

## Traffic Highlights of Site: Coega I/C (1448)

Site No	1448
Site Name	Coega I/C
Site Description	Eastern Side of Neptune Rd/Ngcura Harbour I/C
Road Description	Route : N002 Section : 11E Distance : 48.716 km
GPS Position	Latitude: -33.792488 Longitude: 25.659491
Number of Lanes	8
Station Type	Permanent Piezo

Requested Data Period	01 Jan 2019 - 31 Dec 2019
First and Last Data Dates	01 Jan 2019 - 31 Oct 2019
Data Available for Requested Period as Percentage	83%

Last Full Day Count for ADT and ADTT	31 Oct 2019
Number of Full Days in Requested Period	304

Highlights per Stream		Str 1: On-ramp from Coega IDZ	Str 2: CD Road from Ngcura Harbour	Str 3: To Grahamstown	Str 4: To Port Elizabeth	Str 5: CD Road to Ngcura Harbour
1.1	Total Number of Vehicles	29,479	24,497	1,634,367	1,611,619	26,488
1.2	Average Daily Traffic (ADT)	97	81	5,376	5,301	87
1.3	Average Daily Truck Traffic (ADTT)	26	55	1,051	1,007	23
1.4	Percentage of Trucks	26.9 %	67.9 %	19.5 %	19.0 %	26.6 %
1.5	Truck Split % (Short : Medium : Long)	11 : 6 : 83	11 : 20 : 69	23 : 12 : 65	24 : 13 : 63	24 : 11 : 65
1.6	Percentage of Night Traffic [20h00 - 6h00)	13.8 %	28.9 %	14.1 %	13.1 %	17.1 %
2.1	Speed Limit					
2.2	Average Speed (km/hr)	75.4	75.7	108.0	108.4	88.5
2.3	Average Speed - Light Vehicles (km/hr)	78.0	85.0	112.7	113.1	93.2
2.4	Average Speed - Heavy Vehicles (km/hr)	68.6	70.9	89.8	87.9	76.7
2.5	Average Night Speed (km/hr)	75.4	72.2	104.5	103.1	82.8
2.6	15th Centile Speed (km/hr)	59.8	60.5	85.4	83.5	67.8
2.7	85th Centile Speed (km/hr)	92.9	89.7	125.6	126.8	113.2
2.8	Percentage of Vehicles in Excess of Speed Limit	31.5 %	31.5 %	42.4 %	42.8 %	36.6 %
3.1	Percentage Vehicles in Flows Over 600 (vehs/hr)	0 %	0 %	3.0 %	3.1 %	0 %
3.2	Percentage of Vehicles less than 2s behind vehicle ahead	0 %	0 %	0 %	0 %	0 %

## Station Information

<b>Site Identifier</b>	1448	<b>Site Number</b>	1448
<b>Site Name</b>	Coega I/C		
<b>Site Description</b>	Eastern Side of Neptune Rd/Ngcura Harbour I/C		
<b>Site Type</b>	Permanent Piezo	<b>Owner</b>	SANRAL
<b>Physical Lanes</b>	8	<b>Responsibility</b>	NON-TOLL
<b>Logical Lanes</b>	8	<b>Installation Date</b>	2012-06-15
<b>GPS Longitude</b>	25.659491	<b>Termination Date</b>	
<b>GPS Latitude</b>	-33.792488	<b>Status</b>	In Use
<b>Region</b>	South	<b>Companion Site</b>	
<b>Road</b>	N002	<b>Speed Limit</b>	120
<b>Route</b>	N002	<b>Count Type</b>	Normal Traffic Counting Station
<b>Section</b>	11	<b>Distance</b>	48.7160

Lane No	Lane Description	Stream No	Stream Description	Direction	Reverse Lane No	Pos
1	On Ramp from Coega IDZ	1	To Grahamstown	East	0	1
2	CD Road from Ngcura Harbour	1	To Grahamstown	East	0	2
3	Slow to Grahamstown	1	To Grahamstown	East	0	3
4	Fast to Grahamstown	1	To Grahamstown	East	0	4
5	Fast to Port Elizabeth	2	To Port Elizabeth	West	0	4
6	Slow to Port Elizabeth	2	To Port Elizabeth	West	0	3
7	CD Road to Ngcura Harbour	2	To Port Elizabeth	West	0	2
8	Off Ramp from Coega IDZ	2	To Port Elizabeth	West	0	1

# Station Traffic Highlights

## Traffic Highlights of Site 1448

1.1	Site Identifier	1448		
1.2	Site Name	Coega I/C		
1.3	Site Description	Eastern Side of Neptune Rd/Ngcura Harbour I/C		
1.4	Road Description	Route : N002 Section : 11 Distance : 48.7160 km		
1.5	GPS Position	-33.792488 25.659491		
1.6	Number of Lanes	8		
1.7	Station Type	Permanent Piezo		
1.8	Requested Period	01 Jan 2014 - 31 Dec 2014		
1.9	Length of Records Requested (hours)	8,760		
1.10	Actual First & Last Dates	01 Jan 2014 - 31 Dec 2014		
1.11	Actual Available Data (hours)	8,554		
1.12	Percentage Data Available for Requested Period	97.6%		
		<b>To Port Elizabeth</b>	<b>To Grahamstown</b>	<b>Total</b>
2.1	Total Number of Vehicles	1,784,374	1,790,819	3,575,193
2.2	Average Daily Traffic (ADT)	5,006	5,024	10,030
2.3	Average Daily Truck Traffic (ADTT)	845	870	1,714
2.4	Percentage of Trucks	16.9%	17.3%	17.1%
2.5	Truck Split % (short:medium:long)	30 : 19 : 51	29 : 18 : 53	29 : 19 : 52
2.6	Percentage of Night Traffic [20h00 - 6h00)	12.7%	13.2%	12.9%
3.1	Speed Limit (km/hr)	120		
3.2	Average Speed (km/hr)	97.5	96.3	96.9
3.3	Average Speed - Light Vehicles (km/hr)	102.8	101.4	102.1
3.4	Average Speed - Heavy Vehicles (km/hr)	84.8	86.5	85.6
3.5	Average Night Speed (km/hr)	98.7	99.7	99.2
3.6	15th Centile Speed (km/hr)	86.4	85.3	85.9
3.7	85th Centile Speed (km/hr)	108.9	107.7	108.3
3.8	Percentage of Vehicles in Excess of Speed Limit	13.8%	13.3%	13.6%
4.1	Percentage Vehicles in Flows Over 600 (vehs/hr)	2.1%	2.0%	55.9%
4.2	Highest Volume on the Road (vehs/hr)	17 Apr 2014 (15:00 - 16:00)		1439
4.3	Highest Volume in the West (vehs/hr)	13 Jul 2014 (17:00 - 18:00)		848
4.4	Highest Volume in the East (vehs/hr)	17 Apr 2014 (15:00 - 16:00)		795
4.5	Highest Volume in a Lane (vehs/hr)	13 Jul 2014 (17:00 - 18:00)		488
4.6	15th Highest Volume on the Road (vehs/hr)	13 Jun 2014 (15:00 - 16:00)		1,229
4.7	15th Highest Volume in the West Direction (vehs/hr)	17 Apr 2014 (17:00 - 18:00)		680
4.8	15th Highest Volume in the East Direction (vehs/hr)	03 Oct 2014 (14:00 - 15:00)		655
4.9	30th Highest Volume on the Road (vehs/hr)	05 Dec 2014 (15:00 - 16:00)		1,168
4.10	30th Highest Volume in the West Direction (vehs/hr)	11 Dec 2014 (17:00 - 18:00)		652
4.11	30th Highest Volume in the East Direction (vehs/hr)	13 Jun 2014 (16:00 - 17:00)		626
5.1	Percentage of Vehicles less than 2s behind vehicle ahead	6.2%	4.8%	5.5%
6.1	Total Number of Heavy Vehicles	301,040	309,989	611,029
6.2	Estimated Average Number of axles per Truck	5.1	5.2	5.2
6.3	Estimated Truck Mass (Ton/Truck)	29.6	30.0	29.8

ANNEXURE D  
Employment and  
Person Trips  
Expected per  
Development  
Scenario

## Employment and Person Trips expected per Development Scenario

ZONES	50% CDA			100% CDA			100%IDZ		
	Net Land Area (m <sup>2</sup> )	Employment Opportunities	Person Trips	Net Land Area (m <sup>2</sup> )	Employment Opportunities	Person trips	Net Land Area (m <sup>2</sup> )	Employment Opportunities	Person trips
Zone 1 A	17,292	954	804	365,769	4461	3676	365,769	4461	3676
Zone 1 B	206,698	1928	1620	238,782	1928	1620	238,782	1928	1620
Zone 1 C	127,757	760	617	258,200	1520	1238	258,200	1520	1238
Zone 1 D	12,532	269	218	350,828	2112	1843	350,828	2112	1843
Zone 1 E	58,263	353	282	205,322	1244	995	205,322	1244	995
Zone 1 F	80,352	1507	1223	352,899	2034	1667	352,899	2034	1667
Zone 1 G	209,029	1341	1083	367,891	2477	2040	367,891	2477	2040
Zone 1 H	178,053	2356	1886	285,190	3447	2433	285,190	3447	2433
Zone 2 A	317,836	100	60	399,172	1118	930	399,172	1118	930
Zone 2 B	0	0	0	271,522	1988	1632	271,522	1988	1632
Zone 2 C	363,364	1436	1196	363,364	1436	1196	363,364	1436	1196
Zone 2 D	258,307	989	826	319,975	2748	2309	319,975	2748	2309
Zone 2 E	0	100	100	533,363	1853	1152	533,363	1853	1152
Zone 3 A	288,614	1894	1161	527,750	3649	2417	527,750	3649	2417
Zone 3 B	392,644	1303	785	392,644	1222	785	392,644	1222	785
Zone 3 C	232,811	681	453	383,054	1678	1407	383,054	1678	1407
Zone 4 A	0	0	0	417,834	1263	3494	417,834	1263	3494
Zone 4 B	0	0	0	138,744	1258	1412	138,744	1258	1412
Zone 4 C	0	0	0	362,485	1847	3825	362,485	1847	3825
Zone 4 D	0	0	0	127,819	579	349	127,819	579	349
Zone 5 A	2,000,372	800	480	2,000,372	800	480	2,000,372	800	480
Zone 5 B	496,706	700	420	892,273	2145	1476	892,273	2145	1476
Zone 5 C	0	0	0	185,486	840	506	185,486	840	506
Zone 5 D	55,205	417	251	325,112	1355	816	325,112	1355	816
Zone 5 E	28,614	130	78	327,116	1702	1086	327,116	1702	1086
Zone 6 A	1,711,825	720	432	1,711,825	760	456	1,711,825	760	456
Zone 6 B	1,439,765	1931	1495	1,439,765	1931	1495	1,439,765	1931	1495
Zone 6 C	3,011,052	800	480	3,011,052	800	480	3,011,052	800	480
Zone 6 D	2,549,792	2000	1200	2,549,792	2000	1200	2,549,792	2000	1200
Zone 6 E	862,614	2412	1830	862,614	2412	1830	862,614	2412	1830
Zone 7 A	0	0	0	0	0	0	3,457,983	20955	16764
Zone 7 B	0	0	0	0	0	0	3,303,535	20019	16016
Zone 8 Port	8,333,431	4467	2482	8,333,431	3896	2482	8,333,431	3896	2482
Zone 9 A	1,489,703	9078	7262	1,489,703	9078	7272	1,489,703	9078	7272
Zone 10 A	0	0	0	0	0	0	1,585,416	9608	7686
Zone 10 B	0	0	0	0	0	0	966,485	5857	4686
Zone 11 A	0	0	0	0	0	0	2,501,176	8577	6862
Zone 11 B	0	0	0	0	0	0	5,521,972	20728	16582
Zone 11 C	0	0	0	0	0	0	2,631,119	8946	7157
Zone 12 A	0	0	0	0	0	0	1,853,586	6302	5042
Zone 12 B	0	0	0	0	0	0	4,815,857	16374	13099
Zone 13 A	0	0	0	0	0	0	539,831	1835	1468
Zone 13 B	0	0	0	0	0	0	321,107	1455	877
Zone 13 C	0	0	0	0	0	0	753,611	3414	2057
Zone 14 A	0	0	0	0	0	0	6,592,691	1735	1066
<b>Totals</b>	<b>24,722,632</b>	<b>39,426</b>	<b>28,723</b>	<b>29,791,147</b>	<b>67,581</b>	<b>55,999</b>	<b>64,635,517</b>	<b>193,386</b>	<b>155,360</b>

ANNEXURE E  
2030 Link Peak  
Hour Traffic  
Volumes



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NO.	DATE	REVISION	DRAWN	APPROVED	PR. ENG.

DESIGNED	ITEPA	RESPONSIBLE PERSON	DATE
DRAWN	S POWELL		
CHECKED			
APPROVED			



CLIENT  
**COEGA DEVELOPMENT CORPORATION**

PROJECT  
**TRANSPORTATION MODELLING**

DISCIPLINE  
**TRANSPORTATION**

DRAWING TITLE  
**50% CDA DEVELOPMENT  
 COEGA-60% Pub:40% Pvt  
 NMMM-50% Pub:50% Pvt  
 Scenario B2**

SHEET SIZE  
**A1**

SCALE

BKS DRAWING NUMBER					
BKS PROJ. No	SUB NUMBER	DISCIPLINE	DRAWING NUMBER	STATUS	REVISION
H3417	32	TPT	1	-Rep-	
DRAWING STATUS CODES :					
R = REPORT	T = TENDER	C = CONSTRUCTION			
D = DRAFT	P = PRELIMINARY	A = AS BUILT			
COPYRIGHT RESERVED					



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NO.	DATE	REVISION	DRAWN	APPROVED	PR. ENG.

DESIGNED	RESPONSIBLE PERSON	DATE
ITEPA		
S POWELL		



CLIENT	COEGA DEVELOPMENT CORPORATION
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PROJECT	TRANSPORTATION MODELLING
DISCIPLINE	TRANSPORTATION

DRAWING TITLE	100% CDA DEVELOPMENT COEGA-60% Pub:40% Pvt NMMM-50% Pub:50% Pvt Scenario B2
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SHEET SIZE	A1	BKS DRAWING NUMBER	H3417-32-TPT-5-Rep-
SCALE		DRAWING STATUS CODES :	
		R = REPORT	T = TENDER
		D = DRAFT	P = PRELIMINARY
			C = CONSTRUCTION
			A = AS BUILT
			COPYRIGHT RESERVED



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NO.	DATE	REVISION	DRAWN	APPROVED	PR. ENG.

DESIGNED	ITEPA	RESPONSIBLE PERSON	DATE
DRAWN	S POWELL		
CHECKED			
APPROVED			



CLIENT  
**COEGA DEVELOPMENT CORPORATION**

PROJECT  
**TRANSPORTATION MODELLING**

DISCIPLINE  
**TRANSPORTATION**

DRAWING TITLE  
**FULL IDZ DEVELOPMENT  
 COEGA-60% Pub:40% Pvt  
 NMMM-50% Pub:50% Pvt  
 Scenario B2**

SHEET SIZE  
**A1**

SCALE

BKS DRAWING NUMBER					
BKS PROJ. No	SUB NUMBER	DISCIPLINE	DRAWING NUMBER	STATUS	REVISION
H3417	32	TPT	9	Rep	

DRAWING STATUS CODES :

R = REPORT    T = TENDER    C = CONSTRUCTION  
 D = DRAFT    P = PRELIMINARY    A = AS BUILT

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ANNEXURE F  
SIDRA Output  
Sheets – 2020  
Existing

# MOVEMENT SUMMARY

**Site: 01 [[01] 01 AM ND (Site Folder: [01] 2020 Before Development)]**

**Network: N101 [2020 AM Before Development (Network Folder: Before Development)]**

Traffic Impact Assessment for the Proposed  
Gas Distribution Facility - Coega SEZ Zone 10  
2020 Before Development  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h ]	HV %	[ Total veh/h ]	HV %				[ Veh. veh ]	[ Dist m ]				
South: Coega Ring Road														
2	T1	18	29.4	18	29.4	0.011	0.0	LOS A	0.0	0.0	0.02	0.04	0.02	59.3
3	R2	1	0.0	1	0.0	0.011	5.8	LOS A	0.0	0.0	0.02	0.04	0.02	56.2
Approach		19	27.8	19	27.8	0.011	0.3	NA	0.0	0.0	0.02	0.04	0.02	59.2
North: Coega Ring Road														
7	L2	29	17.9	29	17.9	0.031	5.8	LOS A	0.0	0.0	0.00	0.35	0.00	54.3
8	T1	20	36.8	20	36.8	0.031	0.0	LOS A	0.0	0.0	0.00	0.35	0.00	53.6
Approach		49	25.5	49	25.5	0.031	3.4	NA	0.0	0.0	0.00	0.35	0.00	54.2
West: N2 Eastbound Offramp														
10	L2	24	8.7	24	8.7	0.048	8.5	LOS A	0.1	0.5	0.09	0.95	0.09	51.6
12	R2	27	15.4	27	15.4	0.048	8.3	LOS A	0.1	0.5	0.09	0.95	0.09	47.9
Approach		52	12.2	52	12.2	0.048	8.4	LOS A	0.1	0.5	0.09	0.95	0.09	50.2
All Vehicles		120	20.2	120	20.2	0.048	5.1	NA	0.1	0.5	0.04	0.56	0.04	53.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

**Site: 01 [[01] 01 PM ND (Site Folder: [01] 2020 Before Development)]**

**Network: N101 [2020 PM Before Development (Network Folder: Before Development)]**

Traffic Impact Assessment for the Proposed  
Gas Distribution Facility - Coega SEZ Zone 10  
2020 Before Development  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h ]	[ HV % ]	[ Total veh/h ]	[ HV % ]				[ Veh. ]	[ Dist ]				
South: Coega Ring Road														
2	T1	26	0.0	26	0.0	0.014	0.0	LOS A	0.0	0.0	0.01	0.03	0.01	59.7
3	R2	1	0.0	1	0.0	0.014	5.7	LOS A	0.0	0.0	0.01	0.03	0.01	56.5
Approach		27	0.0	27	0.0	0.014	0.2	NA	0.0	0.0	0.01	0.03	0.01	59.5
North: Coega Ring Road														
7	L2	13	0.0	13	0.0	0.014	5.5	LOS A	0.0	0.0	0.00	0.27	0.00	56.1
8	T1	15	0.0	15	0.0	0.014	0.0	LOS A	0.0	0.0	0.00	0.27	0.00	55.4
Approach		27	0.0	27	0.0	0.014	2.6	NA	0.0	0.0	0.00	0.27	0.00	55.8
West: N2 Eastbound Offramp														
10	L2	5	0.0	5	0.0	0.016	8.1	LOS A	0.0	0.1	0.10	0.92	0.10	52.0
12	R2	12	0.0	12	0.0	0.016	7.7	LOS A	0.0	0.1	0.10	0.92	0.10	48.0
Approach		17	0.0	17	0.0	0.016	7.8	LOS A	0.0	0.1	0.10	0.92	0.10	49.8
All Vehicles		72	0.0	72	0.0	0.016	2.9	NA	0.0	0.1	0.03	0.33	0.03	55.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



# MOVEMENT SUMMARY

**Site:** 02 [[01] 02 AM ND (Site Folder: [01] 2020 Before Development)]

**Network:** N101 [2020 AM Before Development (Network Folder: Before Development)]

Traffic Impact Assessment for the Proposed  
Gas Distribution Facility - Coega SEZ Zone 10  
2020 Before Development  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h ]	HV %	[ Total veh/h ]	HV %				[ Veh. veh ]	[ Dist m ]				
South: Coega Ring Road														
7	L2	15	78.6	15	78.6	0.015	6.5	LOS A	0.0	0.0	0.00	0.44	0.00	52.4
8	T1	4	25.0	4	25.0	0.015	0.0	LOS A	0.0	0.0	0.00	0.44	0.00	55.0
Approach		19	66.7	19	66.7	0.015	5.0	NA	0.0	0.0	0.00	0.44	0.00	52.7
East: N2 Westbound Offramp														
10	L2	1	100.0	1	100.0	0.017	12.6	LOS B	0.0	0.2	0.16	0.93	0.16	47.9
12	R2	13	33.3	13	33.3	0.017	9.0	LOS A	0.0	0.2	0.16	0.93	0.16	47.5
Approach		14	38.5	14	38.5	0.017	9.3	LOS A	0.0	0.2	0.16	0.93	0.16	47.5
North: Coega Ring Road														
2	T1	40	28.9	40	28.9	0.030	0.0	LOS A	0.0	0.2	0.04	0.11	0.04	58.5
3	R2	8	25.0	8	25.0	0.030	6.1	LOS A	0.0	0.2	0.04	0.11	0.04	53.8
Approach		48	28.3	48	28.3	0.030	1.1	NA	0.0	0.2	0.04	0.11	0.04	57.6
All Vehicles		81	39.0	81	39.0	0.030	3.4	NA	0.0	0.2	0.05	0.33	0.05	54.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

**Site: 02 [[01] 02 PM ND (Site Folder: [01] 2020 Before Development)]**

**Network: N101 [2020 PM Before Development (Network Folder: Before Development)]**

Traffic Impact Assessment for the Proposed  
Gas Distribution Facility - Coega SEZ Zone 10  
2020 Before Development  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
South: Coega Ring Road														
7	L2	31	0.0	31	0.0	0.025	5.5	LOS A	0.0	0.0	0.00	0.38	0.00	55.2
8	T1	17	0.0	17	0.0	0.025	0.0	LOS A	0.0	0.0	0.00	0.38	0.00	53.8
Approach		47	0.0	47	0.0	0.025	3.6	NA	0.0	0.0	0.00	0.38	0.00	54.9
East: N2 Westbound Offramp														
10	L2	1	0.0	1	0.0	0.039	8.1	LOS A	0.1	0.4	0.14	0.91	0.14	52.1
12	R2	37	0.0	37	0.0	0.039	7.8	LOS A	0.1	0.4	0.14	0.91	0.14	48.1
Approach		38	0.0	38	0.0	0.039	7.8	LOS A	0.1	0.4	0.14	0.91	0.14	48.3
North: Coega Ring Road														
2	T1	19	0.0	19	0.0	0.022	0.1	LOS A	0.0	0.3	0.11	0.31	0.11	56.0
3	R2	20	0.0	20	0.0	0.022	5.8	LOS A	0.0	0.3	0.11	0.31	0.11	53.2
Approach		39	0.0	39	0.0	0.022	3.0	NA	0.0	0.3	0.11	0.31	0.11	54.5
All Vehicles		124	0.0	124	0.0	0.039	4.7	NA	0.1	0.4	0.08	0.52	0.08	53.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

ANNEXURE G  
SIDRA Output  
Sheets – 2020  
Construction

# MOVEMENT SUMMARY

**Site: 01 [[02] 01 AM CON (Site Folder: [02] 2020 Construction Phase)]**

**Network: N101 [2020 AM Construction Traffic (Network Folder: Construction)]**

Traffic Impact Assessment for the Proposed  
Gas Distribution Facility - Coega SEZ Zone 10  
2020 Construction  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
South: Coega Ring Road														
2	T1	18	0.0	18	0.0	0.016	0.1	LOS A	0.0	0.2	0.10	0.24	0.10	56.8
3	R2	12	0.0	12	0.0	0.016	5.8	LOS A	0.0	0.2	0.10	0.24	0.10	53.9
Approach		29	0.0	29	0.0	0.016	2.3	NA	0.0	0.2	0.10	0.24	0.10	55.6
North: Coega Ring Road														
7	L2	29	0.0	29	0.0	0.026	5.5	LOS A	0.0	0.0	0.00	0.35	0.00	55.4
8	T1	20	0.0	20	0.0	0.026	0.0	LOS A	0.0	0.0	0.00	0.35	0.00	54.2
Approach		49	0.0	49	0.0	0.026	3.3	NA	0.0	0.0	0.00	0.35	0.00	55.1
West: N2 Eastbound Offramp														
10	L2	24	0.0	24	0.0	0.280	8.1	LOS A	0.5	3.4	0.15	0.91	0.15	52.0
12	R2	257	0.0	257	0.0	0.280	7.8	LOS A	0.5	3.4	0.15	0.91	0.15	48.1
Approach		281	0.0	281	0.0	0.280	7.8	LOS A	0.5	3.4	0.15	0.91	0.15	48.7
All Vehicles		360	0.0	360	0.0	0.280	6.8	NA	0.5	3.4	0.13	0.78	0.13	50.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



# MOVEMENT SUMMARY

**Site: 01 [[02] 01 PM CON (Site Folder: [02] 2020 Construction Phase)]**

**Network: N101 [2020 PM Construction Traffic (Network Folder: Construction)]**

Traffic Impact Assessment for the Proposed  
Gas Distribution Facility - Coega SEZ Zone 10  
2020 Construction  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
South: Coega Ring Road														
2	T1	26	0.0	26	0.0	0.047	0.1	LOS A	0.1	0.6	0.09	0.42	0.09	54.9
3	R2	59	0.0	59	0.0	0.047	5.7	LOS A	0.1	0.6	0.09	0.42	0.09	52.3
Approach		85	0.0	85	0.0	0.047	4.0	NA	0.1	0.6	0.09	0.42	0.09	53.1
North: Coega Ring Road														
7	L2	13	0.0	13	0.0	0.014	5.5	LOS A	0.0	0.0	0.00	0.27	0.00	56.1
8	T1	15	0.0	15	0.0	0.014	0.0	LOS A	0.0	0.0	0.00	0.27	0.00	55.4
Approach		27	0.0	27	0.0	0.014	2.6	NA	0.0	0.0	0.00	0.27	0.00	55.8
West: N2 Eastbound Offramp														
10	L2	5	0.0	5	0.0	0.062	8.1	LOS A	0.1	0.6	0.17	0.91	0.17	51.9
12	R2	54	0.0	54	0.0	0.062	8.0	LOS A	0.1	0.6	0.17	0.91	0.17	47.9
Approach		59	0.0	59	0.0	0.062	8.0	LOS A	0.1	0.6	0.17	0.91	0.17	48.5
All Vehicles		172	0.0	172	0.0	0.062	5.2	NA	0.1	0.6	0.10	0.56	0.10	52.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

**Site: 02 [[02] 02 AM CON (Site Folder: [02] 2020 Construction Phase)]**

**Network: N101 [2020 AM Construction Traffic (Network Folder: Construction)]**

Traffic Impact Assessment for the Proposed  
Gas Distribution Facility - Coega SEZ Zone 10  
2020 Construction  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
South: Coega Ring Road														
7	L2	57	0.0	57	0.0	0.038	5.5	LOS A	0.0	0.0	0.00	0.46	0.00	54.5
8	T1	15	0.0	15	0.0	0.038	0.0	LOS A	0.0	0.0	0.00	0.46	0.00	52.5
Approach		72	0.0	72	0.0	0.038	4.4	NA	0.0	0.0	0.00	0.46	0.00	54.3
East: N2 Westbound Offramp														
10	L2	59	0.0	59	0.0	0.071	9.2	LOS A	0.1	0.8	0.37	0.88	0.37	51.4
12	R2	13	0.0	13	0.0	0.071	9.4	LOS A	0.1	0.8	0.37	0.88	0.37	47.1
Approach		72	0.0	72	0.0	0.071	9.2	LOS A	0.1	0.8	0.37	0.88	0.37	51.0
North: Coega Ring Road														
2	T1	269	0.0	269	0.0	0.143	0.0	LOS A	0.0	0.2	0.01	0.02	0.01	59.7
3	R2	8	0.0	8	0.0	0.143	5.9	LOS A	0.0	0.2	0.01	0.02	0.01	56.6
Approach		278	0.0	278	0.0	0.143	0.2	NA	0.0	0.2	0.01	0.02	0.01	59.6
All Vehicles		421	0.0	421	0.0	0.143	2.4	NA	0.1	0.8	0.07	0.24	0.07	56.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

**Site:** 02 [[02] 02 PM CON (Site Folder: [02] 2020 Construction Phase)]

**Network:** N101 [2020 PM Construction Traffic (Network Folder: Construction)]

Traffic Impact Assessment for the Proposed  
Gas Distribution Facility - Coega SEZ Zone 10  
2020 Construction  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h ]	HV %	[ Total veh/h ]	HV %				[ Veh. veh ]	[ Dist m ]				
South: Coega Ring Road														
7	L2	260	0.0	260	0.0	0.178	5.6	LOS A	0.0	0.0	0.00	0.45	0.00	54.5
8	T1	75	0.0	75	0.0	0.178	0.0	LOS A	0.0	0.0	0.00	0.45	0.00	52.6
Approach		335	0.0	335	0.0	0.178	4.3	NA	0.0	0.0	0.00	0.45	0.00	54.3
East: N2 Westbound Offramp														
10	L2	11	0.0	11	0.0	0.050	8.2	LOS A	0.1	0.5	0.21	0.90	0.21	51.8
12	R2	37	0.0	37	0.0	0.050	8.4	LOS A	0.1	0.5	0.21	0.90	0.21	47.6
Approach		47	0.0	47	0.0	0.050	8.3	LOS A	0.1	0.5	0.21	0.90	0.21	49.1
North: Coega Ring Road														
2	T1	61	0.0	61	0.0	0.047	0.5	LOS A	0.1	0.4	0.22	0.16	0.22	57.1
3	R2	20	0.0	20	0.0	0.047	6.8	LOS A	0.1	0.4	0.22	0.16	0.22	54.2
Approach		81	0.0	81	0.0	0.047	2.0	NA	0.1	0.4	0.22	0.16	0.22	56.4
All Vehicles		463	0.0	463	0.0	0.178	4.3	NA	0.1	0.5	0.06	0.45	0.06	54.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

ANNEXURE H  
SIDRA Output  
Sheets – 2030  
Operations  
Combined



# MOVEMENT SUMMARY

 Site: 01 [[03] 01 AM AD (Site Folder: [03] 2030 After Development)]

Network: N101 [2030 AM After Development (Network Folder: After Development)]

Traffic Impact Assessment for the Proposed Liquid Natural Gas Power Station - Coega SEZ Zone 10  
2030 After Development  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
South: Coega Ring Road														
2	T1	224	0.0	224	0.0	0.120	0.0	LOS A	0.0	0.2	0.03	0.02	0.03	59.6
3	R2	7	0.0	7	0.0	0.120	6.6	LOS A	0.0	0.2	0.03	0.02	0.03	56.5
Approach		232	0.0	232	0.0	0.120	0.3	NA	0.0	0.2	0.03	0.02	0.03	59.5
North: Coega Ring Road														
7	L2	37	0.0	37	0.0	0.129	5.6	LOS A	0.0	0.0	0.00	0.09	0.00	57.6
8	T1	214	0.0	214	0.0	0.129	0.0	LOS A	0.0	0.0	0.00	0.09	0.00	58.4
Approach		251	0.0	251	0.0	0.129	0.8	NA	0.0	0.0	0.00	0.09	0.00	58.2
West: N2 Eastbound Offramp														
10	L2	120	0.0	120	0.0	0.323	9.4	LOS A	0.6	4.1	0.46	0.95	0.50	50.5
12	R2	133	0.0	133	0.0	0.323	11.8	LOS B	0.6	4.1	0.46	0.95	0.50	45.5
Approach		253	0.0	253	0.0	0.323	10.6	LOS B	0.6	4.1	0.46	0.95	0.50	48.6
All Vehicles		735	0.0	735	0.0	0.323	4.0	NA	0.6	4.1	0.17	0.36	0.18	54.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

 Site: 01 [[03] 01 PM AD (Site Folder: [03] 2030 After Development)]

Network: N101 [2030 PM After Development (Network Folder: After Development)]

Traffic Impact Assessment for the Proposed Liquid Natural Gas Power Station - Coega SEZ Zone 10  
2030 After Development  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
South: Coega Ring Road														
2	T1	238	0.0	238	0.0	0.132	0.1	LOS A	0.0	0.3	0.06	0.04	0.06	59.3
3	R2	14	0.0	14	0.0	0.132	6.8	LOS A	0.0	0.3	0.06	0.04	0.06	56.2
Approach		252	0.0	252	0.0	0.132	0.5	NA	0.0	0.3	0.06	0.04	0.06	59.1
North: Coega Ring Road														
7	L2	23	0.0	23	0.0	0.158	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	57.9
8	T1	284	0.0	284	0.0	0.158	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	59.1
Approach		307	0.0	307	0.0	0.158	0.5	NA	0.0	0.0	0.00	0.05	0.00	58.9
West: N2 Eastbound Offramp														
10	L2	19	0.0	19	0.0	0.112	9.0	LOS A	0.2	1.1	0.46	0.94	0.46	50.2
12	R2	51	0.0	51	0.0	0.112	11.8	LOS B	0.2	1.1	0.46	0.94	0.46	45.0
Approach		69	0.0	69	0.0	0.112	11.0	LOS B	0.2	1.1	0.46	0.94	0.46	47.1
All Vehicles		628	0.0	628	0.0	0.158	1.6	NA	0.2	1.1	0.07	0.14	0.07	57.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

 Site: 02 [[03] 02 AM AD (Site Folder: [03] 2030 After Development)]

Network: N101 [2030 AM After Development (Network Folder: After Development)]

Traffic Impact Assessment for the Proposed Liquid Natural Gas Power Station - Coega SEZ Zone 10  
2030 After Development  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
South: Coega Ring Road														
7	L2	57	0.0	57	0.0	0.037	5.5	LOS A	0.0	0.0	0.00	0.48	0.00	54.4
8	T1	12	0.0	12	0.0	0.037	0.0	LOS A	0.0	0.0	0.00	0.48	0.00	52.2
Approach		68	0.0	68	0.0	0.037	4.6	NA	0.0	0.0	0.00	0.48	0.00	54.2
East: N2 Westbound Offramp														
10	L2	14	0.0	14	0.0	0.039	8.6	LOS A	0.1	0.4	0.27	0.88	0.27	51.7
12	R2	23	0.0	23	0.0	0.039	8.5	LOS A	0.1	0.4	0.27	0.88	0.27	47.6
Approach		37	0.0	37	0.0	0.039	8.5	LOS A	0.1	0.4	0.27	0.88	0.27	49.7
North: Coega Ring Road														
2	T1	147	0.0	147	0.0	0.090	0.0	LOS A	0.1	0.4	0.05	0.09	0.05	58.7
3	R2	23	0.0	23	0.0	0.090	5.9	LOS A	0.1	0.4	0.05	0.09	0.05	55.7
Approach		171	0.0	171	0.0	0.090	0.8	NA	0.1	0.4	0.05	0.09	0.05	58.3
All Vehicles		276	0.0	276	0.0	0.090	2.8	NA	0.1	0.4	0.07	0.29	0.07	55.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

 Site: 02 [[03] 02 PM AD (Site Folder: [03] 2030 After Development)]

Network: N101 [2030 PM After Development (Network Folder: After Development)]

Traffic Impact Assessment for the Proposed Liquid Natural Gas Power Station - Coega SEZ Zone 10  
2030 After Development  
Site Category: (None)  
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
South: Coega Ring Road														
7	L2	134	0.0	134	0.0	0.089	5.6	LOS A	0.0	0.0	0.00	0.47	0.00	54.5
8	T1	34	0.0	34	0.0	0.089	0.0	LOS A	0.0	0.0	0.00	0.47	0.00	52.4
Approach		167	0.0	167	0.0	0.089	4.4	NA	0.0	0.0	0.00	0.47	0.00	54.2
East: N2 Westbound Offramp														
10	L2	6	0.0	6	0.0	0.062	8.2	LOS A	0.1	0.6	0.26	0.90	0.26	51.6
12	R2	46	0.0	46	0.0	0.062	8.7	LOS A	0.1	0.6	0.26	0.90	0.26	47.3
Approach		53	0.0	53	0.0	0.062	8.7	LOS A	0.1	0.6	0.26	0.90	0.26	48.2
North: Coega Ring Road														
2	T1	60	0.0	60	0.0	0.106	0.5	LOS A	0.2	1.4	0.28	0.40	0.28	54.4
3	R2	115	0.0	115	0.0	0.106	6.2	LOS A	0.2	1.4	0.28	0.40	0.28	51.8
Approach		175	0.0	175	0.0	0.106	4.3	NA	0.2	1.4	0.28	0.40	0.28	52.7
All Vehicles		395	0.0	395	0.0	0.106	4.9	NA	0.2	1.4	0.16	0.49	0.16	52.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

ANNEXURE I  
Impact Rating  
Methodology

# Impact Rating Methodology

The assessment of impacts will be based on the professional judgement of specialists at Engineering Advice & Services (Pty) Ltd according to the SRK impact assessment methodology presented below. The impact ratings will be informed by the findings of specialist assessments conducted, fieldwork, and desk-top analysis. The significance of potential impacts that may result from the proposed development will be determined in order to assist DEDEAT in making a decision.

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 that are used to determine impact consequences are presented in **Table 1** below.

**Table 1: Criteria used to determine the Consequence of the Impact**

Rating	Definition of Rating	Score
<b>A. Extent – the area over which the impact will be experienced</b>		
None		0
Local	Confined to project or study area or part thereof (e.g. site)	1
Regional	The region, which may be defined in various ways, e.g. cadastral, catchment, topographic	2
(Inter) national	Nationally or beyond	3
<b>B. Intensity – the magnitude of the impact in relation to the sensitivity of the receiving environment</b>		
None	0	<b>0</b>
Low	Site-specific and wider natural and/or social functions and processes are negligibly altered	<b>1</b>
<b>Medium</b>	Site-specific and wider natural and/or social functions and processes continue albeit in a modified way	2
<b>High</b>	Site-specific and wider natural and/or social functions or processes are severely altered	<b>3</b>
<b>C. Duration – the time frame for which the impact will be experienced</b>		
None		0
Short-term	Up to 2 years	1
Medium-term	2 to 15 years	2
Long-term	More than 15 years	3

The combined score of these three criteria corresponds to a Consequence Rating, as follows:

**Table 2: Method used to determine the Consequence Score**

Combined Score (A+B+C)	0 – 2	3 – 4	5	6	7	8 – 9
Consequence Rating	Not significant	Very low	Low	Medium	High	Very high

Once the consequence has been derived, the probability of the impact occurring will be considered using the probability classifications presented in **Table 3**.

**Table 3: Probability Classification**

Probability– the likelihood of the impact occurring	
Improbable	< 40% chance of occurring
Possible	40% - 70% chance of occurring
Probable	>70% - 90% chance of occurring
Definite	> 90% chance of occurring



The overall significance of impacts will be determined by considering consequence and probability using the rating system prescribed in the table below.

**Table 4: Impact Significance Ratings**

Significance Rating	Possible Impact Combinations		
	Consequence		Probability
Insignificant	Very Low	&	Improbable
	Very Low	&	Possible
Very Low	Very Low	&	Probable
	Very Low	&	Definite
	Low	&	Improbable
	Low	&	Possible
Low	Low	&	Probable
	Low	&	Definite
	Medium	&	Improbable
	Medium	&	Possible
Medium	Medium	&	Probable
	Medium	&	Definite
	High	&	Improbable
	High	&	Possible
High	High	&	Probable
	High	&	Definite
	Very High	&	Improbable
	Very High	&	Possible
Very High	Very High	&	Probable
	Very High	&	Definite

Finally, the impacts will also be considered in terms of their status (positive or negative impact) and the confidence in the ascribed impact significance rating. The system for considering impact status and confidence (in assessment) is laid out in the table below

**Table 5: Impact status and confidence classification**

Status of impact	
Indication whether the impact is adverse (negative) or beneficial (positive)	+ ve (positive – a 'benefit')
	– ve (negative – a 'cost')
Confidence of assessment	
The degree of confidence in predictions based on available information, EAS's judgment and/or specialist knowledge.	Low
	Medium
	High

The impact significance rating should be considered by authorities in their decision-making process based on the implications of ratings as described below:

- Insignificant: the potential impact is negligible and will not have an influence on the decision regarding the proposed activity/development.
- Very Low: the potential impact is very small and should not have any meaningful influence on the decision regarding the proposed activity/development;
- Low: the potential impact may not have any meaningful influence on the decision regarding the proposed activity/development.
- Medium: the potential impact should influence the decision regarding the proposed activity/development.
- High: the potential impact will affect the decision regarding the proposed activity/development.
- Very High: The proposed activity should only be approved under special circumstances

Practicable mitigation measures will be recommended and impacts will be rated in the prescribed way both with and without the assumed effective implementation of mitigation measures. Mitigation measures will be classified as either:

- Essential: must be implemented and are non-negotiable; or
- Optional: must be shown to have been considered, and sound reasons provided by the proponent, if not implemented

ANNEXURE J  
Impact  
Significance  
Ratings

## Construction Phase – Additional traffic Volumes (Table 11)

### Before Management

Table 1: Criteria used to determine the Consequence of the Impact

Rating	Definition of Rating	Score
<b>A. Extent – the area over which the impact will be experienced</b>		
None		0
Local	Confined to project or study area or part thereof (e.g. site)	1
Regional	The region, which may be defined in various ways, e.g. cadastral, catchment, topographic	2
(Inter) national	Nationally or beyond	3
<b>B. Intensity – the magnitude of the impact in relation to the sensitivity of the receiving environment</b>		
None	0	0
Low	Site-specific and wider natural and/or social functions and processes are negligibly altered	1
Medium	Site-specific and wider natural and/or social functions and processes continue albeit in a modified way	2
High	Site-specific and wider natural and/or social functions or processes are severely altered	3
<b>C. Duration – the time frame for which the impact will be experienced</b>		
None		0
Short-term	Up to 2 years	1
Medium-term	2 to 15 years	2
Long-term	More than 15 years	3

The combined score of these three criteria corresponds to a Consequence Rating, as follows:

Table 2: Method used to determine the Consequence Score

Combined Score (A+B+C)	0 – 2	3 – 4	5	6	7	8 – 9
Consequence Rating	Not significant	Very low	Low	Medium	High	Very high

Once the consequence has been derived, the probability of the impact occurring will be considered using the probability classifications presented in Table 3.

Table 3: Probability Classification

Probability– the likelihood of the impact occurring	
Improbable	< 40% chance of occurring
Possible	40% - 70% chance of occurring
Probable	>70% - 90% chance of occurring
Definite	> 90% chance of occurring

The overall significance of impacts will be determined by considering consequence and probability using the rating system prescribed in the table overleaf.

**Table 4: Impact Significance Ratings**

Significance Rating	Possible Impact Combinations		
	Consequence		Probability
Insignificant	Very Low	&	Improbable
	Very Low	&	Possible
Very Low	Very Low	&	Probable
	Very Low	&	Definite
	Low	&	Improbable
	Low	&	Possible
Low	Low	&	Probable
	Low	&	Definite
	Medium	&	Improbable
	Medium	&	Possible
Medium	Medium	&	Probable
	Medium	&	Definite
	High	&	Improbable
	High	&	Possible
High	High	&	Probable
	High	&	Definite
	Very High	&	Improbable
	Very High	&	Possible
Very High	Very High	&	Probable
	Very High	&	Definite

Finally, the impacts will also be considered in terms of their status (positive or negative impact) and the confidence in the ascribed impact significance rating. The system for considering impact status and confidence (in assessment) is laid out in the table below

**Table 5: Impact status and confidence classification**

Status of impact	
Indication whether the impact is adverse (negative) or beneficial (positive)	+ ve (positive – a 'benefit')
	- ve (negative – a 'cost')
Confidence of assessment	
The degree of confidence in predictions based on available information, EAS's judgment and/or specialist knowledge.	Low
	Medium
	High

**Mitigation Measures**

Provide suitable traffic accommodation measures as part of construction contract to inform other road users of presence of construction related traffic

**After Management**

After Management	Local	Low	Short-term	Very Low	Definite	Very Low	-	High	High
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## Construction Phase – Additional Axle Loading (Table 12)

**Table 1: Criteria used to determine the Consequence of the Impact**

Rating	Definition of Rating	Score
<b>A. Extent – the area over which the impact will be experienced</b>		
None		0
Local	Confined to project or study area or part thereof (e.g. site)	1
Regional	The region, which may be defined in various ways, e.g. cadastral, catchment, topographic	2
(Inter) national	Nationally or beyond	3
<b>B. Intensity – the magnitude of the impact in relation to the sensitivity of the receiving environment</b>		
None	0	0
Low	Site-specific and wider natural and/or social functions and processes are negligibly altered	1
Medium	Site-specific and wider natural and/or social functions and processes continue albeit in a modified way	2
High	Site-specific and wider natural and/or social functions or processes are severely altered	3
<b>C. Duration – the time frame for which the impact will be experienced</b>		
None		0
Short-term	Up to 2 years	1
Medium-term	2 to 15 years	2
Long-term	More than 15 years	3

The combined score of these three criteria corresponds to a Consequence Rating, as follows:

**Table 2: Method used to determine the Consequence Score**

Combined Score (A+B+C)	0 – 2	3 – 4	5	6	7	8 – 9
Consequence Rating	Not significant	Very low	Low	Medium	High	Very high

Once the consequence has been derived, the probability of the impact occurring will be considered using the probability classifications presented in **Table 3**.

**Table 3: Probability Classification**

Probability– the likelihood of the impact occurring	
Improbable	< 40% chance of occurring
Possible	40% - 70% chance of occurring
Probable	>70% - 90% chance of occurring
Definite	> 90% chance of occurring

The overall significance of impacts will be determined by considering consequence and probability using the rating system prescribed in the table overleaf.



**Table 4: Impact Significance Ratings**

Significance Rating	Possible Impact Combinations		
	Consequence		Probability
Insignificant	Very Low	&	Improbable
	Very Low	&	Possible
Very Low	Very Low	&	Probable
	Very Low	&	Definite
	Low	&	Improbable
	Low	&	Possible
Low	Low	&	Probable
	Low	&	Definite
	Medium	&	Improbable
	Medium	&	Possible
Medium	Medium	&	Probable
	Medium	&	Definite
	High	&	Improbable
	High	&	Possible
High	High	&	Probable
	High	&	Definite
	Very High	&	Improbable
	Very High	&	Possible
Very High	Very High	&	Probable
	Very High	&	Definite

Finally, the impacts will also be considered in terms of their status (positive or negative impact) and the confidence in the ascribed impact significance rating. The system for considering impact status and confidence (in assessment) is laid out in the table below.

**Table 5: Impact status and confidence classification**

Status of impact	
Indication whether the impact is adverse (negative) or beneficial (positive)	+ ve (positive – a ‘benefit’)
	– ve (negative – a ‘cost’)
Confidence of assessment	
The degree of confidence in predictions based on available information, EAS’s judgment and/or specialist knowledge.	Low
	Medium
	High

**Mitigation Measures**

- Minimise need for continuous construction traffic on Ring Road by confining construction traffic to the site;
- Ensure that vehicle loads are within legislated limits, i.e. Gross vehicle mass of 56 000kg;
- Should abnormal loads be required for transport of components, relevant permits must be sourced from the ECDOT

**After Management**

<b>After Management</b>	Local	Low	Medium-term	Very Low	Definite	<b>Very Low</b>	-	High	Medium
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## Construction Phase – Safety Impact High Speed Traffic (Table 13)

**Table 1: Criteria used to determine the Consequence of the Impact**

Rating	Definition of Rating	Score
<b>A. Extent – the area over which the impact will be experienced</b>		
None		0
Local	Confined to project or study area or part thereof (e.g. site)	1
Regional	The region, which may be defined in various ways, e.g. cadastral, catchment, topographic	2
(Inter) national	Nationally or beyond	3
<b>B. Intensity – the magnitude of the impact in relation to the sensitivity of the receiving environment</b>		
None	0	0
Low	Site-specific and wider natural and/or social functions and processes are negligibly altered	1
Medium	Site-specific and wider natural and/or social functions and processes continue albeit in a modified way	2
High	Site-specific and wider natural and/or social functions or processes are severely altered	3
<b>C. Duration – the time frame for which the impact will be experienced</b>		
None		0
Short-term	Up to 2 years	1
Medium-term	2 to 15 years	2
Long-term	More than 15 years	3

The combined score of these three criteria corresponds to a Consequence Rating, as follows:

**Table 2: Method used to determine the Consequence Score**

Combined Score (A+B+C)	0 – 2	3 – 4	5	6	7	8 – 9
Consequence Rating	Not significant	Very low	Low	Medium	High	Very high

Once the consequence has been derived, the probability of the impact occurring will be considered using the probability classifications presented in **Table 3**.

**Table 3: Probability Classification**

Probability– the likelihood of the impact occurring	
Improbable	< 40% chance of occurring
Possible	40% - 70% chance of occurring
Probable	>70% - 90% chance of occurring
Definite	> 90% chance of occurring

The overall significance of impacts will be determined by considering consequence and probability using the rating system prescribed in the table overleaf.

**Table 4: Impact Significance Ratings**

Significance Rating	Possible Impact Combinations		
	Consequence	&	Probability
Insignificant	Very Low	&	Improbable
	Very Low	&	Possible
Very Low	Very Low	&	Probable
	Very Low	&	Definite
	Low	&	Improbable
	Low	&	Possible
Low	Low	&	Probable
	Low	&	Definite
	Medium	&	Improbable
	Medium	&	Possible
Medium	Medium	&	Probable
	Medium	&	Definite
	High	&	Improbable
	High	&	Possible
High	High	&	Probable
	High	&	Definite
	Very High	&	Improbable
	Very High	&	Possible
Very High	Very High	&	Probable
	Very High	&	Definite

Finally, the impacts will also be considered in terms of their status (positive or negative impact) and the confidence in the ascribed impact significance rating. The system for considering impact status and confidence (in assessment) is laid out in the table below.

**Table 5: Impact status and confidence classification**

Status of impact	
Indication whether the impact is adverse (negative) or beneficial (positive)	+ ve (positive – a 'benefit')
	- ve (negative – a 'cost')
Confidence of assessment	
The degree of confidence in predictions based on available information, EAS's judgment and/or specialist knowledge.	Low
	Medium
	High

**Mitigation Measures**

- 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
- Increased law enforcement protocols.

**After Management**

<b>After Management</b>	Local	Low	Medium-term	Very Low	Probable	Very Low	+	High	High
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## Operational Phase – Road and Intersection capacity (additional traffic loading) (Table 14)

**Table 1: Criteria used to determine the Consequence of the Impact**

Rating	Definition of Rating	Score
<b>A. Extent – the area over which the impact will be experienced</b>		
None		0
Local	Confined to project or study area or part thereof (e.g. site)	1
Regional	The region, which may be defined in various ways, e.g. cadastral, catchment, topographic	2
(Inter) national	Nationally or beyond	3
<b>B. Intensity – the magnitude of the impact in relation to the sensitivity of the receiving environment</b>		
None	0	0
Low	Site-specific and wider natural and/or social functions and processes are negligibly altered	1
Medium	Site-specific and wider natural and/or social functions and processes continue albeit in a modified way	2
High	Site-specific and wider natural and/or social functions or processes are severely altered	3
<b>C. Duration – the time frame for which the impact will be experienced</b>		
None		0
Short-term	Up to 2 years	1
Medium-term	2 to 15 years	2
Long-term	More than 15 years	3

The combined score of these three criteria corresponds to a Consequence Rating, as follows:

**Table 2: Method used to determine the Consequence Score**

Combined Score (A+B+C)	0 – 2	3 – 4	5	6	7	8 – 9
Consequence Rating	Not significant	Very low	Low	Medium	High	Very high

Once the consequence has been derived, the probability of the impact occurring will be considered using the probability classifications presented in **Table 3**.

**Table 3: Probability Classification**

Probability– the likelihood of the impact occurring	
Improbable	< 40% chance of occurring
Possible	40% - 70% chance of occurring
Probable	>70% - 90% chance of occurring
Definite	> 90% chance of occurring

The overall significance of impacts will be determined by considering consequence and probability using the rating system prescribed in the table overleaf.

**Table 4: Impact Significance Ratings**

Significance Rating	Possible Impact Combinations		
	Consequence		Probability
Insignificant	Very Low	&	Improbable
	Very Low	&	Possible
Very Low	Very Low	&	Probable
	Very Low	&	Definite
	Low	&	Improbable
	Low	&	Possible
Low	Low	&	Probable
	Low	&	Definite
	Medium	&	Improbable
	Medium	&	Possible
Medium	Medium	&	Probable
	Medium	&	Definite
	High	&	Improbable
	High	&	Possible
High	High	&	Probable
	High	&	Definite
	Very High	&	Improbable
	Very High	&	Possible
Very High	Very High	&	Probable
	Very High	&	Definite

Finally, the impacts will also be considered in terms of their status (positive or negative impact) and the confidence in the ascribed impact significance rating. The system for considering impact status and confidence (in assessment) is laid out in the table below.

**Table 5: Impact status and confidence classification**

Status of impact	
Indication whether the impact is adverse (negative) or beneficial (positive)	+ ve (positive – a ‘benefit’)
	- ve (negative – a ‘cost’)
Confidence of assessment	
The degree of confidence in predictions based on available information, EAS’s judgment and/or specialist knowledge.	Low
	Medium
	High

**Mitigation Measures**

- No capacity or upgrade measures required.

**After Management**

After Management	Local	Low	Long-term	Very Low	Definite	Very Low	-	High	Low
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## Operational Phase – Traffic Safety Impact due to additional traffic (Table 15)

**Table 1: Criteria used to determine the Consequence of the Impact**

Rating	Definition of Rating	Score
<b>A. Extent – the area over which the impact will be experienced</b>		
None		0
Local	Confined to project or study area or part thereof (e.g. site)	1
Regional	The region, which may be defined in various ways, e.g. cadastral, catchment, topographic	2
(Inter) national	Nationally or beyond	3
<b>B. Intensity – the magnitude of the impact in relation to the sensitivity of the receiving environment</b>		
None	0	0
Low	Site-specific and wider natural and/or social functions and processes are negligibly altered	1
Medium	Site-specific and wider natural and/or social functions and processes continue albeit in a modified way	2
High	Site-specific and wider natural and/or social functions or processes are severely altered	3
<b>C. Duration – the time frame for which the impact will be experienced</b>		
None		0
Short-term	Up to 2 years	1
Medium-term	2 to 15 years	2
Long-term	More than 15 years	3

The combined score of these three criteria corresponds to a Consequence Rating, as follows:

**Table 2: Method used to determine the Consequence Score**

Combined Score (A+B+C)	0 – 2	3 – 4	5	6	7	8 – 9
Consequence Rating	Not significant	Very low	Low	Medium	High	Very high

Once the consequence has been derived, the probability of the impact occurring will be considered using the probability classifications presented in **Table 3**.

**Table 3: Probability Classification**

Probability– the likelihood of the impact occurring	
Improbable	< 40% chance of occurring
Possible	40% - 70% chance of occurring
Probable	>70% - 90% chance of occurring
Definite	> 90% chance of occurring

The overall significance of impacts will be determined by considering consequence and probability using the rating system prescribed in the table overleaf.



**Table 4: Impact Significance Ratings**

Significance Rating	Possible Impact Combinations		
	Consequence	&	Probability
Insignificant	Very Low	&	Improbable
	Very Low	&	Possible
Very Low	Very Low	&	Probable
	Very Low	&	Definite
	Low	&	Improbable
	Low	&	Possible
Low	Low	&	Probable
	Low	&	Definite
	Medium	&	Improbable
	Medium	&	Possible
Medium	Medium	&	Probable
	Medium	&	Definite
	High	&	Improbable
	High	&	Possible
High	High	&	Probable
	High	&	Definite
	Very High	&	Improbable
	Very High	&	Possible
Very High	Very High	&	Probable
	Very High	&	Definite

Finally, the impacts will also be considered in terms of their status (positive or negative impact) and the confidence in the ascribed impact significance rating. The system for considering impact status and confidence (in assessment) is laid out in the table below.

**Table 5: Impact status and confidence classification**

Status of impact	
Indication whether the impact is adverse (negative) or beneficial (positive)	+ ve (positive – a ‘benefit’)
	- ve (negative – a ‘cost’)
Confidence of assessment	
The degree of confidence in predictions based on available information, EAS’s judgment and/or specialist knowledge.	Low
	Medium
	High

**Mitigation Measures**

- No capacity or upgrade measures required.

**After Management**

After Management	Local	Low	Long-term	Very Low	Definite	Very Low	-	High	Medium
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## Cumulative Operational Phase – Road and Intersection capacity (additional traffic loading) (Table 16)

**Table 1: Criteria used to determine the Consequence of the Impact**

Rating	Definition of Rating	Score
<b>A. Extent – the area over which the impact will be experienced</b>		
None		0
Local	Confined to project or study area or part thereof (e.g. site)	1
Regional	The region, which may be defined in various ways, e.g. cadastral, catchment, topographic	2
(Inter) national	Nationally or beyond	3
<b>B. Intensity – the magnitude of the impact in relation to the sensitivity of the receiving environment</b>		
None	0	0
Low	Site-specific and wider natural and/or social functions and processes are negligibly altered	1
Medium	Site-specific and wider natural and/or social functions and processes continue albeit in a modified way	2
High	Site-specific and wider natural and/or social functions or processes are severely altered	3
<b>C. Duration – the time frame for which the impact will be experienced</b>		
None		0
Short-term	Up to 2 years	1
Medium-term	2 to 15 years	2
Long-term	More than 15 years	3

The combined score of these three criteria corresponds to a Consequence Rating, as follows:

**Table 2: Method used to determine the Consequence Score**

Combined Score (A+B+C)	0 – 2	3 – 4	5	6	7	8 – 9
Consequence Rating	Not significant	Very low	Low	Medium	High	Very high

Once the consequence has been derived, the probability of the impact occurring will be considered using the probability classifications presented in **Table 3**.

**Table 3: Probability Classification**

Probability– the likelihood of the impact occurring	
Improbable	< 40% chance of occurring
Possible	40% - 70% chance of occurring
Probable	>70% - 90% chance of occurring
Definite	> 90% chance of occurring

The overall significance of impacts will be determined by considering consequence and probability using the rating system prescribed in the table overleaf.

**Table 4: Impact Significance Ratings**

Significance Rating	Possible Impact Combinations		
	Consequence		Probability
Insignificant	Very Low	&	Improbable
	Very Low	&	Possible
Very Low	Very Low	&	Probable
	Very Low	&	Definite
	Low	&	Improbable
	Low	&	Possible
Low	Low	&	Probable
	Low	&	Definite
	Medium	&	Improbable
	Medium	&	Possible
Medium	Medium	&	Probable
	Medium	&	Definite
	High	&	Improbable
	High	&	Possible
High	High	&	Probable
	High	&	Definite
	Very High	&	Improbable
	Very High	&	Possible
Very High	Very High	&	Probable
	Very High	&	Definite

Finally, the impacts will also be considered in terms of their status (positive or negative impact) and the confidence in the ascribed impact significance rating. The system for considering impact status and confidence (in assessment) is laid out in the table below.

**Table 5: Impact status and confidence classification**

Status of impact	
Indication whether the impact is adverse (negative) or beneficial (positive)	+ ve (positive – a ‘benefit’)
	- ve (negative – a ‘cost’)
Confidence of assessment	
The degree of confidence in predictions based on available information, EAS’s judgment and/or specialist knowledge.	Low
	Medium
	High

**Mitigation Measures**

- No capacity or upgrade measures required.

**After Management**

After Management	Local	Low	Long-term	Very Low	Definite	Very Low	-	High	Low
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## Cumulative Operational Phase – Traffic Safety Impact due to additional traffic (Table 17)

**Table 1: Criteria used to determine the Consequence of the Impact**

Rating	Definition of Rating	Score
<b>A. Extent – the area over which the impact will be experienced</b>		
None		0
Local	Confined to project or study area or part thereof (e.g. site)	1
Regional	The region, which may be defined in various ways, e.g. cadastral, catchment, topographic	2
(Inter) national	Nationally or beyond	3
<b>B. Intensity – the magnitude of the impact in relation to the sensitivity of the receiving environment</b>		
None	0	0
Low	Site-specific and wider natural and/or social functions and processes are negligibly altered	1
Medium	Site-specific and wider natural and/or social functions and processes continue albeit in a modified way	2
High	Site-specific and wider natural and/or social functions or processes are severely altered	3
<b>C. Duration – the time frame for which the impact will be experienced</b>		
None		0
Short-term	Up to 2 years	1
Medium-term	2 to 15 years	2
Long-term	More than 15 years	3

The combined score of these three criteria corresponds to a Consequence Rating, as follows:

**Table 2: Method used to determine the Consequence Score**

Combined Score (A+B+C)	0 – 2	3 – 4	5	6	7	8 – 9
Consequence Rating	Not significant	Very low	Low	Medium	High	Very high

Once the consequence has been derived, the probability of the impact occurring will be considered using the probability classifications presented in **Table 3**.

**Table 3: Probability Classification**

Probability– the likelihood of the impact occurring	
Improbable	< 40% chance of occurring
Possible	40% - 70% chance of occurring
Probable	>70% - 90% chance of occurring
Definite	> 90% chance of occurring

The overall significance of impacts will be determined by considering consequence and probability using the rating system prescribed in the table overleaf.

**Table 4: Impact Significance Ratings**

Significance Rating	Possible Impact Combinations		
	Consequence		Probability
Insignificant	Very Low	&	Improbable
	Very Low	&	Possible
Very Low	Very Low	&	Probable
	Very Low	&	Definite
	Low	&	Improbable
	Low	&	Possible
Low	Low	&	Probable
	Low	&	Definite
	Medium	&	Improbable
	Medium	&	Possible
Medium	Medium	&	Probable
	Medium	&	Definite
	High	&	Improbable
	High	&	Possible
High	High	&	Probable
	High	&	Definite
	Very High	&	Improbable
	Very High	&	Possible
Very High	Very High	&	Probable
	Very High	&	Definite

Finally, the impacts will also be considered in terms of their status (positive or negative impact) and the confidence in the ascribed impact significance rating. The system for considering impact status and confidence (in assessment) is laid out in the table below.

**Table 5: Impact status and confidence classification**

Status of impact	
Indication whether the impact is adverse (negative) or beneficial (positive)	+ ve (positive – a ‘benefit’)
	– ve (negative – a ‘cost’)
Confidence of assessment	
The degree of confidence in predictions based on available information, EAS’s judgment and/or specialist knowledge.	Low
	Medium
	High

**Mitigation Measures**

- No capacity or upgrade measures required.

**After Management**

After Management	Local	Low	Long-term	Very Low	Definite	Very Low	-	High	Medium
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## environmental affairs

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

1782

### DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

	(For official use only)
File Reference Number:	
NEAS Reference Number:	DEA/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

#### PROJECT TITLE

**Traffic Impact Assessment for a Proposed Liquid Natural Gas Power Station in Zone 10 (North) of the Coega Special Economic Zone**

#### Kindly note the following:

1. This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
2. This form is current as of 01 September 2018. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at <https://www.environment.gov.za/documents/forms>.
3. A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
4. All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
5. All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

#### Departmental Details

##### Postal address:

Department of Environmental Affairs  
Attention: Chief Director: Integrated Environmental Authorisations  
Private Bag X447  
Pretoria  
0001

##### Physical address:

Department of Environmental Affairs  
Attention: Chief Director: Integrated Environmental Authorisations  
Environment House  
473 Steve Biko Road  
Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:  
Email: [EIAAdmin@environment.gov.za](mailto:EIAAdmin@environment.gov.za)

**1. SPECIALIST INFORMATION**

Specialist Company Name:	Engineering Advice & Services (Pty) Ltd		
B-BBEE	Contribution level (indicate 1 to 8 or non-compliant)	2	Percentage Procurement recognition
			125%
Specialist name:	Cary Grant Andrew Hastie		
Specialist Qualifications:	Master Diploma in Technology (Civil Engineering – Transportation)		
Professional affiliation/registration:	Engineering Council of South Africa Professional Technologist - 200070122		
Physical address:	73 Heugh Road, Walmer, Port Elizabeth		
Postal address:	P O Box 13867, HUMEWOOD		
Postal code:	6013	Cell:	083 4000 377
Telephone:	041 581 2421	Fax:	086 683 9899
E-mail:	caryh@easpe.co.za		

**2. DECLARATION BY THE SPECIALIST**

I, CARY GRANT ANDREW HASTIE, declare that –

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.



Signature of the Specialist

Engineering Advice & Services (Pty) Ltd

Name of Company:

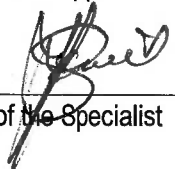
19 JANUARY 2021

Date



3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, Cary Grant Andrew Hastie, swear under oath / affirm that all the information submitted or to be submitted for the purposes of this application is true and correct.



Signature of the Specialist

Engineering Advice & Services (Pty) Ltd

Name of Company

19/01/2021

Date

(G.G. MC INTYRE) W/O

0425 097-4

Signature of the Commissioner of Oaths

Geoffrey MC INTYRE  
1-3 hea Place HUMWOOD  
2021-01-19

Date

