



# **KWAMBONAMBI FUEL AND RETAIL CENTRE**

## **FEASIBILITY STUDY**

**INVESTIGATION  
INTO THE  
FEASIBILITY OF  
ESTABLISHING  
KWAMBONAMBI  
FUEL AND  
RETAIL CENTRE  
DEVELOPMENT  
WHICH WILL  
COMPRISE OF A  
RETAIL FUEL  
OUTLET, TRUCK  
STOP, MOTEL  
AND A RETAIL  
SHOPPING  
COMPLEX.**

**NZUKASKEYI  
TRADING  
(PTY) LTD**

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## COMPANY DETAILS

NAME OF BUSINESS	NZUKASKEYI TRADING (PTY) LTD
BUSINESS TYPE	PRIVATE COMPANY
CLOSE CORPORATION REGISTRATION NUMBER	2016/157488/07
COMPANY DIRECTORS	MR. ERNEST MTHOKOZISI NKALA MR. MPILO THULANI MHLONGO MR. NZOKUHLE STHOKOZISO NXUMALO MR. SIMO HUMPHRY GWALA
INCOME TAX NUMBER	9048239249
BUSINESS PHYSICAL ADDRESS	ERF 1653 KWAMBONAMBI 3915
CONTACT INFORMATION	MR. SIMO GWALA 063 556 0062 <a href="mailto:nzukaskeyitrading@gmail.com">nzukaskeyitrading@gmail.com</a>
BUSINESS INVESTMENT TO BE MADE	RETAIL CENTRE R 12,500,000 SERVICE STATION R 4,285,200 MOTEL R 18,900,000 TRUCKSTOP R 8,640,000 WORKING CAPITAL R 1,804,800 <hr/> <b>TOTAL R 46,130,000</b>
NUMBER OF JOBS TO BE CREATED DURING CONSTRUCTION	47 (Estimate is R1 000 000 in construction cost equals to one construction job, Socio-economic impact of shopping centres in Gauteng, South Africa)
PERMANENT JOBS TO BE CREATED	140 (based on 1 job per 40m <sup>2</sup> , Socio-economic impact of shopping centres in Gauteng, South Africa)

# 1. INTRODUCTION

## 1.1 Background

This feasibility study has been prepared to assess the feasibility of establishing KwaMbonambi Fuel and Retail Centre. The proposed business will be developed by Nzukaskeyi Trading (Pty) Ltd in the rural town of KwaMbonambi on the P232 just off the N2 highway. KwaMbonambi is a town in the UMfolozi Local Municipality under the King Cetshwayo District Municipality in the KwaZulu-Natal province of South Africa. Business activities on the proposed site will comprise of the following:

- A fuel station which will engage in the storage and (retail) dispensing of petroleum products to light and heavy vehicles (diesel, petrol, lubricants, etc.);
- A 35-room motel - A motel is a hotel designed for motorists, usually having each room entered directly from the parking area for motor vehicles rather than through a central lobby.
- Retail Facilities which will comprise of fast-food restaurants and fast-food take-away services; a Pharmacy, Convenience stores and/or other relatively small retail outlets;
- A 100 Bay Truckstop
- Ablution facilities.

There is currently one fuel station in KwaMbonambi that's serves the community. The service station has limited amenities. KwaMbonambi Fuel and Retail Centre will mainly be geared towards the transient vehicle market. This is mainly due to the proposed site being easily accessible from the N2 highway and the related amenities that will be found on the site. The centre will also provide an alternative dining and shopping experience to the local community. The centre is modelled on well established highway stops such as the Windmill's in Nottingham Road in the Midlands Meander.

## 1.2 Project Brief

This feasibility study is an independent assessment of the capacity of the targeted market to sustain the proposed business activities. This report will comprise of both market research and financial feasibility assessment of all the main proposed business activities. The proposed kwaMbonambi Fuel and Retail Centre business activities that will be assessed are:

- ✓ the fuel service station,
- ✓ the Motel,
- ✓ the truckstop and
- ✓ the retail shopping centre.

The assessment is based on existing data, both published and from past project experience. A site visit was conducted on the 24th of March 2022 by Biz Acumen Consulting. A peak hour traffic count was done by Emaan Traffic Engineers between 06:00AM and 18:00PM on the 17th of June 2022.

## 1.3 Site Assessment

### Local Area Description

The proposed site for kwaMbonambi Fuel and Retail Centre will be located approximately 1km from the KwaMbonambi Central Business District (CBD). The site is bounded to the East by the national highway, the N2 and to the North by P232 which is the main road leading to the town of KwaMbonambi.

Kwambonambi is a town in King Cetshwayo District Municipality in the KwaZulu-Natal province of South Africa. Village, centre of sugar and timber areas, 29 km north-east of Empangeni, 30 km south-west of Mtubatuba and 30 km north of Richards Bay.



Figure 1: The proposed site for KwaMbonambi Fuel and Retail Centre

### Site Rating

The site assessment model is pragmatic and is based on the assignment of values to various location factors. Firstly, the site is evaluated on a five-point scale, with five representing the highest attainable grade. Secondly, the factors are adjusted according to an established multiplier which indicates the level of importance of the specific factor. The guidelines for grading are provided in the table below:

Score	Description
1	Poor
2	Fair
3	Adequate
4	Good
5	Excellent

Success Factor	Rating and Explanation
<p>1. Traffic Volumes - Indicates the number of vehicles passing the site during the 12-hour day period distinguishing between light and heavy vehicles. Less than 10 000 vehicles will indicate a grade of less than 3 (adequate). More than 20,000 will indicate a grade of 5 (excellent)</p>	<p>5</p> <p>A traffic count conducted by Emaan Traffic Engineers on the 17<sup>th</sup> of June 2022 between 06:00 and 18:00 indicated that 26 253 cars passed through the site.</p>
<p>2. Accessibility - Indicates the level of access from the surrounding suburbs and transient traffic. If the site is located on a major route with a high level of transient traffic and adequate access to the surrounding suburbs a score of 3 (adequate) or higher is provided. Sites located on major highways with separate offramps such as the 1 Stop and Ultra City filling stations is assigned a value of 5.</p>	<p>5</p> <p>The site is located next to a major national highway and a major access road to the town of KwaMbonambi.</p>
<p>3. Visibility - Indicates the level of visual exposure the development attains from passing traffic. If the view of the site is obstructed by any large features a grade of 3 (adequate) or less is assigned. If the site enjoys high visibility a score of 5 (excellent) is assigned</p>	<p>5</p> <p>The site is not obscured by anything and is highly visible.</p>
<p>4. Site Appeal - Indicates the suitability and aesthetic appeal of the site. A site adjacent to a highway off-ramp or on the corner of a shopping centre is most ideal and attain a value of 4 (good) or more whilst a grade of 3 (adequate) or less is assigned to sites that are not located in a business area.</p>	<p>4</p> <p>The site is adjacent to a highway and is on the corner of the offramp from the N2and P232.</p>
<p>5. Growth Potential of the area – Future economic opportunities and projects being planned in the area where the project site is located</p>	<p>2</p>

### Local Municipal area description

The uMfolozi Local Municipality (previously Mbonambi Local Municipality) is a Category B municipality that forms part of the King Cetshwayo District in the KwaZulu-Natal Province. It is one of the five municipalities that make up the district. In close proximity to the City of uMhlatuze, the town of KwaMbonambi is situated alongside one of the country's major highways, which runs from Cape Town to the Mozambican border, and carries both tourist and business traffic.

The biggest proportion of land within the uMfolozi Municipal area is owned by private organisations and Ingonyama Trust Land. This privately owned land is located in the centre of the municipal area surrounding KwaMbonambi. The second-biggest area is Mhlana Traditional Authority, followed by the Sokhulu and Mbonambi Traditional Authorities.



**Figure 2: Map of the proposed site and its location from a district municipality context**



## 1.4 Ownership Legal Structure

The site where the KwaMbonambi Fuel and Retail Centre will be developed is owned by Nzukaskeyi Trading (Pty) Ltd and extends for 15.27 hectares. Nzukaskeyi Trading (Pty) Ltd, registration number 2016/157488/07 currently has four directors being the following:

Name(s)	Surname	Type	Status
Ernest Mthokozisi	Nkala	Director	Active
Mpilo Thulani	Mhlongo	Director	Active
Nzokuhle Sthokoziso	Nxumalo	Director	Active
Simo Humphry	Gwala	Director	Active

## 1.5 Legal Requirements

Nzukaskeyi Trading (Pty) Ltd as the owner of the land on which the KwaMbonambi Fuel and Retail Centre is to be built has successfully complied with some of legal requirements with others are pending. Some of these legal Requirements are listed below:

- An Environmental Impact Assessment (EIA) was conducted as described in Regulations 19 and 20 of the Environmental Impact Assessment Regulations 2014 (as amended) as promulgated in terms of Section 24(5) and 44 of the National Environmental Management Act, 1998 (Act 107 of 1998). The EIA report is currently being completed for submission and approval by the Department of Economic Development, Tourism and Environmental Affairs.
- Municipality approval in terms of the UMfolozi Local Municipality Spatial Planning and Land Use Management Bylaw.

- The application for a retail fuel license with the Department of Mineral Resources has been submitted and is awaiting approval.
- Approval of Building Plans by UMfolozi Municipality in terms of Section 7 of the National Building Regulations and Building Standards Act No. 013 of 1977.
- The Petroleum Products Act, 1977 (Act 120 of 1977).
- Section 21 of the Kwazulu-Natal Provincial Roads Act No 4 Of 2001

## 1.6 Financial Requirements

The project total amount required for the whole development is listed is below:

Items	Size (Square Metres)	Unit Price	Amount	% of total
Retail outlets	1000	12,500	12,500,000	27%
Construction Of Service Station	600	7,142	4,285,200	9%
Motel	1260	15,000	18,900,000	41%
Truck Stop costs	11520	750	8,640,000	19%
<b>Construction Of Service Station</b>			<b>44,325,200</b>	<b>96%</b>
<b>Working Capital</b>			<b>1,804,800</b>	<b>4%</b>
Professional Fees (Engineers and Architects)		1,004,800	1,004,800	2%
Fuel Guarantee		800,000	800,000	2%
Convenience Shop Stock	-	-	-	0%
<b>Total Capital Requirements</b>			<b>46,130,000</b>	<b>100%</b>
<b>Notes</b>				
1. Construction Costs for Service Station based on rate of R7142 per square metre for 600 square metres				
2. The Motel construction cost is based on a cost of R15 000 per square metre				
3. The rate for construction of the retail centre is based on R12 500 per square metre				
4. Truck Stop rate based on a rate of R750/square metre for 72 square metres (72m *6m) parking area per truck. 150 parking bays have been used for the calculation to account for open spaces in the truck stop				
<b>Building Costs Per Square Metre in South Africa – AECOM 2020/2021 Report</b>				

## 2. FUEL SERVICE STATION FEASIBILITY

This section of the report will focus on the establishment of a fuel station in the proposed KwaMbonambi Fuel and Retail Centre. The directors of Nzukaskeyi Trading (Pty) Ltd are currently in negotiations with a number of fuel retail companies with the aim of concluding a partnership agreement that will cover the following:

- The branding of the service station, operational support and management training.
- The installation of bulk fuel tanks, part of this includes underground pumps and pipework's, Fuel Island under canopy and fuel dispensing pumps.
- The supply of fuel

This report will assess the major demand and supply factors that influence the development of the fuel station. The following components will determine the said outcome of the market study demand:

- The South African Fuel Industry Overview
- Accessibility;
- Traffic Volume;
- Determination of supply and demand; and
- Operations and Service Plan

### **2.1 The South African Fuel Industry Overview (The petroleum industry in South Africa, 2021 by Who Owns Whom)**

There are over 4,000 fuel service stations that cover the country's 1.2 million square kilometres. The major players, Engen, Caltex, Shell, Total, BP, Sasol and Puma Energy, which operate countywide and sell fuels, lubricants and LPG. A number of smaller players operate in specific regions. For example, Viva owns about 40 service stations that are mainly located in Limpopo and Mpumalanga. New entrant TopUp owns four service stations in the Western

Cape and Eastern Cape. Oilco has four service stations in KwaZulu-Natal and one in Mpumalanga.

During the recently ended state of the Coronavirus pandemic the petroleum sector was classified as an essential service, allowing fuel stations and refineries to continue operating during the pandemic, falling demand led to refineries shutting temporarily. Petrol sales fell by about 40% and diesel by 34% in 2020 compared to 2019.

Some of the key performance indicators for these fuels stations are:

- Fuel service stations in South Africa have a combined annual turnover of about R220bn.
- Oil companies sell about 50% of petrol, diesel and other liquid fuels to the retail segment through fuel service stations.
- There are over 4,800 licensed fuel service stations throughout South Africa or up to 7,000 fuel outlets, if one includes co-operatives and operators that supply the agricultural sector, according to the South African Petroleum Retailers Association (SAPRA). This compares to data analytics group Lightstone which said in an August 2019 report that South Africa has 4,027 service stations, 93% of which are accounted for by six brands. About half of service stations are located in non-metro areas.
- Service stations pumped on average 11.7 billion litres of petrol per year, before the onset of the pandemic.
- Engen is the market leader in the number of retail fuel stations owned, followed by Caltex, as shown in the figure below.
- Independent retailers account for 30% to 35% of petrol sales, and supply more than 70% of the diesel-dominated commercial market, according to the Liquid Fuels Wholesalers Association.

## 2.2 Accessibility and Visibility

One of the most critical aspects in the success of any service station is the ease of access to it. The most ideal location is usually one that allows for access to traffic flowing in both directions of the road where it is located. The proposed site for KwaMbonambi Fuel and Retail Centre allows for direct access for vehicles travelling to and from the KwaMbonambi CBD. This allows for easy access for people turning into P232 from the N2. The site is also very visible as it is on the P232 which is a major regional road. The site is also visible along the N2 for those travelling North into Northern KwaZulu Natal.



Figure 3: Showing Access point to the proposed site of the KwaMbonambi Fuel and Retail Centre



**Figure 4: Showing Site visibility from the N2**

### 2.3. Market Demand Analysis

In order to assess the market demand for the proposed service station, the market has to be identified. The market for KwaMbonambi Fuel and Retail Centre service station can be broken up into 2 main markets, being:

- The surrounding local community of KwaMbonambi
- The transient market Travelling along the N2

#### 2.3.1 The surrounding Local Community of KwaMbonambi

According to the Statistics SA, census of 2016 the population in the UMfolozi Local Municipality stood at 144 363 people. The same report shows that there were 30 470 households in the municipality. 'The General Household Survey 2018 by Statistics SA' found that 30.6% of South African households own cars, translating to 9 324 cars within the greater uMfolozi Local Municipality.

The above information can be utilized to calculate the total demand for fuel from the local community. The following equation will be used to calculate the fuel demand:

Total Local Market Demand (LMD) = Number of Cars in local Community (LC) X Total Monthly Fuel Consumption (FC) X Local Community Capture Rate (LCC)

The values for the above variables are listed in table 2 below:

Variable	Value	Reason for value
Number of Cars	9 324	Calculated above
Total Monthly Consumption per car	45 Litres	These figures were obtained from South African Data Insights blog 2016 (They utilized data from Road Traffic Management Corporation)

Local Community Capture Rate	33.333%	This is assumed based on there being two others service stations within the assumed local market.
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Therefore:

$$\begin{aligned}
 \text{LMD} &= \text{LC} \times \text{FC} \times \text{LCC} \\
 &= 9\,324 \times 45 \times 33.333\% \\
 &= 139\,846 \text{ Litres/month}
 \end{aligned}$$

### 2.3.2 The Transient market

The transient market can be defined as vehicles passing through the proposed site on a regular bases but not residing within the local area of the proposed site. The calculation for the transient market is as follows:

$$\text{Transient Market Demand (TMD)} = \text{Average Number of Vehicles (NV)} \times \text{Average Fuel Fill per vehicle (FV)} \times \text{Interception Rate (IR)} \times \text{Number of trading days per month (TD)}$$

Due to the R617 being a major regional road, the transient traffic is likely to be both light and heavy vehicles and the total market demand for both vehicle types will be calculated separately. The assumptions used in the calculations are detailed in table 3 below:

Factor	Value	Reason for value
Average Number of vehicles Passing through site Daily	<ul style="list-style-type: none"> <li>• Light Vehicles – 29 991</li> <li>• Heavy Vehicles – 1250</li> </ul>	A traffic count undertaken by Emaan Traffic Engineers indicated that 26 253 cars passed through the site on Friday the 17 <sup>th</sup> of June 2022 between 06:00 and 18:00. Adjusting upwards by 19.5% as per the findings of ‘Traffic flow variations in urban areas’ by J



<b>Light vehicles estimated at 96% of all vehicles on the road.</b>		Sampson which showed that peak hour traffic makes up 81.5% of daily traffic. The adjusted figure is therefore 31 241.
Average Fuel Fill	<ul style="list-style-type: none"> <li>• Light Vehicle – 24L</li> <li>• Heavy Vehicle – 90L</li> </ul>	actual figures of an Engen service station in Midrand, Gauteng obtained from ‘traffic impact assessment and fuel viability study: proposed new filling station in blue hills x110, Midrand, Gauteng’
Interception Rate	For this calculation an average of 3% has been used.	The interception rate refers to the percentage of the total transient traffic which would turn into the proposed filling station. The interception rate is estimated between 2% and 5%. This figure is based on the research of the National Roads Agency and is regarded as industry standard.
Number of days	30 Days	As per calendar days per month (30 days chosen rather than 31)

- ✓ Heavy vehicle definition - all vehicles and trailers with a GVM greater than 4.5 tonnes. prime movers with a GVM greater than 4.5 tonnes. special purpose vehicles with an unladen mass or GVM greater than 4.5 tonnes.

Therefore, utilizing the formula  $TMD = NV \times FV \times IR \times TD$

Light Vehicles	Heavy Vehicles
= 29 991 x 24 x 3% x 30	= 1 250 x 90 x 3% x 30
= 647 805 Litres	= 101 250 Litres
<b>Total = 749 055</b>	

**Table 4: Calculation of Transient Market Demand**

## Findings

Therefore, the total fuel demand for the proposed site = Local market demand + Total Transient Demand

= 749 055 + 139 846

**= 888 901 Litres**

## 2.4 Local Market Supply Analysis (Competitor sites)

Local supply refers to filling stations present within the trade area that will compete with the proposed petrol station and its auxiliary functions whereas the regional supply refers to competing facilities situated on main roads from which the proposed facility is likely to attract consumers. The development and operation of the proposed filling station will have a small initial impact on filling stations within the catchment area of this feasibility study, but considering the shared traffic and different markets catered for by each one of these competitor stations, this impact should not irreparably jeopardise these businesses as they have different markets and offer different amenities.

### 2.4.1 The Local Supply

For the purposes of this report the local supply refers to service stations within a 20 KM radius of the proposed site. The reason why the normal 5KM radius for local market supply is not being used is because of the location of the service station within a regional road and it's proximity to rural areas that might be 'Far' by normal distances but currently have limited access to service stations. The main service station that supplies the same fuel market as the proposed service stations are listed below:



- Shell 'KwaMbonambi Engineering'



*Figure 5: KwaMbonambi Engineering (Google Images), Shell*

#### **2.4.2 The Regional Supply**

There is no available information on any new planned service stations within the catchment area of KwaMbonambi Fuel and Retail Centre service station development. Due to the fact that the service station will also attract the transient market travelling on the N2 highway, this feasibility study has also looked at the major service stations that are located within a 100km distance of the proposed site. These service stations will mainly compete with KwaMbonambi Fuel and Retail Centre for the transient market. Two major service stations have been identified, information on their performance and literage could not be obtained. They are profiled below;

Name of Service Station	Description
<p data-bbox="250 342 571 373">Engen 1 Stop North Cost</p> 	<p data-bbox="844 342 1429 604">The service station is about 35KM from the proposed site. The site has a small convenience centre as well as a sit-down Wimpy franchise outlet plus an ABSA ATM. There are also toilet facilities.</p>
<p data-bbox="250 720 587 751">Total Petroport Hluhluwe</p> 	<p data-bbox="844 720 1429 1098">The service station is about 60KM North of the proposed site when travelling from Durban. This site offers a modern medium sized convenience store with a small steers sit down restaurant, as well as a Mug n Bean coffee station. There is an ATM as well as toilet facilities inside.</p>

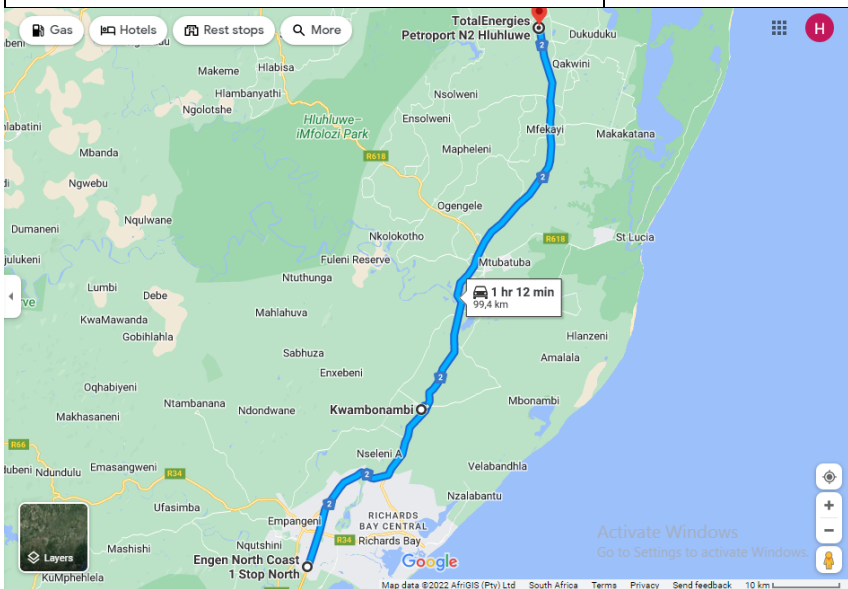


Figure 6: Map showing location of competitor service stations along the N2

## 2.5 Operations and Service Plan

### 2.5.1 Facility Layout and Equipment

In general the fuel station will consist of the following:

- Underground tanks (X2, 46 000 petrol and X1, 46 000 diesel)
- Pump island (three island service station);
- Associated pump and tank infrastructure (e.g. delivery pipes, fillers, suction pumps, etc.);
- Canopy covered forecourt with 12 vehicle re-fueling bays;
- Convenience store (including fast food outlet) of 400m<sup>2</sup>;
- ATM;
- Car parking;
- Delivery parking areas;
- Ablution facilities (inside convenience shop)
- Two access roads;
- Storm water channel and containment slab with catchpit;
- Generator
- Landscaped area.



*Figure7: Layout of proposed service station*

## 2.5.2 Systems, Operations and Procedures

- **Integrated Financial Management system (Back-office and POS)**

KwaMbonambi Fuel and Retail Centre will utilize the DiaLOG fuel Management System. DiaLOG is one of the most advanced fuel management systems used in the industry. It acts as a site controller and can drive most of the other products commonly installed on-site, such as dispensers, level gauges, gates, car washes, and camera systems. Where needed, authorization can then be given using the same identifier. DiaLOG supports the same extensive range of functions you would expect to find on large public stations. The DiaLOG system can be used to view your stock levels, receive automatic alerts when you run out of stock or when there is a delivery with a level gauge installed. You can also perform fuel reconciliations.

- **Operating Hours**

The business will operate 24 hours a day on all days of the week.

### Financial Performance

FORECASTED REVENUE			
	Units sold annually	Average price per unit	Annual revenue per product
Petrol	2985984	22.00	65,691,648
Diesel	466560	21.00	9,797,760
Convenience Shop	1	6,905,088.00	6,905,088
Lubricants	1	108,000.00	108,000
<b>TOTAL OF FORECASTED REVENUE</b>			<b>82,502,496</b>
COST OF GOODS SOLD			
	Expect Gross Cost %	Annual cost of goods sold	
Petrol	89.9%	59,056,792	
Diesel	89.9%	8,808,186	
Convenience Shop	70.0%	4,833,562	
Lubricants	70.0%	75,600	
<b>TOATL COST OF GOODS SOLD</b>			<b>72,774,139</b>
ANNUAL MAINTENANCE, REPAIR AND OVERHAUL			
Factor (%) on capital equipment	0%		
ASSET DEPRECIATION			
Number of Years	5		
TAX			
Annual Tax Rate	27%		
INFLATION			
Annual Inflation Rate	7%		
PRODUCT PRICE INCREASE			
Annual Price Increase	7%		
FUNDING			
Loan Amount	-		
Annual interest rate	8.50%		
Term of loan (months)	60		
Monthly rate	0.68%		
Payment	-		
Total Amount Payable	-		

## KWAMBONAMBI FUEL AND RETAIL CENTRE

PROFIT AND LOSS ASSUMPTION					
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual cumulative price (revenue) increase	0.00%	7.00%	14.00%	21.00%	28.00%
Annual cumulative inflation (expense) incre	0.00%	7.00%	14.00%	21.00%	28.00%
<b>INCOME</b>					
	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Revenue</b>					
Petrol	65,691,648.00	70,290,063.36	80,130,672.23	96,958,113.40	124,106,385.15
Diesel	9,797,760.00	10,483,603.20	11,951,307.65	14,461,082.25	18,510,185.29
Convenience Shop	6,905,088.00	7,388,444.16	8,422,826.34	10,191,619.87	13,045,273.44
Lubricants	108,000.00	115,560.00	131,738.40	159,403.46	204,036.43
<b>Total revenue</b>	<b>82,502,496.00</b>	<b>88,277,670.72</b>	<b>100,636,544.62</b>	<b>121,770,218.99</b>	<b>155,865,880.31</b>
<b>Cost of Sales</b>					
Petrol	59,056,791.55	63,190,766.96	72,037,474.34	87,165,343.95	111,571,640.25
Diesel	8,808,186.24	9,424,759.28	10,744,225.58	13,000,512.95	16,640,656.57
Convenience Shop	4,833,561.60	5,171,910.91	5,895,978.44	7,134,133.91	9,131,691.41
Lubricants	75,600.00	80,892.00	92,216.88	111,582.42	142,825.50
<b>Cost of goods sold</b>	<b>72,774,139.39</b>	<b>77,868,329.15</b>	<b>88,769,895.23</b>	<b>107,411,573.23</b>	<b>137,486,813.73</b>
<b>Gross Profit</b>	<b>9,728,356.61</b>	<b>10,409,341.57</b>	<b>11,866,649.39</b>	<b>14,358,645.76</b>	<b>18,379,066.58</b>
<b>TOTAL INCOME</b>	<b>9,728,356.61</b>	<b>10,409,341.57</b>	<b>11,866,649.39</b>	<b>14,358,645.76</b>	<b>18,379,066.58</b>
<b>EXPENSES</b>					
<b>Operating expenses</b>					
Agency Fees	-	-	-	-	-
Depreciation	-	-	-	-	-
Insurance	412,512.48	441,388.35	503,182.72	608,851.09	779,329.40
Payroll and Payroll Tax	753,192.00	805,915.44	918,743.60	1,111,679.76	1,422,950.09
Property taxes	54,000.00	57,780.00	65,869.20	79,701.73	102,018.22
Maintenance, repair, and overhaul	-	-	-	-	-
Utilities	825,024.96	882,776.71	1,006,365.45	1,217,702.19	1,558,658.80
Administrative fees	12,000.00	12,840.00	14,637.60	17,711.50	22,670.71
Interest expense on long-term debt	-	-	-	-	-
Other	120,000.00	128,400.00	146,376.00	177,114.96	226,707.15
<b>Total operating expenses</b>	<b>2,176,729.44</b>	<b>2,329,100.50</b>	<b>2,655,174.57</b>	<b>3,212,761.23</b>	<b>4,112,334.38</b>
<b>TOTAL EXPENSES</b>	<b>2,176,729.44</b>	<b>2,329,100.50</b>	<b>2,655,174.57</b>	<b>3,212,761.23</b>	<b>4,112,334.38</b>
<b>TAXES</b>					
Income Tax	2,038,939.34	2,181,665.09	2,487,098.20	3,009,388.82	3,852,017.69
Other Tax (specify)	-	-	-	-	-
<b>TOTAL TAXES</b>	<b>2,038,939.34</b>	<b>2,181,665.09</b>	<b>2,487,098.20</b>	<b>3,009,388.82</b>	<b>3,852,017.69</b>
<b>NET PROFIT</b>	<b>5,512,687.83</b>	<b>5,898,575.98</b>	<b>6,724,376.62</b>	<b>8,136,495.71</b>	<b>10,414,714.51</b>



**CONCLUSION**

Based on the findings of the feasibility study, a filling station is considered feasible due to the projected high demand for fuel in the study area and high accessibility provide by the N2 highway as well as P232. With the introduction of a catalyst development, more local demand will be generated as well as more of the traffic flowing on the N2 will be intercepted by the filling station. Due to a high demand for fuel, the proposed filling station is not expected to have any detrimental effects on competing facilities in the study area.

### 3. TRUCKSTOP FEASIBILITY

The purpose of this section is to determine the market's ability to sustain a truck stop development in the KwaMbonambi area within the proposed KwaMbonambi Fuel and Retail Centre project. The proposed truck stop will store X2 83 000L storage tanks of diesel. The truckstop will utilize 11 520m<sup>2</sup> of land at the Kwambonambi Fuel and Retail Centre. This section will focus on transport industry trends, truck stop market trends as well as the feasibility assessment with regards to demand and supply. The truck stop feasibility study will focus on the following:

- Overview of how truckstops operate
- The logistics market in South Africa
- Analysis of the KwaMbonambi Fuel and Retail Centre truckstop

Sites selection is based on heavy vehicle traffic count, ease of access travelling in both directions along a route, visibility, internal heavy vehicle circulation as well as site typography and geotechnical qualities. Some of the major considerations are:

- Located on major transport routes showing high volumes of truck traffic
  - ✓ Near major cities
  - ✓ At natural stopping points determined by travel time
  - ✓ At borders
- Sites must be large enough to cater for:
  - ✓ Anticipated parking requirements
  - ✓ Diesel pumps (ideally more than 1 brand)
  - ✓ Ancillary services
  - ✓ Expansion potential



**Figure 8: KwaMbonambi Fuel and retail centre truckstop**

### **3.1 Overview of how Truckstops operate**

A truck stop is a safe and secure overnight stop for truck drivers, their trucks and their payload. Offering refueling facilities, repair services and driver amenities, truck drivers and their assistants can rest, recharge and refuel before continuing safely along their journey. Smaller truck stops might consist of only a parking area, a fueling station, and perhaps a small restaurant. Larger truck stops might have convenience stores of various sizes and accommodation facilities. Most truck stops now offer separate fueling areas, often with dedicated entrances, for standard-sized passenger vehicles. The truck refueling area almost always offers dual pumps, one on each side, so large trucks can fill both tanks at once. (The second pump is referred to as the "slave pump" or "satellite pump.").

### 3.2 The logistics market in South

South Africa has a transport-intensive economy, resulting from the combined effect of a number of factors: the geographic spread of the country; the interior location of the main economic hub (Gauteng), which developed around the gold mines and is approximately 600 km from the nearest port; the dependence on high-value imported consumer goods; the distribution of agricultural and manufactured goods from production areas to economic centres; and the export of bulk commodities (coal, iron ore, and manganese) from inland mines. Seven of the ten most competitive sectors are heavily dependent on transport. These are mining; automotive; steel and other metals; FMCG; agribusiness; building, construction and engineering; and retail. Some of the major highlights of the industry include the following:

- According to Stellenbosch University and the World Bank, the cost of South African logistics is estimated to be 11.8% of Gross Domestic Product.
- Total turnover for the logistics industry for enterprises only involved in mining, retail and manufacturing, was estimated to be R274 billion in 2018.
- More than 150 million tons of cargo was transported by road between January and March 2021, compared to just 40 million moved by rail.

### 3.3 The feasibility of the KwaMbonambi Fuel and Retail Centre Truck Stop

The truckstop at the KwaMbonambi Fuel and Retail Centre will offer safe parking and showering services to truckers at a minimal fee. The development of the Truck Stop will include, parking, ablution, convenient shop, workshop and site offices. For easy and convenient access from the parked vehicles, five suitably designed, convenient and functional, ablution only facilities for the vehicle operators will be developed on the proposed site, providing for both male and female patrons. The buildings for the ablution facilities will each be approximately 70m<sup>2</sup> in size.

- ✓ Competitor Analysis – The closest truck stop to the proposed site is the Engen North Coast One Stop which is about 62 KM from the site. The Engen North Coast One Stop is located on both sides of the highway. The service station is located just 20 KM South of Richards Bay. It has a Wimpy Restaurant amongst some it's facilities on offer.



*Figure 9: Engine 1stop North Truck stop*

### **Financial Considerations:**

The main assumptions used in the calculations are:

- Number of heavy vehicles/days – 1 250
- Price paid per truck per day – R250
- Capture rate – 3%
- Number of parking bays – 100
- Costs percentage of operating the truck stop – 70%
- Cost of the truckstop – R8,640,000
- Loan Funding repayments year 1 – R1,384,532
- Loan Term – 10 years

***Business Performance in the first year***

	<b><i>Calculations</i></b>	<b><i>Per Year (R)</i></b>
Income	= 1250 *3%*R250 =R9 375/day =R281 250/month =R3 375 000/year	R3 375 000
Less: Costs	Canadian Industry Statistics for parking lots indicated a 72% gross cost percentage for parking lots.	(R2 430 000)
Less: Loan Repayment/year	Calculate at prime plus 2 %, at 10.25%	(R1 384 532)
Profit		R1 045 477

**Conclusion**

Based on information provided in this section of the report it is clear that there is a need for a Truck Stop in the KwaMbonambi area. The traffic count conducted in the area suggested that there are 1 250 that pass through the site per day. A 3% capture rate indicates that the truck stop will on average have 38 trucks stopping at the site overnight per day. Basic financial assessment indicates an annual profit of R1 045 477.

## 4. MOTEL FEASIBILITY

This section of the report will investigate the financial viability and the market feasibility of establishing a 35 room Motel in KwaMbonambi within the proposed KwaMbonambi Fuel and Retail Centre project. This feasibility study will take into account the following factors:

- Market overview
- Site Review
- Proposed Development Costs
- Financial Analysis



*Figure 10: 3D Drawing of the proposed motel*

### 4.1 Market Overview

The annual report of the KwaZulu Natal Tourism Authority for 2020/2021 painted a very worrying picture as tourism arrivals in the province dropped to 194 379 which represents a

total decline of 71.8%. Much of this decline can be attributed to the COVID 19 restrictions that were imposed in the country. According to Stats SA occupancy rates for guest houses were around 21.1% in August 2021.

#### 4.2 Site Review

- The proposed site is easily accessible as it accessible from both directions on P232.
- The proposed site has very good visibility from both the N2 ad P232. There are no obstructions.
- The area has a number of experienced personnel in the hospitality industry due to the prevalence of accommodation establishments.
- The other major advantage is that the site is along a major transport route and can overtime serve as a business stop for people travelling to the far Northern KwaZulu Natal and even Swaziland and Mozambique.

#### 4.3 Proposed Development Costs

The construction costs for the guest house are estimated at R 18,900,000 based on the following:

- 35 rooms that are 36m<sup>2</sup> each.
- Total square metres of the Motel are 1 260m<sup>2</sup>
- Construction cost rate of R15 000/m<sup>2</sup> as per the 'Building Costs Per Square Metres in South Africa – AECOM 2020/2021' Report

#### 4.4 Financial Analysis

Assumptions

- Rate per room per night – R620 (Based on sun 1 accommodation rate on 20/7/2022)
- Occupancy rate – 50%



## KWAMBONAMBI FUEL AND RETAIL CENTRE

Annual Inflation increase	10%	We have assumed that price escalations will be 10% annually in line with inflation
Funding	5 years	The assumption is that the community will be given grant funding of 60 months
Cost/square metre for construction	R8 100	As property and Construction guide of 2020/2021
Inflation - expenses	8%	An inflation estimate of 8% has been used
Creditors	30 days	The assumption is that the business will pay all its expenses in 30 days
Debtors	30 days	Debtor collection period
Capital requirements	18,900,000	Start up costs
Working Capital		The working capital is inclusive of operational stock and operational costs
Taxation	28%	Statutory rate for companies and close corporations
Interest rate	12.25%	Interest has been calculated at prime + 3% compounding
Contingency provision	1.0%	A contingency provision of 1% has been applied on both direct and operating expenditure.

- Gearing – 100%
- Income statement

	Ref	Year 1	Year 2	Year 3	Year 4
<b>Gross Revenues</b>	A6	3,124,800	3,437,280	3,781,008	4,159,109
Direct Cost		1,351,398	1,459,510	1,576,270	1,702,372
<b>Gross Profit</b>		1,773,402	1,977,770	2,204,738	2,456,737
Operating costs	A5	(1,129,017)	(1,251,840)	(1,366,105)	(1,491,074)
<b>Operating (loss)/profit</b>		644,385	725,931	838,633	965,662
Operating Profit %		21%	21%	22%	23%
Finance costs	A10	(1,937,250)	(1,817,146)	(1,684,731)	(1,538,743)
<b>Net (loss)/income before taxation</b>		(1,292,865)	(1,091,215)	(846,098)	(573,081)
Taxation	A9	-	-	-	-
<b>Net (loss)/income after taxation</b>		(1,292,865)	(1,091,215)	(846,098)	(573,081)
(Loss)/Retained earnings at beginning of year		-	(1,292,865)	(2,384,080)	(3,230,178)
<b>(Loss)/Retained earnings at end of year</b>		(1,292,865)	(2,384,080)	(3,230,178)	(3,803,259)
<b>Net Profit/sales</b>		-41%	-32%	-22%	-14%

- Operating Expenditure

	Ref	Year 1	Year 2	Year 3
Advertising (Marketing Fee)		93,744	101,244	109,343
Bank charges		31,248	33,748	36,448
Consumables and cleaning		24,000	25,920	27,994
Depreciation		1,890,000	1,890,000	1,890,000
Uniforms		5,600	6,048	6,532
Skills Development levy		3,437	3,712	4,009
UIF Contributions		7,009	7,570	8,176
Rent		144,000	155,520	167,962
Telephone, Printing and stationery		62,496	67,496	72,895
Salaries		700,920	771,012	848,113
Workmens compensation		2,500	2,750	3,025
Security		9,687	10,462	11,299
Water and Electricity		15,624	16,874	18,224
Cost of sales - Accommodation		1,031,184	1,113,679	1,202,773
Cost of sales - Events		-	-	-
Repairs and Maintenance		374,976	404,974	437,372
Insurance		312,480	337,478	364,477
Contingency provision		47,089.05	49,484.86	52,086.40
<b>Total Operating Expenses</b>		<b>4,755,994</b>	<b>4,997,971</b>	<b>5,260,727</b>

## Conclusion

The start-up costs for the accommodation part of the business are rather high and the business will only be profitable if the company invests a lot of it's own money to lower the gearing levels. This type of accommodation is also geared towards the lower end of the market and as such the rates per night are low. A motel unlike other accommodation establishments does not have many other income streams and mainly relies on having high occupancy rates.

## 5. RETAIL SHOPPING CENTRE FEASIBILITY

### 5.1 Introduction

The objective of this section of the feasibility study is to determine the size of the potential market for retail facilities in the KwaMbonambi area. The proposed retail shopping development is classified as a neighbourhood centre (Classification and hierarchy of retail facilities in South Africa, Dr. Dirk A Prinsloo, September 2010), as it will cover 5000m<sup>2</sup> with 3500m<sup>2</sup> of that being retail floor space. The developers of the shopping retail centre have indicated that they have approached a number of national retailers to be the anchor tenants in the development. The main trading activities that have been identified for the retail centre are a pharmacy, fast food outlets, a workshop and a battery purchase and repair centre.



*Figure 11: Proposed retail centre*



*Figure 12: Another section of proposed retail centre*

## 5.2 Industry Overview

South Africa has approximately 2,000 malls, with Gauteng alone having over 750 malls with a total GLA of close of 10 million metres squared. Prior to the lockdown, mall owners were starting to feel the pinch because of the stagnant economy, dwindling foot traffic and consumer spend, growing competition and cannibalization by new shopping malls. The Moody's downgrade of SA sovereignty status just before the lockdown had placed added pressure on the economy.

The attachment to malls has confounded the expectations of many industry players and experts who saw lockdowns in South Africa. More than 300,000 square metres of new leasable retail space are set to be completed across the country this year, compared with about 367,000 square metres over the previous two years combined, according to data from property consultants Rode & Associates. The new spaces include a string of malls that are due

to open in 2022, including Oceans Mall in the coastal city of Durban, kwaBhaca Mall in the Eastern Cape and Mamelodi Square in Pretoria.

### 5.3 Supply Profile

There are currently no major formal shopping centres within the KwaMbonambi town. The locals travel to the surrounding towns of Richards Bay, Empangeni and Mtubatuba for their shopping including for dining in some of the prominent fast-food establishments. When households with the uMfolozi Municipality decide to shop within the town of KwaMbonambi, they do their shopping at the smaller retailers in the town. Shown in the graph below are some of the shopping centres in the Richards Bay and Empangeni areas:

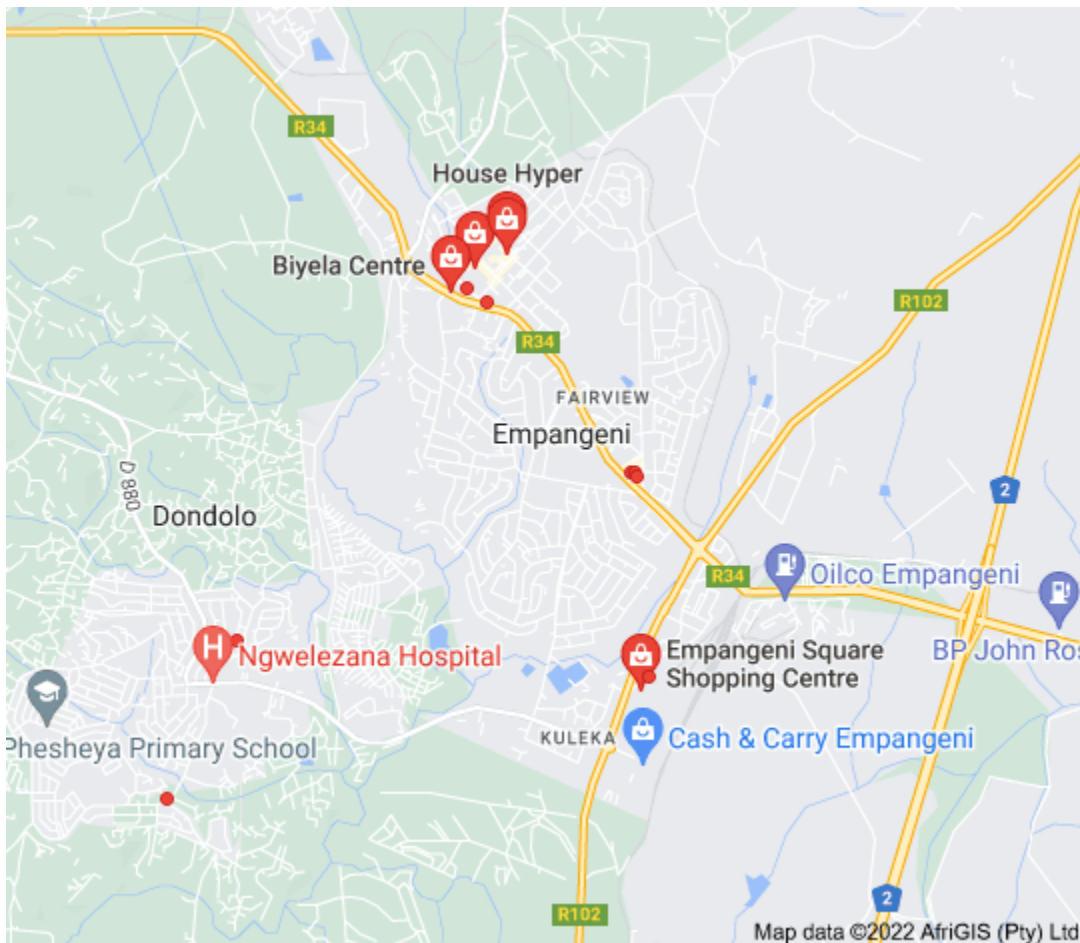


Figure 13: Shopping centres in Empangeni and Richards Bay

## 5.4 Market Demand Potential

Calculating market demand potential of a shopping centre is a function of a number of factors. These factors including analyzing the population size of the catchment area as well as the expenditure patterns and the income growth trends. Another factor that will need to be taken into account is the difference between the leakage (people from the catchment area utilizing shopping centres outside of the area itself) and injection (People from outside the catchment area utilizing shopping centres inside the area). Some of the factors that will be considered in the calculation for market demand are listed below in table 5:

Factor	Value	Source
Number of Households in UMfolozi Local Municipality	30 470	Stats SA Census 2016
Average Household income	R14 600	Stats SA Census 2016
Total Annual Household Income in UMfolozi local Municipality	R 441 815 000	Number of households multiplied by Average household income in the municipality
Percentage of Household income spent of groceries and other necessities	30%	StatsSA's Poverty trends report 2016
Value of spend on groceries by households in UMfolozi Municipality	R132 544 500	Household income multiplied by percentage spend on groceries
Leakage	34%	Findings of the Impact of Township Shopping Centres – July, 2010. Umlazi Megacity was used as the reference point.
Average Trading Density in South Africa	R27 000/m <sup>2</sup>	SA Shopping centre benchmarks 1998-2018

From the above table the following calculation can be made:

Potential market demand (PMD) = Total value of grocery spend/Average Trading Density \*  
(100% - 34% (Leakage))

$$\begin{aligned} \text{PMD} &= \text{R}132\,544\,500 / 27\,000\text{m}^2 \times 0.666 \\ &= 3\,236,43 \text{ m}^2 \end{aligned}$$

## Financial Details

### Rental Property Cash Flow Analysis

KwaMbonambi Fuel and Retail Centre

Monthly Operating Income	No Own Contribution	50% Own Contribution
GLA	1,000	1,000
Average Monthly Rent per Square Metre	200.0	200.00
Total Rental Income	200,000.0	200,000.00
% Vacancy and Credit Losses	9.60%	9.60%
Total Vacancy Loss	19,200.00	19,200.00
Other Monthly Income (laundry, vending, parking, etc.)	-	
<b>Gross Monthly Operating Income (GMOI)</b>	<b>180,800.00</b>	<b>180,800.00</b>

Monthly Operating Expenses	No Own Contribution	50% Own Contribution
Property Management Fees (10% of GMOI)	18,080.00	18,080.00
Repairs and Maintenance (7% of GMOI)	12,656.00	12,656.00
Real Estate Taxes (1,5% OF Property Value)	16,000.00	16,000.00
Insurance Costs (1,4% of Property Value)	14,933.33	10,666.67
Security Costs	7,000.00	7,000.00
Utilities (3% of GMOI)	5,424.00	5,424.00
Pest Control (Calculated at R1000/month)	1,000.00	1,000.00
Other	5,424.00	5,424.00
<b>Monthly Operating Expenses</b>	<b>80,517.33</b>	<b>78,666.40</b>

Net Operating Income (NOI)	No Own Contribution	50% Own Contribution
Total Annual Operating Income	2,169,600.00	2,169,600.00
Total Annual Operating Expense	966,208.00	943,996.80
<b>Annual Net Operating Income</b>	<b>1,203,392.00</b>	<b>1,225,603.20</b>

Capitalization Rate and Valuation	No Own Contribution	50% Own Contribution
Desired Capitalization Rate	8.00%	8.00%
<b>Property Valuation</b>	<b>15,042,400.00</b>	<b>15,320,040.00</b>
Actual Purchase Price	12,800,000.00	12,800,000.00
Actual Capitalization Rate	9.40%	9.58%

Loan Information	No Own Contribution	50% Own Contribution
Down Payment	-	6,400,000.00
Loan Amount	12,800,000.00	6,400,000.00
Acquisition Costs and Loan Fees	25,600.00	12,800.00
Length of Mortgage (years)	10	10
Annual Interest Rate	5.500%	5.500%
Initial Investment	25,600.00	6,412,800.00
Monthly Mortgage Payment (PI)	138,913.64	69,456.82
Annual Interest	679,350.58	339,675.29
Annual Principal	987,613.05	493,806.53
<b>Total Annual Debt Service</b>	<b>1,666,963.63</b>	<b>833,481.81</b>

Cash Flow and ROI	No Own Contribution	50% Own Contribution
Total Monthly Cash Flow (before taxes)	<b>(38,630.97)</b>	<b>32,676.78</b>
Total Annual Cash Flow (before taxes)	<b>(463,571.63)</b>	<b>392,121.39</b>
Cash on Cash Return (ROI)	<b>-1810.83%</b>	<b>6.11%</b>

**Conclusion**

The above clearly highlight that the household income levels in the town of KwaMbonambi are too low to sustain a shopping centre and taking into account already existing informal retail market supply in the town, the KwaMbonambi Fuel and Retail Centre develop will only succeed if it is a very small and well-focused convenience centre that also draw customers passing through the highway.

The Shopping retail centre will only be sustainable if the gearing levels are around 50% of total costs of the construction of the retail shopping centre.



## 6. RISK MANAGEMENT

### RISK MANAGEMENT

Table 1: Risks and mitigation

Possible risks	Impact	Likelihood	Overall Risk Rating	Mitigation actions
Occupational health and safety risks	High	Medium	High	<ul style="list-style-type: none"> <li>• Implement strict compliance to safety measures</li> <li>• Ensure all staff are adequately trained</li> </ul>
Fire / explosion and environmental damage	High	Low	Medium	<ul style="list-style-type: none"> <li>• Ensure all staff are adequately trained</li> <li>• Storage tanks and dispense pumps are adequately maintained and monitored</li> <li>• Identification of hazardous areas and control all sources of ignition</li> <li>• Use appropriate warning and hazard signs</li> </ul>
Compressed air system abuse and inflation of vehicles tyres	Low	Low	Low	<ul style="list-style-type: none"> <li>• To make sure that the air system is located within sight of shop attendant to ensure constant supervision</li> <li>• Display clear information on the use of the air system e.g. the user should check the correct tyre pressure</li> </ul>
Increase of labour costs	High	Medium	High	<ul style="list-style-type: none"> <li>• Ensure optimal productivity.</li> </ul>
Labour unrest	High	Low	Medium	<ul style="list-style-type: none"> <li>• Ensure compliance to labour relations regulations</li> </ul>
Disruption to utility supply	Low	Medium	Low	<ul style="list-style-type: none"> <li>• Have a back-up system for supply of power and water</li> </ul>
Crime (potential theft and robbery)	Medium	Low	Low	<ul style="list-style-type: none"> <li>• Put in place effective security system</li> </ul>
Major breakdown of equipment	Medium	Low	Low	<ul style="list-style-type: none"> <li>• Implement maintenance and service plan</li> <li>• conduct regular training</li> </ul>
Improper handling of equipment by operators	Medium	Low	Low	<ul style="list-style-type: none"> <li>• Provide ongoing training to personnel carry out structured maintenance and servicing of equipment</li> </ul>
Inability to achieve income targets	High	Medium	High	<ul style="list-style-type: none"> <li>• Provide quality service and carry effective marketing to keep customers and attract new customers</li> <li>• Diversify client base</li> </ul>

## **7. CONCLUSION AND RECOMMENDATIONS**

The analysis conducted above in this report indicate the following:

- The fuel station is feasible provided gearing levels are not too high.
- The motel business in the current proposed model will not be feasible.
- The truck stop business case is feasible.
- There is a business case for a small retail convenience centre.