therefore, I would urge your client's early compliance therewith; and

- (ii) should the subject properties be used for the Intended purposes before all the conditions of rezoning are complied with, legal action will be instituted to ensure cessation of same.

Yours faithfully

**M LANGSON**  
**BUSINESS UNIT MANAGER**  
**HOUSING AND LAND AFFAIRS**

VC/MM-28-37



**nelson mandela bay**  
**MUNICIPALITY**  
 PORT ELIZABETH | UITENHAGE | DESPATCH

**H O U S I N G   A N D   L A N D**

tel: +27(41) 506 3111, fax: +27(41) 506 3430  
 PO Box 9, Port Elizabeth 6000  
 Republic of South Africa  
 e-mail: lmente@mandelametro.gov.za

Your Ref:  
 Our Ref: E01/26/00001P116  
 Date: 16 August 2007

DEALS WITH THIS MATTER: MS L MENTE  
 LAND PLANNING AND MANAGEMENT SUB-DIRECTORATE  
 Tel: 506-3244; Fax: 506-3291

NB: Please quote Our Ref. above in all future correspondence

**REGISTERED POST**

Metroplan Town and Regional Planners  
 P O Box 12313  
 Centrahil  
**PORT ELIZABETH**  
 6000

Dear Sir/Madam

<b>FAX</b> TO: <u>Mr. Allan Zeiss</u>	
COMPANY: <u>CDC</u>	PAGE: <u>1</u> OF: <u>3</u>
FAX NO: <u>041-585 5445</u>	DATE: <u>27-Aug-2007</u>
FROM: <u>Mrs. P. A. Rousseau</u>	
COMPANY: <u>Metroplan</u>	PHONE NO: <u>041-373 1843</u>
FAX NO: <u>041-373 1838</u>	FAX PAD 7551

**TOWN PLANNING AMENDMENT 6106 : REZONING OF THE REMAINING AREA WITHIN THE COEGA IDZ (PHASE 3)**

I refer to previous correspondence in this regard and wish to advise that the Executive Mayor on 8 August 2007 resolved as follows:

- (a) That Revision 1 of the Development Framework Plan, Plan dated September November 2006, be adopted by Council as a policy guide document to regulate development in the IDZ. Future amendments or revisions to the DFP being submitted to Council for approval.
- (b) That the rezoning of the subject erven from Agriculture Zone 1 to Special Zone (IDZ) in terms of the Section 8 Zoning Scheme Regulations of the Land Use Planning Ordinance 15 of 1985 be approved, subject to the following conditions:
  - (i) the approved Development Framework Plan being complied with;
  - (ii) architecture, Infrastructure and Landscaping Guidelines, which should specifically address advertising signage on buildings that may be visible from the National Road (N2), being to the satisfaction of the Executive Director : Housing and Land;
  - (iii) the Services Agreements concluded between Council and the Coega Development Corporation being complied with;
  - (iv) the Record of Decision issued by the Department of Environmental Affairs and Tourism dated 6 March 2007 being complied with;
  - (v) the Development Management Plan being to the satisfaction of the Executive Director : Housing and Land;

- (vi) an Open Space System for the IDZ being formulated that will not only ensure the protection of environmentally sensitive areas but also provide passive or active recreation areas where the general public have freedom of movement. This system should also be integrated into the Metro's Metropolitan Open Space System (MOSS), the Open Space System being to the satisfaction of the Executive Director : Housing and Land;
- (vii) the Integrated Transportation Study and procedures and responsibility for the management, operation, maintenance and implementation of the transportation system as further amplified and specified in agreements between the CDC and NMMM being implemented;
- (viii) standard conditions in respect of the preparation of localised traffic impact assessments where deemed necessary by the NMMM;
- (ix) Permitted uses:  
In accordance with the approved Development Framework Plan;
- (x) Prohibited use:  
Residential uses;
- (xi) minimum development controls as specified by the approved Architecture, Infrastructure and Landscaping Guideline;
- (xiii) compliance with the following legislation:
  - National Environmental Management Act, (Act no 107 of 1998)
  - National Roads Act, 1971 (Act no. 54 of 1971)
  - Advertising on Roads and Ribbon Development Act, 1940 (Act No. 21 of 1940)
  - Sea Shores Act, 1935 (Act no. 21 of 1935)
  - Physical planning Act, 1991 (Act 125 of 1991)
  - Land Use Planning Ordinance (Ordinance 15 of 1985)
  - National Building Regulations and Building Standards Act, 1977 (Act 103 of 1977)
  - Development Facilitation Act, 1995 (Act no. 67 of 1995)
  - Removal of Restrictions Act, 1967 (Act no. 84 of 1967)
  - Development Management Act, 1993 (Act no. 187 of 1993)
  - Port of Coega Establishment Bill, 1998 (Bill no 73 of 1998)
  - National Land Transition Act, 2000 (Act no. 22 of 2000)

Please advise your client that:

- (i) the subject properties may not be used for the intended purpose until such time as all the conditions of rezoning have been complied with and, therefore, I would urge your client's early compliance therewith; and
- (ii) should the subject properties be used for the intended purposes before all the conditions of rezoning are complied with, legal action will be instituted to ensure cessation of same.

Kindly note that the above decision was taken in terms of Provincial Circular LDC/GOK 9/1988, in terms of which your client has the right of appeal against same.

Should your client wish to exercise this right, please note that the appeal should be in writing, fully motivated and addressed to the Regional Director : Regional Office for Housing and Traditional Affairs, Private Bag X0035, Bisho, 5605, with a copy thereof submitted to this office, same to reach both on or before 3 September 2007.

Yours faithfully



**ACTING EXECUTIVE DIRECTOR : HOUSING AND LAND**

16-001P116TRA-LM/NN

**ANNEXURE B**  
**Peak Hour**  
**Traffic Volumes**











ANNEXURE C  
Historical Daily  
Traffic Volumes

## Traffic Impact Assessment for Proposed CDC Gas to Power Projects

### 24 Hr Count Volumes

Count Station	Location	Authority	2014	2011	2016	2019	Total Growth (%)	Average Growth Per Annum (2009 - 2018)
1448	N2 - Coega	SANRAL	10030			10677	6.45	1.26 %
			<b>AVERAGE</b>					<b>1.26 %</b>