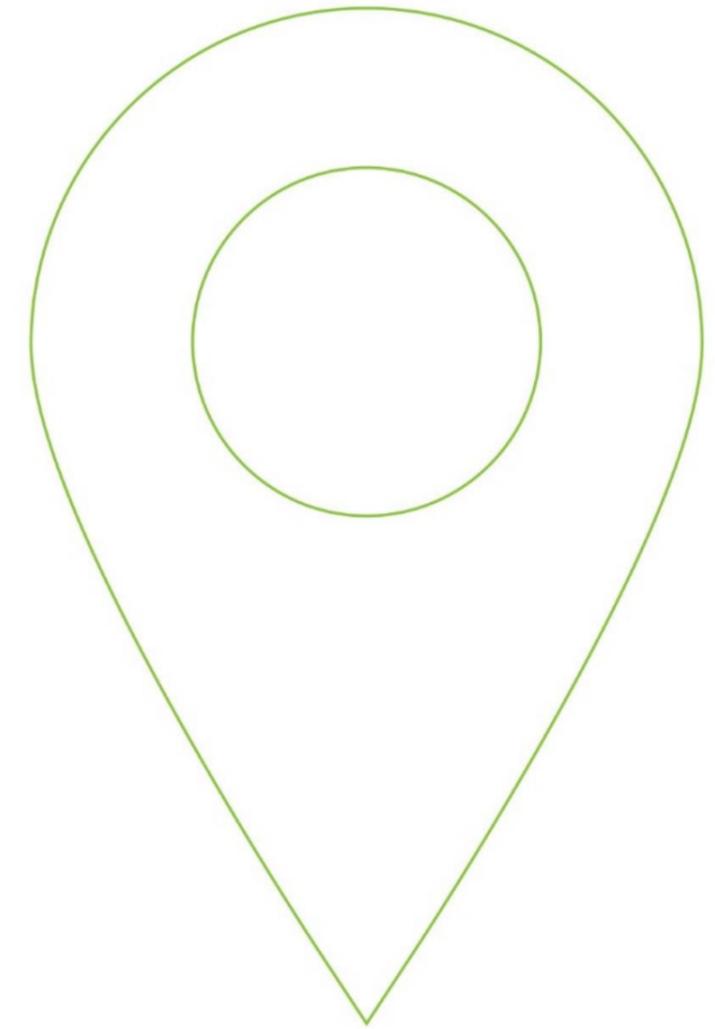




Buffalo City Metropolitan Municipality

SETTLERS WAY LSDF

Final Draft Local Spatial Development Framework



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INTRODUCTION AND BACKGROUND

The Buffalo City Metropolitan Municipality, herein after referred to as the **BCMM**, has appointed Tshani Consulting CC to prepare the **Local Spatial Development Framework, for the Settlers Way** area, hereafter referred to as 'SW LSDF', in the Buffalo City Metropolitan Municipality.

This document serves as the **Draft Local Spatial Development Framework Report**, prepared by Tshani Consulting CC, as a component of **Phase 2**.

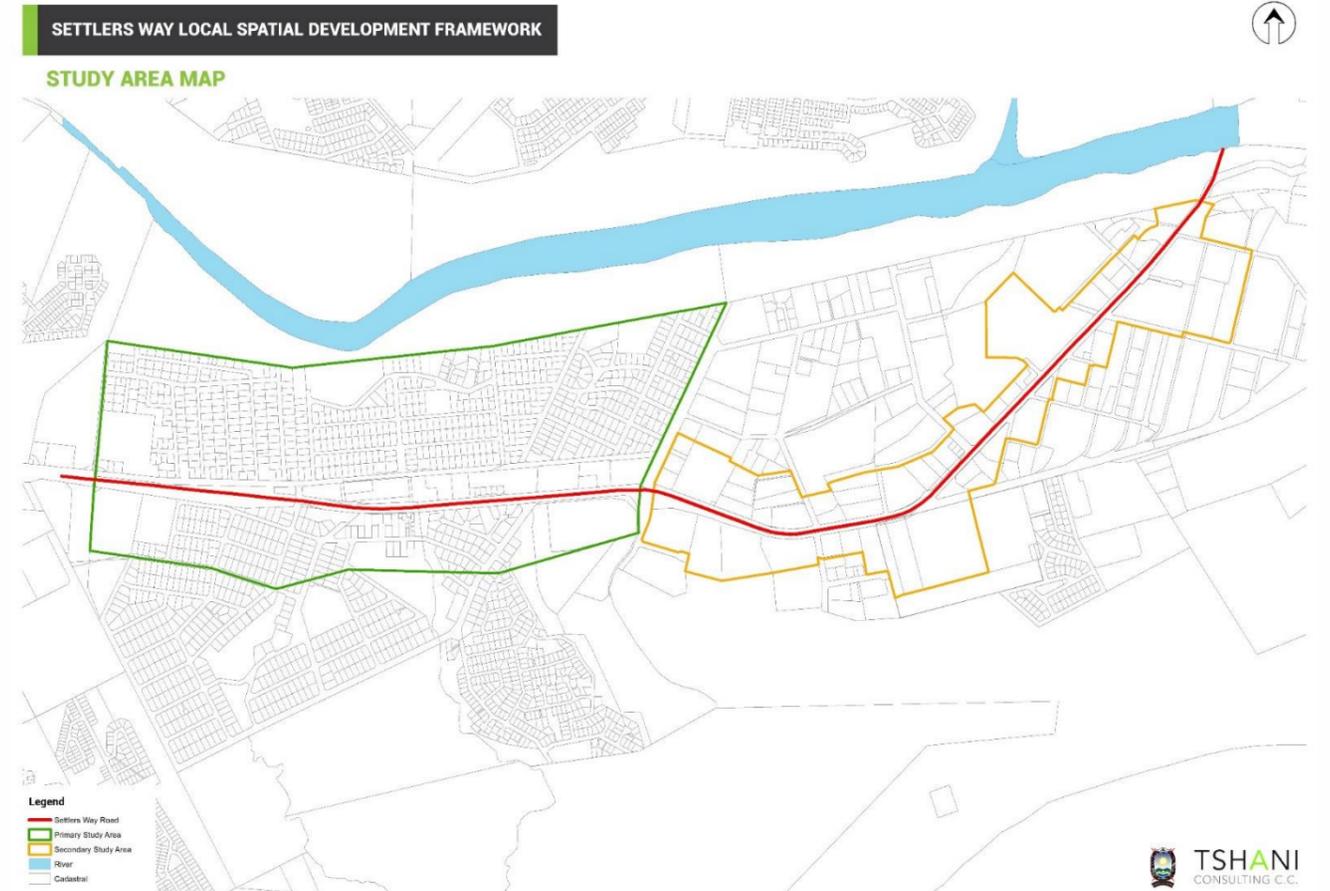
BACKGROUND

Not only does the Broader West Bank area and residents of East London utilise the study area; it must also be noted that Settlers Way (R72) is the **gateway into East London** through where motorist travel from various places including Port Elizabeth, Port Alfred, etc or tourists and business persons land at the East London Airport and would then have to drive through Settlers Way to reach their various destinations within East London.

The area is synonymous with the regular travel of large **trucks** and this provides an added risk for motorists, cyclists and pedestrians who travel along the road. Settlers Way LSDF must also contain a **Traffic and Transport Plan**. The Settlers Way Traffic and Public Transport Management Plan will be a distinct subcomponent of the LSDF.

STUDY AREA

The Settlers Way Study area concentrates on the area between Buffalo View Road in the East and Chester Road to the West. The study area is located on the West Bank; approximately 5 km east of the East London Central Business District and it covers a corridor area approximately 400m on both sides of the Settlers Way.



PROJECT OBJECTIVES

The objective of the Settlers Way LSDF is to undertake a thorough analysis and needs assessment in the study area in order to identify development projects, infrastructure requirements, appropriate land use proposals and compile a detailed implementation and phasing programme with related budget.

SWOT ANALYSIS

The following section will assess the Strengths, Weaknesses, Opportunities and Threats (SWOT) relating to the study area. The SWOT analysis helps to understand the issues pertaining to the study area. The Strengths and Opportunities of the study area are the themes that would be able to be expanded upon and promoted, whereas the Weaknesses and Threats would require further emphasis to be able to develop them into opportunities.

Strengths

- Forms the "Gateway" into East London;
- Linkage to other major towns;
- Close proximity to the airport;

Opportunities

- The need for residential opportunities on the West Bank due to the growing industrial sector;
- Linkages to the activities within close proximity such as the harbour, the EL CBD, EL IDZ, Water World, Grand Prix Track, etc.;
- The changes in land use seen along Jan Smuts Avenue are opportunities for mixed use

Weaknesses

- Lack of formalized pedestrian paving along sidewalk
- Lack of dedicated informal trading space;
- The Primary Study area has limited space for expansion.

Threats

- Traffic congestion;
- Trucks stopping along the yellow line;
- Trucks turning right, onto Settlersway, obstructing the flow of traffic
- Lack of formalized pedestrian paving;

KEY ISSUES

The following Key Issues have been divided per sector in order to understand the issues that face the study area pertaining to these sectors, and further, to be able to address them separately moving forward within the report. The following colour code applies to the various sectors:

1. Key Environmental Issues

The following has been outlined as Key Environmental Issues pertaining to the study area:

- Insufficient Stormwater Management and flood attenuation;
- Inadequate solid waste management practices.

2. Key Land Issues

The following has been outlined as Key Land Issues pertaining to the study area:

- Vacant Land Parcels within the Secondary Study area;
- Illegal land uses;
- The need to increase the number of residential units within the study area as the demand is high for housing within this area;
- Informal settlement located adjacent to the East London Airport. ACSA looking at expanding their runway;

3. Key Traffic Issues

The following has been outlined as Key Land Issues pertaining to the study area:

- High volumes of traffic during peak hours;
- High number of trucks which travel on the R 72;
- Trucks turning right on Settlers Way blocking traffic regularly
- Lack of designated bus and taxi stops;
- Lack of pedestrian pavement all throughout study area and especially along Settlersway;
- High speed movement of vehicles which makes it challenging for pedestrians to cross the street.

4. Key Infrastructural Issues

The following has been outlined as Key Infrastructural Issues pertaining to the study area:

- Lack of capacity over the Biko Bridge
- Pressures on sanitation
- Illegal electricity connections
- Lack of bulk infrastructure within the Winterstrand / Cove Rock region

5. Key Economic Issues

The following has been outlined as Key Economic Issues pertaining to the study area:

- Lack of formalized informal trader stalls;
- A demand for office use along Jan Smuts Avenue;
- Growing need for more economic services in the area (e.g. informal settlement residents use ATM's at the airport to withdraw cash)

6. Key Social Issues

The following has been outlined as Key Social Issues pertaining to the study area:

- Insufficient blue-collar labour-related jobs to service the community residing in the broader study area;
- Lack of entertainment amenities to serve the needs of the community;

- Lack of public open spaces;
- Lack of retail / restaurant facilities within the study area to serve the needs of the community

7. Key Urban Design Issues

The following has been outlined as Key Urban Design Issues pertaining to the study area:

- Lack of landmarks and public art;
- Inadequate street lighting;
- Irregular paving width throughout Settlers Way;
- Lack of beautification mechanisms to signify Settlers Way as the Gateway into East London.

STRATEGIC FRAMEWORK

VISION

The development vision for the study area should be based on BCMM's vision of the metro being a "responsive, people-centred, developmental city".

The vision aims to outline the future goal of a specific area as well as to combat the key issues pertaining to the area. The proposed vision for the Bonza Bay Road Corridor is as follows:

"An attractive gateway into East London surrounded by a supportive residential node catering for the growing industrial sector within the West Bank"

GOALS AND OBJECTIVES

Development Goals

The following goals for development have been set for the SW LSDF: -

- Guide and manage the types and scale of new retail, residential and office developments in the study area, whilst recognizing the desirability of maintaining the overall primacy of the East London CBD and associated revitalization initiatives;

- Facilitate the development of mixed land use nodes and development corridors, where appropriate, within the study area;
- Encourage residential densification in the study area;
- Facilitate economic activity in the study area in such a manner that it does not negatively impact on the nature and character of the essentially residential fabric surrounding the area;
- Ensure that development maintains or enhances safety, health and the environment.

Objectives & Performance Criteria

The achievement of the above goals is proposed by using the following planning mechanisms: -

1. Setting clear objectives for land development and transportation in the study area; and
2. Establishing Performance Criteria that defines the parameters within which land use change and land development can take place in the study area.

Development Objectives

The following Objectives are identified in respect of land development processes within the study area: -

- To identify appropriate areas for development as nodes and corridors, using the classification of these structuring elements as contained in the Buffalo City Spatial Development Framework;
- To set in place appropriate planning measures to encourage development of office and retail land uses within the areas defined as development nodes and development corridors;
- To manage land use and land development within the development nodes and corridors that will maintain and enhance the viability and vitality of these areas;
- To facilitate job creation by permitting small home-based businesses to be developed within appropriate guidelines set by the East London Zoning Scheme, 2007;
- To ensure the rectification of non-conforming land uses within the study area
- To minimise the impacts of land use and land development within the development nodes and corridors on adjoining land uses;
- To allow for residential accommodation in business precincts in order to provide housing choice and improve activity levels; thereby taking advantage of existing infrastructure and underutilised properties.
- To manage development so as to minimise risk, vulnerability and promote sustainability and overall resilience.

OVERALL CONTEXT OF THE WEST BANK

The BCMM BEPP, 2019 discusses the West Bank as an Economic Catalytic Programme Area which aims to support investment, improve logistics and thereby boost economic performance. It includes a suite of planned and budgeted projects which will enhance the infrastructure capacity as well as assist in unlocking planning and land related issues within the corridor.

Upon a detailed analysis of the broader study area, it is noted that there are many developments and proposals which would have direct impact on the study area. These include:

The East London Beachfront

The East London Beachfront is a tourist and recreation node with easy access from the East London Central Business District (CBD). It boasts 2 beautiful beaches, swimming pools, a pier and many restaurants offering a variety of cuisine depending on one's budget.

The East London Beachfront is located at close proximity of around 6km from Sunnyridge. The node is able to offer and act as a recreation node to the residents of the Sunnyridge and Greenfields region. The only challenge that these residents face is the accessibility of this node due to the frequent traffic congestions over the Biko bridge and through the East London CBD.

The East London Port

The East London Port is currently looking at an expansion programme in the following areas:

- Container Terminal;
- Latimers Landing;
- Increased car parking facilities for MBSA

The strategy of the Port of East London is to increase its capacity of importing and exporting and in order to do so, they have to be able to hold much more containers. The current capacity on the East Bank on the Port is 100 000 containers.

The only option of meeting an increased projection the Port has decided to move the container terminal to the West Bank

The East London Back of Port precinct has potential to act as a major tourist node boasting stunning river views and easy linkage to the Esplanade. This precinct is currently not being utilised to its full potential. This precinct could act as another entertainment / recreation precinct for the residents of the Greenfields / Sunnyridge area and the wider city.

The following implications have been identified:

- Should the container move to the West Bank, linkages from the Port are necessary in the form of road and rail access; An increased size container terminal means more trucks on the road transporting containers which adds to the congestion on Military Road, Settlersway as well as the West Bank on a whole;
- With the Steel Bridge being unable to permit trucks to cross over, this will compound the congestion on the above-mentioned roads;
- The Port is not 'PEOPLES PORT' therefore the planning of the Port will have to consider improved linkages as well as accessibility. This Port in its current form will segregate users and will prevent the Port from the glue that brings users together. Like in other major Port Towns in South Africa and Globally;

The following Proposals are being made in relation to the above Key Issues and the respective Implications:

- A larger area close to the Grain Silos, on the West Bank have been identified for the new Container Terminal;
- A proposal to develop Latimers Landing into a Leisure and Residential Precinct will allow more users to the area, as well as bring more 'feet' to support proposed commercial and leisure activities; The proposed upgrade of Latimers Landing also into a Mixed Use Precinct on a similar but smaller scale than the V & A Waterfront in Cape Town, will become an 'attraction' in itself;
- The proposed development of Signal Hill will also be the catalyst that creates the linkage between the working port and the Esplanade. This will start to enhance underdeveloped areas and link it to the proposed areas being developed by the BCMDA;
- A proposal was also identified to utilize the Railway Line from the Port, to transport tourists from the Port to the East London Racetrack, proposed Waterworld Development by BCMDA as well as the West Bank Golf Club;

Industrial

The West Bank is known for its industrial activity. Many industries are situated within this area to be around other like-minded businesses. In order to grow this sector within East London, it would be essential to retain the industrial nature of the West Bank through promoting a conducive environment for industry and to support industrial activity within the West Bank.

Where do the industrial employees come from?

In the BCMM, areas such as Potsdam, Mdantsane, Scenery Park, Reeston, Duncan village, Nompumelelo and Mzamomhle are generally called marginalised areas. These are also areas where a large percentage of the population of low income earning individuals reside. These individuals often seek employment in industries. They presently have challenges with travelling to the industrial area within the West Bank due to the limited access and the increases traffic congestion within over the Biko Bridge.

EL IDZ

The EL IDZ has plans to transform the Alexandra Golf Course into a mixed-use development which could include activities such as light industrial, retail and residential uses.

The EL IDZ has also identified that In April 2020 the undersea cable will land on or coast, linking to the IDZ. This is the first large undersea cable in Africa. It will be traveling from India via Mauritius to East London. When the cable reaches East London, the EL IDZ has plans to setup a call centre and employ 3000 people initially and a total of 10 000 people after 3 years of the operation.

The following Key Issues have been identified:

- Insufficient space for IT companies who would want to be closer to the Data Centre;
- Infrastructure to cater for proposed Developments;
- The Automotive Supplier Park (ASP) will be expanding to cater of the new MBSA C Class production;
- Faster movement of goods between the ELIDZ and MBSA Plant is required;
- The Alexander Golf Course has been identified by the ELIDZ for Mixed Use development to support the Industrial area, but infrastructure provision is a real constraint.

The following Implications have been identified:

- 10 000 job opportunities will be created by the underwater cable; These people will need to be accommodated on the West Bank, close to their places of employment; The individuals whom will work in this type of professionals are usually techno savvy and dependent on internet connection and services like; 'Uber,' Uber Eats. Taxify/BOLT, etc. They will want services on demand which increase BCMM's need to move towards the globally growing SMART CITY Concept.
- The ASP will require additional trucks coming into and leaving the ELIDZ daily, if not hourly; The resultant traffic on the main roads will drastically increase;
- The entire developable land within the ELIDZ will increase to a 70% occupation. This increase will result in increased employees and the impact on traffic.
- Delayed delivery of goods from ELIDZ to MBSA, will result in a slower productivity rate at MBSA, which will result in less revenue;

The following Proposals are being made in relation to the above Key Issues and the respective Implications:

- Increasing the Density in the already established residential area along Jan Smuts is being proposed in the Settlersway LSDF. Also a proposal for Mass Housing is being proposed from the ELIDZ towards the Hickmans River. This will be explained in more detail later on.
- Greater connectivity from the ELIDZ to MBSA is a necessity as well as from the West Bank to Berlin and outside of BCMM is required. The bridge over the N2 is becoming a necessity and not just a requirement any longer. (See write up on connectivity.

- Provision of social amenities linked to increased residential provision will be required;

Airports Company South Africa (ACSA) - EL Airport

Through the consultation session of the development of the project, the team had a meeting with the development team of ACSA. They have indicated that ACSA has plans to promote logistics and warehousing on the land to the north of the airport. ACSA is in the process of reviewing their Masterplan for the East London Airport. Work on the Landside Precinct Plan is underway. ACSA has also indicated that there needs to be careful consideration of the types of uses that are developed in the airports flight path.

At present ACSA are looking at expanding the lounges within the Terminal buildings.

Their future expansion plans are to also look at incorporating more commercial activities to the south of the existing terminal buildings, towards the R 72, as depicted in the plan below.

The Longer term strategy of ACSA for the East London Airport is to permit larger aircrafts to land. The constraint with this afore-mentioned proposal is the illegal homes which have been constructed within the flight path and which need to be relocated, before the runway expansion can happen.

Also Phase 2 of the ELIDZ (SEZ) is to create a Light Industrial Park which will have direct access to the airport taxiway as well as which will incorporate the following;

- Warehousing for time-perishable goods for export;
- Warehousing linked to the main SEZ and other industries on the West Bank;
- Freight and Logistics linked to the Airport;

Mercedes-Benz South Africa (MBSA)

MBSA is planning for an added shift due constructing the W206 model in the East London plant. The harbour presently has a lack of capacity to store all finished Mercedes-Benz vehicles.

The Mercedes Benz SA (Pty) Ltd (MBSA) investment and expansion of its existing manufacturing plant in East London on the West Bank, to the cost of EUROS 600 Million, was the trigger for all other activities on the West Bank. MBSA had to upgrade their manufacturing plant to prepare for the new W207 C Class production. As a result of this MBSA will also be expanding their workforce to meet the production demands, which result in the implementation of a 3rd shift.

The following Key Issues have been identified:

- 1000 more jobs created: employees from outside of the West Bank;

- 3rd shift being implemented; 24 hr production facility;
- Demand for additional space for parking facilities for storage and export;
- Additional logistical in and out of the plant i.e. 400 Trucks daily; 74 Trucks from outside of East London need to access the plant;
- Supplier space within close proximity to the Plant is required;
- 'Just In Time': An MBSA logistic model to ensure that supplies are supplied at the plant at the time required and completed products are removed as they come off the production line;
- Storage of vehicles;
- Delivery between the ELIDZ and MBSA Plant;

The following Implications have been identified:

- With the additional staff being employed, there will be a demand for housing on the West Bank;
- Public Transport for the three shifts will have to be considered; this will include actual public transport as well as associated safe facilities for commuters. Gender based planning will have to play a larger role in this situation;
- The road capacity is insufficient with the West Bank to handle the existing users. With the increase in vehicles and trucks. Settlers way will have to be upgraded and made suitable for the users;
- Additional linkages to the Marginalized residential areas, which will be the primary employment source areas, will have to be created, to reduce travel time, and related costs;
- Without better linkages the current and future traffic congestion will escalate as well as the additional trucks coming onto the West bank to supply the industries will compound the problem;
- The increased traffic congestion will slow down the delivery vehicles and result in the MBSA not being able to meet their daily production demands;
- There is already limited space for MBSA to store the completed vehicles on the West Bank, and with the extra shift and increased production the existing vehicle storage facility at the Port will be insufficient as well as other areas on the West Bank;
- It has been identified that the Fort Glamorgan Prison is currently under utilizing the Prison Land;

MBSA have indicated that they would like to have a direct link to the EL IDZ for the parking of vehicles and further a road linkage from the EL IDZ to the Port for export purposes. The EL IDZ has to grow in terms of their automotive supplier park to supply Mercedes Benz.

The following Proposals are being made in relation to the above Key Issues and the respective Implications

- Mass housing is being proposed from Cove Rock to the Hickmans River. This will include a mix of medium to high density housing which will cater, not only for MBSA employees, but also other industry employees on the West Bank;
- Densification of the existing Sunnyridge residential Area is also being proposed to accommodate more people wanting to move to the West Bank to be closer to the places of employment;

- BCMM, as an interim arrangement to support the supply and delivery between the ELIDZ and the MBSA plant, are proposing the upgrade of Settlersway between Chester Road and Military road to the entrance gate 2 at MBSA; an additional lane in both directions will be created. This will assist in alleviating the traffic congestion;
- A future proposal is to extend the existing Harbour Arterial Road from the ELIDZ, across the Alexander Golf Course, above the EL Race Track and West Bank Golf Club, to intersect with Military Road to the MBSA Gate 2 entrance;
- The Port Authorities are looking at increasing the existing parking garage at the Port to accommodate additional vehicles;
- Thought needs to be given to either relocate the Fort Glamorgan prison and/or utilize the underutilized space for expansion of the Industrial Area;

Settlers Way

Due to Settlers Way (R72) being a Regional Road with high speed moving vehicles, there is a need to develop and promote development along the corridor all the way to the airport. Care should be taken that there should be no direct access onto land uses on either side of Settlers Way from the Buffalo view Road intersection through to the East London Airport. This acts as a traffic calming mechanism and decreases the need for vehicles to park on the side of the road.

Managing traffic volumes is essential along Settlers Way. How we manage traffic flow and traffic volumes and ensuring that there are proper designated traffic stops for taxis, public transport, buses as well as trucks when they want to stop is critical.

There is a need to apply urban design standards when roads are constructed. Raised pavements and bollards could benefit trucks and mini-bus taxi from pulling off along the pedestrian paving.

West Bank Historical Village

The West Bank Historical Village has a large percentage of buildings which are older than 60 years and fall under Historical Heritage significance, and would have to go through rigorous approvals processes for any type of amendments to the buildings.

However it is proposed that a Tourist Route be developed from the Port through the West Bank Historical Village to the Race Track and the Waterworld. Traversing the West Bank village will be a catalyst to allow the Village to develop further and there has been little to no development within the village for a number of years.

Future Nodes: Settlers Way and Chester Road

This intersection is identified as a future node as it may become an exceptionally prominent intersection. When the bridge over the Buffalo River is built and connects to Wilsonia, it is going to come across and through to the airport and intersect at this node. It is due to this, that this intersection will bring in large volumes of vehicular traffic.

Surrounding this node is presently, the Orange Grove informal settlements. There are plans for these settlement dwellers to be relocated due to this area not being conducive for residential use. It is essential to ensure that as soon as there is opportunity to relocate these residents, there needs to be an instant promotion of various other uses to be located within this space.

Such uses could include light industrial activity in the form of warehousing and the like or potential for a retail mall to service the growing needs of the residents of the greater area.

This route would also be used by trucks delivering items to the industries along within the area as well as to the EL Airport and thus this route would become a prominent route

EL Racetrack

The East London Racetrack has a rich history. It is the first ever Grand Prix track. It has since, been under-utilized. This node has potential to serve as a tourist node to host racing events that could add value, not just locally, but also nationally.

Other than tourism, the EL Racetrack has potential to link with the EL IDZ with regards to the cable in East London. With the growth of the Fourth industrial Revolution and the increase in popularity of electric cars, the EL Racetrack has potential for activities such as the testing of biofuels and electric cars and others.

The East London Grand Prix Circuit, operated by the Border Motorsport NPO, has been granted a 20 year lease by BCMM Council. The concept is to upgrade the circuit to allow more motor racing events, as well as ancillary motor tourism related activities within the Circuit precinct.

BCMDA Waterworld Development:

The BCMDA are currently busy with a development proposal for the existing Waterworld area. The concept is to look at upgrading the existing pools, create accommodation options for different markets types.

Overall design incorporates the following components:

- Open air Amphitheatre with a permanent tensile tented structure to provide cover
- Interactive water features and sculptures
- Super tube / water slides to swimming pools

- Urban seating, Hawkers Stalls and Braai areas
- Gate house, offices, security and storage facilities
- Pool pump and plant room
- Ablutions and showers
- Urban outdoor gyms
- Kids play areas – skate park, jungle gyms, sand pits, etc.
- Urban benches and rubbish bins
- Off street parking
- Landscaping
- Pedestrian bridge
- Security perimeter fencing and gates
- Ocean tidal pool

When complete, it is envisaged that this node will be a top recreation facility linking to the beachfront.

The BCMDA have indicated that Molteno Road needs to be upgraded to ensure easy access and linkage between the various activities.

Housing / Residential

There are many land parcels surrounding the EL IDZ through to Winterstrand where developers have gained interest for residential developments. The BCMM have confirmed that there are a number of applications that have already been approved. The only challenge within this area is the lack of bulk infrastructure available.

As part of the strategy to accommodate development on the West Bank, being Spatial Priority Area 1 and creating economic development, housing provision forms the fundamental component of integrated sustainable settlement.

The concept of mass housing on the West Bank is to meet or alleviate the need for housing in support of the West Bank Economic Corridor/West Bank Smart Logistics and Automotive Hub.

The Mass housing will incorporate medium to high density housing primarily. Low density housing is not favored unless it is within the coastal nodes or included in a development which also incorporates medium to high density developments.

The main constraint for the mass housing will be the provision of non residential uses i.e. Educational facilities, Health Care Facilities, commercial and retail facilities, etc.

A conceptual plan below has been drafted and the following statistics start to emerge: -

The conceptual plan has been drafted to take cognizance of the different typologies of residential development, aligned to the vision for the area, as well as associated social amenities required.

The Mass housing on the West Bank needs to be developed in phases, so as to ensure a sequential outlay of bulk infrastructure as well as no leapfrogging of development. As a result a the plan above also represent the phasing spatially. Due the massive size of the proposed housing on the West Bank, a Five (5) phase approach is proposed. The mass housing area, with regard to the extension of the urban services edge, can accommodate the following number of households with and the respective densities. The density hierarchy is categorised as follows:

- 30 du/ha; Low Density
- 80 du/ha: Medium Density
- 150 du/ha: High Density

It should also be noted that in order for us to get to the approximate number of units which can be accommodated on the site, 40% of the site area was removed, to accommodate roads, public space, social amenities, (Critical elements of an Integrated Sustainable Human Settlement etc. The remaining 60% was used to calculate the density.

Ha	Density: du/ha	No. of Units
1426,8	30	42 804
1426,8	80	114 144
1426,8	150	214 020

What is critical to understand in all Mass Housing developments, is that we are creating Integrated Sustainable Human Settlements, which means ensuring that not only houses/homes are being built, but supportive social infrastructure like the following is essential for the success of the residential component:

- Schools: Primary, Secondary, etc.;
- Health Care Facilities: Clinics, hospitals, etc.
- Retail Facilities: shops, restaurants, etc.;
- Community Halls;
- Etc.

Mass Housing:

The Kidd's Beach area and it housing development must not be isolated from the West Bank. The Kidd's Beach area has grown significantly in the last three (3) years. The city has also invested money into infrastructure like water provision and coupled with the investment and contributions of the private sector, the area has already attracted a number of new

residents. Kidds' has proved to be ideally situated between East London and Bhisho/King Wiliams Town and along the a beautiful coastline, the location proved almost perfect.

Kidd's Beach has targeted the middle to upper income bracket but has offered buyers the opportunity to choose from a number of different housing typologies as well as the the oppotunity to build their own home as well.

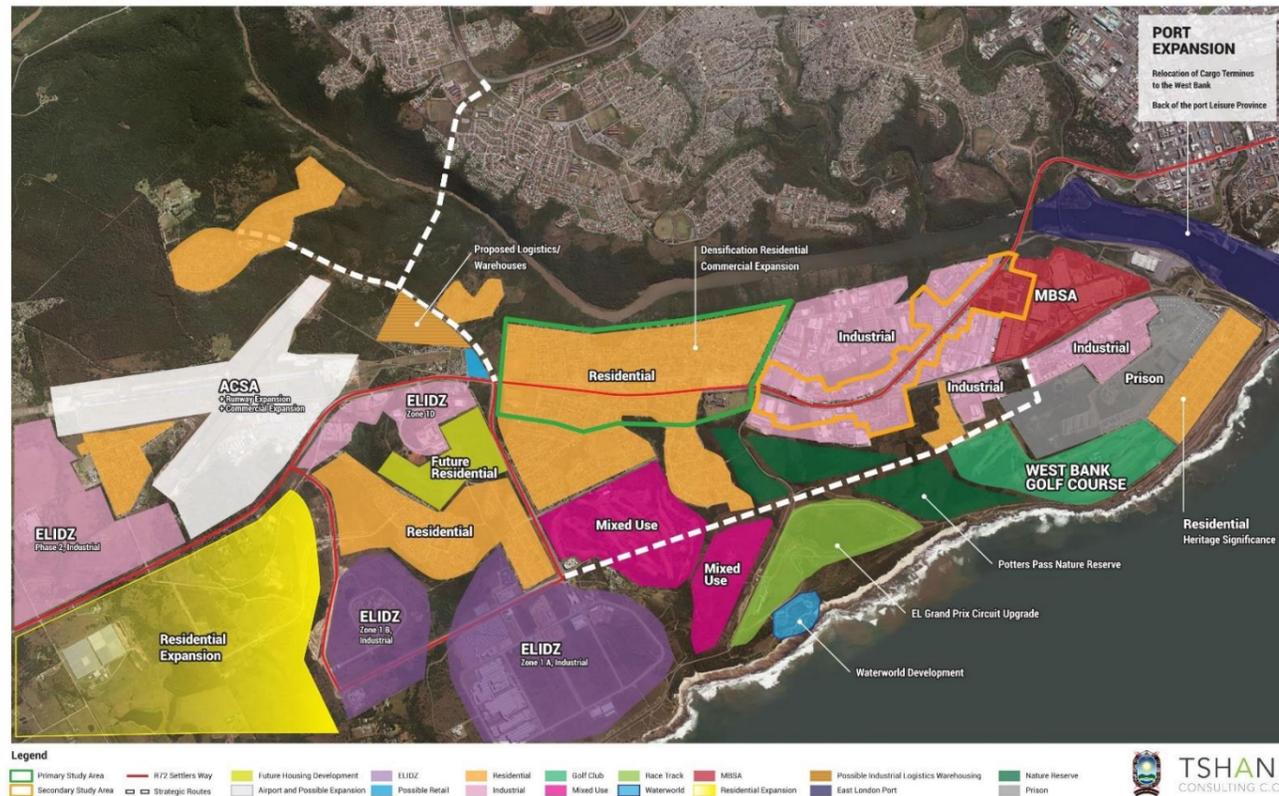
Kidd's Beach therefore plays in important role in supporting the West Bank Economic Corridor.

We the influx of prospective employees taking up the economic opportunities that are going to be presenting themselves, the need for housing will drastically increase. The Mass Housing proposed above, will still be inadequate to meet the demand and the City has to follow the global drive towards Densification.

The residential area along Jan Smuts Avenue has already seen a trend towards the homes being converted to medical practices, shops, cars sales, salon etc. The conceptual proposal which has been supported through a Public Meeting of the Settlers Way LSDF, is to the allow the two residential blocks along Jan Smuts Avenue to consolidated and converted into higher density residential apartments.

Another parcel of Land which the BCMM are looking into developing for medium to higher density is the land along Chester road (See plan depicted below). This land parcel to is to be developed in partnership with MBSA to cater for the GAP and FLISP housing market. The South African Department of Human Settlements has been successfully able to achieve medium to higher density housing development for the GAP and FLISP market elsewhere in South Africa and East London has the opportunity to replicate these developments.

BROADER CONTEXT PLAN



CONCEPT PLAN



Concept

The Concept Plan shown below is a representation of the proposed concept of the study area. It highlights the main corridors as well as the proposed nodes, precincts, and gateways into the study area.

The proposals aim to approach the LSDF in a manner that will produce high quality urban spaces and amenities for people to experience. The mixed-use developments aim to introduce a variety of uses within a space and to maximize land usage.

Mixed use proposals were also considered in the core of the study area as there is a high demand for office space, retail activity and commercial land usage within Sunnyridge and Greenfields, specifically along Jan Smuts Avenue and Settlers Way. The concept of Mixed Use is promoted to create compact living with ease of access whereby individuals would be able to easily access a multiple of activities. These would include their place of residence, office, retail, schooling, etc. with all these activities located within close proximity with each other. The mixed-use precincts highlighted in the concept aims to be promoted to be developed in such a manner.

PROPOSED LAND USE CONCEPT – PRIMARY STUDY AREA

In support of the above-mentioned developments and the outcomes of these developments, pressure will be on the need for residential provision within the study area. To provide an increase in the residential offering within the Primary Study Area, there is a need to promote an increase in density to allow for more compact development and subsequent thresholds for lower and higher order services required.

A growing desire for mixed use is experienced along Jan Smuts Avenue, therefore the proposal along Jan Smuts Avenue is for the provision of a mix of uses which does not limit the use to only be office but rather also small- scale shops, restaurants/cafes, etc.

Sub Precinct 1: Mixed-Use Precinct

The Mixed Use Commercial Residential Land Use is to blend residential, commercial, cultural, institutional or entertainment uses into one general area. This is promoted to allow for the ease of access through the variety of uses. In this case, the zone blends residential and commercial and industrial uses of the general area.

Mixed use development allows for a multi-storey development designed to accommodate commercial activities such as shopping, coffee shops, convenience stores, etc. on the ground floor and residential on the upper floor. The ground floor and first floor could also accommodate office use.

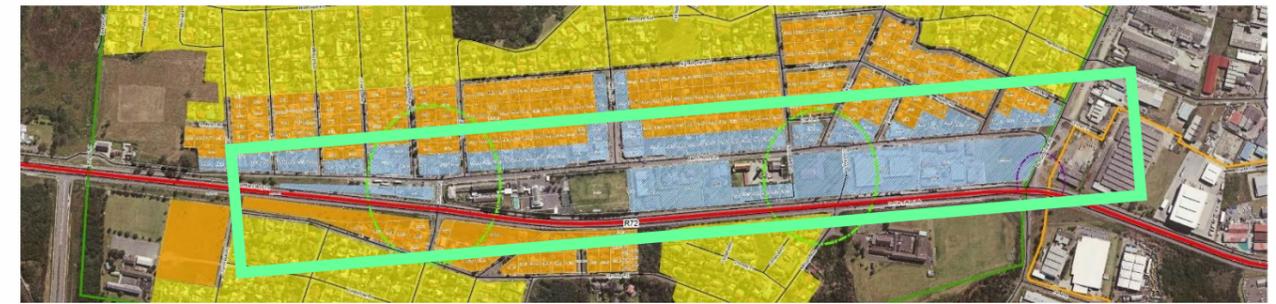
Sub Precinct 2: High density Residential Precinct:

The desired spatial outcome of this proposal is to consolidate properties in the form of a block development and develop higher density units of 3-4 storey mixed used units with retail / coffee shop on the ground floor and residential further above.

At a density of 50 dwelling units per ha, this proposal has potential to accommodate approximately 1 400 units on the presently 251 erven. That equates to approximately 5 times the current number of units.

Sub Precinct 3: Maintaining the Low density Residential Precinct:

Low density residential will be maintained on the north of Greenfields and south of Sunnyridge.



PREFERRED LAND USE

- Office / Business
- Retail/ Restaurant/Coffee Shop
- High Density Residential

PROPOSED ZONING

- Business Zone 2
- Residential Zone 4/5

1.

Sub Precinct 2: High Density Residential



PREFERRED LAND USE

- High Density Residential

SETTLERS WAY LOCAL SPATIAL DEVELOPMENT FRAMEWORK



PROPOSED LAND USE CONCEPT PLAN



Legend
 RT12 Settlers Way Road, Rivers, Future Primary Roads, Future Secondary Roads, Cathedral, Mixed Use, Medium to High Density Residential, High Density Residential, River, Primary Study Area, Secondary Study Area
 TSHANI CONSULTING C.C.

Sub Precinct 1: Mixed-Use Precinct

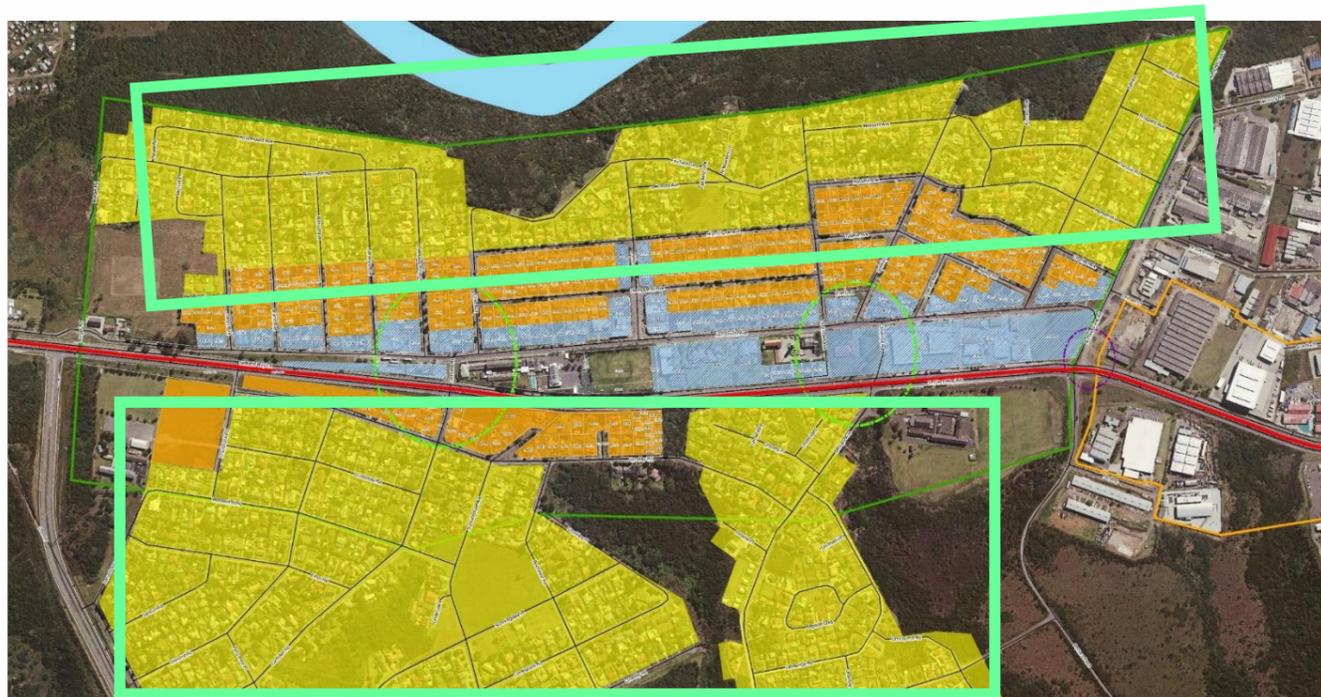
PROPOSED ZONING

Residential Zone 4 (HDR1 – 3) Maximum 2 storeys

Residential Zone 5 (HDR 4)

1.

Sub Precinct 3: Low Density Residential



PREFERRED LAND USE

Low Density Residential

PROPOSED ZONING

Residential Zone 3 (A, B, C)

LAND DEVELOPMENT GUIDELINES

SPECIFIC DEVELOPMENT PERFORMANCE CRITERIA

In order that the desired outcomes for each precinct are achieved, specific development criteria have been formulated for the applicable land use uses and zonings involved. This means that the LSDF does, in places, impose further restrictions or departures from the Zoning Scheme in order to achieve the desired outcomes.

PROPOSED LAND USE CATEGORIES

1. Residential: Zoning: Res 1 - 5

Residential use is the prominent use within the Sunnyridge/Greenfields area as the suburb was developed around the need for residential homes. It is essential to ensure that the residential fabric of the area remains intact and that land use proposals do not conflict the residential use or reduce the attractiveness of the area for residents.

The analysis has indicated that there are also a significant number of families who require affordable housing within the study area. It is proposed that a component of smaller more affordable housing units be included as part of the proposed Mixed-Use Precincts and Precincts identified for low intensity office uses. In light of the above it is proposed that the existing process of densification of the residential area be encouraged. A possible social housing development in the study area has also been included in the proposals.

2. Retail: Zoning: BUS 2

Retail activity can complement office and residential uses as these activities can work in conjunction with each other as a mixed-use precinct.

3. Industrial: Zoning: Industrial 1/2

Industrial activity is located within the secondary study area.

4. Mixed Land Use: Zoning: BUS 2 / BUS 4

Precincts and Nodes promote mixed land use to accommodate a variety of land uses within a general area to allow for ease of access and to decrease the need to travel. Mixed land use allows for compact urban development and to ensure the optimal of spaces.

Mixed Use can also include a variety of land uses within a space which allows for the ease of access to this variety of land uses. Such an example of mixed land use would be a development which includes retail at the ground floor (public access), Office use at the 1st and/or 2nd floor (semi-public/private), and residential (restricted access) on further floors above. This type of development ensures the maximum usage of space, ensures that the development is in constant use; during various hours of the day and most importantly, ensures the creation of a compact, and accessible city model.

SIGNAGE GUIDELINES

The approved BCMM Advertising Signage Policy indicates:

“Outdoor advertising and signs should not compromise the functioning and safety of traffic and should not adversely affect the character of a locality by way of appearance, size or illumination”.

“The local character of an area in which a sign is proposed will affect the degree of control applied in that area.

It recognises that the dynamics between the type of the sign, the sign itself and where it is to be located can most effectively be dealt with by the determination of **areas of control**. “Areas of control” are defined as those areas set out in Schedule 1 of the Policy; and **which may be modified and/or amended from time to time, which amendments and modifications will be graphically depicted by way of maps as prepared by the Municipality from time to time.**

TABLE E 1. Signage Categories

Four categories of control are used, varying from the most stringent to the most lenient. The four categories of control are:

SIGNAGE CATEGORIES (PER PRECINCT)		
1	Prohibited	N/A
2	Maximum Control	All residential
3	Partial Control	Low Intensity Office / Mixed use
4	Minimum Control	N/A

URBAN DESIGN PROPOSALS

Urban design is the art of making places for people interaction. Urban design considers how people use and perceive space and take into account aspects such as safety comfort legibility and ease of access. It also considers all forms of movement such as private vehicles, public transportation, cyclists, pedestrians, etc. and the relationship that they would have with each other and how all forms can occur harmoniously within the public realm.

Urban design is essential for the creation of sustainable environments and would be the glue that sticks the economic, built environment and social life together. Good urban design can create lively spaces that would promote public interaction within space.

A 3D interpretation was developed of the proposals mentioned above and incorporated many urban design elements to provide an artist impression of what certain areas within the study area could look like. The following section takes the reader through the urban design principles which are essential within the study area, while the 3D images show how these elements can be applied to space.

The urban design principles as set out in the Development Perspective phase of this study are as follows:

1. Functional Greening and Beautifying

- a. Green Natural Systems
- b. Road Reserve Green Open Space
- c. Centre island and sidewalk along Settlers Way
- d. Beautified Centre Island, Traffic Circles, and pedestrian crossings
- e. Variety of paving material
- f. Trees as carbon mitigating tools

2. Sustainable Built Environment

- a. Mix of uses
- b. People-centred Place Making
- c. Public Realm
- d. Landmarks (could be celebrating local history)
- e. Safety and Security features

3. Accessibility, Permeability and Movement

- a. Accessibility
- b. Vehicular and Pedestrian Movement

IMPLEMENTATION PLAN

The BCMM BEPP has identified the Westbank Economic Corridor as a Catalytic Programme Area and has allocated a total budget of R 12 000 000 towards the project for the financial year of 2019/2020 and R 47 000 000.00 for the 2020/2021 financial year.

The following 5-10 year Implementation plan has been drafted from the proposals discussed in the previous sections.

The project proposals are aligned to the land use -, traffic - and urban design condition in the study area.

NO.	PROJECT DESCRIPTION	LOCATION	RESPONSIBILITY	BUDGET ESTIMATE	PHASING
Jan Smuts Avenue Upgrade:					
A	Roads Upgrade	Jan Smuts Avenue: From Spar to Buffalo View Road	BCMM Roads Department	R 40 000 000.00	Medium - term
B	Urban Furniture				
C	Street Lighting				
D	Street Art				
E	On Street Parking				
F	Tactile Paving				
Broader Context Upgrade					
A	Port of East London: Extend Main Breakwater and Deepen Entrance				
B	Revitalisation of the West Bank industrial area/ Motor Industry cluster				
C	Water World (Water Park): BCMDA				
D	West Bank WWTW				
E	West Bank Water Supply				
F	West Bank Restitution (housing)				
Settlers Way Upgrade: Airport to Gillwell Mall					
A	Landscaping/Planting of iconic plant materials flowers and shrubs along road island		Community Services	R 10 000 000.00	Short-term
B	Widening and raising of pedestrian walkway		BCMM Roads Department	R 20 000 000.00	Short-term
C	Planting of indigenous trees along sidewalk	Jan Smuts Avenue	Community Services	R 1000 000.00-	Medium-term
D	Inclusion of built-in street furniture along pedestrian sidewalk (benches, bins, etc)	Either Length of Settlers Way R72	BCMM Traffic and Transportation Department	R 15 000 000.00	Medium-term
E	Solar street lighting	Settlers Way	BCMM Electricity Department	R 20 000 000.00	Short-term
F	Creative painting and surfacing of pedestrian crossing	Settlers Way	BCMM Traffic and Transportation Department	R 1 000 000.00	Short-term

G	Maintenance and cutting of grass along sidewalks and centre islands / replacement of grass with alternative materials. E.g. pebbles	Settlers Way R72	BCMM Community Services	R 1500 000.00 (P/A)	Continuous
H	Landscape Design policy	Settlers Way R72	BCMM Community Services	R 300 000.00	Short-term
I	Stormwater Assessment, Demand, proposals Study	Settlers Way R72: Entire Extent	BCMM Engineering	R 550 000.00- R650 000.00	Short-medium term
J	Wastewater Assessment including Sewer Capacity Assessment	Settlers Way R72: Entire Extent	BCMM Engineering	R 400 000.00	Short-medium term
K	Assess Settlers Way for possible conversion into left-in, left out	Settlers Way R72: Military Road to MBSA Entrance	BCMM Roads		Medium term
L	Informal trading facilities, absolutions, etc.	Settlers Way R72		R 15 000 000.00	Short – medium term
M	Taxi embayment with universal access	Settlers Way R72		R 5 000 000.00	Medium term
N	Raised pedestrian tables (estimates part of intersection)			R 5 000 000.00	
O	Tactile paving (estimates part of intersection)	Tactile paving on kerb edges at crossing points		R 5 000 000.00	
P	Universal access Sidewalks	Converting of the damaged sidewalks along Settlers Way R72 to concrete		R 4 000 000.00	Short – medium term
Q	Universal access Sidewalks	New sidewalks along the sections of Settlers Way R72 where none exist		R 2 000 000.00	Short – medium term
R	Settlers Way Upgrade: (Chester Road to Military Road)		BCMM Roads Department	R 40 000 000.00	
S	Upgrading of East London Airport Entrance	Entrance to East London Airport	ACSA	R 4 000 000.00	Medium - term
T	Bridge over Buffalo Ridge		National Government	R 200 000 000.00	Medium - term
U	Linkage from R72 to Buffalo Ridge Bridge		SANRAL	R 20 000 000.00	Medium - term
V	Linkage from N2 to Buffalo Ridge Bridge		SANRAL	R 40 000 000.00	Medium- term
W	Upgrade of Road Edge	Between Potters Pass and Clovelly Road: Both Sides	BCMM Roads Department	R 5 000 000.00	Short - term



Section A

INTRODUCTION AND BACKGROUND

"The residential areas surrounding Settlers Way and Jan Smuts Avenue have in recent times come under pressure from business uses. This pressure is likely to be from the impact that the growing success of the IDZ has had on the area. There has also been a demand from Mercedes-Benz suppliers for space within the Settlers Way area. The proximity to the Airport has also contributed to the demand for business uses in the area. It has now become necessary provide spatial policy guidelines to provide guidance to developers."

-BCMM SW LSDF ToR

The Buffalo City Metropolitan Municipality, herein after referred to as the **BCMM**, has appointed Tshani Consulting CC to prepare the **Local Spatial Development Framework, for the Settlers Way** area, hereafter referred to as 'SW LSDF', in the Buffalo City Metropolitan Municipality.

This document serves as the **Draft Local Spatial Development Framework Report**, prepared by Tshani Consulting CC, as a component of **Phase 2**.

BACKGROUND

Not only does the Broader West Bank area and residents of East London utilise the study area; it must also be noted that Settlers Way (R72) is the **gateway into East London** through where motorists travel from various places including Port Elizabeth, Port Alfred, etc or tourists and business persons land at the East London Airport and would then have to drive through Settlers Way to reach their various destinations within East London.

In addition to the above trends, the project needs to be cognisant of the office and retail trends across the greater city region as well as the spatial objectives as spelled out in the BCMM SDF (2013).

The area is synonymous with the regular travel of large **trucks** and this provides an added risk for motorists, cyclists and pedestrians who travel along the road. Settlers Way LSDF must also contain a **Traffic and Transport Plan**. The Settlers Way Traffic and Public Transport Management Plan will be a distinct subcomponent of the LSDF.



PROJECT TITLE

The project title will be: **Settlers Way Local Spatial Development Framework, SW LSDF.**

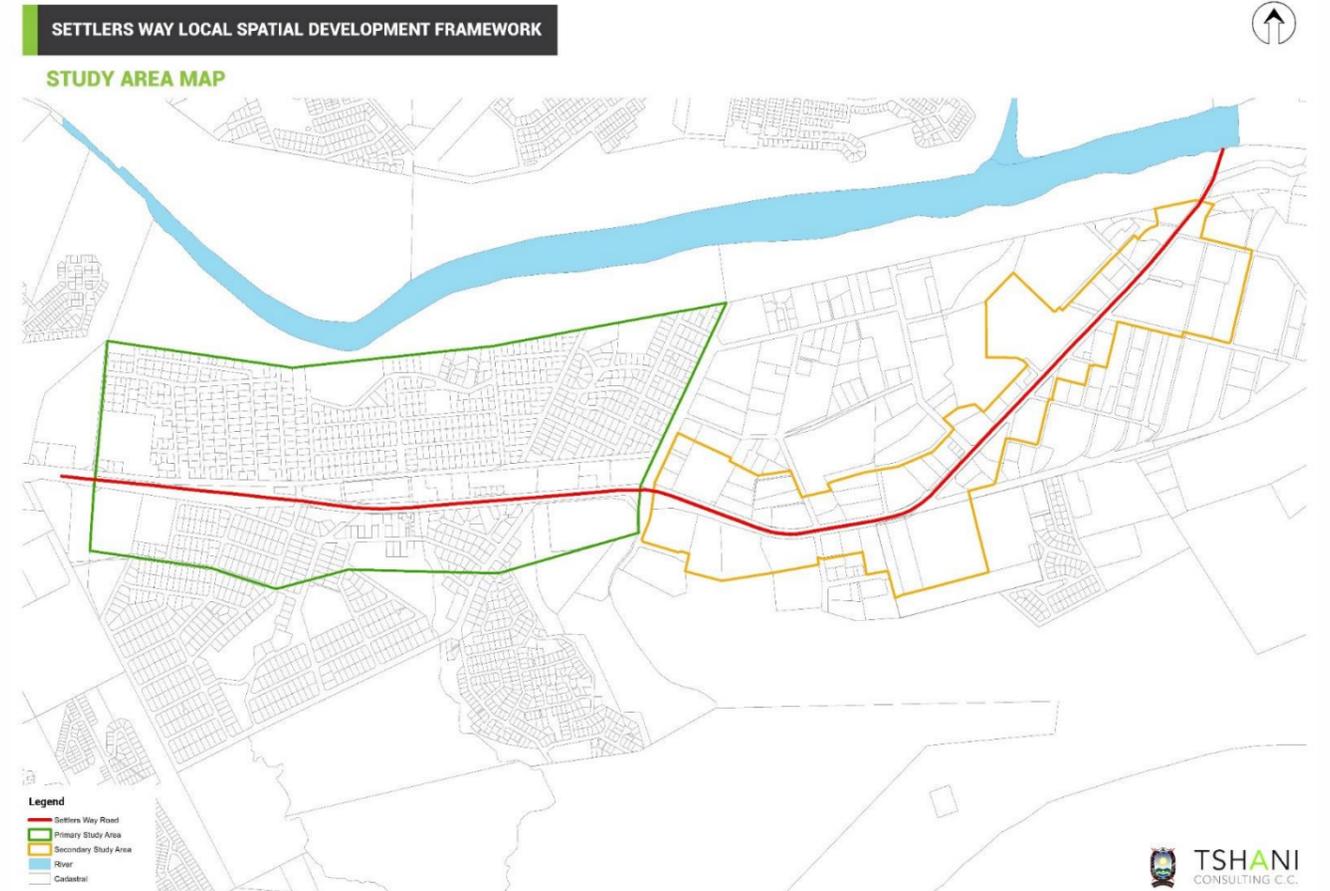
PHASING

The project phasing is outlined as follows:

PHASE 1:	Project Initiation and Finalisation of Terms of Reference
PHASE 2:	Formulation of A Development Perspective
PHASE 3:	Formulation of Development Strategy
PHASE 4:	Formation of Development Programmes and Budgets and Monitoring & Evaluation Framework
PHASE 5:	Council Approval and Adoption

STUDY AREA

The Settlers Way Study area concentrates on the area between Buffalo View Road in the East and Chester Road to the West. The study area is located on the West Bank; approximately 5 km east of the East London Central Business District and it covers a corridor area approximately 400m on both sides of the Settlers Way.



PROJECT OBJECTIVES

The objective of the Settlers Way LSDF is to undertake a thorough analysis and needs assessment in the study area in order to identify development projects, infrastructure requirements, appropriate land use proposals and compile a detailed implementation and phasing programme with related budget.

SPECIFIC OBJECTIVES:

In achieving the successful the successful completion of the Settlers Way LSDF, the following aspects should be studied and their related outputs should be produced:

- An assessment of development patterns and trends;
- The identification of sites for potential development of social housing where residents working within the Settlers Way area for them to reside within close proximity to their place of work;

- A database of recent commercial development and proposed development compatible to ARCGIS geo database format (as per ANNEXURE B)
- Assessment of the site of the local economy, especially SMME's offices and malls.
- Infrastructure requirements and an associated INFRASTRUCTURE Development Framework;
- Traffic and transport Management Plan including pedestrians , parking, loading (SEE ANNEXURE)
- Assessment and proposals relating to public open spaces and the quality of public spaces;
- Aesthetic quality (landscaping standards)
- Appropriate spatial development concept and proposals for the study area;
- The investigation of mechanisms that would allow for nodes for mixed land use development and an assessment of the success/ challenges with current nodes
- Assessments of land use management guidelines successes and challenges to date;
- A set of performance objectives and criteria responsive to key planning informants and strengthening the LUMS capacity of BCMM;
- A clear land use plan showing existing land uses
- Clear land use proposals with plans incorporating proposals for development environmental protection and traffic management;
- Community and stakeholder participation and endorsement of the eventual Local Spatial Development Framework ,Policies and Proposals;
- Detailed Implementation and phasing programme with related budget estimates and indication of where areas of greatest need and potential are addressed ; timeframes and targeted /potential impacts;
- Findings indicating that council's financial and institutional capacity have been examined and assessed for suitability in terms of implementing proposals.





Section B

S U M M A R Y O F S I T U A T I O N O U T C O M E S

It is essential to first provide a summary of the findings, i.e. Situational Analysis, prior to developing the Development Strategy, to gain an understanding of the background for the proposals. This section aims to summarise the key findings in terms of the key outcomes from the surveys conducted, the land uses captured and the key issues identified, amongst other sectors of the Development Perspective.

"A City's environment is shaped not only by people who have an important influence, but by everyone who lives or works there."

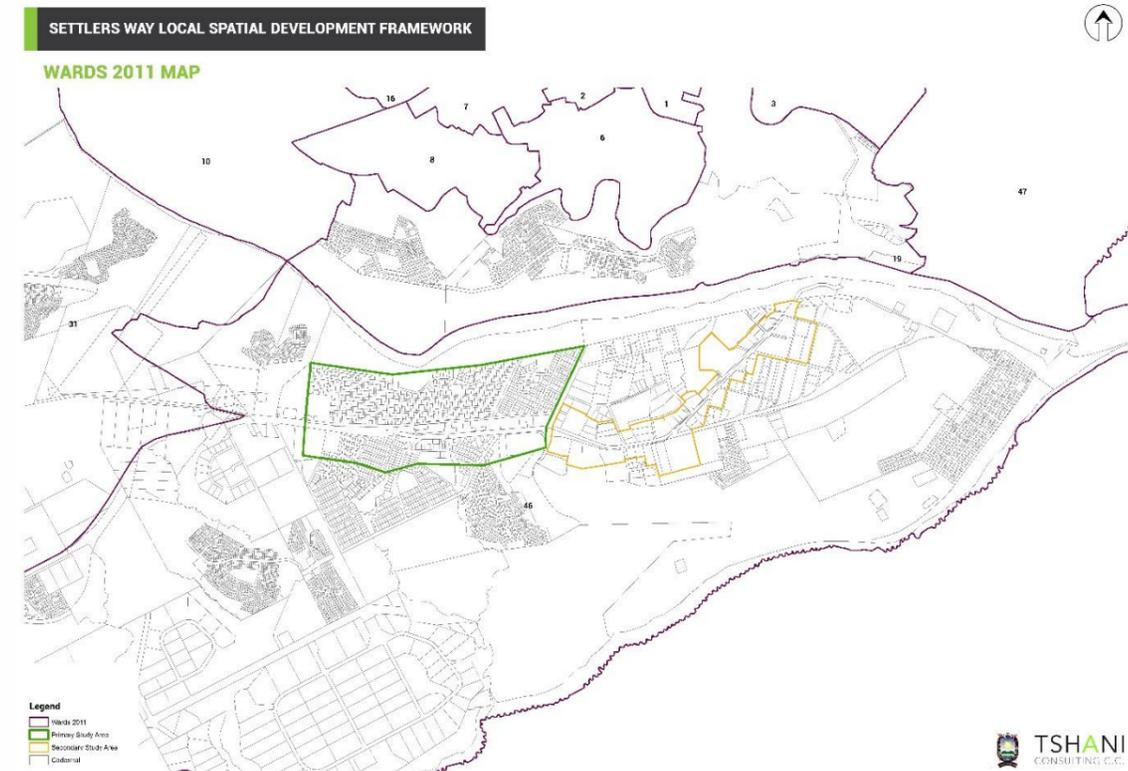
-Robert Cowan

DEMOGRAPHIC ASSESSMENT

The demographic assessment that follows is based on the Census 2011 data. The ward categorisations as per the 2011 demarcation refers to Ward 46. This ward accommodates the following areas:

- Westbank;
- Greenfields;
- Sunnyridge;
- Gately;
- Brookville;
- Woodbrook;
- Fort Glamorgan;
- West Bank Village;
- Siyakha.

The plan below highlights the area that falls within Ward 46 as per the 2011 demarcation boundaries.



Based on the Census data captured for Ward 46, the following demographic analysis was captured:



The total population within Ward 46 amounts to a total population of 19 536 people as per the census 2011.

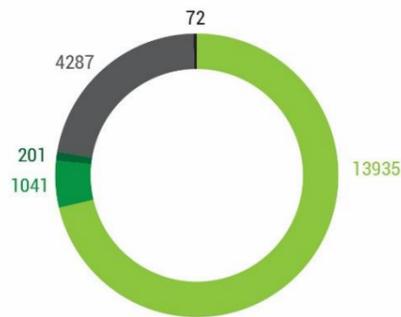
The gender distribution diagram clearly points out that the study area has more males than females with figures of 10 023 and 9 516 or 54% and 49% respectively. This suggests that is a difference of 507 males in comparison to the total number of females within the study area.



Population distribution is classified per ethnic group with common ethnic groups found within the study area. These are primarily Black African, Coloured, Indian or Asian, White and Other.

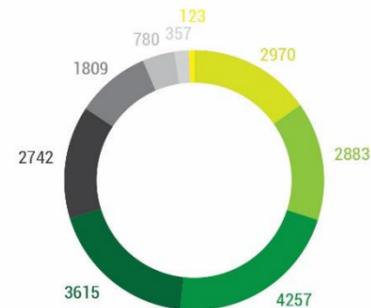
The diagram indicates that the study area has a high population of Black African is at a figure of 13 935 people. This amounts to a percentage of 71,33%. The second highest population group is the white population grouping with 4 287 people, which amounts to 21,94%. The Coloured population is the 3rd highest grouping with 1041 people, this amounts to 5,33% of the total ward population. The lowest recorded ethnic group of Ward 46 is "other" ethnic groups at a figure of 72 people. The significant gaps in the the size of the population groupings would suggest that there is very little integration within the ward and it would be necessary to plan for integration in the area.

POPULATION DISTRIBUTION



■ Black African ■ Coloured ■ Indian or Asian ■ White ■ Other

AGE DISTRIBUTION

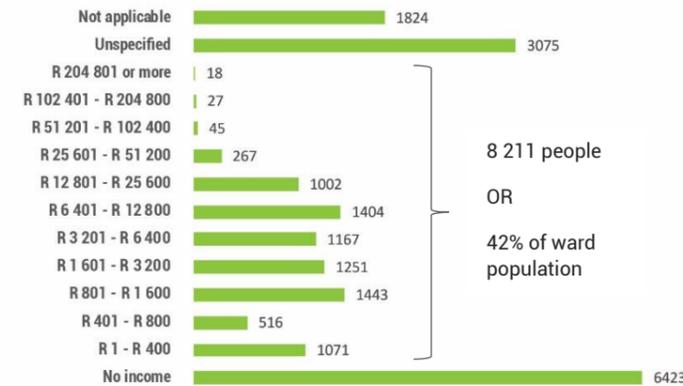


■ 00-09 ■ 10-19 ■ 20-29 ■ 30-39 ■ 40-49 ■ 50-59 ■ 60-69 ■ 70-79 ■ 80+

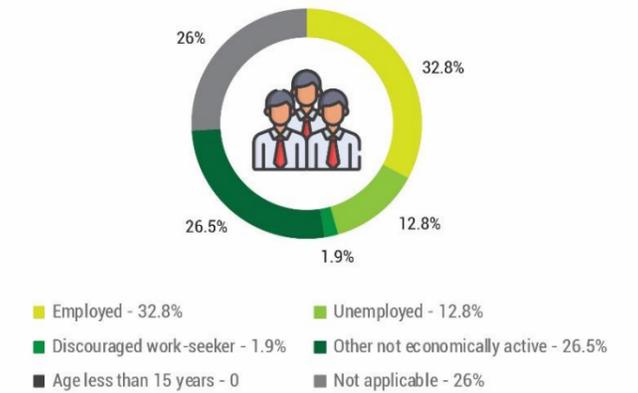
From the age distribution diagram it can be deduced that the highest age group found within the study area is 20-39 with a total of 7 872 people or 40,29%. This age grouping is followed by the 0-19 age, with 5 853 people or 30% of the total population of of the ward. The lowest would be the 80+ age group with 123 people or 0.6%. This indicates that the area is largely occupied by the youthful individuals and young couples between the ages of 0-39. Through this data, it shows that the youthful population are the population whom are starting up their career or are young married couples. These individuals often seek a variety of activities as well as crèches for their children, retail, leisure activities, etc.

The employment status shows that the majority of the working population of the study area is employed (32.8%). Through this, it is understood that the majority of the population generally has a source of income. The unemployed and discouraged work seekers amounts to 14,7% of the ward population.

INDIVIDUAL MONTHLY INCOME



EMPLOYMENT STATUS



The Individual Monthly Income shows that there are 42% of the population who earn a monthly income. This figure is differentiated from the above figure of the "employed" persons as it includes those that have access to a monthly social grant.

Persons earning between R 1 and R 3 200 earn below the minimum wage standard. The total number of persons earning within this price range amounts to 4 281 persons or 21,9%. This is a significant figure to note.



SURVEY ANALYSIS

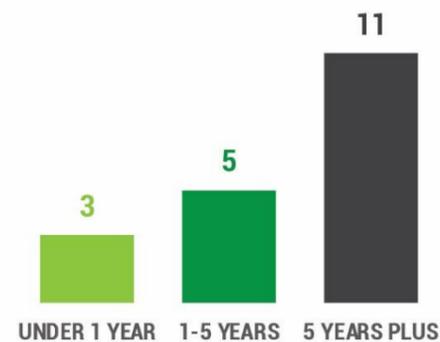
On the ground surveys were completed as a component of the Development Perspective where specific questionnaires were drafted for the following groupings of users of the space. This exercise helped to understand the needs of the people who utilise the space on a daily basis:

- Pedestrian Questionnaire
- Resident questionnaire
- Informal Trader Questionnaire
- Business Questionnaire

Business Survey

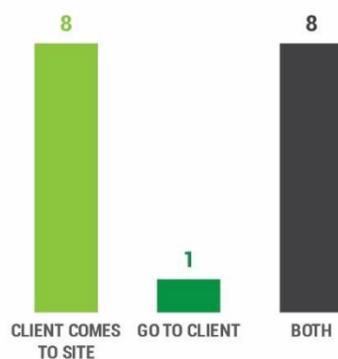
Majority of the sample population (58%) were in operation for more than five years. Thus, making most businesses surveyed as established businesses. Eight (8) businesses have started operation in the last five years.

YEARS OF OPERATION



64% of businesses interviewed indicated that the business operation is without the correct zoning.

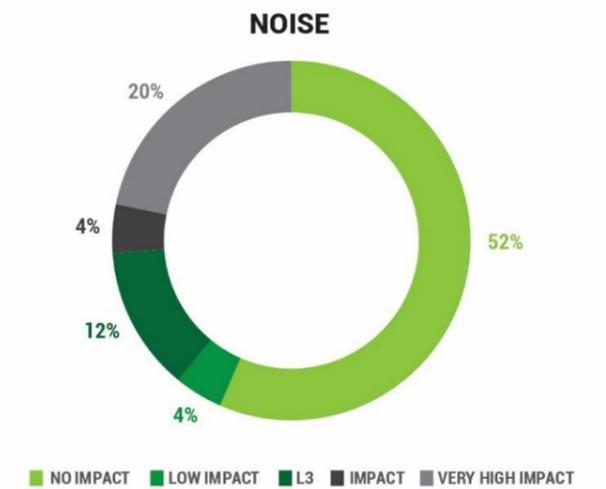
CLIENT AFFAIRS



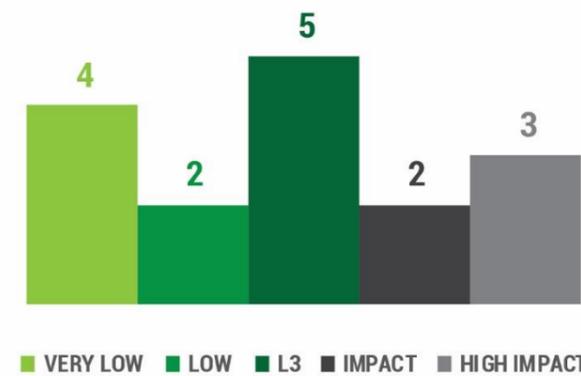
It was found that from client interaction perspective that a two-way interaction takes place with most of the business and that clients often come to the business premises. One respondent identified that they meet directly with clients only off their current premises.

In both cases it requires ease of access and ample parking.

Upon investigation into noise levels, 52% of the businesses interviewed concurred that noise had no impact on their business and 20% identified a high impact. Noise levels need to be controlled and monitored that they do not impact upon other business due to the proximity.



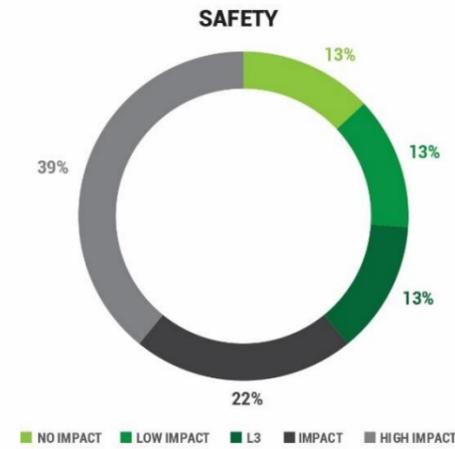
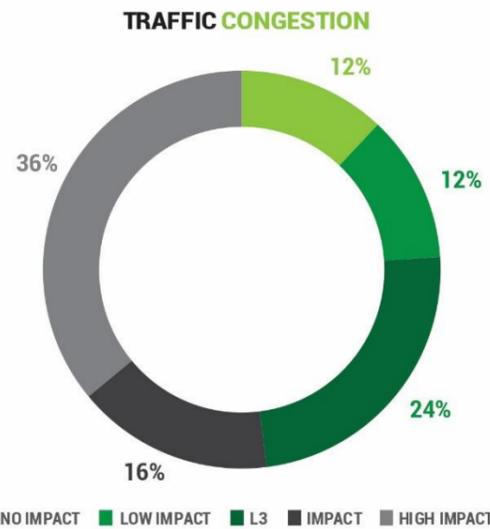
FEWER OPPORTUNITY OUT OF CDB



60% of businesses described their operations as not being affected due to their location or being out of the central business district. 7 businesses confirmed that their location impacts their business.

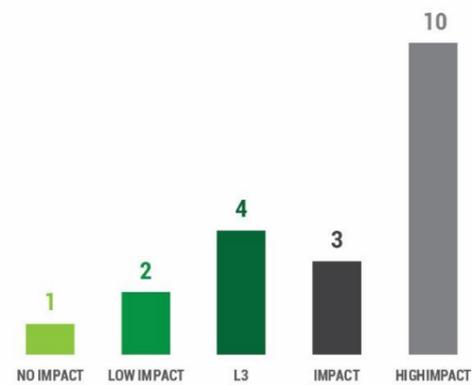
Due to Settlers Way being a transportation node it was noted also that 76% of respondents felt that congestion impacts on their business operations. 24% identified no to minimal impact.

Accessibility is therefore critical as well as being visible that can positively impact upon businesses. 76% identified that accessibility affects their business.



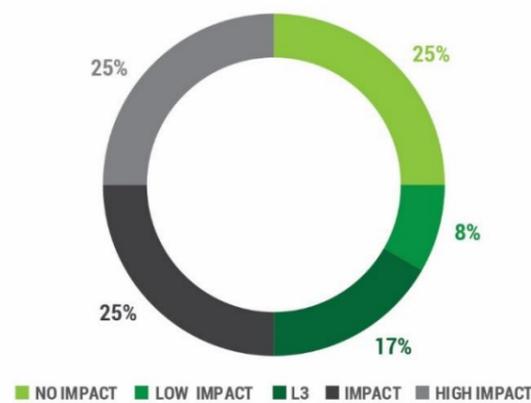
Further 61% identified that safety affected their business and 3 businesses identified no impact on businesses. Such areas need to be replicated to promote business stability and growth. Further improvements such as Wi-Fi safety cameras can be installed and monitored to reduce criminal activity.

LACK SUITABLE PREMISES



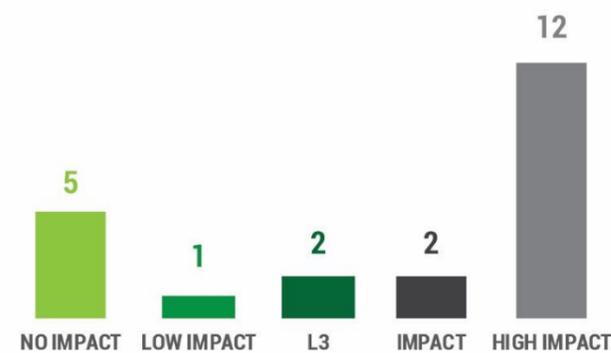
This has further been confirmed in that 50% identified that they lack suitable premises for their business needs and that 52% are impacted by lack of infrastructure.

LACK OF INFRASTRUCTURE



54% identified that lack of parking for clients and staff hinders their business operations.

PARKING



Informal Trade Survey

Informal traders serve an important function along key pedestrian routes, where more formal facilities lack. They provide basic facilities and provide products that are otherwise are not as readily and easily available. Items which are commonly sold along Settlers Way by Informal Traders include fruit, beverages and consumables such as airtime, cigarettes etc.

Many informal traders mention that the number of traders has been increasing and increased the most over the past year. They find that their busiest times are in the morning before employees get to their work place and after work while pedestrians are on their way home.



58% of the Twelve (12) vendors were surveyed had been trading for one year and longer. 33%



identified that their operations started in the current year which indicates that there is an increased demand for the goods sold in last year. The

majority also do not trade the whole day but rather in the morning, they would leave after their stock has been sold and would trade again in the afternoon.

83% of the vendors stay in the same spot for the whole day meaning constant flow of pedestrians in certain areas as 76% of vendor mentioned that their customers come to them 8% go to their customers and 16% have two-way interaction.



All were satisfied with their current mobile business operations location. 51 % identified that their busy period is in morning and afternoon 33% identified only morning business and 16% identified mid-day as busy period.



Most vendors, 66.6% identified that they are part of a Stokvel or cooperative whilst 33.3% identified that they are on their own, 25% identified that their operations received municipal support whilst the rest operating with own resources.

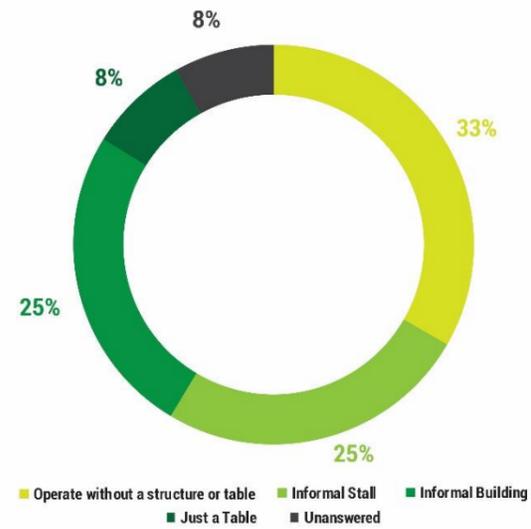
42% felt safe trading on Settlers way whilst 58% felt unsafe due to reasons such as theft of stock, bad lighting, and fast-moving vehicles.



It was also found that vendors 75% do change or adapt their product supply based on demand whilst other 25% provide standard product. The change in stock would depend on season, demand and purchase price of stock.

91.6% agreed that their operations would be more improved if they have a more formalised trading venue. Such a venue needs to be accessible as indicated most of the business in from passers by 58% followed by workers 33% and 9% from residents.

All informal traders mentioned that they were happy with their location. They believe that the spot where they trade serves their needs as well as the needs of their customers. The majority expressed the need for a formal, sheltered stall especially for rainy days.



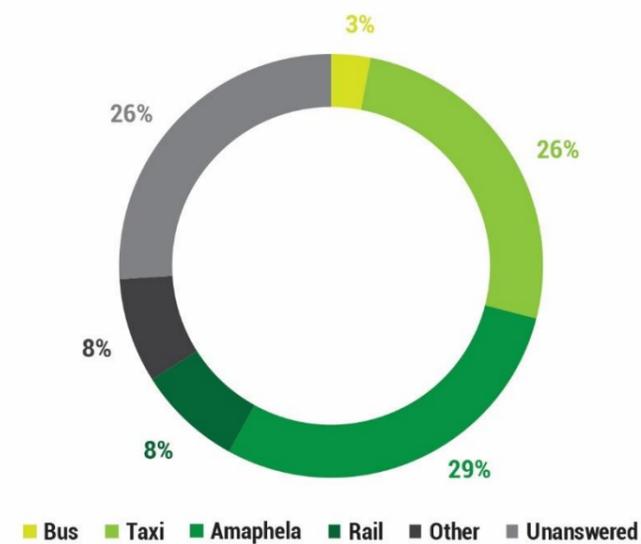
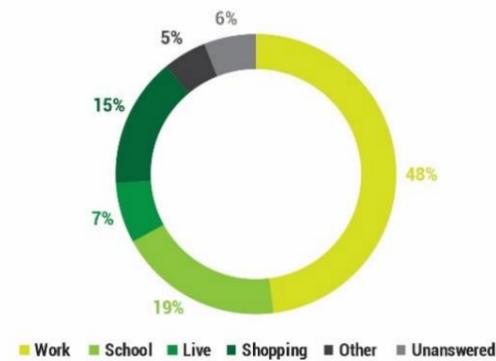
Pedestrian Survey

A pedestrian survey was designed and administered to approximately 42 randomly selected volunteers. Second to vehicular traffic, is pedestrian traffic along Settlers Way. Cycling accounts for 7% and sports driven activity 2%.

Frequency and time of use was also investigated and it was found that 57% use the roadside all day and 43% are early morning and late afternoon users. 5 % was unanswered.

Purpose of use covered a wide spectrum of reasons including work 48%, other 29%, school 19%, 7% live in surroundings, 2% clinic and 2 % unanswered.

WHY DO PEDESTRIANS MOVE WITHIN THE AREA?



71% of users used public transport methods', 58% claimed they used road transport of which 55% was use of taxi. 60% of pedestrians feel unsafe, however the majority were referring to day time use with the 40% feeling safe. 38% felt that streetlighting needs to be improved.

38% 
OF PEDESTRIANS SAY VEHICLES HAVE DISREGARD FOR PEDESTRIANS

Respondents were asked to rate the seriousness of problems and on average identified that road crossings are a serious problem and agreed that lack of movement space for pedestrians is a problem. 53% identified it as a serious to very serious problem. Respondents also agreed that vehicle disregard for pedestrians is a problem 38% identified it as a serious to very serious problem.

45% 
OF PEDESTRIANS SAY TRAFFIC CALMING MECHANISMS WOULD EASE THEIR MOVEMENT

Respondents were asked to rate the seriousness of problems and on average identified that road crossings are a serious problem and agreed that lack of movement space for pedestrians is a problem. 53% identified it as a serious to very serious problem. Respondents also agreed that vehicle disregard for pedestrians is a problem 38% identified it as a serious to very serious problem.

60% 
FEEL UNSAFE WALKING WITHIN THE AREA

60% identified trucks on Settlers Way as a traffic flow impediment and want them limited on Settlers Way or redirected. Most respondents identified that they feel unsafe whilst using Settlers (60%) while only 17% felt they were safe. 64% mentioned that they feel unsafe crossing roads due to the speed of vehicles and the truck movement.

64% 
HAVE DIFFICULTY CROSSING ROADS

60% identified trucks on Settlers Way as a traffic flow impediment and want them limited on Settlers Way or redirected. Most respondents identified that they feel unsafe whilst using Settlers (60%) while only 17% felt they were safe. 64% mentioned that they feel unsafe crossing roads due to the speed of vehicles and the truck movement.

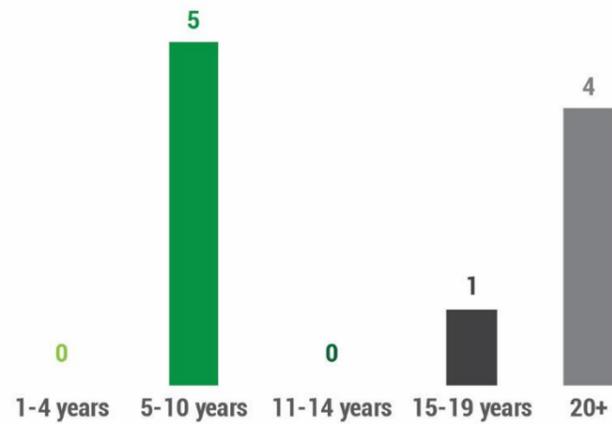
71% 
USE PUBLIC TRANSPORTATION

74% of pedestrians travel for 30-45 minutes to reach their destination from their place of residence. 22 % take 45 min and longer to move between the two points. 71% also indicated that they use a form of public transportation to reach their destination.

Resident Survey

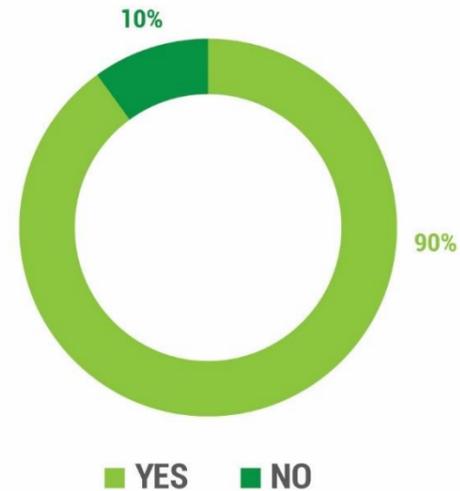
Ten (10) residents completed a survey which included 20 closed and open-ended questions regarding the following:

LENGTH OF RESIDENCE



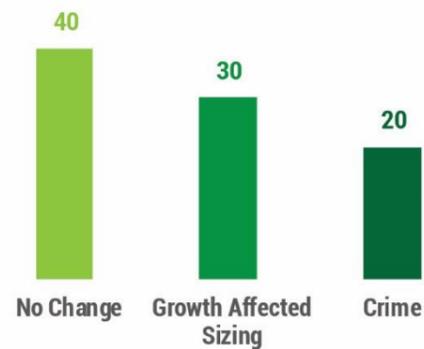
All respondents have been staying in their place of residence for more than 5 year and 90% of the respondents own the properties they reside within.

PROPERTY OWNERSHIP



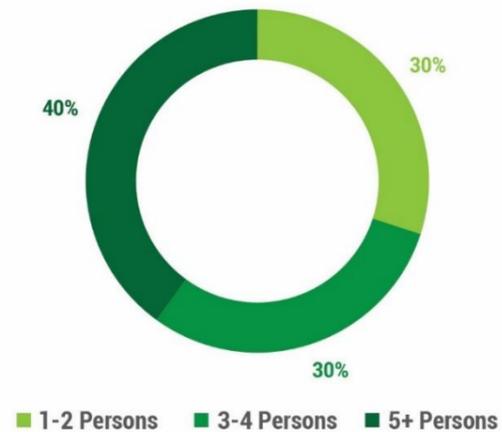
40% identified that there has been no change in the last years whilst 40 identified that growth affected sizing of facilities and has since been reduced.

NEGATIVE CHANGES



20 percent identified that crime has increased. Persons staying in dwellings 60% identified their household size to be up to 4 persons and 40% reported occupancy higher than 5 people. 70%

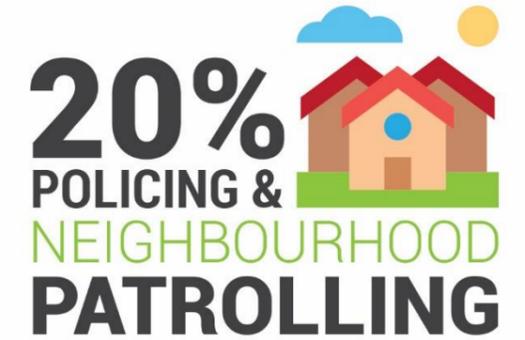
NUMBER PERSONS PER DWELLING



identified that they try to beautify their households whilst 30% leave their property as is and 50% are satisfied with the area.

Other resident survey outcomes are as follows:

- 90% of interviewed people staying in formal residences owned their own vehicle.
- 30% are happy about development, with 50% cautious and 20% worried.
- 50% of the sample have a permanent form of employment.
- 50% feel that they do experience infrastructure shortage or inadequacies.
- 50% would appreciate to improved pedestrian accessibility and movement, and 20% feel that frequent policing would assist with crime and the feeling of safety in respect of creating public open spaces and using it to its fullest.



IMPLICATIONS OF SURVEY ANALYSIS

Safety and accessibility needs to be considered, as the important access node lacks pedestrian access paths and crossings. Serviced facilities for such users also lack, for example sheltered benches, access ramps for wheelchairs, bins, etc.

Suggestions also included the need to attract further development and industry utilising the green and open spaces, road maintenance and improving controls for better movement and creating dedicated pedestrian lanes and crossings.

Businesses currently operating without the correct zoning are considered to be operating illegally and this has a negative effect on the environment, community at large and the safety of the people within the area. Businesses need to comply with the BCMM Zoning Scheme by aligning themselves with the appropriate zoning.

Traffic congestion is a major problem on Settlers way and traffic calming measures such as speed humps, raised pedestrian crossings, raised intersections and mini traffic circles would be a beneficial way of ensuring that the accessibility of businesses is high

Safety within Settlers way is of concern for businesses and pedestrians alike. Measures considered for reducing crime within the area include safety cameras; safety alarms and; and neighbourhood watches. Road crossings for pedestrians would be beneficial for crossing the roads safely as well as driver's having a regard for other road users

There is a lack of infrastructure for businesses and a decaying infrastructure within the Settler's way. Measures to combat this include the regular maintenance of existing infrastructure and the refurbishment of buildings that are no longer in use to allow for businesses to be able to occupy them.

Parking is a major problem within Settler's Way particularly for trucks and similar, for businesses. If this is left unmanaged, issues such as safety, crime and accidents will continue to increase. Measures to combat parking issues include increasing the parking supply; subsidize off-street parking and adding overflow facilities particularly for trucks within the area.

As the number of traders within Settlers Way have increased over the past year, it is important that basic facilities/trading venues such as vendor stalls are provided for them as they provide easily consumable and convenient goods that formal businesses sometimes lack.

The beautifying of neighbourhoods within Settlers Way would be beneficial to the desirability of the area and the satisfaction of residents. Beautification in the form of tree planting; cleaning of streets; street furniture; lighting; open space and safety measures such as a community watch and frequent policing would be beneficial in increasing the satisfaction of residents within the area.



SWOT ANALYSIS

The following section will assess the Strengths, Weaknesses, Opportunities and Threats (SWOT) relating to the study area. The SWOT analysis helps to understand the issues pertaining to the study area. The Strengths and Opportunities of the study area are the themes that would be able to be expanded upon and promoted, whereas the Weaknesses and Threats would require further emphasis to be able to develop them into opportunities.

Strengths

- Forms the "Gateway" into East London;
- Linkage to other major towns;
- Close proximity to the airport;

Weaknesses

- Lack of formalized pedestrian paving along sidewalk
- Lack of dedicated informal trading space;
- The Primary Study area has limited space for expansion.

Opportunities

- The need for residential opportunities on the West Bank due to the growing industrial sector;
- Linkages to the activities within close proximity such as the harbour, the EL CBD, EL IDZ, Water World, Grand Prix Track, etc.;
- The changes in land use seen along Jan Smuts Avenue are opportunities for mixed use

Threats

- Traffic congestion;
- Trucks stopping along the yellow line;
- Trucks turning right, onto Settlersway, obstructing the flow of traffic
- Lack of formalized pedestrian paving;

KEY ISSUES

The following Key Issues have been divided per sector in order to understand the issues that face the study area pertaining to these sectors, and further, to be able to address them separately moving forward within the report. The following colour code applies to the various sectors:

	Environmental
	Land
	Traffic
	Infrastructure
	Economic
	Social
	Urban design

8. Key Environmental Issues

The following has been outlined as Key Environmental Issues pertaining to the study area:

- Insufficient Stormwater Management and flood attenuation;
- Inadequate solid waste management practices.

9. Key Land Issues

The following has been outlined as Key Land Issues pertaining to the study area:

- Vacant Land Parcels within the Secondary Study area;
- Illegal land uses;
- The need to increase the number of residential units within the study area as the demand is high for housing within this area;
- Informal settlement located adjacent to the East London Airport. ACSA looking at expanding their runway;

10. Key Traffic Issues

The following has been outlined as Key Land Issues pertaining to the study area:

- High volumes of traffic during peak hours;
- High number of trucks which travel on the R 72;
- Trucks turning right on Settlers Way blocking traffic regularly
- Lack of designated bus and taxi stops;
- Lack of pedestrian pavement all throughout study area and especially along Settlersway;
- High speed movement of vehicles which makes it challenging for pedestrians to cross the street.

11. Key Infrastructural Issues

The following has been outlined as Key Infrastructural Issues pertaining to the study area:

- Lack of capacity over the Biko Bridge
- Pressures on sanitation
- Illegal electricity connections

- Lack of bulk infrastructure within the Winterstrand / Cove Rock region

12. Key Economic Issues

The following has been outlined as Key Economic Issues pertaining to the study area:

- Lack of formalized informal trader stalls;
- A demand for office use along Jan Smuts Avenue;
- Growing need for more economic services in the area (e.g. informal settlement residents use ATM's at the airport to withdraw cash)

13. Key Social Issues

The following has been outlined as Key Social Issues pertaining to the study area:

- Insufficient blue-collar labour-related jobs to service the community residing in the broader study area;
- Lack of entertainment amenities to serve the needs of the community;
- Lack of public open spaces;
- Lack of retail / restaurant facilities within the study area to serve the needs of the community

14. Key Urban Design Issues

The following has been outlined as Key Urban Design Issues pertaining to the study area:

- Lack of landmarks and public art;
- Inadequate street lighting;
- Irregular paving width throughout Settlers Way;
- Lack of beautification mechanisms to signify Settlers Way as the Gateway into East London.





Section C

DEVELOPMENT VISION,
GOALS AND OBJECTIVES

"A city is more than a place in space, it is a drama in time"

– Patrick Geddes

The development vision for the study area should be based on BCMM's vision of the metro being a "responsive, people-centred, developmental city".

The vision aims to outline the future goal of a specific area as well as to combat the key issues pertaining to the area. The proposed vision for the Bonza Bay Road Corridor is as follows:

"An attractive gateway into East London surrounded by a supportive residential node catering for the growing industrial sector within the West Bank"

GOALS AND OBJECTIVES

Development Goals

The following goals for development have been set for the SW LSDF: -

- Guide and manage the types and scale of new retail, residential and office developments in the study area, whilst recognizing the desirability of maintaining the overall primacy of the East London CBD and associated revitalization initiatives;
- Facilitate the development of mixed land use nodes and development corridors, where appropriate, within the study area;
- Encourage residential densification in the study area;
- Facilitate economic activity in the study area in such a manner that it does not negatively impact on the nature and character of the essentially residential fabric surrounding the area;
- Encourage development that:
 - Reinforces and strengthens the viability, vitality and efficiency of identified development nodes and corridors;

- Achieves effective management and safety of all transport modes, including pedestrians, cyclists, private and public vehicles;
- Improves the appearance and sustainability of the built form and open spaces;
- Enhances the overall aesthetic character of the area;
- Ensure that development maintains or enhances safety, health and the environment.

Objectives & Performance Criteria

The achievement of the above goals is proposed by using the following planning mechanisms: -

3. Setting clear objectives for land development and transportation in the study area; and
4. Establishing Performance Criteria that defines the parameters within which land use change and land development can take place in the study area.



Development Objectives

The following Objectives are identified in respect of land development processes within the study area: -

- To identify appropriate areas for development as nodes and corridors, using the classification of these structuring elements as contained in the Buffalo City Spatial Development Framework;
- To set in place appropriate planning measures to encourage development of office and retail land uses within the areas defined as development nodes and development corridors;
- To manage land use and land development within the development nodes and corridors that will maintain and enhance the viability and vitality of these areas;
- To facilitate job creation by permitting small home-based businesses to be developed within appropriate guidelines set by the East London Zoning Scheme, 2007;
- To ensure the rectification of non-conforming land uses within the study area
- To minimise the impacts of land use and land development within the development nodes and corridors on adjoining land uses;
- To allow for residential accommodation in business precincts in order to provide housing choice and improve activity levels; thereby taking advantage of existing infrastructure and underutilised properties.
- To manage development so as to minimise risk, vulnerability and promote sustainability and overall resilience.

The following goals and objectives aim to combat the Key Issues pertaining to the study area, which are structured in terms of the following:

1. Environmental Goals and Objectives;
2. Land Goals and Objectives;
3. Transport Goals and Objectives;
4. Economic Goals and Objectives;
5. Social Goals and Objectives;
6. Urban Design Goals and Objectives



1. Environmental Goals and Objectives

The following have been outlined as the Environmental Goals and Objectives of the Study Area:

GOALS	OBJECTIVES
Ensure sustainable development	<ul style="list-style-type: none"> -Promote the use of Green Technology for future and current developments -Ensure that the precinct services the greater community of all ages -Implement viable and sustainable green stormwater reticulation -Implement viable and sustainable solid waste management practices
Ensure that the precinct maintains and protects its critical Biodiversity areas	<ul style="list-style-type: none"> -Ensure that Development does not hinder the Critical Biodiversity areas -To design recreation activities surrounding the natural habitat
Ensure that development does not hinder the environment	<ul style="list-style-type: none"> -Enforce strict Environmental considerations on developments -Encourage developers to have integrated landscaping and on site stormwater management included as part of their site plans

2. Land Goals and Objectives

The following have been outlined as the Land Goals and Objectives of the Study Area:

GOALS	OBJECTIVES
Promote mixed use and high-density development	<ul style="list-style-type: none"> -Accommodate a variety of land uses -Allow for the consolidation and rezoning of properties to promote an increase in density in identified areas
To ensure that the broader precinct retains its industrial fabric	<ul style="list-style-type: none"> -Not to promote / allow factories to rezone to exclusively business or office use -Create a conducive environment for industry activity -To ensure sufficient residential development to support the industrial activity

Develop a precinct which is integrated and offers a variety of land uses in order to provide for the needs of the users

- Provide various housing options to provide for people from all income earning backgrounds
- Promote mixed use development through the provision of development incentives

3. Transport Goals and Objectives

The following have been outlined as the Transport Goals and Objectives of the Study Area:

GOALS	OBJECTIVES
Improve vehicular traffic movement	<ul style="list-style-type: none"> -Upgrade key road links -Implement measures to control high traffic intersections and reduce traffic congestion -Implement bus and taxi stops at appropriate areas around activity nodes -Implement traffic calming mechanisms to ensure pedestrian safety
To ensure that pedestrians feel safe while moving through the area	<ul style="list-style-type: none"> -accommodate pedestrian crossing to ensure that pedestrians are able to safely cross roads -allocate pedestrian paving along either side of the R72 as well as internal roads
Ensure the safe movement of Trucks on Settlers Way	<ul style="list-style-type: none"> -Accommodate a dedicated lane for trucks -Allocate safe parking for trucks



4. Infrastructure Goals and Objectives

The following have been outlined as the Infrastructural Goals and Objectives of the Study Area:

GOALS	OBJECTIVES
To ensure that the community has access to basic services	-upgrade the sewer treatment works for the broader study area
Ensure the safe movement of pedestrians and vehicles through the study area	-upgrades of roadways to allow for the safe movement of pedestrians, motor vehicles and trucks -Accommodate pedestrian crossings at designated areas

5. Economic Goals and Objectives

The following have been outlined as the Economic Goals and Objectives of the Study Area:

GOALS	OBJECTIVES
Provide for the community needs	-Allocate more opportunities for Low Intensity Offices as well as commercial and retail / restaurant uses within the Greenfield / Sunnyridge area -Ensure a mix of uses to provide for the needs of the community and ensure accessibility as well as to offer 24 hour street surveillance – “eyes on the street” -To accommodate a mix of uses to allow residents more choice and urban generosity within the greater study area
Ensure the consideration of all forms of economic activity	-Provide for the needs of Informal traders -variety of job opportunities for skilled and unskilled residents

6. Social Goals and Objectives

The following have been outlined as the Social Goals and Objectives of the Study Area:

GOALS	OBJECTIVES
Promote social sustainability	-Ensure that sufficient and adequate social facilities are allocated within the study area to provide for the needs of the users such as health care, schooling, sports fields, etc.

Provide for pedestrian needs	-Accommodate urban furniture and street art
To promote wealth generation for community members	-to provide for the community's growing needs for retail and recreational activity, thus facilitating job creation

7. Urban Design Goals and Objectives

The following have been outlined as the Urban Design Goals and Objectives of the Study Area:

GOALS	OBJECTIVES
Improve pavement Infrastructure	-Upgrade pavements to ensure adequate widths, which are continuous throughout Settlers Way and other feeder roads -Increase the curb height to ensure that vehicles are unable to drive onto the pavement
Upgrading and enhancing the public realm	-Design spaces with consideration of urban art -Accommodate public spaces for public use



A street scene with cars and pedestrians, overlaid with a white rectangular frame containing text. The background shows a road with several cars, including a silver hatchback in the foreground with license plate HSL 9 2 2EC. Pedestrians are walking on the sidewalk. There are palm trees and other vegetation. The sky is overcast. The text is centered within a white rectangular frame.

Section D

SPATIAL POLICY AND PROPOSALS

This section will discuss the Spatial Policy and Proposals which will begin with outlining scenarios and thereafter proposing a preferred scenario. The Concept will be derived from the preferred scenario. Spatial Structuring Elements will then be outlined for the study area.

- SW in context
- Precincts within SW

OVERALL CONTEXT OF THE WEST BANK

The BCMM BEPP, 2019 discusses the West Bank as an Economic Catalytic Programme Area which aims to support investment, improve logistics and thereby boost economic performance. It includes a suite of planned and budgeted projects which will enhance the infrastructure capacity as well as assist in unlocking planning and land related issues within the corridor.

Upon a detailed analysis of the broader study area, it is noted that there are many developments and proposals which would have direct impact on the study area. These include:

The East London Beachfront

The East London Beachfront is a tourist and recreation node with easy access from the East London Central Business District (CBD). It boasts 2 beautiful beaches, swimming pools, a pier and many restaurants offering a variety of cuisine depending on one's budget.

The East London Beachfront is located at close proximity of around 6km from Sunnyridge. The node is able to offer and act as a recreation node to the residents of the Sunnyridge and Greenfields region. The only challenge that these residents face is the accessibility of this node due to the frequent traffic congestions over the Biko bridge and through the East London CBD.

The East London Port

The East London Port is currently looking at an expansion programme in the following areas:

- Container Terminal;
- Latimers Landing;
- Increased car parking facilities for MBSA

The strategy of the Port of East London is to increase its capacity of importing and exporting and in order to do so, they have to be able to hold much more containers. The current capacity on the East Bank on the Port is 100 000 containers. The only option of meeting an increased projection the Port has decided to move the container terminal to the West Bank and will it aims to accommodate approximately 500 000 containers. additional space;

The East Port is also not designed to accommodate the existing and future cruise liners which dock at the Port.

TNPA's challenge is that the double decker bridge is in need of upgrade. This bridge is currently being used by trains and cars.

With regards to the import and export of goods once the container terminal moves to the West Bank, presents the demand for a road and rail linkage through to the industries within the West Bank, including to the East London Industrial Development Zone.

Mercedes Benz SA, in their plans require that all their new contract suppliers have to have South African companies, which means they have to be established locally. A large percentage of what they will be manufacturing for components will be coming through the harbor.

The East London Back of Port precinct has potential to act as a major tourist node boasting stunning river views and easy linkage to the Esplanade. This precinct is currently not being utilised to its full potential. This precinct could act as another entertainment / recreation precinct for the residents of the Greenfields / Sunnyridge area and the wider city.

The following Key Issues have been identified:

- Additional Space required on the West Bank for Containers;
- Increase market demand;
- Steel bridge has passed its life expectancy;
- No linkages between the Port and the:
 - CBD;
 - West Bank
 - Esplanade
 - Back of Port
 - Signal Hill;

The following implications have been identified:

- Should the container move to the West Bank, linkages from the Port are necessary in the form of road and rail access; An increased size container terminal means more trucks on the road transporting containers which adds to the congestion on Military Road, Settlersway as well as the West Bank on a whole;
- With the Steel Bridge being unable to permit trucks to cross over, this will compound the congestion on the above-mentioned roads;
- The Port is not 'PEOPLES PORT' therefore the planning of the Port will have to consider improved linkages as well as accessibility. This Port in its current form will segregate users and will prevent the Port from the glue that brings users together. Like in other major Port Towns in South Africa and Globally;

The following Proposals are being made in relation to the above Key Issues and the respective Implications:

- A larger area close to the Grain Silos, on the West Bank have been identified for the new Container Terminal;
- A proposal to develop Latimers Landing into a Leisure and Residential Precinct will allow more users to the area, as well as bring more 'feet' to support proposed commercial and leisure activities; The proposed upgrade of Latimers Landing also into a Mixed Use Precinct on a similar but smaller scale than the V & A Waterfront in Cape Town, will become an 'attraction' in itself;
- The proposed development of Signal Hill will also be the catalyst that creates the linkage between the working port and the Esplanade. This will start to enhance underdeveloped areas and link it to the proposed areas being developed by the BCMDA;
- A proposal was also identified to utilize the Railway Line from the Port, to transport tourists from the Port to the East London Racetrack, proposed Waterworld Development by BCMDA as well as the West Bank Golf Club;

Industrial

The West Bank is known for its industrial activity. Many industries are situated within this area to be around other like-minded businesses. In order to grow this sector within East London, it would be essential to retain the industrial nature of the West Bank through promoting a conducive environment for industry and to support industrial activity within the West Bank.

Where do the industrial employees come from?

In the BCMM, areas such as Potsdam, Mdantsane, Scenery Park, Reeston, Duncan village, Nompumelelo and Mzamomhle are generally called marginalised areas. These are also areas where a large percentage of the population of low income earning individuals reside. These individuals often seek employment in industries. They presently have challenges with travelling to the industrial area within the West Bank due to the limited access and the increases traffic congestion within over the Biko Bridge.

EL IDZ

The EL IDZ has plans to transform the Alexandra Golf Course into a mixed-use development which could include activities such as light industrial, retail and residential uses.

The EL IDZ has also identified that In April 2020 the undersea cable will land on or coast, linking to the IDZ. This is the first large undersea cable in Africa. It will be traveling from India via Mauritius to East London. When the cable reaches East London, the EL IDZ has plans to setup a call centre and employ 3000 people initially and a total of 10 000 people after 3 years of the operation.

The ELIDZ is going to be the first node in South Africa to receive the Underwater Sea Cable. The cable is originating from India and will be laid via Mauritius and will land at the ELIDZ. This cable will be able to provide the ELIDZ and East London with the 1st 5G Technology in the country.

The ELIDZ is proposing a 'Call Centre' which will eventually handle three shifts which will employ 3000 in phase 1, and after 3 years phase 2 will employ an additional 3000 people and by phase 3 there will be a total of 10 000 people employed.

The following Key Issues have been identified:

- Insufficient space for IT companies who would want to be closer to the Data Centre;
- Infrastructure to cater for proposed Developments;
- The Automotive Supplier Park (ASP) will be expanding to cater of the new MBSA C Class production;
- Faster movement of goods between the ELIDZ and MBSA Plant is required;
- The Alexander Golf Course has been identified by the ELIDZ for Mixed Use development to support the Industrial area, but infrastructure provision is a real constraint.

The following Implications have been identified:

- 10 000 job opportunities will be created by the underwater cable; These people will need to be accommodated on the West Bank, close to their places of employment; The individuals whom will work in this type of professionals are usually techno savvy and dependent on internet connection and services like; 'Uber,' Uber Eats. Taxify/BOLT, etc. They will want services on demand which increase BCMM's need to move towards the globally growing SMART CITY Concept.
- The ASP will require additional trucks coming into and leaving the ELIDZ daily, if not hourly; The resultant traffic on the main roads will drastically increase;
- The entire developable land within the ELIDZ will increase to a 70% occupation. This increase will result in increased employees and the impact on traffic.

- Delayed delivery of goods from ELIDZ to MBSA, will result in a slower productivity rate at MBSA, which will result in less revenue;

The following Proposals are being made in relation to the above Key Issues and the respective Implications:

- Increasing the Density in the already established residential area along Jan Smuts is being proposed in the Settlersway LSDF. Also a proposal for Mass Housing is being proposed from the ELIDZ towards the Hickmans River. This will be explained in more detail later on.
- Greater connectivity from the ELIDZ to MBSA is a necessity as well as from the West Bank to Berlin and outside of BCMM is required. The bridge over the N2 is becoming a necessity and not just a requirement any longer. (See write up on connectivity.
- Provision of social amenities linked to increased residential provision will be required;

Airports Company South Africa (ACSA) - EL Airport

Through the consultation session of the development of the project, the team had a meeting with the development team of ACSA. They have indicated that ACSA has plans to promote logistics and warehousing on the land to the north of the airport. ACSA is in the process of reviewing their Masterplan for the East London Airport. Work on the Landside Precinct Plan is underway. ACSA has also indicated that there needs to be careful consideration of the types of uses that are developed in the airports flight path.

At present ACSA are looking at expanding the lounges within the Terminal buildings.

Their future expansion plans are to also look at incorporating more commercial activities to the south of the existing terminal buildings, towards the R 72, as depicted in the plan below.

The Longer term strategy of ACSA for the East London Airport is to permit larger aircrafts to land. The constraint with this afore-mentioned proposal is the illegal homes which have been constructed within the flight path and which need to be relocated, before the runway expansion can happen.

Also Phase 2 of the ELIDZ (SEZ) is to create a Light Industrial Park which will have direct access to the airport taxiway as well as which will incorporate the following;

- Warehousing for time-perishable goods for export;
- Warehousing linked to the main SEZ and other industries on the West Bank;
- Freight and Logistics linked to the Airport;

ACSA have also identified the growing constraint of having to accommodate private aircraft hangers as well as space for logistical support, e.g. courier companies, air freight holding areas, etc. A draft proposal from ACSA has been to relocate the hangers and logistical support buildings to the north of the existing runway which will provide additional space as well as should the Phase of the SEZ reach capacity;

Mercedes-Benz South Africa (MBSA)

MBSA is planning for an added shift due constructing the W206 model in the East London plant. The harbour presently has a lack of capacity to store all finished Mercedes-Benz vehicles.

The Mercedes Benz SA (Pty) Ltd (MBSA) investment and expansion of its existing manufacturing plant in East London on the West Bank, to the cost of EUROS 600 Million, was the trigger for all other activities on the West Bank. MBSA had to upgrade their manufacturing plant to prepare for the new W207 C Class production. As a result of this MBSA will also be expanding their workforce to meet the production demands, which result in the implementation of a 3rd shift.

The following Key Issues have been identified:

- 1000 more jobs created: employees from outside of the West Bank;
- 3rd shift being implemented; 24 hr production facility;
- Demand for additional space for parking facilities for storage and export;
- Additional logistical in and out of the plant i.e. 400 Trucks daily; 74 Trucks from outside of East London need to access the plant;
- Supplier space within close proximity to the Plant is required;
- 'Just In Time': An MBSA logistic model to ensure that supplies are supplied at the plant at the time required and completed products are removed as they come off the production line;
- Storage of vehicles;
- Delivery between the ELIDZ and MBSA Plant;

The following Implications have been identified:

- With the additional staff being employed, there will be a demand for housing on the West Bank;
- Public Transport for the three shifts will have to be considered; this will include actual public transport as well as associated safe facilities for commuters. Gender based planning will have to play a larger role in this situation;
- The road capacity is insufficient with the West Bank to handle the existing users. With the increase in vehicles and trucks. Settlers way will have to be upgraded and made suitable for the users;
- Additional linkages to the Marginalized residential areas, which will be the primary employment source areas, will have to be created, to reduce travel time, and related costs;

- Without better linkages the current and future traffic congestion will escalate as well as the additional trucks coming onto the West bank to supply the industries will compound the problem;
- The increased traffic congestion will slow down the delivery vehicles and result in the MBSA not being able to meet their daily production demands;
- There is already limited space for MBSA to store the completed vehicles on the West Bank, and with the extra shift and increased production the existing vehicle storage facility at the Port will be insufficient as well as other areas on the West Bank;
- It has been identified that the Fort Glamorgan Prison is currently under utilizing the Prison Land;

MBSA have indicated that they would like to have a direct link to the EL IDZ for the parking of vehicles and further a road linkage from the EL IDZ to the Port for export purposes. The EL IDZ has to grow in terms of their automotive supplier park to supply Mercedes Benz.

With regards to traffic flow due to this increase, MBSA have indicated that there will be an estimation of 44 trucks / road trains coming into their plant on a daily basis. Statistics suggest that if the 44 trucks and other delivery vehicles have to travel through Settlers Way, this would increase the time of travel by adding approximately 45 minutes on an individual's travel journey through Settlers Way.

The following Proposals are being made in relation to the above Key Issues and the respective Implications

- Mass housing is being proposed from Cove Rock to the Hickmans River. This will include a mix of medium to high density housing which will cater, not only for MBSA employees, but also other industry employees on the West Bank;
- Densification of the existing Sunnyridge residential Area is also being proposed to accommodate more people wanting to move to the West Bank to be closer to the places of employment;
- BCMM, as an interim arrangement to support the supply and delivery between the ELIDZ and the MBSA plant, are proposing the upgrade of Settlersway between Chester Road and Military road to the entrance gate 2 at MBSA; an additional lane in both directions will be created. This will assist in alleviating the traffic congestion;
- A future proposal is to extend the existing Harbour Arterial Road from the ELIDZ, across the Alexander Golf Course, above the EL Race Track and West Bank Golf Club, to intersect with Military Road to the MBSA Gate 2 entrance;
- The Port Authorities are looking at increasing the existing parking garage at the Port to accommodate additional vehicles;
- Thought needs to be given to either relocate the Fort Glamorgan prison and/or utilize the underutilized space for expansion of the Industrial Area;

Settlers Way

Due to Settlers Way (R72) being a Regional Road with high speed moving vehicles, there is a need to develop and promote development along the corridor all the way to the airport. Care should be taken that there should be no direct access onto land uses on either side of Settlers Way from the Buffalo view Road intersection through to the East London Airport. This acts as a traffic calming mechanism and decreases the need for vehicles to park on the side of the road.

Managing traffic volumes is essential along Settlers Way. How we manage traffic flow and traffic volumes and ensuring that there are proper designated traffic stops for taxis, public transport, buses as well as trucks when they want to stop is critical.

There is a need to apply urban design standards when roads are constructed. Raised pavements and bollards could benefit trucks and mini-bus taxi from pulling off along the pedestrian paving.

West Bank Historical Village

The West Bank Historical Village has a large percentage of buildings which are older than 60 years and fall under Historical Heritage significance, and would have to go through rigorous approvals processes for any type of amendments to the buildings.

However it is proposed that a Tourist Route be developed from the Port through the West Bank Historical Village to the Race Track and the Waterworld. Traversing the West Bank village will be a catalyst to allow the Village to develop further and there has been little to no development within the village for a number of years.

Future Nodes: Settlers Way and Chester Road

This intersection is identified as a future node as it may become an exceptionally prominent intersection. When the bridge over the Buffalo River is built and connects to Wilsonia, it is going to come across and through to the airport and intersect at this node. It is due to this, that this intersection will bring in large volumes of vehicular traffic.

Surrounding this node is presently, the Orange Grove informal settlements. There are plans for these settlement dwellers to be relocated due to this area not being conducive for residential use. It is essential to ensure that as soon as there is opportunity to relocate these residents, there needs to be an instant promotion of various other uses to be located within this space.

Such uses could include light industrial activity in the form of warehousing and the like or potential for a retail mall to service the growing needs of the residents of the greater area.

This route would also be used by trucks delivering items to the industries along within the area as well as to the EL Airport and thus this route would become a prominent route

EL Racetrack

The East London Racetrack has a rich history. It is the first ever Grand Prix track. It has since, been under-utilized. This node has potential to serve as a tourist node to host racing events that could add value, not just locally, but also nationally.

Other than tourism, the EL Racetrack has potential to link with the EL IDZ with regards to the cable in East London. With the growth of the Fourth industrial Revolution and the increase in popularity of electric cars, the EL Racetrack has potential for activities such as the testing of biofuels and electric cars and others.

The East London Grand Prix Circuit, operated by the Border Motorsport NPO, has been granted a 20 year lease by BCMM Council. The concept is to upgrade the circuit to allow more motor racing events, as well as ancillary motor tourism related activities within the Circuit precinct.

Boarder Motorsport Club has already confirmed that Mercedes-Benz South Africa will be testing their new AMG model at the East London Racetrack.

Kempston Property Group have also confirmed that they will be developing a car museum at the EL Racetrack.

Accessibility and a clear and direct linkage needs to be made between the East London Esplanade, the East London Port, the East London Racetrack and the Waterworld development. This would be the development of a much-needed tourist corridor.

BCMDA Waterworld Development:

The BCMDA are currently busy with a development proposal for the existing Waterworld area. The concept is to look at upgrading the existing pools, create accommodation options for different markets types.

Overall design incorporates the following components:

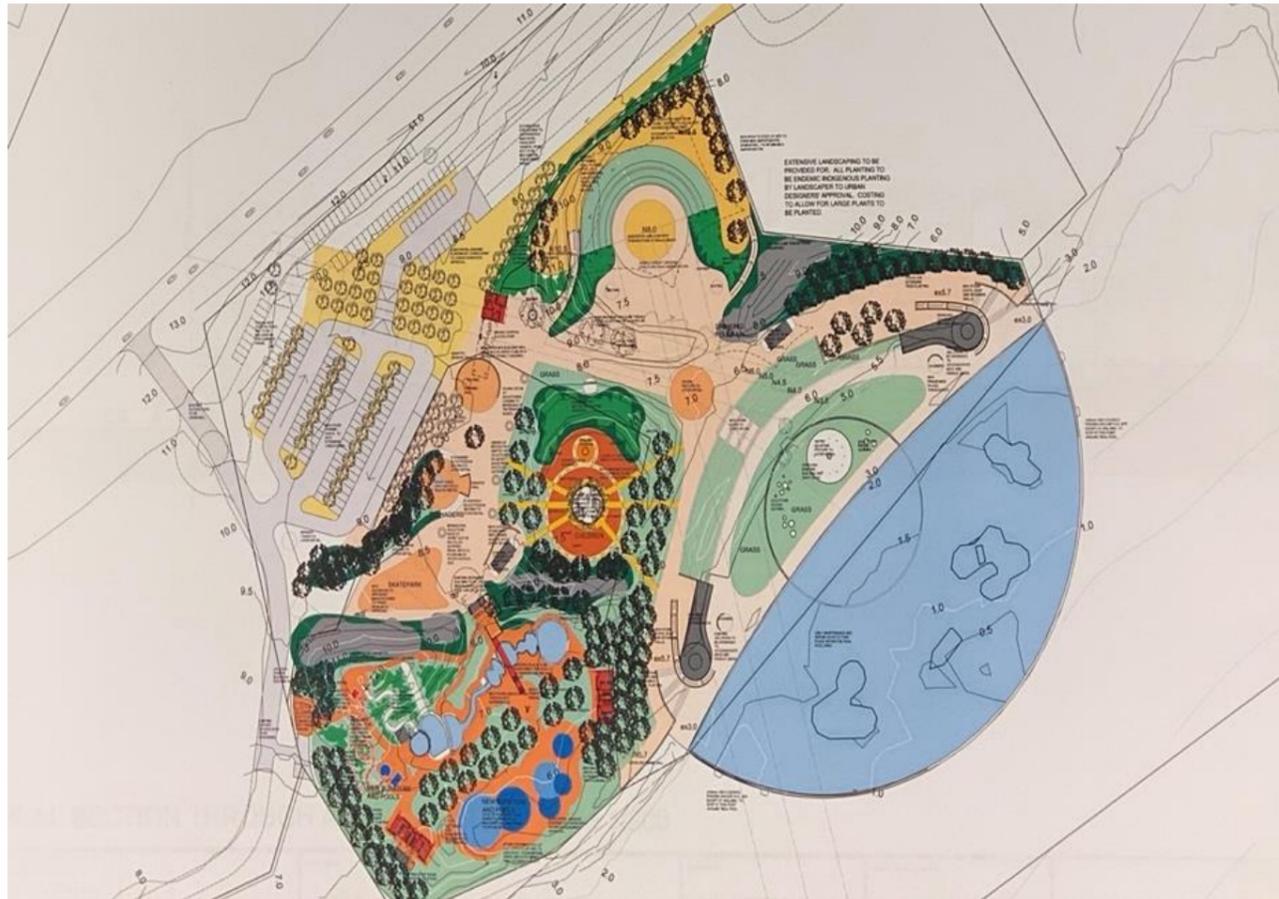
- Open air Amphitheatre with a permanent tensile tented structure to provide cover
- Interactive water features and sculptures
- Super tube / water slides to swimming pools

- Urban seating, Hawkers Stalls and Braai areas
- Gate house, offices, security and storage facilities
- Pool pump and plant room
- Ablutions and showers
- Urban outdoor gyms
- Kids play areas – skate park, jungle gyms, sand pits, etc.
- Urban benches and rubbish bins
- Off street parking
- Landscaping
- Pedestrian bridge
- Security perimeter fencing and gates
- Ocean tidal pool

When complete, it is envisaged that this node will be a top recreation facility linking to the beachfront.

The BCMDA have indicated that Molteno Road needs to be upgraded to ensure easy access and linkage between the various activities.





Housing / Residential

There are many land parcels surrounding the EL IDZ through to Winterstrand where developers have gained interest for residential developments. The BCMM have confirmed that there are a number of applications that have already been approved. The only challenge within this area is the lack of bulk infrastructure available.

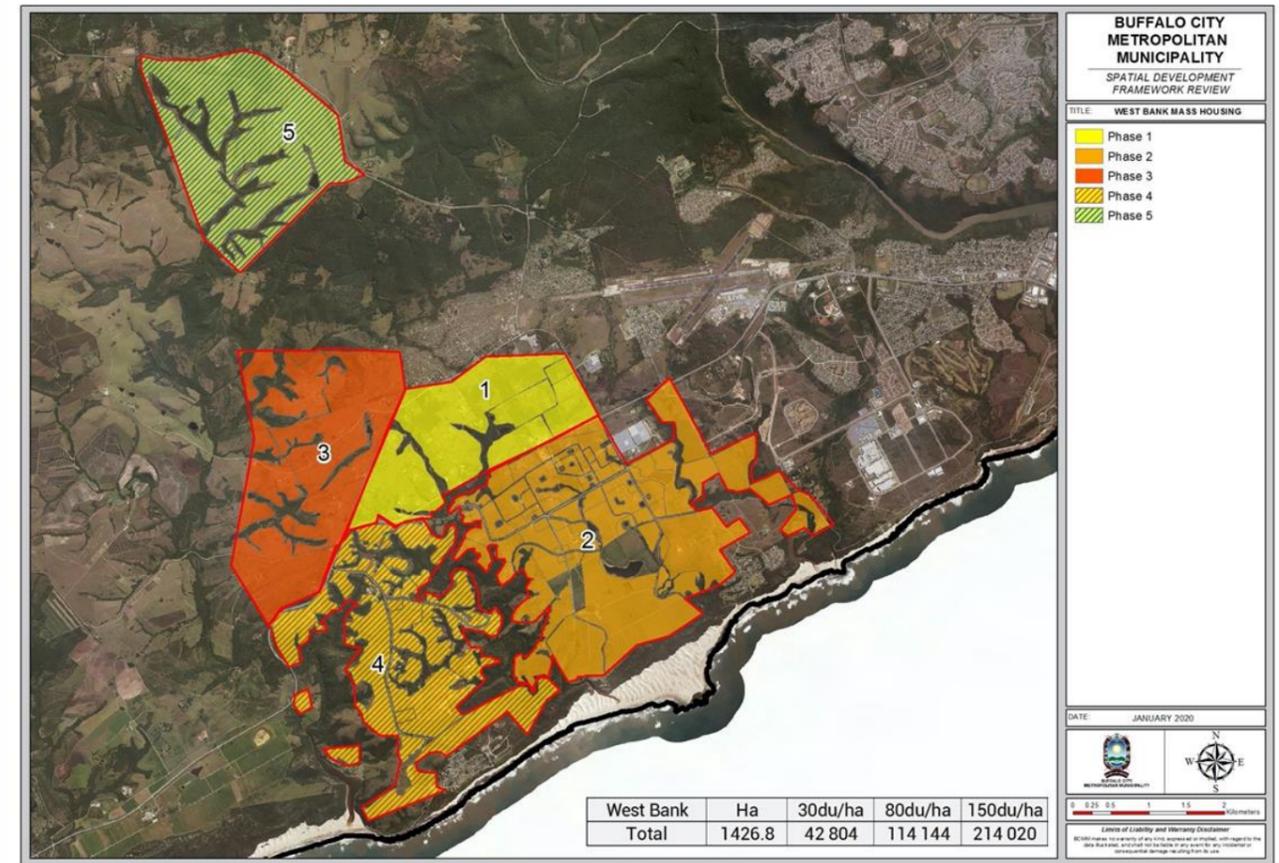
As part of the strategy to accommodate development on the West Bank, being Spatial Priority Area 1 and creating economic development, housing provision forms the fundamental component of integrated sustainable settlement.

The concept of mass housing on the West Bank is to meet or alleviate the need for housing in support of the West Bank Economic Corridor/West Bank Smart Logistics and Automotive Hub.

The Mass housing will incorporate medium to high density housing primarily. Low density housing is not favored unless it is within the coastal nodes or included in a development which also incorporates medium to high density developments.

The main constraint for the mass housing will be the provision of non residential uses i.e. Educational facilities, Health Care Facilities, commercial and retail facilities, etc.

A conceptual plan below has been drafted and the following statistics start to emerge: -



The conceptual plan has been drafted to take cognizance of the different typologies of residential development, aligned to the vision for the area, as well as associated social amenities required.

The Mass housing on the West Bank needs to be developed in phases, so as to ensure a sequential outlay of bulk infrastructure as well as no leapfrogging of development. As a result a the plan above also represent the phasing spatially. Due the massive size of the proposed housing on the West Bank, a Five (5) phase approach is proposed.

The mass housing area, with regard to the extension of the urban services edge, can accommodate the following number of households with and the respective densities. The density hierarchy is categorised as follows:

- 30 du/ha; Low Density
- 80 du/ha: Medium Density
- 150 du/ha: High Density

It should also be noted that in order for us to get to the approximate number of units which can be accommodated on the site, 40% of the site area was removed, to accommodate roads, public space, social amenities, (Critical elements of an Integrated Sustainable Human Settlement etc. The remaining 60% was used to calculate the density.

Ha	Density: du/ha	No. of Units
1426,8	30	42 804
1426,8	80	114 144
1426,8	150	214 020

What is critical to understand in all Mass Housing developments, is that we are creating Integrated Sustainable Human Settlements, which means ensuring that not only houses/homes are being built, but supportive social infrastructure like the following is essential for the success of the residential component:

- Schools: Primary, Secondary, etc.;
- Health Care Facilities: Clinics, hospitals, etc.
- Retail Facilities: shops, restaurants, etc.;
- Community Halls;
- Etc.

Future Housing:

The Kidd's Beach area and its housing development must not be isolated from the West Bank. The Kidd's Beach area has grown significantly in the last three (3) years. The city has also invested money into infrastructure like water provision and coupled with the investment and contributions of the private sector, the area has already attracted a number of new residents. Kidd's Beach has proved to be ideally situated between East London and Bhisho/King Williams Town and along the beautiful coastline, the location proved almost perfect.

Kidd's Beach has targeted the middle to upper income bracket but has offered buyers the opportunity to choose from a number of different housing typologies as well as the opportunity to build their own home as well.

Kidd's Beach therefore plays an important role in supporting the West Bank Economic Corridor.

With the influx of prospective employees taking up the economic opportunities that are going to be presenting themselves, the need for housing will drastically increase. The Mass Housing proposed above, will still be inadequate to meet the demand and the City has to follow the global drive towards densification.

The residential area along Jan Smuts Avenue has already seen a trend towards the homes being converted to medical practices, shops, cars sales, salon etc. The conceptual proposal which has been supported through a Public Meeting of

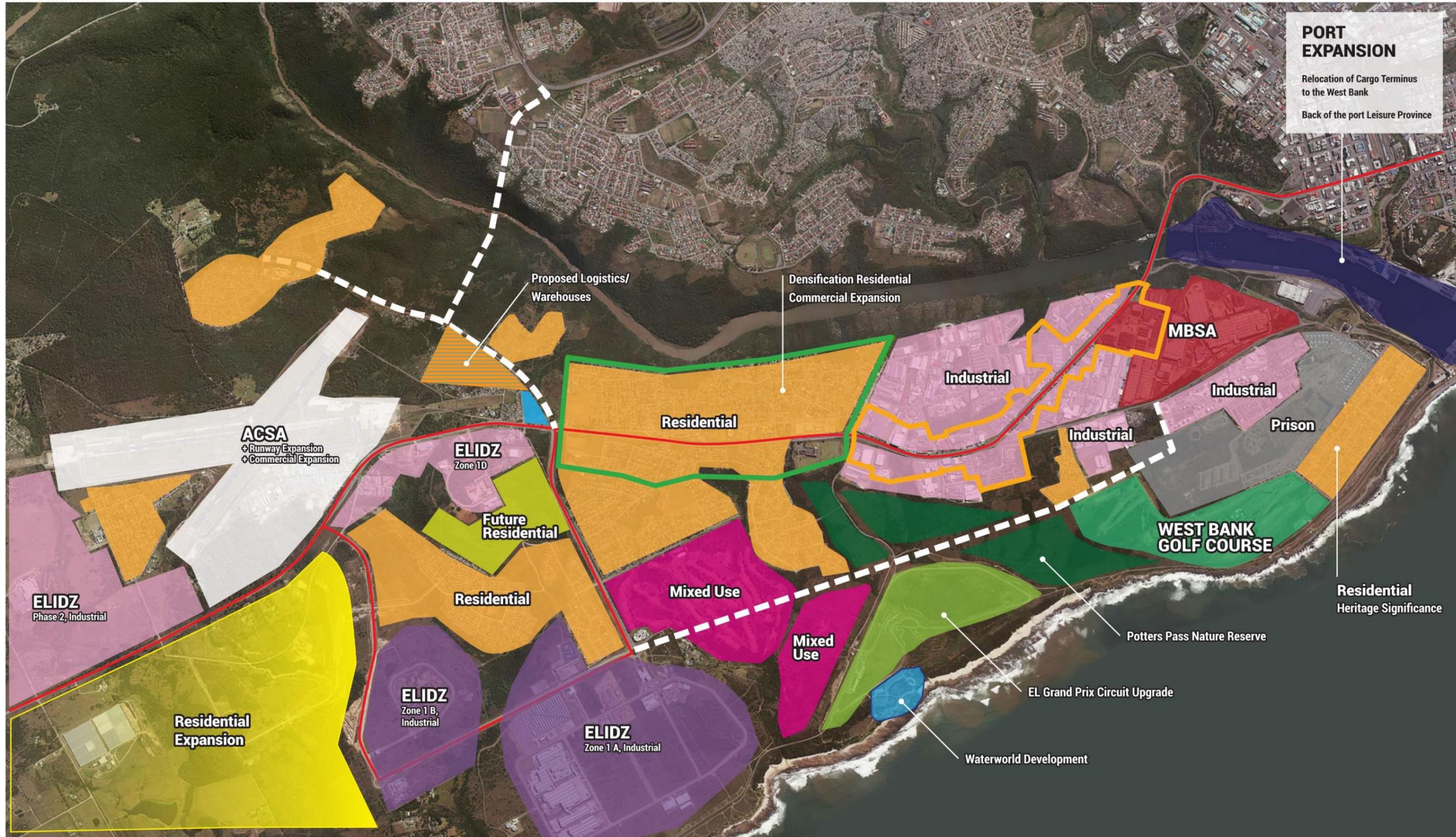
the Settlers Way LSDF, is to allow the two residential blocks along Smuts Avenue to be consolidated and converted into higher density residential apartments.

Another parcel of Land which the BCMM are looking into developing for medium to higher density is the land along Chester Road (See plan depicted below). This land parcel is to be developed in partnership with MBSA to cater for the GAP and FLISP housing market. The South African Department of Human Settlements has been successfully able to achieve medium to higher density housing development for the GAP and FLISP market elsewhere in South Africa and East London has the opportunity to replicate these developments.



SETTLERS WAY LOCAL SPATIAL DEVELOPMENT FRAMEWORK

BROADER CONTEXT PLAN



Legend

- Primary Study Area
- R72 Settlers Way
- Future Housing Development
- ELIDZ
- Residential
- Golf Club
- Race Track
- MBSA
- Possible Industrial Logistics Warehousing
- Nature Reserve
- Secondary Study Area
- Strategic Routes
- Airport and Possible Expansion
- Possible Retail
- Industrial
- Mixed Use
- Waterworld
- Residential Expansion
- East London Port
- Prison



ALTERNATIVE SCENARIOS

A study was conducted in order to understand the relationship and the difference of the outcomes of 'controlled' and 'uncontrolled' development. This study was completed in order to gain an understanding about the necessity for controlled and managed development. SPLUMA requires us to do responsible planning and risk assessment, as in the section that follows below:

Scenario 1: Uncontrolled Development

Development that is aligned to "haphazard outcomes". This scenario aims to directly address issues without careful consideration of external or outcoming factors.

This proposal is at first seen as positive, as it would provide more roadway for vehicles which currently experience excess traffic. This proposal aims to combat the issue of traffic along Settlers Way. There are, however, negative impacts that could be an outcome of this development which include:

1. The development would decrease the size of the road reserve thus minimising the space available for pedestrians. This would exclude and hinder a large portion of the users of the area;
2. The limited space of the road reserve would mean that there would be less space for urban design features, which could beautify the space;
3. It may also allow for further traffic volumes and greater CO2 emissions due to the extra space provided;
4. An increase in provision for vehicles would mean an increase in speed of the vehicles traveling on the road thus, making the road dangerous for pedestrians crossing the road as well as cyclists travelling on the road;
5. An increase in noise and air pollution contributing to a bigger carbon footprint and poorer environmental quality.

Through the above, it is seen that a detailed study is required to combat each issue for each proposal. Careful consideration is necessary when addressing the issues pertaining to the study area. Proposals for the study area should ensure that they aim to benefit the majority of individuals and for all activities to act in synergy with each other.

Should Settlers Way be allowed to grow in a haphazard manner with no spatial direction, this will result in poor land use management, a decline in environmental quality, uncontrolled settlement growth, etc. From an infrastructural point of view, this scenario does not offer an opportunity for sustainable forward planning, which could result in even more costly services in the future.

Scenario 2: Managed Development

Managed development is having proper development controls and guidelines for development put in place for effective and well-thought out development controls that considers all individuals and aspects. It assesses the path of least resistance of all stakeholders. It ensures that the areas which can be intensified are intensified. It also limits development within the areas that should be protected and looked after. It assesses the pros and cons of each development and aims to find a middle ground that would ensure sustainability and accessibility.

Preferred Scenario

The preferred scenario selected is Scenario 2, Managed Development. This Scenario ensures that the urban fabric of the precinct can remain as it is and can be supported. More importantly, it allows improvement on aspects that are not supported. The Managed Development Scenario ensures controlled traffic and pedestrian movement and the allocation of land uses in the most appropriate manner.

Considering factors such as (i) current balance of land uses, current land development trends and (ii) proximity of erven to major transport routes and other land uses within and outside the identified node; preferred future land uses were identified and assigned to erven. It is to be noted that the uses assigned in this manner were based on a broad categorisation of uses.

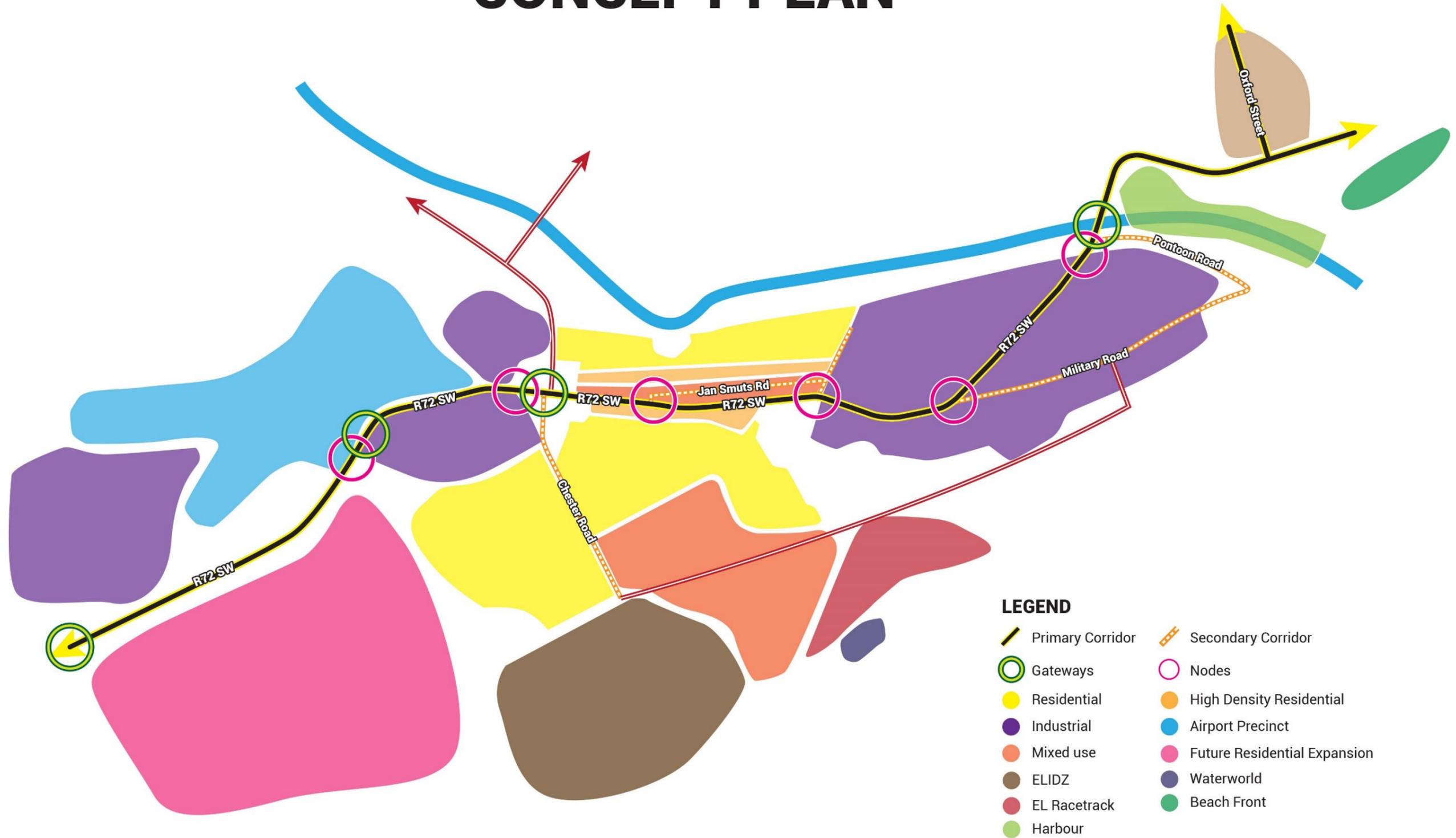
Concept

The Concept Plan shown below is a representation of the proposed concept of the study area. It highlights the main corridors as well as the proposed nodes, precincts and gateways into the study area.

The proposals aim to approach the LSDF in a manner that will produce high quality urban spaces and amenities for people to experience. The mixed-use developments aim to introduce a variety of uses within a space and to maximize land usage.

Mixed use proposals were also considered in the core of the study area as there is a high demand for office space, retail activity and commercial land usage within Sunnyridge and Greenfields, specifically along Jan Smuts Avenue and Settlers Way. The concept of Mixed Use is promoted in order to create compact living with ease of access whereby individuals would be able to easily access a multiple of activities. These would include their place of residence, office, retail, schooling, etc. with all these activities located within close proximity with each other. The mixed use precincts highlighted in the concept aims to be promoted to be developed in such a manner.

CONCEPT PLAN



LEGEND

- | | |
|------------------|------------------------------|
| Primary Corridor | Secondary Corridor |
| Gateway | Nodes |
| Residential | High Density Residential |
| Industrial | Airport Precinct |
| Mixed use | Future Residential Expansion |
| ELIDZ | Waterworld |
| EL Racetrack | Beach Front |
| Harbour | |

SPATIAL STRUCTURING ELEMENTS

Spatial Structuring Elements are practical tools, used to help shape the Settlers Way Corridor, in line with the Development Goals and Objectives discussed in the previous section. The following Spatial Structuring Elements are proposed to guide urban renewal and future development within the Settlers Way area.



These elements will be discussed and expanded upon below:

CORRIDORS

Corridors are described as, "pedestrian and vehicular movement networks through an area". Corridors within the study area can be divided into Primary, Secondary and Tertiary Corridors as well as Linkage Corridors, which are linkage roads leading to nodes or activity spaces.

The various types of roads can be classified according to their function into different levels within a hierarchy, for example local access roads, major arterial roads, district roads, and national roads. Each type of road performs different functions and has different implications for development and thus will be assessed based on its level within the road hierarchy.

Roads are the basic structuring element to an urban area, as it provides access to economic activity and thus determines accessibility.

The corridors within the study area are identified as follows:

TABLE D 1: Corridors

TYPE	LOCATION
Primary Corridors	-Settlers Way (R72)
Secondary Corridors	-Jan Smuts Avenue -Military Road
Tertiary Corridors/Major Linkage Roads	-Pontoon Road -Chester Road

Primary Corridor: Settlers Way (R72)

Settlers Way is identified as a Primary Corridor within the study area. This is due to the high intensity of the road being a Regional Road, a gateway into and out of East London as well as the major industries located within the general study area that are accessed off the R72.

The R72 is accessed from East London CBD, and over the Biko Bridge and passes past the Industrial sites, past the airport and continues through to Cove Rock, Winterstrand and to Port Alfred and further to Port Elizabeth.

Various activities exist along the corridor such as industrial, retail, residential, business, etc. It is also a major pedestrian roadway as many pedestrians utilise this road to get to their place of employment, as well as for retail.

A portion of the corridor will be upgraded with an extra lane on either side of Settlers Way, making it a 3 lane road one way, or a 6 lane road both ways, from the intersection of Settlersway and Chester Road through to the intersection of Settlers Way and Military Road.

Secondary Corridor: Jan Smuts Avenue

Jan Smuts Avenue is a vehicular and pedestrian roadway and acts as a feeder road between the high speed R72 and the residential area of Greenfields.

Jan Smuts Avenue is located parallel to Settlers Way at Greenfields. Jan Smuts Avenue was traditionally a predominantly residential area however, as of lately, it has grown in interest of businesses such as small scale supermarkets, bottle stores, internet cafes, etc.

Secondary Corridor: Military Road

Military Road is located south of the R72. And is accessed from Dr Zahn Road. Military Road leads back on to the R72. Many factories are also located along Military Road. Military Road is proposed to be upgraded to allow for trucks and vehicles to ease the traffic movement on Settlers Way. This is due to the increase in pressure experienced on Settlers Wat as well as the increase in production of Mercedes Benz and the new W206 model that they will be implementing a new shift for. The upgrade allows Military Road to be a proposed Secondary Corridor.

Tertiary Corridors / Major Linkage Roads: Pontoon Road

Pontoon Road which leads into Dr Zahn Road and Military Road is a feeder road, accessed past the Biko Bridge. It serves as a predominantly vehicular road and links on to Military Road and back on to the R72.

Tertiary Corridors / Major Linkage Roads: Chester Road

Chester Road is located past the residential suburbs of Greenfields or Sunnyridge. It is accessed off the R72 and leads to major areas such as the East London Industrial Development Zone (EL IDZ), and residential areas of Siyakha.





CORRIDORS



NODES

Nodes are identified as “areas of higher intense activity and the concentration of people”. Nodes are often formed at intersections and areas where activity and movement are concentrated. The intensity of nodes can be discussed as Primary, Secondary and Tertiary Nodes. Primary Nodes are the first priority activity areas and Secondary Nodes are the less intense activity spots, while Tertiary Nodes are minor activity areas.

The nodes along the Settlers Way Corridor are as follows:

TYPE	LOCATION
Primary Nodes	-Settlers Way / the airport
Secondary Nodes	-Settlers Way / Cotton Road -Settlers Way / Chester Road -Settlers Way / Pontoon Road -Jan Smuts Avenue / Camden Road
Tertiary	-Settlers Way / Sheffield Road

TABLE D 2: Nodes

Primary Nodes: Settlers Way / the airport

The characteristic feature of a node is the vibrancy of the particular area, which culminates from the high level of inter-activeness from the inhabitants of the particular area in which the node is situated. Alternatively, it is the inter-activeness of people who come into the area for business purposes, with the space itself. The Settlers Way / the airport node can thus be classified as a primary node, because of the high pedestrian and vehicular movement that takes place within this area. This movement is classified through the pedestrian movement of the working class on a daily basis to access their respective places of employment, the different classes of vehicular movement to access varying places of employment, the airport, as well as the R72 which is utilized as a trade and/logistic route. In addition to the above , major industries within the city of East London such as MBSA, East London IDZ, Clover Pty(Ltd), Barloworld Equipment, Transnet Port Terminals are located within this primary node, all of which contribute to activities that promote the vibrancy and sustainability of this primary node.

Secondary Nodes: Settlers Way / Cotton Road

Settlers Way / Cotton Road is located at an intersection where the majority of Mercedes-Benz employees (vehicular and pedestrians) and visitors enter through, to access the MBSA East London Plant. It is a major vehicular and pedestrian node. There are also informal traders located within the node. Many forms of public transportation also utilise this node to drop off pedestrians

Secondary Node: Settlers Way/ Chester Road

The Settlers Way/ Chester Road is characterised as a secondary node due to its current and potential trends. As mentioned in the corridor section, from the intersection of Settlers Way and Chester Road through till the intersection between Settlers Way and Military Road will become a 6 lane road, 3 lanes on either side. It is due to this that this intersection is vital as it will promote higher traffic movement, especially with the growth and development of the East London Industrial Development Zone.

This node is thus characterized as an area with current and proposed diverse land uses. The diversity of these land uses is what brings about a myriad of activities within this node, thereby contributing to the vibrancy of the area at all times. In addition to the above the diversity of the land uses brings about different classes of people, that interact with the space differently. Some are pedestrians, others motorists. What becomes evident from this node is that it is nestled within Sunnyridge, which is predominately residential in nature, thus this population services this node and vice versa. In addition to the above, within close proximity to this node, is George Randell High School, places of worship, an Engen garage and KFC Greenfields.

Secondary Node: Settlers Way/ Pontoon Road

The Settlers Way/ Pontoon Road secondary node is located within close proximity to the Buffalo River. Also close by is the Princess Elizabeth Harbour, which brings about a lot of activity and vibrancy, which permeates to the rest of node. This node is situated within close proximity to Sea Spirit Fish Market and the Buffalo Rowing Club, all of which are agents of social intercourse. This is a node characterized by business and transaction.

Secondary Node : Jan Smuts Avenue / Camden Road

The Jan Smuts Avenue/ Camden Road is a secondary node that is located within an area that is predominately residential in nature, with a large number of properties rezoned for the purpose of being utilized as bed and breakfasts. This the node

is characterized by the presence of a Shell filling station, Debi Lee Superspar, 2 Brothers Pizza in Greenfields as well as George Randall Primary. All of these are indicative of a transaction with the space, by various population groups, at varying times for different reasons, which are all prerequisites for an efficiently and optimally performing node.

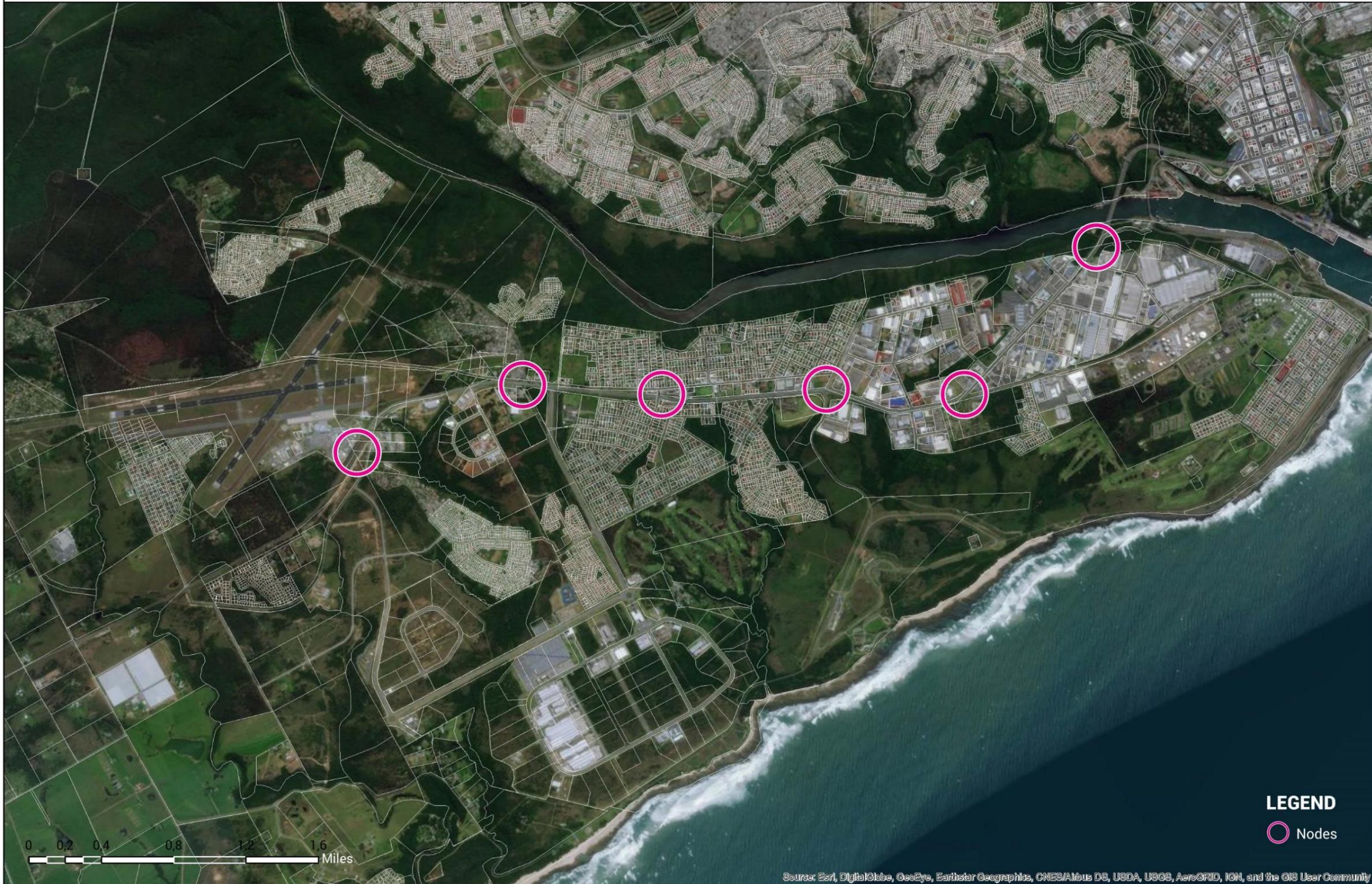
Tertiary Node: Settlers Way/ Sheffield Road

The Settlers Way/ Sheffield Road node is located within an area that is inherent of light industry activities such as panel beating, as well as industry such as Aloe Oil, Clover Pty (Ltd), Barloworld Equipment. All of the aforesaid have the characteristic feature of bringing activity in the area, through the employees work service these industries and the transaction base, which comes in the form of vehicular movement to and from these industries for the logistical purposes.





NODES



GATEWAYS

Gateways can be described as “entrance ways into a specific precinct, area or space”. Gateways can also act as nodal points, as they can form intersections and can contain a high movement of people as well as goods and services and activity.

Gateways into a specific area should have visual appeal and should have characteristics unique to the space one is entering into and should be pedestrian-friendly and inviting. Gateways are not necessarily physical barriers but are rather general access points or entrance ways into a space. There are various gateways present along the Settlers Way Corridor, some more distinct and used than others. These are discussed below:

TABLE D 3: Gateways

TYPE	LOCATION
Major Gateway	-Settlers Way across the Biko Bridge -Settlers Way at the entrance and exit into the EL Airport
Minor Gateway	-Settlers Way and Buffalo View Road
Proposed Gateway	-Bridge over Buffalo River

Major Gateway: Settlers Way across Steve Biko bridge

The Settlers Way across the Steve Biko bridge is characterized as a major gateway as it assumes the form of a medium of entrance into what is known as the industrial and/or economic hub of East London. It allows for the smooth flow and transitioning of the activities and movement from the central business district into the economic heart of the city. In addition to the above, it plays a pivotal role in the democratization of this precinct, through improving accessibility, by pedestrianizing this area, through the Steve Biko bridge. What this means is this area then becomes more inclusive, heterogeneous and diverse, incorporating people of the city from all walks of life. The move towards making the Steve Biko bridge more pedestrian-friendly, effectively incorporates those at the bottom of the social class in participating within this economic hub. In addition to this move towards a gateway that is more pedestrian friendly, is one that substantiates forging towards a more compact and green city model.

Major Gateway: Settlers Way at the entrance and exit into the EL Airport

The airport in itself can be characterized as a gateway in a myriad of varying dichotomies. The airport forms part of the economic heart of the city of East London, thus it can be characterized as the gateway for the movement of goods and services to and from the city, the gateway for international trade and relations, the gateway for investment, as well as the gateway for the movement of people within the city to their respective areas of employment. Within the local context the Settlers Way at the entrance and exit into the EL Airport gateway incorporates residents of Cove Rock into the industrial and/economic hub of city as well as greater East London. This gateway is also located along the R72, which is the gateway for trade and/or classified as the logistics or freight route, a gateway for trade between East London, Port Elizabeth and Port Alfred.

Minor Gateway: Settlers Way and Buffalo View Road

Settlers Way and Buffalo View Road is classified as a minor gateway, located within the Sunnyridge and Greenfields area. It plays the role of incorporating inhabitants of the aforesaid areas into the industrial/ economic hub of the city. This however is not done effectively, as special attention has to be made on pedestrianizing this gateway. What is found on this particular gateway is the lack of efficient space demarcated for pedestrians, as well as the large space occupied on the sidewalks by trucks that park for hours. This minor gateway also acts as a medium for leisure, as it is situated just a stone throw away from the East London Grand Prix Circuit. In addition to the above the Settlers Way and Buffalo View road, minor gateway is located with close proximity to East London Water World.



GATEWAYS

TSHANI
CONSULTING C.C.



PRECINCTS

In conjunction with identifying nodes and corridors, it is essential for a spatial framework to also identify potential precincts where a change in zoning may be allowed.

Precincts can be described as "larger areas within which activity occurs, often including nodes and corridors and are separated by different activities/land uses". This section highlights five (5) broad precinct types which are as per the general land use of certain portions of the study area. The precinct types are as follows:

- Mixed Use Precinct;
- Residential Precinct;
- Industrial Precinct;
- Retail Precinct.

DENSIFICATION

Densification refers to high density urban development having increased socio-economic diversity and improved public realm providing ample opportunities for social interactions and exchanges with pedestrian friendly and closed knit urban form having equitable access to goods, services and facilities thereby minimizing environmental degradation, thus sustainable. The need for densification in the modern context is growing as the population grows and cities grow outwards instead of inwardly.

The characteristics of the compact city include: High dense settlements; Less dependence on automobile; Clear boundary from surrounding areas; Mixed land use; Diversity of life; Clear identity; Social fairness; Self-sufficiency of daily life and; Independence of government.

As the population increases, so is the need for high density residential housing in the form of high-rise flats etc. to accommodate people as well as a structured public transport system, which decreases the need for private vehicles and lessens the consumption of fuel. Densification or the compact city encourages mixed land uses which in turn encourages local employment, economic sustainability and diversification and the reduction of the need to travel to work and routine activities over long distances. Densification can be synonymous with sustainability as it increases access to different activities and the likelihood of spontaneous encounters. It is framed as a means by which to connect different parts of the city, to reduce segregation and increase security.

Densification can be achieved by expanding buildings vertically instead of horizontally, referred to as "vertical densification", that cater for a mixture of uses such as residential, recreational and business etc; moving away from single-use zoning and toward public engagement; creating affordable housing within the city centre to attract potential residents' and; prioritizing green transportation and building options

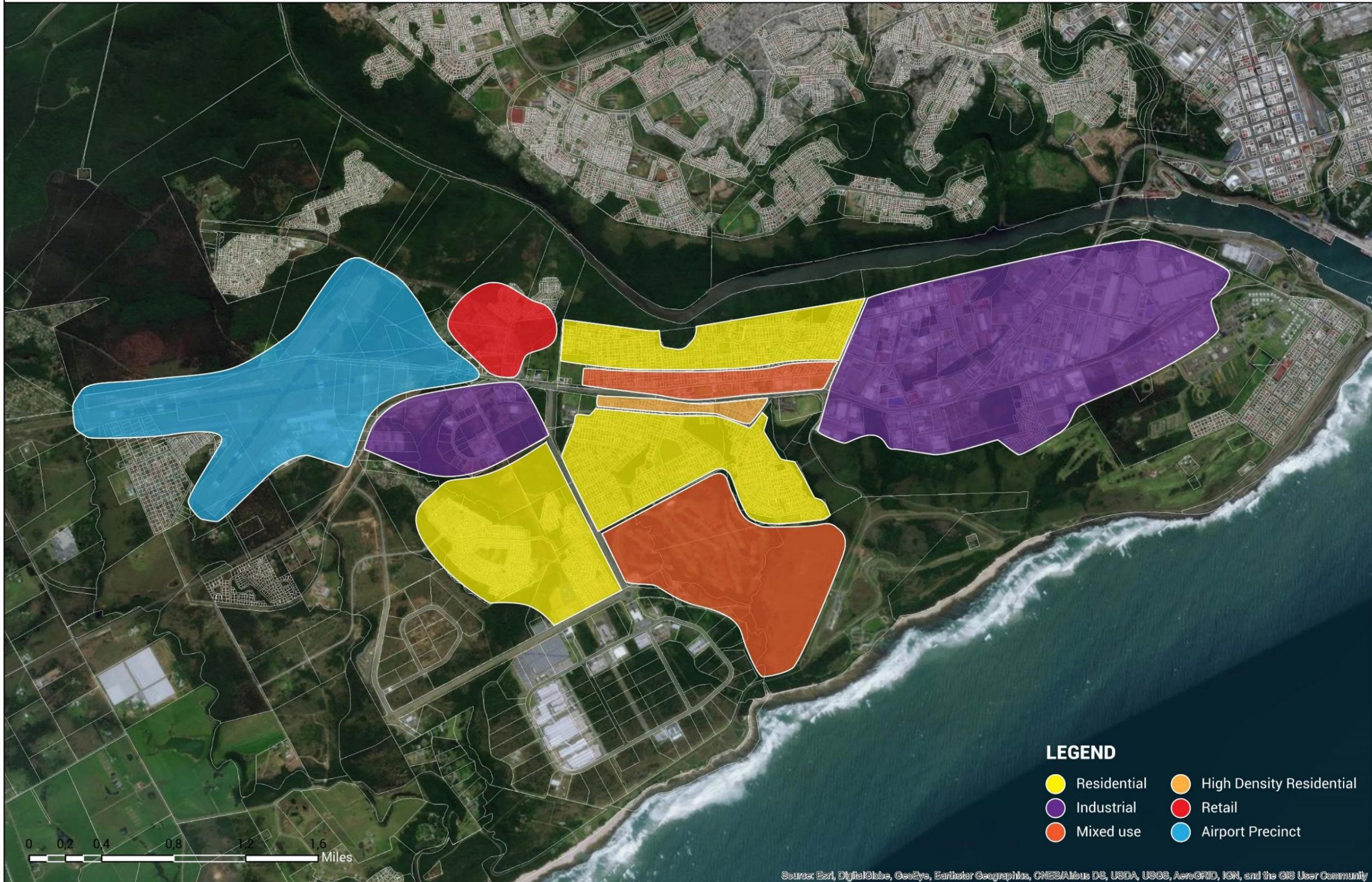
The development of vacant or under-utilised land within existing urban areas is also a consideration within the context of Settlers Way. In order to promote more compact urban development, attention should be given to those areas that are not densely developed but are well serviced and centrally located. These gaps within the urban fabric should be identified for priority projects. Vacant land within the central area provides infill opportunities to make use of existing services and to strengthen internal development. Vacant land beyond the central area provides opportunities for linking and integrating peripheral areas.

The densification processes to be adopted are dependent on the spatial context of the development, the site-specific characteristics, the capacity of the existing infrastructure and the impact that the development will have on the environment. Consideration also needs to be given to the negative community perceptions of densification and to the constraint of low-cost housing delivery processes that provide very few options for increasing densities.

In order to ensure long term sustainability within the central area and meet the demand for gap and social housing it becomes important to increase overall densities through both the compaction of existing areas and through infill. The central area provides a unique opportunity to densify due to excess service capacity and is the most accessible in terms of providing additional services and infrastructure. Specific densification initiatives, either through compaction, infill or redevelopment, would be prioritized based on where accessibility and amenity are greatest and where impacts are least likely to occur.



PRECINCTS



MIXED USE

Depending on the land-use mix and the location of development, it may not always be desirable to have a mix of uses on one land parcel. The issue of mixed-use needs to be viewed at two scales:

- Macro-scale (i.e. within a local authority) - residential developments closer to work opportunities and business activities closer to residential areas should be encouraged, thereby achieving a better land-use mix over time.
- Micro-scale (i.e. on a single parcel of land) – strategies can be adopted to create a mix of land-use to create diverse, interesting and opportunity rich environments. Each case should be viewed on its merits; bearing in mind that overall a greater mix of activities is desirable.
- The ideal of having mixed-use development is not a blanket philosophy. There may well be areas in which it remains desirable to limit business activities.

PLANNING FOR WOMAN, CHILDEN, ELDERLY AND PEOPLE WITH DISABILITIES

Gender sensitive planning as well as planning for children, elderly and people with disabilities are essential to ensure inclusive planning that considers all residents of a city. This relates to planning residential settlements as well as the commercial hubs of a city. Settlement planning and design must promote safety, considering problems of crime and sexual violence in cities. 'Safe' design includes, for example, good street lighting and parks that are overlooked, but it avoids deserted spaces or areas that are not peopled for parts of the day and places where attackers can easily hide or where women are easily trapped, such as subways and alleyways. A feeling of safety can also be created through soft, and visible spaces as opposed to hard walls that offer no view into the development. This creates the feeling of isolation.

Allocation of wider paving needs to be accommodated to ensure sufficient space for a wheelchair and for parents walking with a pram. The needs of these specific individuals allow for ease of crossing roads via ramps.

When considering children and the elderly, consideration needs to be given for allocation of rest spaces such as benches and parks to allow for residents to be able to take a break while en route their destination.

INFORMAL TRADING

Informal trading is a key component of the lifestyle of Dar residents. Informal trading refers to the development of retail along streets through property owners operating a shop in the front of their property.

This activity should be formalised in certain areas to allow traders to operate in a safe and inviting manner and to allow for pedestrians to also shop.

CITY BRANDING

Developing a city brand is essential when aiming to generate pride in the space that people move within. City branding can be enforced through urban art that is designed through a theme that users can relate to and continuing with that theme through the selection of design colours, material, welcome spaces, etc.

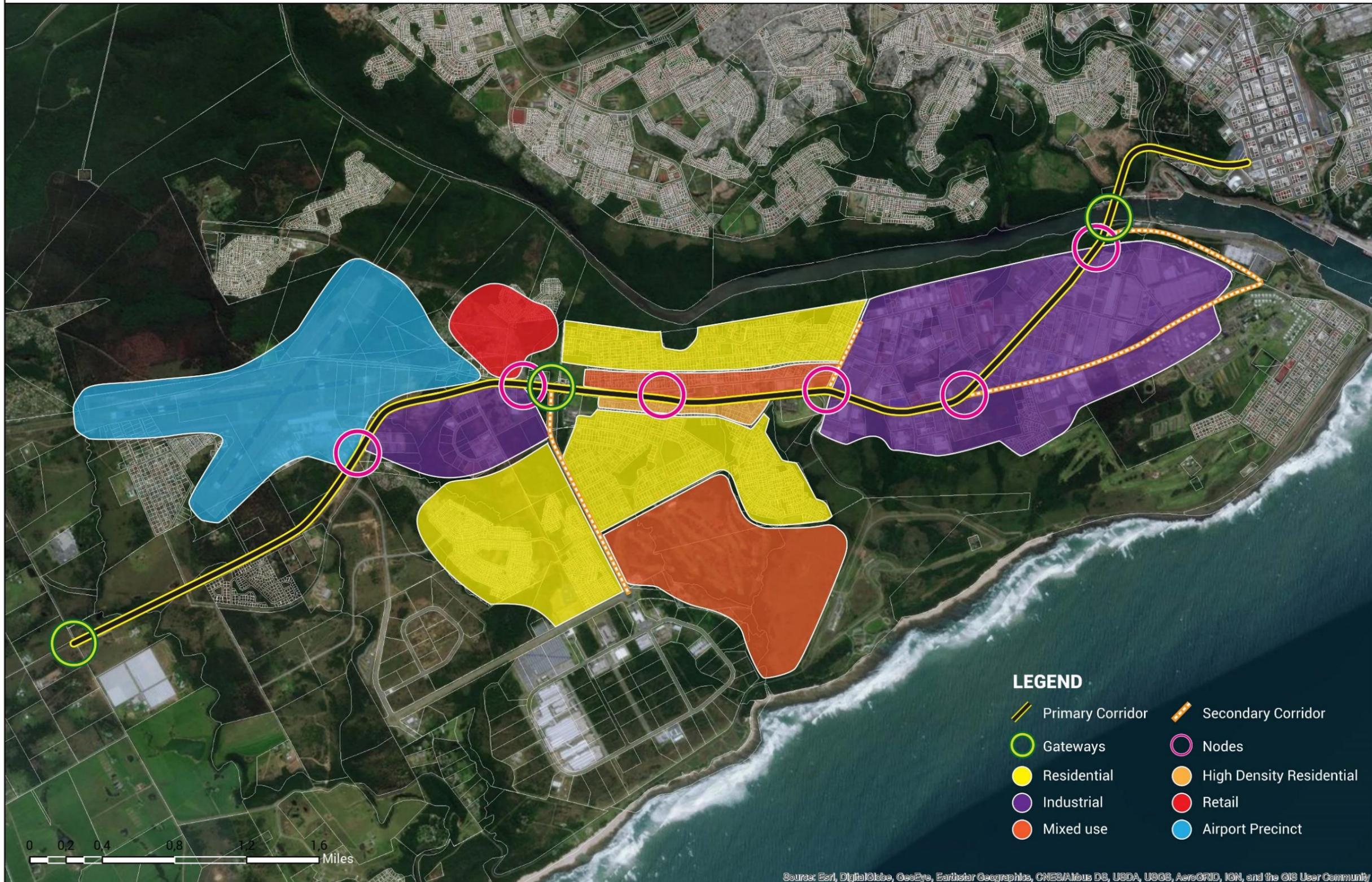
Branding should be enforced through all aspects of design and developments of city spaces.





OVERALL SPATIAL STRUCTURING ELEMENTS PLAN

TSHANI
CONSULTING C.C.



PROPOSED LAND USE CONCEPT – PRIMARY STUDY AREA

In support of the above-mentioned developments and the outcomes of these developments, pressure will be on the need for residential provision within the study area. In order to provide an increase in the residential offering within the Primary Study Area, there is a need to promote an increase in density to allow for more compact development and subsequent thresholds for lower and higher order services required.

Through increasing the density within this area, a possibility of 6 x more housing units can be accommodated within the designated space.

A growing desire for mixed use is experienced along Jan Smuts Avenue, therefore the proposal along Jan Smuts Avenue is for the provision of a mix of uses which does not limit the use to only be office but rather also small-scale shops, restaurants/cafes, etc.

Sub Precinct 1: Mixed-Use Precinct

The Mixed Use Commercial Residential Land Use is to blend residential, commercial, cultural, institutional or entertainment uses into one general area. This is promoted to allow for the ease of access through the variety of uses. In this case, the zone blends residential and commercial and industrial uses of the general area.

Mixed use development allows for a multi-storey development designed to accommodate commercial activities such as shopping, coffee shops, convenience stores, etc. on the ground floor and residential on the upper floor. The ground floor and first floor could also accommodate office use.

The concept aims to promote density and boost the economy of East London and to also cater for the users of the space.



Due to the predicted increase in population within the West Bank, it is predicted that an increase in Housing supply would be necessary. Key consideration also needs to be given to how people, goods and services can be mobilised with viable transport alternatives within these areas.



Sub Precinct 2: High density Residential Precinct:

The plan below highlights the high-density residential component. The desired spatial outcome of this proposal is to consolidate properties in the form of a block development and develop higher density units of 3-4 storey mixed used units with retail / coffee shop on the ground floor and residential further above.

At a density of 50 dwelling units per ha, this proposal has potential to accommodate approximately 1 400 units on the presently 251 erven. That equates to approximately 5 times the current number of units.

Sub Precinct 3: Maintaining the Low density Residential Precinct:

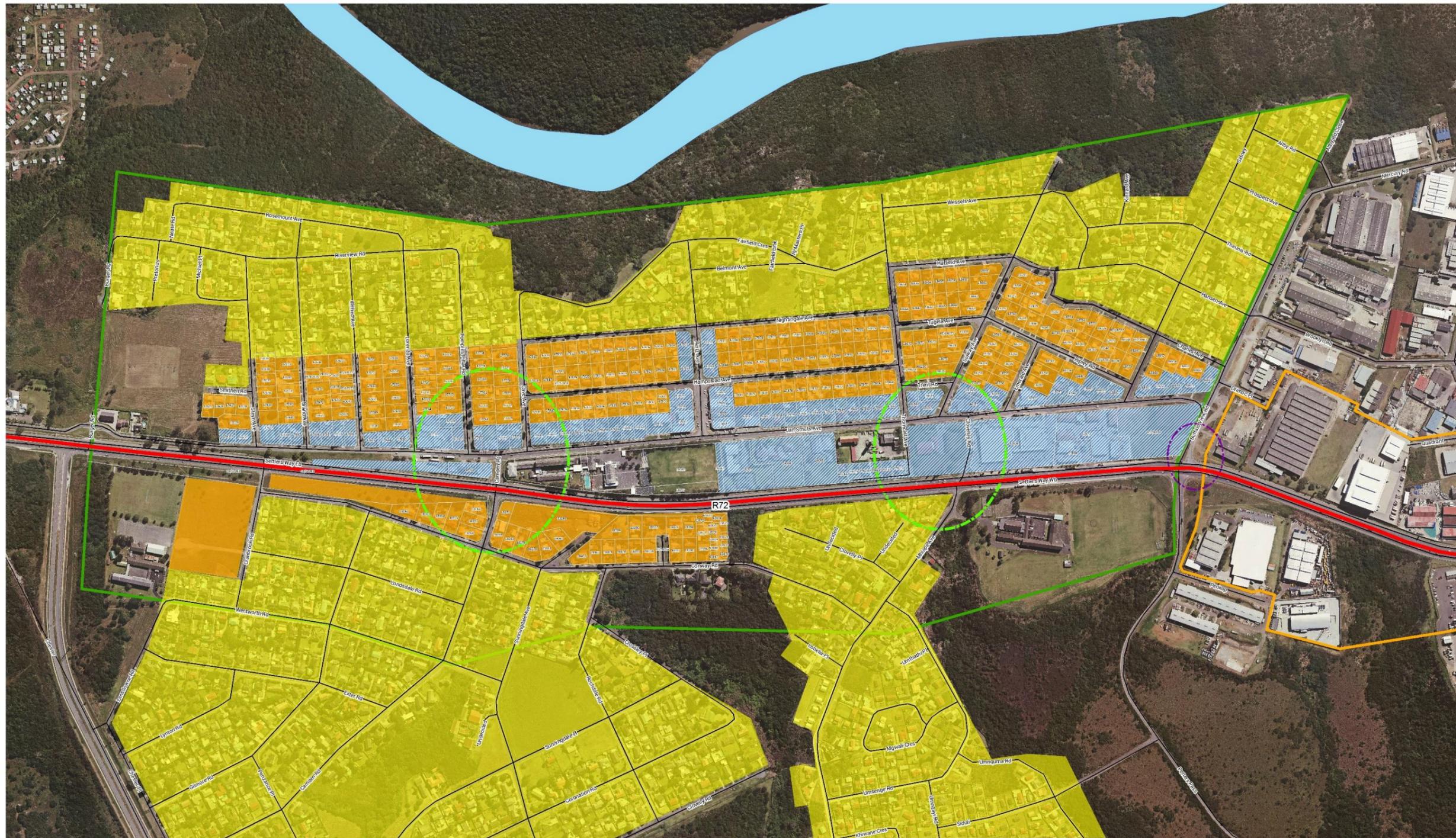
The plan below highlights the areas where low density residential will be maintained. This will be to the north of Greenfields and south of Sunnyridge.



SETTLERS WAY LOCAL SPATIAL DEVELOPMENT FRAMEWORK



PROPOSED LAND USE CONCEPT PLAN



Legend

- R72 Settlers Way Road
- Roads
- - - Future Primary Node
- - - Future Secondary Node
- Cadastral
- Mixed Use
- Medium to High Density Residential
- High Density Residential
- River
- Primary Study Area
- Secondary Study Area



Sub Precinct 1: Mixed-Use Precinct



PREFERRED LAND USE

Office / Business
Retail/ Restaurant/Coffee Shop
High Density Residential

PROPOSED ZONING

Business Zone 2
Residential Zone 4/5

DESIRED SPATIAL OUTCOME

The desired spatial outcome for sub precinct 1 is for the allowance of Mixed Use to provide for the needs of variety of land uses for the community of the Sunnyridge / Greenfields region. This proposed land use allows for the expansion of the commercial component to be contained within this region to allow for a high intensity mixed use street which would act as a vibrant, high activity street of varying land uses.

This Sub Precinct allows for Retail, Restaurant / Coffee Shop on the ground floor and an option of Office / Business on the first floor and further residential on floors above that.

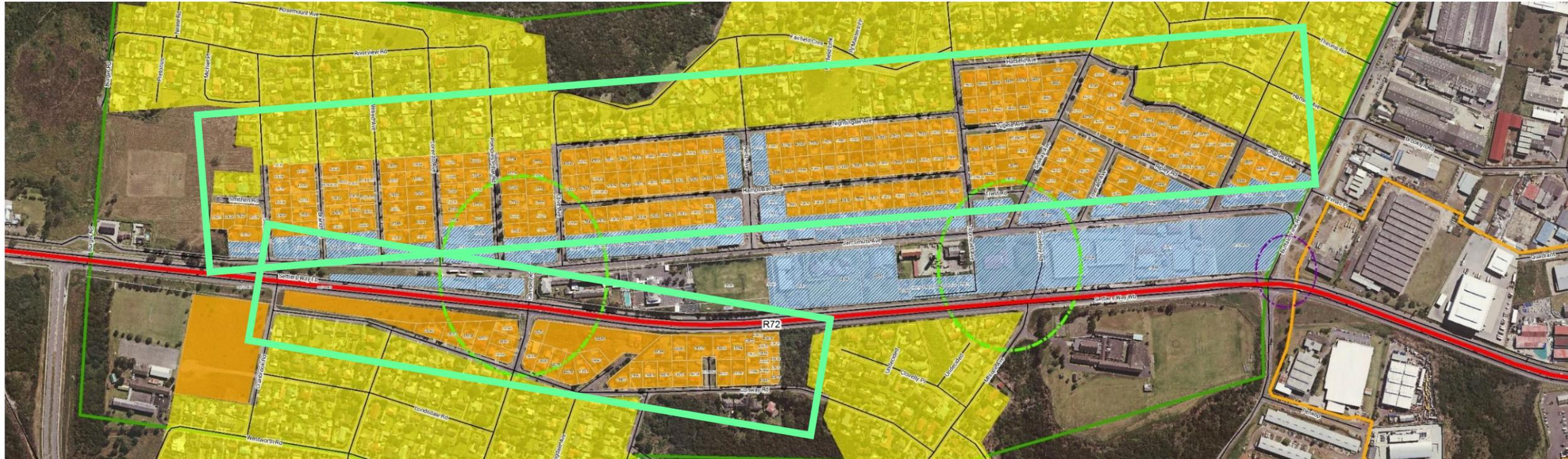
The properties which make up this node, are preferably to be developed as a fully integrated mixed-use development with the focus being on retail, office and residential land uses.

The following additional development requirements are applicable to this node/sub- precinct:

2. The entire Sub Precinct must be physically, functionally and aesthetically integrated;
3. The scale and location of the development is to be compatible with the surrounding neighbourhood.
4. A residential component must be part of the development and be consistent with the objectives of the mixed use concept.
5. Locate active uses such as retail shops and restaurants at the ground level to provide pedestrian interest.
6. The street view of the development is not to be visually dominated by vehicles and vehicle access points;

7. Windowless, blank or uninteresting walls of buildings facing the street frontage are to be avoided.
8. Single use buildings will not be considered to be in keeping with the integrated Mixed Use objective and aesthetic required within this node;
9. In the event that properties are individually developed, access servitudes may be required at the points mentioned below.
10. Parking is to be set at the rear of all buildings in such a way as to create an aesthetically pleasing and pedestrian friendly street frontage;
11. Signage control level will be set at Minimum Control (See Signage Guidelines below). Departures from the signage guidelines can only be considered based on suitable motivation to the satisfaction of the Council.
12. Off-loading of goods for the commercial component is to be fully accommodated on site in a manner that does not affect traffic flow on or offsite.
13. Departures from height building lines, coverage and floor area ratio can be considered if they serve to achieve the above desired outcomes.

Sub Precinct 2: High Density Residential



PREFERRED LAND USE

High Density Residential

PROPOSED ZONING

Residential Zone 4 (HDR1 – 3) Maximum 2 storeys

Residential Zone 5 (HDR 4)

DESIRED SPATIAL OUTCOME

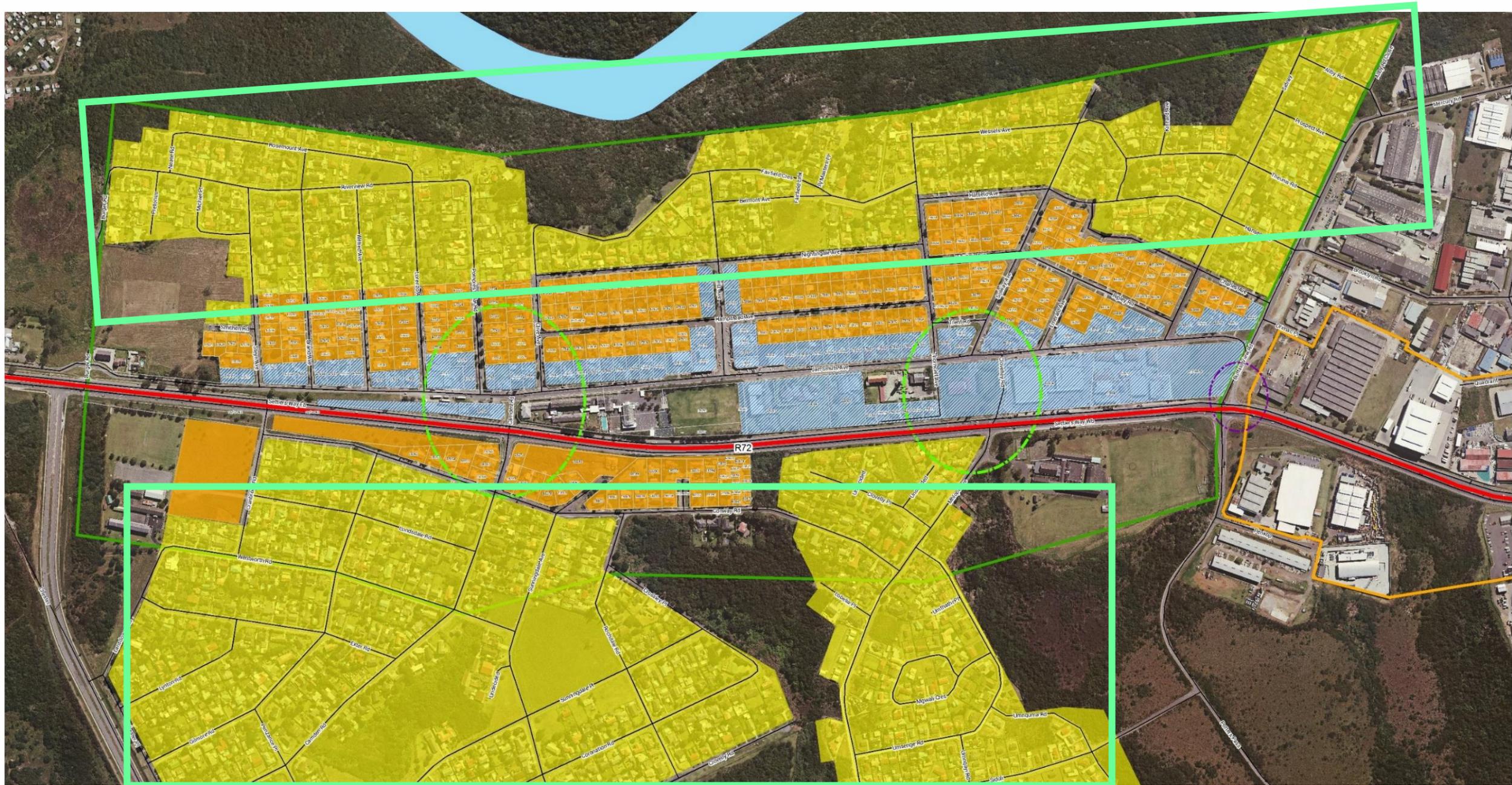
Gradual densification along within this region is promoted to allow for an increase in housing supply in support of the growing need for this usage within the broader Secondary Study area.

The intention is that this process is not to have a negative impact on the liveability and residential amenity of the surrounding erven but rather to operate in synergy with the various surrounding land uses and to allow for the viability of the mixed use sub precinct.

Development criteria:

2. Consolidation of blocks to be preferred with single block of high density residential development preferred with block of flats or town housing type developments promoted;
3. Parking to be provided for within the development as per the parking guidelines of BCMM Town Planning Scheme;
4. Departures from the minimum erf size of 2000m² as required in terms of the Zoning Scheme will be approved subject to a careful assessment of the comments/objections of neighbours
5. Consent from neighbours is to be sought at the pre-submission phase of the application
6. Departures from the side and rear building lines are not encouraged.

Sub Precinct 3: Low Density Residential



PREFERRED LAND USE

Low Density Residential

PROPOSED ZONING

Residential Zone 3 (A, B, C)

DESIRED SPATIAL OUTCOME

Low density Residential is allowed within this precinct as it aims to provide for this need within the Sunnyridge / Greenfields region. It also aims to allow for the variety of land use type.

Development criteria:

- 7. Development within this Sub precinct are to adhere to the BCMM Zoning Scheme;

Section E

LAND DEVELOPMENT GUIDELINES



GENERAL DEVELOPMENT PERFORMANCE CRITERIA

The following Performance Criteria are established in respect of land development processes within the study area:

- Identified development nodes and corridors are the preferred locations for retail, office and other commercial uses and encroachment of these land uses into other areas is discouraged;
- Buffalo City Municipality shall levy a development contribution in respect of an approved land use change, where such change will result in an additional load on existing infrastructure and road networks;
- All land development proposals shall comply with the requirements of the East London Zoning Scheme to ensure adequate parking is provided for vehicles on-site, without compromising the character and appearance of the built and natural environments;
- On-site signage is to be in compliance with the East London Zoning Scheme (in respect of Occupational Practices from home) and the Buffalo City Municipality's Advertising Signs Policy;
- The SDP (Site Development Plan) must indicate how the rear of all developments will be adequately secured and monitored after hours;
- The SDP must indicate where adequate security lighting is to be provided for all developments in a manner that does not intrude on or lessen the amenity value of neighbouring properties;
- Appropriate Landscaping must be provided in order to enhance the aesthetic appeal of the business precinct, contribute to Co2 emission reduction and storm water management and, where appropriate, complement existing landscaping and landscaping themes;
- The SDP must comply fully with Clause 4.23 of the East London Zoning Scheme.
- A Stormwater Management Plan (i.e. a plan indicating how on-site stormwater is to be managed and introduced into the Municipal stormwater system) will be required for all developments before applications will be processed;
- The use of machinery, vehicles or equipment that cause a noise nuisance for extended periods of time is not to be permitted adjacent to residential land uses that are not identified in this Local Spatial Development Framework as being suited for non-residential uses. Site Development Plans must indicate the proposed use of such machinery, vehicles or equipment at application stage. This clause shall be inserted into all town planning approvals issued;
- Elevation drawings and proposed finishes may be requested and are subject to approval by Buffalo City Municipality.

- No alterations to or demolition of listed buildings older than sixty (60) years will be permitted without a Certificate of Approval issued by the Provincial Heritage Resources Authority in terms of the National Heritage Resources Act;
- Residential accommodation should not occupy ground floor retail street frontage within identified development nodes and corridors, which would be out of keeping with the established nature and character of a local area;

SPECIFIC DEVELOPMENT PERFORMANCE CRITERIA

In order that the desired outcomes for each precinct are achieved, specific development criteria have been formulated for the applicable land use uses and zonings involved. This means that the LSDF does, in places, impose further restrictions or departures from the Zoning Scheme in order to achieve the desired outcomes.

PROPOSED LAND USE CATEGORIES

5. Residential: Zoning: Res 1 - 5

Residential use is the prominent use within the Sunnyridge/Greenfields area as the suburb was developed around the need for residential homes. It is essential to ensure that the residential fabric of the area remains intact and that land use proposals do not conflict the residential use or reduce the attractiveness of the area for residents.

The analysis has indicated that there are also a significant number of families who require affordable housing within the study area. It is proposed that a component of smaller more affordable housing units be included as part of the proposed Mixed Use Precincts and Precincts identified for low intensity office uses. In light of the above it is proposed that the existing process of densification of the residential area be encouraged. A possible social housing development in the study area has also been included in the proposals.

6. Retail: Zoning: BUS 2

Retail activity can complement office and residential uses as these activities can work in conjunction with each other as a mixed-use precinct.

7. Industrial: Zoning: Industrial 1/2

Industrial activity is located within the secondary study area.

8. Mixed Land Use: Zoning: BUS 2 / BUS 4

Precincts and Nodes promote mixed land use to accommodate a variety of land uses within a general area to allow for ease of access and to decrease the need to travel. Mixed land use allows for compact urban development and to ensure

the optimal of spaces. Mixed Land Use includes activities of office and residential in smaller combinations in order to achieve set policy objectives.

Mixed Use can also include a variety of land uses within a space which allows for the ease of access to this variety of land uses. Such an example of mixed land use would be a development which includes retail at the ground floor (public access), Office use at the 1st and/or 2nd floor (semi-public/private), and residential (restricted access) on further floors above. This type of development ensures the maximum usage of space; ensures that the development is in constant use; during various hours of the day and most importantly, ensures the creation of a compact, and accessible city model. This type of development is encouraged for all the identified Mixed Use Precincts. Specific Performance Criteria have been formulated for each Mixed Use Precinct.

SIGNAGE GUIDELINES

The approved BCMM Advertising Signage Policy indicates:

“Outdoor advertising and signs should not compromise the functioning and safety of traffic and should not adversely affect the character of a locality by way of appearance, size or illumination”.

“The local character of an area in which a sign is proposed will affect the degree of control applied in that area.

It recognises that the dynamics between the type of the sign, the sign itself and where it is to be located can most effectively be dealt with by the determination of **areas of control**. “Areas of control” are defined as those areas set out in Schedule 1 of the Policy; and **which may be modified and/or amended from time to time, which amendments and modifications will be graphically depicted by way of maps as prepared by the Municipality from time to time.**

TABLE E 2. Signage Categories

Four categories of control are used, varying from the most stringent to the most lenient. The four categories of control are:

SIGNAGE CATEGORIES (PER PRECINCT)		
1	Prohibited	N/A
2	Maximum Control	All residential
3	Partial Control	Low Intensity Office / Mixed use
4	Minimum Control	N/A

The potential for outdoor advertising and the sign types to be considered is therefore determined by permitting certain sign types in certain areas of control”.

1. PROHIBITED

No advertising signs are permitted in these areas.

2. MAXIMUM CONTROL: RESIDENTIAL AREAS, SENSITIVE AREAS, AND AREAS OF CIVIC INTEREST

Signs may be permitted under strict control of the design, size, location, colour and number of signs, but the Municipality reserves the right to prohibit signs other than those giving the name of the owner or main tenant or the name of the building.

In Sensitive Areas and Areas of Civic Interest the following controls will apply in addition to those set out in the paragraph above:

- (i) Only one sign will be permitted for each street frontage of a property;
- (ii) The materials and colours of the sign must harmonize with the building;
- (iii) Only concealed backlighting or floodlighting of signs will be permitted.

3. PARTIAL CONTROL

Signs in these areas are controlled in terms of size, position and subject matter and where required in terms of colour.

A businessperson will have the right to make his presence and the nature of this service known.

Partial control would apply within schools/educational institutions, sports fields and stadia, office blocks, commercial centres in residential areas, government enclaves and commercial ribbon development.

4. MINIMUM CONTROL

In the areas in which this category applies the main consideration would be public safety.

Minimum control would apply within industrial areas, commercial enclaves and shopping centres, entertainment complexes, transport nodes such as taxi and bus ranks, airports, etc.

Review of Spatial Policy

Given the above guidelines it is thus the responsibility of those departments who wish to define the areas of control by means of mapping to do so. The SW LSDF provides an appropriate opportunity for the Directorate of Spatial Planning and Development to demarcate the areas of control applicable within the Study area.

One of the objectives of the SW LSDF policy is to create an aesthetically pleasing environment along Settlers Way. Signage plays an important part in aesthetics and needs to be carefully controlled.

The intention behind allowing advertising signage is so that it can identify the business operating from on the site. If the business is retail then one can reasonably expect it to advertise its name and its products as well.

If the business is an office in a Bus 4 Zone then the intention of allowing signage is that it will serve to advertise only the name of the business operating on the property

The following Control areas within the SW LSDF study area are proposed:

1. With respect to the Areas of Control identified in Annexure 1 of the Advertising Signs Policy, the Bus 4b areas identified in the SW LSDF are regarded as Areas of Partial Control.
2. Within and adjacent to areas identified for Bus 4b, advertising signage as per Annexure 4 and 8 of the Advertising Signs Policy will be allowed but notwithstanding the aforementioned Policy the size of all signage on any individual erf to be rezoned for Bus 4b must add up to not more than total maximum size of 1m². See plan.
3. No Transit Advertising signage will be permitted on the public roadway adjacent to any Bus 4B zoned erven.
4. All residential zoned erven within Greenfields and Sunnyridge are designated to be in the Area of Maximum Control.



Section F

TRAFFIC MANAGEMENT PLAN



Traffic Management Objectives

The following objectives have been identified as traffic management objectives pertaining to the study area:

- To provide for safe and efficient traffic circulation;
- To ensure that proper provision is made for the safe and effective movement of through traffic along major roads within the study area;
- To ensure that there is no significant intrusion of traffic associated with the business precincts into the surrounding residential areas;
- To maintain accessibility within the study area for all modes of transportation.

Traffic Safety in the West Bank

The current traffic accident record within the West Bank is reflecting a high injury and death rate is considered unacceptable, particularly with regard to pedestrian fatalities.

The incidence of accidents involving public transport vehicles is also high in relation to the number of licensed vehicles within the region – public transport vehicles are involved in almost ten times as many accidents per vehicle compared to the average of all registered vehicles.

Pedestrian Movement

Pedestrians and cyclist are in general poorly catered for in the primary study area in terms of safety. In many instances there is no formal surfaced pedestrian or cycle facility / path, while the footpaths observed along the primary study area indicate a heavy pedestrian demand.

A raised pedestrian/cycle facility crossing Settlers Way is suggested for further investigation. The improvement of existing and provision of new facilities where these are outstanding, for the non-motorised travellers, are mandatory along all the main routes in the secondary study area.

Non-motorised Transport

A significant number of people who do not have the means to use a private car or public transport for daily transport in Buffalo City gain access to work, education and other activities by walking. Cycling is an alternative but is significantly under-rated as a transport mode in Buffalo City.

The integration of pedestrian and bicycle facilities into the transport system promote improved accessibility to public transport interchanges and bus stops, work, school, shops, leisure etc. It promotes safer walking and cycling – and it also contributes to an environmentally sustainable transport system as a whole. Non-motorised transport (NMT) is an inexpensive means to make short trips within the City, and it also benefits personal good health and fitness. While attention has been given to providing safe pedestrian sidewalks/walkways on major roads in Buffalo City, this has been in the absence of an overall plan and priority for the Buffalo City Municipal area.

Special Needs Transport

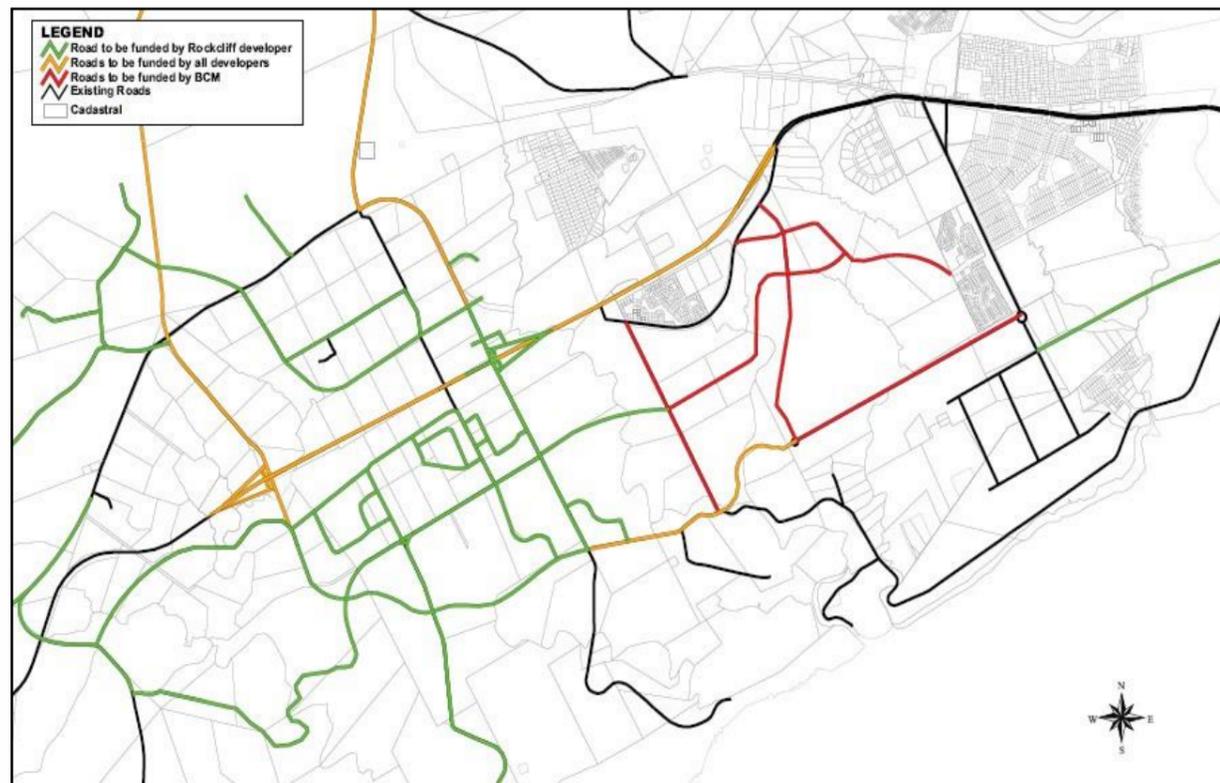
Some of the existing and would be transport users in the West Bank region have physical, mental or age-related circumstances that inhibit their unrestricted use of the existing transport system. These persons with "special needs" must have reasonable access to the transport system.

Investigations which formed part of the national transport policy making initiatives in South Africa over the past decade defined three categories of special needs persons, which clearly show that special needs of transport users go beyond the need to accommodate wheelchairs. The categories include "life cycle passengers", who include children below five years of age, the elderly older than sixty five years and pregnant women. Impaired and functionally disabled passengers include the mobility disabled, sight and hearing impaired and the mentally handicapped.

Buffalo City adheres to the principle for special needs persons which ensures that all projects are planned, designed, implemented and operated making sure that all persons can use the facility, service or vehicle involved.

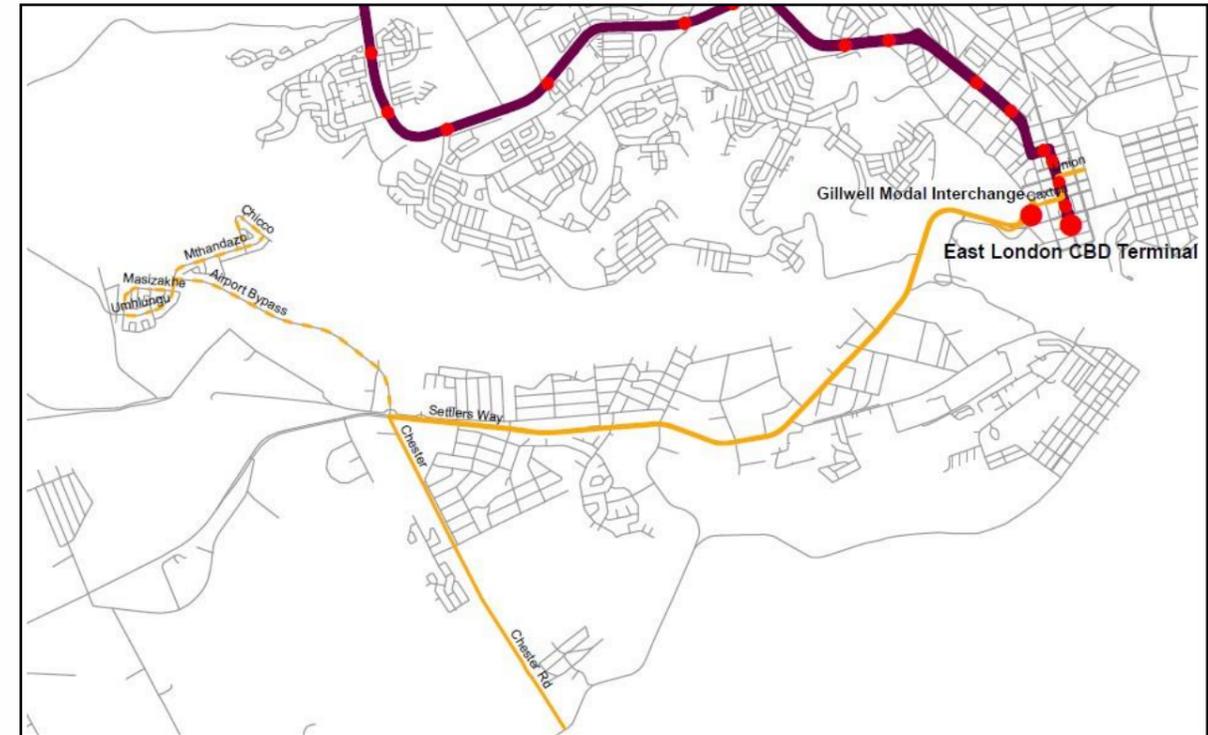
Proposals

Buffalo City has undertaken a traffic management plan for West Bank/Rockcliff area. The study determined the required road network required to open the area up for development. Figure 14 below illustrated the required road network that has been identified to accommodate potential developments in the area. It should however be noted that this road network should be flexible within certain parameters based on proposed developments as they are received by Buffalo City.



The full development of this area also included the new link over the Buffalo River as this is a critical link in the future road network for the City.

In addition to the proposed road network, it is important to note that the BRT is to extend to the West Bank. At this stage, the extension is to the East London IDZ. However, as developments take place in the Rockcliff area so will the demand for public transport increase to a stage where the BRT will be extended to cater for this increased demand. Figure 15 indicates the proposed BRT towards the IDZ.



New Buffalo River Bridge

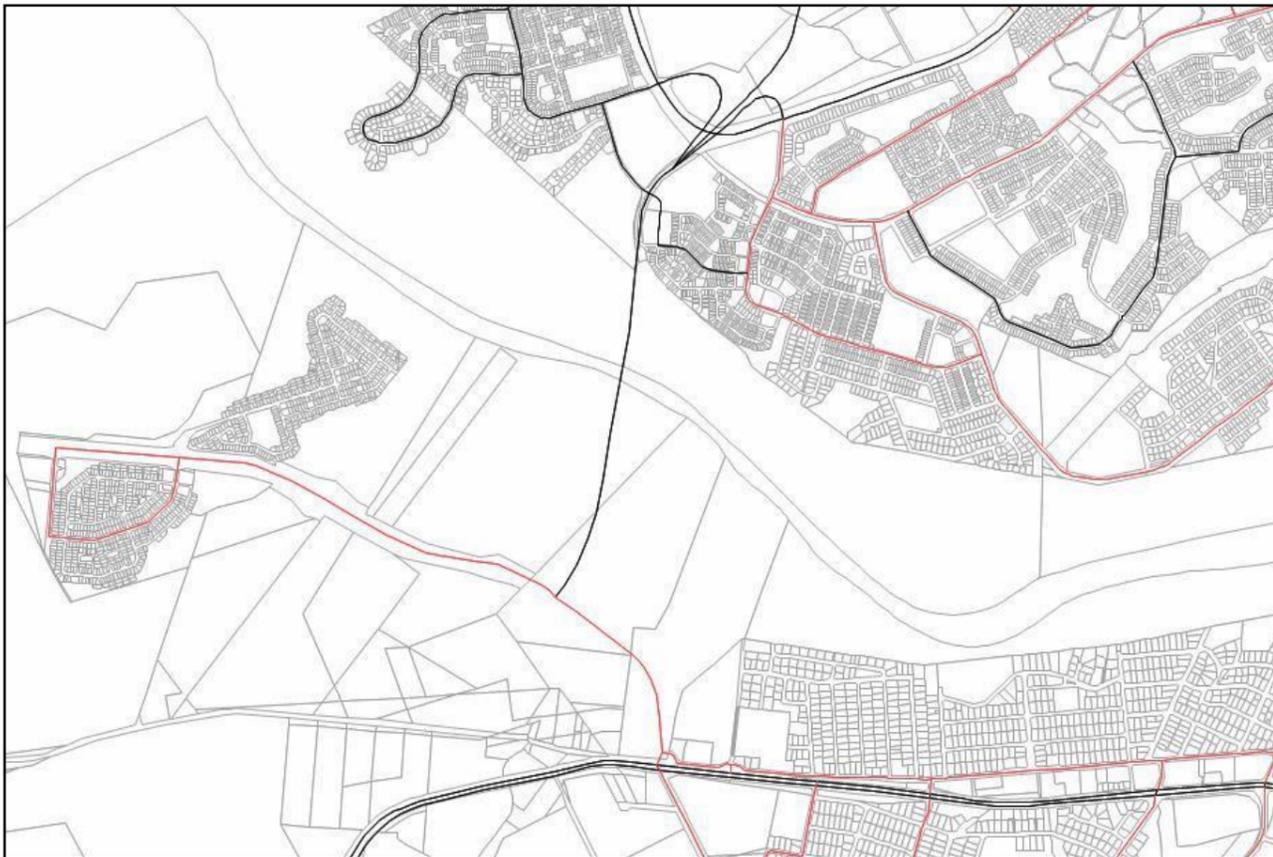
One of the key transport projects that would have a significant impact on the transport in Buffalo City is the new Buffalo River Bridge, including approach roads. This north-south by-pass will also serve as a more direct link between the Mdantsane and East London corridor to the West Bank Industrial area. The separation of the West Bank from areas to the north of the Buffalo River has had a significant effect on the form of development north and south of the Buffalo River, but also on access to the West Bank.

The fact that crossings of the river can only be made at the existing Settlers / Pontoon bridges and 7,5km upstream at the Buffalo Pass bridge results in longer journeys to reach workplaces on the West Bank for residents north of the Buffalo River than could be achieved with a more direct route. The limited number of crossings has also resulted in concentrations of traffic flowing through the CBD and a growing level of congestion on the Settlers Way route.

The feasibility study entitled "Buffalo River Bridge and Arterial Road Link between the N2 and R72: Part C – Transport Planning Report" provides a detailed analysis of the need for the New Buffalo crossing.

The study provided greater clarity on the alignment and geometric configuration of the route of the arterial linking the bridge with the N2. The bridge should be constructed with sufficient width to accommodate four traffic lanes, pedestrians and cyclists.

This road will serve increasing volumes of traffic while at the same time require attention to give priority to road-based public transport vehicles that will form a major component of the corridor linking the IDZ with the residential suburbs situated north of the Buffalo River.



Traffic Impact Assessments and Site Traffic Assessments

Developments should be implemented in such a way that minimises their impact on the road network. In order to achieve this, traffic and transportation matters need to be addressed in the early stages of the development. To this extent this TMP addresses the overall anticipated impact of possible developments in the study area. The TMP is however general and does not address the specifics of a particular development as the extent of each development is only made known at the application/building plan stage.

The required improvements to the road network, and on-site improvements, for each development therefore should be addressed at the SDP approval stage. The issues which need to be addressed include parking, loading, public transport, non-motorised transport, access improvements, intersection improvements, road safety, etc. The type of development and size thereof will require either a Traffic Impact Assessment (TIA) or Site Traffic Assessment (STA) to be undertaken, Reference Twelve.

The following may be used as a guide as to determine when a particular type of Traffic Assessment is required. Table F.5 is a basic guideline as to when either a TIA or a STA is required. In addition to Table F.5, the following land use related procedures may also warrant a Traffic Assessment:

- Township establishment when agricultural holding is converted to urban land in terms of various Town Planning and Township Ordinances;
- Rezoning where it is necessary to amend the Town Planning Scheme;
- Consent use applications where the local authority has the authority to consider and grant an application without referring it to a higher authority;
- Removal of restrictive conditions contained in the Town Planning Scheme;
- New or revisions to on site traffic facilities and access arrangements; and
- Changes to the public road network, including street closures.

Guidelines for requesting a TIA and a STA

No.	Application submitted	Trips generated*	Required study
No Traffic Impact Assessment			
1	1. Land use change or expansion of existing land uses	Less than 50veh/h	1. Input and conditions to be imposed by the Transport Planning and Operations Department
Traffic Impact Assessment			
2	1. Land use change or expansion of existing land uses	More than 50veh/h	1. Traffic Impact Assessment required 2. Traffic and transportation conditions to be recommended in TIA and approved by the Transport Planning and Operations Department
Site Traffic Assessment			
3	1. Land use change, or 2. Erection of building or structure, for which a SDP is required**	NA	1. Site Traffic Assessment required 2. Traffic and transportation conditions to be recommended in STA and approved by the Transport Planning and Operations Department
Right of request by Transport Planning and Operations Department			
4	<i>Irrespective of change in land use and trips generated, the Transport Planning and Operations Department has the right to request either a TIA or STA to be undertaken whenever it feels that any component of the road network may be negatively impacted upon or the on-site situation warrants it</i>		

Parking and Manoeuvring on Sidewalks

No part of the public sidewalk or roadway outside the property boundary may be used by a vehicle to manoeuvre into and out of a parking bay. For this reason it is essential to have a distinction between the parking area and the public sidewalk. This will be achieved by placing a physical barrier on the boundary. The physical barrier must be either of sufficient height to be visible at all times to a motorist using the parking area, or alternatively, low enough not to cause damage to a vehicle that mounts the barrier unintentionally.

Public Transport Improvements

The following recommendations are made to improve public transport mobility along Settlers Way:

A paved pedestrian walkway, a structure with facilities for informal traders and a covered waiting area for public transport users should be constructed adjacent to Settlers Way.

Pedestrian and Cycle Facilities Improvements

Pedestrian sidewalks need to be standardised, continuous and to a level that is acceptable. For these reasons a number of new or improved sidewalks will be proposed. Some of the proposed sidewalks will go hand in hand with the proposed increase in the number of lanes along a portion of Settlers Way.

The following recommendations are made to enhance pedestrian safety:

- Raised pedestrian crossings are recommended at the approaches to all the proposed roundabouts to enable them to cross safely.
- The use of tactile paving on kerb edges at crossing points to alert blind pedestrians to the presence of an intersection and pedestrian crossing.
- The converting of the damaged sidewalks along Bonza Bay Road to concrete sidewalks.
- The introduction of new sidewalks along the sections of Bonza Bay Road where sidewalks do not currently exist on both sides. The sidewalk on the southern side should be of sufficient width to cater for both pedestrians and cyclist.

Section 6

URBAN DESIGN PROPOSALS

Urban design is the art of making places for people interaction. Urban design considers how people use and perceive space and take into account aspects such as safety comfort legibility and ease of access. It also considers all forms of movement such as private vehicles, public transportation, cyclists, pedestrians, etc. and the relationship that they would have with each other and how all forms can occur harmoniously within the public realm.

Urban design is essential for the creation of sustainable environments and would be the glue that sticks the economic, built environment and social life together. Good urban design can create lively spaces that would promote public interaction within space.

A 3D interpretation was developed of the proposals mentioned above and incorporated many urban design elements to provide an artist impression of what certain areas within the study area could look like. The following section takes the reader through the urban design principles which are essential within the study area, while the 3D images show how these elements can be applied to space.

The urban design principles as set out in the Development Perspective phase of this study are as follows:

4. Functional Greening and Beautifying

- a. Green Natural Systems
- b. Road Reserve Green Open Space
- c. Centre island and sidewalk along Settlers Way
- d. Beautified Centre Island, Traffic Circles, and pedestrian crossings
- e. Variety of paving material
- f. Trees as carbon mitigating tools

5. Sustainable Built Environment

- a. Mix of uses
- b. People-centred Place Making
- c. Public Realm
- d. Landmarks (could be celebrating local history)
- e. Safety and Security features

6. Accessibility, Permeability and Movement

- a. Accessibility
- b. Vehicular and Pedestrian Movement

Functional Greening and Beautifying

Green Natural Systems:

Green Natural Systems are green spaces which occur naturally. They are comprised of indigenous and alien plant species. This natural vegetation should be used as an asset by adding design features within and around this vegetation. It is necessary for these systems to be maintained and managed in order to maximise its natural beauty and most importantly, to ensure that they are appreciated by-and attract users.



Sufficient street lighting for pedestrians and vehicles:

It is essential to provide sufficient street lighting for the safety of movement of vehicles and pedestrians after the hours of day light. Lighting could be in the form of lamp posts that may be solar powered to save electricity or be located at the ground or higher up to provide different forms of lighting. Street lighting should be promoted along Settlers Way and along Jas Smuts Avenue specifically, as well as throughout the study area. Solar lighting should be promoted.



Greening the public realm

The concept of greening the public realm is essential within all environments. Greening includes the planting of trees, plants, flowers, etc. Planting trees offer many positives to a space. It acts to clean the environment, adds ambience and shade to a space as well acts as a noise buffer between the vehicular noise and the residential homes.

Greening is promoted within all sites within the broader study area. Factories are also promoted to have a concept of greening on their site to ensure that it is maintained throughout the study area and to allow the factories to also contribute to the greening of the environment.

Greening is also promoted along the centre island of Settlers Way where trees and flowers should be planted to give character to the area and to create a visually pleasing roadway to promote investor confidence in the city as the Settlers Way R72 links the EL Airport to the EL CBD, being the gateway into East London.

Greening is further promoted within the residential areas to allow for areas of shade for pedestrians while walking through the study area.



Green Building Design

There are many aspects that make up a green building. Eco-construction, also referred to as sustainable construction can reduce the environmental impact of buildings. A green building can incorporate sustainable materials such as re-used, recycled, recyclable, or materials from renewable resources in its construction. This is done to create a healthy interior environment with minimum pollutants and functional landscape planning that requires less water. Indigenous greenery or succulents can thrive without additional watering. The development must minimise light pollution. All light must be directed towards the building and not be directed towards the environmentally sensitive areas of the site. A green building is designed to reduce the overall impact of the built-up environment on human health and the natural environment. The outcome of green building development leads to the following:

- Reduction of operation costs
- Improving occupant productivity and quality of life
- Creating a market for green products and services
- Minimising the strain on local infrastructure

Green Construction Techniques

There are special techniques which are applied when constructing environmentally sensitive buildings. Stone, thatch and clay can generally be sourced locally while using reclaimed timber and recycled glass, tiles and aluminium is becoming ever more popular. Bamboo, cork and linoleum are also 'in' choices as they are manufactured from renewable sources.

Rainwater harvested from roofs and gutters can be used in toilet cisterns, washing purposes and irrigating the landscape while at the same time reducing the occupants municipal water account. The development must also consider creating channels so the 'grey' water from sinks can be directed into the garden or toilet cistern.

Eco-Friendly Interior

LED lighting should be used since they have a longer life span than incandescent light bulbs and more than make up for their extra expense by saving energy and significantly reducing electricity costs. Elements of nature can be introduced to building interiors in order to integrate the building with its surroundings.

Rooftop Gardens

Rooftop gardens are the practice of planting vegetation on a building's roof or terrace. It allows for the maximum usage of space through planting greenery on a usually underutilised space. The environmental benefits of rooftop gardens are clear. In addition to improving insulation and thereby reducing carbon emissions and energy costs, they're an intelligent solution for businesses that want to gain additional green open space. Green roofs can help to contain flash flooding and improve the quality of water run-off.

The benefits of rooftop gardens are shown below:

- They make use of unused or underused space
- A garden beautifies an eyesore
- They can provide privacy
- They can be extremely environmentally friendly
- They create ecosystems in support of biodiversity
- There is usually good sun exposure
- Support the local environment by helping to lower urban air temperatures, and improve air quality. Growing fruit and vegetables, which can be used by businesses to supplement produce they would buy



- Reduce heat loss and energy consumption in winter conditions
- Reduce cooling loads on a building
- Lower urban air temperatures / urban heat requires (requires concentration of green roofs island effect in metropolitan area)
- Reduce stormwater run off
- Provide increased sound insulation
- Improve building's LEED rating
- Increase roof lifespan

Solar Power systems

Solar energy is the source of the water cycle and of wind. Solar energy is the origin of all other energies on Earth. Solar energy is also inexhaustible on a human timescale and hugely abundant. Solar heating systems can be installed in all types of buildings. Using solar power to pre-heat outside air before it is allowed to enter a building can considerably reduce heating costs both in residential buildings and commercial constructions.

Geothermal Power

Geothermal energy is extracted from the ground for use in air conditioning, heating or transformation into electricity. This technology can therefore considerably reduce the use of fossil fuels or electricity, which emit much more greenhouse gases and which are generally less financially interesting in the long term. Geothermal systems present some major advantages. Effectively, underground heat is present everywhere on Earth. Geothermal energy comes from an almost continuous source that is not dependent on atmospheric conditions.

Natural Resources

The conservation of natural resources is the main objective of the green building approach. A natural resource is a raw material, whose properties are used by humans or other species to satisfy a need. Natural resources can run out, those that are non-renewable, their extraction can also have a harmful effect on the environment, causing deforestation, soil erosion, destruction of natural habitats. The exploitation of these resources generates pollution, which is harmful to the environment. Current construction, production and consumption methods are depleting the world's natural resources.

Therefore it is important to make use of materials that will take advantage of natural resources such as rainwater harvesting tanks, solar panels, etc.

Environmental footprint

The environmental footprint is a tool used to measure or evaluate the productive surface required by a population to satisfy its consumption of resources and its waste absorption needs. It is basically the pressure that humans put on nature; their influence on the environment. The WWF 2010 report found that the Earth has exceeded its bio-capacity by 50% and action needs to be taken to deal with the most urgent challenges. The recommendation is that there is a need to increase the number of protected zones, increase sustainable management of forests, stop the excessive consumption of water, promote biodiversity, sharing of limited natural resources and paying more attention to land use planning and allocating more land for conservation.



Climate Change

Greenhouse gas emissions are the biggest contributor to climate change and global warming and the energy used by buildings emits thousands of megatons of carbon dioxide into the atmosphere. Research shows that energy-efficient buildings are the most economical and fastest way to reduce greenhouse gas emissions. For this reason, governments and several organisations are demanding radical transformation in the construction sector to improve the energy yield of buildings and therefore they support the green building approach.

Beautiful Centre Island, Traffic Circles, and pedestrian crossings

It is essential to have significant traffic details noticeable to offer variety and to stand out to ensure that they are adhered to. We have thus showed a 3D interpretation of a beautified centre island with flowers and trees; beautified, raised traffic circles with flowers and sculptures to ensure that vehicles cannot drive over the traffic circle. Raised pedestrian crossings are also present at all intersections to ensure the continuous safe movement of pedestrians. Pedestrian crossings are also proposed to be beautified to ensure their visibility and to add colour and variety for attractiveness and to create a character.

These should be promoted along Jan Smuts Avenue as the proposal for this street is to offer a mixed use, high activity street catering predominantly for pedestrians. This creates identity of a street and aims to create vibrant, pedestrian friendly spaces.



Variety of paving material

A variety of paving material is proposed to differentiate between pedestrian space, cycle space and space dedicated for street furniture.

This is proposed along Settlers Way as well as Jan Smuts Avenue, where differentiation can be made between cyclists, pedestrians and urban furniture space.

This proposal is visually pleasing and allows for the differentiation of space for various users of space. It also limits congestion and ensures that the users are able to understand their movement in space.



Sustainable Built Environment

Mix of Uses

A mix of land uses ensures that a person's variety of needs are catered for. This is preferred to compact the city and to minimise the need of travel. A mix of uses allows people to be able to live, work and play within the same vicinity. It also ensures that there is continuous (24 hour) activity within an area. Constant surveillance in the area serves us a positive spinoff.

Mixed land use is proposed along Settlers Way and along either side of Jan Smuts Avenue.

Placemaking

Place making is the act of designing a space which has meaning to its users. It allows users to be able to develop a connection with the space to make them want to visit continuously. Features of place making include the aesthetic of a space, the way in which it is designed through the relationship between the public open space and the built space within a particular area. Components of a public space should include urban furniture such as lighting, benches, and bins where they should be designed in such a way that it would promote interaction amongst the users of the space or create a pathway through the area. Placemaking ensures the creation of an identity of a place. A positive identity can enhance investment for the area. Components that can create placemaking are the following:

- Public art
- Iconic or celebratory developments
- Natural features
- The general unique aesthetic of the area
- The ease of access between activities

Place making can be created through the greening and beautification of streets as well as through creating an identity of streets through the variety of paving types and through creating walkable, pedestrian friendly spaces.

These are promoted throughout the study area to ensure continuity and vibrancy throughout.

Public Realm and Street Furniture

The public realm is all spaces which is meant for public use including roads, sidewalks, public spaces, squares and public nodes. The public realm should be designed in such a way that it does not restrict any persons and is accessible to all. A well designed public realm ensures a combination of hard and soft spaces where hard spaces are designated meeting

spots, public squares and transportation nodes. Soft spaces are can be described as the landscape within the public space and more informal meeting spots and usually form the spaces in between the hard spaces.



Landmarks

Landmarks act as iconic points of a particular area. It allows a non-frequent user to be able to identify at first glance. Aspects in space which can act as positive landmarks would be forms of public art. Public art can also link itself to urban furniture where a bench could be designed in such a way that it also acts as a form of public art.

Safety and Security

This is where the creation of a safe environment is done through the design of the environment, rather than through the implementation of security cameras and guards. Such an ideal is created through lighting of the CBD after hours, active building edges whereby building activities spill over into the public realm, as well as through scattering a variety of activities around the precinct rather than congregating them at a singular spot.

Security on the street can also be achieved through passive surveillance which is where pedestrians have views of the street which acts as the security measure to other pedestrians. The more pedestrians are on the street, the safer one would feel as one would have the knowledge that another person can view them if they are being mugged or hurt while moving within the public realm.

Through design interventions within the study area, we aim to enhance the security for residents as well as for current and future investors. Such has been proposed through the following:

- Improved street lighting;
- Mixed uses (vertically and horizontally) to create 24-hour urban phenomenon – live/work/play;
- Perimeter buildings with active street edges to encourage “security by design” through passive surveillance/” eyes on the street”;
- “Build-to” lines, active street edges to avoid creation of recesses and corners along street edges.



Accessibility and Movement

Permeability

Permeability is the concept which ensures that persons of all modes of transportation to be able to move through or navigate space. It includes linkages between various activities and nodal points. The concept of permeability ties in with the concept of legibility which ensures that a space is easily read and understood. This can be achieved through signage which leads users to the direction of the activity or through the planting of trees, flowers or certain lighting which leads them to the spaces. The plan below highlights the areas where permeability needs to be advanced within the context of the study. It also shows the higher order and secondary and lower order of linkage routes. These are generally the routes that are used most often in each order.

Vehicular and Pedestrian Movement

In addition to accessibility, vehicles and pedestrians should be able to easily move within the study. Adequate parking should be provided for users as well as adequate bus and taxi stops along Settlers Way. Pedestrian mobility is imperative. Pedestrian crossings should be promoted and landscaping in order to provide a pleasing public pedestrian experience.

A key design feature to protect pedestrians is to accommodate raised hedges at street corners which add as a protective measure for vehicles and pedestrians.





Section H

IMPLEMENTATION PLAN



The BCMM BEPP has identified the Westbank Economic Corridor as a Catalytic Programme Area and has allocated a total budget of R 12 000 000 towards the project for the financial year of 2019/2020 and R 47 000 000.00 for the 2020/2021 financial year.

The following 5-10 year Implementation plan has been drafted from the proposals discussed in the previous sections.

The project proposals are aligned to the land use -, traffic - and urban design condition in the study area.

NO.	PROJECT DESCRIPTION	LOCATION	RESPONSIBILITY	BUDGET ESTIMATE	PHASING
Jan Smuts Avenue Upgrade:					
A	Roads Upgrade	Jan Smuts Avenue: From Spar to Buffalo View Road	BCMM Roads Department	R 40 000 000.00	Medium - term
B	Urban Furniture				
C	Street Lighting				
D	Street Art				
E	On Street Parking				
F	Tactile Paving				
Broader Context Upgrade					
A	Port of East London: Extend Main Breakwater and Deepen Entrance				
B	Revitalisation of the West Bank industrial area/ Motor Industry cluster				
C	Water World (Water Park): BCMDA				
D	West Bank WWTW				
E	West Bank Water Supply				
F	West Bank Restitution (housing)				
Settlers Way Upgrade: Airport to Gillwell Mall					
A	Landscaping/Planting of iconic plant materials flowers and shrubs along road island		Community Services	R 10 000 000.00	Short-term
B	Widening and raising of pedestrian walkway		BCMM Roads Department	R 20 000 000.00	Short-term
C	Planting of indigenous trees along sidewalk	Jan Smuts Avenue	Community Services	R 1 000 000.00-	Medium-term
D	Inclusion of built-in street furniture along pedestrian sidewalk (benches, bins, etc)	Either Length of Settlers Way R72	BCMM Traffic and Transportation Department	R 15 000 000.00	Medium-term
E	Solar street lighting	Settlers Way	BCMM Electricity Department	R 20 000 000.00	Short-term
F	Creative painting and surfacing of pedestrian crossing	Settlers Way	BCMM Traffic and Transportation Department	R 1 000 000.00	Short-term
G	Maintenance and cutting of grass along sidewalks and centre islands / replacement of grass with alternative materials. E.g. pebbles	Settlers Way R72	BCMM Community Services	R 1 500 000.00 (P/A)	Continuous
H	Landscape Design policy	Settlers Way R72	BCMM Community Services	R 300 000.00	Short-term
I	Stormwater Assessment, Demand, proposals Study	Settlers Way R72: Entire Extent	BCMM Engineering	R 550 000.00- R 650 000.00	Short-medium term

J	Wastewater Assessment including Sewer Capacity Assessment	Settlers Way R72: Entire Extent	BCMM Engineering	R 400 000.00	Short-medium term
K	Assess Settlers Way for possible conversion into left-in, left out	Settlers Way R72: Military Road to MBSA Entrance	BCMM Roads		Medium term
L	Informal trading facilities, absolutions, etc.	Settlers Way R72		R 15 000 000.00	Short – medium term
M	Taxi embayment with universal access	Settlers Way R72		R 5 000 000.00	Medium term
N	Raised pedestrian tables (estimates part of intersection)			R 5 000 000.00	
O	Tactile paving (estimates part of intersection)	Tactile paving on kerb edges at crossing points		R 5 000 000.00	
P	Universal access Sidewalks	Converting of the damaged sidewalks along Settlers Way R72 to concrete		R 4 000 000.00	Short – medium term
Q	Universal access Sidewalks	New sidewalks along the sections of Settlers Way R72 where none exist		R 2 000 000.00	Short – medium term
R	Settlers Way Upgrade: (Chester Road to Military Road)		BCMM Roads Department	R 40 000 000.00	
S	Upgrading of East London Airport Entrance	Entrance to East London Airport	ACSA	R 4 000 000.00	Medium - term
T	Bridge over Buffalo Ridge		National Government	R 200 000 000.00	Medium - term
U	Linkage from R72 to Buffalo Ridge Bridge		SANRAL	R 20 000 000.00	Medium - term
V	Linkage from N2 to Buffalo Ridge Bridge		SANRAL	R 40 000 000.00	Medium- term
W	Upgrade of Road Edge	Between Potters Pass and Clovelly Road: Both Sides	BCMM Roads Department	R 5 000 000.00	Short - term