

MOTIVATION REPORT

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PROPOSED SUBDIVISION, TOWNSHIP ESTABLISHMENT AND REMOVAL OF RESTRICTIVE TITLE CONDITIONS ON:

- A Portion of Portion 100 (a portion of Portion 2) of the farm Nooitgedacht 434, Registration Division I.P., North West Province

TO CREATE KANANA EXTENSION 16

- Spatial Planning
- Development Management
- Economic Development
- Administration

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MOTIVATION REPORT

PROPOSED SUBDIVISION, TOWNSHIP ESTABLISHMENT AND REMOVAL OF RESTRICTIVE TITLE CONDITIONS ON A PORTION OF PORTION 100 (A PORTION OF PORTION 2) OF THE FARM NOOITGEDACHT 434, REGISTRATION DIVISION I.P., NORTH WEST PROVINCE, IN TERMS OF SECTIONS 67(2), 56(1) AND 63(2) OF THE CITY OF MATLOSANA SPATIAL PLANNING AND LAND USE MANAGEMENT MUNICIPAL BY-LAW ON SPATIAL PLANNING AND LAND USE MANAGEMENT, 2016, READ TOGETHER WITH THE SPATIAL PLANNING AND LAND USE MANAGEMENT ACT, 2013 (ACT 16 OF 2013) AND CHAPTER IV OF THE TOWN PLANNING AND TOWNSHIPS ORDINANCE, 1986 (ORDINANCE 15 OF 1986) TO CREATE KANANA EXTENSION 16 COMPRISING ERVEN 25413 TO 27714

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CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

Koot Raubenheimer (ID No. 700305 5192 089) of the company Maxim Planning Solutions (Pty) Ltd (2002/017393/07) was appointed by the City of Matlosana Local Municipality to attend to the establishment of a residential township, to be known as Kanana Extension 16, to address the housing backlog and need for residential erven in the municipal area. The project constitutes a collaboration between the Department of Co-operative Governance and Traditional Affairs (COGTA) and the City of Matlosana Local Municipality to create vibrant and sustainable neighbourhoods through a proper township establishment process to allow for the co-ordinated installation of services and the transfer of erven to the beneficiaries thereof. Although residential in nature, the proposed development incorporates various complementary land uses (ranging between business use and social/educational facilities) to service the future communities. Upon completion, the township will integrate well with the surrounding Jouberton and Kanana residential areas as an integrated human settlement.

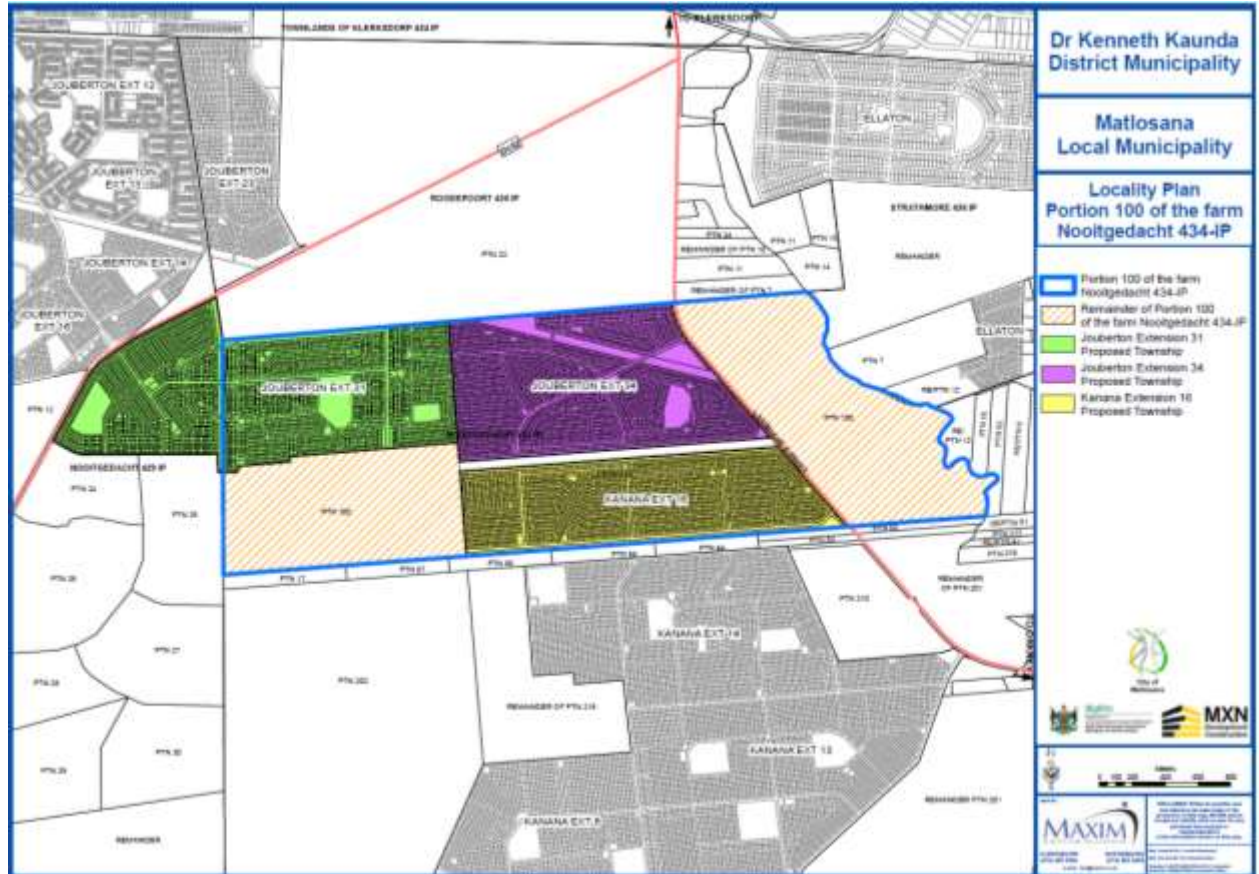
The Department of Human Settlements, Water and Sanitation declared 136 Priority Human Settlements and Housing Development Areas (PHSHDAs) in the Government Gazette No. 43316 of 15 May 2020. The PHSHDAs intend to advance Human Settlements Spatial Transformation and Consolidation by ensuring that the delivery of housing is used to restructure and revitalise towns and cities, strengthen the livelihood prospects of households and overcome apartheid spatial patterns by fostering integrated urban forms.

In North West Province, 14 Priority Housing and Human Settlements Development Areas located within 4 District Municipalities and 9 Local Municipalities were identified. Of these 14 PHSHDAs the Klerksdorp/Orkney/Stilfontein/Khuma/N12 Development Area was earmarked for development, including the residential area of Jouberton and Kanana. The proposed development is well aligned with this directive as it aims to address the housing backlog experienced in these areas through adequate housing provision.

Please note that a similar township establishment application is being launched simultaneously with this application for the proposed Jouberton Extension 34, situated north of the proposed Kanana Extension 16 on a portion of the same parent property. These two townships have been planned and designed to complement one another and integrate with each other. The two townships are separated by the proposed southern by-pass road and as such will be developed separately. However, since the townships will have a cumulative effect in terms of service provision specifically, both townships were taken into account during the compilation of specialist reports.

The locality of the proposed township areas of Jouberton Extension 34 and Kanana Extension 16 in relation to one another and the greater Jouberton and Kanana urban areas is reflected on **Map 1** below.

Map 1: Locality of the proposed township areas of Jouberton Extension 34 and Kanana Extension 16



In order to create a clear distinction between the Jouberton and Kanana urban areas, it is proposed that the proposed southern by-pass will act as the boundary between the two urban areas with all townships located north of the proposed future southern by-pass road forming part of the Jouberton urban area and the township areas located south of the proposed southern by-pass road forming part of the Kanana urban area.

From **Map 1** it should also be noted that the City of Matlosana has embarked on a further township establishment project comprising the establishment of the township area of Jouberton Extension 31 (comprising a partial re-development of the township area of Jouberton Extension 25). This township establishment application will follow in due course and said application will address all issues relating to the fore-mentioned township area and the provision of services to the concerned township area separately.

The planning of the proposed new township area at Kanana was conducted in an integrated manner and focussed on the entire designated development area. This integrated planning yielded a township area comprising 2 290 residential erven primarily

aimed at the subsidized housing market together with an additional 12 erven earmarked for non-residential support functions (exclusive of streets).

The proposed township Kanana Extension 16 will comprise of Erven 25 413 to 27 714 and will include:

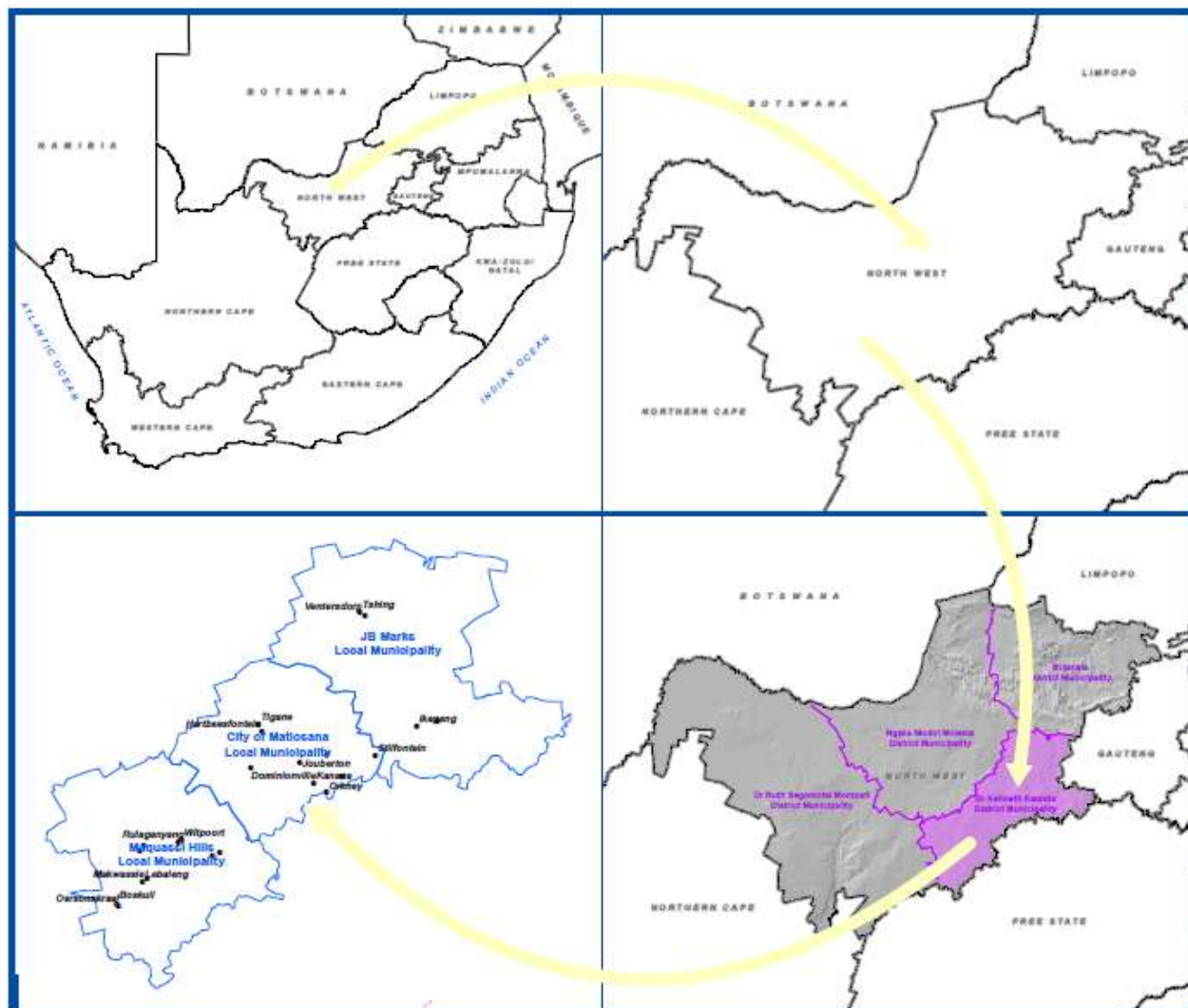
- 2 290 “Residential 1” erven with a minimum stand size of 300m²
- 2 “Business 1” erven
- 6 “Institutional” erven, which will be utilised for creches and places of worship, respectively.
- 1 “industrial 1” erf
- 3 “Public Open Space” erven
- Public streets

1.2 BACKGROUND OF CITY OF MATLOSANA LOCAL MUNICIPALITY

1.2.1 REGIONAL LOCALITY

The City of Matlosana Local Municipality (NW403) is located in the south-eastern part of the North West Province. The municipal area covers the central part of the Dr. Kenneth Kaunda District municipal area and is bordered by JB Marks (Potchefstroom & Ventersdorp) municipal area in the east and north-east, Maquassi Hills municipal area in the west and the Free State Province in the south. The municipality comprises a total area of 3162km² and is located on the N12 Treasure Corridor (SDI) linking the municipal area with Gauteng Province in the east and the Northern Cape in the south-west. The municipality is one of four located in the Dr Kenneth Kaunda District Municipality. The municipality consists of a vast rural / commercial farming area, mining area as well as the urban areas of Klerksdorp / Jouberton, Orkney / Kanana, Stilfontein / Khuma and Hartbeesfontein / Tigane.

Map 2: Regional locality of City of Matlosana Local Municipality



The municipality was previously known as the City Council of Klerksdorp and is classified as a Category B municipality. The municipality was officially renamed on 1 July 2005. The name Matlosana is said to mean “People helping each other to move from one area to the other”. The main economic sectors in the municipal area include mining, agriculture, manufacturing, services, construction and transport.

The urban area of Kanana previously formed part of the Orkney Municipal area but currently forms an integral part of the Matlosana municipal area.

1.2.2 DEMOGRAPHICS

The demographic profile detailed below provides an economic overview of the City of Matlosana Local Municipality (NW403) in respect of the sectoral composition (GVA) and employment trends, the population and households as well as household income. A short summary of the economy and demographics is provided in **Table 1** below:

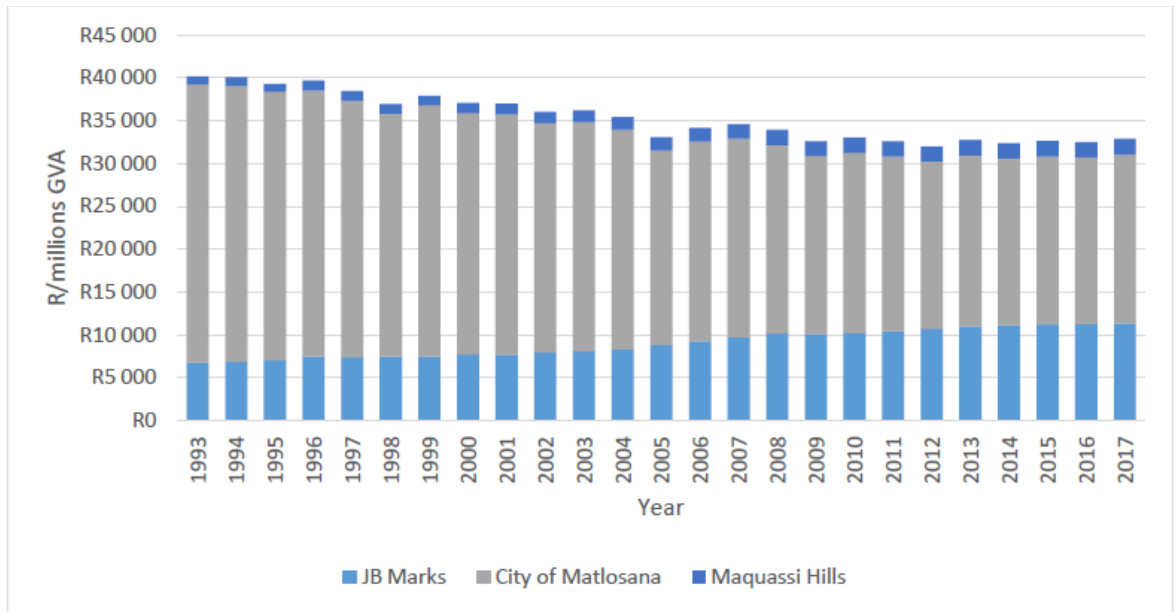
Table 1: Snapshot of the Matlosana economy & demographics

	2016	2017
Economic Indicators		
Size of the economy (GVA)	R19.4 billion	R19.6 billion ▲
Economic growth ¹	-0.6%	0.9% ▲
Main economic sector(s)	1. Finance & business (R3.8 Bn.) 2. General government (R3.2 Bn.) 3. Retail trade (R3.1 Bn.)	1. Finance & business (R3.8 Bn.) 2. General government (R3.3 Bn.) 3. Retail trade (R3.1 Bn.)
Labour		
Total employment	135 184	137 036 ▲
Employment growth ¹	0%	1.4% ▲
Main employment sector(s)	1. Mining (29 631) 2. Retail trade (25 641) 3. Community & personal (23 188)	1. Mining (29 251) 2. Retail trade (26 857) 3. Community & personal (24 290)
Unemployment rate	27.2%	28.2% ▲
Demographics		
People	425 272	430 801 ▲
Households	124 435	126 052 ▲
Average monthly household Income	R 9 550	R 10 242 ▲

The information contained in sections 1.2.2.1 to 1.2.2.4 is based on data obtained from StatsSA, the City of Matlosana Integrated Development Plan (2020 – 2021), a socio-economic study conducted by Quantec in 2019 as part of the review process of the local Spatial Development Framework, a socio economic study compiled by Dr. Dyason for the Dr. Kenneth Kaunda District Municipality as part of the review of the Spatial Development Framework and the draft City of Matlosana Human Settlements Sector Plan, 2020.

1.2.2.1 Economic Overview

The City of Matlosana municipality has the largest economy of the three municipalities in the Dr. Kenneth Kaunda District Municipality, as seen in **Figure 1** below:

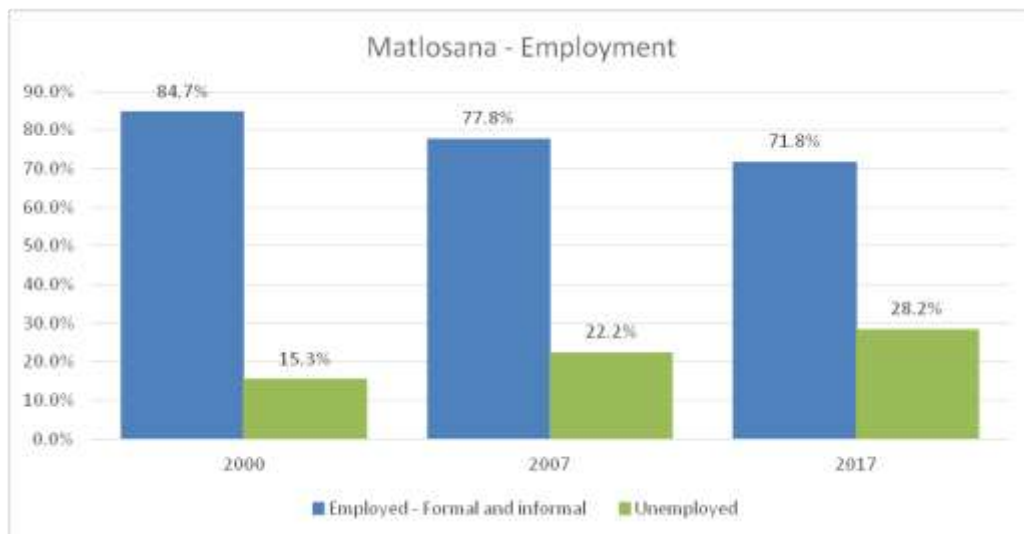


Source: Author ex. Quantec, 2019

Figure 1: Economic value of the Dr Kenneth Kaunda District, 1993 - 2017

However, the economy of the City of Matlosana has continued to decrease from its high in 1993. Since 2012, the size of the local economy has stabilised around R19.5 billion GVA. The main reason for this decrease has been the decrease in mining activity. Since 2012 the local economy has stabilised and even showed first signs of positive economic growth. For the period 2012 to 2017, the local economy has had an average annual growth of 0.1%. The data suggest that the bottom has been reached and that positive growth could be expected for the local economy.

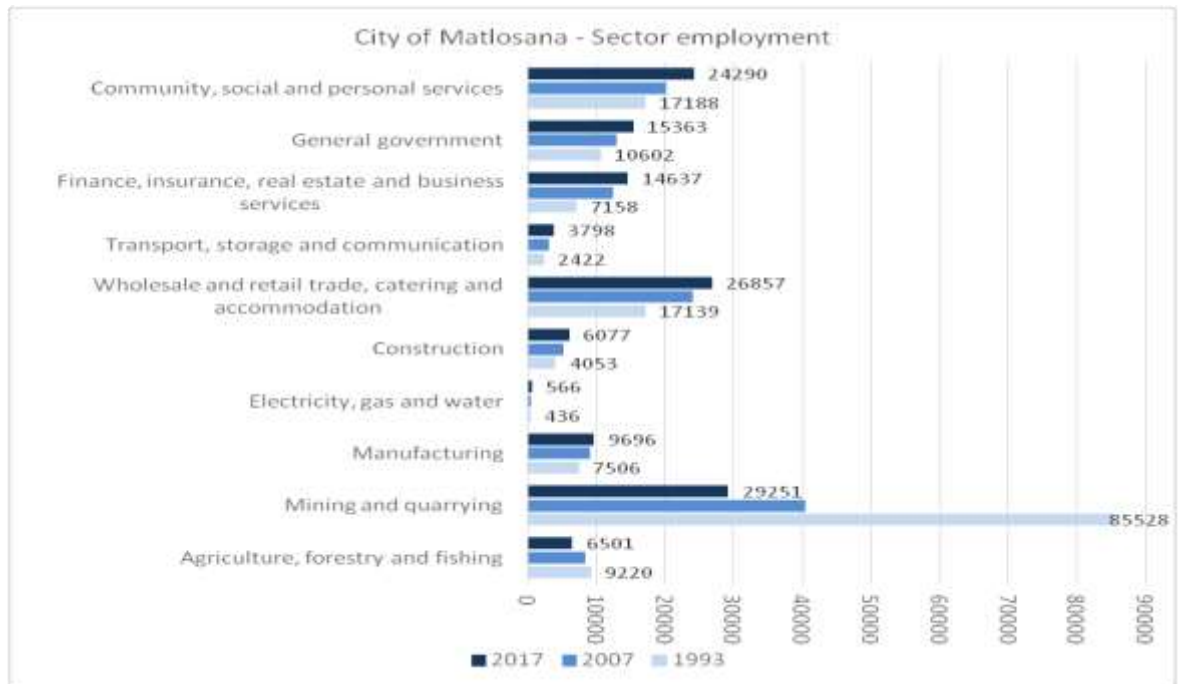
The unemployment rate for the municipality was 28.2% in 2017 as illustrated in the Figure below. The municipal area has a higher unemployment level when compared to the national average (26%) in 2017. The long-term trend shows an increase in the level of unemployment in the local economy.



Source: Quantec, 2019

Figure 2: Level of employment - 200, 2007 & 2017

Jouberton in particular has an unemployment rate of 44% (Quantec, 2019). 137 036 jobs are however provided locally in the following sectors:



Source: Quantec, 2019

Figure 3: Employment per sector - 1993, 2007 & 2017

The sector employment in the economy has changed significantly between 1993 and 2017. This change is a result of the decrease in the number of people employed in mining activity and an increase in tertiary sectors (retail trade, business services, community, personal and social services and government sectors).

The average annual household income for the municipality is illustrated in Figure 4 below:



Figure 4: Average annual household income, 2011

The figure shows that the majority (78%) of households earn below R76 800 per annum. A large segment of the market earns no income at all, representing 15.9% of all households.

- Average annual household income for the municipal area in **2011 was R80 790 per annum or R6 732 per month.**
- Average annual household income for the municipal area in **2019 is R141 343 per annum of R11 779 per month.**

The average monthly household income for Jouberton in 2019 is estimated at R6 271.

In terms of housing provision, the following three monthly income ranges are used:

- R0 – R3 500 (qualify for government subsidy and CRU units)
- R3 500 – R7 500 (qualify for social housing)
- R7 500 and higher (qualify for bonded houses)

The affordability profile for the municipal area shows that a total of 62 486 households fall within the residential market for government subsidy and CRU units, 40 867 for bonded houses and 25 998 for social housing.

1.2.2.2 Population Overview

The City of Matlosana has had positive population growth over the past decade. The population growth rate between 2008 and 2017 (10 years) was 1.3% per annum with the household growth at 1.35% annually. This translates into an average annual increase of 3 686 people and 1 079 households annually within the municipal area.

The population density for the municipality is estimated at 112 persons per km² with an average household size of 3.2 people. Approximately 36.7% of households in the municipality are headed by women and the gender split in the municipality is 50:50.

The municipal population total is estimated at 442 074 and the households at 129 351 for 2019, based on census data of 2011 (StatsSA). The 2024 totals are forecasted to be 471 566 and 137 980 respectively. This represents an increase over the next 5 years of 29 492 people and 8 629 households. The population of Jouberton is estimated as follows:

Table 2: Population figures of Jouberton

Subplace	Population total	Household total
Kanana	78 419	22 881

The figures above indicate that Kanana constitutes approximately 17,7% of the entire municipal population. Coupled with the employment figures it is clear that sub-places such as Kanana, Jouberton and Khuma, where large numbers of people are residing, are showing the highest level of unemployment in the municipal area.

The age profile of the City of Matlosana is as follows: 0 - 14 years: 28.8%; 15 - 64 years: 66.4%; and older than 65: 5.4%. It is not that different from the national profile based on Census 2011 (i.e. 0 - 14 years: 31.03%; 15 - 64 years: 63.59%; and older than 65: 5.39%).

1.2.2.3 Housing Profile

Figure 5 below provides an overview of the residential market demand for the Matlosana area for the next 10 years. The figure also shows the growth in units for each residential sub-market for the corresponding year. The residential market in South Africa is generally divided into the following segments:

1. Government subsidy
2. Social housing
3. FLISP
4. Low-end bonded
5. Bonded
6. High-end bonded

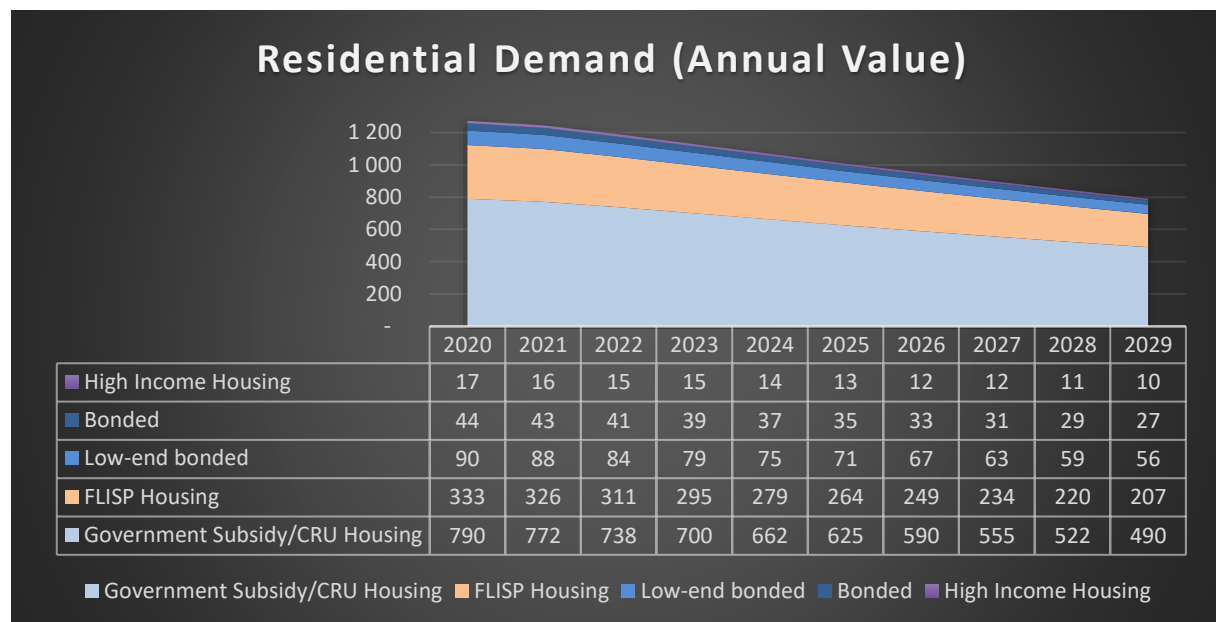


Figure 5: Residential market demand up to 2029

The largest segment of the residential market is for government subsidy and CRU houses (62%). This includes households earning below R3 500 per month. FLISP housing (26.2%) represents the segment of the market that earns between R3 500 and R22 000 monthly and is the second largest segment in the market. The low-

end bonded, bonded and high income (13.8%) housing represents all the households that earn more than R22 000 monthly.

The cumulative housing need by 2029 is therefore as follows:

- High income housing: 135 units
- Bonded housing: 359 units
- Low-end bonded housing: 731 units
- FLISP housing: 2719 units
- Government subsidy/CRU housing: 6446 units

Based on the Quantec and IHS figures indicated in **Table 3**, the housing situation in the City of Matlosana improved significantly from 1995 to 2013 to 2016.

- The number of households residing in a house or brick structure more than doubled from 41,106 to 92,052 in 2013 and increased further to 108,300 in 2016;
- The number of informal dwelling/shacks decreased by almost half from 24,546 to 12,929 in 2013. However, the IHS Market figures show an increase to 16,200 in 2016.
- The decline in the number of households residing in a room or flatlet on a shared property can possibly be attributed to the closing of mine hostels.

Table 3: Housing types in the City of Matlosana

Type of House	1995*		2013*		2016**	
	No of households	%	No of households	%	No of households	%
House or brick structure on a separate stand or yard	41,106	48%	92,052	75%	108,300	76,04%
House/flat/room, in backyard	6,093	7%	2,565	2%		
Flat in a block of flats	3,030	4%	4,086	3%		
Town/cluster/semi-detached house (simplex, duplex or triplex)	1,035	1%	2,428	2%		
Room/flatlet not in backyard but on a shared property	1,017	1%	862	1%		
Traditional dwelling/hut/structure made of traditional materials	1,409	2%	769	1%	678	
Informal dwelling/shack, in backyard	5,371	6%	6,256	5%	16,200	12,90%
Informal dwelling/shack, NOT in backyard, e.g. in an informal/squatter settlement	24,546	29%	12,929	11%		
Other/unspecified/NA	2,270	3%	1,191	1%	649	

*Source: Matlosana Local Municipality Mining Town Diagnostic Report. Quantec 2013

**Source: IHS Market Regional eXplorer Version 1338, 2017

Source: Human Settlements Spatial Transformation Plan - Nov 2018

Based on the backlog of 16 200 informal dwelling units indicated in the IHS Market Regional Explorer Version 1338 (2017) report and the estimated need for an additional 2719 FLISP housing units and 6446 Government subsidy/CRU housing units by 2029, the total need for Government subsidy/CRU and FLISP housing is estimated at approximately 25 365 units until 2029

It is evident from the above figures that the municipality as a whole is experiencing a severe housing backlog. The need for additional residential erven within specifically the Kanana urban complex is evident from **Table 4** below which indicates the location and extent of informal occupation within specifically the Kanana urban complex.

Table 4: List of areas with informal settlements

Area	Name	Location	Estimated Number of Informal dwellings
Kanana	Kanana Informal 1	North of Kanana X 11	239
	Kanana Informal 2	East of Kanana X 12	155
	Kanana Informal 3	South-east of Kanana X12	47
	Kanana Informal 4	West of Kanana X 7	369
	Kanana Informal 5	West of Kanana X 7	119
	Kanana Informal 6	East of Kanana X 13	57
	Kanana Informal 7	Erf 11344 Kanana	17
	Kanana Informal 8	Erf 11358 Kanana	9
Subtotal Kanana:			1,012

As is evident from the table above, an estimated 1 012 households in the Kanana urban area are still living in informal dwellings without tenure.

An undeniable housing need exists in the City of Matlosana municipality, specifically in the Kanana and Jouberton urban areas. Due to the proximity of the proposed development area to the Jouberton urban area, it is relevant to note that the Jouberton urban area is faced with extensive informal occupation to the extent of nearly 6 500 informal dwelling units that are located in informal settlement areas. This application serves to partially address this need through providing proper residential properties in close proximity to existing neighborhoods and with the necessary basic services.

1.3 INTEGRATED HUMAN SETTLEMENT PLANNING

As integral part of the township establishment process, the following studies were conducted as part of the pre-planning activities:

- Aerial survey of the development area conducted by UAV Industries (Pty) Ltd;
- Contour survey conducted by GSA Geodetic Systems Africa;
- Engineering Geological Investigation conducted by Geoset CC;

- Phase 1 Heritage Impact Assessment conducted by A Pelsers Archaeological Consulting CC;
- Detail Bulk Sewer investigation conducted by TMA Consulting Engineers;
- Detail Bulk Water investigation conducted by Greyhorn Engineering Consultants;
- Detail electrical engineering services investigation conducted by Motla Consulting Electrical Engineers;
- Environmental Impact Assessment conducted by AB Enviro-Consult;
- Ecological Fauna and Flora Habitat Survey compiled by Reinier F Terblanche; and
- Traffic Impact Study conducted by Route² Transport Strategies.

The results of the studies referred to above will be addressed in the respective sections of this Motivation Report.

In terms of current policy directives, the main development strategy for residential development should be based on the objectives of the Breaking New Ground Principles (BNG) for sustainable human settlements which can be summarised as follows:

- To ensure that sustainable housing development takes place.
- To integrate housing with other municipal services in order to establish sustainable human settlements, in support of spatial restructuring.
- To coordinate municipal departments in order to work together in planning and implementing.
- To promote middle- and high-income housing which will in turn generate resources to improve low income areas.
- To promote environmental and energy efficient housing.

The approach to ensuring that sustainable human settlements are achieved should include:

- Spatial transformation and economic integration
- Viable infrastructure provisioning and life-cycle management
- Functional, responsive and innovative design
- Easy and close access to range of services and amenities
- Affordable urban living
- Financial viability
- Effective urban management and municipal financial sustainability
- Environmental sustainability
- Local job creation and empowerment

1.4 APPLICATION

Koot Raubenheimer (Id No. 700305 5192 089) of the company Maxim Planning Solutions (Pty) Ltd (2002/017393/07), being the authorised agent of the City of Matlosana Local

Municipality (NW403), is hereby applying to the City of Matlosana Local Municipality in terms of:

- Section 67(2) of the City of Matlosana Spatial Planning and Land Use Management Municipal By-law on Spatial Planning and Land Use Management, 2016, read together with the Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) for the subdivision of Portion 100 (a portion of Portion 2) of the farm Nooitgedacht 434, Registration Division I.P., North West Province into two (2) portions (one of which will comprise the Remainder of the subject property);
- Section 56(1) of the City of Matlosana Spatial Planning and Land Use Management Municipal By-law on Spatial Planning and Land Use Management, 2016, read together with the Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) and Chapter IV of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986), for the establishment of the proposed township Kanana Extension 16 on a portion of Portion 100 (a portion of Portion 2) of the farm Nooitgedacht 434, Registration Division I.P., North West Province, comprising approximately 2290 erven zoned “Residential 1”, 2 erven zoned “Business 1”, 6 erven zoned “Institutional”, 1 erf zoned “Industrial 1”, and 3 erven zoned “Public Open Space” and the associated public streets that will be zoned “Existing Public Roads”; and
- Section 63(2) of the City of Matlosana Spatial Planning and Land Use Management Municipal By-law on Spatial Planning and Land Use Management, 2016, read together with the Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) for the removal of conditions V.1 to V.10 in Deed of Transfer T44091/1973 in respect of Portion 100 (a portion of Portion 2) of the farm Nooitgedacht 434, Registration Division I.P., North West Province

1.5 PUBLIC PARTICIPATION

The proposed township establishment application will be advertised in terms of Sections 94(1)(b), 94(1)(g) and 94(1)(h) of the City of Matlosana Spatial Planning and Land Use Management Municipal By-law on Spatial Planning and Land Use Management, 2016. The public participation process will include the following:

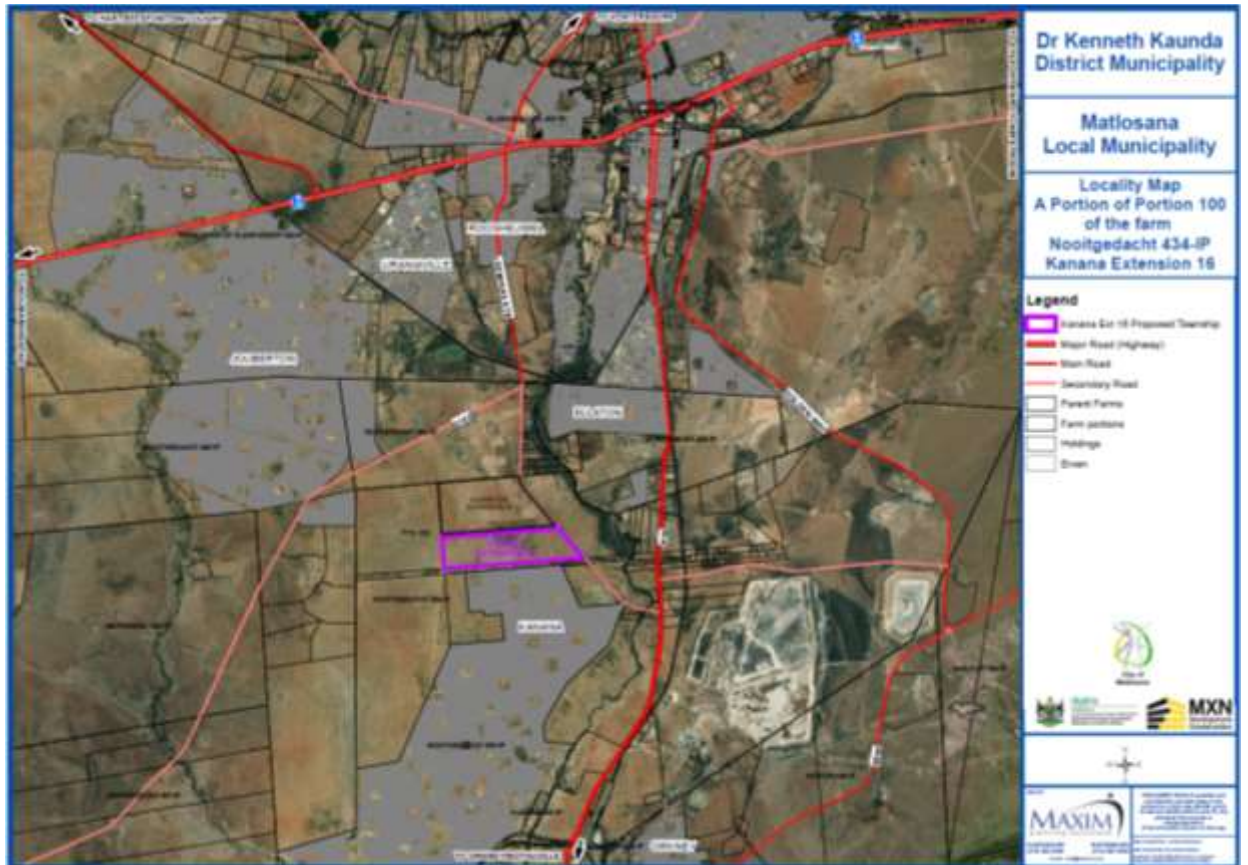
- Publishing notices of the application (as set out in **Annexure C1** of the comprehensive Land Development Application) in the Klerksdorp Rekord in Afrikaans & English as contemplated in Section 94(2)(a) of the City of Matlosana Spatial Planning and Land Use Management Municipal By-Law on Spatial Planning and Land Use Management, 2016.
- Appending notices of the application (as set out in **Annexure C2** of the comprehensive Land Development Application) on the notice board situated at the library as contemplated in Section 94(2)(b) of the City of Matlosana Spatial Planning and Land Use Management Municipal By-Law on Spatial Planning and Land Use Management, 2016.

- Displaying a notice (as set out in **Annexure C3** of the Comprehensive Land Development Application) in a conspicuous place on the land to which the application applies as contemplated in Section 97(1)(a) of the City of Matlosana Spatial Planning and Land Use Management Municipal By-Law on Spatial Planning and Land Use Management, 2016.
- Notices to adjacent property owners (as set out in **Annexure C4** of the comprehensive Land Development Application) as contemplated in Section 95(1)(c) of the City of Matlosana Spatial Planning and Land Use Management Municipal By-Law on Spatial Planning and Land Use Management, 2016.
- Notices to the following external departments / organizations (as set out in **Annexure C5** of the comprehensive Land Development Application) in order to obtain letters of consent / objection as contemplated in Section 97(1)(f) of the City of Matlosana Spatial Planning and Land Use Management Municipal By-Law on Spatial Planning and Land Use Management, 2016.
 - Department of Public Works and Roads
 - Openserve (Telkom SA Limited)
 - Eskom
 - Dr. Kenneth Kaunda District Municipality (DRKKDM)
 - Department of Minerals Resources (DMR)
 - Department of Agriculture, Land Reform and Rural Development (DALRRD)
 - Department of Water and Sanitation (DWS)
 - Department of Co-operative Governance and Traditional Affairs (COGTA)
 - Department of Education
 - Department of Health
 - South African Post Office (SAPO)
 - Transnet Freight Rail
 - South African Heritage Resources Agency (SAHRA)
 - South African National Roads Agency Limited (SANRAL)
 - Midvaal Water
 - Department of Economic Development, Environment, Conservation and Tourism (DEDECT)

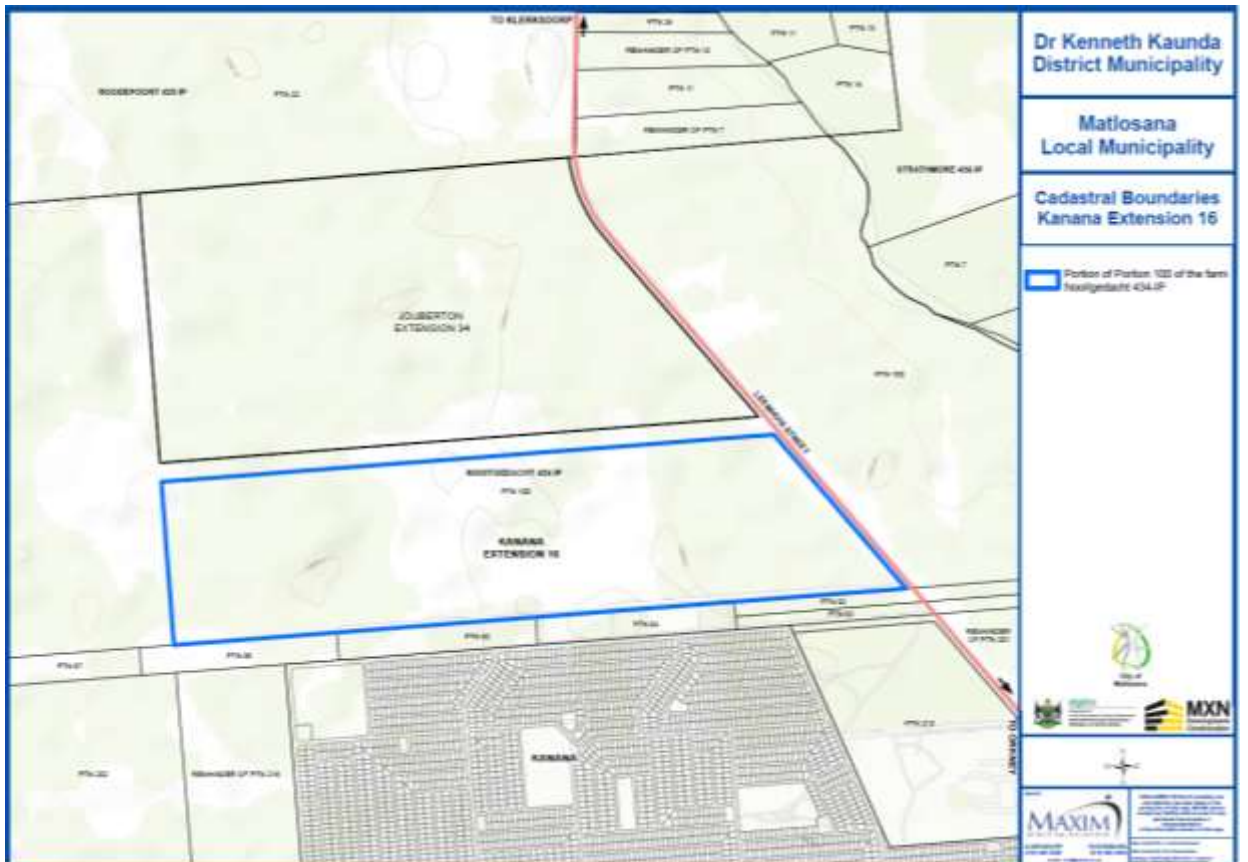
The public will be afforded a period of 30 days to comment in this matter whereas the external organisations / departments that will be approached for comments will be afforded a period of 60 days to furnish us with their comments in respect of the application. Following receipt of the said comments we will forward same to your Municipality for your further attention and record purposes.

1.6 **STUDY AREA DELINEATION**

The proposed development area comprises a portion (approximately 110,6147ha) of Portion 100 (a portion of Portion 2) of the farm Nooitgedacht 434, Registration Division I.P., North West Province, as reflected on **Map 3** and **Map 4** below.



Map 3: Regional Locality Map



Map 4: Locality Map (outside figure)

1.7 REPORT OUTLINE

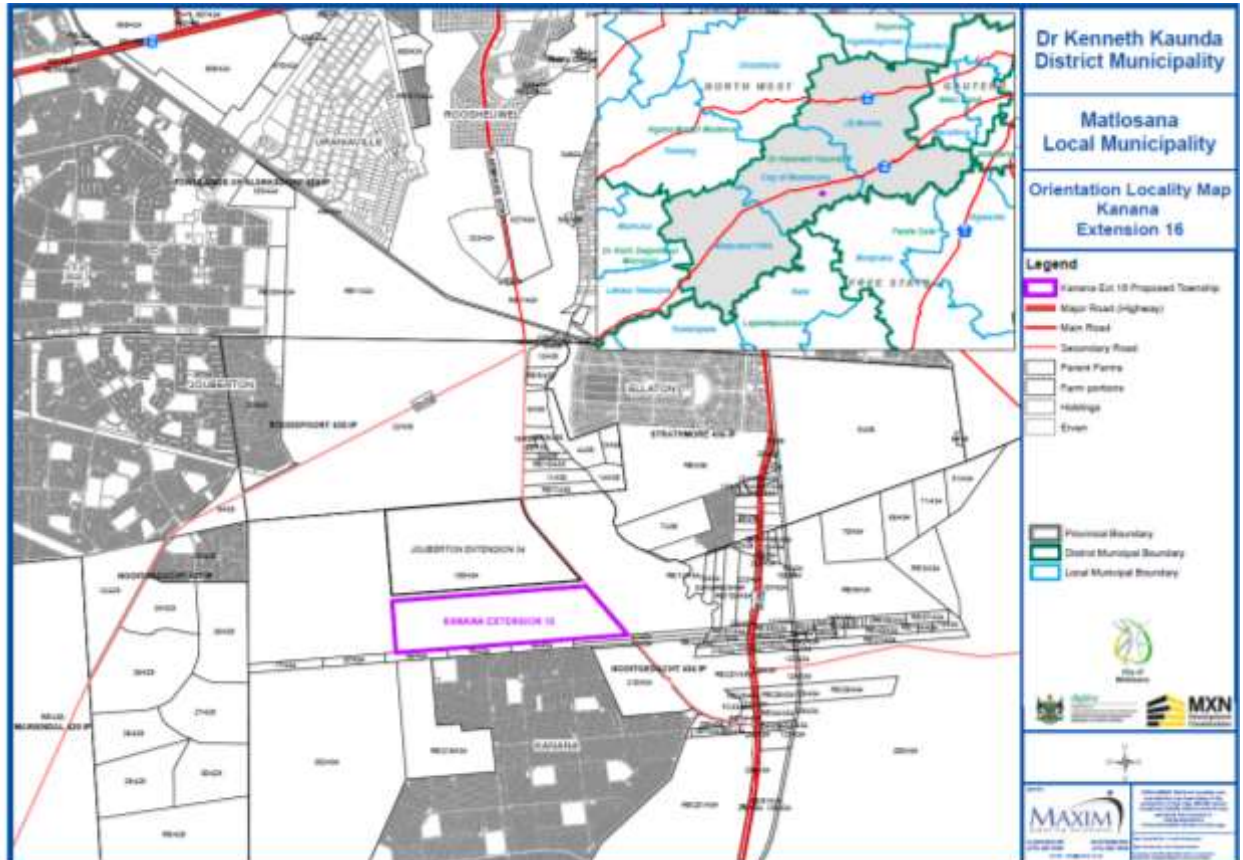
The remainder of the report is structured in terms of the following main headings:

- Chapter 2: Particulars of the development area
- Chapter 3: Physical aspects
- Chapter 4: Proposed development
- Chapter 5: Provision of Engineering Services
- Chapter 6: Motivation

CHAPTER 2: PARTICULARS OF THE DEVELOPMENT AREA

2.1 LOCALITY

The application site is located directly north of the existing township areas of Kanana Extension 14 and Kanana Extension 15 and is bordered to the east by Provincial Road P150-1 (also known as Leemhuis Street).



Map 5: Orientation Locality Map

All locality plans of the proposed township/development area are attached to the comprehensive land development application as **Annexures H1 – H4**.

2.2 SG DIAGRAM

Portion 100 (a portion of Portion 2) of the farm Nooitgedacht 434, Registration Division I.P., North West Province is reflected on SG diagram A855/1972 (attached as **Annexure F1** to the comprehensive Land Development Application).

2.3 OWNER

The application site is currently registered as follows:

Table 5: Ownership details

Property Description	Registered Owner	Deed of Transfer Number
Portion 100 (a portion of Portion 2) of the farm Nooitgedacht 434, Registration Division I.P., North West Province	City of Matlosana	T44091/1973

(Refer **Annexure E1** of the comprehensive Land Development Application for a copy of the Windeed Deeds Office Enquiry conducted in respect of the above-mentioned property as well as **Annexure E2** for the relevant Deed of Transfer).

2.4 **BONDHOLDER**

Portion 100 (a portion of Portion 2) of the farm Nooitgedacht 434, Registration Division I.P., North West Province is currently not subject to any bond (refer **Annexures E1** of the comprehensive Land Development Application for Windeed Deeds Office Enquiry that confirms the absence of any bonds as well as **Annexure K** for the Conveyancer Certificate to the same effect).

2.5 **AREA**

As mentioned previously, the application under consideration only applies to a portion of Portion 100 (a portion of Portion 2) of the farm Nooitgedacht 434, Registration Division I.P., North West Province. Approximately 110,6147 hectares of the fore-mentioned property will be utilised for the proposed township area, as seen on the subdivision map included as **Annexure M** of the comprehensive Land Development Application.

2.6 **EXISTING LAND USE AND ZONING**

2.6.1 **CURRENT LAND USES**

The application site is currently still vacant, as indicated in the site photograph referenced as **Photo 1**.



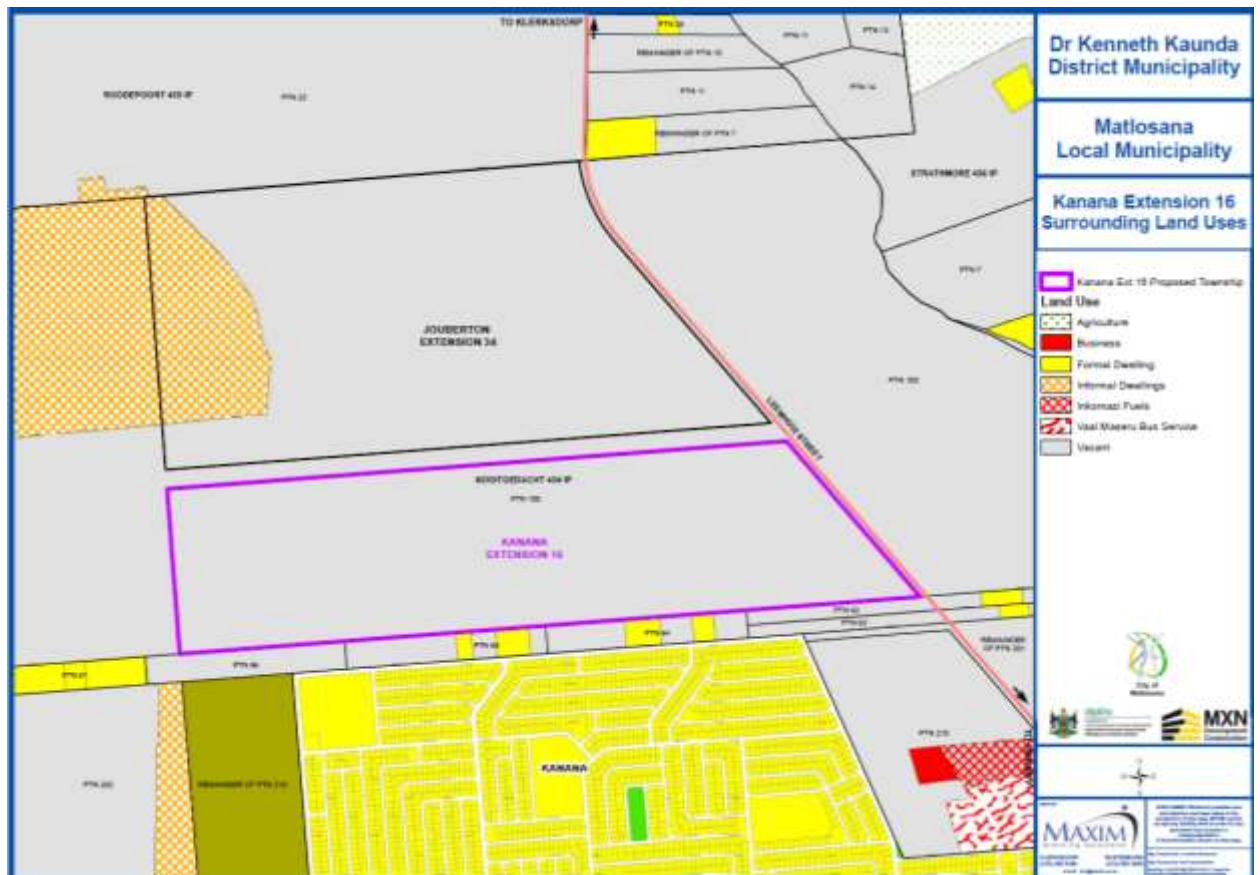
Photo 1: Land Uses on Site

2.6.2 SURROUNDING LAND USES

As indicated on **Map 6** below, the application site is situated north of the existing township areas of Kanana Extensions 14 and 15. The properties located directly adjacent and to the south of the proposed township area comprise small farm portions that of which some are utilized for residential purposes. Further south of these small farm portions are the township areas of Kanana Extensions 14 and 15 which are primarily residential in nature (refer Photo 2). The land directly adjacent to the northern boundary of the proposed township area is currently predominantly vacant but large portions are also occupied by informal dwelling units in an informal settlement area.



Photo 2: Residential land uses located directly south of the development area
The land located east and west of the development area is currently still vacant.



Map 6: Surrounding Land Uses

The proposed development will integrate well with the surrounding land uses due to the residential nature of the proposed township.

2.6.3 CURRENT ZONING

The property to which the land development application applies is currently zoned “Municipal” in terms of the Klerksdorp Land Use Management Scheme, 2005.

(Refer to Zoning certificates attached as **Annexure N** to the comprehensive Land Development Application).

2.7 MINERAL RIGHTS

The following conditions are contained in Deed of Transfer T44091/1973 in respect of Portion 100 (a portion of Portion 2) of the farm Nooitgedacht 434, Registration Division I.P., North West Province:

- **Condition I on page 3**

“THAT portion of the property hereby transferred indicated by the figure aB’ middle of Schoonspruit C’b on annexed diagram S.G. No. A. 855/72 is subject to the Cession of Mineral Rights as will more fully appear from Deed of Cession No. 737A/1936 dated 29th August 1936 and registered on 24th October 1936, which Cession of Mineral Rights was in respect of Portion of Portion of the said farm measuring 129,9151 hectares”

The condition relates to a Cession of Mineral Rights as will more fully appear on reference to Deed of Cession No. 737A/1936. As this condition relates to mineral rights same will not be taken forward into the Certificate of Registered Title to be registered in respect of the land on which the township is to be established.

- **Condition II on page 3**

“THAT portion of the property hereby transferred, indicated by the figure AabD on the annexed diagram S.G. No. A 855/72 is subject to the reservation of Mineral Rights as will more fully appear from Certificate of Mineral Rights No. ___/1973 dated this day, which reservation was made in respect of certain mineral area No. 1 situated on the remaining extent of Portion 2 of the said farm NOOITGEDACHT No. 434 measuring 828,3301 hectares.”

This condition relates to the reservation of rights to minerals by virtue of Certificate of Mineral Rights No. ___/1973 and will not be taken forward into the Certificate of Registered Title to be registered in respect of the land on which the township is to be established.

The reservation of rights to minerals is however subject to the provisions of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) that came into force

on 01 May 2004. The land development application will subsequently also be referred to the Department of Mineral Resources for its consent in terms of Section 53 of the fore-mentioned Act in respect of the proposed development.

2.8 RESTRICTIVE TITLE CONDITIONS

According to the Conveyancer Certificate compiled by Coetzer & Steyn Attorneys (attached as **Annexure K** to the comprehensive Land Development Application), Title Conditions V.1 to V.10 on page 4, and continued on pages 5 and 6, of Deed of Transfer T44091/1973 are not reconcilable with the use of the subject property for the purposes of a township area as the proposed township area is located divorced from the Schoonspruit as well as the absence of any irrigation channel on the subject property.

These conditions read as follows:

“V. THE remaining extent of Portion 2 of the said farm NOOITGEDACHT No. 434 measuring as such 958,2452 hectares, (of which the property hereby transferred forms a portion) is subject to the following conditions, namely;

- 1. That the existing dams in Schoonspruit used for diverting water for irrigation purposes and situated on the former Remaining Extent of the said farm NOOITGEDACHT no 434, measuring as such 1216,2754 hectares as transferred by Deeds of Transfer Nos. 5312/1907 and 5313/1907, shall be left free and undisturbed thereon.***
- 2. That the large irrigation canal passing over the former Remaining Extent of the said farm NOOITGEDACHT No. 434, measuring as such 1216,2754 hectares as transferred by Deeds of Transfer Nos. 5312/19907 and 5313/1907, and over Portions “B” and “C” of the said farm, as transferred by Deeds of Transfer Nos, 5298/1907 to 5311/1907 inclusive, shall be left free and undisturbed.***
- 3. That the owners of said former Remaining Extent, measuring as such 1216,2754 hectares, shall be entitled to all the water flowing in said large irrigation canal during three days in succession in every period of fourteen days.***
- 4. That the Owners of said Portion “C” shall be entitled to all the said water during Sixty Eight hours and ten minutes in succession in every period of fourteen days,***
- 5. That the Owners of said Portion “B” shall be entitled to all the said water during three hours and fifty minutes in succession in every period of fourteen days.***
- 6. That the Owners of Portion “A” of said farm, as transferred by Deeds of Transfer Nos, 5395/1907 to 5397/1907 inclusive, shall be entitled to all the***

said water during six days in succession in every period of fourteen days.

- 7. That the Owners of the said Portion C shall be entitled to water from the lower of small dam situated on the said remaining extent measuring as such 1216,2754 hectares, during five days and seven hours in succession in every period of fourteen days and that said water shall be allowed to flow freely during the irrigation turn of the said Portion C.**
- 8. That Sundays shall not be taken into account in the foregoing division of water.**
- 9. That the owners of said former Remaining Extent measuring as such 1216,2754 hectares, and Portions “C”, “B” and “A”, shall be bound and obliged to contribute towards the repair, maintenance and cleaning of the aforesaid common dams and water furrows, in proportion to their respective interests therein.**
- 10. Subject to a right of way 9.45 metres wide over the former Remaining Extent of Portion of the farm NOOITGEDACHT No. 434, measuring as such 958,2452 hectares as transferred by Deed of Transfer No. 11667/1936 dated 6th July 1936 and Deed of Transfer No. 8633/1936 dated 23rd May 1936, along the boundary line between Portion “D” of the said farm, held under Deed of Transfer No. 6886/1920 of the former Remaining Extent as described above in this paragraph, from the point or beacon 23 via the points or beacons 22, 21, 20, 19 to the point or beacon 18, as shown upon the general plan of Portions D.E.F.G and H. of the said farm, framed by Land Surveyor H.L.M. Leibbrandt in September 1917, and numbered S.G. No. A.407/20, in favour of the said Portion “D” of the said Farm as held under the aforesaid Deed of Transfer No. 6886/1920, and further subject to an aqueduct or right of passage of water over the former Remaining Extent, as described above in this paragraph on the South side of, and adjoining the line from beacon 24 to beacon 23 on the General Plan aforesaid, in favour of the said Portion “D” of the said farm, as will more fully appear from Notarial Deed No. 670/1923 S., registered on the 30th November 1923.”**

In summary:

- Condition V.1 relates to the protection of the dams in the Schoonspruit utilised for irrigation purposes. The proposed township area of Kanana Extension 16 is located divorced from the Schoonspruit as the Schoonspruit is located east of Provincial Road P150-1 whereas the proposed township area is located west of Provincial Road P150-1. Even though the greater Portion 100 of the farm Nooitgedacht No. 434-IP partially borders onto the Schoonspruit, the portion of the fore-mentioned property to which this land development application applies is located divorced from the Schoonspruit. It would be non-practical to pass this

condition on to all the even in the township area as the township area has no impact on the Schoonspruit.

- Condition V.2 relates to the protection of irrigation channels. In terms of a physical survey of the development area, same is devoid of any irrigation channels and the use of the subject property for residential purposes would not be reconcilable with the use of the land for irrigation channels.
- Conditions V.3 – V.8 relate to the entitlement of certain owners to the water in the irrigation channel for certain periods of time. Due to the absence of any irrigation channels on the development area, the use of the subject property for residential development purposes will not influence any other owner's entitlement to water in any such irrigation channel.
- Condition V.9 relates to the responsibility of owners in respect of contributing to the maintenance and cleaning of the common dams and water furrows. In the absence of any owner in the township area having access to the benefit of water in the Schoonspruit or in any water furrow, it will be nonsensical to expect the owners in the proposed township area to make any such contribution for the upkeep and maintenance of the dams and water furrows.
- Condition V.10 relates to a right of way 9.45m as indicates on diagram SG No. 407/1920 as well as the right in respect of an aqueduct and passage of water. The proposed township area of Kanana Extension 16 will be accessed directly off Provincial Road P150-1 (Leemhuis Street) and no further servitudes are required to access the township area. The absence of any water furrow on the development area and the divorced location of the development area in relation to the Schoonspruit, renders this condition superfluous.

Application is therefore made for the removal of the above mentioned Title Conditions in terms of Section 63(2) of the City of Matlosana Spatial Planning and Land Use Management Municipal By-law on Spatial Planning and Land Use Management, 2016, read with the Spatial Planning and Land Use Management Act, 2013 (Act No 16 of 2013). The removal of conditions V.1 to V.10 in Deed of Transfer T44091/1973 is also recommended in terms of the Conveyancer Certificate issued by Coetzer & Steyn Attorneys (refer **Annexure K** of the Land Development Application).

In addition to the restrictive title conditions detailed above, Portion 100 (a portion of Portion 2) of the farm Nooitgedacht 434, Registration Division I.P., North West Province is also subject to the following title conditions contained in Deed of Transfer T44091/1973 which will be retained and addressed in the township establishment process as indicated:

(i) Condition III on page 3

“III. THE remaining extent of Portion 2 of the said farm NOOITGEDACHT No. 434 measuring as such 958,2452 hectares (a portion whereof is hereby transferred) is subject to a perpetual right to convey and transmit water together with all ancillary rights in favour of Western Transvaal Regional Water Company (Proprietary) Limited, as will more fully appear from

Notarial Deed No. 121/1960S dated 12th December 1958, and registered on 9th February, 1960”.

This condition relates to a servitude to convey water in favour of Western Transvaal Regional Water Company (Pty) Ltd and registered by virtue of Notarial Deed No. 121/1960S. The route of this servitude is reflected on servitude diagram SG No. A2516/1958 and this servitude does not affect the proposed township area due to the location thereof in relation to the proposed township area.

(ii) Condition IV on page 3

“IV. THE remaining extent of Portion 2 of the said farm NOOITGEDACHT No. 434 measuring as such 958, 2452 hectares (a portion whereof is hereby transferred) is subject to a servitude of aquaduct by means of pipelines in favour of Western Transvaal Regional Water Company (Proprietary) Limited, as will more fully appear from Notarial Deed No. 543/63S dated 19th November 1962, and registered on 12th June, 1963”

This condition relates to a servitude of aqueduct by means of pipelines in favour of the Western Transvaal Regional Water Company (Pty) Ltd and registered by virtue of Notarial Deed No. 543/1963S. The route of this servitude is reflected on servitude diagram SG No. A5497/1961 and this servitude does not affect the proposed township area due to the location thereof in relation to the proposed township area.

(iii) Condition VI on page 6

“VI. The Remaining Extent of Portion 2 of the said farm NOOITGEDACHT No. 434 measuring as such 958,2452 hectares, (of which the property hereby transferred forms a portion) is ENTITLED to certain servitude of right of way 9,45 metres wide over the following Portions of portion of the said farm NOOITGEDACHT No. 434, namely: -

Portion ‘D’ held under Deed of Transfer No. 6886/1920, dated the 3rd May 1920;

Portion ‘E’ held under Deed of Transfer No. 6171/1926, dated the 15th June, 1926;

Portion ‘F’ held under Deed of Transfer No. 11293/1923, dated the 30th November 1923;

Portion ‘G’ held under aforesaid Deed of transfer No. 11293/1923;

Portion ‘H’ held under Deed of Transfer No. 14003/1928, dated the 30th November, 1928;

as shown on diagrams S.G. Nos. A 402/20, 403/20, 404/20, 405/20, and 406/20, of the aforesaid Portions”.

This condition relates to an entitlement in respect of a servitude of right of way 9,45m wide over certain portions of the farm Nooitgedacht No. 434-IP. The proposed township area of Kanana Extension 16 will be accessed exclusively from Provincial Road P150-1. As this entitlement is not required to access the township area, it is recommended that this entitlement not be transferred/passed on to the erven in the

proposed township area. This will be addressed accordingly in the Conditions of Establishment of the proposed township area.

(iv) Condition VII on page 6

“VII. Subject to a servitude of outspan in extent 1/75th of 1216,2754 hectares, that is, 16,2170 hectares”.

This condition relates to a servitude of outspan and has lapsed through repeal in terms of Section 53 of the Road Ordinance, 1957 (Ordinance 22 of 1957). This condition will therefore not be brought forward into the Certificate of Registered Title to be registered in respect of the proposed township area.

(v) Endorsement on page 8

“By Notarial Deed K1343/1981S the right has been granted to EVKOM to convey electricity over the property hereby conveyed together with ancillary rights, and subject to conditions, as will more fully appear on reference to said Notarial Deed and diagram, grosse whereof is hereunto annexed”.

This endorsement relates to a servitude in favour of ESKOM as registered by virtue of Notarial Deed K1343/1981S. The route of this servitude has been determined and is reflected on servitude diagram SG No. A4785/1987. The route determination was registered by virtue of Notarial Deed of Route Determination K1455/1989S. This servitude traverses the proposed township area of Jouberton Extension 34 (located north of the proposed township area of Kanana Extension 34). As this servitude does not affect the proposed township area due to the location thereof in relation to the proposed township area, same will not be passed on to the erven in the proposed township area. This matter will be addressed accordingly in the Conditions of Establishment of the proposed township area.

(vi) Endorsements on pages 9 and 10

**“The withinmentioned property is subject to a powerline servitude in favour of ESKOM with ancillary rights.
K15 01200 S
18 03 15”**

These endorsements relate to the same servitude in favour of Eskom as registered by virtue of Notarial Deed K1200/2015S. This servitude was registered in general terms and no route determination has been made to date. This servitude was investigated in detail in conjunction with Eskom and it was ascertained that the servitude was registered to accommodate the proposed Hermes / Dominion Reefs 132kV overhead powerline(s). The initial proposed route of this servitude is reflected in green on **Map 7** below and is represented by the lines J-K1-K2-L-M.

Following discussions with the relevant officials at Eskom regarding the proposed route of this servitude, agreement was reached in respect of the re-alignment of this proposed servitude to a position parallel to the southern by-pass (refer red line on

Map 7) that is located directly adjacent and to the north of the proposed township area of Kanana Extension 16. This servitude will be accommodated in the 20m building restriction area provided in the proposed township area of Jouberton Extension 34 along this future road reserve. The re-aligned route will not only require less physical infrastructure but will also shorten the powerline by an estimated 310m. As this servitude has not been registered in specific terms with a route determination, this servitude will be passed onto all the erven in the proposed township area in accordance with paragraph 5.3.6.6 of Registrar’s Circular 02 of 2019.



Map 7: Proposed and alternative route of Hermes / Dominion Reefs 132 KV powerline

2.9 SERVITUDES

The portion of Portion 100 (a portion of Portion 2) of the farm Nooitgedacht 434, Registration Division I.P., North West Province is not subject to any other servitudes (excluding those already addressed in Section 2.8 supra). The only servitude that will be made applicable to the erven in the proposed township area is the powerline servitude in favour of Eskom as registered by virtue of Notarial Deed K1200/2015S. As this servitude has not been registered in specific terms with a route determination, this servitude will be passed onto all the erven in the proposed township area in accordance with paragraph 5.3.6.6 of Registrar’s Circular 02 of 2019.

CHAPTER 3: PHYSICAL ASPECTS

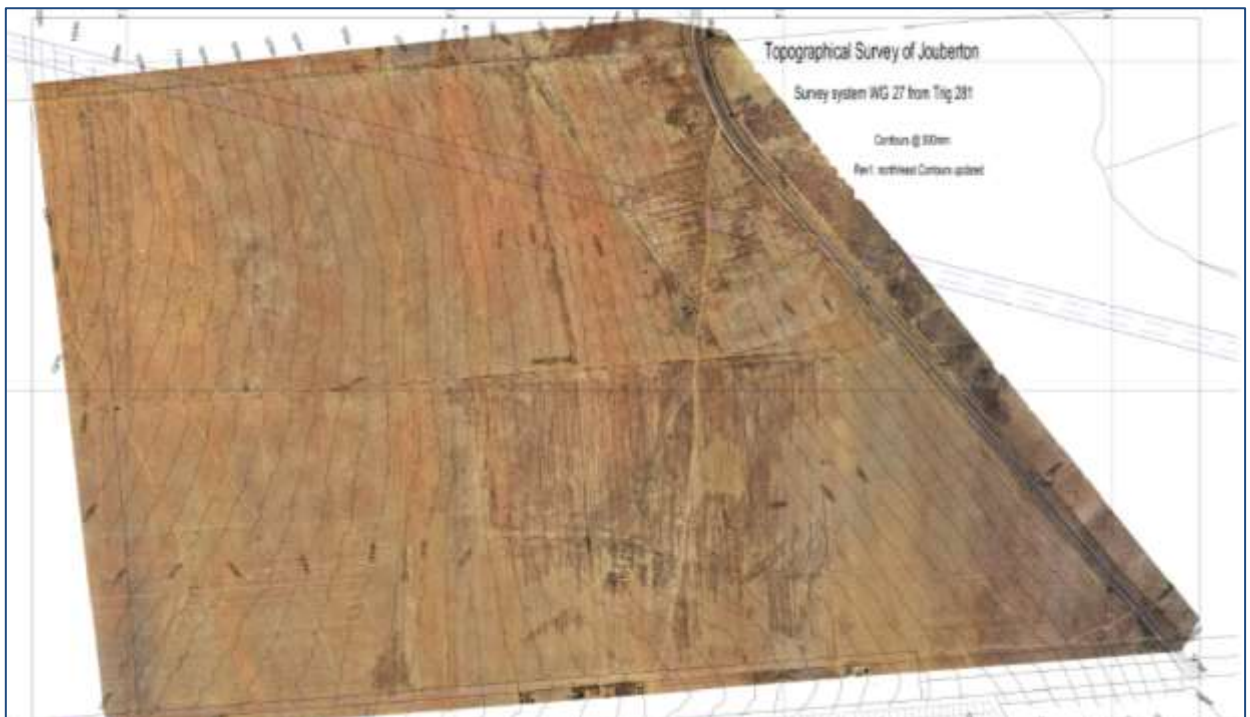
3.1 TOPOGRAPHY & DRAINAGE

As part of the pre-planning studies that were conducted in respect of the development area, an aerial survey was conducted by UAV Industries (Pty) Ltd whereas the generation of the required contour map was attended to by GSA Geodetic Systems Africa. This aerial survey and contour mapping included:

- High resolution aerial photography and the creation of digital aerial photo images (**Map 8 refers**) (refer also to **Annexure G1** of the comprehensive Land Development Application)
- Fieldwork and ground control points
- Line mapping (**Map 6 refers**):
 - Cadastral information
 - Contour mapping (0,5m contour intervals)(Refer also to **Annexure G2** of the comprehensive Land Development Application).

The results of the aerial survey and the subsequent line mapping are reflected on Map 8.

Map 8: Aerial photograph & contour mapping of application site



The proposed development area is located on a shallow slope towards the Schoon Spruit located east of the site.

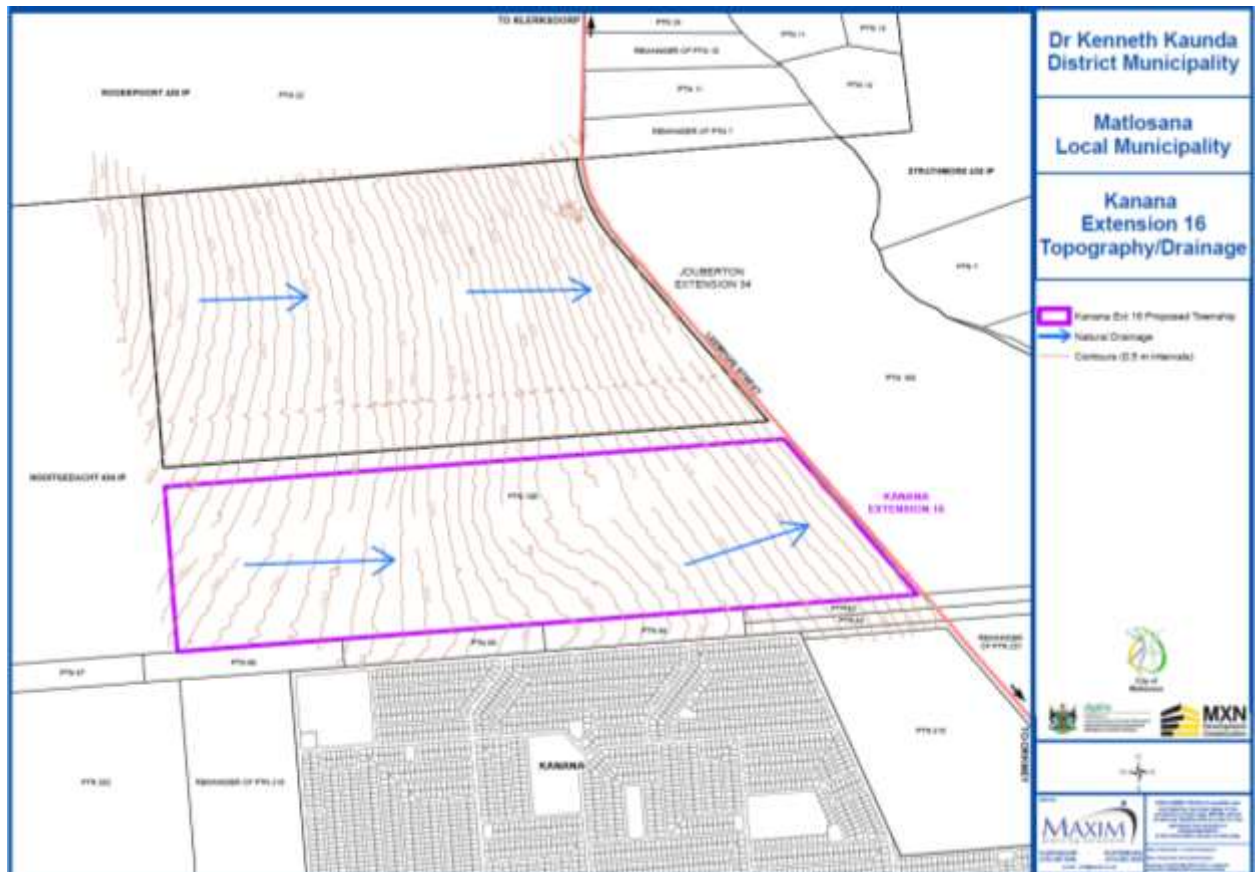
3.2 CLIMATE

The region is characterized by summer rainfall with thunderstorms, with annual low rainfall figures of 625 mm (Potchefstroom - Agriculture), recorded at the closest weather station to the site. Winters are dry with frost common. The warmest months are normally December and January and the coldest months are June and July.

The Weinerts N value for this area is in the order of 2.4, indicating that the chemical decomposition of rocks will be dominant over mechanical disintegration.

3.3 FRESHWATER SYSTEM / DRAINAGE

Plate flow is the dominant drainage pattern on site, and the site is drained in a predominantly easterly direction towards the Schoon Spruit located not too far east of this site (refer **Map 9** below). The drainage systems from culverts for the roads should be incorporated within the roads.



Map 9: Topography and Drainage

The proposed township area is not subject to the 1:100 year floodline of any river or stream.

3.4 WETLANDS AND PANS

As detailed in section 3.3 supra, the development area is not affected by the 1:100 year floodline of any river or stream and no wetlands or pans are present on site (refer also to Section 3.6.2 below).

3.5 VEGETATION

The area is typically characterized by sourish mixed bushveld veld type (Acocks, 1988). The site itself is covered by sparse grasslands of which some was used as agriculture land, and few indigenous thorn trees are present on site within the stands.

3.6 FAUNA AND FLORA ASSESSMENT

To establish the possibility that threatened flora and fauna known to occur in North West Province are likely to occur within the proposed development site (and the immediate surrounding area) or not, an Ecological Fauna and Flora Habitat Survey was commissioned and said survey was conducted by Reinier F Terblanche (refer **Annexure O4** to the comprehensive Land Development Application). Assessment Species which are not threatened but of conservation concern, for example near threatened, data deficient or declining species also received attention in the survey.

3.6.1 **ECOLOGICAL SENSITIVITY:**

Vegetation at the site appears to be degraded, modified or in some areas transformed. Disturbances that have caused extensive impacts to vegetation include hitherto cultivated fields at large parts of the site, possible overgrazing by free roaming cattle and goats, clearings, trampling, informal dumping and informal settlements. Plant cover at many areas is visibly poor which lead to soil compaction and lower rainfall efficiency. Patches of degraded grassland with some indigenous grass species, herbaceous species and few trees remain at the site. The shrub *Protasparagus larycinus* is conspicuous at the site and its concentrations approach bush encroachment at some places. **Ecological sensitivity at the site was found to be low.**

3.6.2 **CONCLUSION:**

The Ecological Fauna and Flora Habitat Survey concluded as follows:

- Vegetation at the site appears to be degraded, modified or in some areas transformed. Disturbances that have caused extensive impacts to vegetation include extensive hitherto cultivated fields covering most of the site, possible overgrazing by free roaming cattle and goats, clearings, trampling, informal dumping and informal settlements. Plant cover at many areas is visibly poor which lead to soil compaction and lower rainfall efficiency.

- Patches of degraded grassland with some indigenous grass species, herbaceous species and few trees remain at the site. The shrub *Protasparagus laricinus* is conspicuous at the site and its concentrations approach bush encroachment at some places. Few indigenous trees such as individuals of *Ziziphus mucronata* (Buffalo-thorn), *Vachellia karroo* (Sweet Thorn) and *Searsia lancea* (Karee) are present. Alien invasive weed species are commonplace especially at previously cleared and previously cultivated areas.
- No wetlands have been found at the site and are likely to be absent. Ditches and two rectangular receiving dams (excavated and with groundwalls) which are linked to a water treatment system further north are present adjacent to the northern boundary outside the site.
- Rocky ridges appear to be absent at the site.
- Grassland at the site is represented by the Vaal-Vet Sandy Grassland vegetation type (Gh 10) which is listed as a Threatened Ecosystem, Endangered, according to the National List of Threatened Ecosystems (2011). Vegetation at the site has been degraded, modified and at certain areas, transformed. The scope for the restoration and conservation of natural grassland at the site is small.
- **No Threatened or Near Threatened plant or animal species appear to be resident at the site. No other plant or animal species of particular conservation concern appear to be present at the site.**
- The scope for degraded, modified and increasingly isolated site to be part of a corridor of particular conservation importance is small.
- **Ecological sensitivity at the site is low.**
- Following the mitigations which will be upheld and planned footprint for development all the impact risks listed above are moderate or low.
- If the development is approved a key issue would be the control of alien invasive plant species and the cultivation of indigenous plant species. Continued monitoring and eradication of alien invasive plant species are imperative. It is in particular declared alien invasive species such as *Melia azedarach* (Syringa) and alien invasive Australian *Acacia* species (Australian wattles) that should not be allowed to establish.
- If the development is approved an opportunity presents itself to cultivate indigenous plant species which would benefit urban nature conservation.

3.7 GROUNDWATER

The permanent or perched water table on site is deeper than 1,5m below ground surface. Slow percolation of water within the clay is expected.

3.8 GEOLOGY

(The information contained in Sections 3.8.1 to 3.8.3 below was extracted from the Engineering Geological Investigation Report compiled by Geoset CC attached as **Annexure R** to the comprehensive Land Development Application)

3.8.1 LOCAL GEOLOGY

The area is underlain by amygdaloidal lava, agglomerate and tuff of the Rietgat Formation, Platberg Group of the Witwatersrand Supergroup. Surficial deposits on site include quaternary ferricrete and colluvium, covering the lithology.

No dolomite occurs in the area and no stability investigation is required.

On account of the field observations, laboratory results, previous experience and engineering properties of the soil, it is zoned as follows:

Modified Normal to Special Development:

Site Class H1R/2C2F:

Slightly to marginally medium expansive soil with estimated total heave of between 7,5 and 15mm measured at surface, underlain by a pebble marker or lava characterize this zone, with modified normal foundation techniques to enable proper development, with modified normal construction with lightly reinforced strip footings and articulation joints or soil replacement with an engineered soil raft with at least A COLTO classification of G5 or better, with drainage provision will be required. Site drainage, a concrete apron of 1,0m around all structures with no gardening allowed next to structures and plumbing and service precautions are advised. It was classified as H1R in terms of the NHBRC guidelines (1995) or the SAICE Code of practice (1995) and 2C2F according to the classification for urban development (Partridge, Wood & Brink).

Normal Development with Risk:

Site Class HR:

Slightly expansive soil with estimated total heave of less than 7,5mm measured at surface, with the risk that it is underlain by shallow rock lava or a competent pebble marker, with normal foundation techniques to enable proper development. The use of pneumatic tools and a competent TLB to reach required depths for the placement of services may increase the development cost to slightly above normal. It was classified as HR in terms of the NHBRC, and normal compaction within standard strip foundations and drainage provision will be sufficient.

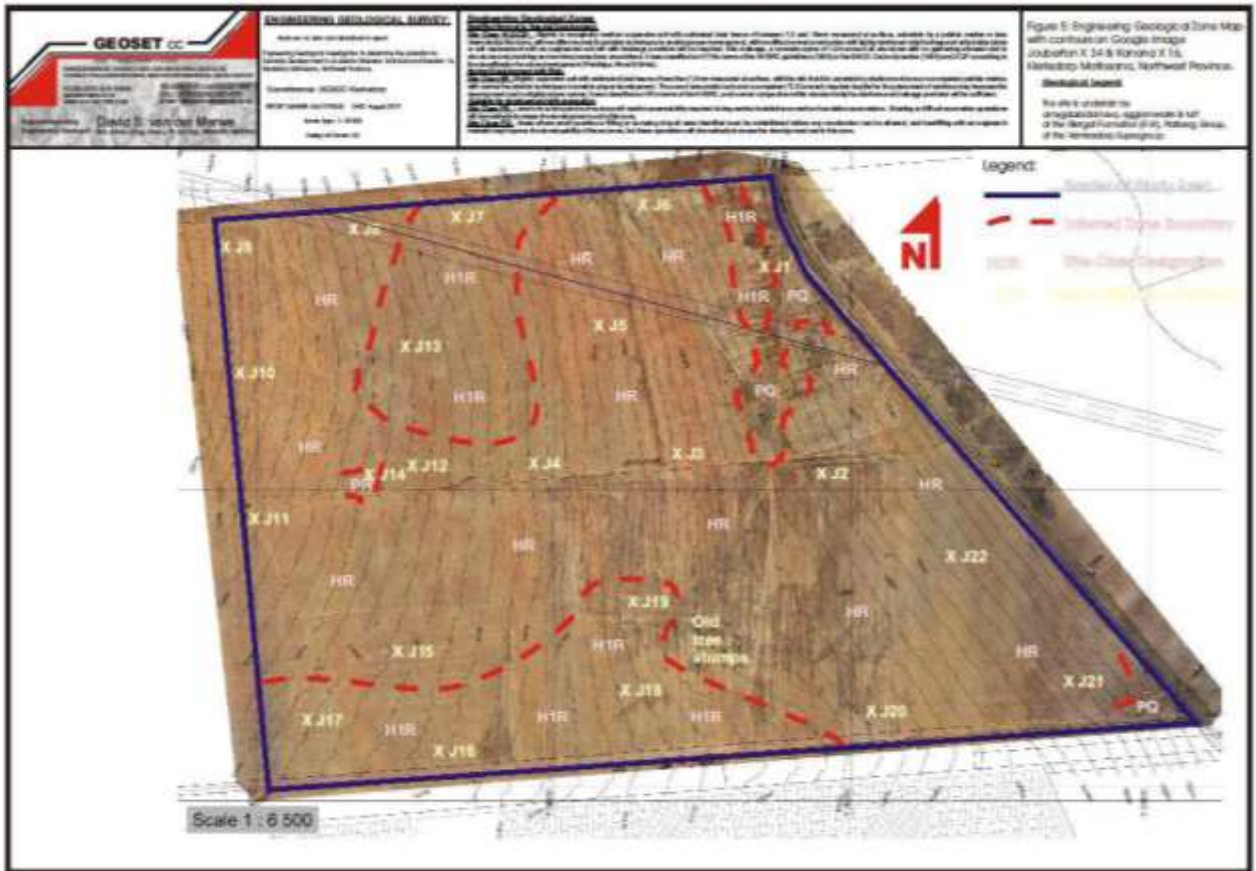
Suitable for development with precaution

Site Class PQ:

Areas where small quarries or filling or dumping of spoil were identified must be rehabilitated before any construction can be allowed, and backfilling with an engineer's material may improve the developability of these zones, but these operations will dramatically increase the development cost in this zone.

The geotechnical soil zones detailed above are illustrated on **Map 10** below:

Map 10: Engineering Geological Zone Map



The geotechnical soil zones, as they apply to the erven in the proposed township area of Kanana Extension 16, are indicated on **Map 11**.

Map 11: Graphic presentation of the Engineering Geological Zone Map



3.8.2 DRAINAGE

- The site is located on a moderate to shallow slope towards the Schoon Spruit.

- Plate flow is the dominant drainage pattern on the site, and some prominent drainage features or channel intersects the site. Drainage occurs in an easterly direction towards the Schoon Spruit.
- The drainage systems from culverts for the roads should be incorporated within the roads.
- Seepage and the presence of perennial fluctuations of ground water were encountered on site, proving that a seasonal perched water table may exist. A ferruginised profile or calcrete indicates that some perennial water level fluctuations may occur.
- Ground water in the form of seepage was not intersected in any test pit during the investigation, but normal water tightening techniques such as damp course on foundation levels are required.
- The expected low permeability of the silty sandy clay will limit leachate from sanitation systems to reach the ground water along the shallow norite bedrock, but a closed water borne sewage system is recommended as the percolation rate through this clayey material prevents movement resulting in that pits may fill up and overflow.
- The depth of excavation also restricts the use of open pit latrines on the site.
- Special care must be taken to ensure adequate surface drainage to prevent the accumulation of water next to structures. A concrete apron of at least 1,0m around structures are prescribed, and we recommend no gardening around structures to keep the moisture content as stable as possible.
- Storm water diversion measures such as ponding pools are recommended to control peak flows during thunderstorms.
- All embankments must be adequately compacted and planted with grass to stop any excessive erosion and scouring of the landscape.

3.8.3 CONCLUSIONS

- Some problems are foreseen regarding the excavatability to 1,5m depth on portions of the site.
- Special care must be taken to ensure adequate surface drainage to prevent the accumulation of water next to structures. A concrete apron of at least 1,0m around structures are prescribed, and we recommend no gardening around structures to keep the moisture content as stable as possible.
- Zoning of the site revealed zones with constraints regarding the **compressibility, as well as the expansive properties** of the soil, and **shallow rock and core stones** may hamper the placement of services. Any signs of ground instabilities or subsidence should be reported immediately to the municipality, and remediated in accordance with SANS 1936-4 (2012).
- **Special construction techniques** must be used to enable proper development including the use of **compaction techniques** with steel reinforcement or soil rafts and even piled foundations or stiffened or cellular rafts as described.
- This investigation was done to reveal the geotechnical properties on site with the

techniques as described to form our opinion. Although every possible factor during the investigation was dealt with, it is possible to encounter variable local conditions. This will require the inspection of foundations by a competent person to verify expected problems.

3.9 **ENVIRONMENTAL IMPACT ASSESSMENT**

AB Enviro-Consult was appointed to conduct an Environmental Impact Assessment in terms of sections 24 and 24(D) of the National Environmental Management Act, 1998 (Act 107 of 1998). The activity is listed in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014.

An Environmental Screening Process was conducted by the EAP to ensure that all the relevant Environmental Legislation is taken into consideration. In addition to desktop studies and assessed alternatives and site inspections carried out to verify outcomes of the desktop studies, a full Public Participation Process was followed to obtain inputs from interested and affected parties.

The Final Environmental Impact Assessment Report (refer **Annexure O2** of the comprehensive Land Development Application) was submitted to the Department Economic Development, Environment, Conservation and Tourism (DEDECT, Ref nr: NWP/EIA/38/2020) in March 2021 and did not identify any fatal flaws pertaining to the proposed development.

The following opinion was rendered by the Environmental Assessment Practitioner in the Final Environmental Impact Assessment Report (EIAR):

***“The information contained in this EIAR and Specialist Studies, provides a detailed and comprehensive description of the proposed project, baseline environment and potential environmental impacts associated with the proposed development. As no significant impacts that cannot be mitigated were identified, AB Enviro Consult is of the opinion that the project should proceed, provided that the necessary mitigation and management measures are implemented.*”**

Under South African environmental legislation, the Applicant is accountable for the potential impacts of the activities that are undertaken and is responsible for managing these impacts. The Applicant therefore has overall and total environmental responsibility to ensure that the implementation of the construction phase of the EMPR complies with the relevant legislation and the conditions of the environmental authorisation. The applicant will thus be responsible for the implementation of the EMPR.

The environmental management programme (EMPR) should form part of the contract between the construction company and the applicant. This will help ensure that the EMPR is adhered to. It is suggested that a suitably qualified Environmental Control Officer (ECO) be appointed for the construction phase”.

The Environmental Authorisation in respect of the development of the Kanana Extension 16 and Jouberton Extension 34 township areas was issued by the Department Economic Development, Environment, Conservation and Tourism (DEDECT) on 21 May 2021 and is attached as **Annexure O1** to the comprehensive Land Development Application.

3.10 CULTURAL HERITAGE AREAS

(The information contained in Section 10 below was extracted from the Phase 1 Cultural Heritage Resources Impact Assessment compiled by A Pelser Archaeological Consulting attached as **Annexure O3** to the comprehensive Land Development Application)

A Pelser Archaeological Consulting was commissioned to conduct a Cultural Heritage Resources Impact Assessment in respect of the proposed development area. The fore-mentioned assessment indicated that a number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There are no known sites on the specific land parcel and none was identified and recorded during the recent assessment.

The topography of the study area is generally flat and open, with no rocky outcrops or ridges occurring. Although in some sections the grass cover was fairly dense there is very little tree cover and visibility was in general good. The study area itself has been utilized in the past for agricultural purposes while large-scale cattle grazing is still practiced here. Informal dumping of household refuse and building material is also evident. The area around and bordering the proposed development consists of existing Township/Residential Settlements and as a result the original character of the area has been extensively altered in recent years. If any cultural heritage (archaeological and/or historical) sites, features or material did exist here in the past it would have been disturbed or even destroyed as a result.

No sites, features or material of cultural heritage (archaeological and/or historical) nature, origin or significance was identified and recorded in the study area during the field assessment. The area has been heavily impacted and disturbed in the recent past by agricultural and current ongoing residential and related activities. If any did exist here in the past it would have been disturbed or destroyed as a result.



Photo 3: Photo of application site

The Heritage Resources Impact Assessment concluded that although all efforts are made to locate, identify and record all possible cultural heritage sites and features (including archaeological remains) there is always a possibility that some might have been missed as a result of grass-cover and other factors. The subterranean nature of these resources (including low stone-packed or unmarked graves) should also be taken into consideration. Should any previously unknown or invisible sites, features or material be uncovered during any development actions then an expert should be contacted to investigate and provide recommendations on the way forward.

The Heritage Consultant concluded that “***from a cultural heritage point of view the proposed Township Establishment should therefore be allowed to continue***”.

CHAPTER 4: PROPOSED DEVELOPMENT

4.1 LAND USES

The intention of the township applicant is to utilize the concerned property for a Greenfield development, aimed at creating a viable residential township that can partially address the housing backlog faced in the City of Matlosana that has given rise to extensive informal occupation of vacant municipal land where occupants reside in squalid conditions without proper shelter and access to basic services.

As mentioned previously, two (2) adjoining township areas are currently being developed i.e. Jouberton Extension 34 and Kanana Extension 16. The planning of these township areas was conducted in an integrated manner and it was decided to also make provision for residential erven that can accommodate a variety of different housing typologies including inter alia GAP/FLISP housing, rental housing and bonded housing. These erven were accommodated in the proposed adjacent township area of Jouberton Extension 34 in a neighbourhood cell located north of the Eskom powerline servitude to create a “sense of place”. In accordance with the policy guidelines contained in the Breaking New Ground (BNG) Principles it is indicated that new residential township areas should focus on the establishment of integrated human settlements focussing on the provision of erven not only for subsidized/low income households but also addressing the need for other housing typologies such as bonded housing and FLISP projects. In this specific instance, the development of the proposed township areas of Jouberton Extension 34 and Kanana Extension 16 should be regarded as one integrated human settlement area that was only divided into two (2) separate township areas to clearly delineate the urban areas of Kanana and Jouberton respectively. In terms of establishing a truly integrated human settlement, the layout plan compiled in respect of the development area also makes provision for the required non-residential-, social, educational, institutional and business facilities.

As alluded to in Section 1.1, the planning of the proposed integrated human settlement area, was conducted in an integrated manner. This integrated planning yielded a township area comprising 2 290 residential erven together with an additional 12 erven earmarked for non-residential support functions (exclusive of streets). The layout plan of the proposed township area is reflected on **Map 12** below:

The layout plan of the proposed township Kanana Extension 16 makes provision for the following erven/land uses:

Proposed Zoning	Proposed Land use	Number of Erven	Erf Number	Area in Ha	% of Area
Residential 1	Residential house (Minimum 300m ²)	2290	25413-25415; 25417-25526; 25528-25998; 26000-26415; 26417-26603; 26605-26962; 26964-27247; 27249-27445; 27447-27710	71.6400ha	64.77%
Business 1	Shop	2	25527; 27446	0.3330ha	0.30%
Institutional	Creche	2	25999; 27248	0.3809a	0.34%
	Church	4	25416; 26416; 26604; 26963	0.5475ha	0.49%
Industrial 1	Light Industrial / Commercial	1	27711	1.4642ha	1.32%
Public Open Space	Park	3	27712-27714	8.8059ha	7.96%
Public Roads	Street			27.4431ha	24.82%
TOTAL		2302	25413 -27714	110.6147ha	100%

Table 6: Proposed zonings and land uses - Kanana Extension 16

The following should be noted in respect of the land uses mentioned above:

4.1.1 RESIDENTIAL 1

The proposed layout plan includes 2 290 Residential 1 erven of approximately 300m². These properties are well-suited to government housing schemes. A housing subsidy is a grant by government to qualifying beneficiaries for housing purposes. This is one of the Department of Human Settlement’s areas of responsibility in the delivery of human settlements to the bottom-most end of the market, where it provides housing subsidies to the poor. This is where the bulk of the housing backlog exists, affecting mainly those who earn below R3500 a month. The following subsidy programmes are available from the Department of Human Settlements:

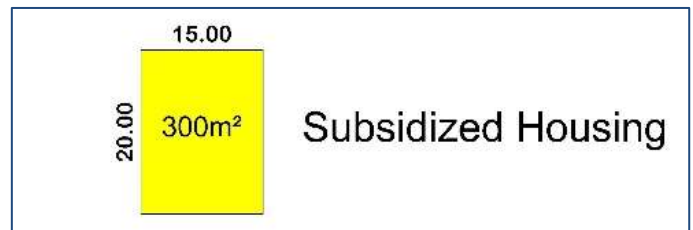


Figure 6: Residential stand sizes

❖ Integrated Residential Development Programme

The Integrated Residential Development Programme replaced the Project Linked Subsidy Programme. The programme provides for planning and development of integrated housing projects. Projects can be planned and developed in phases and provides for holistic development orientation:

- Phase 1: Land, Services and Township Proclamation
- Phase 2: Housing Construction (this also includes the sale of stands to non-qualifying beneficiaries and to commercial interests)

❖ **Individual Subsidy**

This programme provides access to state assistance where qualifying households wish to acquire an existing house or a vacant serviced residential stand, linked to a house construction contract through an approved mortgage loan. These properties are available in the normal secondary housing market or have been developed as part of a project not financed through one of the National Housing Programmes

❖ **Enhanced People’s Housing Process**

The Enhanced People’s Housing Process aims to support households who wish to enhance their housing subsidies by funding their own homes. The Enhanced People’s Housing process can be accessed through the Integrated Residential Development Programme, Project Linked Consolidation or Institutional Subsidies.

❖ **People’s Housing Process**

This subsidy is given to people who want to build or manage the building of their own homes. Unlike the Project Linked Subsidy where a contractor builds houses for a number of people, the People’s Housing Process allows people or beneficiaries to build or organize the building of their homes.

The proposed 2 290 erven will be aimed at subsidised housing provision to address the housing backlog in the City of Matlosana. The creation of more dense settlements without raising the cost of land and housing for the poor is one of the operational principles in the National Development Plan.

Urban studies in South Africa identified low density development as one of the critical factors inhibiting the creation of sustainable settlements. Low density settlements are problematic in that they generate:

- Inadequate population thresholds which are unable to support viable public transport and social facilities.
- High costs for municipalities who must deliver service.
- Infrastructural inefficiencies.

Apart from abovementioned, the disadvantages of large stands in comparison with smaller stands can be summarised as follows:

- More cost-effective provision of services

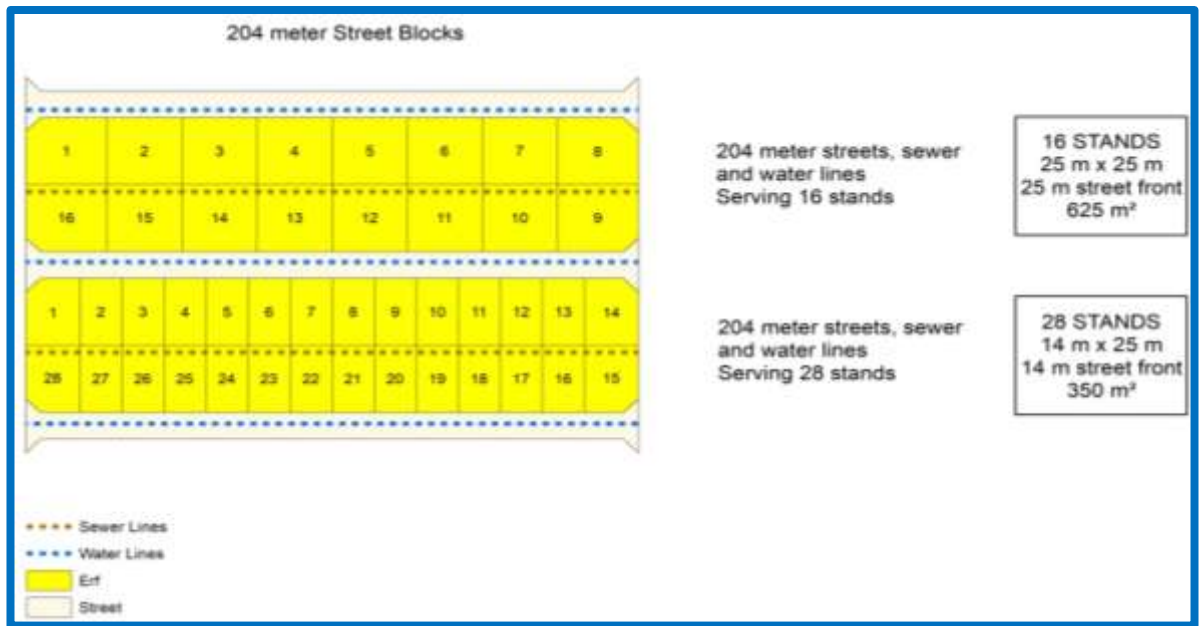


Figure 7: Comparative number of erven provided per fixed linear distance

- o Cost breakdown of municipal engineering services (water, sewer and roads – According to National Department of Human Settlements, April 2018)

Table 7: Cost breakdown of Municipal Engineering Services - Direct Costs

COST BREAKDOWN OF MUNICIPAL ENGINEERING SERVICES - DIRECT COST IMPLEMENTATION DATE: 01 APRIL 2018								
A GRADE SERVICES: DIRECT COST								
Zoning	Size in m ²	Street front	Cost of water	Cost of sewer	Cost of road	Cost of stormwater	Cost of high mast	Total cost per unit
Res1	243	9m	R4 140.11	R7 210.41	R23 570.60	R4 153.81	R0.00	R 39 074.93
	294	10m	R4 471.07	R7 795.38	R26 516.53	R5 019.15	R0.00	R 43 802.13
	122	5m	R2 803.64	R4 869.48	R11 784.77	R2 076.38	R0.00	R 21 534.27
	236	10m	R4 471.07	R7 795.38	R26 516.53	R4 027.33	R0.00	R 42 810.32

The cost comparison between large stands of 625m² (25m X 25m) and smaller stands of 350m² (14m X 25m) based on quantum amounts is set out in **Table 8** below.

Table 8: Cost comparison between larger and smaller stands

Street Front	Water	Sewer	Roads	Total
25 metres	R 11 177-00	R 27 283-00	R 66 291-00	R 104 751-00
14 metres	R 6 259-00	R 10 913-00	R 37 123-00	R 54 295-00

- o Other disadvantages of large residential stands:
 - Higher municipal service tariffs for residents
 - Maintenance costs of outdoor living areas (example: gardens) and fencing

A stand of 300m² with a subsidised house of 40m² provides more than sufficient outdoor space as well as potential for additions over time.



Figure 8: Schematic presentation of 40m² subsidised house on 300m² erf

Housing the poor was an ingredient of the Department of Human Settlement’s three-part response to the State’s Vision 2030 Strategy. “Gap housing” is a term that describes the shortfall or gap in the market between units supplied by the State and houses delivered by the private sector. The gap housing market comprises people who typically earn between R3500 and R15000 per month, which is too little to enable them to participate in the private property market, yet too much for state assistance. Gap housing is a policy that addresses the housing aspirations of people such as nurses, fire-fighters, teachers, SAPS members and member of the armed forces who earn between R3500 and R15000 per month and therefore do not qualify for RDP houses and do not earn enough to obtain home loans.

The following figure illustrates the income divide / Need for alternative solutions.

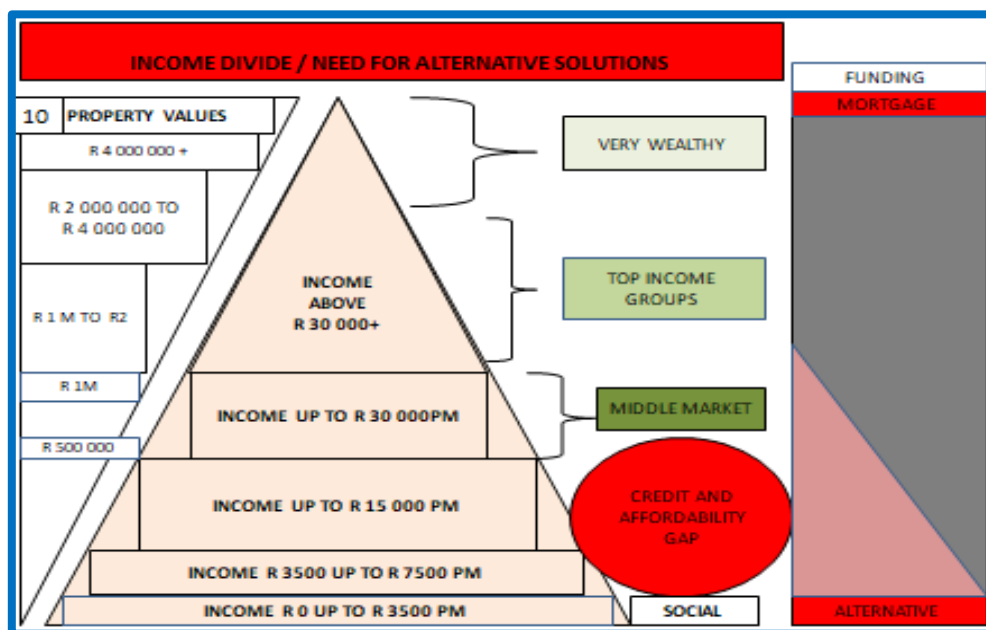


Figure 9: Income Divide / Need for alternative solutions

One of the subsidy programmes further available from the Department of Human Settlements includes the Finance Linked Individual Subsidy Programme (FLISP).

FLISP was developed to enable first time home-ownership to households in the “affordable or gap” market, that is, people earning between R3501 and R15000 per month. Individuals in these salary bands generally find it hard to qualify for housing finance; their income is regarded as low for mortgage finance, but too high to qualify for the government subsidy scheme available to households earning less than R3500 per month. Depending on the applicant’s gross monthly income, their once-off FLISP subsidy qualifying amount may vary between R20 000 and R87 000, as defined in the FLISP Subsidy Quantum. Any residential property acquired with the FLISP subsidy may not exceed the R300 000 price margin. FLISP assists qualifying beneficiaries who wish to obtain mortgage finance from a lender to:

- Acquire ownership of an existing residential property
- Obtain vacant serviced residential stands which are linked to house building contracts with the home builders registered with the National Home Builders Registration Council (NHBRC); or
- Build a new house with the assistance of a home builder registered with the National Home Builders Registration Council (NHBRC) on serviced residential stand that is already owned by the beneficiary.

The objective of the programme is to reduce the initial mortgage loan amount to render the monthly loan repayment instalments affordable over the loan payment term.



Figure 10: Schematic presentation of affordable bonded housing

As mentioned previously, the layout planning of the township areas of Kanana Extension 16 and Jouberton Extension 34 was conducted in an integrated manner with provision

also being made for 342 residential erven provided in the adjacent proposed township area of Jouberton Extension 34 that can accommodate bonded housing and erven for owner-builders. These erven were provided north of the Eskom powerline to create a “sense of place”.

The proposed “Residential 1” erven will be subject to the following development parameters imposed in terms of the Klerksdorp Land Use Management Scheme, 2005:

Table 9: "Residential 1" development parameters

Development parameter	Development Parameter Detail
Primary Use	Dwelling Unit defined as <i>An interconnected suite of rooms which does not include more than one kitchen, designed for occupation and use by a single family or extended family and which may include such outbuildings and servants quarters as are ordinarily incidental thereto.</i> Cultural Heritage Site Protected Areas
Consent Uses	Commune Guesthouse Home Enterprise Informal Structure Place of Instruction Public Worship 2 nd Dwelling Unit
Coverage	Height Zone 0: Maximum 50%
Height	Height Zone 0: Maximum 2 storeys
Building lines	≤ 500m ² = 3m street boundary ≥ 500m ² = 5m street boundary

4.1.2 BUSINESS 1

To ensure that a proper integrated human settlement is established, it is imperative that adequate provision also be made for commercial activities that will address the daily needs of the concerned community whilst similarly providing opportunities for job creation. The proposed layout makes provision for two (2) properties zoned for “Business 1”, both conveniently located adjacent to the 20m road for maximum accessibility. These properties will serve as local business centres to the surrounding neighbourhood.

The “Business 1” erven were positioned in such a way to limit walking distances whilst ensuring easy accessibility to these facilities. It will be noted that the one (1) property is situated across from the proposed Municipal erf, in the centre of the layout. Together these properties will form a node in the centre of the development providing a range of services to the public.

The proposed “Business 1” erven will be subject to the development parameters imposed in terms of the Klerksdorp Land Use Management Scheme, 2005 (Table A).

4.1.3 INDUSTRIAL 1

In addition to the business erven provided in the proposed township area, provision has also been made for an “Industrial 1” erf that can be utilized for a variety of workshops and small manufacturing enterprises in order to stimulate economic activity in the concerned township area and to create much need job opportunities. The provision for an area that can be utilized for industrial and commercial activities in also in line with the BNG principles of providing housing opportunities in close proximity to where people can work.

The proposed “Industrial 1” erven will be subject to the development parameters imposed in terms of the Klerksdorp Land Use Management Scheme, 2005 (Table A).

4.1.4 INSTITUTIONAL

The layout plan of the proposed township area makes provision for six (6) erven to be zoned as “Institutional”:

For this development area to function as a proper integrated human settlement, it is of critical importance to also address the needs of the community for education facilities in the form of early learning centres / crèches and public places of worship.

In terms of the CSIR Guidelines for the Provision of Social Facilities in South African Settlements, the following norm is proposed in respect of social facilities:

Table 10: CSIR Guideline for social facilities

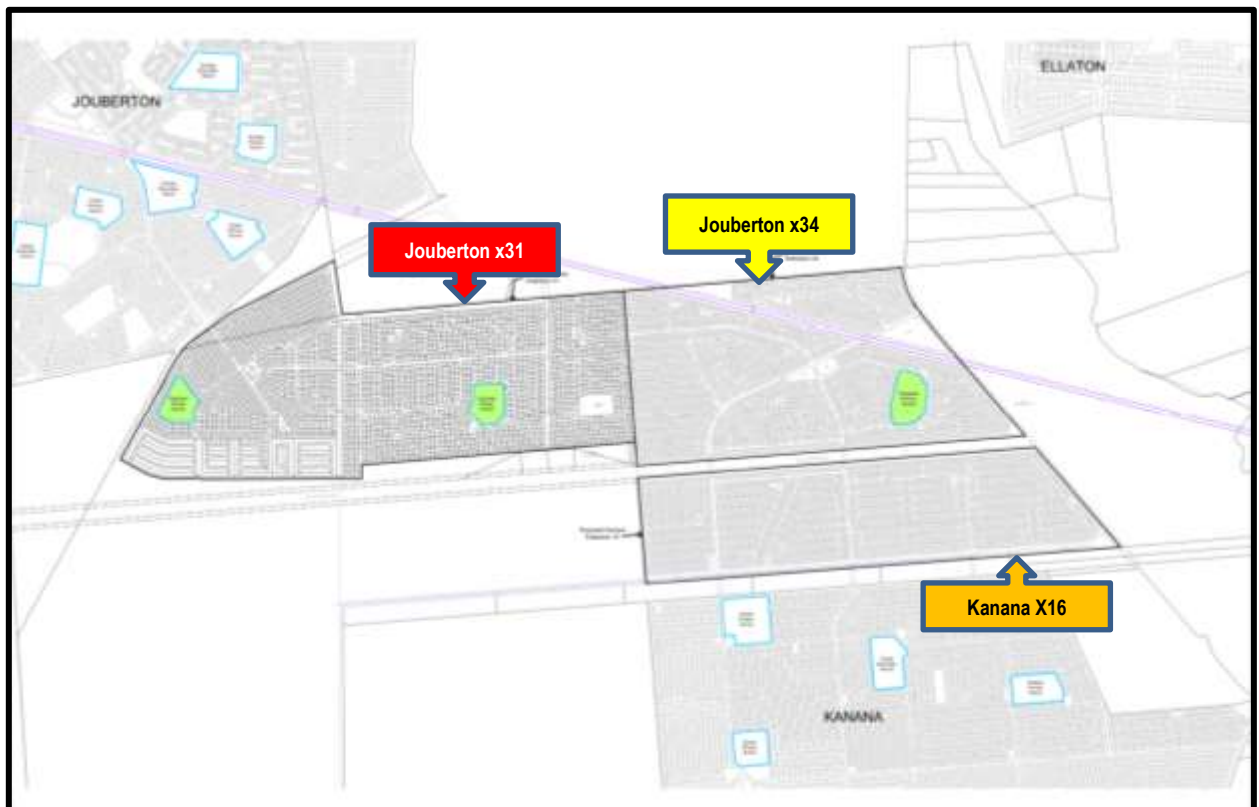
Proposed facility	CSIR Guideline	Number of erven required	Number of erven provided
Small Crèche / Early childhood development centre	1 per 2400 – 3000 inhabitants	2	2
Primary School	1 per 7000 inhabitants	1	0
Place of Worship	1 per 3000 – 6000 inhabitants	2	4

(Based on estimated 2 290 households, 3.2 average household size and total estimated inhabitants of 7 328)

Due to the availability of two (2) vacant primary school sites and one (1) secondary school site in the adjacent township area of Kanana Extensions 14 and 15, it was decided not to provide an additional school site in the proposed township area of Kanana Extension 16. Until such time as the southern by-pass road is constructed, it is envisaged that the inhabitants of Kanana Extension 16 will also utilize the school facilities to be provided in

the adjacent township area of Jouberton Extension 34. When the southern by-pass road is eventually constructed, residents of Kanana Extension 16 will still be able to access the school site in the adjacent township area of Jouberton Extension 31 through the link road provided across the southern by-pass in the adjacent proposed township area of Jouberton Extension 31 or alternatively they can make use of the existing and future school sites in the existing township areas of Kanana Extension 14 and Kanana Extension 15. The location of the existing and proposed school sites in the proposed township areas of Jouberton Extension 34, Jouberton Extension 31 and Kanana Extension 16 in relation to the existing school infrastructure and vacant school erven in the adjacent Jouberton and Kanana urban areas, is reflected on **Map 13**. Prior to the finalization of the layout plans of the proposed township areas of Jouberton Extensions 34 and 31 and Kanana Extension 16, the provision of school erven was presented to the Department of Education. The Department approved the provision of erven for school facilities on 08 March 2021

Map 13: Existing and proposed school infrastructure/facilities in the Jouberton and Kanana urban areas



The other Institutional zoned properties (earmarked for creches and places of worship) are dispersed throughout the layout plan to enhance accessibility to the community.

The proposed “Institutional” erven will be subject to the following development parameters imposed in terms of the Klerksdorp Land Use Management Scheme, 2005:

Table 11: "Institutional" development parameters

Development parameter	Development Parameter Detail
Primary Use	<p>Place of instruction defined as <i>A building designed for use as a school, college, technical or academic institution, creche, lecture hall, nursery school, after school care centre, or other educational centre and a hostel in connection therewith and includes a convent or monastery, a library, art gallery and museum.</i></p> <p>Public Worship defined as <i>A building designed for use or used as a church, chapel, oratory, prayer house, mosque, synagogue or other place of public devotion, and includes a building designed to be used as a place of religious institution and / or a building designed for social intercourse and recreation on the same property as and associated with any of the foregoing buildings, and also not more than two dwelling units for occupancy by office bearers connected with public worship and may also with the written consent of the Local Authority include a wall of remembrance subject to such conditions imposed by the Local Authority.</i></p>
Consent Uses	As per Table A of Klerksdorp Land Use Management Scheme, 2005
Coverage	Height Zone 0: Maximum 70%
Building lines	5m
Parking	Public Worship: 1 p/b per 6 seats Place of Instruction: 1 p/b per classroom/office

4.1.5 PUBLIC OPEN SPACE

The proposed layout makes provision for three (3) erven to be zoned as “Public Open Space”. These properties coincide with the areas not suitable for development due to:

- Building line restrictions alongside Provincial Road P150-1 (Leemhuis Street) and the proposed 60m future southern by-pass
- Building restriction adjacent to an existing Eskom powerline located along the southern boundary of the proposed development area

The proposed “Public Open Space” erven will be subject to the following development parameters imposed in terms of the Klerksdorp Land Use Management Scheme, 2005:

Table 12: "Public Open Space" development parameters

Development parameter	Development Parameter Detail
Primary Use	Public open spaces defined as <i>Land used or intended for use by members of the public as undeveloped land, a park, garden, conservation area, a playground, a square or recreation ground.</i>
Building Lines	5m

4.1.6 PUBLIC ROADS

“Street(s) or Road(s)”, defined as follows in the Klerksdorp Land Use Management Scheme, 2005 will provide access to all erven in the proposed township:

“The area or part of any street, road, bridge, subway, avenue, lane, sanitary lane, thoroughfare or right of way, as shown on the general plan of a township or agricultural holdings or division of land in respect of which the public has acquired a prescription or other right of way”.

The streets in the proposed township will be zoned “Existing Public Roads”.

4.2 FACTORS INFLUENCING THE LAYOUT PLAN

The layout plan of the proposed township area was influenced by the following factors:

- ★ Provincial Road P150-1 that runs along the eastern boundary of the application site has been accommodated by including a 16m building line along the boundary of the township area bordering onto Provincial Road P150-1;
- ★ A line-of-no-access was also included along the boundary of Provincial Road P150-1, including a 100m line-of-no-access at the proposed access point to Leemhuis Street (P150-1);
- ★ The intersection spacing between the proposed access to Kanana Extension 16 and Jouberton Extension 34 to the north has been taken into consideration and the two (2) intersections will be located 1384 m apart (centre line to centre line of access roads);
- ★ Provision has been made for a 60m road reserve to the north of the development (excluded from the application site). This is to accommodate the proposed future southern by-pass road. A 20m building line has been incorporated along the southern boundary of the application site to accommodate the proposed by-pass road;
- ★ The existing Eskom powerline located along the southern boundary of the development area has been accommodated in a “Public Open Space” erf with a 9m building restriction applicable on both sides of the centre line of the powerline;

- ★ The layout plan primarily addresses the need for low cost erven for subsidized housing purposes with larger erven provided in the adjacent township area of Jouberton Extension 34 that will address the need for erven for bonded housing purposes;
- ★ Additional erven were provided that serve the socio-economic needs of the community and include educational and institutional facilities, business properties as well as an erf earmarked for industrial and commercial purposes;
- ★ The cumulative impact of the establishment of the proposed Kanana Extension 16 and the proposed Jouberton Extension 34 were taken into account, specifically with regards to service provision and the development of social facilities;
- ★ Social facilities have been disbursed throughout the proposed layout plan in order to improve accessibility to the local community;
- ★ Provision is made for road linkages to the north (proposed Jouberton Extension 34) in future to integrate the two township areas and encourage shared facilities and limited travelling distances;
- ★ Inputs from the local municipal officials regarding lands uses and property sizes were used to guide the layout plan and land use matrix;
- ★ Increasing the density of the development through the reduction in the sizes of the erven to increase the economic development potential of the township area whilst similarly creating the opportunity to accommodate a larger number of households within this development;
- ★ The average stand size will be $\pm 300\text{m}^2$ (2 290 properties). These stand sizes have been approved by the local authority and the relevant community.

4.3 ACCESS

The street layout used in the proposed layout plan aims to create a functional road network that can accommodate public / private transport as well as pedestrian movement. Access to the proposed township area will be provided from Leemhuis Street, a Provincial Class 2 road running along the eastern border of the property.



Photo 4: Photo of Leemhuis street

A 20m street within the proposed township area will link with Provincial Road P150-1 (Leemhuis Street) to provide access to the proposed township (indicated in red below). This road can also link to the proposed Jouberton Extension 34 in the north, as indicated below. The main road network in the township area will consist of 16m primary collector roads (indicated in yellow below), 13m secondary collector roads (indicated in green below) and 10m internal roads.

The internal street network to be implemented in the proposed township areas comprises of the following roads:



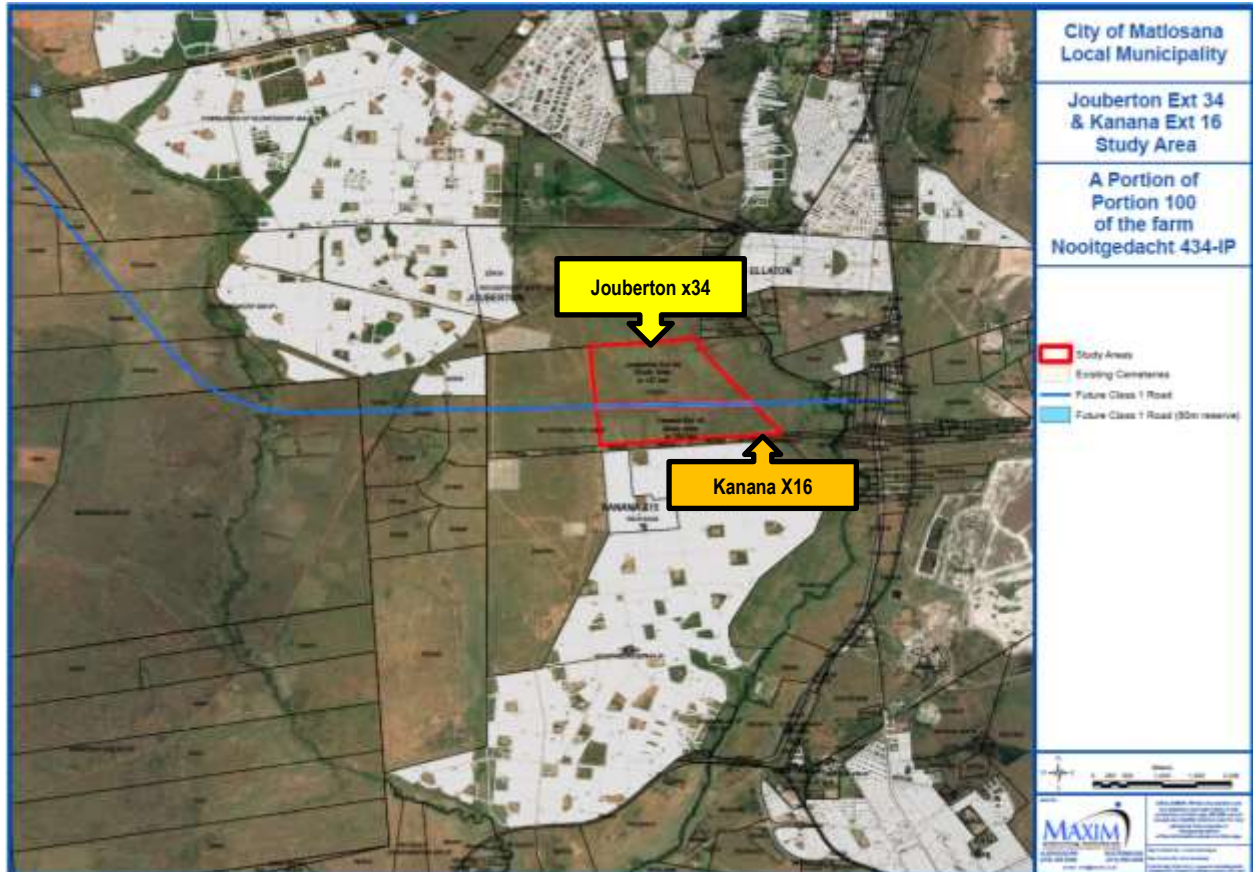
Map 14: Proposed township street classes and widths

Kanana Extension 16 and Jouberton Extension 34 will in future be split by an east-west southern by-pass road with a road reserve of 60m. As the proposed southern by-pass road is only envisaged to take place in the distant future, provision has been made for the linking of the proposed township area of Kanana Extension 16 to the proposed township area of Jouberton Extension 34 and to the greater Kanana urban area at two locations. These linkages will be established across the area earmarked for the proposed future southern by-pass road. The township applicant is totally conversant with the fact that the fore-mentioned two (2) linkages between Kanana Extension 16 and Jouberton Extension 34 will disappear and no longer be possible once the southern by-pass road is constructed in future. Linkage between the urban areas of Jouberton and Kanana will then be provided

through a road bridge across the southern by-pass accommodated in the adjacent proposed township area of Jouberton Extension 31.

The approximate locality of the proposed southern by-pass road in relation to the proposed township areas of Kanana Extension 16 and Jouberton Extension 34 as well as the greater Klerksdorp and Kanana areas is reflected on **Map 15** below.

Map 15: Locality of proposed southern by-pass road



In order to assess the impact of the proposed township area on the surrounding road network, Route² Transport Strategies CC was commissioned to conduct a Traffic Impact Assessment in respect of the proposed township area.

The results of the Traffic Impact Study, extracted from the Traffic Impact Study compiled by Route 2 Transport Strategies (attached as **Annexure Q** to the Land Development Application) can be summarized as follows:

4.3.1 STUDY AREA

As discussed, the professional studies that were conducted with regards to the proposed township establishment include both Jouberton Extension 34 and Kanana Extension 16 in order to provide a cumulative and more accurate view of the impact of the proposed development as opposed to viewing the proposed township areas in isolation. The traffic

impact study therefore considers both applications and the intersections likely to be affected by the additional traffic of both.

The study includes the following external intersections which is in line with the 1,5km study area as defined in the COTO Manual TMH16 and the study area for Kanana Extension 16 and Kanana Extension 16:

1. **R30 and Leemhuis Street – 4-way stop controlled.**
2. **Leemhuis Street and Access Road 1 – proposed priority controlled intersection.**
3. **Leemhuis Street and Access Road 2 – proposed priority controlled intersection.**
4. **Leemhuis Street and Swart Street – priority controlled.**

The peak morning and afternoon traffic counts were conducted on Wednesday 02 October 2019 at the above intersections.

4.3.2 TRAFFIC FLOWS & TRIP GENERATION

4.3.2.1 Trip Generation (Private Trips)

The COTO Trip Generation Manual (September 2012 TMH 17 Volume 1) recommends a peak hour trip rate of 1,0 trips per unit for Residential 1 which is the primary land use although the following trip rates as per the EMM for low cost housing and what SANRAL allows countrywide was used. **A reduction of 40% for low vehicle ownership was also applied.**

The predicted peak hour traffic to and from the site is summarised in the tables below:

Table 13: AM Peak Hour Trip Generation

Land use	Extend	Units	Trip Rate	Split		Trips		External Total In & out
				In	Out	In	Out	
Residential 1	4 867	Stands	0.31	25%	75%	226	679	905

Table 14: PM Peak Hour Trip Generation

Land use	Extend	Units	Trip Rate	Split		Trips		External Total In & out
				In	Out	In	Out	
Residential 1	4 867	Stands	0.31	70%	30%	634	271	905

4.3.2.2 Trip Generation (Public Transport Trips)

The expected number of vehicles per public transport and non-motorised transport modes to and from the development during the peak hours has been calculated and is presented in **Table 15** below:

Table 15: Modal Split AM & PM Peak Hour*

Mode AM Peak	Modal Split	Occupancy	Number of Vehicle Trips
Minibus-taxi	50%	13	58
Bus	5%	48	2
Cycling & Walking	10%	N/A	N/A
Mode PM Peak	Modal Split	Occupancy	Number of Vehicle Trips
Minibus-taxi	50%	13	58
Bus	5%	48	2
Cycling & Walking	10%	N/A	N/A

* It should be noted that the trip generation as used in the analysis should still be seen as the worst-case scenario.

4.3.3 CAPACITY ANALYSIS

For the purpose of the capacity analysis, the following intersections were assessed in terms of current and future traffic operations and capacity (the 2019 traffic volumes were grown with a compound of 3% per annum to calculate the future traffic demand).

- **R30 and Leemhuis Street** (Intersection No: 1)
 - For the existing 2019 AM peak hour scenario, the intersection fails while it is nearing capacity during the PM peak hour. To mitigate this, it is proposed to signalise and upgrade the intersection only and when warranted. The proposed upgrades as shown below will improve the intersection operation considerably.

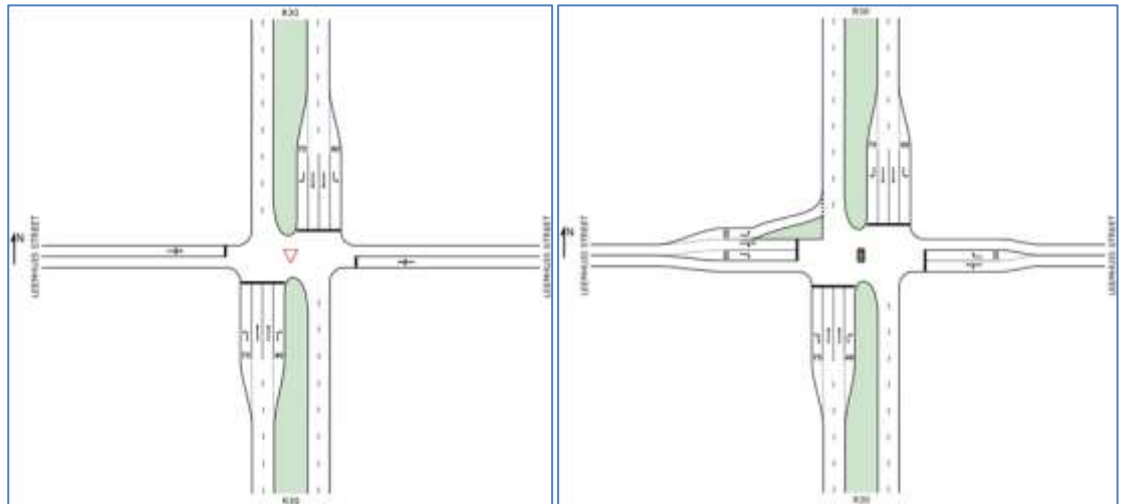


Figure 11: Existing and Proposed Layout: Intersection 1

- **Leemhuis Street and Access Road 1 (Intersection No: 2)**
 - For all of the scenarios the proposed intersection will operate at acceptable LOS with ample spare capacity.
- **Leemhuis Street and Access Road 2 (Intersection No: 3)**
 - For all of the scenarios the proposed intersection will operate at acceptable LOS with ample spare capacity.
- **Leemhuis Street and Swart Street (Intersection No: 4)**
 - For the existing 2019 AM peak hour scenario, the intersection is nearing capacity. To mitigate this, it is proposed to signalise the intersection only and when warranted. The proposed upgrades as shown below will improve the intersection operation considerably.

4.3.4 ROAD HIERARCHY & ACCESS TO PROPERTIES

The following road hierarchy is proposed for all internal roads:

- **Class 4a/4b:** 20m wide road reserves (providing access to Business 1, School & Community Facilities)
- **Class 5a:** 16m wide road reserves (providing access to Residential 1 and Community Facilities).
- **Class 5b:** 13m wide road reserves (providing access to Residential 1, Crèches and Places of Worship).

4.3.5 CONCLUSION

In addition to the conclusions drawn in sections 4.3.1 to 4.3.4 above, the Traffic Impact Assessment concluded as follows:

“Based on our site observations, the existing and base traffic volumes shown in the figures, as well as the capacity analysis, it is concluded that the proposed development will have little impact on the external road network”

It is proposed and can be concluded:

- Upgrading and signalling the intersection of R30 and Leemhuis Road when Warranted.
- Signalling the intersection of Leemhuis Street and Swart Street when warranted.
- It is recommended that provision is made for sidewalks along the School frontages as well as along the Class 4 roads. Furthermore, with regards to the school site
 - All parking and drop-off should occur on the site.
 - Traffic calming along school site roads should be provided.
 - Separate pedestrian gates to be provided at the school.

CHAPTER 5: PROVISION OF ENGINEERING SERVICES

5.1 INTRODUCTION

Motla Consulting Engineers, TMA Consulting Engineers and Greyhorn Engineering Consultants were appointed to investigate and report on the provision of electrical and civil engineering services respectively to the proposed township area.

As previously mentioned, the calculations used in the engineering services reports are based on the proposed population figures of both the proposed Kanana Extension 16 and Jouberton Extension 34 in order to take into account the cumulative effect of these two townships.

The provision of services to the proposed development areas will be addressed as follows:

- Section 5.2: Civil Engineering Services
- Section 5.3: Electrical Engineering Services

5.2 CIVIL ENGINEERING SERVICES

5.2.1 WATER – STATUS QUO

(The information contained in Sections 5.2.1 to 5.2.3 was extracted from the Jouberton Extension 34 and Kanana Extension 16 Township Development Technical Design Report – Bulk Water Supply compiled by Greyhorn Engineering (Pty) Ltd (attached as **Annexure P1** to the Land Development Application).

5.2.1.1 Water Services in Study Area

Existing bulk pipe infrastructure in Jouberton and Alabama is as follows:

- 750mm dia Steel Pipe from Midvaal End pump station of approximately 7400m
- 700mm dia Steel Pipe to existing reservoirs of approximately 2600m
- 500mm dia Steel Pipe from existing 750mm dia pipe to existing reservoirs in Jouberton of approximately 3200m

Most of Kanana, Jouberton and Alabama have got running water in the form of yard connections or standpipes. The bulk water supply and storage in Kanana is not sufficient for the new development of Kanana X16 and that is why new bulk supply from Jouberton have to be constructed.

According to the demand calculation, the current flow in the existing pipelines must be as follows (Based on a 12-hour pumping day):

Table 16: Current flow in existing pipelines

Pipe Size	Liter Per Second
Existing 750mm dia	466.19 l/s
Existing 700mm dia	231.55 l/s
Existing 500mm dia	234.64 l/s

Existing Reservoirs in Jouberton and Alabama are as follows:

Table 17: Reservoir Size and Specification Co-ordinates of Reservoirs

Reservoir	Size and Specification	Co-ordinates of Reservoirs	
Reservoir 1-3 Jouberton / Alabama	Concrete Ground Reservoirs – 45318kL	26° 53' 56.86" S	26° 36 '0.7.07" E
Reservoir 4-5 Jouberton / Alabama	Concrete Tower Reservoirs – 2182 kL	26° 53' 56.86" S	26° 36 '0.7.07" E
Reservoir 6 Jouberton	Concrete Ground Reservoir – 26000 kL	26° 52' 35.33" S	26° 35' 45.94" E
Reservoir 7 and 8 Jouberton	Concrete Tower Reservoirs – 2800 kL	26° 52' 35.33" S	26° 35' 45.94" E

Table 18: Current Reservoir Storage Capacity

Current Storage	Capacity kL
Current Storage capacity for 48hours	71318 kL
Current storage for capacity for 4hours (Elevated Reservoirs)	4982 kL

Midvaal Water Company purifies the water and it is pumped to Jouberton and Alabama via the existing pipeline. Most areas in the Matlosana Area have metered yard connections. Some areas in Kanana only have standpipes.

5.2.2 DEVELOPMENT'S TOTAL WATER DEMAND

According to the demand calculations, the future extensions' water demand for Jouberton Extension 34 and Kanana Extension 16 will be as follows:

Table 19: Water Demand

Township	Households	Peak flow l/sec
Jouberton Ext 34	2254	39.132
Kanana Ext 16	2290	39.757
Total	4544	78.889

During a meeting held between Greyhorn Engineering (Pty) Ltd, Midvaal Water Company and the City of Matlosana, it was determined that Midvaal Water Company will be able to supply the additional 78.889 l/s and that the existing pipe size will be sufficient. Midvaal Water Company has stated that the water company has 100ML/d spare for the clients of Midvaal Water Company. This will be more than enough to supply the extra 78.889 l/s.

Bulk water supplied to the proposed development areas will be augmented from a new pump station that will be constructed at the existing Reservoirs in Jouberton (Reservoir 6) to cater for a new elevated tower that must be constructed near Jouberton Extension 34. This reservoir will cater for Jouberton Extension 34 and Kanana Extension 16 by means of a gravity feed to each area. According to the design it was concluded that the new pipelines will be as follows:

Table 20: Proposed pipelines for development

Pipe line	Pipe size	Type	Demand (l/s)	Pump / Gravity
Gravity feed from new elevated tower to Jouberton X34	200mm	uPVC Class12	23.32	Gravity
Gravity feed from new elevated tower to Kanana X16	200mm	uPVC Class 9	13.55	Gravity

The following storage is also required for the new developments according to the demand calculation sheet for the Kanana Extension 16 and Jouberton Extension 34 development areas:

Table 21: Storage Requirements for proposed development

Type	Size
Pressed Steel Tank Pressure Tower	1250kl Steel Pressed tank 20m high

5.2.3 PROPOSALS FOR BULK WATER SUPPLY

A new pressed steel tank on a stand of 20m high will need to be constructed to make sure these areas will have sufficient storage for 48 hours. If in future the storage demand becomes more than the existing elevated tank, a new ground reservoir can be constructed for the 48hour storage and the existing elevated pressed steel tank can be used for a 4-hour storage.

Construction of approximately 3700m new 200mm dia uPVC class12 pump main from the existing Reservoir 6 to the new elevated Pressed Steel tank. A new pump station will be constructed at the Reservoir because of the elevation difference between the existing Reservoir and the new elevated Pressed Steel tank.

The new reservoir will be a 1250kL elevated Pressed Steel Tank on a 20m stand. This tank will be constructed at the Eastern side of Jouberton X31 behind the graveyard. The position is not final and may change after the final design phase is concluded.

Newly constructed gravity feed of approximately 3200m new 200mm diameter uPVC class 9 pipeline from the new pressure tower in Jouberton Extension 31 to Kanana Extension 16.



Figure 12: Existing and proposed water infrastructure

For further details please refer to the complete report attached as Annexure P1 of the comprehensive Land Development Application.

5.2.4 SANITATION – STATUS QUO

(The information contained in Sections 5.2.4 to 5.2.6 was extracted from the Technical Report – Construction of Bulk Sewer Outfall Line in Kanana Extension 16 and Jouberton Extension 34 compiled by TMA Consulting Engineers (attached as **Annexure P2** to the Land Development Application).

5.2.4.1 Sanitation Services in Study Area

The development falls under the existing Klerksdorp Wastewater Treatment Works (WWTW) drainage area. The Jouberton WWTP has a current capacity of 36 Ml/day. The Orkney WWTP has a capacity of 20 Ml/day. There is spare capacity in the two

(2) WWTP (Jouberton WWTP and Orkney WWTP) which was confirmed by the City of Matlosana’s Sanitation Department.

There are two WWTP which the proposed bulk sewer pipeline can discharge into, Jouberton WWTP and Orkney WWTP:

- Option A: In order to discharge sewer towards the Klerksdorp Treatment Works, pumping is highly required.
- Option B: The terrain drains towards the side of Orkney Sewerage Plant; no pumping will be required.

At the moment, there are no bulk sewer outfalls in the close proximity to convey flows from Kanana Extension 16 and Jouberton Extension 34 to a disposal location of the WWTP.

It is therefore proposed to construct a new bulk sewer outfall based on option B. The bulk sewer pipeline will be constructed from Jouberton Extension 34 and Kanana Extension 16 will directly discharge into the existing WWTP in Orkney.

5.2.5 DEVELOPMENT’S TOTAL SEWER DEMAND

The sewer demands for the proposed Jouberton Extension 34 and Kanana Extension 16 township areas are calculated in **Table 22** below:

Table 22: Sewer Demand

Description	Unit	Unit Demand (kl/day)	Quantity	Total (kl/day)
Kanana Extension 16 and Jouberton Extension 34	No	0.5	4915	2458
Average Daily Dry Weather Flow - ADDWF (KI/day)				2458
Add 15% extraneous flow				369
Average Daily Wet Weather Flow - ADWWF (KI/day)				2827
ADWWF (l/second)				32.71
Design Peak factor				2.5
Peak Daily Wet Weather Flow - PDWWF (l/second)				81.77

The total sewer return flows generated in Kanana Extension 16 and Jouberton Extension 34 is 2458 kl/day and the peak flow rate is 81.77 l/s as determined above.

5.2.6 PROPOSALS FOR BULK SEWER SUPPLY

There is an existing Orkney WWTP which the township development drains towards. The Engineering Consultants therefore propose a gravitated bulk sewer pipeline that will be constructed from the collection point of Jouberton Extension 34 and Kanana Extension 16 which will then discharge directly into Orkney WWTP.

The total length of 5 000 m with approximately 50 Precast sewer manholes have been estimated based on the preliminary network layout of the proposed bulk sewer pipe. The proposed alignment of the sewer outfall will run on the outskirts of Kanana Township on the east side from north to south. It will run along Leemhuis Street and New Town Street



Figure 13: Proposed route of outfall sewer line

Due to the flat topography of the area, the sewer pipeline at Jouberton Extension 34 and Kanana Extension 16 will have to be laid at a slope of around 1:500 in order to prevent excessive depths and therefore the diameter to be used should be in the order of 315 mm uPVC Class 400 as per SANS 1601.

For further details please refer to the complete report attached in Annexure P2 to the comprehensive Land Development Application.

5.3 ELECTRICAL ENGINEERING SERVICES

(The information contained in Sections 5.3.1 and 5.3.2 was extracted from the Electrical Engineering Services Report compiled by Motla Consulting Engineers (attached as **Annexure P3** to the comprehensive Land Development Application)

5.3.1 DEMAND ESTIMATION

The maximum demand for the proposed development is based on the draft layout plan and calculated in accordance with the requirements set out in SANS 204 and SANS 10142-1.

Table 23: Maximum Demand Estimation (electrical)

LAND USE INFORMATION FOR KANANA EXT 16				
Item	Zoning	No of Stands	Area (Ha)	Portion (%)
1	Residential 1 (min. 300m ²)	2290	71.6400	64.77%
2	Business 1	2	0.3330	0.30%
3	Church	4	0.5475	0.49%
4	Creche	2	0.3809	0.34%
5	Light Industrial / Commercial	1	1.4642	1.32%
6	Park	3	8.8059	7.96%
7	Street		27.4431	24.81%
8	Total	2302	110.6146	100.00%

5.3.2 BULK SUPPLY

5.4.2.1 General

Bulk electricity supply to Kanana Township is currently from Eskom’s Kanana substation with is situated inside Kanana. **Eskom** is responsible for operations and maintenance of the electrical network inside Kanana Township and receives electricity supply from Kanana Substation via various feeders.

5.4.2.2 Existing Network Analysis

An existing 22kV overhead network feeding from Kanana Substation currently supplies electricity to the surrounding areas of Kanana via various overhead feeders.

Pole Mounted Transformers with overhead MV and LV networks are used to create capacity and distribute supply to the various Households.

It is proposed to extend the existing overhead network from Pole KBA 65-61 for electrical supply to the new proposed development of Kanana Extension 16.

5.4.2.3 Bulk Supply Proposal

The following electrical services are proposed:

- a) **Bulk Supply:** As per bulk supply proposal.

- b) **MV Reticulation:** Capacity will be created by way of an overhead MV network and various Pole Mounted Transformers to create capacity.
- c) **LV Reticulation:** Electricity will be distributed throughout the development by way of overhead ABC conductors.
- d) **LV Connections:** LV connections (10mm² Airdac SNE + 2 Comms) will be provided for each residential stand.
- e) **Metering:** 20 Amp Split Meters will be installed.
- f) **Street & Area Lighting:** Street and Area Lighting are optional and can be included on recommendation of the Developer or requirement from the Local Municipality.
- g) **The detail of the above will be determined during the detail design phase of the project and will be dependent on the final SDP's to be submitted for review and approval to the relevant supply authorities.**

has started to respond by putting the necessary policy and legislative environment in place.

This framework outlines the roles and responsibilities of different spheres of government in relation to housing, as well as dealing with aspects relating to the design and content of housing policy and legislation. In the context of this framework the City of Matlosana Local Municipality is required to take all reasonable steps to ensure the provision of adequate housing to its residents.

The core legislation and policies guiding housing planning and development are set out in Sections 6.2 to 6.20 below.

6.2 NATIONAL DEVELOPMENT PLAN: VISION 2030

The National Planning Commission (NPC) (2011) published the NDP: Vision for 2030. Its contents will impact directly and indirectly on the provision of housing within the national spatial system.

Its core focuses include:

- The active efforts and participation of all South Africans in their own development
- Redressing the injustices of the past effectively
- Faster economic growth and higher investment and employment
- Rising standards of education, a healthy population and effective social protection
- Strengthening the links between economic and social strategies
- An effective and capable government
- Collaboration between the private and public sectors
- Leadership from all sectors in society.

Where we live and work matters. Apartheid planning consigned the majority of South Africans to places far away from work, where services could not be sustained, and where it was difficult to access the benefits of society and participate in the economy.

The physical and social environment in which we are born and grow up is one of the most important determinants of every person's wellbeing and life chances.

This environment has a bearing on access to opportunities, good schools, useful social networks, public services and safe environments. Separation between social groups, long distances between jobs and housing, and poor public services exacerbate poverty and inequality. Location affects communities, local economies, labour markets and infrastructure networks. Businesses are also affected by where they are situated. Access to markets and suppliers determines their survival and profitability. This is hugely significant for South Africa's society, economy and environment.

To fundamentally reshape human settlements by 2050 (with significant progress by 2030), South Africa needs:

- To address inequities in the land market that makes it difficult for the poor to access the benefits of life in towns and cities.
- Stronger measures to reconfigure towns and cities towards more efficient and equitable urban forms.
- Housing and land policies that accommodate diverse household types and circumstances.
- Municipalities that put economic development and jobs at the heart of what they do and how they function.

The establishment of the proposed township specifically aims at redressing the injustices of the past by ensuring proper integrated planning in respect of the location of new residential developments in well-located places that are conducive to the health and wellbeing of the community. In addition to the residential facilities that will be provided in the township area, provision has also been made for properties that will stimulate economic growth and broaden the economic base of the area whilst similarly addressing the need for accelerated job creation. The proposed layout also makes the necessary provision for supporting land uses (such as institutional and educational sites) that will service the community needs of the residents.

6.3 CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA (ACT 108 OF 1996)

The Constitution of the Republic of South Africa (Act 108 of 1996) is the supreme law of the country. The sections/schedules of the Constitution that are relevant with respect of the delivery of housing are the following:

- Sections 26, 27 and 29 of Chapter 2 – Bill of Rights states that everyone has the right to access to adequate housing, health care services, social security and education.
- Schedules 4 and 5, states that the Province has legislative competence in regard to (inter alia): Environment; Urban and Rural Development; Welfare; Housing; Health Services; Regional planning and development; (concurrent competence with national) and Provincial Planning and Provincial Roads and Traffic (exclusive competence)

In terms of the provisions (Schedule 4) of the Constitution, housing is a functional area of concurrent national and provincial competence. This provision of legislative and administrative powers necessitates alignment between all spheres of government in terms of the IDP process and especially the preparation of the SDF and thus the Housing Chapter.

The development of the proposed township constitutes a collaboration between the provincial housing department, local authority and private developer (appointed to oversee project implementation) to provide access to adequate housing, health care services, social security and education for the inhabitants of this community. It is further the objective of this project to provide opportunities for people to access proper housing either through one of Government's subsidized housing programmes, by accessing bond finance or through the utilization of own funding. The proposed township area makes provision for a multitude of erven to allow for the provision of the full spectrum of social, educational and health facilities that may be required by the concerned community. As will be alluded to in further sections below, the main objectives of this project are specifically to address the need for proper housing.

6.4 NATIONAL HOUSING CODE (2006)

The National Housing Code (2006) identified the primary role of the municipality as taking all reasonable and necessary steps, within the framework of national and provincial legislation and policy, to ensure that the inhabitants within its area of jurisdiction have access to adequate housing. This entails the following:

- Initiating, planning, facilitating and coordinating appropriate housing development.
- Promoting private sector development and playing the role of developer.
- Preparing a housing delivery strategy and setting up housing development goals.
- Setting aside, planning and managing land for housing.
- Creating a financially and socially viable environment for housing delivery.
- Facilitating the resolution of conflicts arising from housing delivery initiatives.
- Facilitating the provision of bulk services.
- Administrating national programmes.
- Exploring land for housing development.

The project under discussion specifically aims at providing access to housing for the inhabitants of the City of Matlosana and surrounding towns who currently reside in informal settlement areas and have to live in squalid conditions without basic services and a lack of proper shelter. This township establishment has at its core the provision of residential erven to that sector of the community who cannot access adequate housing due to financial circumstances coupled with the lack of serviced erven to accommodate said individuals. One of the objectives of the National Housing Code is for national and provincial legislation and policy to initiate, plan, facilitate and coordinate appropriate housing development. The proposed development directly aims at addressing this objective.

As discussed in preceding sections of this motivational report, the planning of the Kanana Extension 16 and Jouberton Extension 34 township areas was conducted in an integrated manner. In this regard provision was made in the adjacent proposed township area of Jouberton Extension 34 for 342 residential erven that are larger in size than the remainder

of the residential erven that can be utilized for bonded and FLISP housing purposes or that can be alienated to individuals wishing to erect their own houses, These larger residential erven can be developed by the private sector or through partnerships between Government, financial institutions and private contractors in terms of the development of FLISP housing. Private sector development is however not only limited to housing but also incorporates private sector commercial and social facility development.

6.5 A COMPREHESIVE PLAN FOR THE DEVELOPMENT OF SUSTAINABLE HUMAN SETTLEMENT (BNG STRATEGY)

The new "Human Settlements Plan" promotes the achievement of a non-racial, integrated society through the development of sustainable human settlements and quality housing. Housing is to be utilized for the development of sustainable human settlements in support of spatial restructuring.

The aim is to move beyond the provision of basic shelter towards achieving the broader vision of sustainable human settlements and more efficient towns, cities and regions. The following factors will be taken into consideration in order to achieve this vision:

- Progressive Informal Settlement Eradication: These settlements must be integrated into the broader urban setup so as to overcome spatial, social and economic exclusion. The plan encourages the eradication of informal settlements through in-situ upgrading in desired locations coupled with the relocation of households where development is not possible or desirable.
- Promoting Densification and Integration: The aim is to integrate previously excluded groups into the city so as to enable them to enjoy the benefits it offers and to create more integrated, functional and environmentally sustainable human settlements, towns and cities.
- Enhancing Spatial Planning: Greater co-ordination and alignment of various planning instruments and economic policies lies at the heart of sustainable human settlements.
This requires more than mere co-ordination between departments but there needs to be a single overarching planning authority and/or instrument to provide macro-level guidance to support the development of sustainable human settlements.
- Enhancing the location of New Housing Projects: The location of past housing projects was said to reinforce apartheid spatial settlement patterns. Spatial restructuring aims to achieve a more decisive intervention in land markets. The following interventions are envisaged viz. accessing well located state-owned and parastatal land: acquisition of well-located private land for housing development, funding for land acquisition and fiscal incentives.
- Supporting Urban Renewal and Inner City Regeneration: Urban renewal and inner city regeneration often result in the current inhabitants being excluded as a result of the construction of dwelling units they cannot afford. Some municipalities are trying

to avoid this by promoting affordable inner city housing. The "Human Settlements Plan" will support this by encouraging social housing.

- Developing Social and Economic Infrastructure: The need to move away from a housing-only approach towards a more holistic development of human settlements which includes the provision of social and economic infrastructure is emphasized.
- Enhancing the Housing Product: The aim is to develop more appropriate settlement layouts and housing products and to ensure appropriate housing quality.

This project from the onset aimed at providing a proper integrated human settlement that ascribes to the BNG Principles set out above. This was achieved as follows:

- This project has at its core the eradication of informal settlements through the creation of suitably located serviced residential erven that can be awarded to households residing in informal settlement areas. It is prudent to note that the township area proposed to irradiate the existing informal settlement located north-west of the proposed township area of Kanana Extension 16 (to be known as Jouberton Extension 31) does not make provision for sufficient erven to accommodate the number of households already residing on the concerned development area and the proposed township area of Kanana Extension 16 will be required to also accommodate some of the current inhabitants of this informal settlement area in an attempt to completely eradicate this informal settlement and avoid the scenario where only certain households can be accommodated on the development area and the overflow households again creating a new informal settlement on the land adjacent to the proposed township areas.
- In addition to the eradication of the existing informal settlement area located directly north-west of this proposed township area of Kanana Extension 16 (comprising an estimated 2803 informal dwelling units), the Kanana urban complex is also faced with large-scale informal occupation to the extent of 1 012 households residing in informal settlement areas. Should one take into consideration the remaining informal settlement areas around Jouberton (comprising an estimated 1 752 informal dwelling units and excluding the informal settlement areas of Ratanang, Jacaranda and Matlosana Estates), the total need equates to approximately 5 567 low cost residential erven.
- This project will be aimed at the subsidized housing sector through the implementation of one of Government's subsidized housing programmes as well as the need that exists for people that do not qualify for a Government subsidy, due to either already owning other property or earning in excess of the threshold household income prescribed in respect of the various housing subsidy programmes.
- As detailed in previous sections, the proposed development focusses on promoting densification through the creation of smaller economical erven to optimise the provision of services to this area. Due to the locality of this development, integration with the existing Kanana extensions to the south will also be achieved.

- The proposed township also provides social, educational and commercial support facilities and infrastructure in close proximity to the inhabitants to create a vibrant, sustainable settlement.

6.6 URBAN (UDF) AND RURAL DEVELOPMENT (RDF) FRAMEWORKS (1997)

The UDF aims to promote a consistent urban development policy approach for effective urban reconstruction and development, to guide development policies, strategies and actions of all stakeholders in the urban development process and to steer them towards the achievement of a common vision. The UDF is engaged in four key programmes, namely integrating the city, improving housing and infrastructure, building habitable and safe communities and promoting urban economic development.

The RDF co-ordinates integration of government programmes in rural areas and is aimed at: poverty alleviation through institutional development; investment in basic infrastructure and social service; improving income and employment opportunities; restoration of basic economic rights to marginalized rural areas; and finally justice, equity and security.

6.7 WHITE PAPER ON LOCAL GOVERNMENT (1998)

The White Paper on Local Government adopts development policy guidelines and principles and advocates the developmental role of local government.

The guidelines and principles can be summarized as follows:

- Orientation towards people's needs;
- Poverty alleviation with special consideration of marginalized and disadvantaged groups and gender equity;
- Environmentally sustainable development and a safe and healthy environment;
- Economic growth with creation of income and employment opportunities;
- Involvement of residents, communities and stakeholders;
- Sustainability of services, municipalities and settlements.

The development of the proposed integrated human settlement addresses the majority of the guidelines and principles set forth in the White Paper on Local Government (1998) as:

- The proposed development is specifically aimed at addressing the needs of the people of City of Matlosana and specifically the most vulnerable of the community;
- In addition to addressing the safety concerns of the community through the provision of proper durable housing structures, this project will also ensure a sustainable healthy environment for the inhabitants through the provision and

availability of proper engineering services offering safe drinking water, proper sanitary infrastructure and facilities and a safer environment to live in.

- This development will also give rise to economic growth through the creation of income and employment opportunities. This will not only be attained as a result of the provision of business stands but also through the provision of erven that can be utilized for social- and educational purposes. These facilities also require staff to function properly and will lead to additional jobs being created.
- The application will be advertised to the local community through the publication of notices in a local newspaper and the North West Provincial Gazette, the posting of site notices on the subject property, the notification of all adjacent property owners of the development as well as the involvement of a number of external organizations and departments as integral part of the township establishment process. Concerns raised by the community and stakeholders as part of the public participation process will be considered and addressed.

6.8 MUNICIPAL DEMARCATION ACT, 1998 (ACT 27 OF 1998)

Demarcation objectives: The Demarcation Board determines a Municipal boundary with the objective that it must be able to enable the municipality for that area to fulfil its constitutional obligations in line with the provision of a democratic and accountable government for communities within a specific geographic area inclusive of:

- The provision of services to the communities in an equitable and sustainable manner.
- The promotion of social and economic development.
- The promotion of a safe and healthy environment.
- Enable effective local governance.
- Enable integrated development.
- Have a tax base as inclusive as possible for the user of municipal services in the municipality.

6.9 MUNICIPAL SYSTEMS ACT, 2000 (ACT 32 OF 2000)

Chapter 5 of the Local Government Municipal Systems Act, 2000 calls upon municipalities to undertake developmentally-orientated planning so as to ensure that it:

- Strives to achieve the objectives of local government set out in Section 152 of the Constitution;
- Gives effect to its development duties as required by section 153 of the Constitution; and
- Together with other organs of state contribute to the progressive realisation of the fundamental rights in respect of, among others, housing.

In the spirit of our democratic dispensation no development can take place without the effective participation of the communities it affects. Section 29(1) (b) of the Local Government: Municipal Systems Act 32 of 2000 requires municipalities to follow certain procedures to consult with communities and procure their participation in the planning process. As these structures have to be in place, they will be available and should be used to involve the relevant communities.

6.10 NATIONAL HOUSING ACT, 1997 (ACT 107 OF 1997)

The National Housing Act (NHA) sets out three general principles, namely: giving priority to the needs of the poor in respect of housing development; consultation with individuals and communities affected by housing development; and ensuring that housing development is economically, fiscally, socially and financially affordable and sustainable.

The NHA lays down general principles applicable to housing development in all spheres of government, defines the functions of national, provincial and local governments in respect of housing development, and promotes the role of the state as a facilitator of housing development.

National government must establish and facilitate a sustainable national housing development process, provincial government must do everything in its power to promote and facilitate the provision of adequate housing in its province within the framework of national housing policy, while municipalities must take reasonable and necessary steps within the framework of national and provincial housing legislation and policy to ensure that the right of access to adequate housing is realised on a progressive basis.

This project will at its core aim at addressing the needs of the poor in respect of the provision of housing. This will ensure that the right of access to adequate housing is realised on a progressive basis.

6.11 WHITE PAPER ON WISE LAND USE (2001)

This White Paper intends to show practical ways in which South Africa may move to this approach. The system should satisfy the following specific needs:

- The development of policies which will result in the best use and sustainable management of land.
- Improvement and strengthening planning, management, monitoring and evaluation.
- Strengthening institutions and coordinating mechanisms.
- Creation of mechanisms to facilitate satisfaction of the needs and objectives of communities and people at local level

Integrated planning for sustainable management of land resources should thus ensure:

- That development and developmental programmes are holistic and comprehensive so that all factors in relation to land resources and environmental conservation are addressed and included.
- In considering competing needs for land, and in selecting the "best" use for a given area of land, all possible land-use options must be considered.
- That all activities and inputs are integrated and coordinated with each other, combining the inputs of all disciplines and groups.
- That all actions are based on a clear understanding of the natural and legitimate objectives and needs of individual land users to obtain maximum consensus.
- That institutional structures are put in place to develop, debate and carry out proposals.

Of core importance in the planning and development of housing is the normative planning principles identified in the White Paper:

The basis of the system will be principles and norms aimed at achieving sustainability, equality, efficiency, fairness and good governance in spatial planning and land use management. The decisions of planning authorities, whether related to the formulation of plans such as IDPs or the consideration of land development applications such as rezoning, must all be consistent with these principles and norms. A failure by an authority to affect this enables the Minister to intervene in the decision, either to require that it is reconsidered or in extreme cases to take the decision him or herself.

6.12 MILLENNIUM DEVELOPMENT GOALS (MDG)

The MDG include the following: The eradication of informal settlements by 2014 as one of the policy imperatives of government (Goal 7, Target 11) implies that government and the private sector would have to implement the Social Contract (Social Contract for Rapid Housing Delivery, 2005) commitments to aid the removal of slums in South Africa.

The targets included in the Social Contract consist of:

- The removal or improvement of all slums in South Africa as rapidly as possible, but not later than 2014.
- The fast tracking of the provision of formal housing within human settlements for the poorest of the poor and those who are able to afford rent and/or mortgages.
- The creation of rental stock for a rapidly growing, mobile (migrant) and urban population within inner city and other locations close to employment opportunities.
- To remove administrative blockages that prevent speedy developments and to strive to reduce the time to grant various permissions relating to the built environment to 50% of the current time;
- To ensure consumer education and understanding in all housing development projects.

This project has at its core the provision of formal housing through the establishment of an integrated human settlement.

6.13 NATIONAL SPATIAL DEVELOPMENT PERSPECTIVE (2006)

The NSDP consists of a set of five normative principles for development:

- Principle 1: Rapid economic growth that is sustained and inclusive is a pre-requisite for the achievement of other policy objectives, among which poverty alleviation is key.
- Principle 2: Government has a constitutional obligation to provide basic services to all citizens wherever they reside.
- Principle 3: Government spending on fixed investment should be focused on localities of economic growth and/or economic activities and to create long-term employment opportunities.
- Principle 4: Efforts to address past and current social inequalities should focus on people, not places. In localities where there are both high levels of poverty and demonstrated economic potential, this could include fixed capital investment beyond basic services to exploit the potential of those localities. In localities with low demonstrated economic potential, government should beyond the provision of basic services, concentrate primarily on human development.
- Principle 5: In order to overcome the spatial distortions of apartheid, future settlement and economic development opportunities should be channelled into activity corridors and nodes that are adjacent to or that link the main growth centres. Infrastructure investment should primarily support localities that will become major growth nodes in South Africa and the SADC region to create regional gateways to the global economy.

6.14 NORTH WEST PROVINCIAL SPATIAL DEVELOPMENT FRAMEWORK, 2016

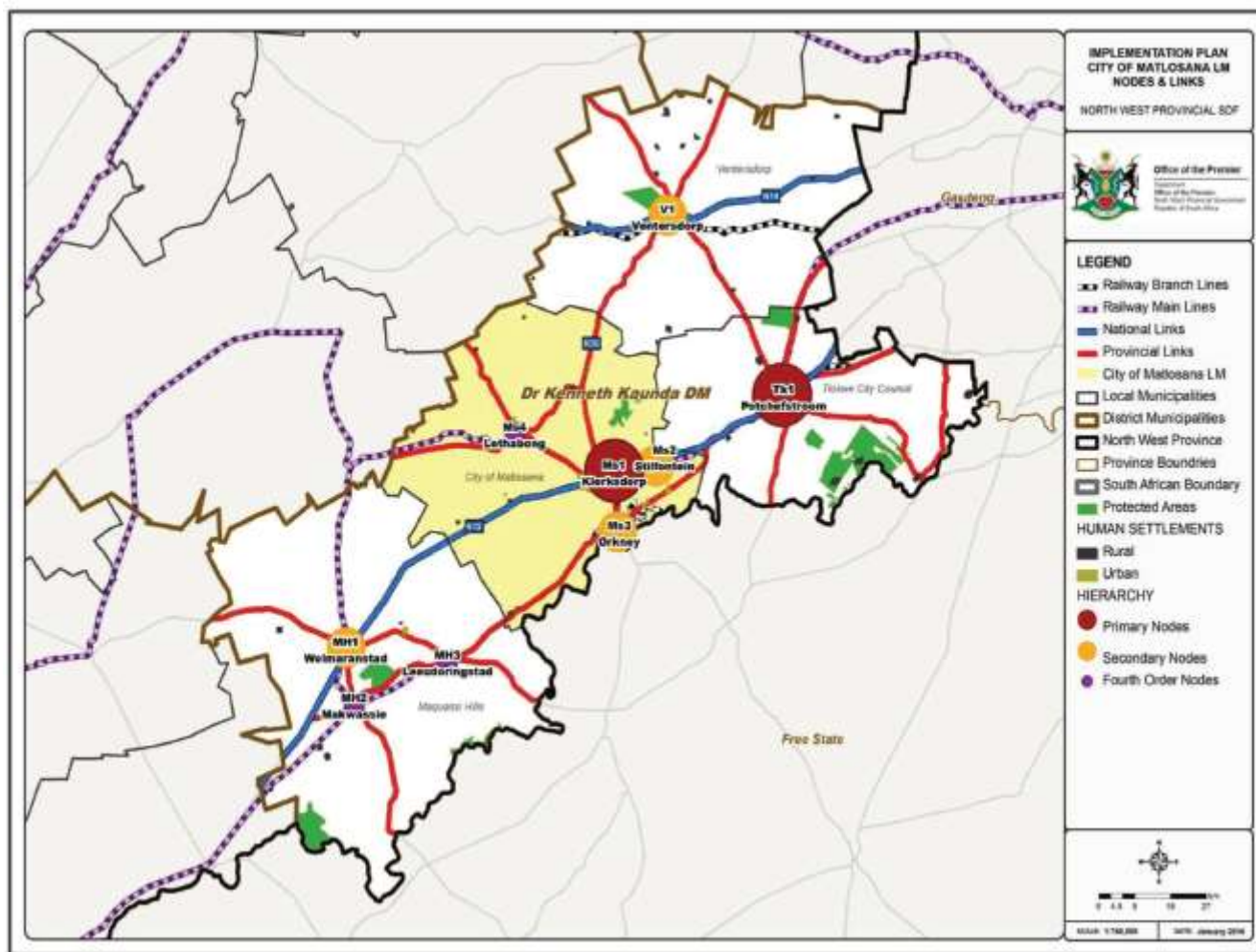
The North West Provincial Spatial Development Framework provides guidance for provincial development. **Providing for the integration of the objectives of sustainable housing** is listed as the 7th policy objective of the NWSDF. In this regard the NWSDF states the following with regards to housing:

“The strong urbanization trend causing an influx of people into towns and dense human settlements puts pressure on housing delivery. All municipalities already experience housing backlogs, which exacerbate the already dismal housing situation. This large demand for housing resulted in the development of informal housing areas on the periphery of existing towns and settlements adding pressure on the existing dysfunctional engineering and social infrastructure and roads. The timely provision of housing is of cardinal importance to the general well-being of urban areas and its people.”

The provision of housing needs to consider a variety of housing choices involving high, medium and low-density developments to provide in the housing typology needs of all individuals. Sustainable neighborhoods require the integration of all social and economic facilities to serve the daily needs of its people”.

There is therefore a strong emphasis on sustainable housing provision across the province. The provincial scale of the Framework means that site specific recommendations cannot be provided. However, Klerksdorp is identified as a first order node (see Map below), and Jouberton as a potential development node.

Map 16: Dr Kenneth Kaunda District Implementation Framework (Nodes & Links) – City of Matlosana LM



Development within these areas is therefore encouraged as part of the NWSDF. Development guidelines for the City of Matlosana Municipality include the following:

- Promote public-private sector partnerships
 - The proposed development promotes public-private sector partnerships between the City of Matlosana Local Municipality, the Department of Human Settlements and MXN Development Construction CC. In addition, the

proposed development will be eligible for government subsidy housing projects once approved.

- The municipality has a large informal component that needs to be formalised
 - The proposed development will create formalised erven with the necessary infrastructure to form part of the formal housing market of Kanana.
- Housing development should not only focus on backlog eradication, but provide suitable options for future demand
 - Through the development of the proposed township areas of Kanana Extension 1, Jouberton Extension 31 and Jouberton Extension 34, the City of Matlosana Local Municipality is not only endeavouring to address the backlog in residential erven which has culminated in a number of informal settlement areas spread throughout the urban areas, but to achieve the goal of providing sufficient erven that can accommodate the future demand in a progressive manner that will illuminate the need and phenomenon of informal settlement areas.
- Ensure effective integration between Kanana, Jouberton, Ellaton and Matlosana to ensure high levels of accessibility to services and employment opportunities
 - The proposed development is well integrated with existing and proposed Kanana extensions to the south and is linked to Klerksdorp through Leemhuis Street in the east
- Maintain and upgrade infrastructure
 - The proposed development will provide all basic services related to housing needs. Please refer to the engineering studies attached in Annexure P1 – P3.
- Enhance the image of the city to attract investment from the private sector
 - The eradication of housing backlogs and provision of formal residential erven will greatly improve the image of the municipality as a well-functioning entity

It is clear from the above that the proposed development is aligned with the development principles contained in the NWSDF.

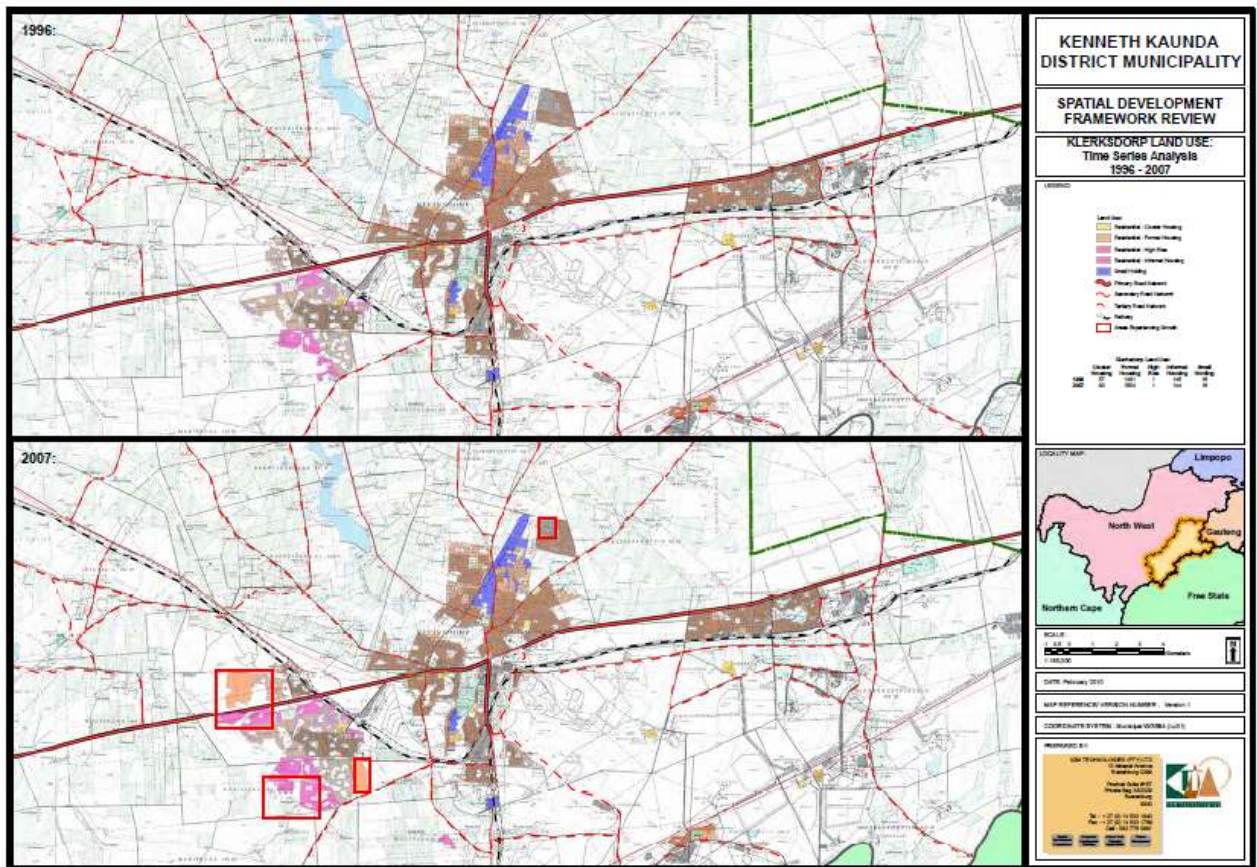
6.15 DR KENNETH KAUNDA DISTRICT SPATIAL DEVELOPMENT FRAMEWORK, 2011

Settlement hierarchy is a way of arranging settlements in order, i.e. according to the population or settlement, or the number of services and functions the settlements has, or the area the settlement covers. Both Klerksdorp and Potchefstroom are identified as Priority 1 investment nodes in the Dr Kenneth Kaunda District Spatial Development Framework, 2011. At a District and Local Municipal level these areas indicate areas that will be prioritized in terms of development spending and investment. The information shows that the Klerksdorp and surrounding areas provide access to high levels of GVA within a 20-minute drive in distance to specific locations. This clearly illustrates the areas with the highest economic potential within the district.

With regards to housing the Dr KKDM SDF states that:

“In the case of Klerksdorp, the majority of the residential development has taken place on the western extremities of the municipal area, mostly in the form of informal housing structures... In the case of Klerksdorp, the vast majority of the residential development (both informal structures and formal structures) has taken place in the western and south-western parts of the municipality.”

The map below, taken from the District SDF, clearly shows the residential growth in the Jouberton and Kanana areas between 1996 and 2007. The location of the proposed development is therefore in line with the growth and development trends in the area and is well located to address the existing housing need experienced in the City of Matlosana Local Municipality.



Map 17: Klerksdorp Land Use 1996 - 2007

6.16 CITY OF MATLOSANA LOCAL MUNICIPALITY INTEGRATED DEVELOPMENT PLAN 2017-2022 (2020 REVIEW)

The Local IDP recognises the settlement pattern across the municipality. It is noted that the largest population concentrations are located in Jouberton (31%), Kanana, Khuma and Tigane, which represent 67% of the total urban population. The need for residential development therefore exists in these areas to address the population growth.

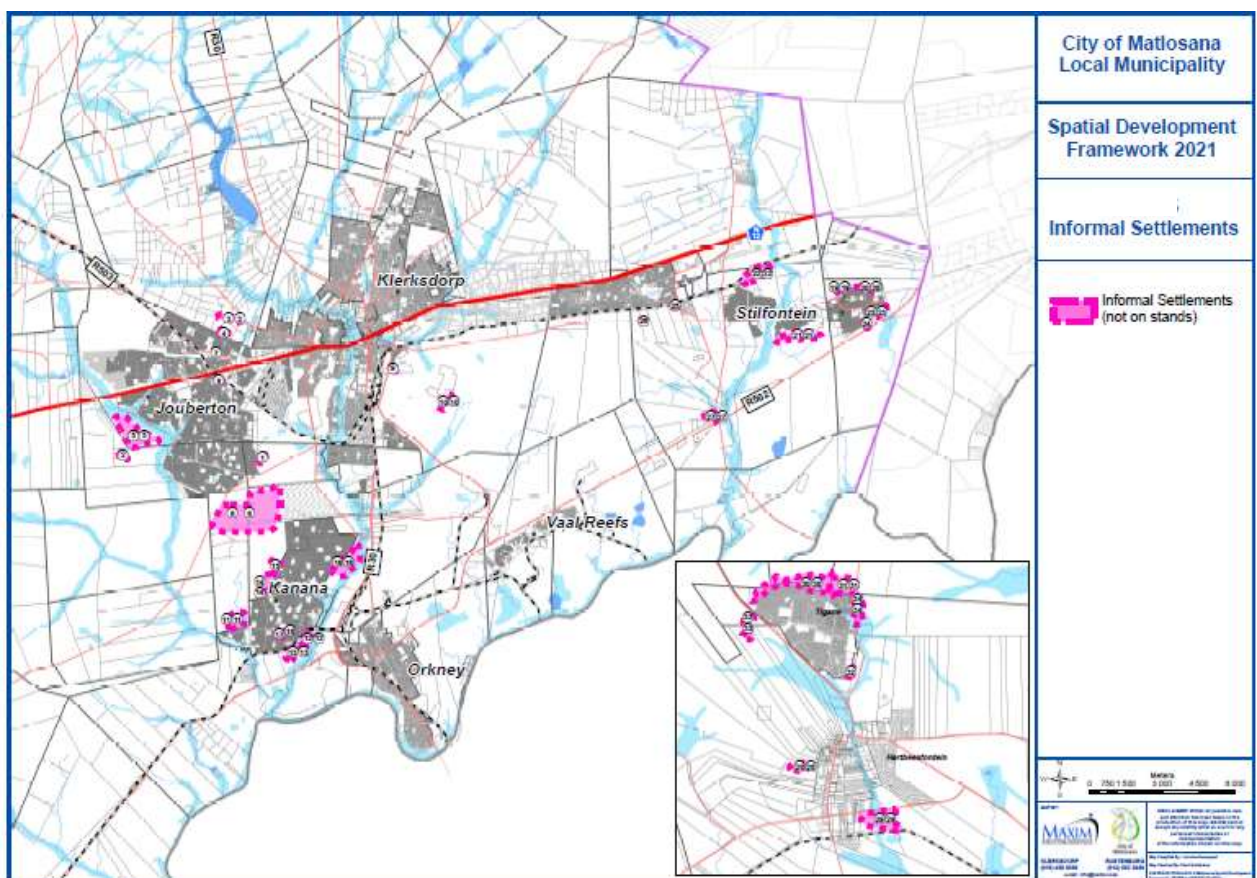
The proposed development will directly address this concern by establishing 2 302 formal erven, to be known as Kanana Extension 16.

6.17 CITY OF MATLOSANA SPATIAL DEVELOPMENT FRAMEWORK, 2021

In terms of the newly promulgated City of Matlosana Spatial Development Framework (2021), that came into operation on 29 June 2021, the housing situation in the City of Matlosana improved significantly from 1995 to 2013 to 2016.

- The number of households residing in a house or brick structure more than doubled from 41,106 to 92,052 in 2013 and increased further to 108,300 in 2016;
- The number of informal dwelling/shacks decreased by almost half from 24,546 – 12,929 in 2013. However, the IHS Market figures show an increase to 16,200 in 2016.

In terms of Table 3 (page 16) extracted from the City of Matlosana Spatial Development Framework 2021, it was estimated that the number of informal dwellings in backyards and informal dwellings in informal /squatter settlements amount to 16 200 units. In terms of Table 4 (page 17), the area south of Jouberton is estimated to house 2 803 informal dwelling units that need formalization through the provision of properly planned and serviced stands with the Jouberton urban area as a whole comprising of 6 359 informal dwelling units that are located in informal settlements. In the Kanana urban area, the number of informal dwelling units located in informal settlement areas is estimated at 1 012 units. **Map 18** below indicates the location of the existing informal settlements in the Matlosana area.



Map 18: Locality of informal settlement areas in the Matlosana area

The establishment of the proposed township area of Kanana Extension 16 is a concerted effort by the City of Matlosana to alleviate the plight of the inhabitants of these informal settlement areas through the provision of 2 290 residential erven for low cost housing purposes. As mentioned previously, consideration should be given to the fact that the proposed township area of Jouberton Extension 31 (township establishment application to be submitted as a separate Land Development Application) will not eradicate the entire Jouberton South informal settlement area, this fact resulting in the establishment of the additional township areas of Jouberton Extension 34 (addressed as a separate Land Development Application) and Kanana Extension 16 (the subject matter of this Land Development Application)

In terms of the City of Matlosana Spatial Development Framework (2021), the housing backlog was estimated at 45 500 units in Matlosana in 2015:

- Total housing need in terms of the housing register of the Municipality – 45 500 units.
 - Jouberton area - 15 000 units
 - Kanana area - 11 000 units
 - Khuma area - 9 000 units
 - Tigane area - 7 000 units
 - Alabama area - 3 500 units

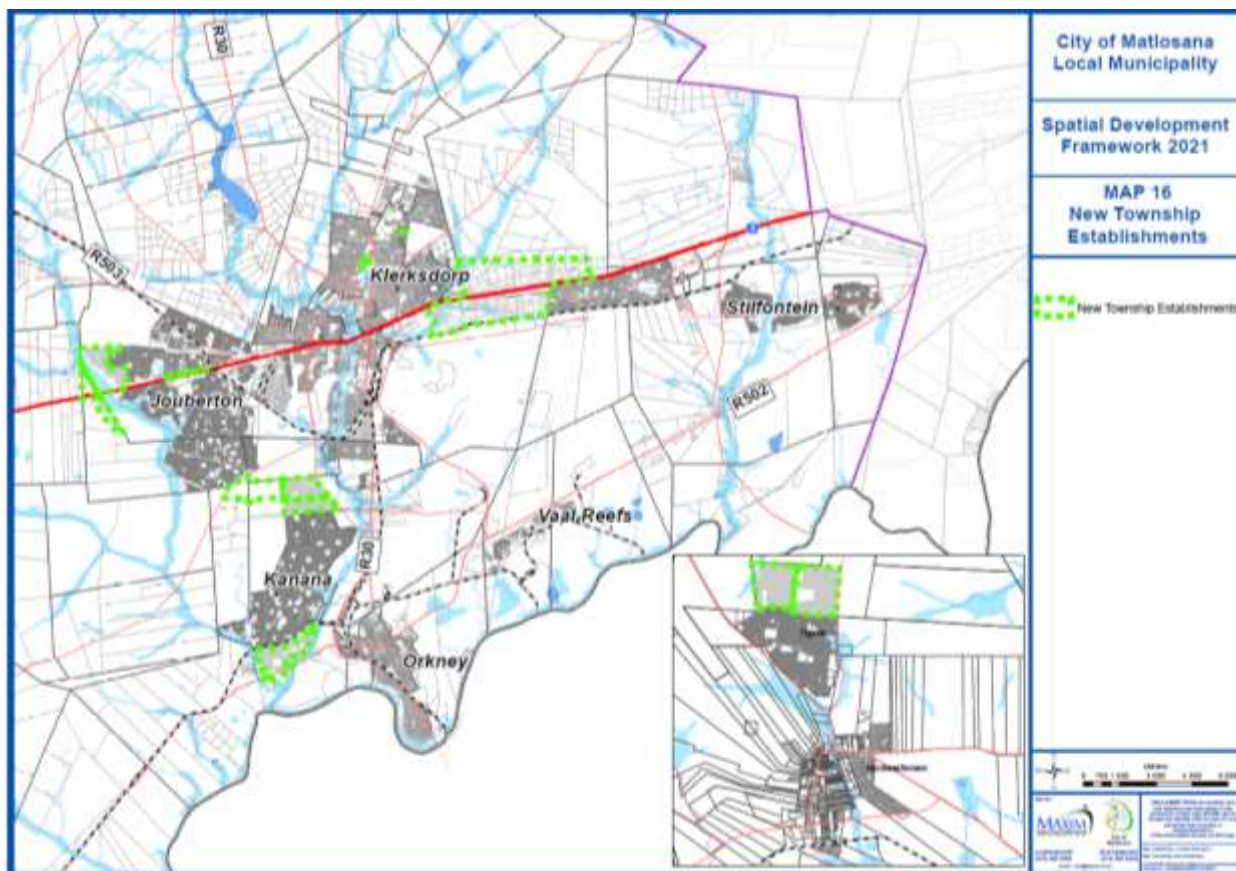
Since 2015, no additional households were registered on the municipal waiting list.

The following new townships is currently in the process of being developed by the City of Matlosana Local Municipality:

Table 24: Township Establishments in process

NAME OF THE AREA	NUMBER OF STANDS	STATUS
TIGANE EXT. 7	1 584	Township establishment in process
TIGANE EXT. 8	1 494	Township establishment in process
KANANA EXT. 16	2 290	Township establishment in process
KANANA EXT. 34	2 254	Township establishment in process
KANANA ESTATES	3 448	Township establishment in process
MATLOSANA ESTATES EXT. 12	1 289	Survey & Township Register Outstanding
MATLOSANA ESTATES EXT. 13	453	Survey & Township Register Outstanding
MATLOSANA ESTATES EXT. 1	843	Township Register
JOUBERTON EXT. 25	740	General Plan Approved (Previous Private Township)
TOTAL	14 386	

Abovementioned townships as well as the township establishments submitted by private developers (Isago) as well as other applications are indicated on **Map 19** below.



Map 19: New township establishment underway in the Matlosana area

In terms of Government Notice 526 dated 15 May 2020, the City of Matlosana (Klerksdorp / Orkney / Stilfontein / Khuma N12 Development Area) was declared as one of the Priority Human Settlements and Housing Development Areas (PHSHDAs), by the Minister of Human Settlements, Water and Sanitation.

The PHSHDAs intends to advance Human Settlements Spatial Transformation and Consolidation by ensuring that the delivery of housing is used to restructure and revitalise towns and cities, strengthen the livelihood prospects of households and overcome apartheid spatial patterns by fostering integrated urban forms.

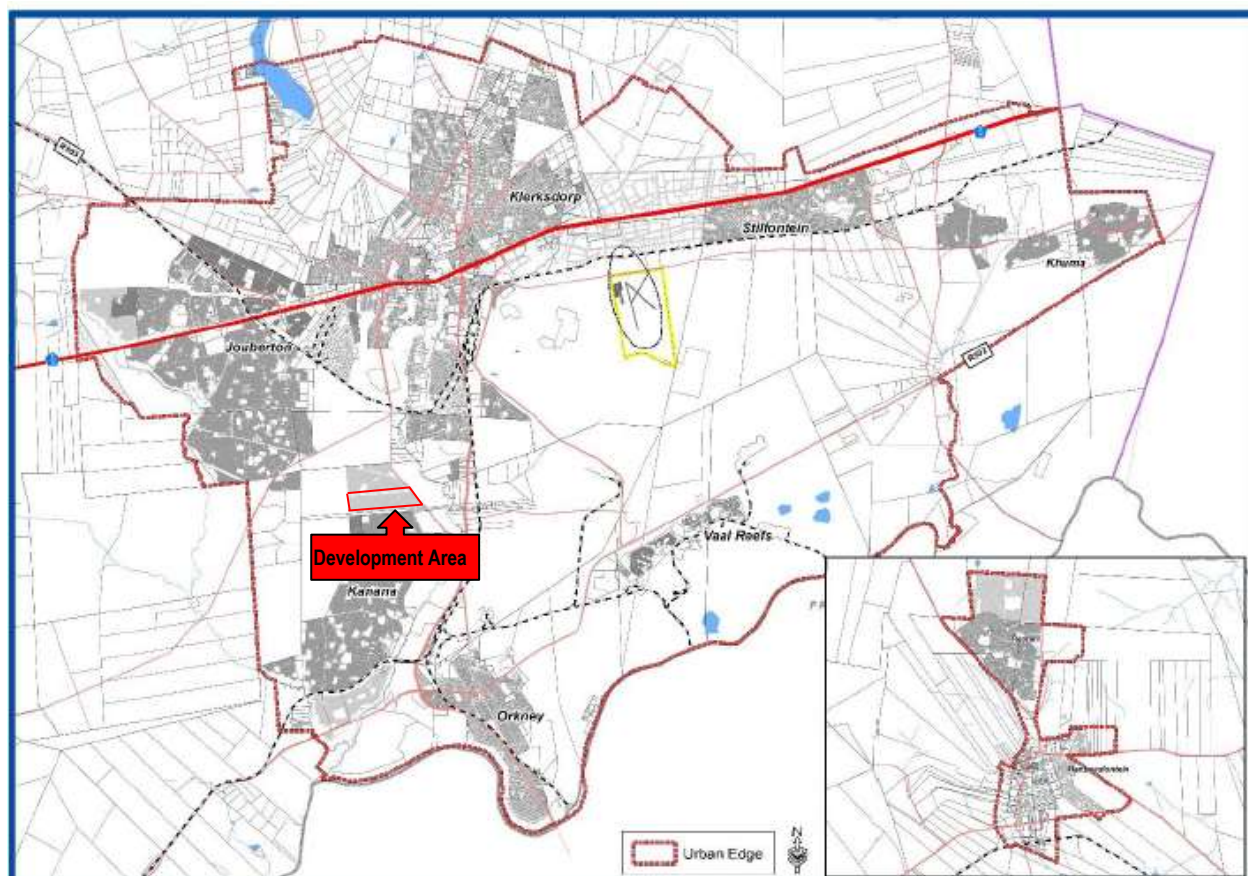
The City of Matlosana Spatial Development Framework determines as follows in respect of the urban edge

“The urban edge is the demarcated outer boundary of urban areas and marks the transition between urban and rural land uses. The main function of the urban edge is to restrict urban sprawl, promote densification of areas and the protection of agricultural and environment resources. The urban edge includes the built-up areas as well as the expected short-medium term development (10 years).

As far as development is concerned, the following strategic interventions should be applicable within the urban edge:-

- Urban built-up areas:
 - Densification and integration
 - Urban infill
 - Upgrading and proper maintenance of infrastructure
 - Urban renewal
 - Protection and rehabilitation of environmentally significant local open spaces
 - Protection of cultural heritage resources
- Area between built-up and urban edge boundary
 - Planning and provision of bulk infrastructure for new development areas
 - Planning and development of new township establishment in such a manner that it will enhance integration of areas.

The urban edge, as defined in terms of the newly promulgated City of Matlosana Spatial Development Framework (2021), in relation to the proposed township area of Kanana Extension 16 is reflected on **Map 19** below.



Map 20: Matlosana Urban Edge as defined in terms of City of Matlosana Spatial Development Framework (2021)

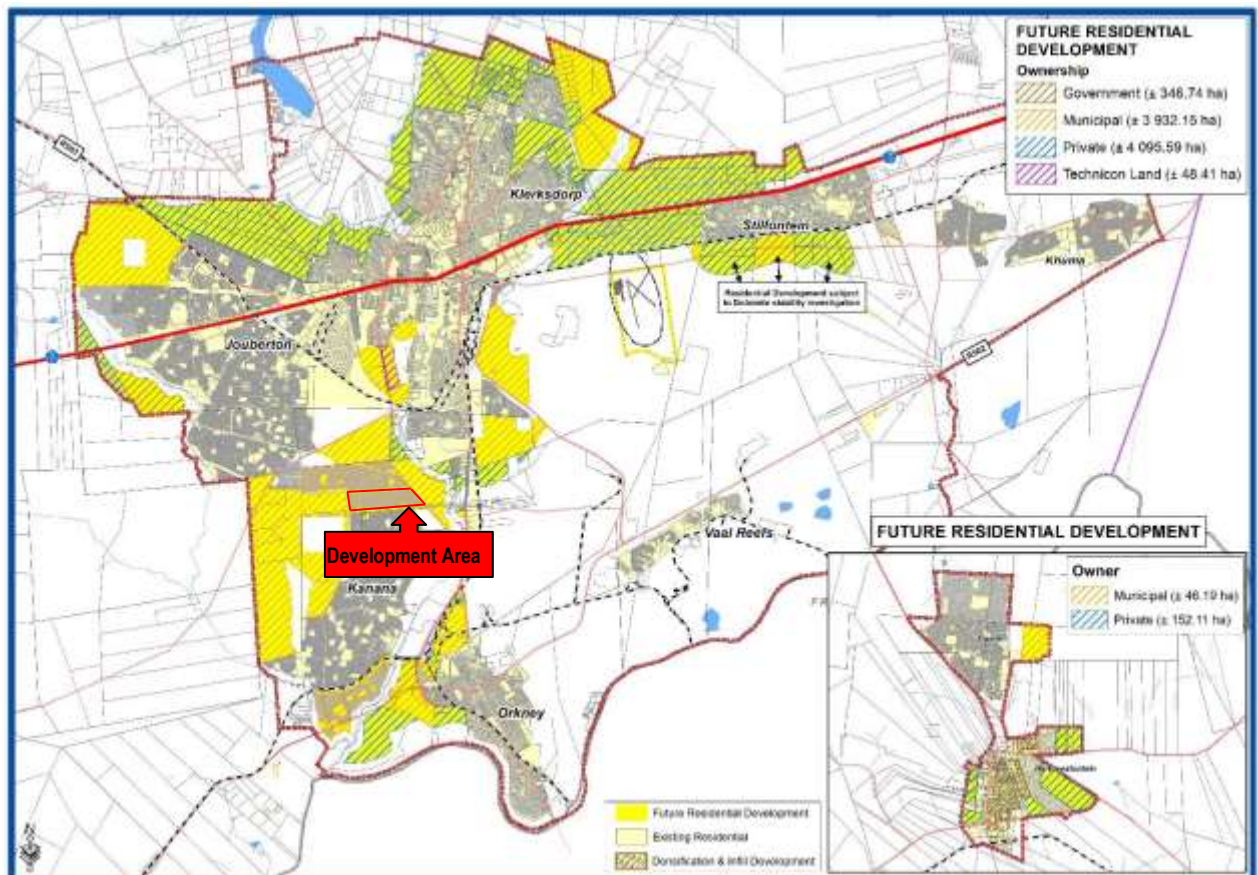
As is evident from **Map 19**, the proposed township area of Kanana Extension 16 is located inside the demarcated Urban Edge and will address the majority of strategic interventions in respect of densification and integration, urban infill, the planning and provision of bulk infrastructure for new development areas as well as the planning and development of

new township establishment in such a manner that it will enhance integration of areas. Following development of the Jouberton Extensions 34 & 31 and Kanana Extension 16 township areas, the urban areas of Jouberton and Kanana would be integrated as a continuous, single urban area.

The City of Matlosana Spatial Development Framework, 2021 also identified the need for Integrated Human Settlement Development. New residential developments must as far as possible, focus on mixed housing typologies and densities for a variety of income groups (Subsidised housing, FLISP / GAP, Affordable and Bonded Housing) in order to create more balanced communities with sufficient social amenities and local business opportunities. As mentioned previously, the integrated development comprising Jouberton Extension 34 and Kanana Extension 16 also addresses this need for other housing typologies

In terms of the BNG Principles for sustainable human settlements new residential developments should also include social amenities such as schools, clinics, community facilities as well as business opportunities.

In addition to being located inside the demarcated Urban Edge, the proposed township area of Kanana Extension 16 is also located on land earmarked for future residential development purposes, as reflected on **Map 21** below.



Map 21: Future Residential Development

In terms of the City of Matlosana Spatial Development Framework (2021), the main objective of the areas identified for future residential development is to promote a more compact urban structure and to enhance the integration of the different urban areas within the demarcated urban edge.

- Provide land for integrated human settlement developments that will provide a wide choice of housing and tenure options (subsidized housing, rental housing, GAP housing, FLISP Housing and affordable / bonded housing) in line with BNG principles
- Eradication of the backlog in housing as well as informal structures (Millennium Development Goals)
- Promote social (rental) housing in areas where integration can be promoted as well as supporting urban or inner-city regeneration.
This can also be integrated with the Neighbourhood Development Partnership Grant programme
- Promote integration of areas and infill development
- Ensure conditions not conducive to health and safety of the inhabitants are prevented and removed (flood areas, dolomite areas etc)
- Discourage illegal occupation of land
- The Spatial Development Framework (SDF) earmarked $\pm 8\,442,89$ ha for future residential development on private and municipal land. Based on a gross density of 19 units per ha, this land can accommodate $\pm 160\,035$ new residential units. This gross density includes single residential units as well as medium to higher residential densities, to accommodate different housing typologies. The SDF therefore provides sufficient land to accommodate short, medium and longer term residential needs.

The proposed township area of Kanana Extension 16 will provide for an integrated human settlement focussing primarily on subsidized housing. It also aims at addressing the Millennium Development Goals set in respect of the eradication of informal settlements, promoting the integration of areas and infill development and will also discourage the illegal occupation of land.

With regard to housing needs / demand, the current backlog in housing is estimated at 38 500 stands and houses (this excludes the current housing projects and blocked projects). The residential mix according to the most recent market analysis is estimated as follows:

- Subsidised (62%) - 24 532
- FLISP (26.2%) - 10 366
- Affordable (11.8%) - 4 669

Above-mentioned include the backlog as well as the expected 5 year growth.

The estimated housing and land needs per urban area (based on population size), as determined in terms of the recently promulgated City of Matlosana Spatial Development Framework (2021), are set out in **Table 25** below.

Table 25: Township Establishments in process

Number of stands	Klerksdorp / Jouberton / Alabama	Stilfontein / Khuma	Orkney / Kanana	Hartbeesfontein / Tigane
Subsidised	12 748	4 240	6 298	1 246
FLISP	5 387	1 792	2 661	526
Affordable	2 426	807	1 199	237
TOTAL	20 562	6 839	10 158	2 009
Land Requirements	Klerksdorp / Jouberton / Alabama	Stilfontein / Khuma	Orkney / Kanana	Hartbeesfontein / Tigane
Subsidised	637 ha	212 ha	315 ha	62 ha
FLISP	337 ha	166 ha	112 ha	33 ha
Affordable	162 ha	80 ha	54 ha	16 ha
TOTAL	1136 ha	458 ha	481 ha	111 ha

The proposed township area of Kanana Extension 16 (together with the other proposed township areas of Jouberton Extension 31 and Jouberton Extension 34) will aim to start addressing the need/demand for residential erven in the Klerksdorp/Jouberton/Alabama and Orkney/Kanana urban complexes.

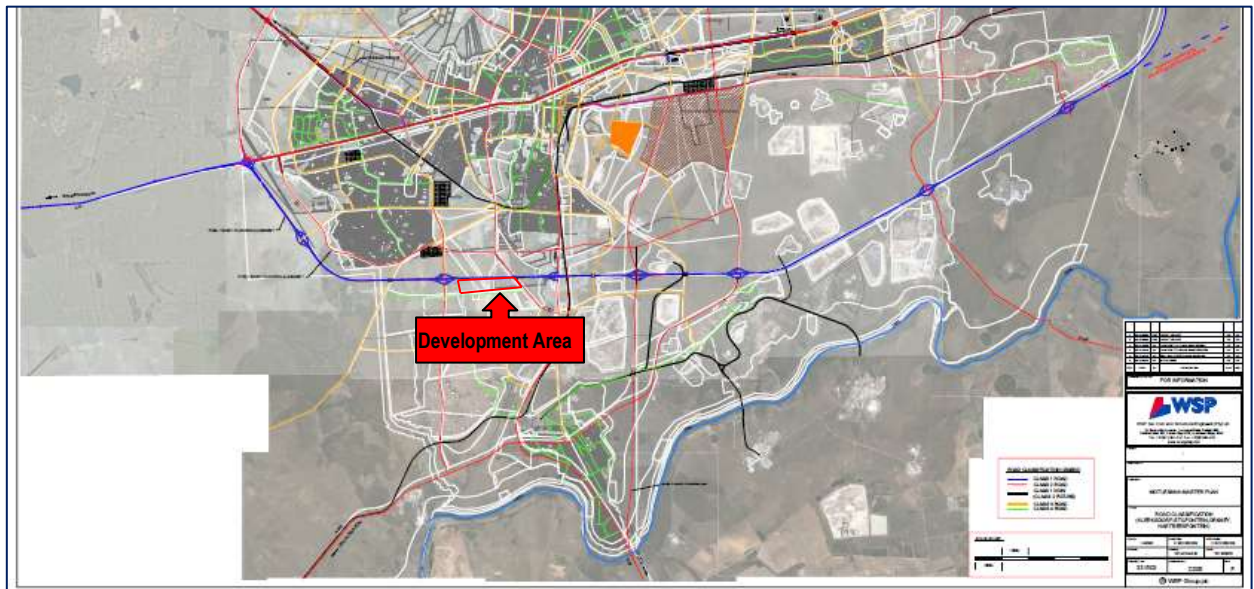
The proposed development area is further located adjacent to an existing Class 2 activity road (Leemhuis street) to the east of the site and a future activity road runs through the property to link to the Kanana extensions in the south. This road has been accommodated in the proposed layout as a 20m wide road. The proposed development is therefore highly accessible. Development is generally encouraged along activity streets. The proposed layout plan has been designed accordingly, with mixed land uses placed along this route. The business properties and the site provided for industrial / commercial purposes are all located along the future activity street, strengthening the proposed corridor development.

From the above it is clear that the proposed development is in line with the development proposals contained in the local SDF.

6.18 **MATLOSANA ROAD MASTER PLAN (MRMP)**

The Matlosana Road Master Plan (MRMP) forms part of the Integrated Transport Planning process in the Municipality and is aimed at providing structure to the municipal planning of the Municipality. The establishment of Klerksdorp Extension 38 in the eastern

part of the town resulted in the need to provide for a N12 bypass to replace the existing road in future. The proposed road network and hierarchy contained in the MRMP is depicted in **Map 22** below. The proposed by-pass is indicated in blue and can be seen running along the northern boundary of the application site. The proposed road has been accommodated accordingly in the layout plan as a 60m wide road with the appropriate building line restrictions on either side accommodated as Public Open Space even in the layout.



Map 22: Matlosana Road Master Plan

6.19 **OUTCOME 8 – 2014-2019 MEDIUM TERM STRATEGIC FRAMEWORK (MTSF)**

Outcome 8 (sustainable human settlements and improved quality of household life) of government’s 2014-2019 Medium Term Strategic Framework (MTSF) guides the Department of Human Settlement’s work over the medium term towards ensuring that poor households have access to adequate housing in better living environments, and that institutional capacity and coordination is improved.

Outcome 8 determines that human settlements in future in South Africa must at least consist of:

- The development of suitable located and affordable housing (shelter) and decent human settlements;
- An understanding that human settlements are no longer about building houses;
- Transforming our cities and towns (moving towards efficiency, inclusion and sustainability); and
- Building cohesive, sustainable and caring communities with improved access to work and social amenities, including sports and recreation facilities.

In terms of Outcome 8, sustainable human settlements and improved quality of household life are defined by:

- Access to adequate accommodation that is suitable, relevant, appropriately located, affordable and fiscally sustainable;
- Access to basic services (water, sanitation, refuse removal and electricity);
- Security of tenure irrespective of ownership or rental, formal or informal structures; and
- Access to social services and economic opportunity within reasonable distance.

This outcome is of critical importance as it is a requirement of the Constitution and Bill of Rights. It is secondly core to human dignity and social stability and is a key enabler of health, education and social cohesion outcomes. With good planning it can also serve as a catalyst for economic development and job creation.

6.20 SPATIAL PLANNING AND LAND USE MANAGEMENT ACT, 2013 (SPLUMA) DEVELOPMENT PRINCIPLES

The act applies to spatial planning, land development and land use management. The following five (5) primary development principles referred to in the Spatial Planning and Land Use management Act, 2013 (Act 16 of 2013) (SPLUMA) and explained in SPLUMA: A Practical Guide compiled by Nic Laubscher, Lizette Hoffman, Ernst Drewes and Jan Nysschen, 2016, need to be taken into consideration:

“7. (a) the principle of spatial justice, whereby-

(i) past spatial and other development imbalances must be redressed through improved access to and use of land;

The focus of the principle would be on integration or development of rural and/or traditional settlements and urban integration strategies. This development specifically aims at redressing past spatial imbalances in combatting the past planning principles of providing low income residential areas on the periphery of urban areas. This development will provide residents access to land and the use of such land to better their living conditions whilst similarly providing the necessary security of tenure. This project aims at providing 2 290 residential erven with the necessary complementary land uses.

(ii) spatial development frameworks and policies at all spheres of government must address the inclusion of persons and areas that were previously excluded, with an emphasis on informal settlements, former homeland areas and areas characterised by widespread poverty and deprivation;

In terms of the City of Matlosana Spatial Development Framework, the area to which this application applies was already earmarked for

residential purposes. This was specifically done to limit further urban sprawl and to enhance integration. The proposed development area is also within the demarcated urban edge as defined in terms of the SDF.

(iii) spatial planning mechanisms, including land use scheme, must incorporate provisions that enable redress in access to land by disadvantage communities and persons;

The local municipality identified portions of land within the local municipal area, through the Spatial Development Framework, that will redress access to land by previously disadvantaged people whilst also providing housing opportunities for people that wish to acquire land to build their own home or those that do not qualify to participate in the subsidized housing programmes of government but still require proper housing (e.g. rental housing / social housing). The proposed development will primarily focus on the low cost / subsidized housing market with the adjacent township area of Jouberton Extension 34 providing erven that can accommodate other housing typologies to accommodate the needs of the community. This development will provide access to land and security of tenure to a disadvantaged community and residents of informal settlements residing in squalid conditions without basic services and a lack of proper shelter.

(iv) land use management systems must include all areas of a municipality and specifically include provisions that are flexible and appropriate for the management of disadvantaged areas, informal settlements and former homeland areas;

Land uses within the City of Matlosana Local Municipality municipal area are governed by a functional land use management system. The proposed land uses in the proposed township areas will be regulated by the Klerksdorp Land Use Management Scheme, 2005. The opinion is held that the provisions of this scheme that will relate to this development will be totally appropriate for the management of the land uses to be provided within this development.

(v) land development procedures must include provisions that accommodate access to secure tenure and the incremental upgrading of informal areas; and

This project has at its core the provision of adequately zoned properties for future expansion of Jouberton. This township establishment process will afford inhabitants of this area the opportunity to obtain access to secure tenure on the development area. The township establishment process aims to create residential erven that can, after proclamation of the township areas, be alienated to the beneficiaries thereof. This new township development will afford the community of Jouberton the opportunity to access land and secure tenure thereof.

- (vi) **A Municipal Planning Tribunal considering an application before it, may not be impeded or restricted in the exercise of its discretion solely on ground that the value of land or property is affected by the outcome of the application;**

The proposed development will positively affect not only the value of this property but also those of the surrounding areas.

7. (b) the principle of spatial sustainability, whereby spatial planning and land use management systems must –

The principle of spatial sustainability should allow for flexibility in dealing with applications and proposals, which may not have been anticipated.

- (i) **promote land development that is within the fiscal, institutional and administrative means of the Republic;**

In terms of the sub-principle, the opinion is held that the City of Matlosana Local Municipality has sufficient fiscal, institutional and administrative capacity and resources to administer the development. The City of Matlosana Local Municipality will ensure that the development complies with the requirements contained in the Klerksdorp Land Use Management Scheme, 2005 and the City of Matlosana Spatial Development Framework.

- (ii) **ensure that special consideration is given to the protection of prime and unique agricultural land;**

The area where the concerned property is situated is not regarded as prime or unique agricultural land.

- (iii) **uphold consistency of land use measures in accordance with environmental management instruments;**

Environmental sustainability refers to the relationship between the settlement and the natural landscape.

The development is planned with a full level of infrastructure elements including sewer, water, electricity, access and refuse removal services, thereby reducing the effect that the development will have on the natural surrounding area. For an area to be environmentally sustainable, it should protect the unique amenity and character of the surrounding environment and also prevent degradation. The development will not be situated in an ecological sensitive area or in places of hazard or high risk, such as within the flood plain. The proposed development further excludes noxious activities.

In considering the environmental management instruments applicable to the proposed development, it is pertinent to note that the activity does

indeed constitute a listed activity in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014.

The township applicant appointed a qualified independent Environmental Practitioner to conduct the necessary Environmental Impact Assessment and public participation process as prescribed in terms of the fore-mentioned Act.

In this regard it is relevant to note that the Department of Economic Development, Environment, Conservation and Tourism (DEDECT) issued an Environmental Authorisation in respect of the proposed development on 21 May 2021.

The development of this township area as well as the activities conducted from the erven in the township area during the operational phase will be subject to the conditions imposed by the Department of Economic Development, Environment, Conservation and Tourism (DEDECT) and set out in the relevant Environmental Authorisation.

(iv) promote and stimulate the effective and equitable functioning of land markets;

The local municipality is in favour of on-going dialogue with private investors and relevant government departments, to promote integrated economic growth.

Principle 7 (b)(iv) recognizes the need for land development to be based on competition and the principle of a competitive economy. The development will contribute to the economic growth of the municipal area. The development represents a public sector initiative, planned and applied for in the context of open market competition. This development will further not be in competition with any other private sector development within the concerned area.

(v) consider all current and future costs to all parties for the provision of infrastructure and social services in land developments;

The local municipality needs to comply with the guidelines for the provision of emergency-, social-, education- and engineering services, in terms of the provision of infrastructure and social services.

The provision of services to the proposed development has been addressed in detail in Section 5 supra and it was indicated that the development can be provided with the necessary services subject to the bulk infrastructure upgrades proposed.

(vi) promote land development in locations that are sustainable and limit urban sprawl; and

The proposed development will take place within the demarcated urban edge as set out in the City of Matlosana Spatial Development Framework. This development will be sustainable and will limit further urban sprawl.

This development intends to promote a more compact city and to prevent the expansive provision of social and engineering services. The Spatial Development Framework addresses the scale of urban growth through planned extensions, infill and redevelopment strategies. The local municipality is aware of the need to integrate urban settlements, with a view to reduce travel distances to the areas of employment opportunities.

The planning practices of the past have resulted in sprawling urban areas that are un-economical. Today, planning policies transformed to mainly focus on infill development on vacant land within an urban environment, in order to combat urban sprawl. The principle also calls for a balance in land development processes. The development is in line with the sub-principle and will combat urban sprawl. The development will also ensure maximum utilization of the concerned property and will lead to the integration with the existing Jouberton extensions in the north.

(vii) result in communities that are viable;

For any development to be sustainable and viable to the community, land development and planning should ensure that communities are located close to job opportunities, social facilities and basic services. The proposed development includes various complementary land uses and is located in close proximity to the Klerksdorp Industrial area where employment opportunities exist. The proposed township is also well linked to Klerksdorp in the north (approximately 5km away) via Leemhuis Street) and Orkney (approximately 6km away) via National Road R30.

(c) the principle of efficiency, whereby -

(i) land development optimizes the use of existing resources and infrastructure;

The granting of development permissions should be coupled with the provision of adequate infrastructure. The efficient usage of existing resources can promote high density growth, alleviate urban sprawl and optimise the use of land.

The development will ensure the optimum utilization of one of the most valuable resources being land, if used to its full potential, and it was indicated in Section 5 that the development can be supplied with the full

spectrum of infrastructure elements such as water, sewer, refuse removal, and access roads; thus reducing the effect of the development on the natural surrounding area.

(ii) decision-making procedures are designed to minimize negative financial, social, economic or environmental impacts; and

The opinion is held that the development will not have a negative financial, social, economic or environmental impact on the surrounding properties, as this development will be of a formal and non-noxious nature fitting in with the land uses surrounding the proposed development area.

(iii) development application procedures are efficient and streamlined and timeframes are adhered to by all parties;

This land development application in respect of the establishment of the proposed township will be processed in accordance with the prescriptions of the City of Matlosana Spatial Planning and Land Use Management Municipal By-law on Spatial Planning and Land Use Management, 2016. The processes prescribed in terms of this legislation make provision for the necessary community involvement through a public participation process.

(d) the principle of spatial resilience, whereby flexibility in spatial plans, policies and land use management systems are accommodated to ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks; and -

Standards for the protection of natural resources, agricultural land, open spaces and ecosystems have been compiled on a national and regional level. The local municipality compiled a Spatial Development Framework to increase resilience for human settlements, focusing on vulnerable and informal areas. The Spatial Development Framework needs to be flexible to adapt to social, economic and technological trends. This development is 100% aligned with the most recent Spatial Development Framework and gives effect to the proposals set forth in this SDF. This development is specifically aimed at providing opportunities for people that are currently devoid of land for proper housing purposes. The provision of proper housing for the landless community of Kanana and surrounding towns will alleviate the plight of a community who is most vulnerable to suffer the impacts of environmental and economic shock.

(e) principle of good administration, whereby-;

(i) all spheres of government ensure an integrated approach to land use and land development that is guided by the spatial planning and land use management systems as embodied in this Act;

The City of Matlosana Local Municipality has a Spatial Development Framework and employs the Klerksdorp Land Use Management Scheme, 2005 as part of their land use management system. In terms of the Spatial

Development Framework the area to which this development applies was specifically earmarked for residential development which renders this proposed development in line with the Spatial Development Framework. The Klerksdorp Land Use Management Scheme, 2005, will effectively regulate the land uses to be established within the township.

(ii) all government departments must provide their sector inputs and comply with any other prescribed requirements during the preparation or amendment of spatial development frameworks;

Integration between the different levels of government assists to create complimentary and mutually reinforcing policies, while integration between the different sectors will result in positive benefits. Government departments have been consulted during the compilation of the Spatial Development Framework of the local municipality. In addition to the fore-mentioned consultation, it should be noted that this application for township establishment will also be referred to the following government and non-government departments as integral part of the public participation process:

- Department of Public Works and Roads
- Openserve (Telkom SA Limited)
- Eskom
- Dr. Kenneth Kaunda District Municipality (DRKKDM)
- Department of Minerals Resources (DMR)
- Department Agriculture, Land Reform and Rural Development (DALRRD)
- Department of Water and Sanitation (DWS)
- Department of Co-operative Governance and Traditional Affairs (COGTA)
- Department of Education
- Department of Health
- South African Post Office (SAPO)
- Transnet Freight Rail
- South African Heritage Resources Agency (SAHRA)
- South African National Roads Agency Limited (SANRAL)
- Midvaal Water
- Department Economic Development, Environment, Conservation and Tourism (DEDECT)

(iii) the requirements of any law relating to land development and land use are met timeously;

The Minister of Rural Development and Land Reform has prescribed timeframes to which land development applicants and decision-makers must adhere to.

- Eskom
- Dr. Kenneth Kaunda District Municipality (DRKKDM)
- Department of Minerals Resources (DMR)
- Department Agriculture, Land Reform and Rural Development (DALRRD)
- Department of Water and Sanitation (DWS)
- Department of Co-operative Governance and Traditional Affairs (COGTA)
- Department of Education
- Department of Health
- South African Post Office (SAPO)
- Transnet Freight Rail
- South African Heritage Resources Agency (SAHRA)
- South African National Roads Agency Limited (SANRAL)
- Midvaal Water
- Department Economic Development, Environment, Conservation and Tourism (DEDECT)

The fore-mentioned organizations / departments will be afforded a period of sixty (60) days to comment in this matter. The adjacent property owners and the general public will be afforded a period of thirty (30) days to lodge comments or objections in this matter.

(v) policies, legislation and procedures must be clearly set in order to inform and empower members of the public;

The procedures set out in the City of Matlosana Spatial Planning and Land Use Management Municipal By-law on Spatial Planning and Land Use Management, 2016 afford members of the public the opportunity to not only participate in this process but also to scrutinize the documentation relating to the application. Members of the public will be afforded a period of 30 days to comment or object against this development.

6.21 GENERAL

From a land use and town planning point of view the proposed development area is ideally suited for residential purposes due to the following:

- The purpose of this land development application is to provide for the establishment of a proper integrated human settlement that will not only address the short-term need for residential erven to address the immediate housing backlog, but to also provide a sustainable, vibrant development going forward.
- The proposed development area is located between the existing Jouberton and Kanana urban areas, in an area earmarked for residential development. The

proposed township constitutes the logical extension of the existing built-up urban area of Jouberton and constitutes infill planning within the delineated urban edge.

- The proposed township area is easily accessible due to its locality directly adjacent to Provincial Road P150-1 (Leemhuis Street), a provincial class 2 road linking to Klerksdorp in the north as well as linking to the urban area of Orkney through National Road R30 (Klerksdorp – Free State Road)
- The layout plan that was compiled in respect of the township area comprehensively addresses the issues identified during the pre-planning studies relating inter alia to the following:
 - Providing adequate spacing and limiting the number of direct accesses to the proposed township area from Provincial Road P150-1 (Leemhuis Street) and in compliance with the standards of the Department of Public Works and Roads;
 - Integrating the proposed road network with that of the proposed Jouberton Extension 34 to the north;
 - Incorporating the proposed future southern by-pass road and proposed activity corridor identified in the Road Master Plan;
 - Providing for the development of complementary land uses on site to provide essential business and social services to the community;
 - Accommodating the existing services infrastructure on site on appropriately zoned erven;
 - Engineering services can be provided to the proposed township area; and
 - Traffic generated by the development can be accommodated within the existing road network subject to the necessary road and intersection upgrades proposed in terms of the Traffic Impact Study.

In view of the fore-mentioned, we trust that this application will be considered favorably.

K. RAUBENHEIMER
Pr. PIn A/924/1996