

**PRECINCT PLANNING TO SUPPORT THE NEIGHBOURHOOD DEVELOPMENT PROGRAMME IN THE
LANGEBERG MUNICIPALITY: SUBMISSION OF INVESTMENT PLAN (MANAGER TOWN PLANNING)**

Purpose of Report

To give a final overview of the activities that took place since the appointment of the Consultant including the final Investment Plan.

Background

On the 11th June 2019, the Langeberg Municipality (LM) appointed Built Environment Partnership (BEP) for the provision of professional services for Precinct Planning required to support the implementation of the National Treasury's (NT) Neighbourhood Development Programme (NDP) in LM. The purpose of this appointment was to finalize a Precinct Plan for inter alia the social, economic and spatial integration between Nkqubela and the Robertson Town Centre.

The project is funded by National Treasury through the NDPP Programme. This Programme provides technical assistance and grant funding to municipalities for capital projects that will leverage further public and private sector investment.

The project period was over a period of eight months, from end August /early September 2019 to end April 2020. The programme was revised, however during the current and final phasing period the programme was also influenced through the Covid -19 Pandemic leading to the closure of offices and difficulty in signing documents. The programme was therefor extended by two months to accommodates these changes.

After the Evaluation Session that took place in Pretoria, valuable inputs were received from the various stakeholders and officials and incorporated into the Precinct Plan, an Investment plan were incorporated into the document. The final draft version of the document was submitted to LM and NT whereafter small iterations took place regarding layout, content, alignment and other changes required to approve the final report.

The Final Investment Plan for Robertson/Nkqubela was approved by National Treasury on 17 April 2020. The final version with all comments incorporated was submitted to LM in the 2nd last week of May, 2020.

The Investment Plan focuses on identifying and framing initiatives for implementation in a spatially targeted area. The outcome of an Investment Plan must focus on a detailed composition of the future spatial structure of the identified precinct area by means of maps as well a design guideline. In addition, the plan must be able to prepare the Municipality for the submission of a phasing plan and a table of prioritised projects for approval by NDPP.

Therefor, a precinct plan must identify:

- Sub precincts and associated detailed interventions.
- Required bulk capacities for implementation.
- Pipeline of projects (spatial and non-spatial) for funding and implementation and costings.

The purpose of this project is therefor to finalize an Investment Plan for inter alia the social, economic and spatial integration between Nkqubela and the Robertson Town Centre. Integration is therefor the primary objective if this project and all proposals must be centered on the achievement of integration goals

Comments

Project Programme

The main outcome of Phase I (Project Inception) was the Inception Report, stakeholder database and compilation of Base information.

The Draft Precinct Plan (Phase 2) main focus was to update and to compile the Concept Plan as a basis for preparing the Precinct Plan. This included Public Engagement and consultation with regulation authorities.

Phase 3 (final precinct design as well as design presentation and final precinct plan) included a presentation to officials as well as to the National Treasury Evaluation Committee.

The final Precinct Plan (Phase 4) was after certain amendments submitted.

The Study Area

The focus area for this plan was delineated as part of the February 2019 Concept plan which focusses on a part of the Robertson CBD and more specifically on Nkqubela – the lower income residential area of Robertson that is located to the south.

Figure 1 illustrates the study area boundary

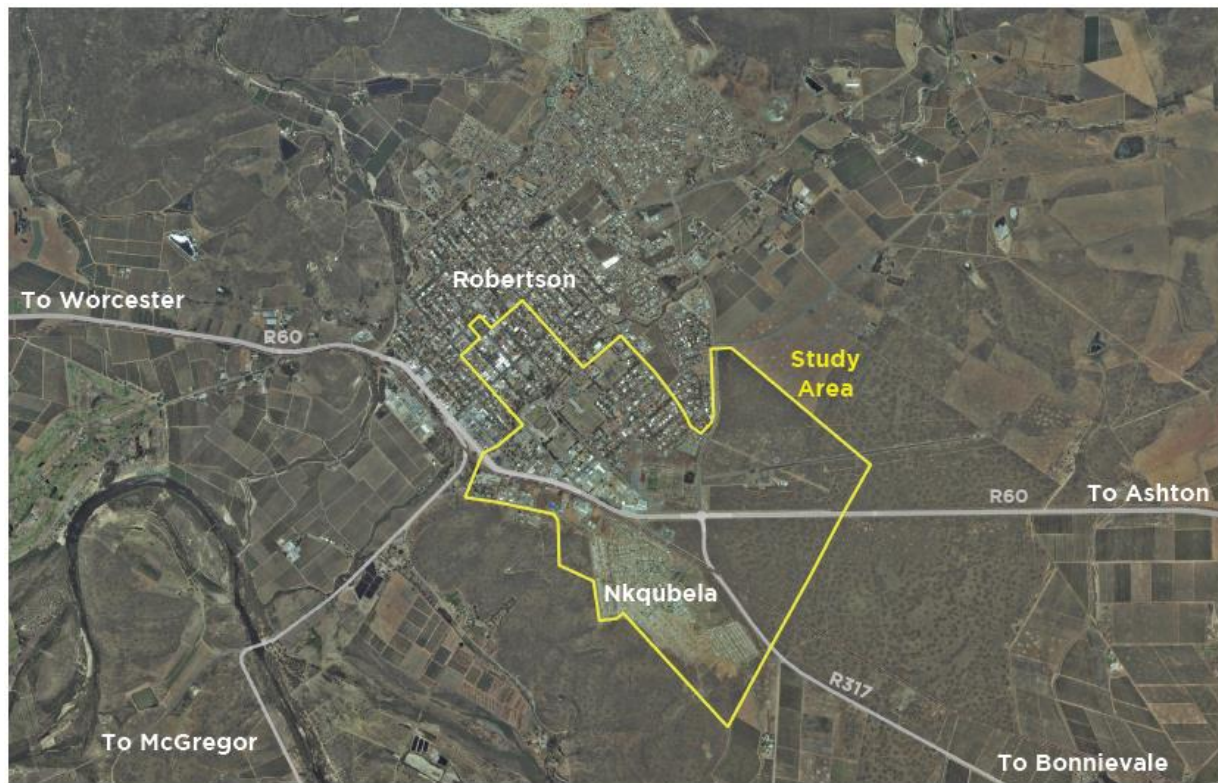


Figure 1

Implementation

Identification of Sub- Precincts

A number of sub-precincts have been identified. These are listed and described in broad terms as follow: Figure 2 illustrated the sub-precincts spatially. The numbering of sub-precincts relate to the phasing and prioritisation of implementation.

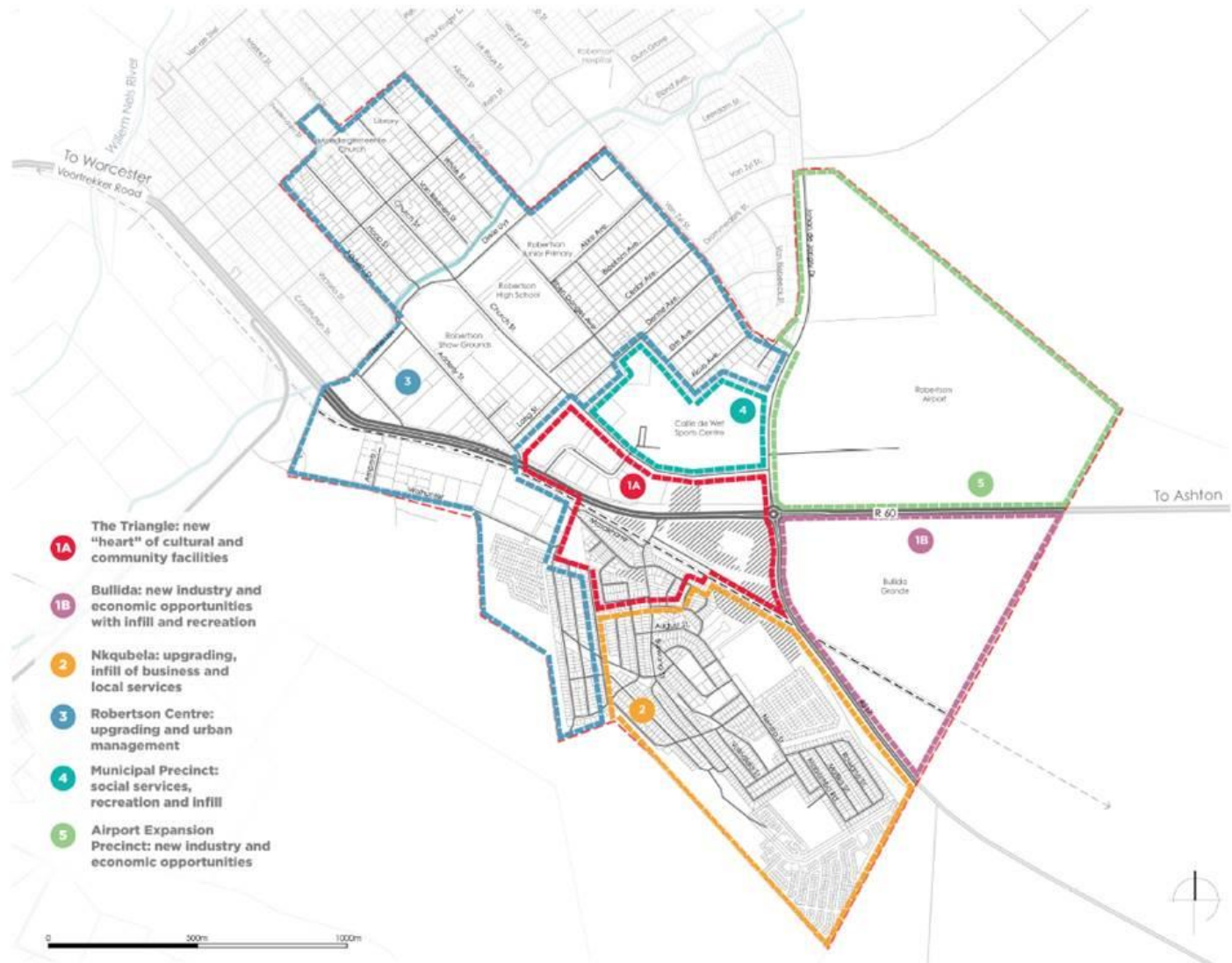


Figure 2

No	Sub-Precinct Name	Current State	Future Opportunity	Total Vacant Land (ha)
1A	The Triangle	Large undeveloped area (except for secured, largely open space sorting area.	Significant opportunity for a consolidated public district for Nkqubela which also benefits from passers-by (along R60). Space for community facilities, training and education, improved pedestrian environment and public space interface.	10.14
1B	Bullida	Very large undeveloped land	Significant opportunity for future development (specifically space-extensive activities requiring good access and assisting in economic development / employment generation.) Possible opportunity for new high school (south of the railway line). Opportunity to reconfigure R60 / R317 intersection and alignment to provide better access to Nkqubela.	45.94
2	Nkqubela South	Current development area comprising residential, library, sports complex, informal businesses and new Erf 136 housing project	Infill development opportunity in vicinity of sports complex for new community services and economic development activities. Improved access to the R317.	14.76
3	Robertson Centre	Historic core with retail and community facilities concentrated in this area. Comprising formal structures and includes industrial area adjacent to Nkqubela	Rationalisation of the street network, specifically the extension of Wolhuter Street to Burwana Street. Opportunities for general upgrading, landscaping, infill housing at Sportgrounds, and improved urban management.	7.95
4	Municipal Precinct	Large undeveloped land area surrounding sports complex.	Wetland natural area east of sport complex can be rehabilitated into green functional recreational park. Undeveloped land abutting sports complex can accommodate cluster of municipal services. Opportunity to link Church Street with the intersection of Burwana Street.	6.02
5	Airport Expansion	Undeveloped land bounded by the R60 and existing airport activities.	Opportunity for future economic development such as commercial airport services and other employment generation activities.	10.78

Applying the Guidelines Detailed Precinct Plans

Detailed precinct plan drawings have been developed to indicate development footprints, interfaces, surfaces and other elements that all contribute to the urban design and implementation of positive new developments and upgrading for the Robertson-Nkqubela integration area.

Detailed plans were not developed for 1B due to the fact that the existing feasibility study is underway and will guide the process of implementation, while sub-precinct 3 and 5 are subject to private discussions on longer-term land changes.

1. A summary of the various proposed projects per sub-precinct is shown in the following tables following:

Priority 1 Sub-Precinct 1A – the Triangle (table 1)

This new “heart” of cultural and community facilities forms the core area proposed for investment

Project Number	Project Name	Building / Land Use	Description
1A.1	New pedestrian underpass for crossing R60	Infrastructure and Linkages	Catalytic infrastructure required to improve safer access between Robertson and Nkqubela.
1A.2	Public Square and Public Space System	Public Space	Paving and upgrading of Triangle Precinct landscape to provide continuous public space system with seating and landscaping. Include spaces for trading - local market.
1A.3	Cultural/Arts Centre and Theatre	Public Space and Cultural Facility	Alternative design and materials for iconic aesthetic. Similar activities to Guga S'Thebe.
1A.4	New road system for Precinct	Infrastructure and Linkages	Required to unlock and link community facilities with Nkqubela and Robertson. Linkages with Bullida roads.
1A.5	Technical Training and Industrial Centre for SMMEs	Public Facility	Skills development and adult education facilities, industrial offices and business incubators for SMMEs - Workshop17.
1A.6	Pedestrian crossing over railway line	Infrastructure and Linkages	Improved access between new community heart development and Nkqubela south.
1A.7	Taxi Rank and Park with Walkway	Infrastructure and Linkages	Improved taxi rank space with waiting area connected along walkway to trading and ECD site and Clinic.

Table 1

Priority 2 Sub - Precinct 1B – Bullida (table 2)

New industry and infill is prioritized to unlock economic opportunities.

Project Number	Project Name	Building / Land Use	Description
1B.1	New intersection from R60 into Bullida development - link to Nkqubela	Infrastructure and Linkages	Road classifications discussion with WCG to determine distance between intersections - proclaim section of R60 as Main Road.
1B.2	New road system for Bullida development	Infrastructure and Linkages	Required to unlock Bullida development. Linkages with new intersections and road classifications discussions. One road reserve 32m wide, and the other is 25m wide.
1B.3	New Bullida Industry	Commercial/ Industry	Combination of light industrial and warehousing related to agricultural industry. Smaller industrial plots also included to support small-scale industry. Erven range from 0.2 - >1ha.
1B.4	New Bullida Commercial	Commercial/ Industry	Commercial activities supporting industry and local community needs. Possible informal market spaces and small retail activities. Erven range from <0.2 - 3.2ha.
1B.5	New High School and Sport Fields	Public Facility	Currently in process through WCG Department of Education - reviewing project pipeline due to budget cuts. Consolidation with Primary School required.

Table 2

Priority 3 Sub - Precinct 2 – Nkqubela South (table 3)

The focus is on upgrading and infill as well as rationalization of vacant land.

Project Number	Project Name	Building / Land Use	Description
2.1	Nkqubela Clinic	Public Facility	Upgraded provincial clinic - Community Health Centre CHC with ECD facilities and trading spaces.
2.2	Commercial and Retail Infill	Employment and Livelihoods	Commercial activities to support small scale retail and trading.
2.3	Stormwater Upgrades	Infrastructure and Linkages	Possible underground channeling of stormwater channel.
2.4	Residential Infill	Residential/ Apartments	Medium density apartments. Social Housing multi-storey - 100du/ha
2.5	Pedestrian bridge over R317 and Intersection	Infrastructure and Linkages	Required to connect Bullida development with Nkqubela South. Re-proclaimed status of R317 discussions required.

Table 3

Priority 4 Sub - Precinct 3 – Robertson Centre (table 4)

Identified for upgrading and where new opportunities for infill and improved urban management should be explored.

Project Number	Project Name	Building / Land Use	Description
3.1	Showgrounds Residential Infill	Residential/ Apartments	Medium density apartments. Social Housing multi-storey.
3.2	Industrial Infill along R60	Employment and Livelihoods	Combination of light industrial and warehousing related to agricultural industry. Can be combined with Mixed Use activities.
3.3	Upgrading of pedestrian facilities and sidewalks	Infrastructure and Linkages	Align with current National Treasury programmes.
3.4	Tree planting and Landscaping	Upgrading and Landscaping	Beautification of street interface. Town wide initiative.

Table 4

Priority 5 Sub Precinct 4 – Municipal Hub (table 5)

To provide additional concentrated public services.

Project Number	Project Name	Building / Land Use	Description
4.1	Upgrading of Caille de Wet sport facilities	Public Facility	Upgrade current facilities. Additional seating and field rehabilitation.
4.2	Recreational Urban Park	Public Space and Culture	Rehabilitation of wetland for recreational purposes. Similar activities and design materials to Green Point Urban Park.
4.3	Municipal Services Infill	Public Services	Medium density apartments. Possible social housing development. Similar materials and design to Communicare's Musgrave Park.
4.4	Upgrading of pedestrian facilities and sidewalks	Infrastructure and Linkages	Align with current National Treasury programmes.

Table 5

Priority 6 – Sub – Precinct 6 – Airport Expenditure (table 6)

Long term vision of the potential to increase employment opportunities and economic development.

Project Number	Project Name	Building / Land Use	Description
5.1	Airport Support Services Infill	Employment and Livelihoods	Commercial activities to support airport services and create employment opportunities.
5.2	New Intersection from R60 Into Bullida development - link to Nkqubela	Infrastructure and Linkages	Road classifications discussion with WCG to determine distance between intersections - proclaim section of R60 as Main Road.
5.3	Pedestrian bridge over R60	Infrastructure and Linkages	Required to connect Bullida development with Airport activities. Forms part of new intersection design.
5.4	Upgrading of pedestrian facilities and sidewalks along Johan de Jongry Drive	Infrastructure and Linkages	Improved access to northern Thusong Centre and services. Possibly align with National Treasury programmes.

Table 6

Consolidated Project List

Based on identified projects for each sub-precinct a list of the primary projects prioritized for implementation have been developed to ensure that the vision for the precinct is unlocked and funded accordingly. These projects are unpacked in Table 7 and spatialized onto the composite strategy plan in Figure 3. These projects are all seen as major transformative projects with long lead times, multiple actors involved, and significant infrastructure implications.

Project Number	Project Name	Description
	Transport and Strategic Infrastructure	Precinct-wide implementation of required roads and infrastructure upgrades to unlock strategic land parcels
1A.1	Pedestrian Crossing over R60	Catalytic infrastructure to improve access – bridge or underpass TBC
1A.2	Public Square and Market	Paving of Triangle to create continuous public space system and market for trading
1B.5	High School	Discussions with WCG – consolidation of existing Primary School to enlarge capacity
1A.5	Cultural Arts Centre and Theatre	Iconic building design – space for local community
1A.6	Technical Training and Industrial Centre	Space for adult education and SMMEs
1A.7	Taxi Rank and Park	Improved waiting area with east-west walkway connections to ECD, Clinic
1B.1	New Intersection R60	Reconfiguration of R317 + Pedestrian/Vehicular Bridge over rail (linked to project 2.5)
1B.3 & 4	Bullida Industry and Commercial	Light industry warehouses and workshops, supported by retail, commercial
2.1	Nkqubela Clinic	Community Health Centre and ECD and trading spaces
3.1	Showgrounds Redevelopment	Medium density strategic infill – discussions with current landholders
4.1	Upgrading Callie De Wet	Upgrade current facilities – additional seating
5.4	Pedestrian Upgrading – Johan de Jongry	Improved environment for pedestrians to northern Thusong and services
4.2	Recreational Park	Rehabilitation of wetland

Table 7

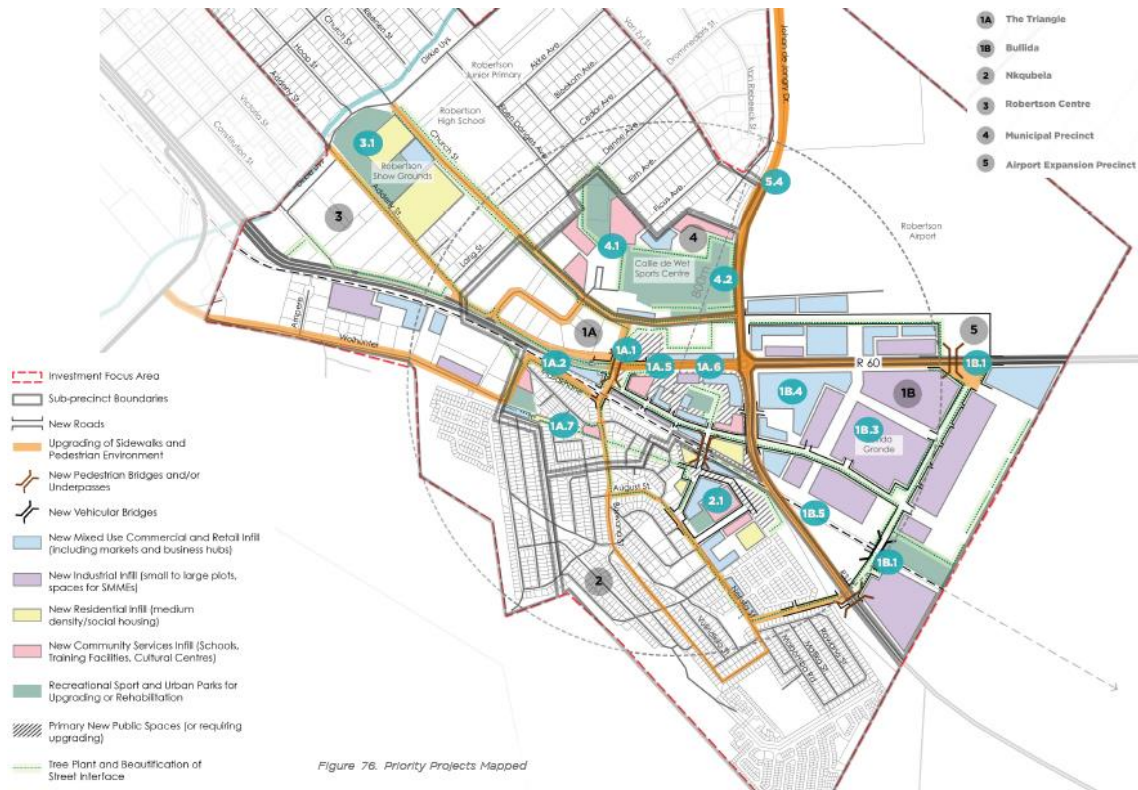


Figure 3

Delivery Plan

The focus is not only on Nkqubela but larger; specifically, on how to provide infrastructure and space for further development, entrepreneurship and employment opportunity for the Municipality and town as a whole. It is believed that a wide-ranging plan is required, identifying all the issues and potential opportunities, as well as the relationships between them. Given limited local and national resources, not everything will happen simultaneously. However, the overall plan provides a tool to ensure that successive investments build on each other, and associated infrastructure needs and relationships with other, adjacent opportunities are identified.

Communicating the plan

The Robertson / Nkqubela Investment Plan must be communicated at every opportunity as a primary and flagship regeneration initiative of the Municipality. The plan must be shared and owned among all – within the Municipality, among government partners and across the functional divisions of government, business and community sectors and organisations (including local media).

The plan should be used as a guide in all project and programme deliberations concerning the area, including projects identification, budgeting and resourcing. The key question should always be how needs can be accommodated within the framework of the plan, how an individual initiative – even if not foreseen by the plan – can be accommodated and reinforce the aims of the plan.

Recommendation

That Council note and approve the final Robertson / Nkqubela Investment Plan.

This item served before an Ordinary Meeting of Council on 25 August 2020

Hierdie item het gedien voor 'n Gewone Vergadering van die Raad op 25 Augustus 2020

Eenparig Besluit / Unanimously Resolved

That Council notes and approves the final Robertson / Nkqubela Investment Plan.

A wide-angle photograph of a paved road in a semi-arid region. The road curves gently to the right. In the background, a dense residential area with many small, colorful houses is built into a hillside. The hills are covered in dry, scrubby vegetation. Two people are walking on the sidewalk to the right of the road. A stop sign is visible on the left side of the road.

Robertson/Nkqubela Investment Plan

Final Investment Plan

April 2020

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Glossary of Abbreviations

BEP -	Built Environment Partnerships	MIG -	Municipal Infrastructure Grant (national grant funds for infrastructure)
CBA -	Critical Biodiversity Area	MM -	Municipal Manager
CBD -	Central Business District	MSDF -	Municipal Spatial Development Framework
CEF -	Capital Expenditure Framework	NEMA -	National Environmental Management Act
CWDM -	Cape Winelands District Municipality	NDPG -	Neighbourhood Development Partnership Grant
DEADP -	Department of Environmental Affairs and Development Planning	NDPP -	Neighbourhood Development Programme
DOCG -	Department of Cooperative Governance	NMT -	Non-motorized transport
DTPW -	Department of Transport and Public Works	NT -	National Treasury
GAP -	Government assisted housing in the affordability “gap” for home owners earning between R3 501 and R18 000 per month	PSC -	Project Steering Committee
GDP -	Gross Domestic Produce	RAP -	Rural Area Plan
HA -	Hectare	SDF(s) -	Spatial Development Framework (Frameworks)
IDP -	Integrated Development Plan	SMME(s) -	Small and Medium Enterprise (Enterprises)
IZS -	Integrated Zoning Scheme	SMT -	Strategic Management Team
IUDF -	Integrated Urban Development Framework	SPLUMA -	Spatial Planning and Land Use Management Act
LM -	Langeberg Municipality	TOD -	Transit Orientated Development
LSDF (s) -	Local Spatial Development Framework (Frameworks)	TOR -	Terms of Reference
LUMS -	Land Use Management System	UDS -	Urban Development Strategy
Mayco -	Mayoral Committee	WCG -	Western Cape Government

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Part 1.

Background and Purpose

1. Background and Purpose

1.1. Introduction

On the 11th June 2019, the Langeberg Municipality (LM) appointed Built Environment Partnership (BEP) for the provision of professional services for Precinct/Investment Planning required to support the implementation of the Neighbourhood Development Partnership Programme (NDPP) in the Langeberg Municipality. This appointment followed BEP's response to the invitation to tender by LM.

The project is funded by National Treasury through the NDPP Programme. This Programme provides technical assistance and grant funding to municipalities for capital projects that will leverage further public and private sector investment in strategic locations around the country. Through the NDPP, Treasury established a partnership with the Department of Rural and Land Reform (DRDLR) in 2014 on the regeneration of small towns. The partnership established with DRDLR was to ensure that rural municipalities remain a priority. This programme calls for the focus area for intervention to be small towns and not villages or the rural hinterland. Robertson was selected through a thorough prioritisation process as the Western Cape's first small town to be targeted for planning and investment support.

1.2. Defining Investment Plans

The Investment Plan focuses on identifying and framing initiatives for implementation in a spatially targeted area.

According to National Treasury's NDPP Guidelines, the outcome of an Investment Plan must focus on a detailed composition of the future spatial structure of the identified precinct area by means of maps as well as design guidelines. In addition, the plan must be able to prepare the Municipality for the submission of a phasing plan and a table of prioritised projects for approval by NDPP. A

plan must therefore also contain Project Plans with detail on individual projects.

The locally specific emphasis of a precinct plan will vary based on the specific context and local issues, but in general should contain sufficient detail to:

1. Indicate desired patterns of land use within the precinct and set out basic guidelines for implementation.
2. Identify programmes, projects and restructuring elements for the development of land within the precinct.
3. Set out a clear implementation plan and the associated costs.
4. Identify where public investment should be prioritised while also identifying third party investment.

Therefore, a precinct plan must identify:

- Sub precincts and associated detailed interventions.
- Required bulk capacities for implementation.
- Pipeline of projects (spatial and non-spatial) for funding and implementation and costings.

1.3. Project Terms of Reference and Objectives

The purpose of this project is to finalize an Investment Plan for inter alia the social, economic and spatial integration between Nkqubela and the Robertson Town Centre. Integration is therefore the primary objective if this project and all proposals must be centered on the achievement of integration goals.

In addition, the plan must take into consideration the following concepts:

- **Economic Transformation:** to be applied through the planning process and urban design principles. This means that economic upliftment of the entrepreneur and small business owners must be taken into consideration.
- Alignment with the latest Neighborhood Development Partnership Programme (NDPP) Urban Hub **Design Toolkit**.
- The deliverables should **relate back to the rest of the Municipal area:** both spatially and through policy and legislative context.

In terms of the brief, the plan must identify a intergovernmental Pipeline of Projects for funding and implementation. The Precinct Plan must also identify Intergovernmental Pipelines for engagement, phasing and prioritisation. Potential initiatives relating to the Enterprise Support Programmes or other non-spatial interventions for economic and social upliftment must be identified through the plan. Finally, the draft plan needs to have a clearly communicated intention with a long term focus.

1.4. Process and Methodology

The process took place over 8 months and followed a participative approach involving strategic engagements and community participation workshops. These interactions, determined by the project terms of reference are also based on the precinct planning process guidelines of DRDLR (see Figure 1), as well as National Treasury's guidelines and templates. The interactions that took place are set out below:

- Inception Meeting with Municipal Officials and National Treasury.
- Strategic engagements and correspondence with LM engineers, community leaders

and service providers working on parallel processes.

- A workshop at Callie de Wet Stadium with stakeholders to discuss the reworked concept proposals.
- A Public Open day work session at Nkqubela Library with stakeholders to test the concepts and proposals.
- An Evaluation Session with National Treasury where the plan and proposals for future funding are endorsed.

Monthly updates were facilitated via the Municipal Manager's Strategic Management Team (SMT).

1.5. Structure of the Plan

Part 1 sets out the background, project objectives, process and methodology and introduces the study area.

Part 2 sets out the policy context and mandate for framing the proposals within this investment plan.

Part 3 provides a contextual analysis overview of the study area and unpacks relevant opportunities and constraints that inform the proposals.

Part 4 sets out the spatial strategy by unpacking the 5 thematic areas on which the concept is based.

Part 5 provides a list of key projects and prioritises these according to sub-precincts, timeframes and funding.

Lastly Part 6 provides design guidelines and precedent visuals to assist in the cohesive implementation of projects and proposals.

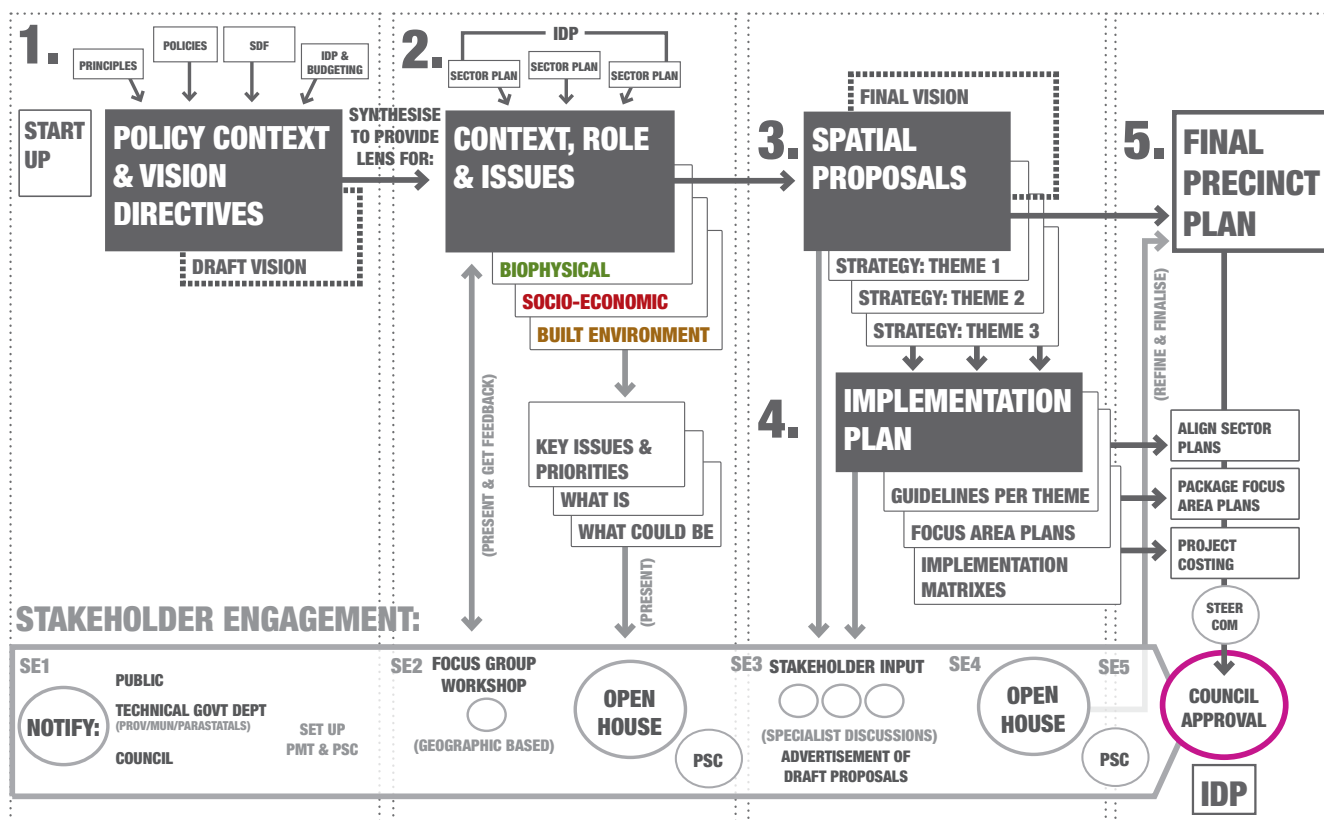


Figure 1. The Precinct Plan Process (from DRDLR's SPLUMA Guidelines, 2014).

1.6. Introducing the Study Area

The precinct focus area for this plan was delineated as part of the February 2019 Concept Plan which focuses on a part of the Robertson CBD and more specifically on Nkqubela - the lower income residential area of Robertson that is located to the south.

Robertson is located in the Langeberg Municipality. The Langeberg Municipality is located in the central region of the Western Cape Province. It is one of 30 municipalities in the province and one of five local municipalities that make up the Cape Winelands District Municipality (see Figure 2).

Langeberg is located in reasonably close proximity to the Cape Metro and its port, and is accessed by two national highways, the N1 and N2, which contributes towards the municipality's ability to connect with broader regional markets. The Cape Metro is the closest regional capital and a key area of employment, as well as surrounding regional centres such as Paarl, Stellenbosch, Worcester and Ceres.

The Langeberg Local Municipality has an area of 4517,4 km² which accounts for approximately 20% of the total district area. The municipality lies east of the Stellenbosch Local Municipality and south of the Breede Valley Local Municipality. The total Municipal population size is 97 714 people (StatsSa 2011) comprising some 12% of the total Cape Winelands District population. It is home to 28 401 households¹.

The area has three mountain ranges, the Riviersonderend, Langeberg and the Waboom ranges, which frame the Breede River valley and the Koo and Keisies River valley. The area consists mostly of extensive farming, natural veld and large game farms, and is renowned for its farming and tourism activities. The Langeberg area is one of the largest wine-producing regions in South Africa (as can be seen in Figure 3).

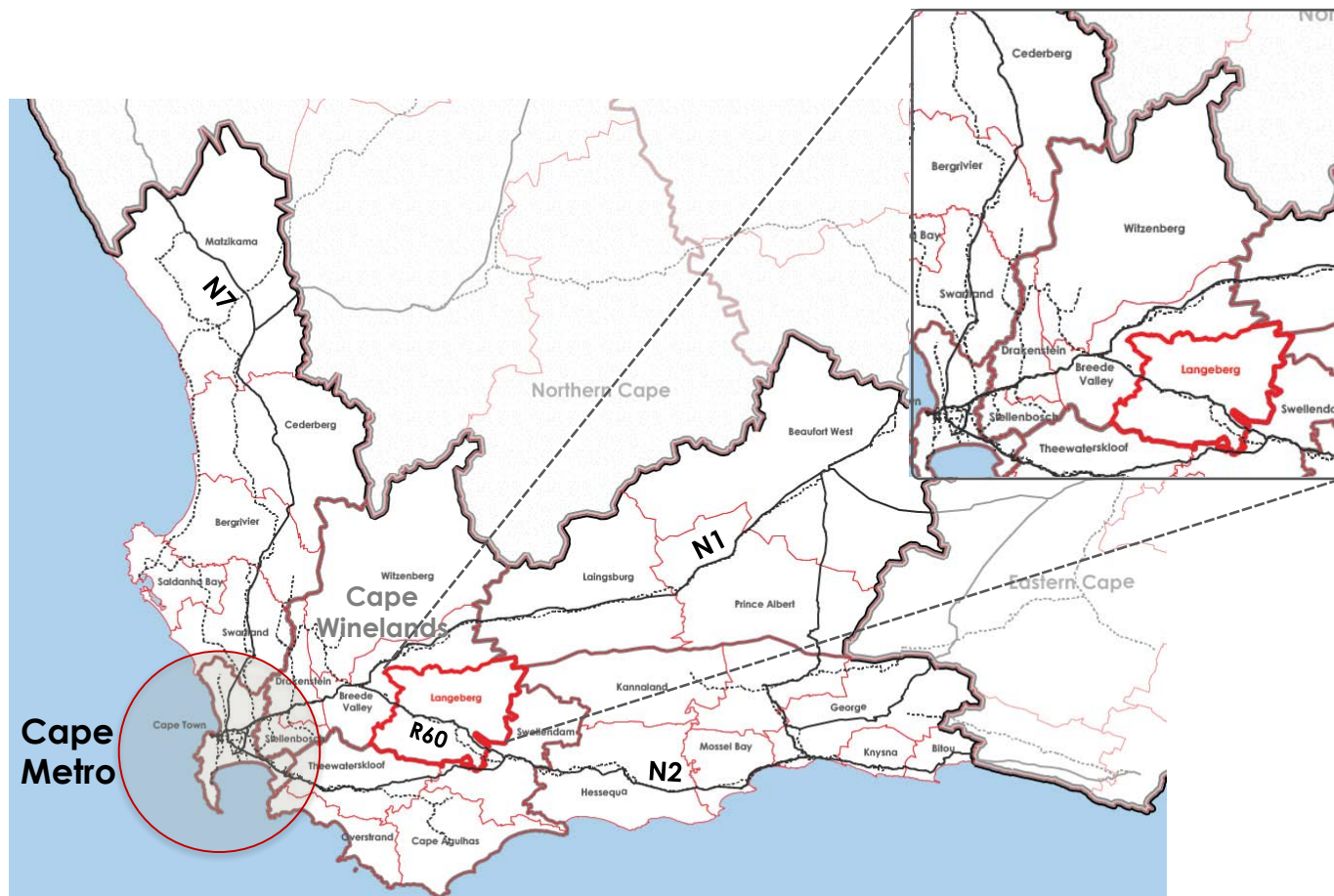


Figure 2. The regional context - location of Langeberg in relation to the province, the cape metro and the district municipality.

The scenic attractiveness of the Langeberg Local Municipality's rural environment is a major resource for the tourism industry.

Regional tourism destinations include the R60 route to Swellendam, the R62 route to Barrydale, and the wine valley of Robertson and Bonnievale, which is one of the key drivers of the economy. Unlike most municipalities in South Africa, its rural population has remained constant over the past decade, an indication of the strength of the opportunities it offers.

The combination of the physical characteristics of the Langeberg region, including topography, soils, climate, hydrology and indigenous vegetation, has a significant effect on the settlement patterns in the area as well as economic activities - particularly agriculture and related industries.

Langeberg consists of the towns of: Ashton (13325 people), Bonnievale (9092 people), McGregor (3125 people), Montagu (15170 people) and Robertson (27715 people) as well as the rural areas adjacent to and between these towns (29 292 people) - see Figure 3.

¹ 2018 WCG Langeberg Municipality Socio-Economic Profile - Population Estimates, 2018; Actual households, 2016

Distances between the major towns are relatively short. Robertson and Montagu are first order towns and serve as the primary service centres for the Langeberg Municipal area and thus also the main urban growth centres. Robertson is the main settlement in the Municipality, acting as the primary business and administrative hub within Langeberg. A third of the Langeberg population lives here and it produces 23% of GVA.

Robertson is a historical town with a well established fine-grained urban fabric characterised by an array of heritage buildings that add to its quality. The town setting is picturesque, surrounded by undulating vineyards and agricultural land (see Figure 4). Clear routes such as the R60, Church Street, Barry Street, and Paul Kruger Street structure the settlement. However, spatial barriers between Robertson and Nkqubela are prominent, such as the R60, the railway line and sweeps of vacant land. Nkqubela has also shown significant growth over the past few years and continues to expand towards the south.

It is based on these characteristics that this Investment Plan focuses on the improved spatial and socio-economic integration of Nkqubela with the Robertson town centre.

Figures 5 and 6 illustrate the study area boundary and pictures of some of the defining features of the area, which will be discussed in further detail in Chapter 3.

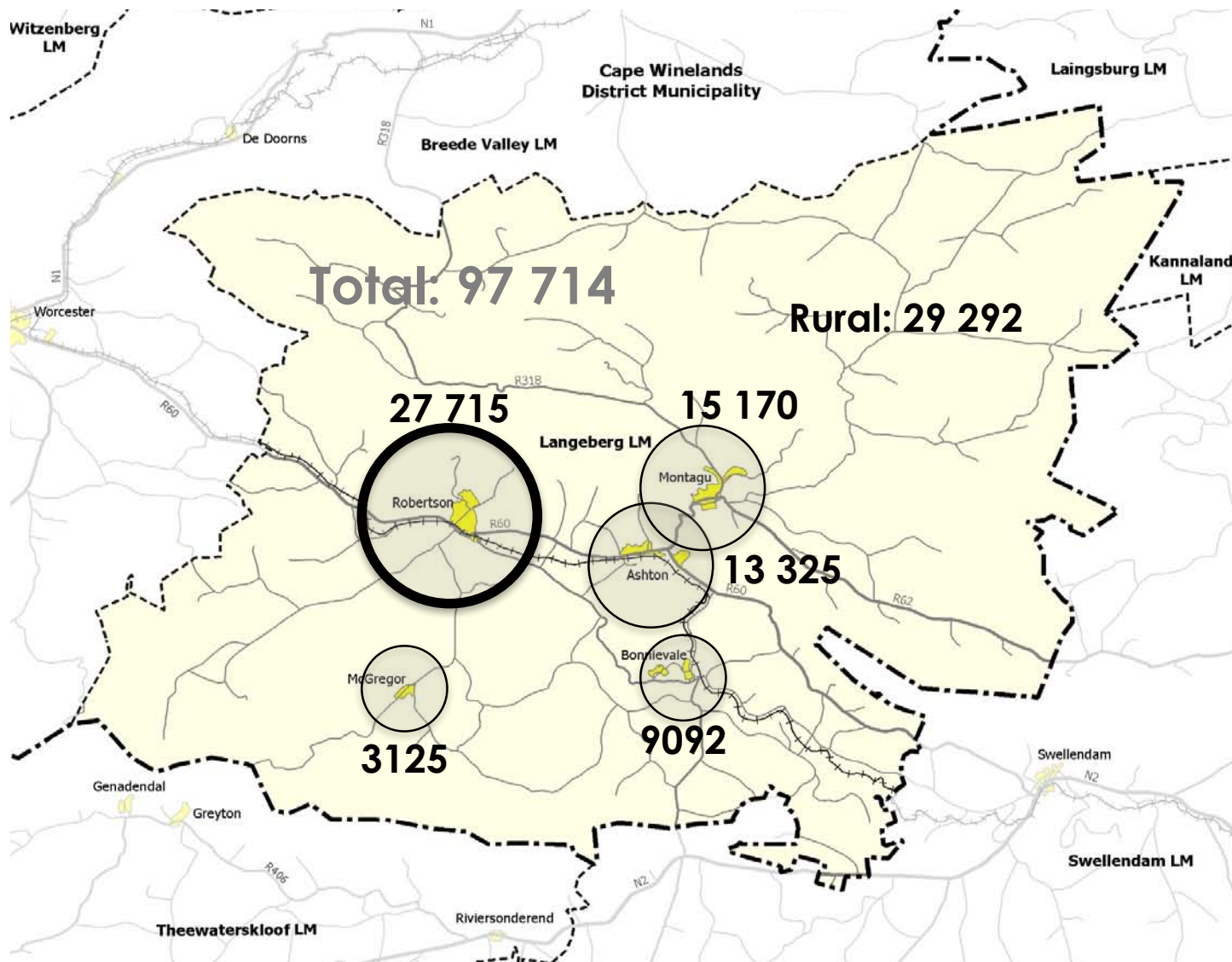


Figure 3. The main settlements and associated population statistics based on StatsSA 2011 data.

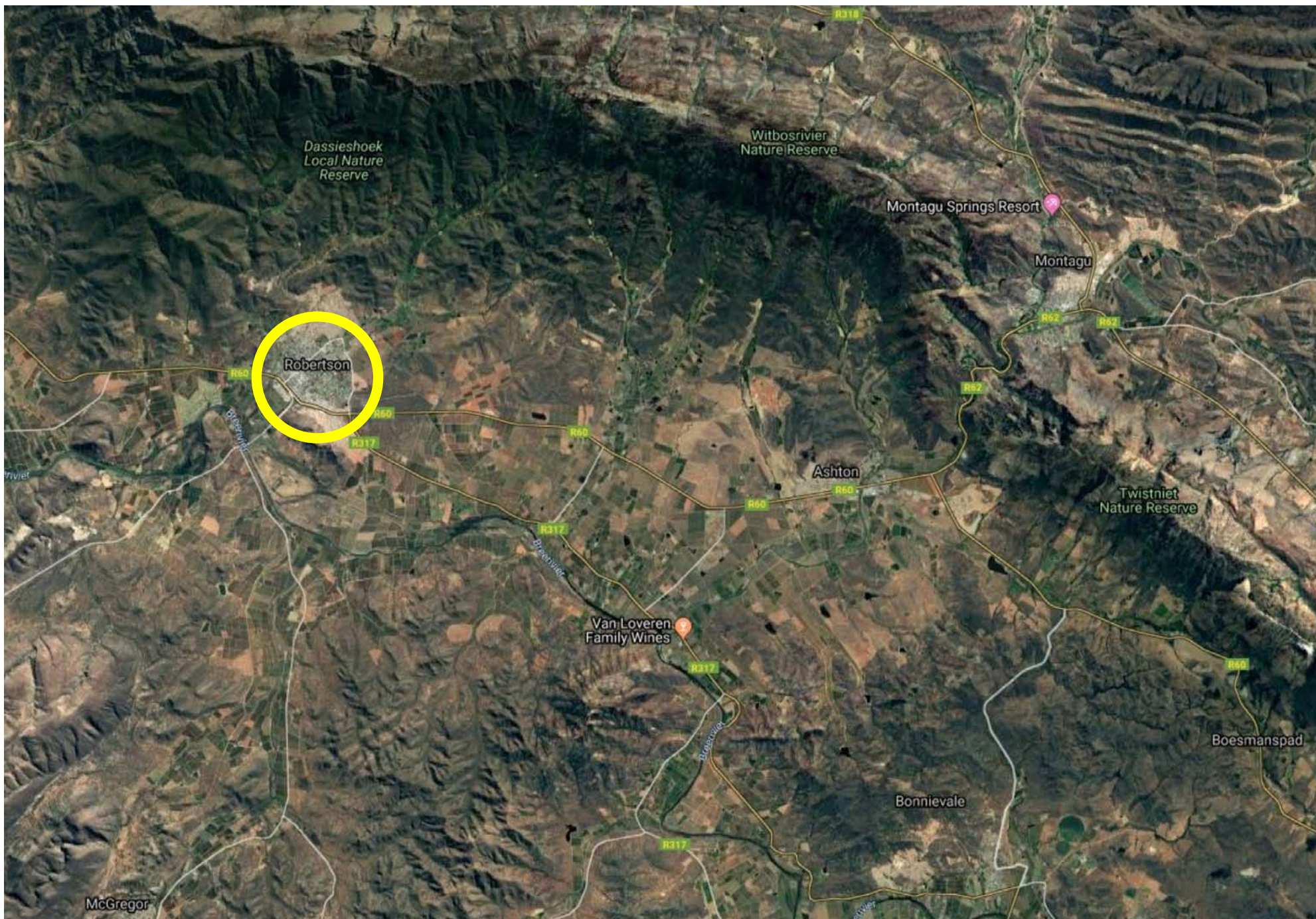


Figure 4. The regional context - the location of Robertson within the region and key surrounding settlements.

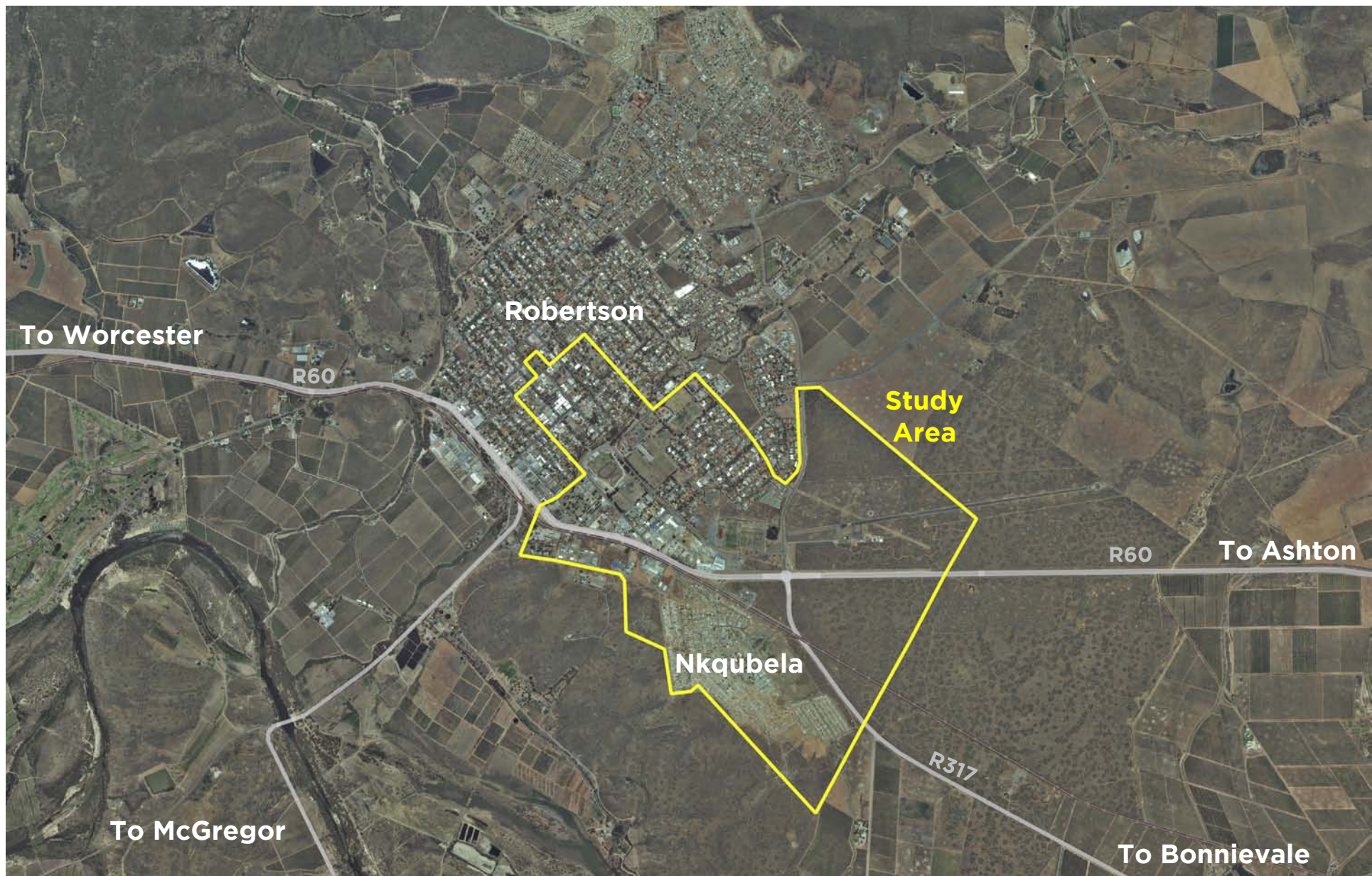


Figure 5. The study area - shown on the map with yellow line - within the local context.

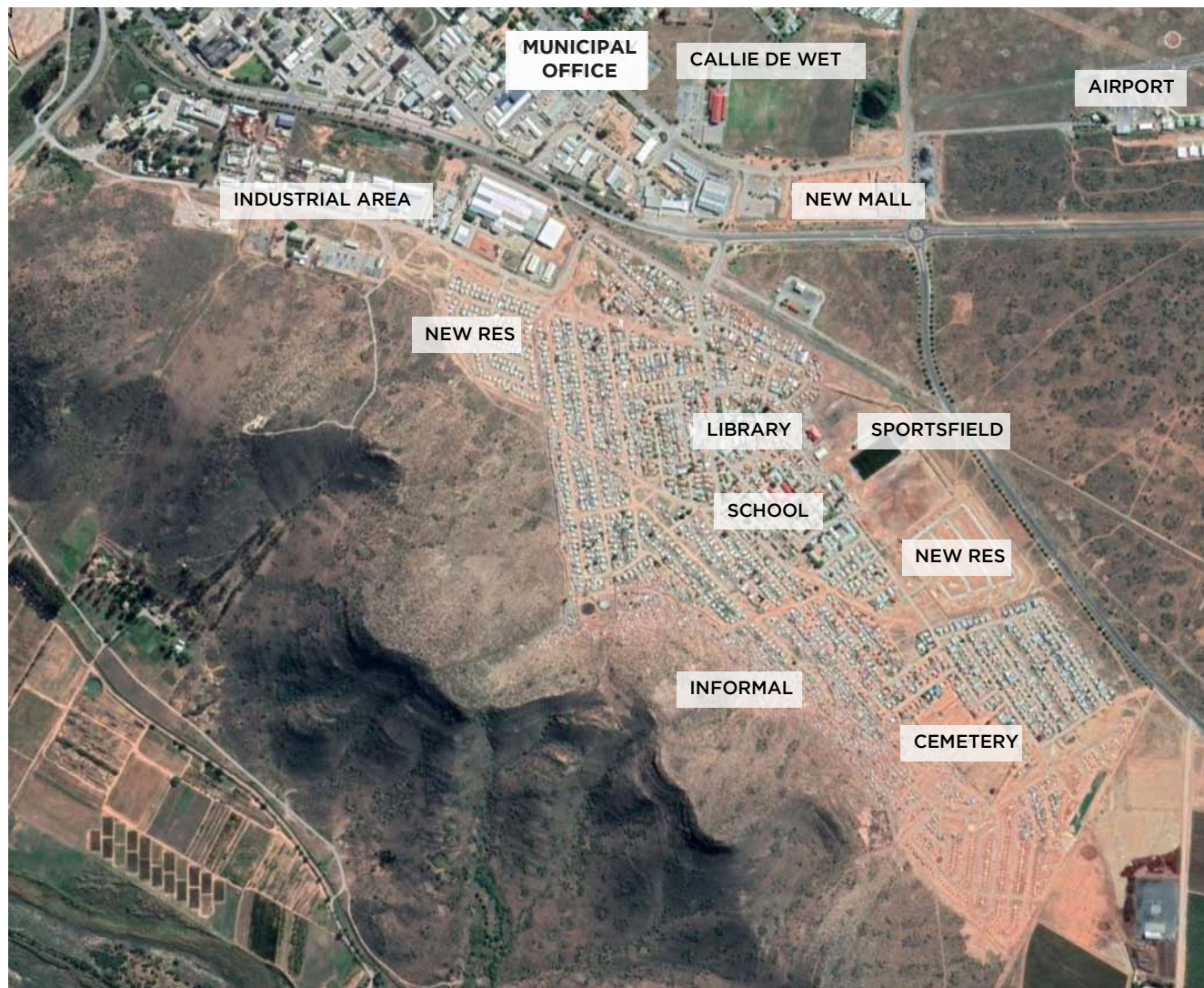


Figure 6. Key features of the study area and pictures of some of the defining features of the area.



Part 2.

Policy Context and Mandate

2. Policy Context and Mandate

The preparation of the Robertson/Nkqubela Investment plan occurs within an extensive legislative, policy, programmatic, and planning context which mandates, enables, and informs the work in progress.

2.1. Legislative Context

2.1.1. Spatial Planning and Land Use Management Act

With the enactment of the Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA), a new planning regime was introduced in South Africa. It replaced disparate apartheid era laws with a coherent legislative system as the foundation for all spatial planning and land use management activities in South Africa. It seeks to promote consistency and uniformity in procedures and decision-making. Other objectives include addressing historical spatial imbalances and the integration of the principles of sustainable development into land use and planning regulatory tools and legislative instruments.

In broad terms, SPLUMA differentiates between two components of the planning system:

- Spatial Development Frameworks (SDFs).
- The Land Use Management System (LUMS).

As indicated above, SDFs are guiding and informing documents that indicate the desired spatial form and define strategies and policies to achieve this. They inform and guide the LUMS, which includes town planning or zoning schemes, allocating development rights, and the procedures and processes for maintaining the maintenance of or changes in development rights.

Chapter 2 of SPLUMA sets out the development principles that must guide the preparation, adoption and implementation of any SDF, policy or by-law concerning spatial planning and the

development or use of land. These principles include the redress of spatial injustices and the integration of socio-economic and environmental considerations in land use management to balance current development needs with those of the future generations in a transformative manner. SPLUMA reinforces and unifies the National Development Plan (NDPP) in respect of using spatial planning mechanisms to eliminate poverty and inequality while creating conditions for inclusive growth by seeking to foster a high-employment economy that delivers on social and spatial cohesion.

2.1.2. The Western Cape Government (WCG) Land Use Planning Act (LUPA)

The WCG, through the Land Use Planning Act 3 of 2014 (LUPA), has adopted its own legislation to consolidate the legal requirements that relates to spatial planning and public investment in the Western Cape. There is some overlap between SPLUMA and LUPA with regard to development principles and planning processes. Specifically, LUPA supports using spatial planning mechanisms to eliminate poverty and inequality while creating conditions for inclusive growth and seeking social and spatial cohesion.

2.2. Policy Context

Numerous policy frameworks focus the work of government holistically, the spatial arrangement of activities, or specific sectors. In the sections below, only the most specific policy informants to precinct planning in support of the Neighbourhood Development Programme in Langeberg Municipality and the Nkqubela are summarised.

2.2.1. The National Development Plan 2030

The National Development Plan (NDP), developed by the National Planning Commission and adopted in 2012, serves as the strategic framework guiding and structuring the country's development imperatives and is supported by the New Growth Path (NGP) and other national strategies. In principle, the NDPP is underpinned by, and seeks to advance, a paradigm of development that sees the role of government as enabling by creating the conditions, opportunities and capabilities conducive to sustainable and inclusive economic growth. The NDPP sets out the pillars through which to cultivate and expand a robust, entrepreneurial and innovative economy that will address South Africa's primary challenge of significantly rolling back poverty and inequality by 2030.

The legacy of apartheid spatial settlement patterns that hinder inclusivity and access to economic opportunities, as well as the poor location and under-maintenance of major infrastructure, are two of the nine identified core challenges facing the country's development. Aimed at facilitating a virtuous cycle of expanding opportunity for all, the NDPP proposes a program of action that includes the spatial transformation of South Africa's towns, cities and rural settlements given the "enormous social, environmental and financial costs imposed by spatial divides".

Of particular relevance for the Langeberg Municipality's support of the Neighbourhood Development Programme are the recommendations set out in Chapter 8: Transforming Human Settlements and the National Space Economy, including the upgrading of all informal settlements on suitable, well-located land; increasing urban densities to support public transport and reduce sprawl; promoting

mixed housing strategies and compact urban development in close proximity to services and livelihood opportunities; and investing in public transport infrastructure and systems (with a special focus on commuter rail) to ensure more affordable, safe, reliable and coordinated public transport.

The spatial objectives outlined in the NDPP's "Urban Hub Toolkit" emphasises three key concepts to guide the restructuring of urban hubs and small towns South African towards vibrant sustainability. These are:

- **The interchange zone:** This is where the place where rail (if available), bus and taxi modes of public transport are within easy walking distance of one another. The connecting routes, or areas of movement, are designed to become areas of opportunity for retail and service-related businesses which will choose to locate along these routes in response to the high volumes of passing traffic. This improves economic viability (especially of small businesses) as such places become important hubs of activity while also increasing convenience for public transport users.
- **Mixed use development and housing compaction:** The aim is that the planning and (re)design of urban hubs (CBDs), achieves more urban (rather than suburban) character and development typologies. This relates to both land use and residential density. With horizontally and vertically mixed-use development, new housing typologies and urban social facility design is possible. Together, these contribute to more lively and walkable places that provide better thresholds of support for public transport.
- **Vibrant people friendly public places:** The CBDs (or hubs) should be designed as socially, culturally and economically meaningful places. To do this requires that a range of accessible, inclusive and well-designed public spaces are available to residents and visitors to the hub.

2.2.2. Integrated Urban Development Framework (IUDF)

The IUDF, approved by National Cabinet in 2016, aims to steer urban growth nationally towards a sustainable model of compact, connected and coordinated towns and cities. The IUDF provides a roadmap to implement the NDPP's vision for spatial transformation, creating liveable, inclusive and resilient towns and cities while reversing apartheid spatial legacy.

To achieve this transformative vision, four overall strategic goals are introduced:

- **Spatial integration;** to forge new spatial forms in settlement, transport, social and economic areas.
- **Inclusion and access;** to ensure people have access to social and economic services, opportunities and choices.
- **Growth:** to harness urban dynamism for inclusive, sustainable economic growth and development.
- **Governance;** to enhance the capacity of the state and its citizens to work together to achieve spatial and social integration.

These strategic goals inform the priority objectives of nine policy levers, premised on the understanding that integrated urban planning forms the basis for achieving integrated urban development, which follows a special sequence of urban policy actions. Integrated transport needs to inform targeted investments into integrated human settlements, underpinned by integrated infrastructure network systems and efficient land governance.

2.2.3. The WCG Provincial Spatial Development Framework (PSDF)

The PSDF sets out to:

- Address the lingering spatial inequalities that persist because of apartheid's legacy –

inequalities that contribute both to current challenges (lack of jobs and skills, education and poverty, and unsustainable settlement patterns and resource use) and to future challenges (climate change, municipal fiscal stress, food insecurity and water deficits).

- Provide a shared spatial development vision for both the public and private sectors and to guide to all sectoral considerations about space and place.
- Direct the location and form of public investment and to influence other investment decisions by establishing a coherent and logical spatial investment framework.

The spatial agenda advocated by the PSDF includes:

- Managing urban growth pressures to ensure more efficient, equitable and sustainable spatial performance.
- Aligning, and coordinating public investments and leveraging private sector and community investment to restructure dysfunctional human settlements.
- Supporting municipalities in managing urban informality, making urban land markets work for the poor, broadening access to accommodation options, and improving living conditions.
- Aligning infrastructure, transport and spatial planning, the prioritisation of investment and on the ground delivery.

The PSDF sets out a number of key strategic spatial transitions required to achieve a more sustainable use of provincial assets, the opening-up of opportunities in the space-economy and the development of integrated and sustainable settlements. Included is integrated and sustainable settlements, implying a transition from fragmented, isolated and inefficient community facilities and places to integrated, clustered and well-located community facilities and places.

2.3. Programmatic Context

2.3.1. Neighbourhood Development Partnership Grant (NDPG)

The NDPG aims to “stimulate and accelerate investment in poor and underserved neighbourhoods.” This stimulation is driven through technical assistance and capital grant financing for municipal projects that are linked to distinctive private sector elements or intended to create such a link. The NDPG seeks to address the lack of development (primarily economic) in townships, informal areas and low income settlements. The focus is generally public infrastructure projects that will attract private and community investment to help achieve township regeneration. These projects include:

- Nodal and/ or precinct projects.
- Linkage projects (internal and/or external).
- Environmental Improvement projects

2.4. Planning Context

2.4.1. Cape Winelands District Integrated Development Plan (IDP) 2017-2021

The Cape Winelands District Municipality’s IDP specifically prioritises the development of a “Nkqubela Community Commercial Node”, aimed at integrating the area with the rest of Robertson and increasing livelihood opportunity for residents.

2.4.2. Langeberg Municipality IDP 2017-2022 (4th Generation)

Langeberg Municipality’s vision is “to progress and grow from being one of the best municipalities, to be the best municipality”. Associated outcomes sought include:

- An effective approach to developing and managing human settlements and improved living conditions of all households.

- Maintain the infrastructure to provide basic services to all citizens.
- Create an enabling environment for economic growth and decent employment.

The IDP identifies the development of a Nkqubela Community Commercial Node as a priority, with the Municipality committing to submit proposals to the Department of Rural Development and National Treasury to unlock funds for the development. Specifically, the IDP commits to promote the development of industrial land to allow SMME’s to start and operate businesses, and to support “Co-ops” through outsourcing some of the municipal services as part of job creation (e.g. cleaning of municipal buildings and offices).

2.4.3. Township Renewal Strategy

A Township Renewal Strategy was prepared for the Langeberg Municipality by the National Treasury in December 2011. The strategy proposed the following goals:

- Introducing a land banking policy in support of targeted economic development.
- Increasing the organisation and marketing of township opportunities.
- Creating unique attractions in and/ or around township communities that will create a sense of place and stimulate tourism.
- Creating a milieu and climate which is conducive for business to operate and thrive.

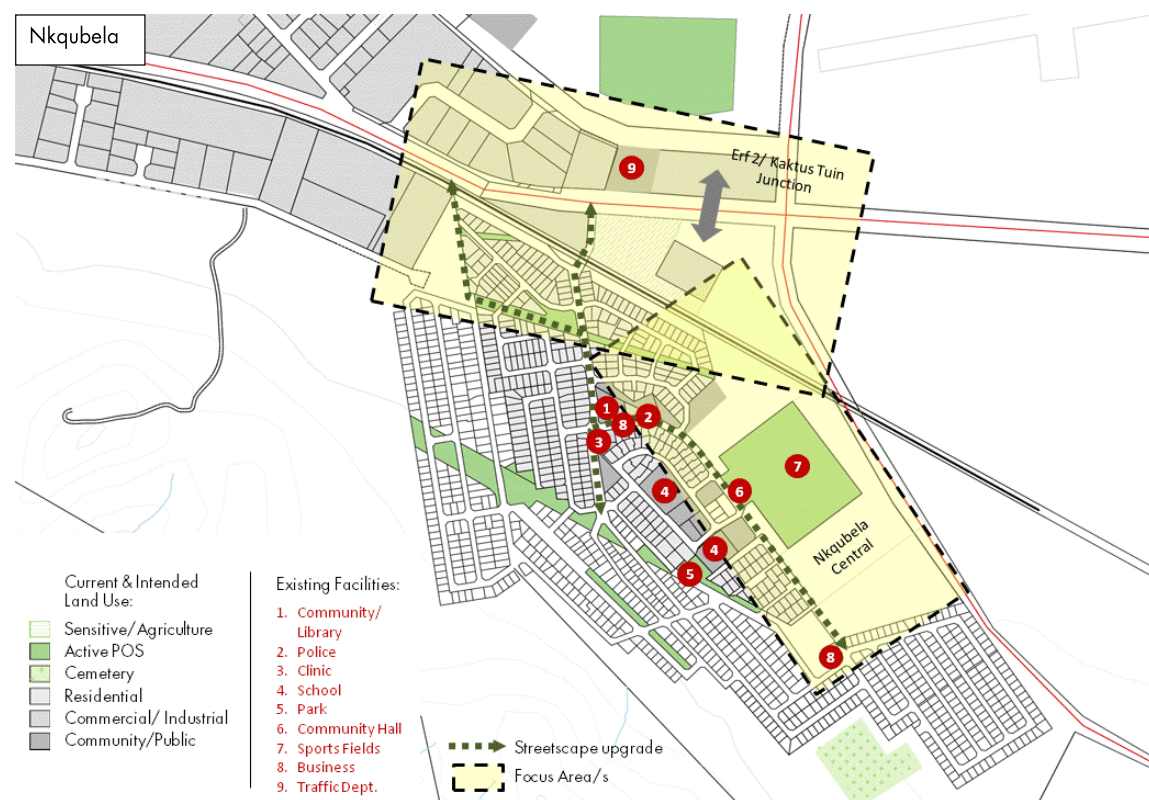


Figure 7. Focus areas for development in Nkqubela as per the 2011 Township Renewal Strategy

- Strengthening the commercial identity, organisation and co-ordination of businesses located in the centre of townships.
- Instituting a long-term mechanism to provide funding for township development initiatives and implementation projects.
- Establishing a local enterprise agency dedicated to the creation of employment.
- Increasing the capacity of the Langeberg Municipality to support the creation of new commercial developments.
- Establishing a Langeberg education and training partnership.
- Developing or providing vocational training to community-based individuals that indicate potential.
- Enhancing opportunities for job placement.
- Actively promoting and enhancing the role of the Municipality in community-based initiatives.
- Enhancing and promoting environmental protection of open spaces.

Figure 7 spatialises the development proposals. Since completion of the 2011 initiative, the Municipality have made some progress to enable economic development through conceptual work for the Bullida Grounds.

2.4.4. Langeberg Municipality Spatial Development Framework (SDF)

The Langeberg Municipality SDF (2015) sets out the desired long term spatial development and land use management directives for the municipal area. See Figure 8 for the Robertson SDF Plan.

Specific issues identified for Nkqubela during analytical and public participation work phases included:

- The need for formal and informal market and business areas.

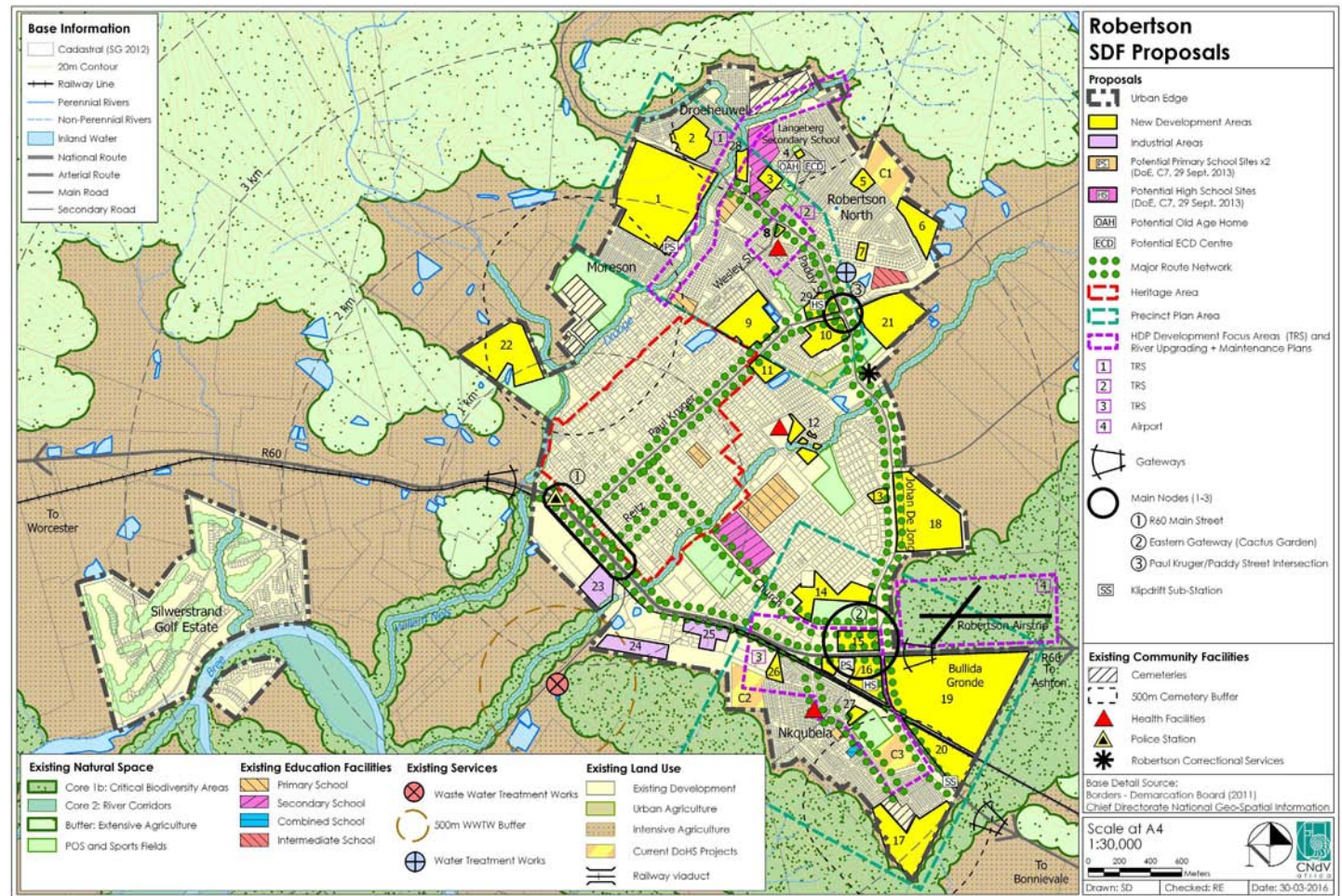


Figure 8. Robertson Spatial Development Framework 2015

- Tourism development.
- Land for churches and small scale farming.
- A community hall (and not just the sport centre hall).
- Additional health care facilities, crèche and schools.
- Additional housing (including GAP housing).
- Public transport and resolution of safety risks associated with level crossings.

The SDF proposed that a precinct plan be prepared for Nkqubela. To enable further opportunity here, the SDF also proposed the upgrading of the existing 75 mm diameter feeder main from the Reservoir 1 network to the Nkqubela booster pump station - which has since taken place, as well as the investigation of land requests for business areas and churches in Nkqubela and the release of the "Bullida Grounds" as a new development area - currently underway.

2.4.5. Neighbourhood development programme/ Small towns initiative: Concept and action agenda for Nkqubela

In line with the NDPP and small towns regeneration initiative, Langeberg Municipality prepared a concept plan in 2019 to unlock and sustain investment in Nkqubela. Key issues to be addressed included:

- The isolated and peripheral location of Nkqubela, leading to the spatial exclusion of Nkqubela from the Robertson town centre.
- The poor social and economic integration between Nkqubela and Robertson town centre.
- The barrier effect of the rail line and R60, further isolating Nkqubela.
- Nkqubela's setting at the foot of the mountain is not being fully celebrated or optimised.
- The poor character of Burwana Street (Nkqubela's main street).

The precinct concept focuses on:

- Supporting dignity, identity and a sense of place through optimising the spectacular landscape features surrounding Nkqubela and celebrating the special cultural features of the area.
- Bridging the divide, establish a hierarchy and integrated network of people friendly streets to link Nkqubela and the Robertson town centre.
- Improving the legibility and character of Nkqubela through developing a network of walkable streets and public spaces.
- Creating a series of linked and complementary nodes and activities to support inclusive economic growth and equitable access to resources.

- Creating a vibrant land use mix, optimising strategically located vacant and underutilised land, diversifying land use activities as well as co-ordinating new proposals and initiatives to support the making of a vibrant node.

This document builds on these proposals (as seen in Figure 9) as the starting point and main informant for the development of the precinct plan and the associated components. See Annexure B for detailed conceptual themes and maps.



Figure 9. The February 2019 Concept Plan for the Robertson - Nkqubela integration area



Part 3.

Contextual Analysis

3. Contextual Analysis

The following section provides a strategic analysis of the regional context, as well as the growth of Robertson and Nkqubela, its *current* situation and planned interventions. While reference is made to Langeberg Municipality and its broader context as part of the Cape Winelands District, the emphasis is on Robertson and Nkqubela.

3.1. Regional Context

Figure 10 illustrates the prominence of wine production in this highly scenic region, with mountains and valleys and a unique variety of towns and rural areas creating a popular tourism destination. The economy flows from these activities including agricultural, manufacturing, tourism and service sectors.

Economically, Langeberg has performed relatively well between 2007 and 2017, outperforming similar inland farming municipalities such as Swartland, Swellendam, Breede Valley and Theewaterskloof. Unlike most municipalities in South Africa, the rural population has remained constant over the past decade indicating the strength of the opportunities it offers.

With a GDP of R8.2bn as of 2017, the economy is dominated by five focus sectors: agriculture (21%), agri-processing (18%), retail and accommodation (15%) and business services (12%). Langeberg's R770m agri-processing sector remains an important contributor to the municipality and the region. It is one of the largest non-urban industrial nodes, with the agri-processing sector responsible for over 10% of provincial food and beverage exports.

The agriculture, forestry and fishing sector contributed the most jobs in the Langeberg municipal area in 2016 (14 376; 28.1%). Another sector that contribute significantly to the employment is the wholesale and retail trade, catering and accommodation sector (11 352;

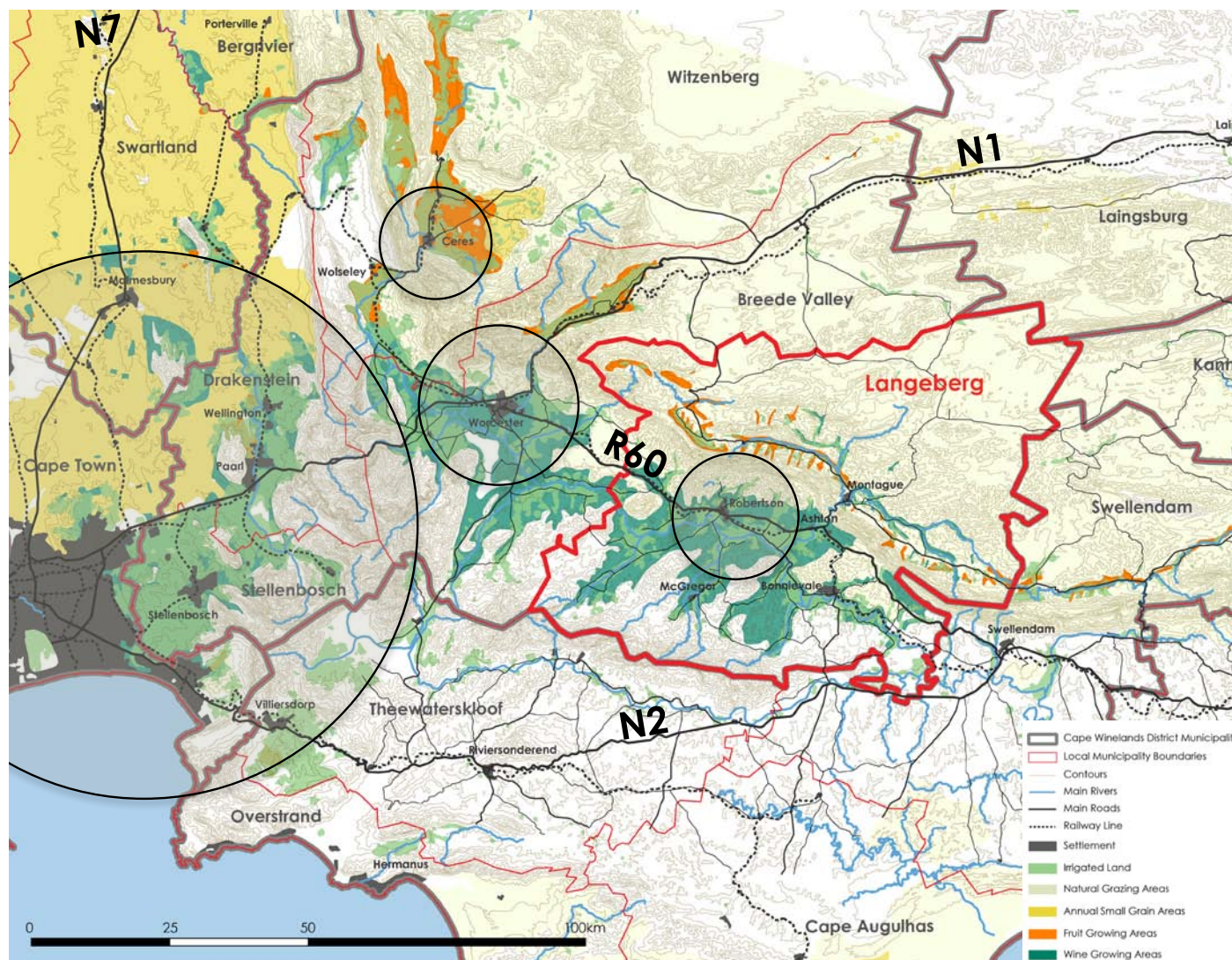


Figure 10. The regional context - the location of Robertson within the region along an irrigated strip of wine and table grape production, along the R60 between the N1 and N2.

22.2%). The manufacturing sector contributed significantly less jobs (8.7%) relative to its GDP contribution (18%) to Langeberg economy (see Table 1 for industries and growth rates).

However, the agriculture, forestry and fishing and manufacturing sector in the Langeberg municipal area reported net jobs losses (-8 256) between 2006 and 2016. There were job losses reported in these sector in 2016 and 2017 due to the severe drought. This is a major cause for concern considering the significant contribution of this sector to the Langeberg economy.

Other sectors such as tourism therefore play a critical role in maintaining local economic growth. The region attracts high volumes of tourists (close to 240 000 visitors in 2014 – 650 per day²) from all over the province on an annual basis. Langeberg is also home to more than 200 accommodation establishments, all with high occupancy rates.

However, this has proven to lead to the number of road accidents in Langeberg being very high. Road fatalities increased by 78.2% in 2016 compared to 28.3% for the District³.

In line with regional trends – economic growth has slowed to an average of 2%. Whereas retail, accommodation and business services continue to perform reasonably well, agriculture and agri-processing has slowed to 1.6% and 0.7% respectively.

Nevertheless, eighty-seven industrial buildings have been completed between 2007 and 2017, signalling continued vitality in the sector. Notwithstanding the anticipated recovery of the agricultural sector from the prolonged drought, Global Insight forecasts that the overall economy will slow to below 2% over the next five years.

The space economy of Langeberg may be described as a cluster of service centres within a large rural catchment topographically delineated by the Breede valley. Besides 360 000ha of natural

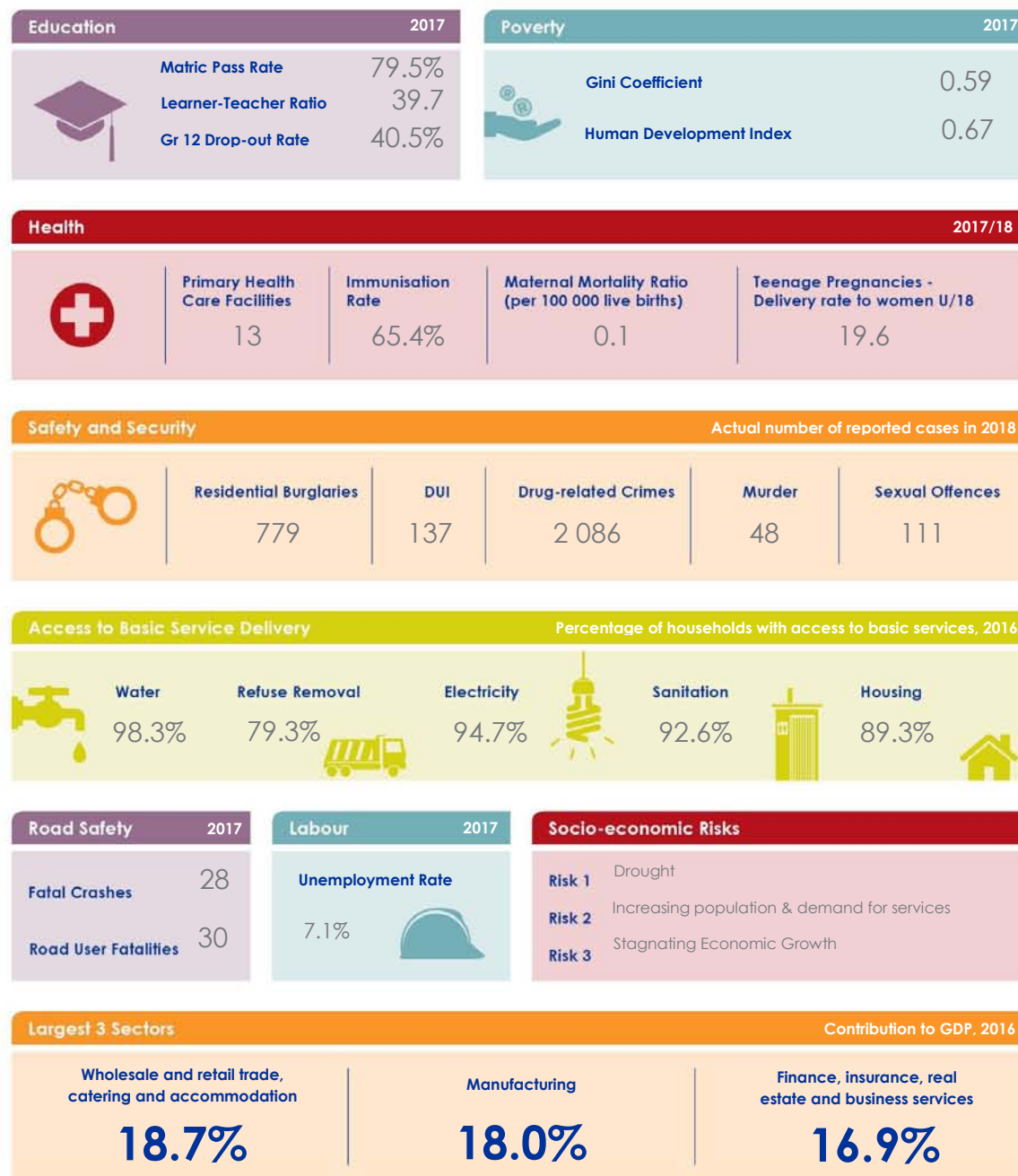


Figure 11. An overview of information such as education, health, safety and service delivery data for the Langeberg Municipality (WCG SEP 2018).

² Langeberg Municipality Tourism Strategy - Draft April 2014

³ Information relating to fatal crashes and crash fatalities were sourced from the Department of Transport and Public Works.

cover, the rural catchment includes – inter alia - 30 000ha of commercial fields, nearly 30 000ha of vine and 4 000ha of orchards. The five towns are functionally distinct: Robertson, the administrative and main service centre (23% of GVA), the two tourism centres, Montagu and McGregor (14% and 7% respectively), Ashton, who share a manufacturing base with Robertson (16% of GVA), and Bonnievale (8%).

The structure of employment has been changing: the number of low-skilled jobs in the formal sector has dropped from 36% in 2007 to 28% in 2018, whereas the proportion of workers in the informal sector have risen from 37% to 39% over the same period. The proportion of jobs in the skilled sector have risen marginally from 7.5% in 2007 to 10% in 2018. The proportion of semi-skilled jobs in the formal sector have risen from 19.5% to 23%. Of all sectors, the agriculture sector has shed the most jobs: in 2007 over 20 000 (40%) of workers worked on farms, both formally (24%) and informally (14%); in 2018 only 13 300 jobs (22%) jobs were farm-based. Despite its overall economic significance, the agri-processing sector employs relatively few people: the food and beverage industry employed 1 400 workers in 2018, compared to 2 300 in 2007. The manufacturing sector as a whole employed 4 500 workers. In contrast, the number of persons working in the retail and accommodation sector has grown from 8 000 in 2007 to 12 600 in 2018. Business services have grown from 3 700 workers in 2007 to 7 200 workers over the same period. The number of persons employed in the public sector and community services have grown from 7 400 to 10 300. Tellingly, informal retail (29%) has overtaken farm jobs (21%) as the biggest source of informal employment.

The level of functional literacy, a level of ability to read and write to manage daily living and employment tasks, has risen from 48% in 2007 to 55% in 2018. This is significantly below the provincial rate of 65%.

Table 1. Total industries in Langeberg *Global Insights Forecast

Focus Sector		1997	2007	2017	2022*	
Agriculture	% of GVA	32.8%	26.9%	21.0%	21.8%	
	Growth rate		3.9%	1.6%	4.5%	
Agri-processing	% of GVA	16.8%	15.1%	18.1%	17.9%	
	Growth rate		5.3%	0.7%	2.6%	
Retail and Accommodation	% of GVA	9.7%	13.0%	14.6%	14.3%	
	Growth rate		9.7%	2.6%	3.0%	
Business Services	% of GVA	8.5%	14.8%	11.9%	12.3%	
	Growth rate		10.1%	2.5%	2.5%	
Gov. and Community Services	% of GVA	15.7%	11.9%	15.2%	14.6%	
	Growth rate		5.5%	2.6%	1.0%	
Other	% of GVA	16.5%	18.2%	19.2%	19.0%	
	Growth rate		8.2%	2.5%	3.0%	
Total (Total Industries)		Growth Rate		7.4%	2.3%	1.9%

According to the 2018 Socio-Economic Profile, the Langeberg area has a particular challenge with respect to drug-related crime, with rates well above the district and province's crime rates. The actual number of incidents increased from 1368 in 2016 to 2086 in 2018 (see Figure 11⁴).

With a total of 28 401 households, 89.3% have access to formal housing. With the exception of electricity and refuse, access to services in Langeberg are on par or above that of the Cape Winelands District⁵.

4 Data depicted was sourced from the 2018 Crime Statistics released by SAPS and Stats SA in September 2018. Incidences of crime per 100 000 were calculated using actual crime and estimated population figures provided by the Department of Social Development.

5 Community Survey 2016

3.2. Local Profile Analysis

3.2.1. Historic Development of Robertson and Nkqubela

The town Robertson was established in 1852; primarily as a place of trading, meeting and worship for farmers of the district. By 1872 Robertson boasted several trading stores, private schools and a well-stocked Public Library. A branch of the Standard Bank of South Africa was opened in 1880.

Meaning “Prosperity”, the first phase of Nkqubela was constructed in 1962 as a relocation area for the people of Muiskraalkop, providing brick houses and services to these residents previously living in mud and sink houses with access to only one communal tap. Figure 12 indicates development phases of Nkqubela. The original Black African community – predominantly from the Eastern Cape in search of work – established themselves in 1952 in makeshift accommodation without services at Muiskraalkop, the area abutting Wolhuter Street and formally developed in 2014. The first formal housing was built in 1962 in an area east of Muiskraalkop.

Figure 12 highlights two important aspects of Nkqubela’s historic growth:

- Nkqubela was always contemplated as separate from the main town (even recent development continues on the outskirts, not addressing the “buffer” zone of vacant land).
- The focus has predominantly remained on housing.

Given the lack of higher order commercial, work, and opportunities in Nkqubela, movement to and from the main town across significant barriers is a daily necessity. Movement occur via taxi, on foot, and by means of NMT (the minority of residents have access to private transport). The R60, railway line, and vacant land impedes this movement and interaction of people between Nkqubela and the rest of Robertson.

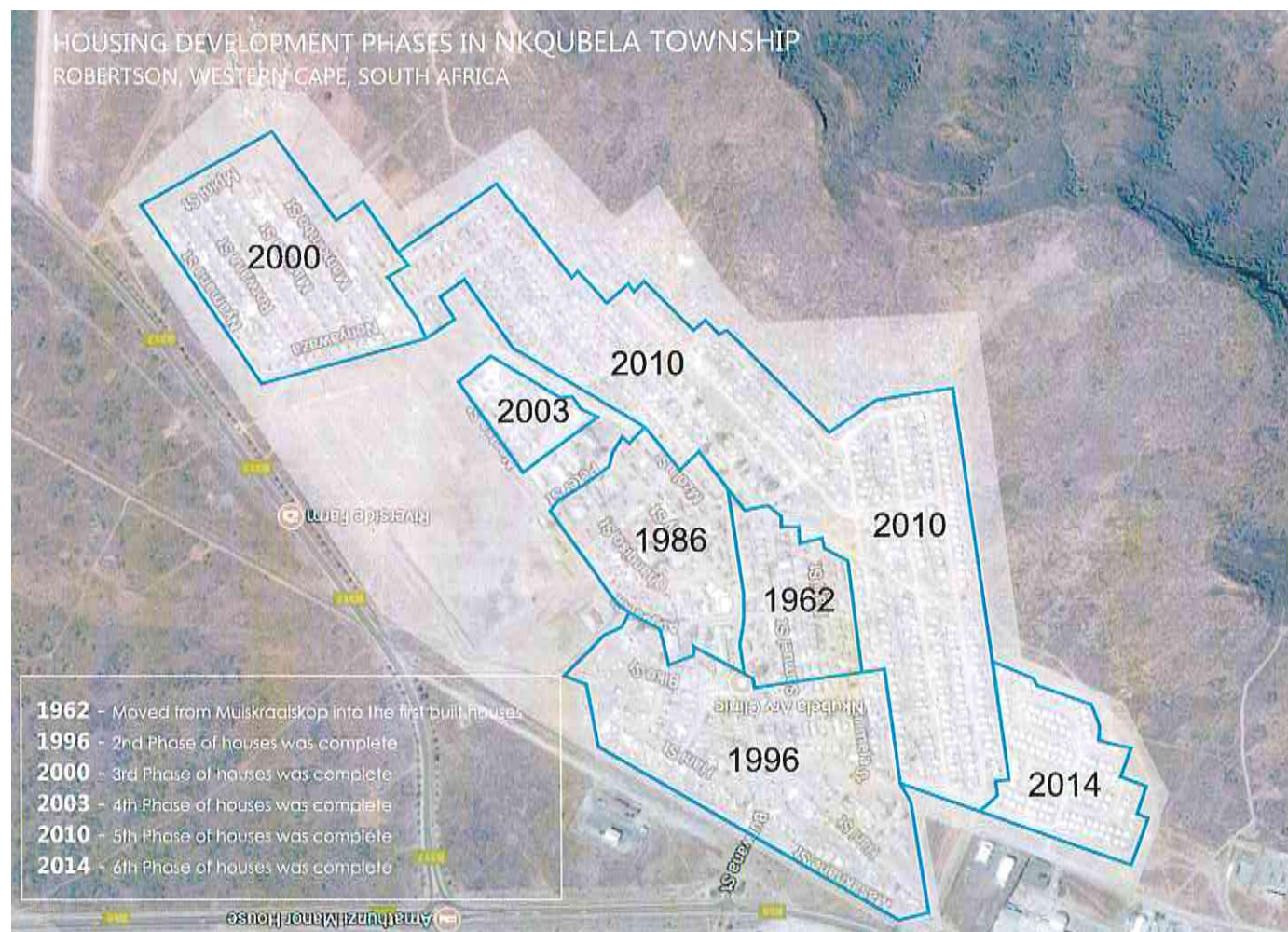


Figure 12. Housing development phases in Nkqubela Township (Lamgeberg Municipality)

With more than 150 years of rich history, Robertson has grown into an attractive Cape Winelands town, with Victorian buildings, jacaranda-lined streets and beautiful gardens. Yet, as observed by Hall “to a visitor it looks like a valley of plenty ... [It] is extremely beautiful and very rich. However, it is also an area marked by poverty and inequality...Substantial job losses on farms have prompted widespread evictions and the mushrooming of informal settlements,

where a large proportion of people are reliant on insecure, informal and seasonal employment and on social grants. The area ... epitomises the contradictions of the commercial farming sector, which has been successful in providing paths to accumulation for some while entrenching poverty, underdevelopment and economic exclusion for others”⁶

⁶ Hall, R. (2009): Another Countryside? Policy Options for Land and Agrarian Reform in South Africa. Published by the Institute for Poverty, Land and Agrarian Studies (PLAAS) and the School of Government, University of the Western Cape. April 2009.

3.2.2. Biophysical Environment Context

3.2.2.1 Overview

Robertson is situated in a broad river valley surrounded by mountains. The study area is located on gently sloping land at the foot of Muiskraalkop, a hill rising about 100m above the town of Robertson. Nkqubela and its associated informal settlements extend up the slopes to the south.

The area is underlain by fertile alluvial soils, which overly conglomerates and sandstones⁷. Land within the precinct is not actively farmed. Wine grapes and stone fruit are farmed to the southeast of Nkqubela. The 'land capability', a measure of agricultural potential, is medium to high in the precinct⁸. Provincial projections for the effects of climate change on agriculture indicate that the agricultural potential of the Breede Valley remains high, provided sufficient water remains available⁹.

Vegetation in the study area is Breede Alluvium Renosterveld, much of which has been cleared for urban development and agriculture. The vegetation type is listed as Vulnerable in the 2011 List of Threatened Ecosystems but is now considered Endangered based on CapeNature's 2016 assessment of threat status.

The Robertson aerodrome and surrounding areas of commonage and undeveloped land are a major remnant of this vegetation type and are likely to be significant in ensuring conservation targets are met. Alluvium renosterveld is a short, grassy shrubland dominated by renosterbos and occurring on flat valley bottoms. At least two endemic plant species and 10 Red Data List plant species occur in the ecosystem. Very little (<1%) of the ecosystem is in formal protected areas.

Undeveloped areas in the eastern part of the precinct are classified as Critical Biodiversity Areas (CBA1) due to the presence of this vegetation

type¹⁰. This includes the open space next to the Callie de Wet sports fields, as well as the area between the Nkqubela sportsfields, the R317, and the R60. An extensive area east of the R317 (Johan de Jongh Avenue) is also identified as CBA1. See Figure 13 for regional ecological corridors and CBA elements. The objectives for managing CBA1 areas include:

- Maintain in a natural or near-natural state, with no further loss of natural habitat.
- Degraded areas should be rehabilitated.
- Only low-impact, biodiversity-sensitive land uses are appropriate.

A botanical assessment will be required in order to confirm the accuracy of provincial biodiversity mapping and the designation as CBAs. Development in CBAs must be avoided and, if unavoidable, is likely to require the provision of biodiversity offsets.

Other undeveloped areas in the precinct are identified as Ecological Support Areas, which are not essential for meeting biodiversity targets, but play an important role in supporting the functioning of CBAs and are often vital for delivering ecosystem services. Objectives for these areas include:

- Maintain in a functional, near-natural state.
- Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised.

The Hoops River flows through the western part of the precinct. For most of its length within the town, it is a typical urban river with hardened or shaped banks, little or no indigenous riparian vegetation, and a high degree of impact from adjacent roads and urban areas. The broad corridor through which it flows offers an opportunity to restore natural functioning and habitat along the river while also promoting pedestrian access along the river to maximise its amenity value. Opportunities

to rehabilitate and restore the river corridor and to develop sensitively-located and designed footpaths should be explored.

The pond located adjacent to the Callie de Wet sports fields is not identified in the WCBSP 2017 as a natural wetland, and may be fed by storm water from the adjacent residential areas. It provides habitat for birds and other animals, and could become an attractive feature in an upgrade of the Callie de Wet precinct. The areas of natural vegetation north and south of the pond are identified as CBAs and will require careful consideration in any proposed upgrade of the park.

3.2.2.2 Key Findings and Implications

Figure 14 summarises the spatial implications of these findings. From a spatial planning and land use management perspective, the following issues and opportunities have been identified in relation to the biophysical context:

1. Langeberg municipality is endowed with a comprehensive system of critical biodiversity area (CBA) corridors of which a large extent is already formally or informally conserved.
2. However, development in CBAs within or abutting the urban edge must be avoided and, if unavoidable, is likely to require the provision of biodiversity offsets.
3. Opportunities exist to rehabilitate and restore the river corridor and to develop sensitively-located and designed footpaths should be explored.
4. The pond east of Callie de Wet provides habitat for birds and other animals, and could become an attractive feature in an upgrade of the Callie de Wet precinct.

⁷ ENPAT
⁸ DAFF 2018

⁹ Smart-Agri 2016. <http://www.greenagri.org.za/smartagri-2/smartagri-plan/>

¹⁰ Western Cape Biodiversity Spatial Plan, 2017



Figure 13. Regional biophysical corridors and elements



Figure 14. Contextual analysis of the local biophysical environment

3.2.3. Socio-Economic Context

3.2.3.1 Local Demographic Trends

The annual growth rate of the population of Langeberg between 2001 and 2011 was 2.02% per year. This positive growth rate indicates that more people continued to settle in the municipality, and between 2011 and 2016, annual municipal population growth increased (2.7%), which exceeded economic growth of 2.3%. This implies a marginal decline in GDP per capita over this period. Between 2011 and 2018, disposable income per capita has grown at a meager real rate of 0.4% per year.

According to census data, Ward 2 (Nkqubela) has a population of 5792, whereas Robertson has a population of 21 922 people. Segregation along racial lines are still evident in the spatial pattern of neighbourhoods (see Figure 15). The 2010 Census found that in Ward 2, comprising Nkqubela:

- Two-thirds of households earn less than R40 000 per year, contrasted to an average disposable income for the municipality of R107 000 per household per year.
- 11% of residents are born in outside South Africa, 61% were born in the Western Cape, and the proportion of households living in informal dwellings is double the district average of 15%.
- The level of unemployment, at 23% in Ward 2, is more than twice the rate of the Cape Winelands district. This rises to 27% when discouraged jobseekers are included.
- 37% of individuals over 20 have matric, which is higher than the district average (33%) but lower than the provincial average (41%). Only 5% of individuals have tertiary education. As for children aged 5 to 17, 80% are in school compared to 86% for the district and 87% for the province.
- Households are well-connected, with 85% of households having a cell phone and 72% a television. But, based on income brackets of

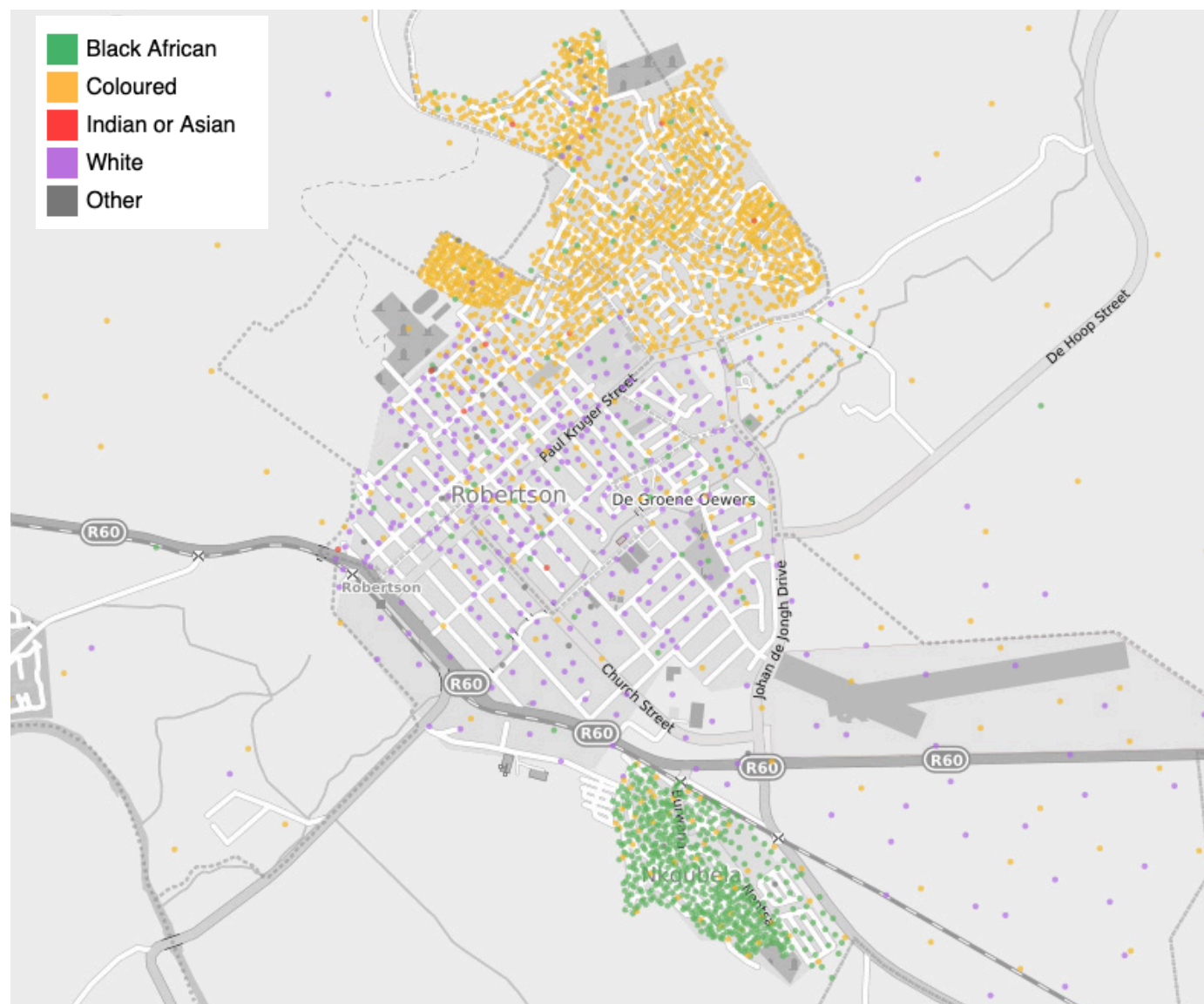


Figure 15. Racial segregation patterns in Robertson as depicted in this dot map based on Census 2011 data (Dot Map of South Africa by Adrian Frith - one dot = 10 people)

below R3500, the assumption can be made that costs of data or airtime might impact on access to the internet or communication.

- Households lack the means of private transport, with only 35% of households having access to a car.

3.2.3.2 Local Property Trends

Third-party data provides some insight into more recent trends for the neighbourhood of Nkqubela: Lightstone estimates the average monthly income range as between R2 500 and R5 000, and

predominantly LSM 5. As of 2019, less than half of property owners in Nkqubela (46%) had owned property more than 5 years, compared to 63% for the town of Robertson as a whole¹¹.

The lack of affordable housing has been one of the concerns raised in Robertson. This is supported by 2019 data, which estimates the median value of freehold residential property in Robertson at R620 000, compared to R960 000 for McGregor and R270 000 in Montagu.

Bonnievale (R135 000) and Ashton (R130 000) does appear to offer affordable housing. In Nkqubela, only 839 formal freehold properties are recorded for a population that has continued to grow from 5792 in 2010 (estimated to be more than 10 000 in 2019), suggesting a significant under-provision of housing. However, of the 2230 houses built between 2007 and 2017, 1760 (79%) were smaller than 80 square meters in floor area (Statistics South Africa), suggesting that the residential property market at a municipal level is adjusting to demand.

3.2.3.3 Tourism Trends

The Langeberg municipality is fortunate to have a wide variety of diverse tourism products within its boundaries. These range from adrenalin activities such as water sports, rock climbing, nature based activities such as hiking game viewing, health and wellness activities and products, shopping activities, sports etc.

According to the 2014 Langeberg Municipality Tourism Strategy, the region attracts high volumes of tourists (close to 240 000 visitors in 2014 – 650 per day) from all over the province on an annual basis. Langeberg is home to more than 200 accommodation establishments with high occupancy rates. According to tourism product owners, the vast majority of tourists coming to the Langeberg area do so for holiday purposes. This is followed by persons attending an event, conference, wedding etc.

Tourism product owners widely consider the wine industry as the anchor for tourism in the municipality. This is supported by an analysis of the tourism product database, which shows that wineries and related tourism products are the most common of all tourism products in the Langeberg. However, there appears to be a shortage of child friendly products across the municipality. Product owners reported that many of the tourists places are closed on Sundays, which impacts on the selling the municipality as an ideal weekend destination.

Festivals such as Robertson Slow Food & Wine Festival, Wine on the River, Wacky Wine, and the Robertson Hands on Harvest Wine Festival have put Robertson on the map as a centre for festive experiences related to the wine economy. This is seen as an example of successful branding strategies and marketing that have benefited the local economy, albeit driven by private sector initiatives.

3.2.3.4 The Informal Economy

The main Informal Settlement of Nkanini, Nkqubela, consists of 31206 structures. There is an active Informal Economy taking place with no shortage of activity happening in the streets and houses of Nkqubela: spaza shops, metal fabricators, hardware and building supplies, hair-braiding, cooking etc. can be found here.

Despite this apparent dynamism, most economic activity is trapped within a narrow band of informal activities with low returns or employment multipliers. Enterprises tend to be dispersed throughout the area, often home-based. Such enterprises are often in breach of current zoning regulations, making them vulnerable to fines or bribes.

The majority of informal traders in Nkqubela are active in the retail trade, followed by the taxi industry. There are dedicated informal trading zones at the open space in Burwana Street and next to the railway line in Wolhuter Street.

3.2.3.5 Key Findings and Implications

The following section provides an overview of the socio-economic analysis findings in terms of key implications for the precinct plan proposals.

The overall town economy of Robertson is **critically dependent on the agricultural, tourism and agri-processing sectors**. These sectors have been responsible for creating thousands of job opportunities, municipal revenues and overall amenity for both visitors and residents over the last ten years. It is due to these sectors, supported by a facilitative municipality, that the town of Robertson has outperformed many of its neighbouring towns.

The vitality of these sectors is critically dependent on the extent to which “Brand Robertson” is protected and further enhanced via **pursuing superordinate economic goals which seek to grow the town’s economic base and vitality**. These goals would seek to better manage the visual amenity of key routes, good urban management within the existing town and the physical and visual containment of informal settlement growth.

Gaining traction on these goals is hamstrung by spatial and cultural barriers dividing the perceived interests of stakeholders situated “across” these barriers, impeding the movement and interaction of workers and customers. The extent to which the precinct strategy is able to harness superordinate opportunities is contingent upon its ability to identify and address these barriers. **Overcoming physical and cultural barriers may include, inter alia, improvements to connective infrastructure and the development and prudent management of shared spaces and facilities**. In South Africa, the track record in the management of municipally driven public facilities is not encouraging and should be developed in close cooperation with all stakeholders. It is thus essential that new management models are investigated.

As illustrated in Figure 16, the spatial barriers between Nkqubela and the town centre creates

¹¹ Lightstone Data, 2020.

trading monopolies for certain categories of goods and services. Entrepreneurs do not currently face competition from formal retailers who are likely to offer better service and prices to local residents.

Most of the economic activity within Nkqubela is informal by nature as there is no formal business premises available in this area. This results in land use conflict with local residents, not only in terms of space but also nuisances such as noise and waste.

The expectation that owners of informal SMMEs currently in Nkqubela would like to be formalised is unproven and unlikely. To the contrary, it is rational for **SMME owners to seek to minimise compliance-related costs and maximise location**. Therefore, the need to bring long-time residents of Nkqubela into the town economy is a major challenge, and the extent to which the skills and proximity-related barriers to entry into this sector needs to be interrogated further. The role of the precinct should seek to support the **lowering of barriers to labour market entry** through, for example, further education and training.

From a spatial planning and land use management perspective, new management models such as the sharing of facilities must also be investigated.

3.2.4. Settlement Structure, Movement, Transport and Access

At a regional scale, Figure 17 illustrates the structure, hierarchy and role of settlements within the Langeberg Municipality. Robertson serves as the administrative centre with retail and tourism activities concentrated here. Ashton is the industrial centre. Montagu and McGregor are heritage and tourism-orientated settlements, while Bonnievale serves as a agricultural service and agri-industry centre.

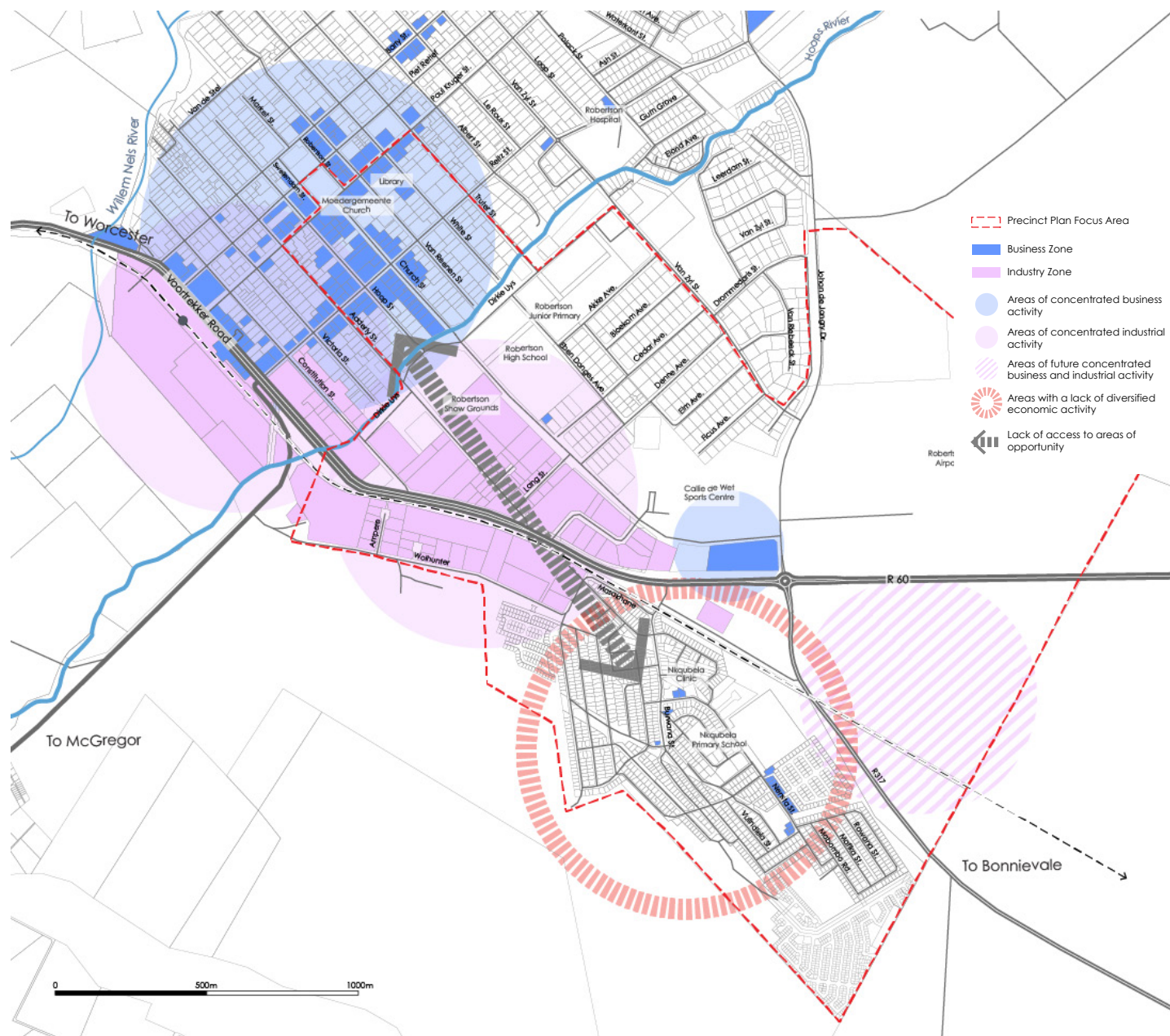


Figure 16. Contextual analysis of key economic activities and areas of employment. This map illustrates the concentration of commercial and retail activities in relation to Nkqubela - leading to the lack of integrated economic opportunities as discussed above.

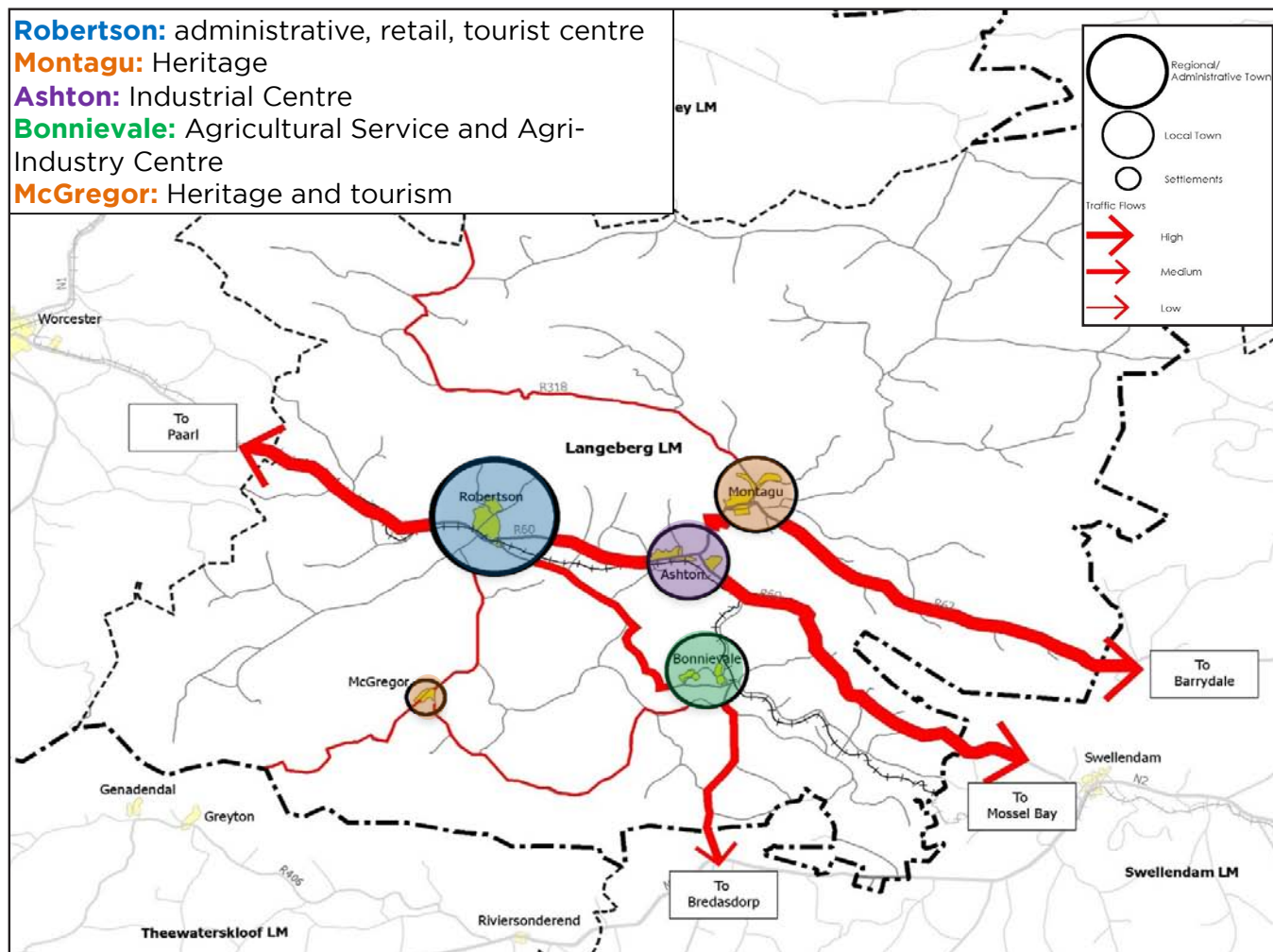


Figure 17. Settlement role and hierarchy as well as traffic flows.

Robertson and Nkqubela is situated on the R60, a significant road within the provincial road network which functions as a class 2 primary distributor and extends from Worcester in the west to Oudtshoorn in the east. It has one travel lane per direction with paved shoulders. The road extends through the town of Robertson with various local streets intersecting with it.

Traffic volumes are relatively high with an annual average daily traffic volume of 7 944. The peak

hour volume is 485 vehicles per hour during the AM peak hour and 555 vehicles per hour during the PM peak hour¹².

As a major provincial route, the R60 forms a significant barrier between the main town of Robertson and Nkqubela, specifically for pedestrians and NMT (see Figure 18). The main street access to Nkqubela is currently at the R60/Burwana Street intersection. Alternative access is

¹² Western Cape Dept. of Transport and Public Works, rnis website, https://rnis.westerncape.gov.za/rnis/rniss_station_data_rep.station_data?p_id=78717&p_ord_no=1&p_str=4156D; accessed on 11 November

via Wolhuter Street and an intersection at the R60/ Reitz Street. The R317, a class 3 district road with one travel lane per direction, connects Robertson to Bonnievale and forms the eastern boundary to Nkqubela. No formal access to and from Nkqubela exists on the R317 (see Figure 18).

The railway line parallels the R60 to its south, creating a further access barrier between the main town of Robertson and Nkqubela (see Figure 18). The only bridged crossing of the railway line is near the R60/ Reitz Street intersection. The railway reserve is not fenced.

In terms of the main road network, it has been proposed to provide a second access to Nkqubela onto the R317. The Provincial Department of Transport and Public Works has advised that it would be best to realign the R317 and that a portion of the R60 up to the new entry point becomes a main road, and that the previous portion of the R317 becomes a municipal street (See Figure 19).

Public transport is largely provided by private taxis, mainly from the northern areas of Robertson and Nkqubela into Robertson CBD for work or shopping trips. Travel to Ashton and Bonnievale occurs daily during the morning and evening. Over weekends services are also provided to and from the surrounding farms by farmer's trucks.

The local taxi pick-up locations, formal and informal, are located in (1) Hoop Street, (2) along Voortrekker Road opposite the SA Police Department, (3) an informal pick-up at the corner of Reitz and Adderley Street (Robertson to Nkqubela route), as well as (4) another informal rank at the corner of Van Rheenens and Piet Retief Street (see Figure 20).

Pedestrians mostly walk between Nkqubela and Robertson to places of employment or retail activities for shopping, as there are no formal public transport alternatives and most of the required services and recreational activities take place in Robertson town centre. This means that

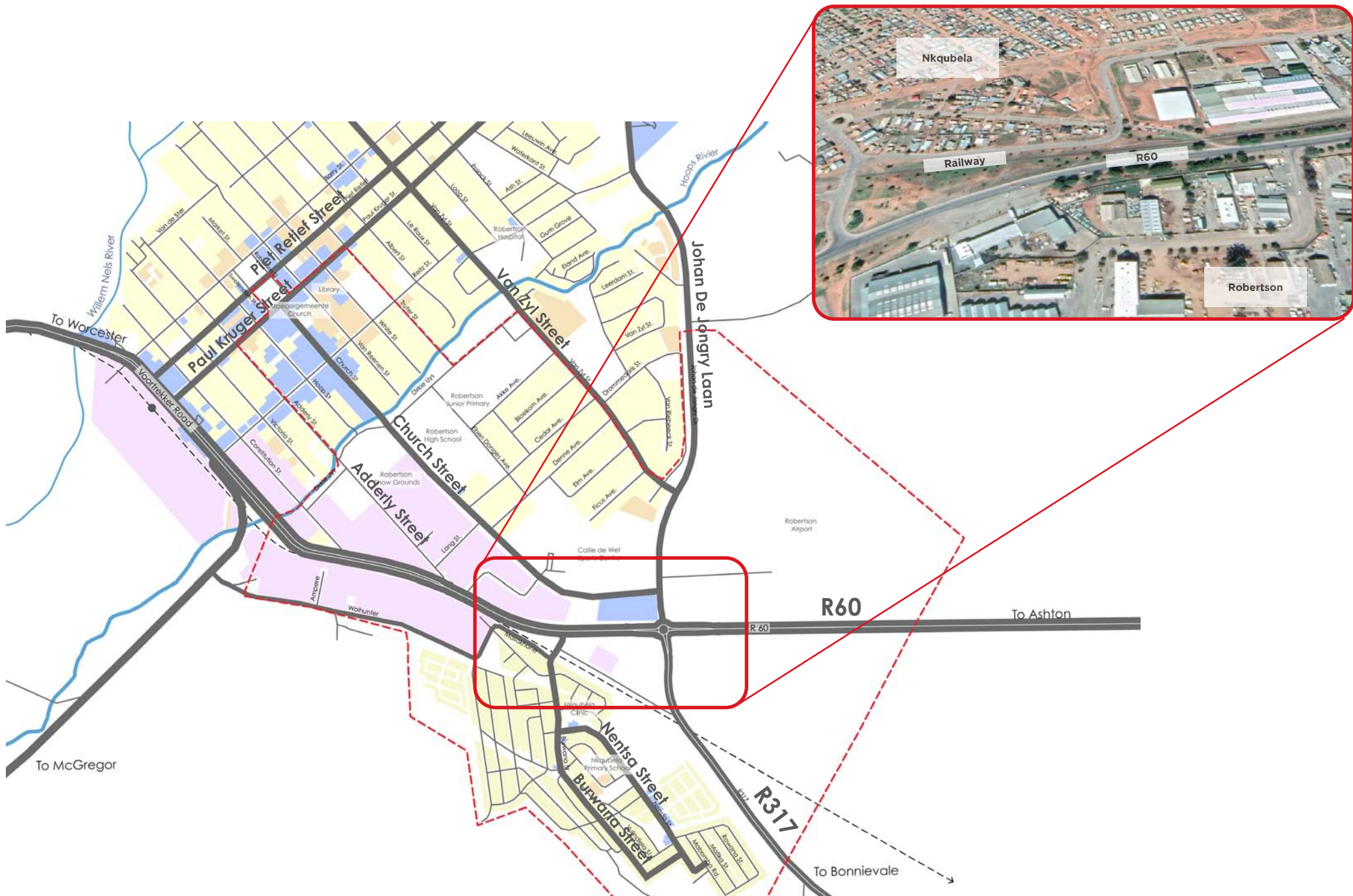
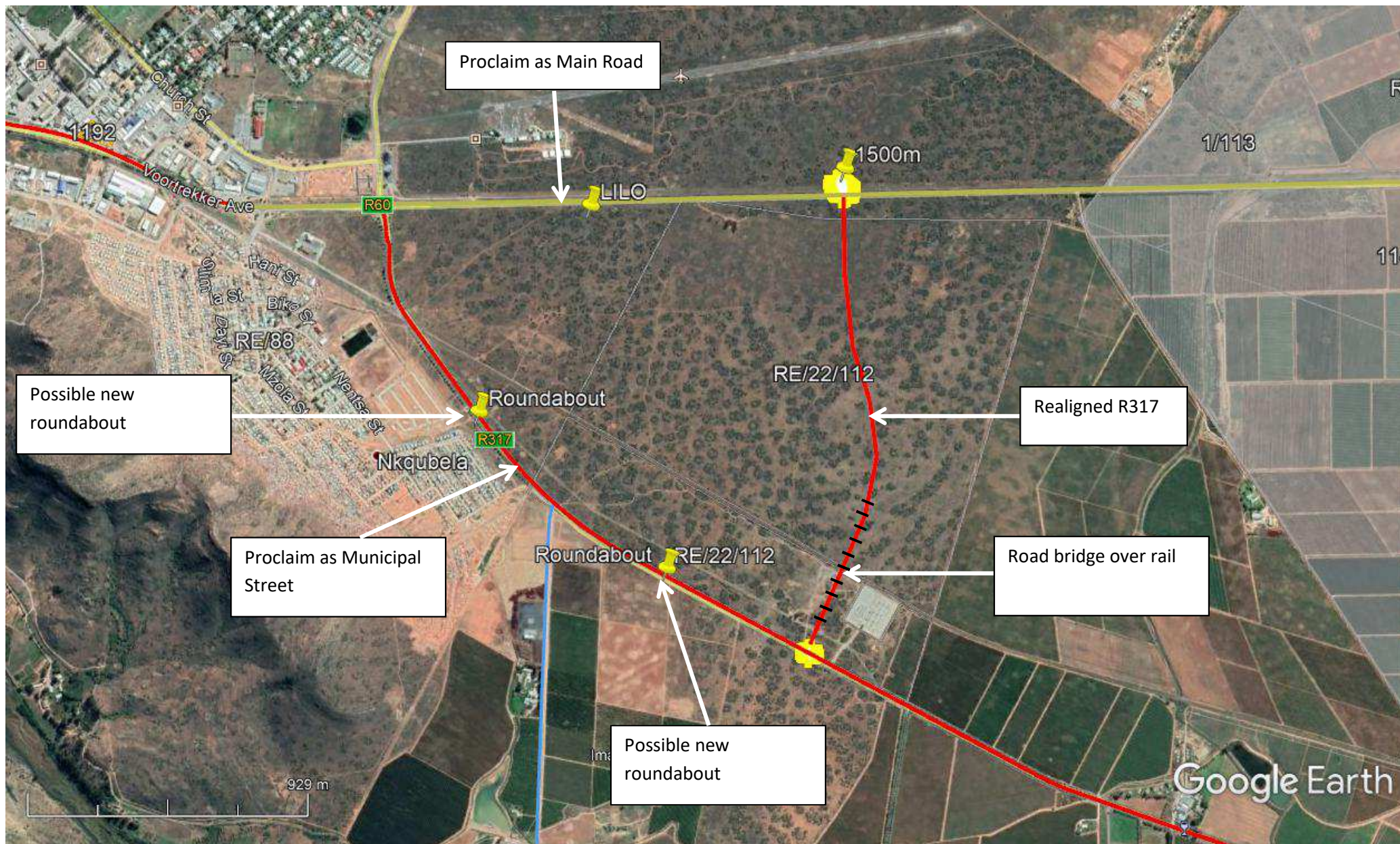


Figure 18. Main movement structure and routes within Robertson, and the position of the R60 and railway line creating spatial barriers between Nkqubela and Robertson.



CONCEPTUAL PLAN FOR THE RE-ALIGNMENT OF THE R317 (MAIN ROAD 287)

Figure 19. Conceptual Plan for R317 Realignment (WCG) - *Note that this map needs to be revisited as discussions have developed

residents of Nkqubela, whether school children, young workers or the elderly, have to cross the R60 (where regional traffic and freight activity threatens safety and ease of movement) and railway line.

The main NMT desire lines (as seen in Figure 20) exist between the following origins and destinations:

- From the northern areas to the CBD area along Barry and Westley Streets.
- From Nkqubela across the railway line, across the R60, and along Adderley Street towards the CBD.
- The Hoop Street area, with taxis currently holding along Hoop Street and occupying bays within the Pick n Pay parking area.
- Church Street.
- Along Van Reenen Street in the vicinity of the taxi rank.
- Along Piet Retief Street in the proximity of the Spar, and the public open space section in front of Shoprite.

A new pedestrian desire line is already visible from Nkqubela across the R60 to the new shopping centre at the north-western quadrant of the R60/Burwana intersection (the development was completed turning its back onto the R60 and with no improvements to access arrangements for citizens accessing the facility from south of the R60). Cycling have also been observed along from Nkqubela, across the R60 and then along Adderley, as well as along the R60.

Apart from the road and rail barriers (as indicated above) to be overcome, pedestrian movement routes in Nkqubela are generally poorly constructed, have inadequate lighting, have discontinuous paving and are inadequately protected (also crossing open undeveloped land).

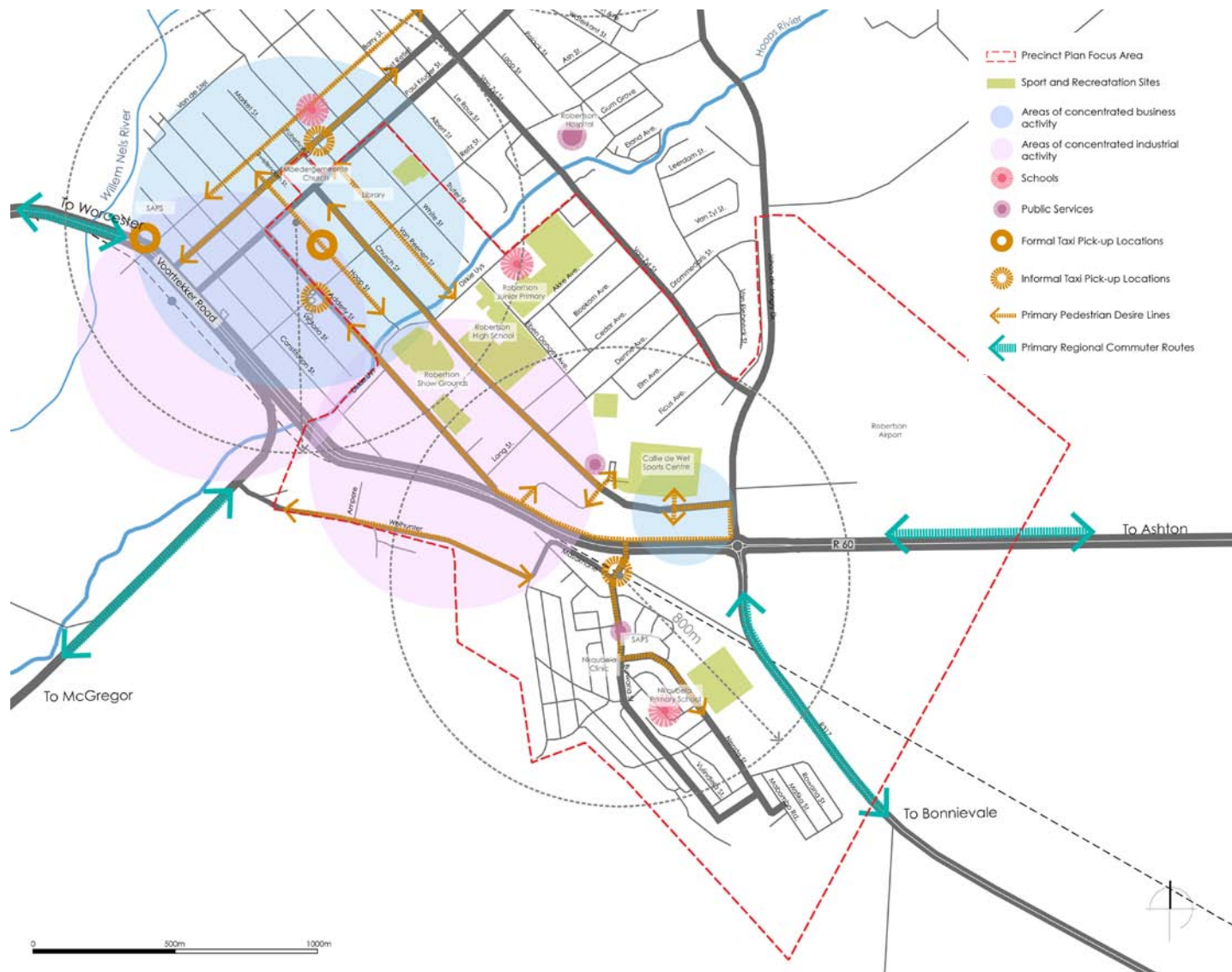


Figure 20. Contextual analysis of pedestrian movement, public transport routes and economic activities

Recent road upgrades undertaken in the area include Wolhuter, Masakhane, Burwana, and Nensta Streets. Roads planned for upgrading during the 2020 financial year and funded by National Treasury include raised intersections and improved

bus routes for August Street, reconstruction of Wolhuter Street including storm water drainage, along with the upgrading of sidewalks along Adderley, Industria and Church Streets.

3.2.5. Service Infrastructure

3.2.5.1 Sewer and water

The municipality has upgraded or constructed most of the infrastructure as proposed in the 2012 Sewer and Water Master Plan. While the waste-water treatment works does have capacity problems, MIG funding has been applied for to pay for the upgrading of the works over the period 2021 to 2023.

No new water infrastructure upgrades are required around Nkqubela at this stage. A new reservoir is possibly only required once future development areas R01 to R06 to the north and north western edges of town develop, as indicated on the Sewer Master Plan in Figure 21. This is not expected in the near future.

3.2.5.2 Electricity

The Municipality receives their electrical supply from Eskom and is metered at high voltage level with 5 bulk metering substations distributed throughout the municipal area. The Municipality distributes from these substations to consumers and maintain their own networks. Maintenance is done on a regular basis and it was noted that the current networks are in a fit condition.

The Municipality does have capacity constraints from Eskom with only 4MVA available till they reach their limit of Notified Maximum Demand. Engagements with Eskom regarding this matter has commenced. The following 2 interim solutions are being proposed are:

- Shifting the current load between the substations (freeing up around 1.5MVA).
- The Municipality applying to increase their Notified Maximum Demand until the capacity available from Eskom.

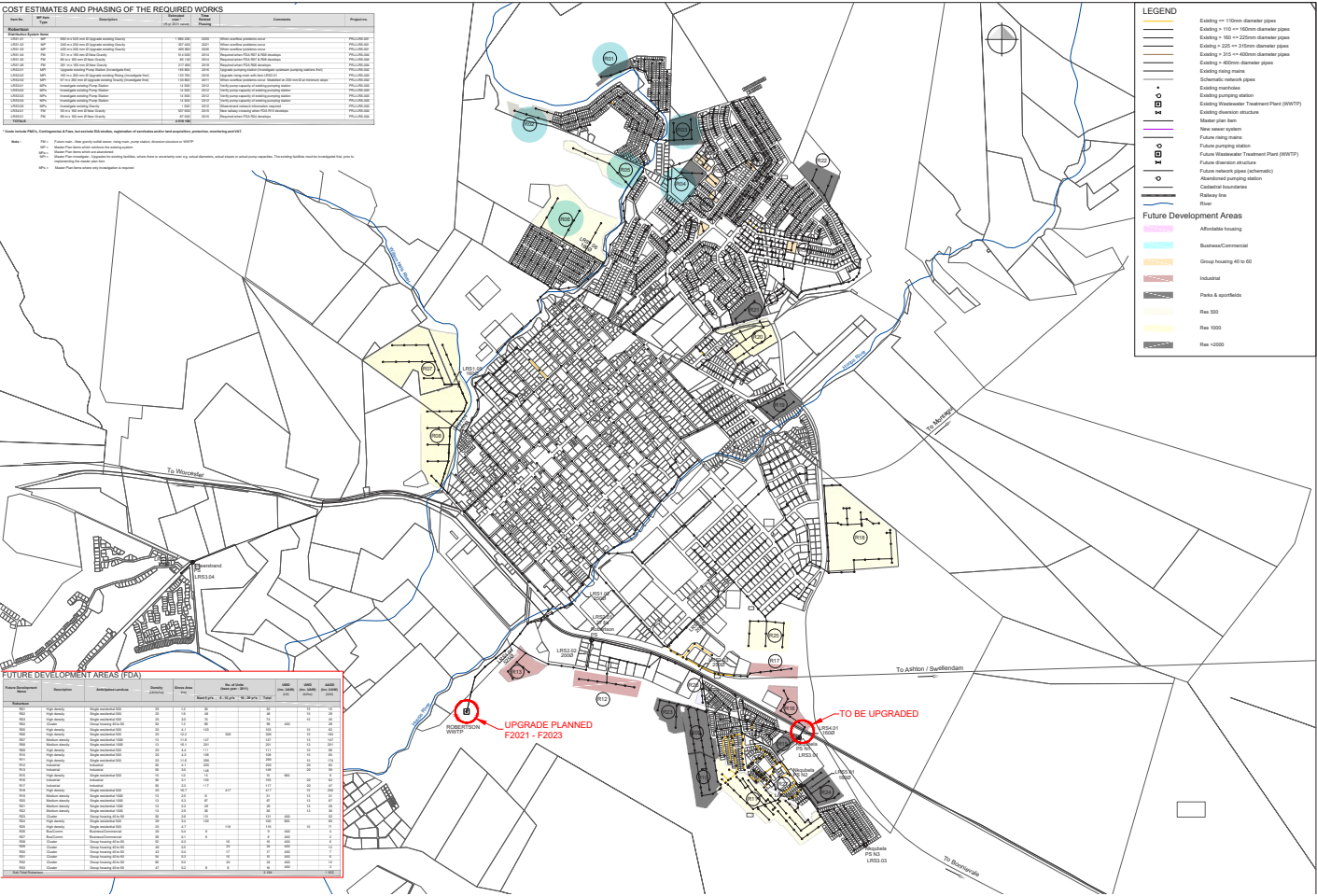
It is understood that both these solutions are costly and will need to be budgeted for. A future solution proposed by Eskom is to install an HV overhead line linking BACHHUS and KLIPDRIFT

Substations. This option is currently in the planning stage and has been estimated to cost R200m (with a project life cycle of 5 years). The following matters will need to be confirmed with regard to future development:

- Eskom responsibility versus that of the Municipality in shifting load between current substations.
- The cost to increase Notified Maximum Demand.

- Progress of work related to the HV overhead line concept between BACHHUS and KLIPDRIFT substations.

While no serious service needs appear to currently exist for Nkqubela, the implications of planned development on infrastructure will have to be determined (as outlined in the implementation section).



3.2.6. Land Ownership, Land Uses and Amenities

Figure 22 illustrates the amount of vacant land and associated owners within the study area. The majority of land is owned by the municipality. Out of the 412 hectares forming the study area - 75 hectares have been identified as vacant strategic portions for future development.

Robertson town was laid out as a typical “grid-structure” Voortrekker town with long streets leading water from the Willem Nel’s River. The main routes of the town are Church Street and Paul Kruger, and the commercial heart of the town formed along these important routes. The regional road and railway line follow the edge of the town, without the need for citizens (specifically pedestrians) to negotiate these barriers on a daily basis.

Nkqubela breaks from the traditional grid and is cut off from the old town by the R60 and railway line. What is clear about the phased development of Nkqubela is that the approach of segregated development largely remained through different phases of development, as well as an emphasis on housing provision (as opposed to higher order development), and not addressing the barrier impact of infrastructure on a predominantly pedestrian community needing to find work and access commercial opportunity outside their residential area. Community facilities have been provided as demand grew, with these embedded within the community and not located in areas between Nkqubela and its surrounds also accessible to other citizens. Formal commercial activity remains extremely limited, with trading occurring from residences and street space (predominantly along Burwana Street).

Since its establishment Nkqubela has seen consistent growth, but with a rapid increase experienced especially in the late 1990s and early 2000s. Over recent years, significant informal settlement has occurred up the slope of the

Erven	Owner
RE/2	Langeberg Municipality
RE/136	Langeberg Municipality
353	Langeberg Municipality
130	Langeberg Municipality
1 153	Langeberg Municipality
1291 - 1300	Langeberg Municipality
1 055	Langeberg Municipality
306	Langeberg Municipality
8 208	Tekopark
1 068	Transnet
1 825	Distell
3 176	Landbou Genootskap
RE/1069	Landbou Genootskap
1 191	Landbou Genootskap
2 018	Landbou Genootskap
4 900	Langeberg Foods

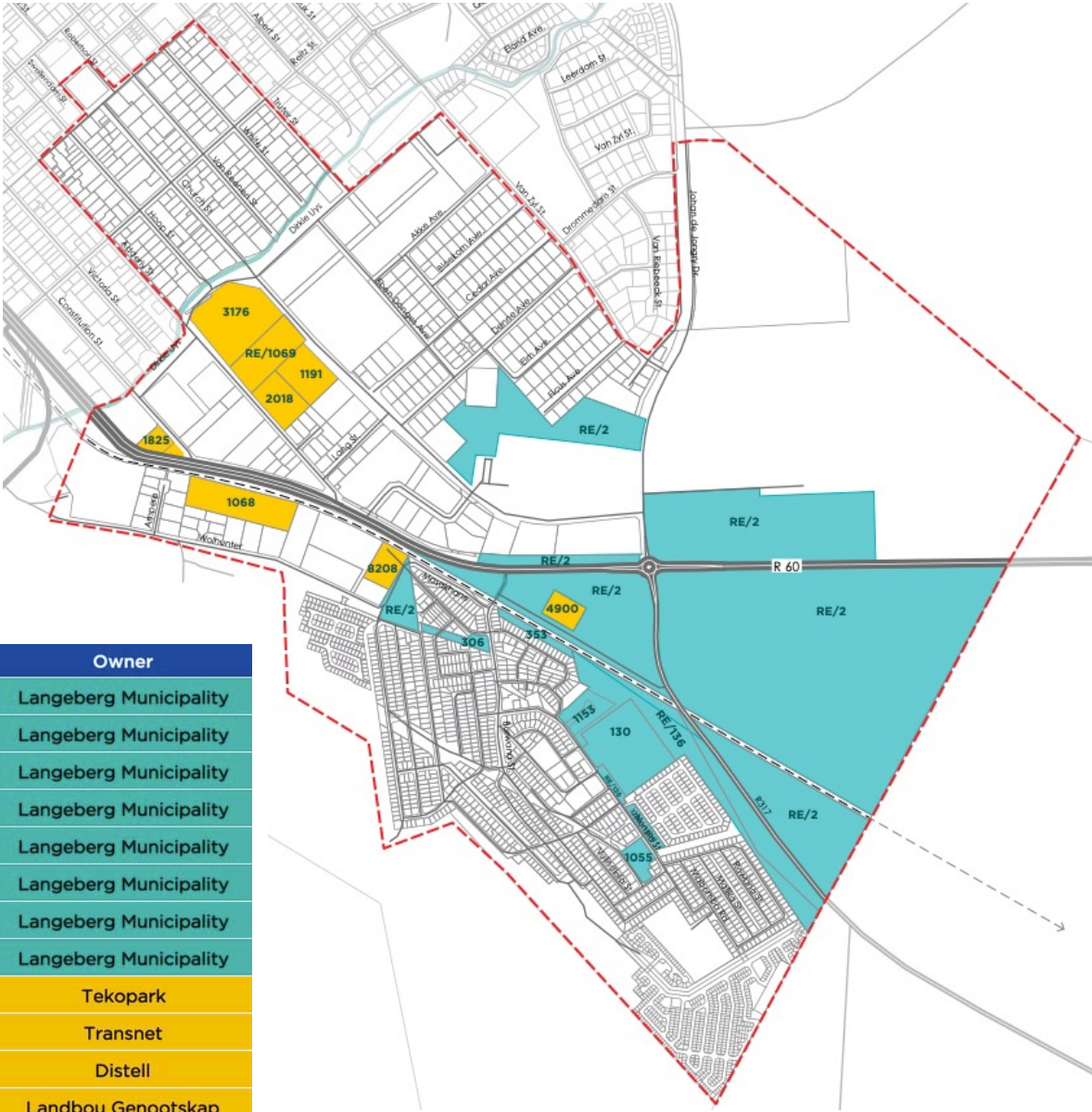


Figure 22. Strategic land parcels and ownership

southern koppies behind the original settlement (see Figures 23 - 25).

Albeit that the Robertson industrial area is located south of the R60, it is not formally integrated with Nkqubela (Wolhuter Street remains largely disconnected from the Nkqubela road network).

In general terms, the public environment of Nkqubela – and specifically its largely undeveloped interface with surrounding areas – remains poor.

The area immediately to the north of Nkqubela, east and west of the R317, and focused on the R60, has long been identified as a new “Eastern Gateway” to Robertson. A major concern from previous studies – including the MSDF – is that this end of town lacks the pastoral town qualities of the western entrance to Robertson.

More importantly perhaps is that Municipal land – comprising the triangular piece of land south of the R60 and west of the R317 and the Bullida Grounds – can accommodate activities and development which enable livelihoods in Nkqubela, improve seamless and safe movement between Nkqubela and the rest of Robertson and accommodate activities that can meet the needs of Nkqubela as well as the wider area. If sensitively

located and designed, for example in relation to the orientation of development to routes – this development will also improve the visual qualities of the eastern entry to Robertson.

Critical considerations for the development of this area – and especially the Bullida Grounds – will be the extent to which work, and entrepreneurship opportunity could be offered to local residents and physical access to the area could be improved. The Municipality is in the process of developing lay-out options for the Bullida Grounds.

3.2.6.1 Key Findings and Implications

Figures 26 and 27 summarises the spatial location of amenities, key services and current anchors that attract activity to specific areas. From a spatial planning and land use management perspective, the following built environment issues have been identified:

1. Despite recent developments and investment in and around Nkqubela, the area remains **physically segregated** from Robertson.
2. Pedestrian desire lines cross the R60 and railway line remain arduous and **unsafe intersections**.

3. There is a **lack of integrated public transport services and drop-off points in strategic locations**.
4. Remaining public land south of the R60 – specifically the Triangular Site and the Bullida Grounds – is critical to physically integrate Nkqubela with the rest of Robertson while also providing work, entrepreneurship, and other opportunity in good locations.
5. Development of the Triangular Site and Bullida Grounds provides the opportunity to reconfigure the R60 and R317 adjacent to Nkqubela in a manner which enables better and safe access between Nkqubela and its surrounds.
6. Development of these areas could have **bulk infrastructure implications** which should be considered (based on the extent and nature of development planned).



Figure 23. Nkqubela 2003 (Google Earth)



Figure 24. Nkqubela 2010 (Google Earth)



Figure 25. Nkqubela 2019 (Google Earth)

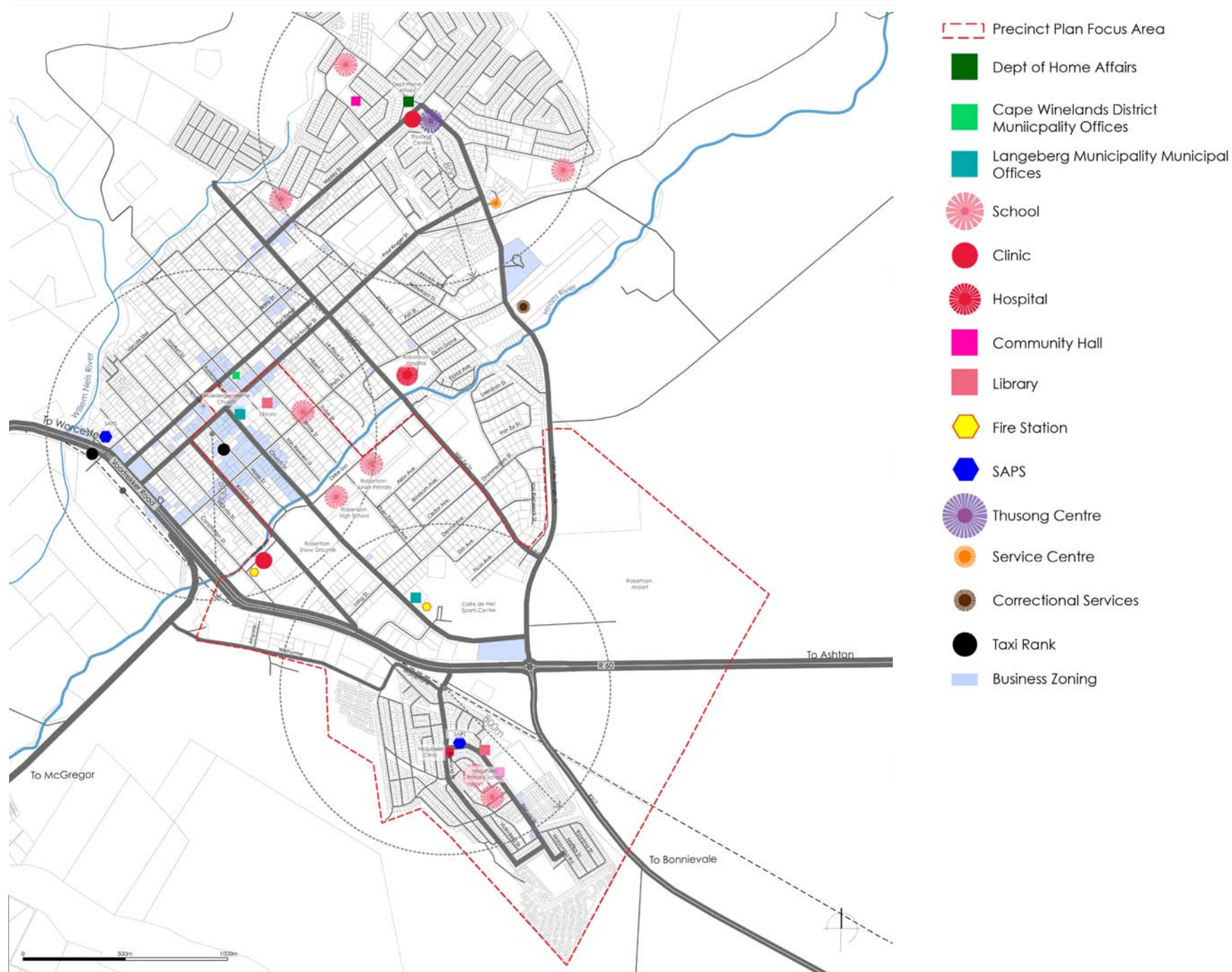


Figure 26. The location and concentration of services amenities in Robertson

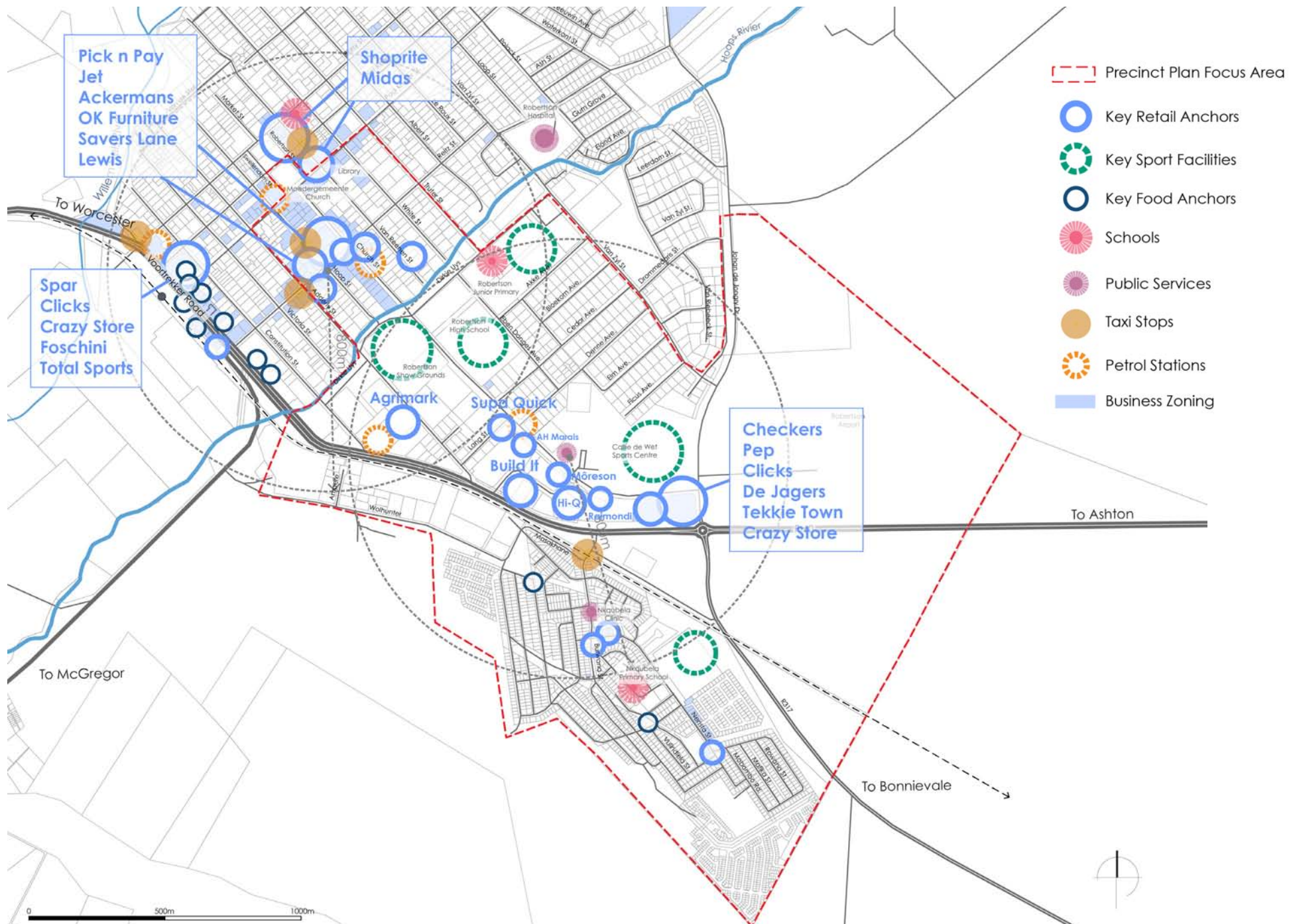


Figure 27. Key business anchors, community services, parks, taxi ranks and petrol stations mapped

3.2.7. Current Budgetary Commitments

The National Treasury provides technical support and funding for the integration of Nkqubela with the rest of Robertson. Implied in this assistance is a commitment to assist in the funding of projects identified through planning, if based on “bankable” project planning and funding principles.

The WCG will in 2019/20 invest a total of R893.9m in economic infrastructure throughout the Cape Winelands District, the single largest road transport infrastructure allocation to a district other than metropolitan Cape Town. This amount will in 2019/20 be split between a total of 21 projects, most of which entail the refurbishment and rehabilitation of current transport infrastructure. Two projects impact on the study area and its regional accessibility.

The largest investment (R185.0 million) in 2019/20 will be directed towards continued works on the C8181 Ashton-Montagu project which has been delayed (attributed to contractor challenges) in recent months. This delay has had a notable impact on the local community as commuters made use of alternative routes due to slowed traffic flow through Ashton towards Montagu (widely perceived to be the gateway to the Central Karoo). The timeous completion of this project will ensure a renewed flow of visitors to the area which will enhance local growth prospects. The other notable road transport project for 2019/20 is the C1089 PRMG Worcester Robertson re-sealing project. Although these projects will improve Nkqubela’s regional accessibility, they do not assist in improving local access conditions.

Recent development in Nkqubela, as indicated on Figure 28, include the completion of the sports fields, the servicing of housing land south-east of the sports field and housing south of the existing settlement - against the northern slopes of abutting koppies. A new shopping centre has been completed north of the R60 and west of Johan de Jong Drive. Albeit this development is situated

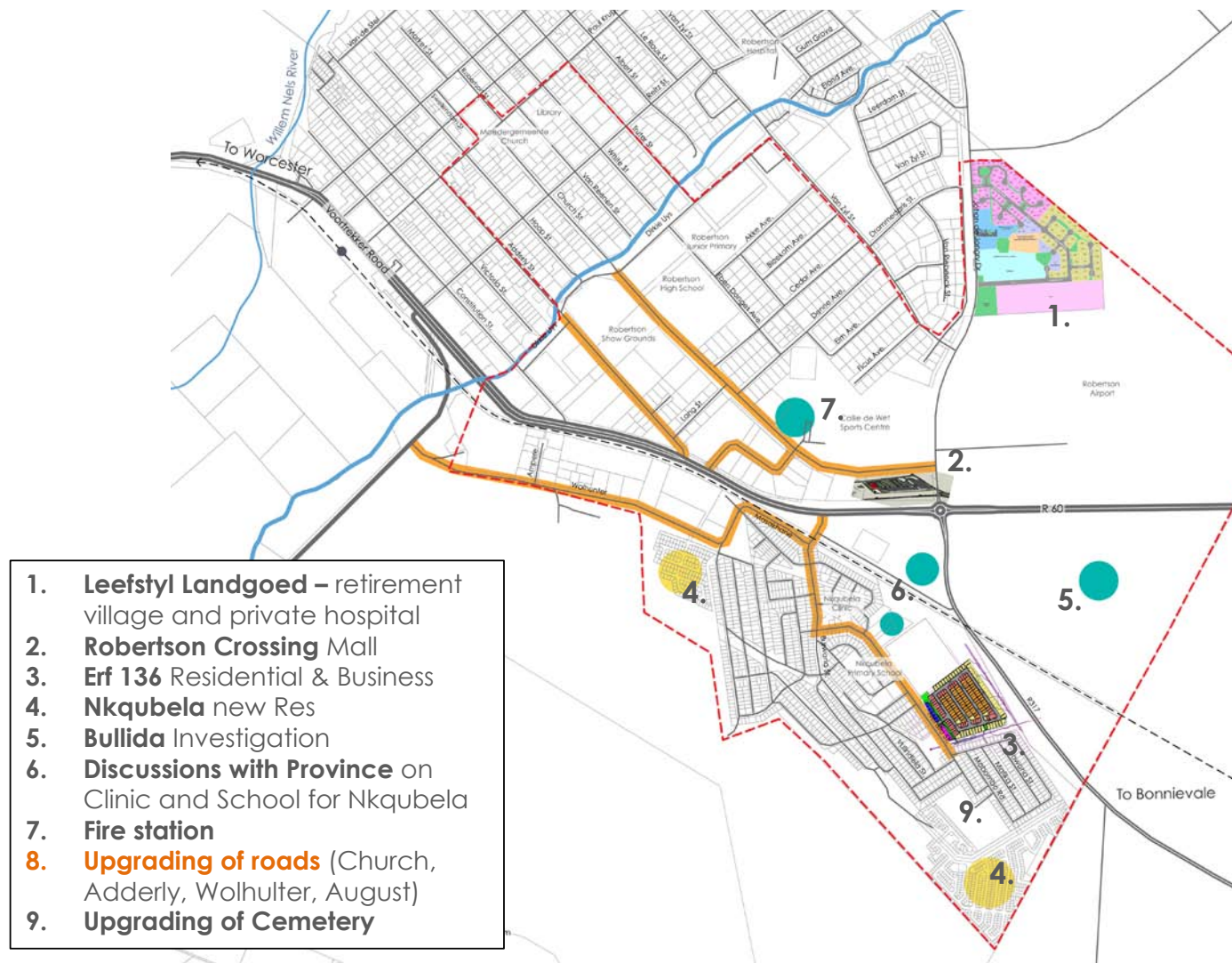


Figure 28. Current land development proposals and discussions.

closer to Nkqubela, pedestrian and NMT access to it remains arduous.

During 2019, 505 serviced sites were handed over to Nkqubela residents. The project forms part of the Department of Human Settlements’ strategic goal of Upgrading of Informal Settlements Programme (UISP) which aims to improve the

living conditions of people living in informal areas. To unlock this project, a reservoir was constructed in Nkqubela to which a R4.5m contribution was made by the WCG.

The Langeberg Municipality IDP commits to the following budgetary allocations impacting on Nkqubela:

The preparation of detailed urban designs and precinct plans for Nkqubela.

- An underground irrigation system on entire sports field and grass replacement.
- Upgrading of the ablution facilities and cloak rooms, and development of a rugby/ soccer field, and netball courts at the sports field.
- Upgrading of the cemetery.
- A temporary relocation area (TRA) where 450 erven are planned for informal structures.
- Bulk water supply enhancements for Nkqubela.

3.2.8. Current project planning

Table 2 summarises current and planned (or envisaged) projects within Nkqubela and surrounds. Two major projects are currently in planning stages within the broader Nkqubela area:

3.2.8.1 Bullida Grounds¹³

The first is a Municipal initiative to explore the development potential of the Bullida Grounds and Erf 2. The land – owned by the Municipality – comprises a portion of Erf 2, Robertson (measuring 40.47ha in extent and zoned Undetermined) and Portion 22 of Farm Over-Het-Roodezand (measuring 167.57ha in extent and zoned Agricultural).

Representatives from CK Rumboll have approached key stakeholders to establish needs for appropriately zoned land. Comments among others raised by stakeholders included:

- Need for Industrial and Business zoned land;
- Need for taxi drop-off and pickup zones near commercial centres;
- Great need for a high school and primary school within the locality of Nkqubela;
- Day-care facilities for the lower income areas are required as the parents of children in these communities work long hours (from 6 am to 6

Table 2. Current and planned projects within Nkqubela and surrounds:

Project	Sector	Development stage	Budget requirements
Bullida Grounds	Public	Pre-planning to determine options	Developed in this report with a view to obtain inter-governmental support.
Retirement village/ private hospital north of the airport	Private	Planning	NA
New high school	Public	Pre-planning	Future WCG budget planning (reserve land in Nkqubela).
Possible new clinic for Nkqubela	Public	Pre-planning (WCG considering consolidated clinic in Robertson)	No budget at this stage (reserve land in Nkqubela).
Church Street and Adderley Street upgrading	Public	Planning and Implementation	Funding applied for from National Treasury (to be incorporated in pipeline)
Upgrading of cemetery	Public	Implementation	Municipal budget

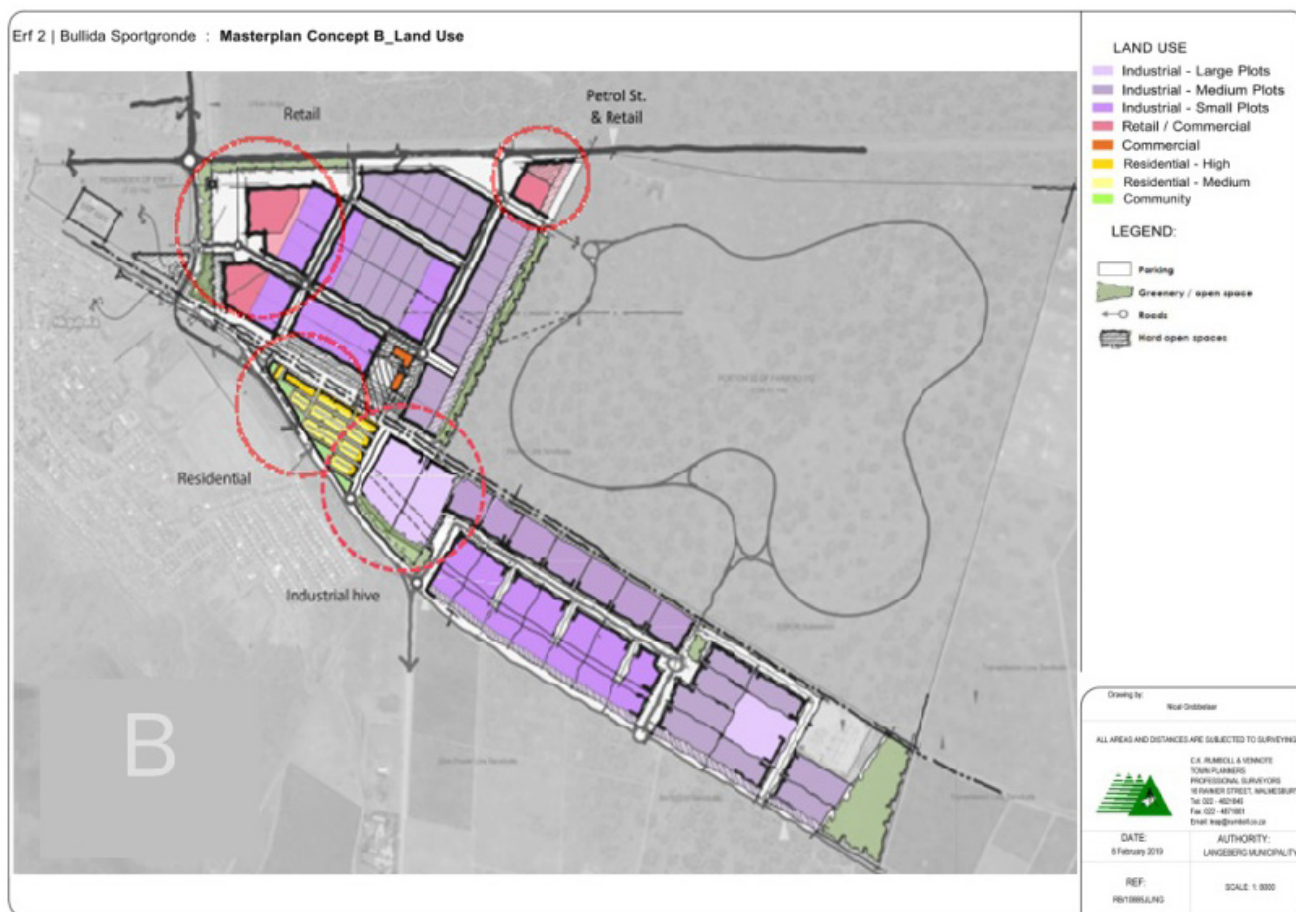


Figure 29. The current preferred option for the Master Plan Concept for the Bullida Grounds

¹³ Feasibility Study – Opportunities and Constraints for Erf 2 / Bullida Grounds, Robertson. Prepared by CK Rumboll and Partners. Feb 2020.

pm) and struggle to find appropriate day-care facilities; and

- FET college is required (similar to Boland College Worcester) to provide tertiary education opportunities.

Based on these findings, and internal discussions with LM, there is a demand for industrial, commercial, residential, institutional, recreational as well as agri-industrial and conservation land-uses.

The layout consists of the development of approximately 382.72 ha which, depending on which layout alternative is implemented, can be broken down as follows:

- 67 Industrial Erven on 336.8 ha
- 5 Business/Commercial Erven on 37.36 ha
- 1 School / College on 31.6 ha
- 1 informal trading area on 31 ha
- Road surface approximately 37.12 ha
- Road reserve, parking and landscaped areas measuring approximately 318.84 ha
- 3390 Residential Erven on 35.4 ha

Figure 29 illustrates the preferred alternative of Final Alternative 2 as it allows for good connectivity and access from the R60 right across to Nkqubela and creates an interface between industry and residential with the land uses on either side of the road. The industry uses are sufficiently robust to accommodate community markets, business hives and educational institutions.

There are no civil services such as; water, sewerage, road infrastructure or electrical services (apart from the power lines) on site. Current infrastructure implications and cost estimates of the proposed development include:

1. Construction of a 200mm uPVC Water line from proposed connection point.

2. Construction of an additional reservoir to enhance the capacity of Reservoir 4.
3. Construction of a 200mm uPVC Sewer rising main and pump station from the south eastern corner of the site to the identified connection point (if sufficient capacity is available at the treatment works, and downstream pipe diameters are sufficient once modelled).
4. Crossing of the R60 and R317 with new services.
5. Storm water culvert analysis and upgrades where required.

It is unlikely that Transnet will contribute their 50% for a bridge to eliminate the level crossing with current train volumes soon. Development pressure will increase risk at the level crossing and land should be reserved at this stage for re-alignment of R317 to achieve a more acceptable intersection angle (75°) as alternative to a bridge.

Two options for realignment have provided by Sturgeon. Option A takes a shorter approach and does not infringe on the study area while Option B has a longer route and infringes on the study area. Option A is currently preferred (see Figure 30).

The next critical stage in the development of the project involves upgrades to bulk services and road infrastructure, as well as the required approvals to unlock development. Figure 31 lists these as well as infrastructure costings.

3.2.8.2 Robertson Leefstyl Landgoed

The second project – a private sector initiative – is the development of a retirement village/private hospital north of the airport called Robertson Leefstyl Landgoed. It involves 52 single residential units, 120 group and town houses and 243 flats, a sub-acute and day hospital with support services, and a hospitality centre with dining area and lounge.

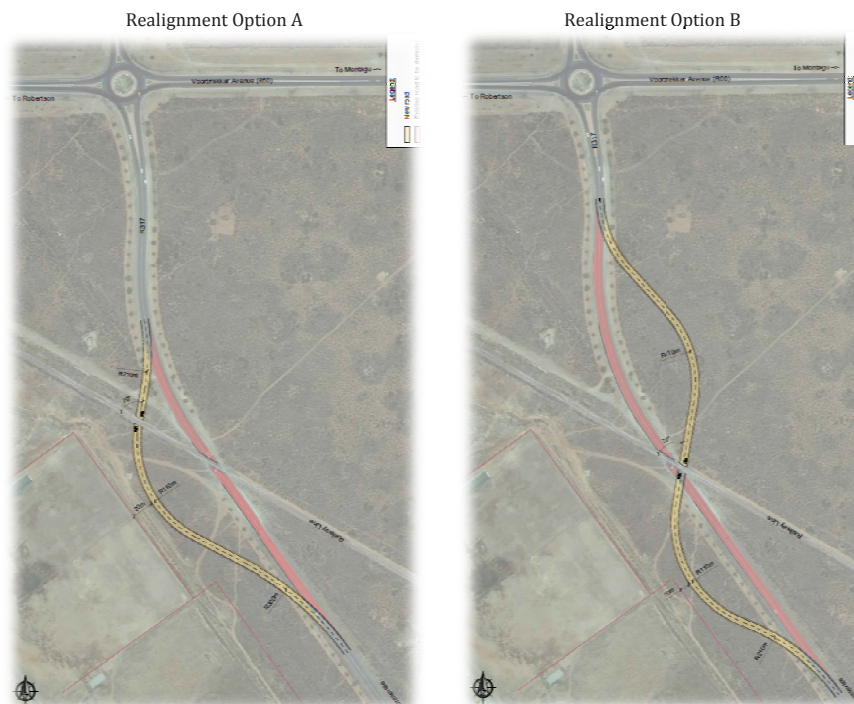


Figure 30. Realignment of R317 Road and Railway proposals

Approval Required	Report / Study
Environmental Approval in terms of NEMA for any listed activity that may be triggered;	<ul style="list-style-type: none"> Environmental Impact Assessment
Approval from ESKOM for the moving of pylons or for construction/ work near pylons;	
Approval from Heritage Western Cape	<ul style="list-style-type: none"> Heritage Impact assessment consisting of: <ul style="list-style-type: none"> Socio-economic assessment Archaeological Impact Assessment Visual Impact Assessment Paleontological Impact Assessment
Approval from TRANSNET for service and level crossing way leaves;	<ul style="list-style-type: none"> Way leave applications
Approval from the Western Cape Department of Transport & Public Works for obtaining access from the R60 and R317 Roads;	<ul style="list-style-type: none"> Traffic Impact assessment
LUPA approval of the amendment of the Urban Edge, as demarcated in Langeberg SDF, to include the Bullida Grounds;	<ul style="list-style-type: none"> AD-HOC amendment or implement with next review of SDF
LUPA Section 52 approval	<ul style="list-style-type: none"> Section 52 Application
Land Use Approval from Langeberg Municipality for the rezoning of both properties to sub divisional area;	<ul style="list-style-type: none"> Land Use Application Services report detailing internal service layout as well as upgrades required to bulk infrastructure.
Approval of the General Diagram with the Surveyor General;	<ul style="list-style-type: none"> Compilation of a General Plan (surveyor)
Registration of the general plan at the Deed's Office;	<ul style="list-style-type: none"> Appointment of a conveyancer

DESCRIPTION	INTERNAL SERVICES
Preliminary and General (25% of construction cost)	R33,328,716-26
Site Clearance	R859,200-00
Mass Earthworks	R2,000,000-00
Streets	R60,464,515-06
Sewer network	R4,760,000-00
Storm water and Detention Ponds	R13,890,000-00
Water reticulation and erf connections	4,607,550-00
Cable Ducts	R633,600-00
Electrical	R31,100,000-00
Clearvu Fencing	R15,000,000-00
TOTAL: COST OF INTERNAL CIVIL WORKS	R166,643,581-32

Road Infrastructure

Road Infrastructure	Estimated cost
Access 1: Right-turn lane and street lighting	R4 500 000
Access 2: Right-turn lane and street lighting	R4 500 000
Access 3: Median and left-in/left-out	R2 500 000
Access 4: Second Carriageway plus median and 45m roundabout	R25 000 000
Access 5: 45m roundabout plus median up to rail crossing plus street lights	R8 000 000
Realignment of MR287 (no bridge)	R5 500 000
Access 6: 45m roundabout plus median up to previous roundabout plus street lights	R8 000 000
Access 7: Right turn lane and street lights	R4 500 000
TOTAL	R62 500 000

Figure 31. Potential approvals that will be required, as well as the estimated costs of services and road infrastructure. (CK Rumboll & Partners Feb 2020)

3.2.9. Institutional arrangements

The initiative to enable the regeneration of Nkqubela is an inter-governmental partnership between national, provincial, and local government. While the Langeberg Municipality is accountable for the project, assistance is provided by national and provincial government through specific programmes aimed at the integration and upgrading of marginalised communities.

The instrument for national government's involvement is the National Treasury's Neighbourhood Development Partnership Grant (NDPG). The NDPG is aimed at the funding, support and facilitation of the planning and development of neighbourhood development programmes and projects that will be catalysts for further development in marginalised communities.

The Grant provides both technical assistance funding – to assist planning – and capital for the delivery of economic and social facilities and infrastructure, such as roads, bridges, streetlights, multi-purpose centres, public spaces and parks, sports precincts, informal trading stalls, transport inter-changes, non-motorised transport routes, pedestrian walkways and other community facilities. A specific focus is investment that will leverage private fixed investment.

Closely aligned to the NDPG, is the Regional Socio-Economic Programme (RSEP) of the WCG. The primary goal of the programme is urban upgrading and renewal focusing on previously disadvantaged neighbourhoods through pro-poor and social upliftment interventions and to address the legacies of spatial segregation in South Africa. This is done by implementing physical projects that will have an immediate impact and demonstrate “what can be done” in order for municipalities to mainstream this directive in their normal day-to-day work and future planning initiatives and budgeting processes. In addition, non-physical projects are also undertaken (e.g. precinct planning, urban design, and facilitating partnerships and collaboration).

The main instrument for Langeberg Municipality to institutionalise the project is its Integrated Development Plan (IDP) and SDF, both which recognise the need and priority to upgrade Nkqubela.

To assist coordination between spheres of government, a Steering Committee has been formed to direct the project and monitor progress against agreed deliverables. Within the municipality, coordination of the project occurs through a Project Team of responsible line departments which reports to the Municipal Manager through the Executive Management Team. The Project Team (together with service providers) leads a structured programme of engagement with community stakeholders.

3.3. Workshop and Public Engagement Outcomes

Two workshops were held during the month of November (a list of invitees is available):

- A workshop at Callie de Wet Stadium took place on the 5th of November with key stakeholders to discuss the reworked concept proposals and development implications (Figure 32).
- A Public Open day work session was held on the 14th of November at the Nkqubela Library where local residents were invited to test the concepts and proposals and give feedback on the contextual analysis of their neighbourhood (Figure 33).

The following outcomes were captured:

- The importance of positive building interfaces, tree planting, and pedestrian friendly spaces were highlighted.



Figure 32. Workshop held on 5th of November



Figure 33. Workshop held on 11th of November

- Attendees requested better pedestrian crossings at the R60 towards town and the new shopping centre.
- Proposals were made for the beautification and rehabilitation of the dam/wetland space to the east of the Callie de Wet Centre.
- The need for a technical school, FET College or skills development centre was emphasised repeatedly. The Atlantis technical school was used as an example.
- A sport academy was requested and could be aligned with activities happening at Callie de Wet Stadium.
- Trucks parking next to the railway line at the Nkqubela entrance were raised as a concern, as well as dangerous goods and products that often impacted on the health and quality of the living conditions in this area.
- Trading spaces for SMMEs were raised as a major need, as well as spaces for manufacturing activities that are currently taking place in Nkqubela in areas that are not suitable to noise or industrial activities. An example was made that the current abattoir could move to the Bullida Grounds site.
- The concept of creating an integrated public development at the triangle entrance site to Nkqubela was strongly supported.
- The need for a clinic in Nkqubela was discussed as there are possibilities of the existing clinic moving to Robertson CBD to upgrade the facilities, which will have a negative impact on access for locals.
- There is a lack of safe play areas for children in Nkqubela and the areas where children currently play often become unsafe at night as they are used by adults for drinking.
- A broader range of housing typologies are needed to address different income groups and socio-economic requirements.

- The potential to expand the activities supporting the airport was discussed as possible future economic growth opportunities.
- Small initiatives such as play areas, water features, traffic calming, public seating and better sidewalks were highlighted as ways in which the municipality can create better quality environments and address issues of safety and social needs at the same time.

- A dedicated bus or taxi terminus in Nkqubela is required.
- Small farmers need dedicated spaces to grow vegetables and can be aligned with school programmes and supported by local businesses or markets.

Annexure A summarises key challenges and opportunities that emerged from the contextual analysis process and engagement with the public. Table 3 synthesises these.

3.4. Challenges and Opportunities

Table 3. Summary of opportunities and challenges

Challenges	Opportunities
Biophysical Context	
<ul style="list-style-type: none"> Informal settlement is occurring in an uncontrolled manner against the hillsides south of Nkqubela. 	<ul style="list-style-type: none"> Utilising vacant land closer to the R60 and R317 for human settlement can protect the hillsides south of Nkqubela.
Socio-Economic Context	
<ul style="list-style-type: none"> The spatial barriers between Nkqubela and the town centre creates trading monopolies for certain categories of goods and services. Approximately a third of Robertson's population lives in Nkqubela and is impacted upon by the access constraints of physical barriers. There is a general lack of employment opportunities. The poor visual and environmental quality of the eastern entrance to Robertson detracts from the area's brand as a tourism, commercial and agricultural services centre. There is a great need for tertiary education facilities, skills development and safe adult entertainment activities. The historic significance of places and buildings in Nkqubela is not "exposed" or accessible. 	<ul style="list-style-type: none"> There is investment momentum in Robertson reflected through the Bullida feasibility study, the new shopping centre on the R60 north of Nkqubela and retirement/ private hospital development. The agricultural, tourism and agri-processing sectors can be further strengthened through making development opportunity available (specifically the Triangular Site and Bullida Grounds). Education and training initiatives can lower barriers of entry to economic sectors. WCG processes have been initiated to identify a site for a new high school in Nkqubela. There is an opportunity to identify, clearly "mark" (through signage, etc.), and expose historic places and buildings as part of a tourist route overlapping with the main pedestrian route system.
Built Environment Context	
<ul style="list-style-type: none"> The barrier effect of the railway line and road infrastructure continues to segregate Nkqubela from its surrounds. Vehicular access to Nkqubela is limited. The railway line is not fenced, and pedestrian crossing takes place informally. Stages of development of Nkqubela since its inception has focused on the provision of subsidized housing segregated from the rest of Robertson as opposed to the area's spatial and socio-economic integration with its surrounds. The general quality of the public environment in Nkqubela is poor with disconnected, poorly lit, and unsafe pedestrian routes. 	<ul style="list-style-type: none"> Development of the Triangular Site and Bullida Grounds provides the opportunity to reconfigure the R60 and R317 adjacent to Nkqubela in a manner which enables spatial integration and better and safe access between Nkqubela and its surrounds. The Triangular Site presents the opportunity to develop a civic heart and centre for Nkqubela which is accessible to residents and also attracts people from elsewhere in Robertson and passers-by. Given the extent of vacant and underdeveloped land, there is opportunity to offer a broader range of housing types.
Institutional Context	
<ul style="list-style-type: none"> The rapid development of informal structures indicates the depth of need and the public sector's limited means to meet demand fast. 	<ul style="list-style-type: none"> The extent of publicly owned vacant and underdeveloped land in good locations is significant. Making this land available for development offers the opportunity to secure private sector investment/ contributions to infrastructure development/ costs and meeting other community needs (in lieu of paying in full for land).



Part 4.

The Spatial Strategy

4. The Spatial Strategy

4.1. The 5 Themes of the Strategy

Towards achieving the primary purpose of integration, improved livelihoods and increased opportunities as unpacked above, five interdependent spatial themes have been identified: Table 4 sets out the focus of each theme, and is further explained as background work in Annexure B. Section 5.3 unpacks the approach to non-spatial strategies and potential interventions for local employment creation.

Table 4. The 5 themes of the spatial strategy

Theme	Description	Focus
1.	Addressing infrastructure challenges to enable development and improve linkage and connectivity between places across barriers.	To overcome various barriers which prevent the seamless and safe movement of people and goods between Nkqubela and adjacent places as well as within Nkqubela
2.	Establishing a new community heart for Nkqubela, accessible to the whole of Robertson and passers-by.	To establish a place which acts as both a destination from elsewhere and heart for Nkqubela; a place where Nkqubela presents itself to its surrounds, containing a range of social and economic uses also frequented and used by people from outside Nkqubela.
3.	Developing a safe, integrated and walkable street network.	To establish a more legible, integrated, and safe network of streets supporting main pedestrian and NMT within Nkqubela, linking key places and activities, and the main focus of public space improvement and landscaping initiatives.
4.	Celebrating the local culture and landscape through place-making initiatives.	To expose and celebrate local culture and history in a manner which enables integration, dignity, livelihood opportunity, and learning.
5.	Supporting infill and intensification to create a range of livelihood opportunities and attractions.	To increase livelihood opportunities, environmental quality, and sustainability for Nkqubela and Robertson as a whole.

4.2. The Spatial Strategy Components

The overall spatial strategy drawing on the themes and associated initiatives is illustrated in Figure 34.

Core components of the plan are:

A clear movement system (in the form of roads/streets) which ties Nkqubela with its surrounds and also internally serves the area better.

Development of the Triangular Site as the centre of Nkqubela; a place which acts as both a destination from elsewhere and heart for Nkqubela; a place where Nkqubela presents itself to its surrounds, containing a range of social and economic uses also frequented and used by people from outside Nkqubela. Development of the site should include a major public space, fronting onto Burwana Street and the R60, framed to the south and east with public and commercial buildings.

Development of the Bullida Grounds as the industrial and job creation centre of Robertson, with good access from the R60 and R317, and also providing employment and entrepreneurship opportunity to residents of Nkqubela. Development of the Bullida Grounds could be mirrored with parallel industrial development north of the R60 between the new shopping centre and the proposed new intersection at the eastern end of the proposed Bullida Grounds development. The area east of the Bullida Grounds is proposed as an ecologic park, including recreational opportunity (cycling, walking, and so on).

Infill development – mostly consisting of medium to higher density housing – framing the Callie de Wet sports complex. A component of social housing could be provided.

Rationalisation of the area in the vicinity of the Nkqubela sports fields along Nentsa Street, including opportunity for small entrepreneurs.

Upgrading – in the form of landscaping, planting, and small public spaces – associated with the main street network. This could also include a historic route, connecting places and buildings of historic interest.

- Investment Focus Area
- Sub-precinct Boundaries
- New Roads
- Upgrading of Sidewalks and Pedestrian Environment
- New Pedestrian Bridges and/or Underpasses
- New Vehicular Bridges
- New Mixed Use Commercial and Retail Infill (including markets and business hubs)
- New Industrial Infill (small to large plots, spaces for SMMEs)
- New Residential Infill (medium density/social housing)
- New Community Services Infill (Schools, Training Facilities, Cultural Centres)
- Recreational Sport and Urban Parks for Upgrading or Rehabilitation
- Primary New Public Spaces (or requiring upgrading)
- Tree Plant and Beautification of Street Interface

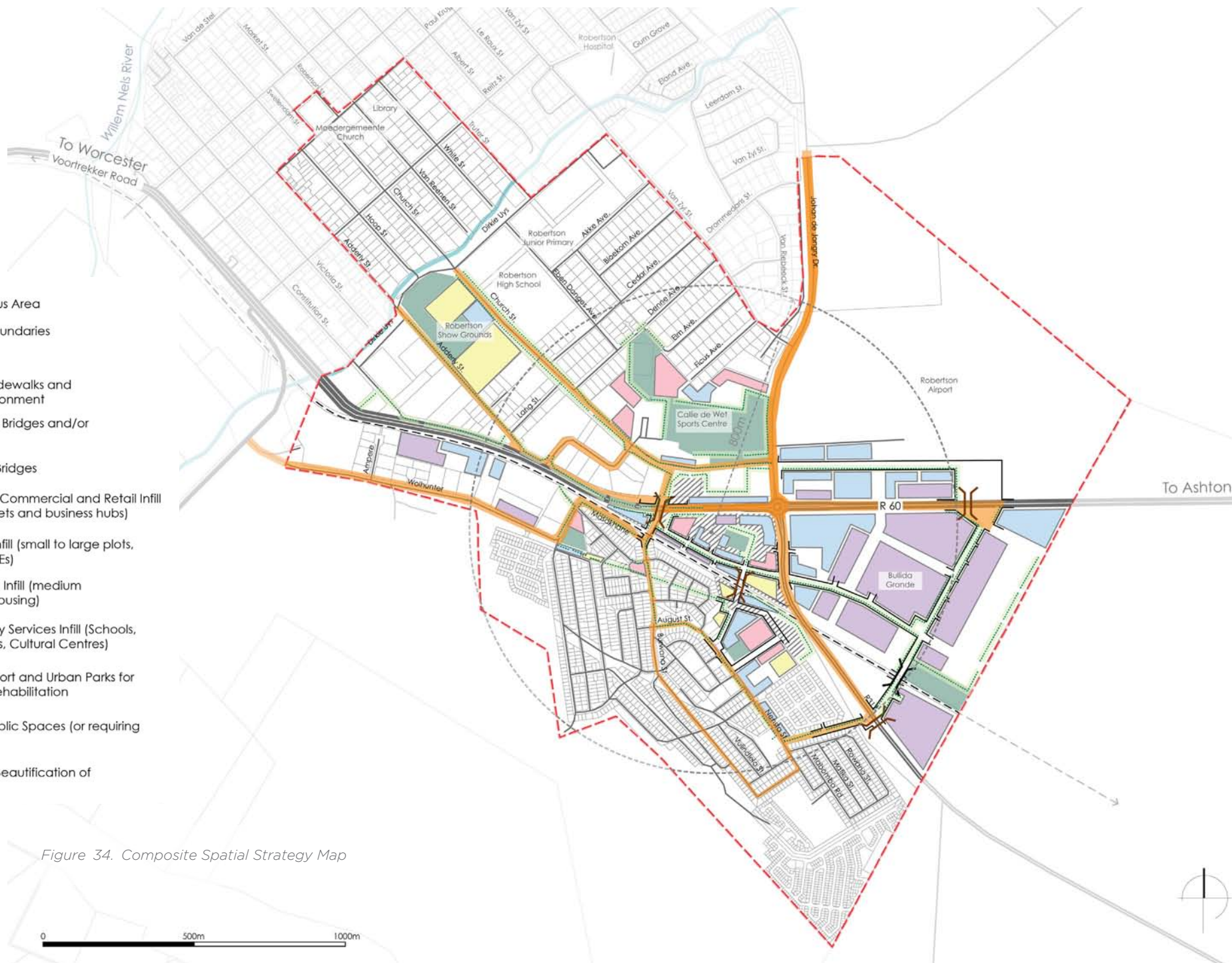
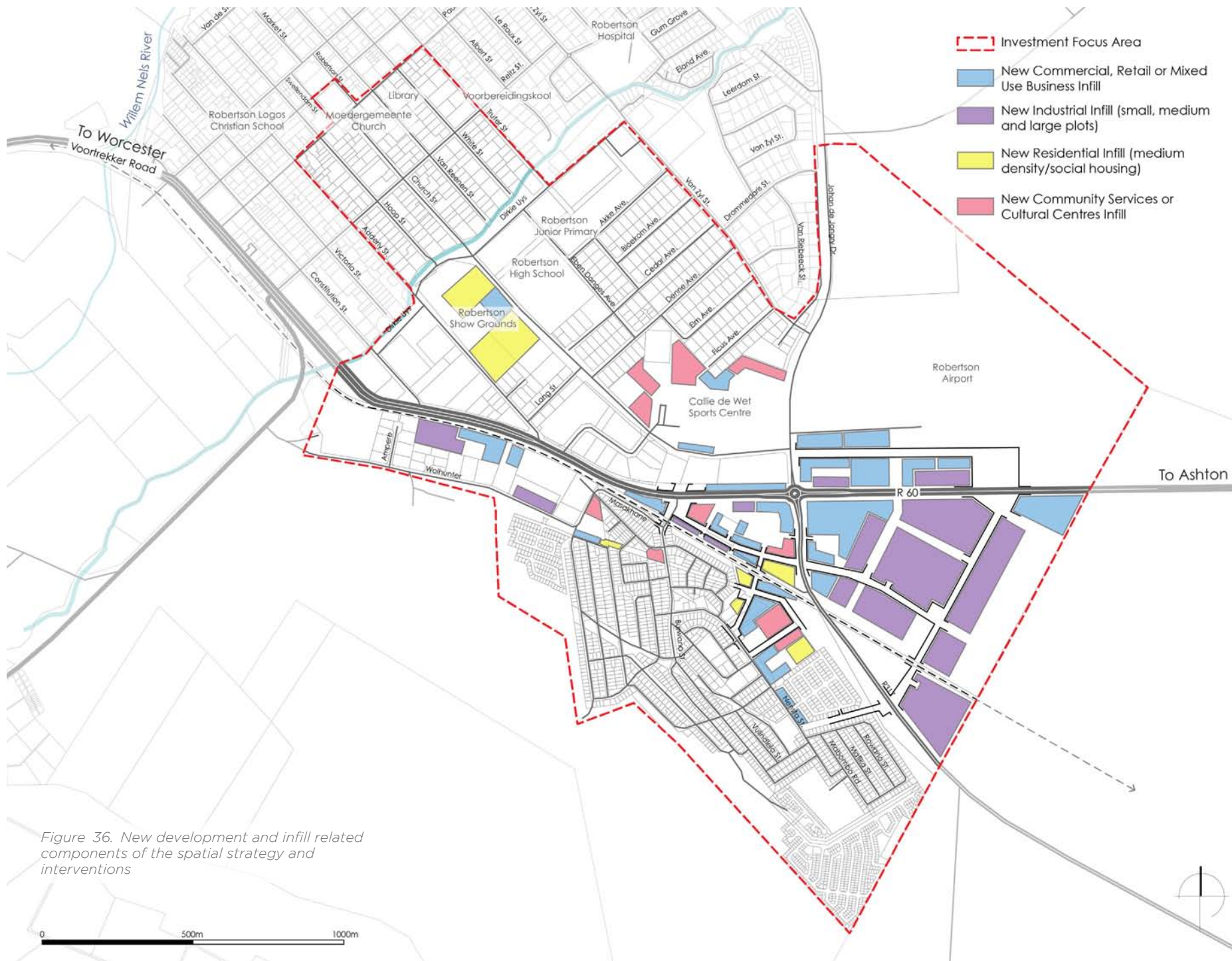
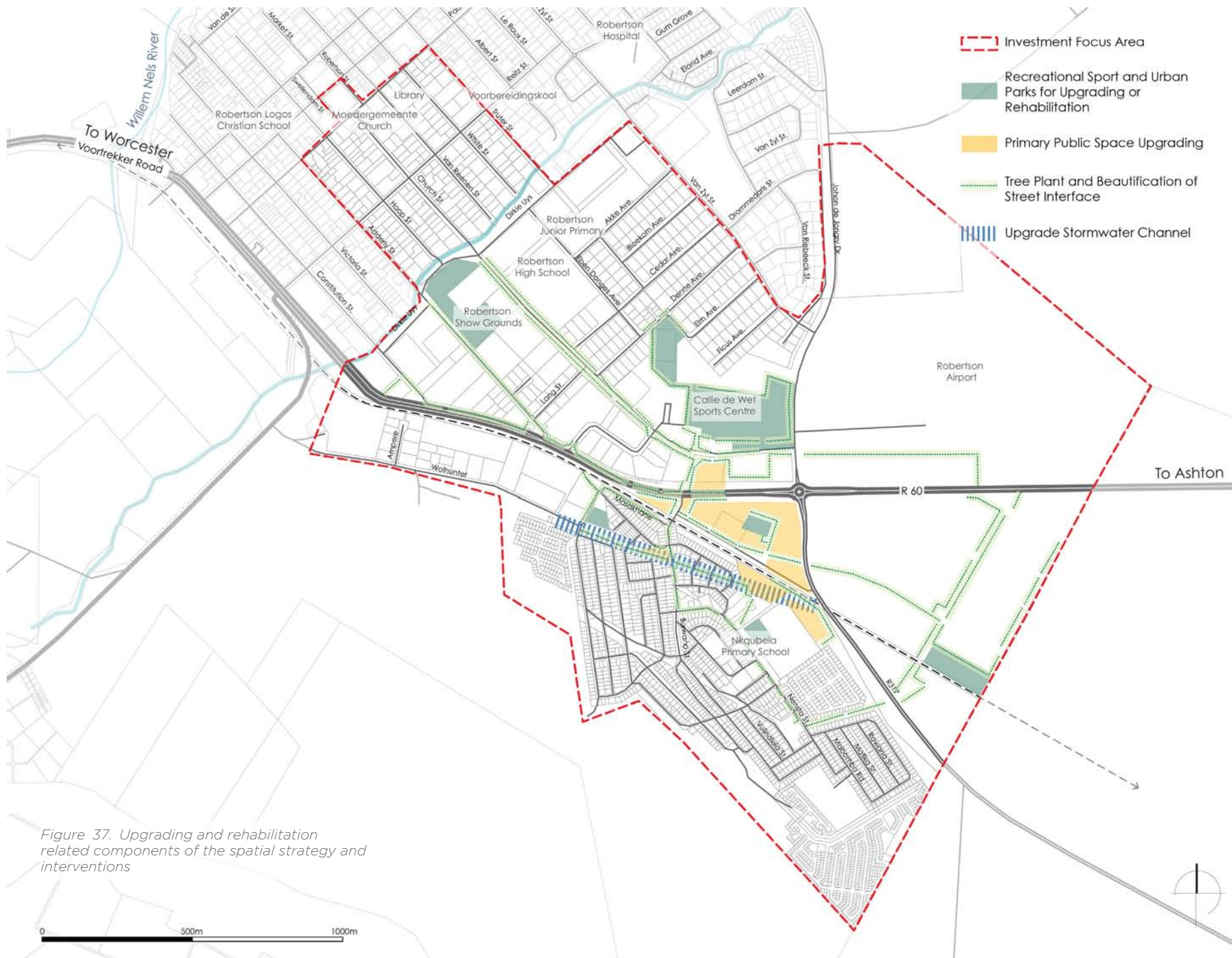


Figure 34. Composite Spatial Strategy Map

0 500m 1000m







4.3. Transit Orientated Development (TOD) Targets

National Treasury has developed a set of Urban Hub related TOD Targets to assist with the calculation and measurement of proposals. These targets have been assessed and refined based on the Robertson-Nkqubela context in terms of what is realistic and suitable to the local environment. These targets are unpacked below and compared to what is proposed and how the proposals measure up to the required percentages per land use and accessibility.

Walkability Coverage

- **60%** of urban hub should fall within 800m walkable area, supported by improved pedestrian infrastructure and NMT orientated interventions.
- **ACHIEVED: 70%** of proposals are within the walkable 800m radius from the location of the “new heart” at the Triangle site (see Figure 31).

New Economic Opportunities

- **25%** of total Study Area should be allocated to commercial and industrial activities - with these land uses forming the primary focus of future interventions to support employment opportunities.
- **ACHIEVED: 23%** total - 11% of new infill proposals are directed towards industry and commercial activity (see Figures 38 and 39).



Figure 38. New industrial infill proposed versus existing

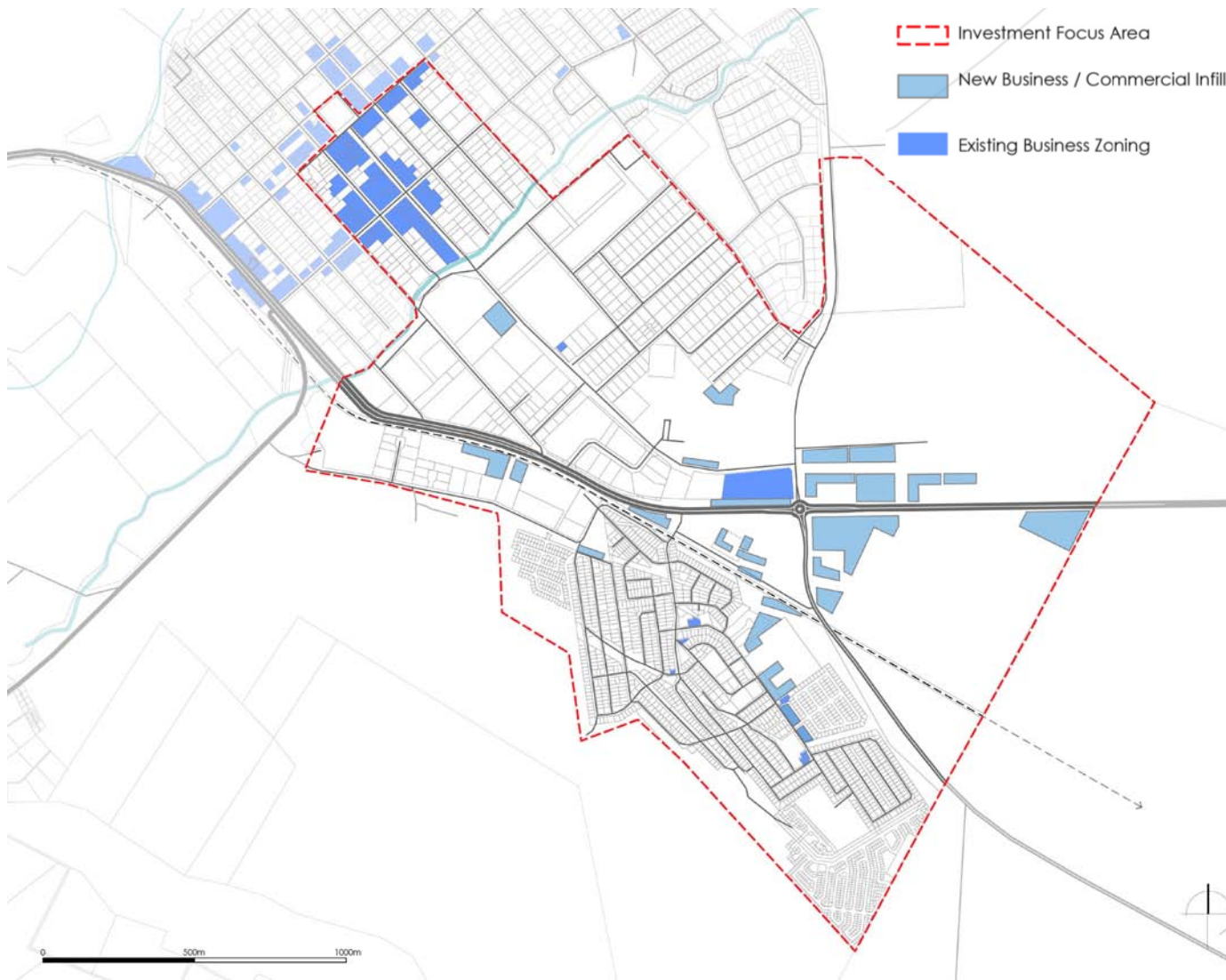


Figure 39. New commercial infill proposed versus existing

Community Services

- **10%** of developed land within total Study Area should be allocated to community facilities - serving as the secondary focus for interventions to support improved access to important services and facilities.
- **ACHIEVED: 8%** - 2% of new infill proposals are directed towards community services (see Figure 40).

Residential

- **20%** of developed land within total Study Area should be allocated to residential - not serving as the main priority for Robertson-Nkqubela but still required to continue supporting existing demand and to achieve higher densities in strategic locations.
- **ACHIEVED: 20%** - 2% of new infill proposals are directed towards residential (see Figure 41).

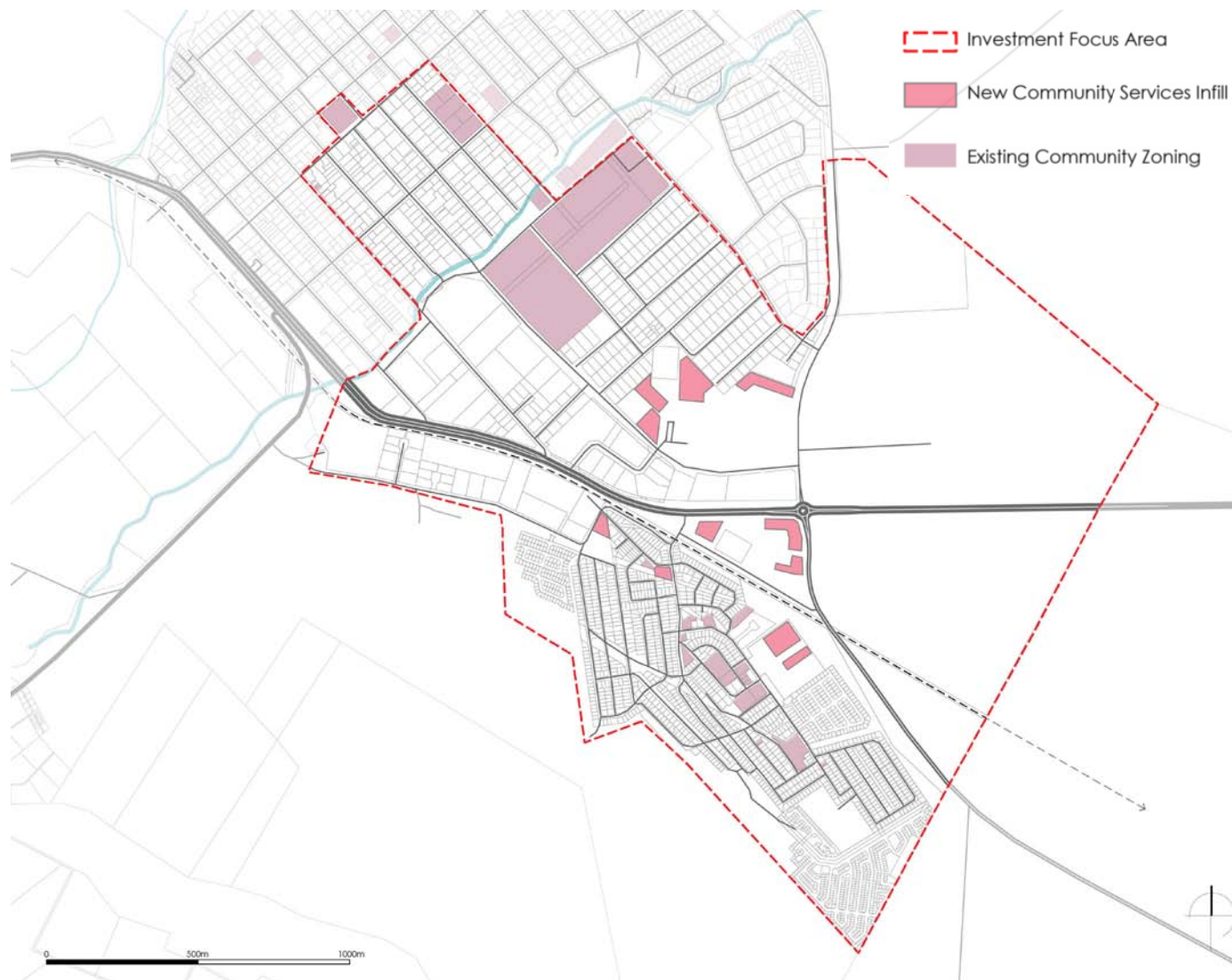


Figure 40. New community services infill proposed versus existing

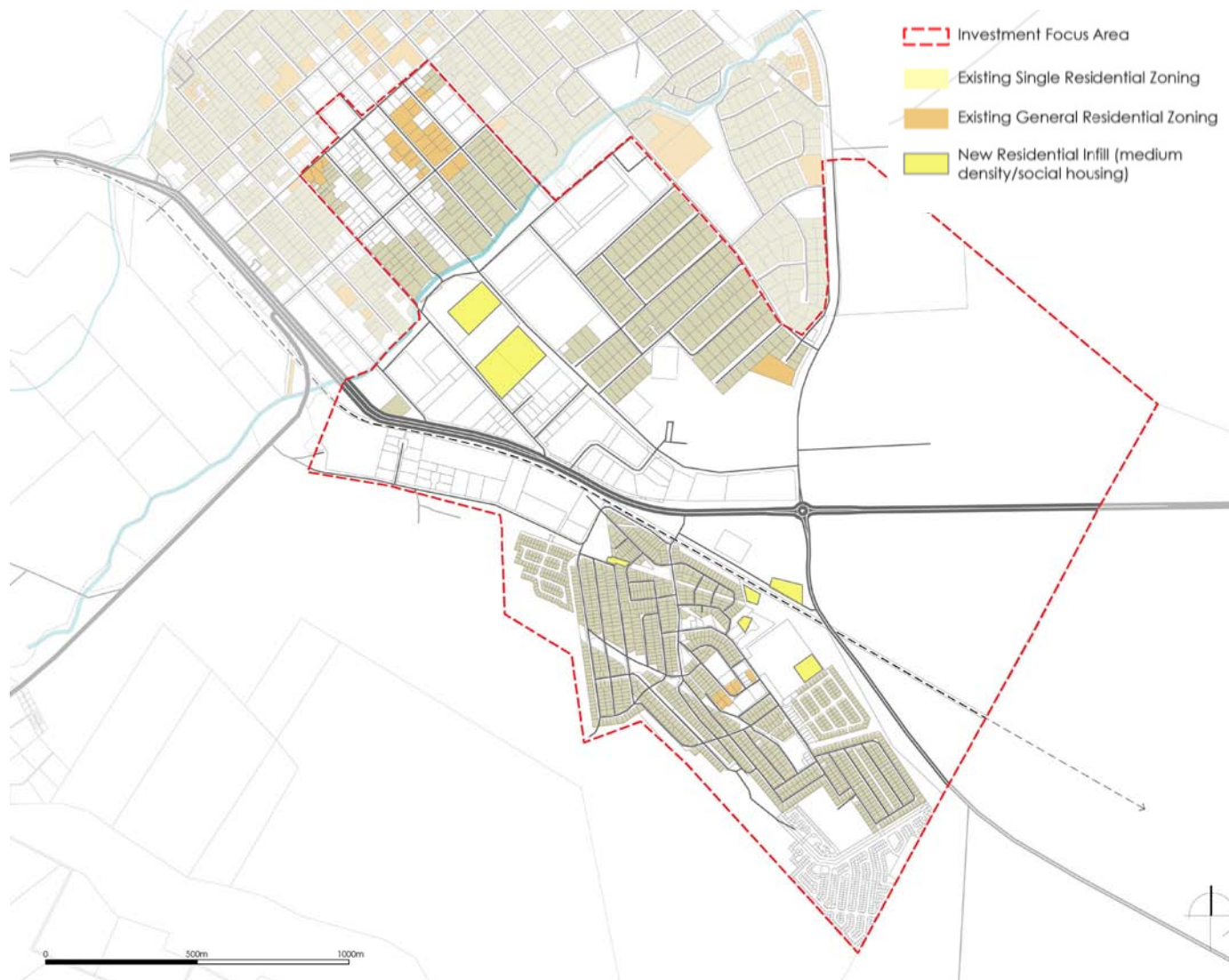


Figure 41. New residential infill proposed versus existing

4.4. Infrastructure Implications

Based on a high level assessment of the future proposals as unpacked in the spatial strategy, certain infrastructure interventions will be required to unlock sustainable development and supply new land uses with the required services. It is however proposed that in future more detailed studies will be need to be undertaken to determine the exact implications of the proposals on bulk services for the study area, as well as the costs associated.

Current requirements estimated to unlock development include:

1. Re—alignment of the R317 Road and new intersection at R60.
2. New uPVC Water line and Sewer rising main and pump station.
3. Additional reservoir capacities (pending outcome of GLS Consulting study).
4. Stormwater culvert analysis and upgrades are required.
5. Upgrading of sewer infrastructure - upgrading of treatment works already applied for through MIG funding.
6. External works on Eskom infrastructure - new HV line from Bacchus to Klipdrift substation and additional works at both substations = R200 mil.
7. Additional load of 22 000 kVA is required and costs to distribute to various portions.



Part 5. Implementation

5. Implementation

5.1. Sub-precincts

In terms of context, existing development, and potential for new development, a number of sub-precincts have been identified. These are listed and described in broad terms in Table 5. Figure 42 illustrates the sub-precincts spatially. The numbering of sub-precincts relate to the phasing and prioritisation of implementation which will be unpacked further in 5.2 and 5.3.

Broadly, there are two “types” of sub-precincts. The first is where concerted, large-scale investment requiring significant inter-governmental work and public-private partnerships is foreseen (1A, 1B, 2, 5). The second is where smaller upgrade projects and longer term development infill are anticipated within an improved urban management system (3 & 4).

The extent of publicly owned vacant and underdeveloped land in good locations is significant. Making this land available for development offers the opportunity to secure private sector investment/ contributions to infrastructure development/ costs and meeting other community needs.

The table summarises the identified vacant land parcels available for potential future development and project packaging. These sites are listed based on their Net Developable Areas to inform future bulk and layout possibilities, and to inform the service upgrades required to support new development.

Table 5. The Sub-precincts listed and described in terms of current state and future opportunity

No.	Sub-precinct name	Current state	Future opportunity	Area (ha)	% Area of Study Area	Total Vacant Land (ha)
1A	The Triangle	<ul style="list-style-type: none"> Large undeveloped area (except for secured, largely open produce sorting area). Bounded by railway line, R60, and R317 (limited current accessibility). “Unprotected” railway line. 	<ul style="list-style-type: none"> Significant opportunity for a consolidated public district for Nkqubela which also benefits from passers-by (along R60). Space for community facilities, training and education, improved pedestrian environment and public space interface. 	32,7	8%	10,14
1B	Bullida	<ul style="list-style-type: none"> Very large undeveloped land area east of Robertson/ Nkqubela bounded by the R60 and R317 and traversed by the railway line. 	<ul style="list-style-type: none"> Significant opportunity for future development (specifically space-extensive activities requiring good access and assisting in economic development/ employment generation). Possible opportunity for new high school (south of the railway line). Opportunity to reconfigure R60/R317 intersection and alignment to provide better access to Nkqubela. 	47,6	11,5%	45,94
2	Nkqubela South	<ul style="list-style-type: none"> Current development area comprising residential, library, sports complex, informal businesses and new Erf 136 housing project. 	<ul style="list-style-type: none"> Infill development opportunity in vicinity of sports complex for new community services and economic development activities. Improved access to the R317. 	68,1	16,5%	14,76
3	Robertson Centre	<ul style="list-style-type: none"> Historic core with retail and community facilities concentrated in this area. Comprising formal structures and includes industrial area adjacent to Nkqubela. 	<ul style="list-style-type: none"> Rationalisation of the street network, specifically the extension of Wolhuter Street to Burwana Street. Opportunities for general upgrading, landscaping, infill housing at Sportgrounds, and improved urban management. 	137,8	33,4%	7,95
4	Municipal Precinct	<ul style="list-style-type: none"> Large undeveloped land area surrounding sports complex. Good road access from the R60 and access to CBD via Church Street. 	<ul style="list-style-type: none"> Wetland natural area east of sport complex can be rehabilitated into green functional recreational park. Undeveloped land abutting sports complex can accommodate cluster of municipal services. Opportunity to link Church Street with the intersection of Burwana Street. 	27,5	6,7%	6,02
5	Airport Expansion	<ul style="list-style-type: none"> Undeveloped land bounded by the R60 and existing airport activities. 	<ul style="list-style-type: none"> Opportunity for future economic development such as commercial airport support services and other employment generation activities. 	87	21,1%	10,78

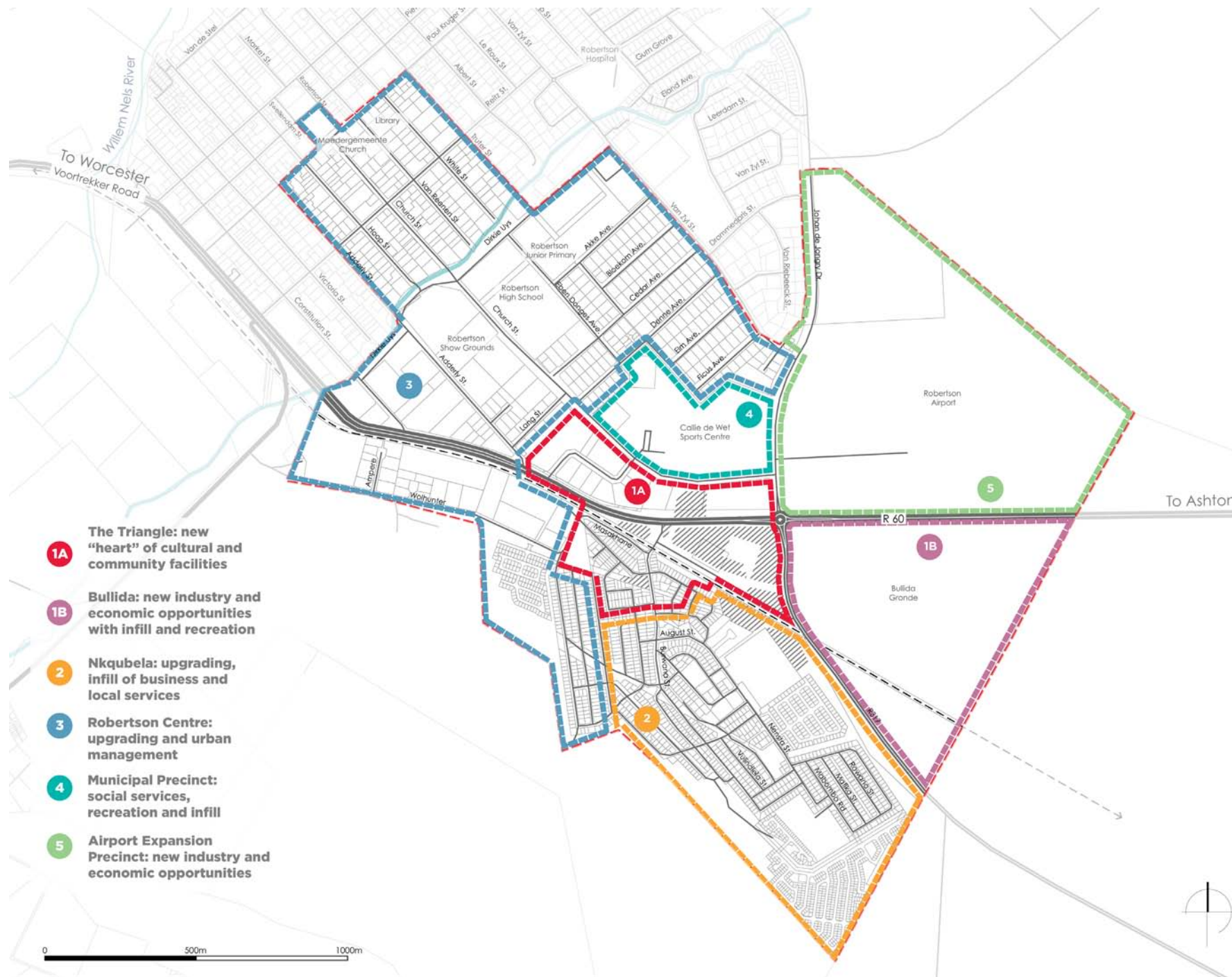


Figure 42. Sub-Precincts

5.2. Projects and Packaging per Sub-Precinct

With the focus of achieving greater spatial, social, and economic integration between Nkqubela and Robertson CBD, the project pipeline primarily encompasses of the implementation of mixed-use improvements comprising of road and pedestrian infrastructure, facilities, open spaces and infill residential and commercial uses.

The catalysts for realizing the integration and transformation goals is the development of the Triangular Site as the centre of Nkqubela and the Bullida Grounds as the industrial and job creation centre of Robertson.

The projects stemming from these sub-precincts:

- Are integrated.
- Are strategically located and have significant impact on spatial form.
- Requires significant infrastructure investment and ongoing maintenance expenditure.
- Require a blend of public sector finance/ investment and private sector involvement.
- Requires leadership and implementation from multiple stakeholders.

The Triangular Site and the Bullida Grounds precincts underpin the strategy for the coherent prioritization of projects to ensure the best return on effort and investment. Noting that Langeberg Municipality will need to collaborate with other government institutions and the private sector to plan, fund and implement the projects within these catalytic precincts over a project delivery spanning five or more years, the project pipeline should remain flexible, though aligned to the sub-precincts development framework.

The project pipeline's prioritization and phasing are firstly informed by the ability of the Municipality to leverage the Triangular Site and the Bullida Grounds as assets to meaningfully demonstrate

impact and integration. The prioritization of the projects is based on the assumption that the Municipality would complete and formalize a development framework and business case for these sub-precincts. The prioritization of projects is further informed via a high-level assessment of the projects in relation to the following criteria:

Cost: The cost of the project with regard to planning, design and/or implementation.

Value: The community's benefit created or derived from the project.

Risk: The risk/s associated with the planning, design and/or implementation.

Effort: The human resource effort and/or time required to plan for and/or implement the project.

Need: The need to implement the project in relation to achieving the objectives of social, economic and spatial integration between Nkqubela and the Robertson town centre.

The projects are linked to the sub-precincts and unpacked according to the estimated order of magnitude cost, interventions/actions required to implement the projects and associated timeframes for attending to the procedural and substantive requirements for implementing the projects.

Notably, the timeframes do not consider the actual time for implementing (i.e. construction) projects. The timeframes allocated to the projects follows:

Short: 0 -12 months

Medium: 13 – 36 months

Long: 37 or more months

A summary of the various projects per sub-precinct is shown in the Figures and Tables following, with the project pipeline expanded upon thereafter.

5.2.1. Priority 1: Sub-Precinct 1A - The Triangle

This new “heart” of cultural and community facilities forms the core area proposed for investment, where the most intense uses of activities will be prioritised. Development of this area can accommodate activities required not only by Robertson as a whole (such as new institutions and industry) but also accommodate specific needs of the residents of Nkqubela (such as entrepreneurship opportunities, additional public facilities, recreational opportunity, etc.) (see Figure 53 and Table 6).

Given the extent of development opportunity available, development here will assist in the reconfiguration of infrastructure required to improve integration between communities, such as enabling safer pedestrian environments, better NMT crossings and shared recreational spaces.

Projects proposed for this precinct include an iconic cultural centre and theatre, a space for a local market and trading area, a technical training centre with workshops and spaces for SMMEs, as well as a new formalised taxi rank linked through a east-west walkway between a new ECD and park (as identified by Langeberg officials). Infrastructure such as new roads are proposed as well as a new pedestrian crossing over the R60 and railway line to allow for safer access to Robertson and Nkqubela. These uses can also attract users from outside Nkqubela such as tourists and passers-by, building on the momentum of the R60 as a stopping point for travelers, while enabling a 24/7 active environment through a mix of uses.

Figures 43 to 51 illustrate examples of existing local projects similar to the projects proposed for this sub-precinct, that can provide inspiration for the future design, implementation and management of such projects in the study area. These existing projects also guide the design guidelines following in Section 6.



Figure 43. Guga Sthebe Arts & Culture Centre in Langa is housed in a brightly coloured building.



Figure 44. The Philippi Village Business Hub (6000m²) is designed as a creative and dynamic place to work, learn and socialise while allowing local businesses to become tenants. Incubators provide meaningful support to small businesses and events.



Figure 45. Philippi Village Entertainment area amphitheatre



Figure 46. Functional public courtyard - Kuyasa station



Figure 47. The Gugu S'thebe Theatre was upgraded using recycled materials and local products, providing a centre for arts and culture to be promoted.



Figure 48. Workshop17 Watershed is situated in a converted warehouse at Cape Town's Waterfront. It is a space in which startups, experienced companies, big and small, can collaborate, experiment and innovate.



Figure 49. Railway Square - a multifunctional public square constructed in the former Midland Railway Workshops. The industrial buildings underwent thoughtful restoration to create an urban village home to a range of residential, commercial, health, education, entertainment and creative industry uses.



Figure 50. The taxi rank opposite the Nomzamo Community Hall in Lwandle, Cape Town, has been transformed into a sustainable public transport facility with solar panels on the roof, washing facilities for minibus taxis, kiosks for informal traders, and bathroom facilities for commuters.



Figure 51. Peregrine Farm Stall has established itself as a popular tourist destination and pit stop for travellers travelling the N2. A shipping container "village" features the Padkos Express - a quick-serve coffee and pie station, surrounded by local pop-up stores in containers, with a kids play area in the centre.

Table 6. Sub-precinct 1A: The Triangle Site

Project Number	Project Name	Building / Land Use	Description	Actions/ Dependencies	Implementation	Gross Floor Area / Developable Footprint	Cost Estimates	IGPP Priority
1A.1	New pedestrian underpass for crossing R60	Infrastructure and Linkages	Catalytic infrastructure required to improve safer access between Robertson and Nkqubela.	<ul style="list-style-type: none"> Discussions with Transnet and WCG: DPTW 	LM / WCG: DPTW	1200 m ²	R39 000 000	YES
1A.2	Public Square and Public Space System	Public Space	Paving and upgrading of Triangle Precinct landscape to provide continuous public space system with seating and landscaping. Include spaces for trading - local market.	<ul style="list-style-type: none"> Planning and Design Secure Budget 	LM	100 000 m ²	R10 000 000	YES
1A.3	Cultural/Arts Centre and Theatre	Public Space and Cultural Facility	Alternative design and materials for iconic aesthetic. Similar activities to Guga S'Thebe.	<ul style="list-style-type: none"> Business Case Planning and Design Secure Budget 	LM, WCG: DEA&DP, WCG:DCAS	2500 m ²	R50 000 000	YES
1A.4	New road system for Precinct	Infrastructure and Linkages	Required to unlock and link community facilities with Nkqubela and Robertson. Linkages with Bullida roads.	<ul style="list-style-type: none"> Planning and Design Secure Budget 	LM	m ²	To be determined with detailed plans	
1A.5	Technical Training and Industrial Centre for SMMEs	Public Facility	Skills development and adult education facilities, industrial offices and business incubators for SMMEs - Workshop17.	<ul style="list-style-type: none"> Business Case Planning and Design 	LM, WCG: DoE	800 m ²	R24 000 000	YES
1A.6	Pedestrian crossing over railway line	Infrastructure and Linkages	Improved access between new community heart development and Nkqubela south.	<ul style="list-style-type: none"> Discussions with Transnet 	LM / Transnet	Foot bridge of 5m wide x 50m long - surface area of 650m ²	R25 800 000	YES
1A.7	Taxi Rank and Park with Walkway	Infrastructure and Linkages	Improved taxi rank space with waiting area connected along walkway to trading and ECD site and Clinic.	<ul style="list-style-type: none"> Planning and Design Secure Budget 	LM / WCG: DTPW	TBC		YES
						TOTAL COST ESTIMATES	R471 300 000	

1A: The Triangle

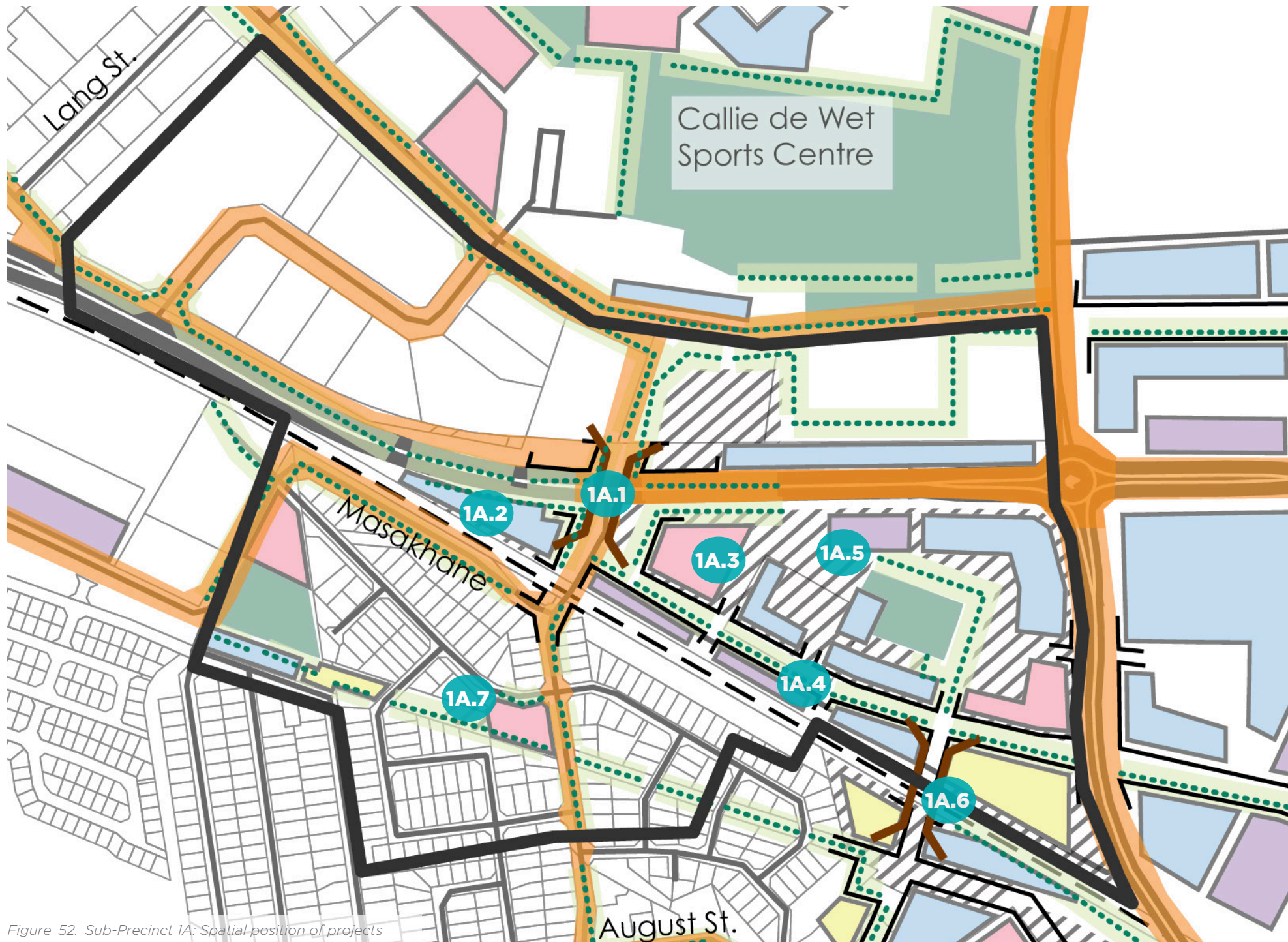


Figure 52. Sub-Precinct 1A: Spatial position of projects

5.2.2. Priority 2: Sub-Precinct 1B – Bullida

The second sub-precinct refers to the Bullida Grounds where new industry and infill is prioritised to unlock economic opportunities (see Figure 58 and Table 7). As mentioned in Section 3.2.8, a feasibility study is currently underway for this site and the proposals presented here are based on the concepts coming out of the engagements with that parallel process.

The unlocking of Bullida is key to the future uplftment of the precinct area, and infrastructure investment here will be a key lever to transform the economy of the area. This precinct calls for a new intersection and second entrance to Nkqubela South, which also aligns with current discussions with Province.

The proposals for this site has the potential to support the growth of existing firms in Robertson while also providing spaces for smaller entrepreneurs to establish workspaces and workshops.

The way in which Bullida Grounds is packaged for future land development will be crucial in determining the growth of this precinct, ensuring that it is inclusive and diverse in use and character. The formation of business associations and partners is encouraged to address problems in a structured way and to ensure for engagement between bigger corporations and local players.

Figures 53 to 57 illustrate examples of existing projects similar to the proposals for this sub-precinct, that can provide inspiration for the future design, implementation and management of such projects in the study area. These images are based on the current feasibility study guidelines and will also guide the design guidelines for the precinct investment plan following in Section 6.



Figure 53. People-orientated industrial architecture.



Figure 54. Using blank facades as art exhibitions.



Figure 55. Emerald Workshops, just outside Denver, provides affordable office, workshop and retail spaces geared toward “makers and doers”. The development consists of buildings of varying sizes – each with customisable units that can be purchased or rented.



Figure 56. High quality architecture can ensure for a friendlier public environment.



Figure 57. Small scale trading can provide for active frontages and economic opportunities for locals.

Table 7. Sub-precinct 1B - Bullida

Project Number	Project Name	Building / Land Use	Description	Actions/ Dependencies	Implementation	Gross Floor Area / Developable Footprint	Costs Estimated	IGPP Priority
1B.1	New intersection from R60 into Bullida development - link to Nkqubela	Infrastructure and Linkages	Road classifications discussion with WCG to determine distance between intersections - proclaim section of R60 as Main Road.	<ul style="list-style-type: none"> Discussions with WCG: DPTW. 	LM / WCG: DPTW		R4 000 000	YES
1B.2	New road system for Bullida development	Infrastructure and Linkages	Required to unlock Bullida development. Linkages with new intersections and road classifications discussions. One road reserve 32m wide, and the other is 25m wide.	CURRENT PROCESS <ul style="list-style-type: none"> Business Case Implementation Model Planning and Design Secure Budget 	LM	m ²	To be determined by current Bullida Grounds feasibility study	
1B.3	New Bullida Industry	Commercial/ Industry	Combination of light industrial and warehousing related to agricultural industry. Smaller industrial plots also included to support small-scale industry. Erven range from 0.2 - >1ha.		LM/ Private Sector	328 020 m ²		YES
1B.4	New Bullida Commercial	Commercial/ Industry	Commercial activities supporting industry and local community needs. Possible informal market spaces and small retail activities. Erven range from <0.2 - 3.2ha.		LM/ Private Sector	27 050 m ²		YES
1B.5	New High School and Sport Fields	Public Facility	Currently in process through WCG Department of Education - reviewing project pipeline due to budget cuts. Consolidation with Primary School required.	<ul style="list-style-type: none"> Planning and Design Secure Budget 	LM, WCG: DoE	12 500 m ² + 5100 m ²	R312 500 000 + R10 000 000	YES

1B: Bullida

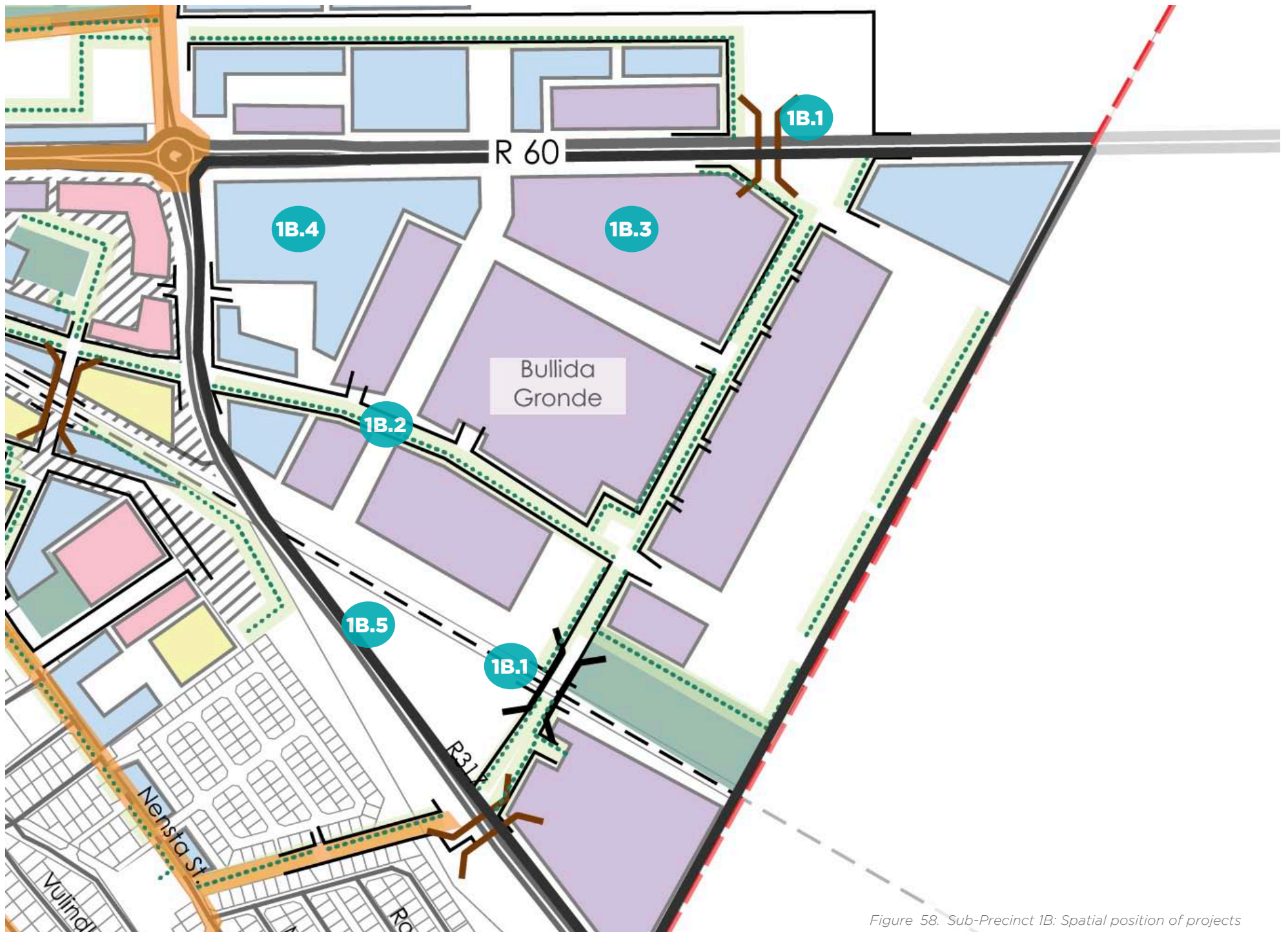


Figure 58. Sub-Precinct 1B: Spatial position of projects

5.2.3. Priority 3: Sub-precinct 2 – Nkqubela South

Sub-precinct 2 refers to the area south of the Triangle site comprising the rest of Nkqubela. The focus here is on upgrading and infill as well as rationalisation of vacant land in the rest of Nkqubela. Community-orientated programmes are also a key focus here (see Table 8 and Figure 62).

The projects proposed for this precinct focuses on community facilities and social services, with urban upgrading and improved public environments. The primary project is the proposal for a clinic in proximity to the library – supported by local officials and forming part of current discussions with Western Cape Province officials.

Socio-economic upliftment is encouraged through infill of business and mixed use projects, such as spaces for entrepreneurs or small businesses to establish along key routes of activity. Live/work units, a concept developed by VPUU¹⁴ in Khayelitsha, are also proposed, comprising of a residential (living) and income generation (work) section. These units consist of a ground floor income generating unit for use as a shop, office, workshop, etc. and an upstairs flat that can be occupied by the business owner. This will increase the mix of uses within Nkqubela, create income opportunities for local residents, ensure business owners occupation and investment in their place of residence, further strengthen the notion of ownership, and ensure passive surveillance of the public environment.

This precinct also calls for a pedestrian crossing over the R317 that links with Bullida as well as the extension of the upgrading of the stormwater channel.

Figures 59 to 61 illustrate examples that can provide inspiration for the future design, implementation and management of such projects in the study area. These images will guide the design guidelines in Section 6.



Figure 59. A Live-Work unit in Vredenburg's RSEP Precinct.



Figure 60. Malahlela Chreche in Limpopo, a place of learning for 40+ children made out of uniquely designed buildings and play areas.



Figure 61. Umnyama Park was conceptualised as a neighbourhood consisting of diverse housing typologies, commercial and retail development, space for local businesses and new community uses. The image is an artist's impression of the communal spaces.

Table 8. Sub-precinct 2 - Nkqubela South

Project Number	Project Name	Building / Land Use	Description	Actions/ Dependencies	Implementation	Gross Floor Area / Developable Footprint	Costs Estimated	IGPP Priority
2.1	Nkqubela Clinic	Public Facility	Upgraded provincial clinic - Community Health Centre CHC with ECD facilities and trading spaces.	<ul style="list-style-type: none"> Business Case Planning and Design Secure Budget 	LM, WCG: DoE, WCG: DoH	5400 m²	R162 000 000	YES
2.2	Commercial and Retail Infill	Employment and Livelihoods	Commercial activities to support small scale retail and trading.	<ul style="list-style-type: none"> Planning and Design Secure Budget 	LM	TBC	TBC	YES
2.3	Stormwater Upgrades	Infrastructure and Linkages	Possible underground channeling of stormwater channel.	<ul style="list-style-type: none"> Planning and Design Secure Budget 	LM	1000 m² (1km)	R3 000 000	
2.4	Residential Infill	Residential/ Apartments	Medium density apartments. Social Housing multi-storey - 100du/ha	<ul style="list-style-type: none"> Business Case Planning and Design 	LM / WCG: DoH / Private Sector	39 800 m²	R159 200 000	
2.5	Pedestrian bridge over R317 and intersection	Infrastructure and Linkages	Required to connect Bullida development with Nkqubela South. Re-proclaimed status of R317 discussions required.	<ul style="list-style-type: none"> Discussions with WCG: DPTW. Re-proclaimed status of R317 required 	LM / WCG: DPTW	Foot bridge of 5m wide x 50m long - surface area of 650m²	R25 800 000	
TOTAL COST ESTIMATES							R444 500 000	

2: Nkqubela South



Figure 62. Sub-Precinct 2: Spatial position of projects

5.2.4. Priority 4: Sub-Precinct 3 - Robertson Centre

Sub-precinct 3 focuses on the Robertson Centre as this area has been identified for upgrading and where new opportunities for infill and improved urban management should be explored (see Table 9 and Figure 67).

The primary project here looks at the possible redevelopment of the Robertson Showgrounds, which, as pioneered by the Langeberg Officials, is a very strategic location for new residential infill and mixed use development. Secondly, improved pedestrian environments are emphasized through the upgrading of streets and sidewalks that connect to Nkqubela along key desire lines, while also initiated a town-wide initiative for tree planting and landscaping.

Figures 63 - 66 show examples of positive public spaces and residential mixed use developments not only in terms of design and uses but also at how it was implemented and managed. Visual precedent is also provided around general landscaping and improved pavements, as well as ideas for smaller parks and sporting facilities that can form part of the Robertson Showgrounds development. These images will guide the design guidelines in Section 6.



Figure 63. R118m Communicare development - Musgrave Park in Diep River - which has a combination of bachelor, one-bedroom and two-bedroom flats with play areas and communal spaces.



Figure 64. Simple, sustainable housing design.



Figure 65. An interactive play park design.



Figure 66. Public landscaping and seating design.

Table 9. Sub-precinct 3 - Robertson Centre

Project Number	Project Name	Building / Land Use	Description	Actions/ Dependencies	Implementation	Gross Floor Area / Developable Footprint	Costs Estimated	IGPP Priority
3.1	Showgrounds Residential Infill	Residential/ Apartments	Medium density apartments. Social Housing multi-storey.	<ul style="list-style-type: none"> Discussions with land owner Business Case Planning and Design 	LM / WCG: DoH / Private Sector	39 800 m²	R159 200 000	
3.2	Industrial Infill along R60	Employment and Livelihoods	Combination of light industrial and warehousing related to agricultural industry. Can be combined with Mixed Use activities.	<ul style="list-style-type: none"> Discussions with land owner Transnet Planning and Design Secure Budget 	LM/ Private Sector/ Transnet	TBC	TBC	
3.3	Upgrading of pedestrian facilities and sidewalks	Infrastructure and Linkages	Align with current National Treasury programmes.	<ul style="list-style-type: none"> Planning and Design Secure Budget 	LM, National Treasury	As per current grants		
3.4	Tree planting and Landscaping	Upgrading and Landscaping	Beautification of street interface. Town wide initiative.	<ul style="list-style-type: none"> Planning and Design Secure Budget 	LM, National Treasury	Town-wide	R10 000 000	YES

3: Robertson Centre

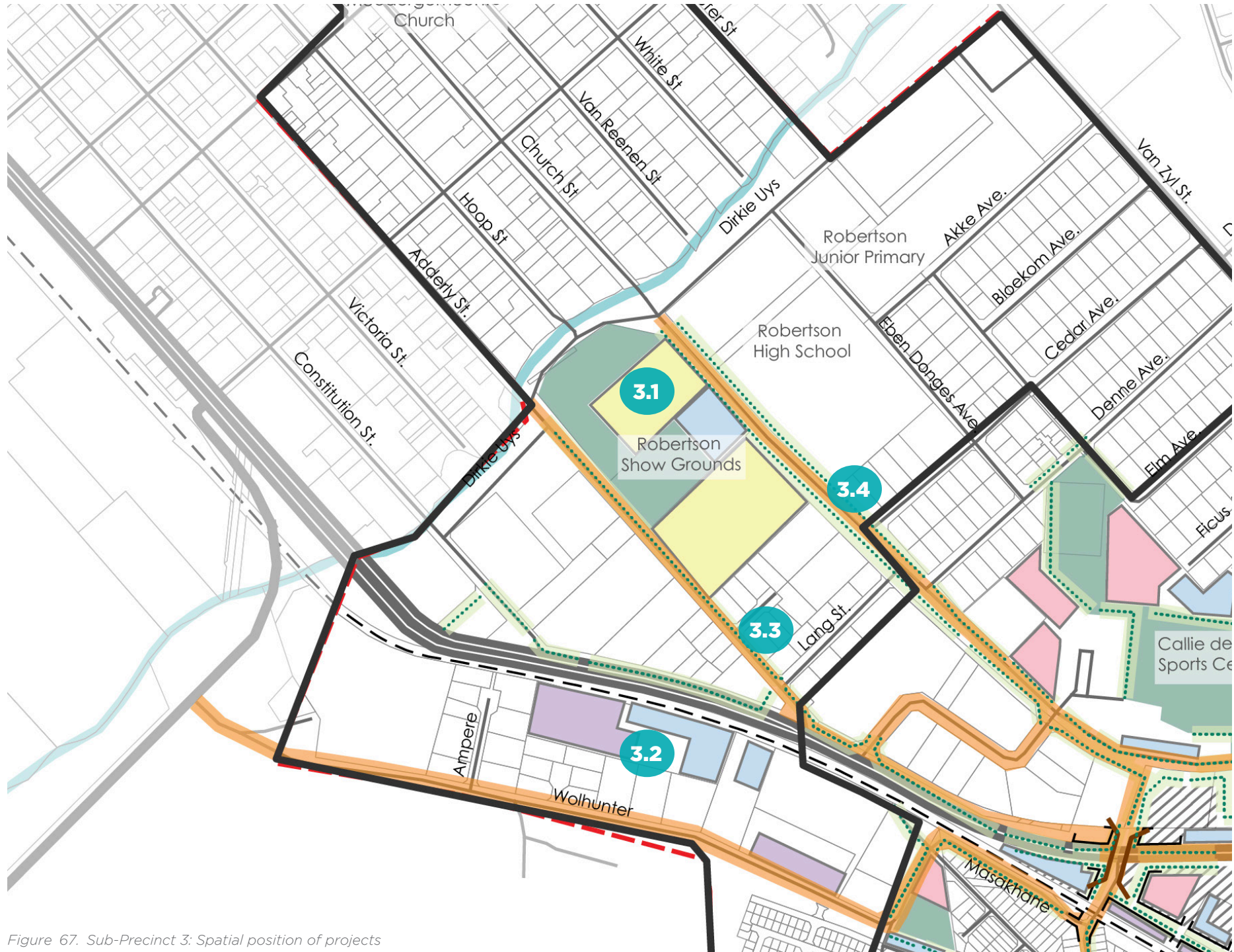


Figure 67. Sub-Precinct 3: Spatial position of projects

5.2.5. Priority 5: Sub-Precinct 4 - Municipal Hub

Sub-Precinct 4 is a focus area initiated by Langeberg officials to establish a municipal hub around the Callie de Wet stadium to provide additional, concentrated public services in a place that is better situated in terms of town-wide access.

The development of these public services is proposed to support the upgrading of the existing Callie de Wet sport facilities to increase capacity and quality and turn it into a regional recreational hub for Langeberg residents (see Table 10 and Figure 71).

Based on analysis findings and discussions with local ward representatives, the potential to explore the rehabilitation of the pond to the eastern side of the sport fields into a recreational park for locals and visitors to Robertson is also proposed.

The fundamental focus here is on bringing municipal services closer to the residents of Nkqubela and bringing activity and energy closer to the new central hub of the precinct.

Figures 68 - 70 provide ideas of active and interactive recreational areas, as well as examples of potentially upgrading the sport stadium with unique sporting designs. The Vredenburg Government Precinct, a project pilot by WCG, forms part of the proposed Vredenburg Urban Renewal project consisting out of 31 ha of land within the Vredenburg town centre. The key elements of the project proposals include a mixed use government precinct, various commercial nodes, sport and recreational, high density residential and areas of social interaction.

These images and projects will guide the design guidelines in Section 6.



Figure 68. An interactive rehabilitated park design in Stellenbosch.



Figure 69. An artist's impression of the Vredenburg Government Precinct with an interactive public environment.



Figure 70. A unique sport complex design.

Table 10. Sub-precinct 4 - Municipal Hub

Project Number	Project Name	Building / Land Use	Description	Actions/ Dependencies	Implementation	Gross Floor Area / Developable Footprint	Costs Estimated	IGPP Priority
4.1	Upgrading of Callie de Wet sport facilities	Public Facility	Upgrade current facilities. Additional seating and field rehabilitation.	<ul style="list-style-type: none"> • Business Case • Implementation Model • Planning and Design • Secure Budget 	LM/ Private Sector	53 000 m ²	R46 950 050	YES
4.2	Recreational Urban Park	Public Space and Culture	Rehabilitation of wetland for recreational purposes. Similar activities and design materials to Green Point Urban Park.	<ul style="list-style-type: none"> • Planning and Design • Secure Budget • Maintenance Plan 	LM, WCG: DEA&DP	6 000 m ²	R7 200 000	
4.3	Municipal Services Infill	Public Services	Medium density apartments. Possible social housing development. Similar materials and design to Communicare's Musgrave Park.	<ul style="list-style-type: none"> • Business Case • Implementation Model • Planning and Design • Secure Budget 	LM/ Private Sector	TBC	TBC	
4.4	Upgrading of pedestrian facilities and sidewalks	Infrastructure and Linkages	Align with current National Treasury programmes.	<ul style="list-style-type: none"> • Planning and Design • Secure Budget 	LM, National Treasury	As per current grants		

4: Municipal Hub

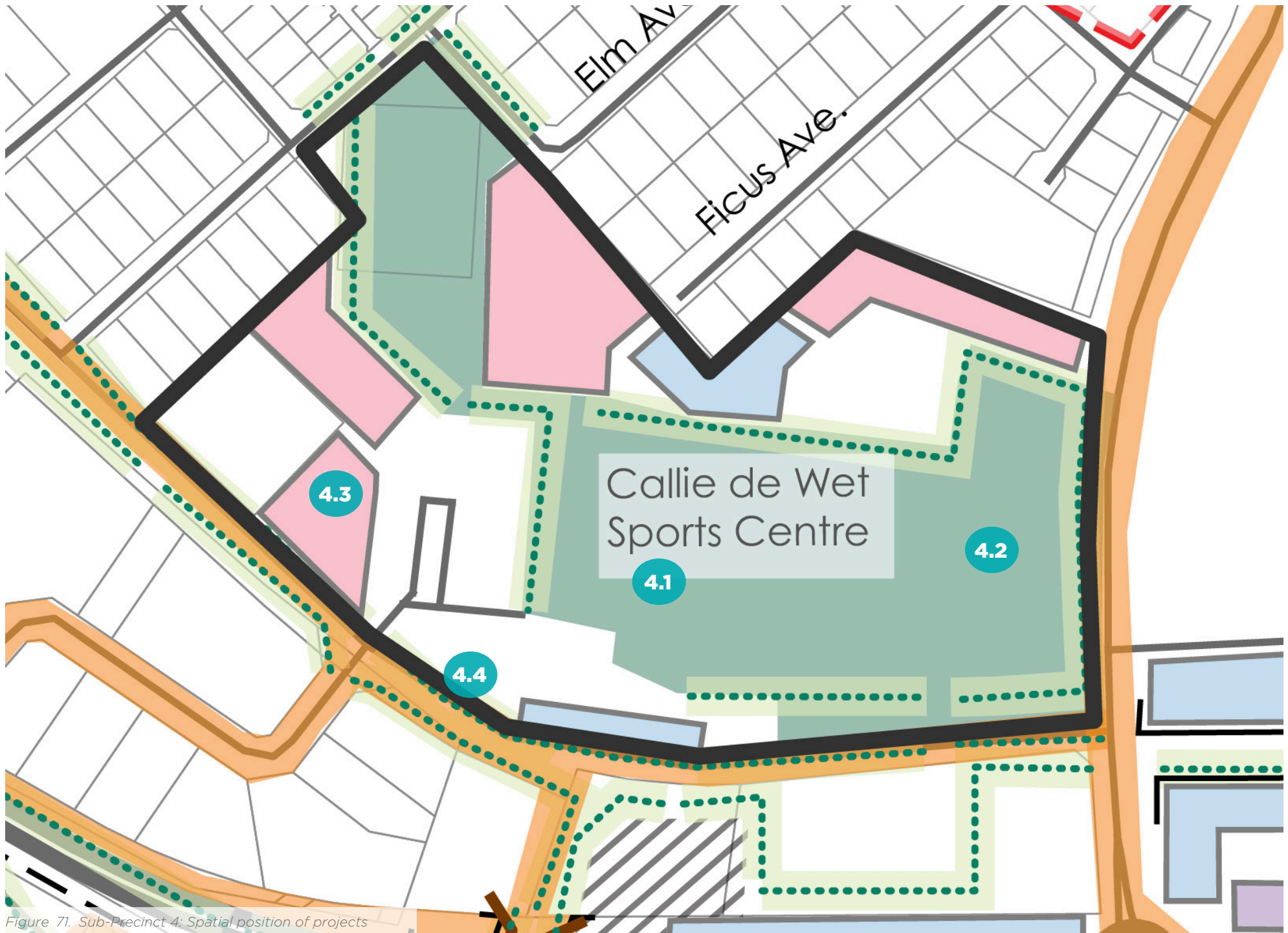


Figure 71. Sub-Precinct 4: Spatial position of projects

5.2.6. Priority 6: Sub-Precinct 5 - Airport Expansion

The final sub-precinct builds on a longer term vision for the potential to increase employment opportunities and economic development through the expansion of the Robertson airport.

Building on the future momentum from the development of Bullida Grounds into an active and well-functional economic hub, together with the proclamation of the R60 to a municipal street – vacant portions abutting the R60 below the airport can be developed to include additional services to support the airport and other economies within Robertson (see Figure 75 and Table 11).

This precinct can pilot the use of green infrastructure such as solar roofs etc. for Robertson's industries and providing precedent design for more sustainable small scale airport models.

This precinct also includes a spatially critical integration project that involves the upgrading Johan de Jongry Drive for improved pedestrian north-south movement.

Figures 72 - 74 show examples from the Dube TradePort in Durban where supporting services and warehouses were developed around existing primary airport activities. Dube AgriZone is a high-tech agricultural development which forms part of the Dube TradePort Special Economic Zone (SEZ). Greenhouses, packhouses, a distribution centre and a AgriLab were built within the trading area to grow and manage produce and flowers that can then be directly exported to external markets via the airport.

The images and projects will guide the design guidelines in Section 6.



Figure 72. The masterplan for the Dube TradePort.

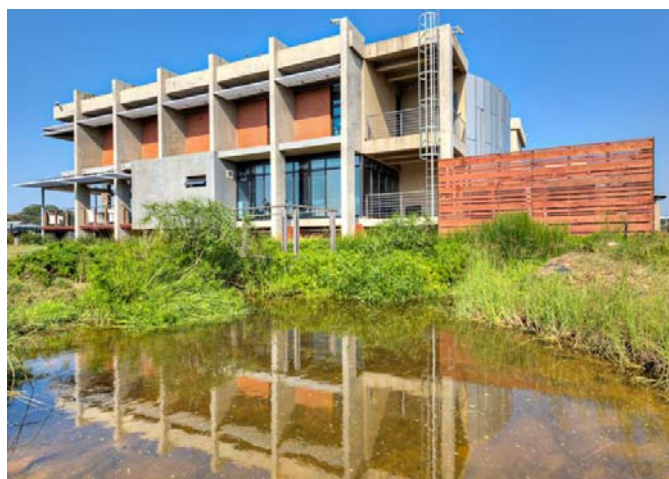


Figure 73. The Dube AgriZone main building.



Figure 74. Branding of the TradePort.

Table 11. Sub-precinct 5 - Airport

Project Number	Project Name	Building / Land Use	Description	Actions/ Dependencies	Implementation	Gross Floor Area / Developable Footprint	Costs Estimated	IGPP Priority
5.1	Airport Support Services Infill	Employment and Livelihoods	Commercial activities to support airport services and create employment opportunities.	<ul style="list-style-type: none"> Planning and Design Secure Budget 	LM	TBC	TBC	
5.2	New intersection from R60 into Bullida development - link to Nkqubela	Infrastructure and Linkages	Road classifications discussion with WCG to determine distance between intersections - proclaim section of R60 as Main Road.	<ul style="list-style-type: none"> Discussions with WCG: DPTW. 	LM / WCG: DPTW		R4 000 000	
5.3	Pedestrian bridge over R60	Infrastructure and Linkages	Required to connect Bullida development with Airport activities. Forms part of new intersection design.	<ul style="list-style-type: none"> Discussions with WCG: DPTW. 	LM / WCG: DPTW	Foot bridge of 5m wide x 50m long - surface area of 650m ²	R25 800 000	
5.4	Upgrading of pedestrian facilities and sidewalks along Johan de Jongry Drive	Infrastructure and Linkages	Improved access to northern Thusong Centre and services. Possibly align with National Treasury programmes.	<ul style="list-style-type: none"> Planning and Design Secure Budget 	LM, National Treasury	Investigate grants	TBC	YES

5: Airport Expansion



Figure 75. Sub-Precinct 5: Spatial position of projects

5.3. Socio-Economic Employment and Community Orientated Programmes

As part of the brief for this investment plan, potential initiatives relating to enterprise support and any other non spatial interventions for economic as well as social upliftment have been identified. In addition to current existing programmes already implemented in Robertson, the table unpacks additional opportunities that should be explored and funded to implement non-spatial interventions, some in the immediate term and others with a longer term focus. Additional work will also be needed to survey current informal businesses in Nkqubela to determine needs and explore potentials for new programmes.

Additional work will also be needed to survey current informal businesses in Nkqubela to determine needs and explore potentials for new programmes.

Current and proposed projects which are incorporated in the current iteration of the IDP (2020-2021) which should have direct socio economic benefits to Nkqubela and surrounds (i.e. Langeberg Ward 2) are listed in Table 12.

Proposed ward-based projects identified as priorities for the next budgeting cycles which should have direct socio economic benefits to Nkqubela and surrounds (i.e. Langeberg Ward 2) are unpacked in Table 13.

Proposed initiatives which will also contribute to socio economic benefits to Nkqubela and surrounds (i.e. Langeberg Ward 2) have been identified in Table 14.

Table 12. Current and proposed projects incorporated in the current iteration of the IDP (2020-2021).

Vote Number	Department	Project	Project Type	Potential Programme	Budgeted	Amount
9/135-24117-220	Roads	MIG: Upgrading of Roads	<ul style="list-style-type: none"> Upgrading of Roads Improve sidewalks 	EPWP	Yes	R1 094 000
9/135-24116-212	Roads	Upgrading of Roads	<ul style="list-style-type: none"> Upgrading of Roads Improve sidewalks 	EPWP	Yes	R3 000 000
9/135-24118-229	Roads	MIG: Upgrading of Roads	<ul style="list-style-type: none"> Upgrading of Roads Improve sidewalks 	EPWP	Yes	R1 983 500
9/132-30706-128	Electrical	Electrification of Kenana	<ul style="list-style-type: none"> Electrification 	EPWP	Yes	R4 347 830
9/132-30633-218	Electrical	Electrification of Kenana	<ul style="list-style-type: none"> Electrification 	EPWP	Yes	R600 000
9/132-30705-127	Electrical	Electrification Erf 136 Nkqubela	<ul style="list-style-type: none"> Electrification 	EPWP	Yes	R1 739 130
9/132-30730-198	Electrical	Electrification Erf 136 Nkqubela	<ul style="list-style-type: none"> Electrification 	EPWP	Yes	R1 700 000
New	Sportsfields	Nkqubela Sportsground security	<ul style="list-style-type: none"> Security upgrades 	EPWP	Yes	R300 000

Table 13. Proposed ward-based projects from future IDP budgeting cycles.

Project	Project Type	Potential Programme	Budgeted
Extension to Community Hall	<ul style="list-style-type: none"> Upgrading of Community Facility 	EPWP	No
Provide land for small scale farmers	<ul style="list-style-type: none"> Provision of land for farmers 	Local Economic Development	No
Provide business plots	<ul style="list-style-type: none"> Provision of land for small business 	Local Economic Development	No

Table 14. Proposed additional initiatives with potential socio-economic benefits

Project	Description
Skills development/ learnerships	<ul style="list-style-type: none"> Bricklaying, plumbing, painting – linked to housing projects
Skills development/ learnerships	<ul style="list-style-type: none"> Programmes linked to and leveraging LED Recycling Project and/or Tourism Strategy
Skills development/ learnerships	<ul style="list-style-type: none"> Programmes linked to sport e.g. coaching of cricket and rugby or maintenance of facilities
Environmental management	<ul style="list-style-type: none"> Management/ maintenance of rivers, parks, sports grounds

5.4. Consolidated Project List: Intergovernmental Project Pipeline (IGPP)

The integrated approach to implementation calls for an intergovernmental list of projects that must be prioritised and require collaboration between various stakeholders. Based on identified projects for each sub-precinct a list of the primary projects prioritised for implementation have been developed to ensure that the vision for the precinct is unlocked and funded accordingly. These projects are unpacked in Table 15 and spatialised onto the composite strategy plan in Figure 76. This is referred to as the Intergovernmental Project Pipeline (IGPP) due to the importance of coordinating various role players in the implementation and funding of projects.

These projects are all seen as major transformative projects with long lead times, multiple actors involved, and significant infrastructure implications. These projects are also supported by the Langeberg officials in terms of project readiness and confidence to implement.

Notably other discussions will still need to be held with other government departments to finalise funding arrangements etc.

Table 15. Intergovernmental Project Pipeline: Consolidated List of Priority Projects

Project Number	Project Name	Description	Implementation	Costs Estimated	Precedent
	Transport and Strategic Infrastructure	Precinct-wide implementation of required roads and infrastructure upgrades to unlock strategic land parcels	LM / WGC: DPTW	TBC	
1A.1	Pedestrian Crossing over R60	Catalytic infrastructure to improve access – bridge or underpass TBC	LM / WGC: DPTW	R39 000 000	Greenpoint Fanwalk
1A.2	Public Square and Market	Paving of Triangle to create continuous public space system and market for trading	LM (potential collaboration with RSEP Programme)	R10 000 000	Peregrine Case Study 5
1B.5	High School	Discussions with WCG – consolidation of existing Primary School to enlarge capacity	LM / WGC: DoE	R322 500 000	
1A.5	Cultural Arts Centre and Theatre	Iconic building design – space for local community	LM / WGC: DEA&DP / WGC: DCAS / Private Sector	R50 000 000	Guga S'Thebe
1A.6	Technical Training and Industrial Centre	Space for adult education and SMMEs	LM / WGC: DoE / WGC: DTPW / Private Sector	R24 000 000	Workshop 17/ Graham Beck Skills Centre
1A.7	Taxi Rank and Park	Improved waiting area with east-west walkway connections to ECD, Clinic	LM / WGC: DTPW (potential collaboration with RSEP Programme)	TBC	
1B.1	New Intersection R60	Reconfiguration of R317 + Pedestrian/Vehicular Bridge over rail (linked to project 2.5)	LM / WGC: DTPW	R4 000 000	
1B.3 & 4	Bullida Industry and Commercial	Light industry warehouses and workshops, supported by retail, commercial	LM / Private Sector	TBC	
2.1	Nkqubela Clinic	Community Health Centre and ECD and trading spaces	LM / WGC: DoE (potential collaboration with RSEP Programme)	R162 000 000	
3.1	Showgrounds Redevelopment	Medium density strategic infill – discussions with current landholders	LM / WGC: DoH / Private Sector	R160 000 000	
4.1	Upgrading Callie De Wet	Upgrade current facilities – additional seating	LM / WGC: DCAS	R45 000 000	
5.4	Pedestrian Upgrading – Johan de Jongry	Improved environment for pedestrians to northern Thusong and services	LM (potential collaboration with RSEP Programme)	TBC	
4.2	Recreational Park	Rehabilitation of wetland	LM / WGC: DEA&DP	R7 200 000	Greenpoint Urban Park



Figure 76. Priority Projects Mapped



Part 6.

Design and Implementation Guidelines

6. Design and Implementation Guidelines

6.1. Urban Design Guidelines

The importance of emphasising the implementation of good rather than poor design focuses on so much more than purely aesthetic benefits. Examples of poor design of the built environment are well known: low quality housing, derelict industrial areas, failing town centres. The consequences of these mistakes are detrimental to daily quality of life and longer term prospects of the individual and society. The reverse of this is also true: good design can radically enhance social, economic and environmental indices, creating sustainable developments which have significant positive impacts on both the lives of individuals and their wider communities (See Figure 77).

Development should create or enhance local distinctiveness, an important principle in the case of Robertson where local character defines the regional economic and social sustainability. This can only be achieved through good design principles and standards. It is therefore vital that a high standard of urban design drives the sustainable implementation of the proposals for Robertson.

The following section sets out the guiding principles to be considered and followed to ensure good quality design in new or infill developments.

Each of the developmental elements of the Spatial Strategy proposals is unpacked to differentiate between various development typologies, as per the legend of land uses illustrated here. The guidelines provide a set of generic principles for each land use and is thereafter unpacked in terms of its direct application to the sub-precincts, supported by relevant case examples.

-  New Mixed Use Commercial and Retail Infill (including markets and business hubs)
-  New Industrial Infill (small to large plots, spaces for SMMEs)
-  New Residential Infill (medium density/social housing)
-  New Community Services Infill (Schools, Training Facilities, Cultural Centres)
-  Recreational Sport and Urban Parks for Upgrading or Rehabilitation
-  Primary New Public Spaces (or requiring upgrading)

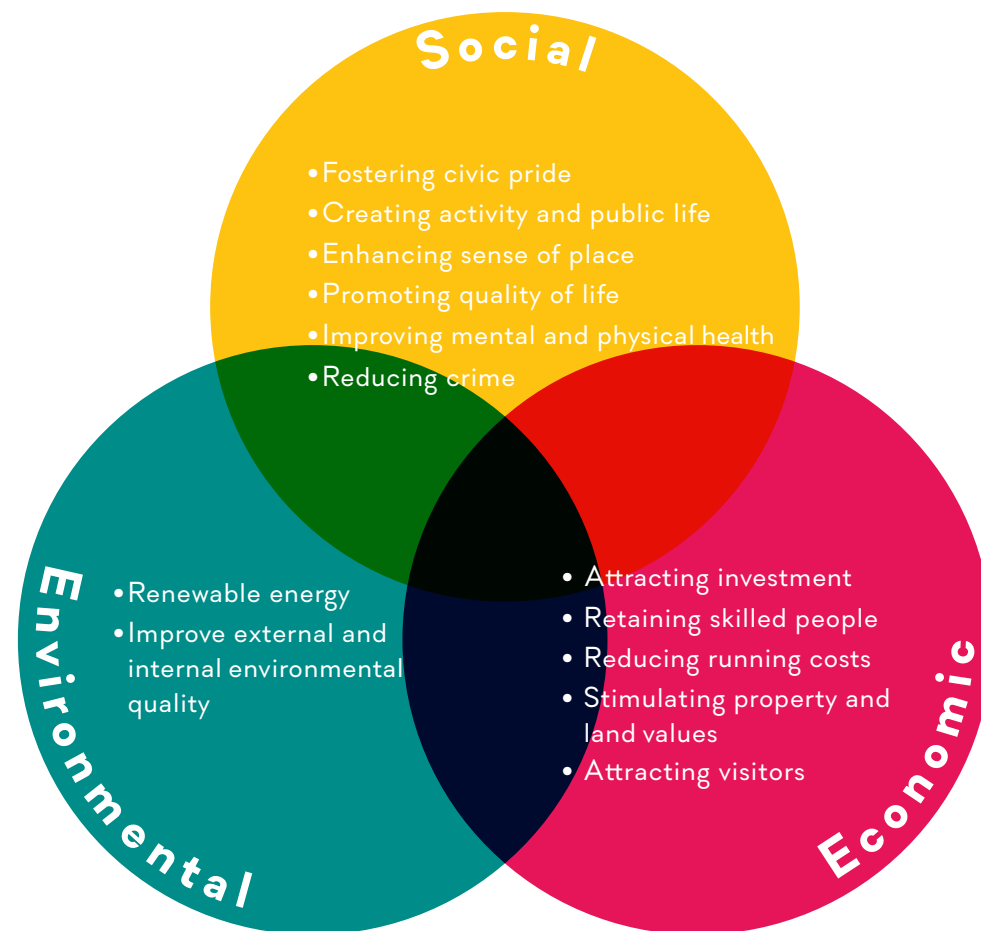


Figure 77. The values of good design, from a social, environmental and economic perspective (The Good Design Guide - Supplementary Planning Document: Hinckley & Bosworth Borough Council 2019)

6.1.1. Mixed Use Commercial and Retail Infill and Development

Commercial and retail developments in the context of the Robertson proposals refer to new or infill retail activities and trading markets, infill of live-work units, new commercial developments such as support services to local industries, and economic development initiatives such as business hubs.

Good commercial and retail developments play a vital role in enhancing the economic prosperity, vitality and quality of life in urban and rural centres. When designed well they create attractive and comfortable places to live and work, attracting investors. If not designed well, however, they can introduce large, bland, and non-contextual units and spaces that dramatically reduce the desirability and prosperity of a place.

Mix of uses to ensure for diverse ranges of activity during different times of the day is important. The Urban Land Institute's Mixed-Use Development Handbook characterises mixed-use development as one that provides three or more significant revenue-producing uses while fostering integration, density, and compatibility of land uses, and creates a walkable community with uninterrupted pedestrian connections.

The following guidelines are set out according to specific relevant themes to the implementation of commercial and retail activities, to be followed to ensure good quality design in new or infill developments.

6.1.1.1 Generic Guidelines

Activity, Safety and Mix of Uses

1. **Combine uses that require activity during different times of day**, such as workshops and offices with restaurants or evening entertainment in the same building. This can transform a business district that closes down at night into an area that is vibrant around the clock to ensure safety and surveillance. (See Figure 78).

2. **Create active frontages** to all public areas by avoiding dead façades, blank walls and fencing.
3. **Create a continuous frontage** of bars, shops, and restaurants enhanced by attractive forecourts and shopfronts.
4. **Consider offering more than just single storey** development in order to assimilate with existing and proposed urban environments, such as within a local centre, where in order to create a commercial or retail node, greater scale will be required.

Building Design, Materials and Layout

1. **Create a logical and coherent network of interrelated buildings, spaces and functions**, addressing the relationship between public and private space as well as considering the integration of functional spaces such as servicing and car parking.
 2. **Place buildings near or along the front property line**, encouraging a “zero setback”. Variations in the zero setback from the property line may be appropriate when the resulting setback improves the public realm through providing greater accommodation for pedestrian circulation, sidewalk gathering areas, or enhanced entries.
 3. **Conceal loading, storage and service areas from view** within the building envelope or locate it to the rear of the site, designed for minimal visual impact and circulation conflicts.
1. Incorporate **sustainable, energy-efficient technology**.

Street Design, Public Spaces and Interfaces

1. **Integrate effective public spaces** into a scheme including pedestrian-only streets or squares, and where appropriate, complement these spaces with recreational or play areas.

2. Include a minimum **10% of public and private open space** within the development envelope in the form of courtyards or squares.
3. **Locate the main pedestrian access point** to the building along the **front facade** that is oriented to the primary street.
4. **Integrate car parking to avoid it from being the main visual element**. This could be achieved through enclosing it by built form, soft landscaping, or positioning it away from the main frontage.

Implementation Mechanisms, Zoning and Adaptability

1. Commercial development relies on the success of market pressures. Changing market circumstances can often lead to large volume spaces and sites standing vacant or partially vacant. Schemes should therefore **incorporate flexible buildings and spaces** that can be easily adapted to future uses. This might include providing a range of unit types, such as incubator units, to cater for a range of businesses.

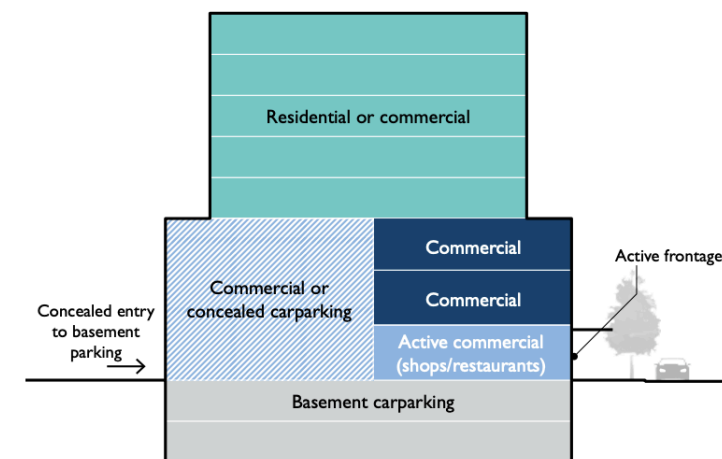


Figure 78. Example of land use mixes and position / orientation. Successful schemes incorporate a mix of uses, such as offices in upper floors complemented by retail at ground.

2. Consider the **appropriate zoning mechanisms** that must be applied or adjusted to accommodate mixed use developments.

6.1.1.2 Applying the Guidelines to the Sub-Precincts

The implementation of mixed use activities are proposed for all sub-precincts, but most prominently for:

- **1A The Triangle** - where commercial opportunities are encouraged to support community services and public space activation, as well as the incorporation of a business hub.
- **1B Bullida** - where smaller business activities are encouraged to support industrial activities.
- **2 Nkqubela South** - where mixed use opportunities are critical to improve access to economic opportunities and live-work units are proposed as infill.
- **5 Airport Expansion** - where greenfield commercial activities to support airport services must adhere to urban design guidelines to avoid a car-orientated, sterile “business” environmental.

Relevant priority projects, as per Table 12, include:

- **1A.2**
- **1A.6**
- **1B.4**
- **3.1**

Figure 79 illustrates a cross-section of a typical for Nkqubela South where mixed use activity is activated by public interfaces with the street and community activities, while supported by residential activity and other elements that ensure for a range of land uses.

Figure 80 represents the idea of a Live-Work unit developed as part of a pilot project in Khayelitsha, consisting of a ground floor income generating unit for use as a shop, office, workshop, etc. and an upstairs flat that would be occupied by the business owner. This small-scale approach to mixing of uses creates income opportunities for local residents, ensures business owners occupation and investment in their place of residence, further strengthening the notion of ownership, and ensuring for passive surveillance of the public environment.

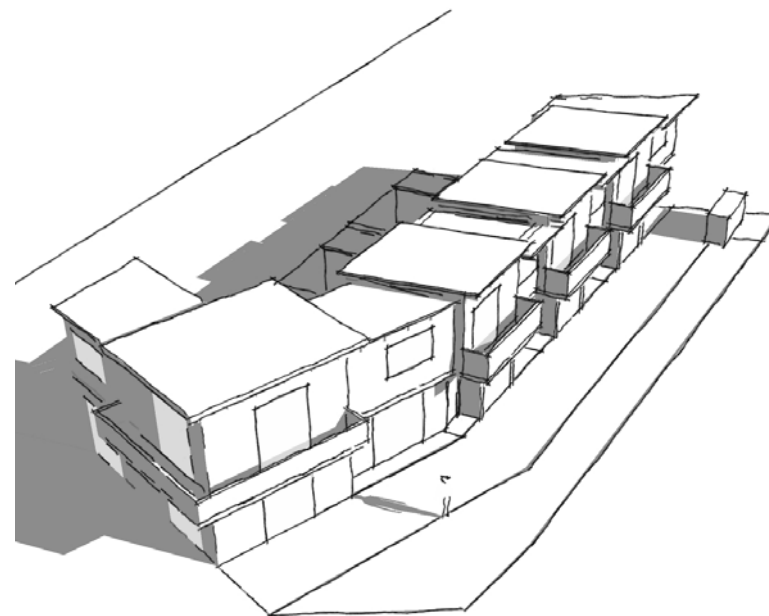


Figure 80. Work Live Units sketch, by Babett Frehrking and Jonker Barnes Architects.

Case Study 1 provides ideas and guidelines for the development of a business and community hub as per the proposals for sub-precinct 1A.

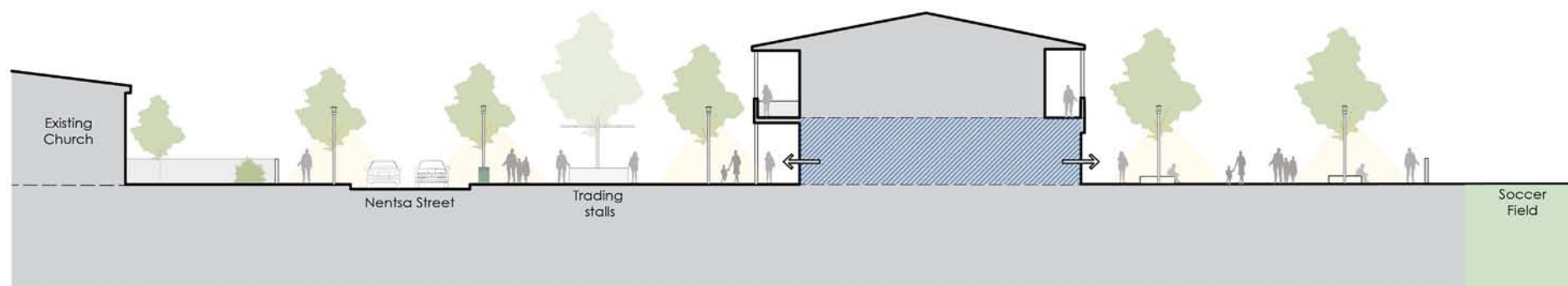


Figure 79. Cross section illustrating the proposed urban design intervention and scale for sub-precinct 2 Nkqubela South, where mixed use activities face onto the street and sport fields, supported by residential activities above and street trading spaces to activate the public environment.

Case Study 1: Philippi Village, Nyanga Cape Town

Philippi Village is a mixed use 6 000m² entrepreneurial development zone at the epicentre of Nyanga, Gugulethu, Mitchell's Plain and Khayelitsha. The development, costing R120 million, was initiated approximately five years ago in 2015 with the vision of creating economic opportunity through the active inclusion of those who are excluded from the mainstream of development. The village therefore aims to provide much needed space for entrepreneurs to grow their companies.

The 12ha site in the centre of Philippi, centered around a disused cement factory, was acquired by The Business Place Philippi, a non-profit organization which offers free business advice and training to previously disadvantaged individuals that run small and medium size businesses.

The renewal of the broader precinct as a business office space required development funding of a completely different order. An R80-million cash injection came in the form of a joint investment from the Bertha Foundation, based at UCT's Graduate School of Business, and the Jobs Fund. This enabled the construction of the The Hub and set the ball rolling for the remainder of the project.

The Hub comprises a call centre, stalls for vendors, conference spaces, reception services, an eatery, personal storage areas, cleaning and utilities, and meeting amenities. An on-site crèche accommodates working parents, and the UCT Business School also operates a satellite campus from the premises. A City library previously located at Crossroads relocated to the building's ground floor.

The Philippi hub offers students, alumni, clients and local entrepreneurs in the community a place to meet and engage. Additionally, the Solution Space supports entrepreneurs to learn and grow, providing them with access to resources, corporate partners, mentors, advisory services, co-working space, speakers and partnerships. All UCT Business School students across most academic programmes are encouraged to take at least one course at the Philippi hub.

The Village Square was designed to meet the needs of larger groups (250+) that want to meet,

workshop, congregate and celebrate in an open-air environment that is shaded and equipped with catering facilities. It is also the area where the Philippi Village Memorial is placed to honour the contribution from honourable citizens to the development of the precinct Philippi throughout the years.

The Container Walk uses reclaimed shipping containers as business premises to help grow start-ups and small businesses. This way, it offers cost effective solutions with the added bonus of full business support and mentoring.

Philippi Village has taken a phased approach and roll out. The entire project and its revenues are for community benefit and for re-investment into future phases of the development. Read more at: <http://www.philippivillage.co.za/home/welcome>



Figure 81. The Philippi Village Business Hub conceptual proposal drawing.



Figure 82. Village Square Entertainment area amphitheatre and container walk in background

6.1.2. Industrial Infill

Industrial development in the context of the Robertson proposals refer to new or infill industrial activities that support services to local industries, as well as provide smaller workshop spaces for local entrepreneurs. Uses include builder's yards, storage and packing facilities, service stations, warehouses, motor repairs etc.

At the heart of industrial and commercial development should be the dual focus on

1. **Viability:** Providing economically viable and functional space, and
2. **Impact:** controlling the physical and visual impact on the wider area, enhancing or creating a sense of unique identity.

Particular reference is made to the proposals for Sub-Precinct 1B where the Bullida Grounds has been identified as a future site for industrial activity. Plot sizes vary from >1ha to 0,2ha. The guidelines for industrial infill therefore build on existing work completed as part of the feasibility study for the Bullida site (see Section 3.2.8.1 for more).

6.1.2.1 Generic Guidelines

Activity, Safety and Mix of Uses

1. **Encourage co-location** of complementary uses such as retail, commercial and/or community services within industrial buildings or precincts.
2. **Encourage a mixed typology** of uses and activities consisting of various small- and medium-sized enterprises, complemented by a small number of larger industries - either within individual developments or as part of a group of industrial activities.
3. **Encourage social interaction** among tenants and visitors, as well as 24/7 safety through the use of scaled windows and operable glass garage doors to create an effect of transparency and light.

4. **Create active frontages** through orientating well-trafficked entrances with high-quality forecourts around public spaces, locating less active areas, such as service areas, to the rear.

Building Design, Materials and Layout

1. **Aim to achieving quality**, pushing beyond generic architectural forms and low-quality materials.
2. **Seek new ways of presenting** the classic industrial shed by addressing the external form of the building through high-quality materials and colour schemes.
3. **Discourage design aspects** such as continuous facades without articulation, monotonous repetition, large admin blocks or the lack of street landscaping.
4. **Encourage design elements** such as orthogonal/flat rooflines, multi-pitched roofs, articulated facades and complex building material variations.
5. Consider the application of **customizable units** so that sizes and services are flexible and can be adjusted to suite tenant needs. This allows for space for entrepreneurs, startups and small businesses (see Case Study 2).

Street Design, Public Spaces and Interfaces

1. Outward as well as and inward frontages will be required. The **enclosure of streets** and spaces should provide comfort and shelter to avoid creating inhospitable environments that deter usage. See Figures 85 and 86 for street sections developed for the Bullida Site proposals.
2. **Conceal loading, storage and service areas from view** within the building envelope or locate it to the rear of the site, designed for minimal visual impact and circulation conflicts.

Case Study 2: Emerald Workshops, Colorado

This development of 56 customizable units over eight buildings fosters a social commercial environment that bridges the gap between an urban main street and spacious rural landscape. Responding to the changing landscape of retail, work and the city, Emerald Workshops is a new typology for an emerging community and its economy.

Its light-industrial/office zoning is affordable and highly flexible, making these units the ideal space for entrepreneurs, start-ups and small businesses.

The units' 26-foot-high ceilings can accommodate industrial equipment or a mezzanine level. This allows units to adapt to a wide variety of purposes, a fact already reflected in the first cohort of tenants, recently moved in, including an architecture firm, mobility retailer, cross fit gym, apian textile artisans and construction firm.

Read more at: <https://www.worldarchitecturenews.com/article/1668723/colorados-emerald-workshops-work-every-tenant>



Figure 83. Exterior view of the architecture of Emerald Workshops, imitating the region's traditional Western false front vernacular



Figure 84. The interior of the workshops, where high ceilings can accommodate industrial equipment or a mezzanine level.

3. Take into account the **surrounding natural vegetation**, water availability and associated maintenance costs for landscaping.
4. **Create barriers and edges through landscaping** that enhances the visual quality of industrial activities and reduce noise emissions.

Implementation Mechanisms, Zoning and Adaptability

1. **Consider phasing** to test market responses, secure finances for development and ensure that service upgrades and maintenance can be afforded.
2. Consider the **appropriate zoning mechanisms** that must be applied or adjusted to accommodate light-industrial zoning that still allows for flexibility of use to house a variety of entrepreneurial ventures.

6.1.2.2 Applying the Guidelines to the Sub-Precincts

The implementation of industrial infill are proposed for certain strategic and/or vacant sites situated throughout the precinct, but are primarily proposed for:

- **1B Bullida** - where the development of a new industrial precinct is prioritised and must adhere to urban design guidelines to avoid a car-orientated, sterile environmental.
- **5 Airport Expansion** - where greenfield industrial activities to support airport services must adhere to urban design guidelines to avoid a car-orientated, sterile environmental.

Relevant priority projects, as per Table 12, include:

- **1A.6**
- **1B.3**

Figures 85 and 86 illustrate inward and outward street frontages as developed for the Bullida Grounds proposals to ensure for an active and attractive environment that is mixed with activities

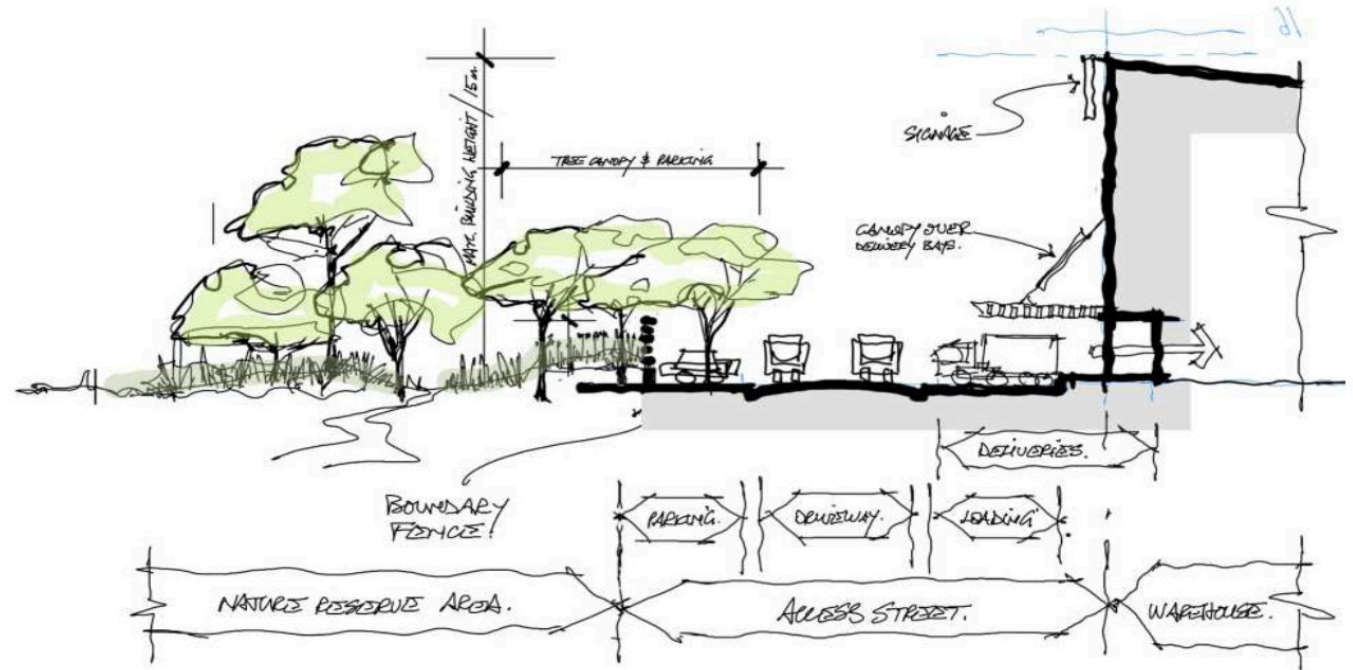


Figure 85. Example of outward frontage section as envisioned for Bullida Grounds development (Feasibility Study Opportunities and Constraints Report, February 2020)

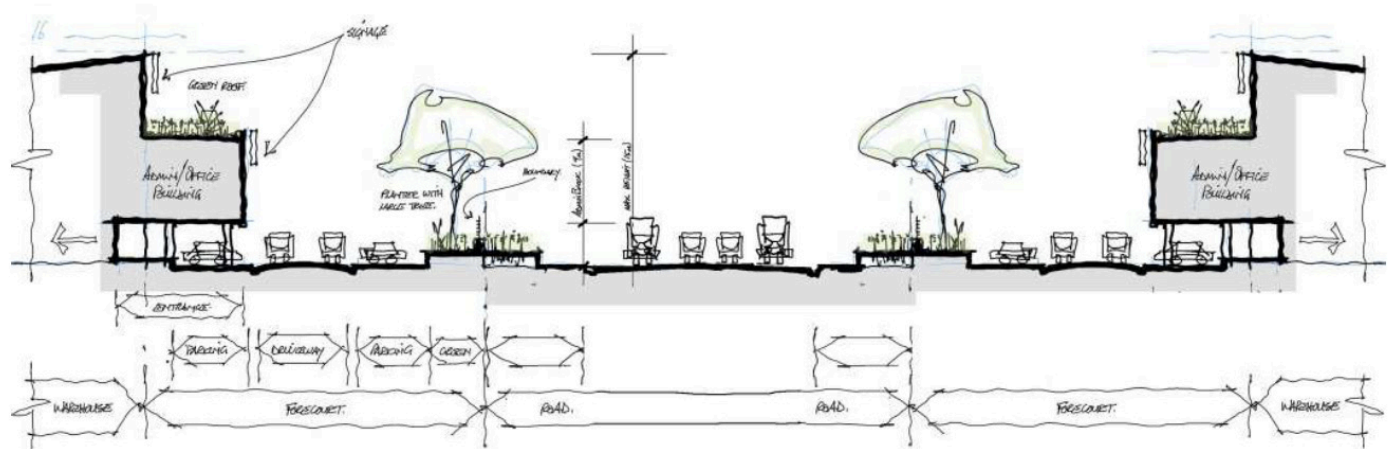


Figure 86. Example of inward frontage section as envisioned for Bullida Grounds development (Feasibility Study Opportunities and Constraints Report, February 2020)

and supported by a positive public environment. This sub-precinct is subject to further work developed as part of the feasibility study process.

6.1.3. Residential Infill

Residential development in the context of the Robertson proposals refers to new or infill medium density units, or social housing type affordable housing projects.

Mixing uses by incorporating smaller supporting activities within residential developments will significantly impact on its potential to create a vibrant and self sustaining community (see Figure 87).

The following pages set out the process to be followed to ensure good quality design in new residential development.

6.1.3.1 Generic Guidelines

Activity, Safety and Mix of Uses

1. **Incorporate varied uses within the ground floor spaces** of residential buildings to allow for passive surveillance of both functions, to create safe and secure environments.
2. **Avoid development with large runs of parking** in front of housing is not acceptable. At least 50% of frontages should be for green space and not for parking (see Figure 88).

Building Design, Materials and Layout

1. Ensure that the development makes use of **high quality materials** that will weather well and have long life spans. The architectural approach to a design can result in markedly different results. Therefore attention to detail in the design of individual building components is critical,
2. **Deliver well designed internal and external amenity space.** Beyond the traditional ideas of a front and rear garden, building design can also increasingly be utilised to provide

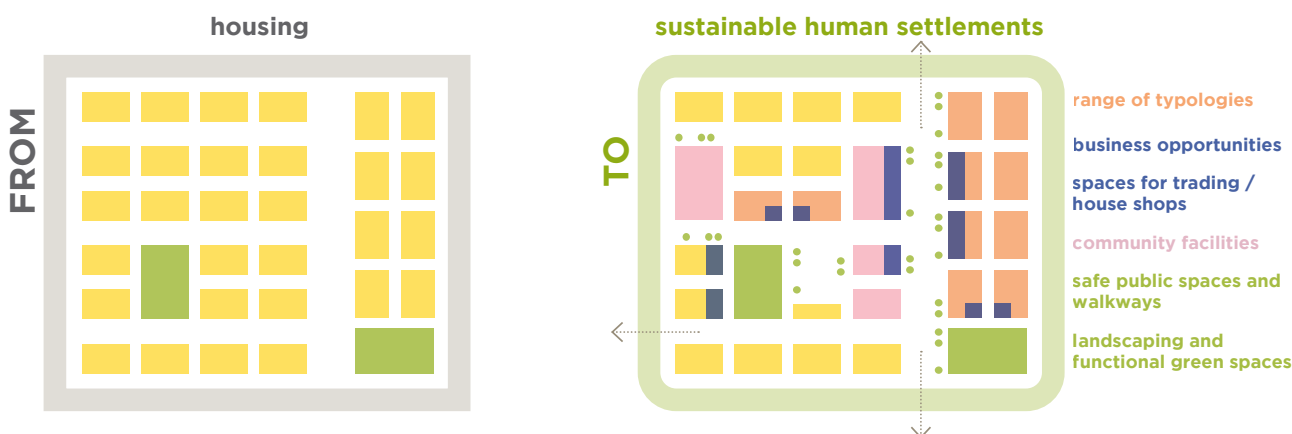


Figure 87. Diagram illustrating the principle of moving from single use housing delivery only to the development of mixed use human settlements (WCG HSP Guidelines 2020).



Figure 88. Illustration of parking allocation in medium density residential developments where limited parking shielded by green space and landscaping is encouraged (The Good Design Guide - Supplementary Planning Document: Hinckley & Bosworth Borough Council 2019).

additional amenity space through balconies, roof terraces and courtyards.

3. **Subdivide blocks to provide diversity** and movement between buildings, and to allow for different uses, including commercial space, residential and retail.

Street Design, Public Spaces and Interfaces

1. The public realm is critical in ensuring quality is delivered in residential environments. **Provide places to congregate** through thoughtful public realm design, creating a hub for a community.
2. **Ensure for ongoing care and maintenance of open space.**

Implementation Mechanisms, Zoning and Adaptability

1. Consider alternative **zoning and funding mechanisms** that could be applied to accommodate residential development in a mixed use manner, or through the implementation of social housing through restructuring zones where applicable.

6.1.3.2 Applying the Guidelines to the Sub-Precincts

The implementation of residential infill is not prioritised in all sub-precincts, as it is primarily proposed for:

- **2 Nkqubela South** - where residential infill opportunities are possible to support the diversification of the neighbourhood.
- **3 Robertson Centre** - where the redevelopment of the showgrounds provide opportunity for additional residential infill.

Relevant priority projects, as per Table 12, include:

- **3.1**

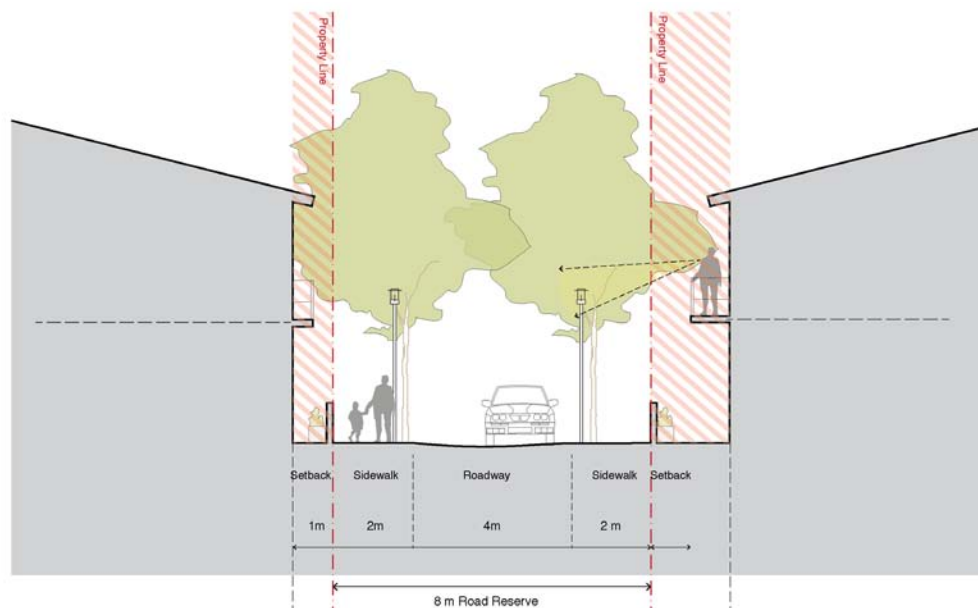


Figure 89. A street section illustrating a typical neighbourhood street, with visible exteriors, minimum setbacks and public sidewalks to encourage pedestrian movement.

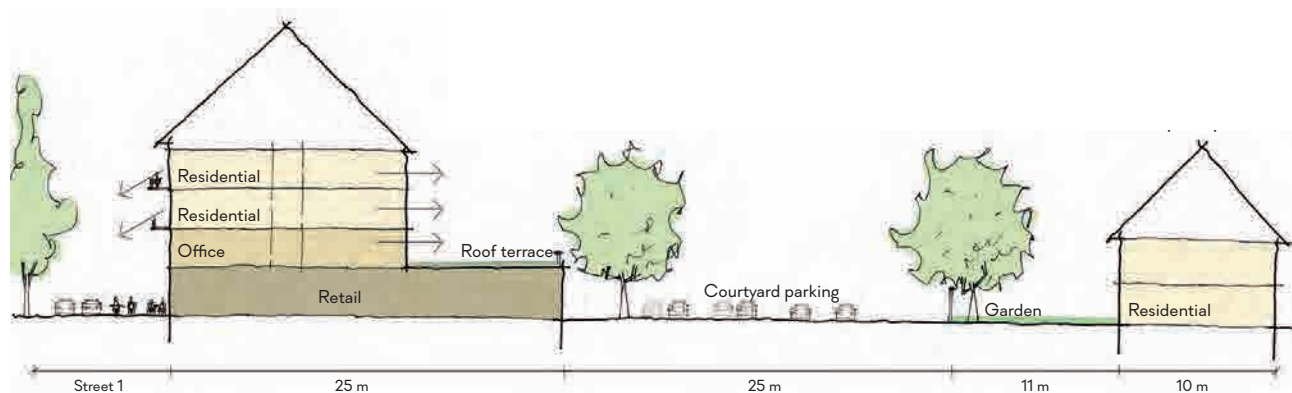


Figure 90. Illustration of individual buildings can provide complementary uses to create variety and activity in appropriate locations (The Good Design Guide - Supplementary Planning Document: Hinckley & Bosworth Borough Council 2019).

Figure 89 illustrates a typical residential street section where the guidelines have been applied through active frontages, minimum setbacks and medium densities for a more appropriate neighbourhood typology for Robertson.

Figure 90 provides an example of combining residential development into retail or commercial land uses at a scale and neighbourhood typology that is suitable to the Robertson urban area.

6.1.4. Community Services Infill

Community services in the context of the Robertson proposals refer to public facilities which serve community needs and can be defined according to the function that they serve, such as educational, health, recreation, cultural or administrative. A community building is any built resource, owned and managed by a local government, available to the community for general or specific use, providing spaces for community groups and organisations activities, services and programs. Facilities include ECD Centres, Schools, Clinics, Libraries, Community Halls, Government Department Offices or service points (including Home Affairs offices, Labour centres, Social Development offices, SASSA offices, social grant pay points), Police Stations, Youth Care Centres, ICT access hubs and information centres.

Community buildings are important not only for their administrative function but also as places to meet to enhance connections and relationships among communities, strengthening common values and promoting collective goals. These goals include community cohesion, safer neighbourhoods, and support for isolated or disadvantaged people, healthier children and families, and greater cultural recognition.

6.1.4.1 Generic Guidelines

Activity, Safety and Mix of Uses

1. **Prioritise multi-functional buildings or clustering of facilities** to ensure for a flexible grouping of facilities at an accessible location.
2. Clusters serve as **social hubs while also reducing costs** through sharing of resources, facilities, equipment and land (see Figure 91).
3. **Structure an appropriate hierarchy of services**, each serving distinct catchments, with larger infrastructure serving a larger population, and smaller facilities catering for local needs.

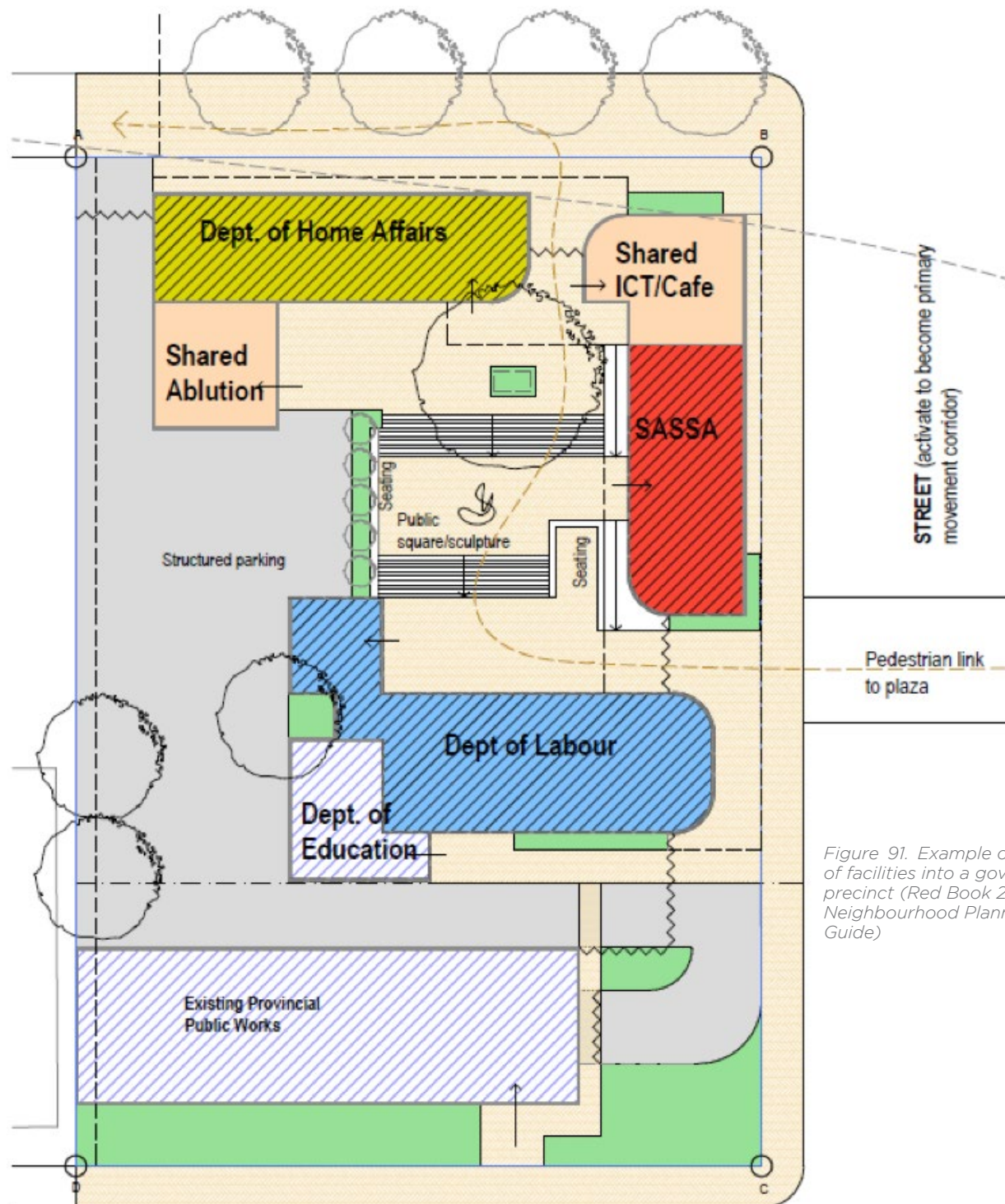


Figure 91. Example of clustering of facilities into a government precinct (Red Book 2019 - The Neighbourhood Planning & Design Guide)

4. **Consider regional access** in relation to other settlements.
5. **Ensure for natural surveillance** of community buildings by locating facilities in active and accessible locations, in proximity to residential areas.

Building Design, Materials and Layout

1. **Promote alternative perimeter protection** measures, such as fences that allow visual contact between the building and the street.
2. **Avoiding large expanses of blank walls** or implement mitigation measures such as using vegetation or creeper plants.
3. **Avoid high walls, screens and shutters**, which create the impression of fortification.

Street Design, Public Spaces and Interfaces

1. **Provide for a positive interface to public streets and open spaces** by not locating blank walls, bathrooms or service area parts of the building facing onto the public realm.
2. **Include architectural elements** that create semi-public/semi-private spaces within the interface zone between the private and public realms.

Implementation Mechanisms, Zoning and Adaptability

1. **Secure funding** for post-implementation management before starting the design.
2. **Develop operational and maintenance plans** for the public realm during the design process.
3. **Consider flexible and innovative approaches to management** which will promote opportunities for partnership, collaboration and coordination between government, non-government agencies and the community.
4. **Encourage a sense of public ownership** of buildings through sharing spaces within

buildings between private and public providers, such as schools.

6.1.4.2 Applying the Guidelines to the Sub-Precincts

The implementation of community services is prioritised for most of the sub-precincts, but with a primary focus on:

- **1A The Triangle** - where a cultural arts and theatre centre is proposed.
- **1B Bullida** - where a new high school is proposed as per current investigations and discussions with LM and WCG.
- **2 Nkqubela South** - where a new clinic and other community services are priorities to serve the local community.
- **4 Municipal Precinct** - where a municipal community services hub is proposed.

Relevant priority projects, as per Table 12, include:

- **1B.5**
- **1A.5**
- **2.1**
- **4.1**

Figure 92 illustrates the proposal for a civic precinct that combines trading with community services and cultural activities, as developed by “Market Incubator of Change” (MIC) for a precinct in Accra. The concept is to establish a place of exchange of goods as well as ideas. Case Study 3 shows a local example of clustering government services and incorporating public spaces to establish a community precinct that is integrated into the surrounding urban environment.



Figure 92. Proposals for Nima Market, Accra, Ghana by MIC (<https://archinect.com/people/project/13381948/market-incubator-of-change-ll-nima-market-accra-ghana/14187629>).

Case Study 3: Vredenburg Government Precinct

This project on 32 ha of land in the centre of Vredenburg arose out of a demand from the local municipality, as well as national and provincial government for suitable offices in a centralised location, while serving existing demands for additional affordable housing and commercial space. The project timeline was 5 years with an estimated cost of R2.7 billion.

The Government Precinct is organised around a central public square and provides a civil gathering space while improving the physical and symbolic access of members of the public to government and civil services (see Figures 93 and 94).

The square and Government Walk are structuring elements which define the precinct as well as integrating it with the nearby town centre to the west, and new residential and mixed-use development to the east.

The masterplan serves as a tool for the municipality to identify smaller projects which can be pursued as and when resources permit.

Read more at: <https://www.urbanconcepts.biz/vredenburg-revitalization-vredenburg>



Figure 93. Artist's impression of the town hall and public space

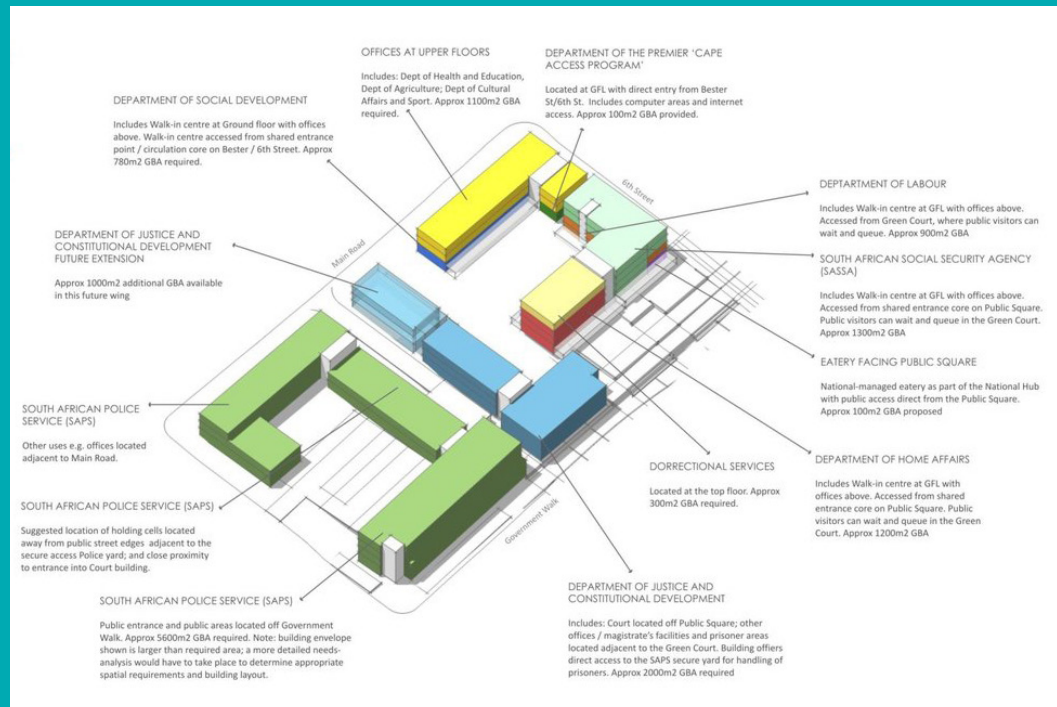


Figure 94. Allocation of building uses in one of the clusters of facilities.

6.1.5. Recreational Spaces, Sport and Urban Parks

In the context of the Robertson proposals, recreational spaces refer to public sport facilities, open green spaces and urban parks for active use that can also serve protective or conservation related functions. Recreation spaces can also include community gardens, civic commons or squares that include recreational activities.

It is well documented that high amenity and accessible open space is important in providing spaces and opportunities for people's well-being, physical and mental health. Green space also has positive impacts on the frequency of crime in urban areas¹⁵ Open space enhances sense of place, contributes to the built form, plays a lead role in environmental conservation, and provides opportunities to connect with nature.

There are also economic benefits derived from open space and community buildings. Access to major open spaces and community buildings can impact property prices, attract investment, support local industries based around sport and recreation and community services, and provide spaces for events, attracting tourists and visitors.

Public parks provide space for residents to meet, relax and play. They are important for a neighbourhood because they are open to everyone and provide a forum for interaction and sense of shared community. The effective implementation of these spaces will therefore play an important role towards the integration of the neighbourhoods of Robertson.

¹⁵ "The Impact of Green Space on Violent Crime in Urban Environments: An Evidence Synthesis" deduced that the presence of parks and other green space reduces urban crime, extracting multiple mechanisms from the literature that may account for the impact of green space on crime, including social interaction and recreation, community perception, biophilic stress reduction, climate modulation, and spaces expressing territorial definition. Dec 2019.

6.1.5.1 Generic Guidelines

Activity, Safety and Mix of Uses

1. **Ensure for good design standards that promote safety.** While good design will not necessarily eliminate perceptions of fear or opportunities for crime to occur, it can create the preconditions for effective control.
2. **Position park entrance in line of sight** of nearby houses or activity areas to assure visibility.

Building Design, Materials and Layout

1. **Make use of signage to direct users** to key points of interest and place playground equipment in an area that doesn't block desirable viewpoints.
2. **Landscaping and play equipment must be made from low-cost and durable materials.** Invest in quality materials that promote sustainability and make use of colourful designs with unique shapes and spaces.
3. **New trees and plants must be native, low-maintenance species.**
4. **Position lights to respond to problems of surveillance** created by vegetation and topography rather than on the basis of random light pole placement.
5. **Design with existing slopes, banks and flat spaces** to enhance the contextual appropriateness of a park.

Street Design, Public Spaces and Interfaces

1. Make sure that the edges of the park are open enough so that passersby can see into the park and park users can see out. **Use permeable fencing** when fencing cannot be avoided.
2. Place seating in the form of strategically located bollards to **create public gathering spaces.**

3. **Place footpaths along the edges of fields** as the interface between open space and housing areas to increase levels of visibility while creating a circulation system that connects with surrounding community patterns.
4. **Position smaller recreational activity "pockets"** within existing areas to create positive interfaces and play areas (see Figure 95).

Implementation Mechanisms, Zoning and Adaptability

1. Develop a community orientated 'Park Watch' scheme to **encourage surveillance by local residents.**
2. **Develop operational and maintenance plans** during the design process - when parks are allowed to deteriorate, the decaying infrastructure and bad reputation of these spaces turn them into magnets for crime.
3. **Encourage a sense of public ownership** through sharing spaces between private and public providers, such as schools.

6.1.5.2 Applying the Guidelines to the Sub-Precincts

The implementation of recreational parks and sport areas are primarily prioritised for the following sub-precincts:

- **2 Nkqubela South** - where recreational activities are critical to address safety issues and provide after-hour active spaces for the local community.



Figure 95. Small pockets of play areas can edge parking spaces to create additional uses of underutilised spaces.

- **4 Municipal Precinct** - where the upgrading of the wetland is proposed as a new urban park.

Relevant priority projects, as per Table 12, include:

- **1B.5**
- **4.1**
- **4.2**

Case study 4 illustrates how sport facilities can be developed to create a new community precinct and recreational hub. Other case examples listed in section 5.2.5 provide examples of how safety can be improved through specific design elements and positioning or layout decisions.

Case Study 4: Mfuleni Park, Cape Town

The City of Cape Town's Mfuleni Urban Park forms the urban core of Mfuleni. Surrounded by various community facilities and public transport infrastructure, it provides an ideal opportunity for the enhancement of this vital open space in a dense urban environment, where communal space is crucially important to strengthen communities.

The importance of the ecological connection of the park to the adjacent Kuils River is expressed in the creation of a splash park (interactive water feature) as a key attraction for children in the area.

The design includes a terraced amphitheatre to allow performances and community events. Outdoor gym equipment provides recreational activities and promotes a healthy lifestyle for adults, while a children's play area encourages learning through play for younger members of the community (see Figures 96 and 97).

A multi-purpose recreational area is provided with braai facilities, shaded lapa areas and seating. Shade trees enhance visual axes and seasonal meadow and bulb planting creates seasonal interest, while

community art work at the entrance gateway aims to foster civic pride, identity and community engagement.

Read more at: <https://sq1.co.za/portfolio/mfuleni-urban-park/>



Figure 96. Aerial view of Mfuleni Park.



Figure 97. Design and layout components of Mfuleni Park.

6.1.6. Primary Public Spaces

In the context of the Robertson proposals the development and upgrading of primary public spaces refer to the public realm that connects the precinct buildings and proposals, the areas in between that belong to everyone. It comprises the streets, squares, seating, sidewalks and other outdoor places that are available for everyone to use. These spaces should not be seen in isolation but in the context of its adjacent buildings, their uses and its location in a wider network of public and private space.

High quality public places are vital for creating harmonious, socially inclusive communities. It is increasingly recognised that investing in quality public space generates tangible, fiscal benefits; stimulating growth in the visitor economy, raising property values and increasing income and profit for local businesses. Public realm investment has been shown to boost confidence in an area, reverse the cycle of decline and stimulate inward investment.

6.1.6.1 Generic Guidelines

Activity, Safety and Mix of Uses

1. Ensure that surrounding **buildings facing onto public spaces have their entrances and windows oriented** towards the public space.
2. Public space must be designed to **complement the cultural preferences** of the local population, and to accommodate a range of age groups.

Building Design, Materials and Layout

1. **Materials can be recycled wherever possible.**
2. **Proper lighting and clear views** through public spaces are important to enhance visibility comfort.
3. **Maintenance costs must be kept low** by designing with durable, high-quality materials and landscaping that are locally sourced.

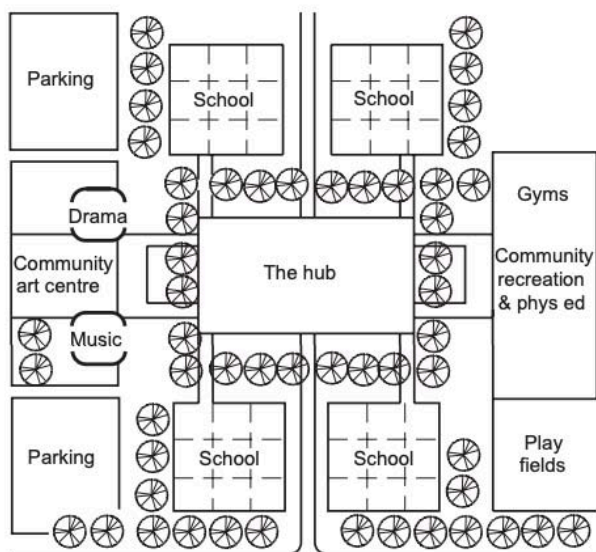


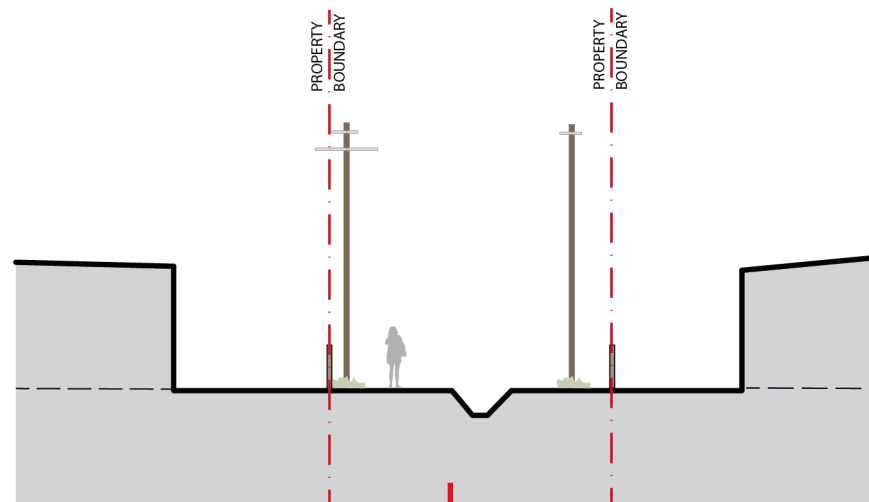
Figure 98. Public space forming the central hub supported by activities facing onto the public square.

4. **Temporary and permanent public art installations** must be incorporated to add to local ownership. Residents can donate sculptures, designed “graffiti” art and created mosaic works.

Street Design, Public Spaces and Interfaces

1. The **type of vegetation** specified should seek to increase the potential for passive surveillance. Dense bush, shrubs, low-hanging branches and alien vegetation limit views onto open spaces and create hiding places for offenders.
2. Make sure that the edges of the park are open enough so that passersby can see into the park and park users can see out. **Use permeable fencing** when fencing cannot be avoided.
3. Place seating in the form of strategically located bollards to **create public gathering spaces**.

FROM



TO

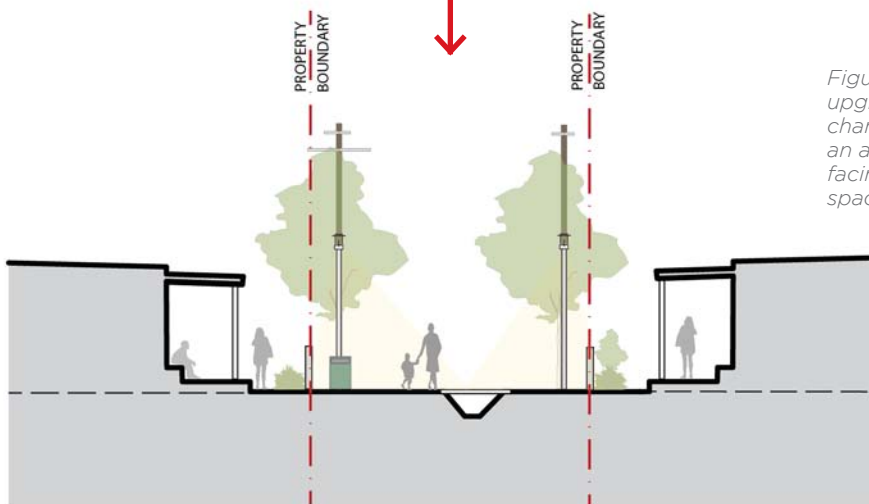


Figure 99. Proposal for the upgrading of the stormwater channel in Nkqubela, to create an active interface of activities facing onto the new public space that it creates.

Implementation Mechanisms, Zoning and Adaptability

1. **Create partnerships with local organisations** to sponsor and maintain public space.
2. **Work with residents** through tailored programmes to ensure public space are kept clean and well maintained. Schools can form committees to assist in the maintenance of public space in addition to parks and

sport fields. See Section 5.3 for more socio-economic programmes to be considered.

6.1.6.2 Applying the Guidelines to the Sub-Precincts

The implementation of central public spaces are prioritised for all sub-precincts, but particularly important for the following sub-precincts:

- **1A The Triangle** - where a new public square and market, as well as a new taxi rank and walkway is proposed.
- **2 Nkqubela South** - where the upgrading of the public realm is prioritised.
- **3 Robertson Centre** - where the upgrading of the public realm is prioritised.
- **4 Municipal Precinct** - where the new municipal hub precinct will be dependent on a positive public environment.

Relevant priority projects, as per Table 12, include:

- **1A.2**
- **1A.7**
- **4.2**

Figure 98 provides an example of how a public space should serve as the central hub onto which surrounding activities should face - as is envisioned for the new public precincts at The Triangle and Callie de Wet. Figure 99 illustrates how the upgrading of infrastructure can improve the public realm - such as the upgrading of the stormwater channel running through Nkqubela that forms part of the walkway and park proposal for priority project 1A.7.

Case study 5 gives an example of a market that promotes local economic development through the trading of local goods while attracting passers-by and build on existing tourist patterns.

Case Study 5: Peregrine “Village”, Elgin

Peregrine Farm Stall has established itself as a tourist destination and pit stop for travelers traveling the N2. The site is nestled in the foothills of the Elgin Valley and has gained popularity over the years which in turn meant that both automobile and human traffic jams and a lack of seating were causing customers to decrease. In 2015 a branding company was approached to solve this problem, who's solution saw the introduction of a shipping container “village” featuring the Padkos Express – a quick-serve coffee and pie station, surrounded by local pop-up stores in containers, with a kids play area in the centre. The architectural elements were sourced from the region and the design and aesthetics provide good shading as well as appropriate human scale spaces. The container material also ensures safety for products and provides protection against natural elements.

Read more at: <http://www.rocketfuel.co.za/portfolio-item/rocketfuel-sets-sales-records-for-peregrine-farm-stall/>



Figure 100. Outdoor seating and takeaway area.

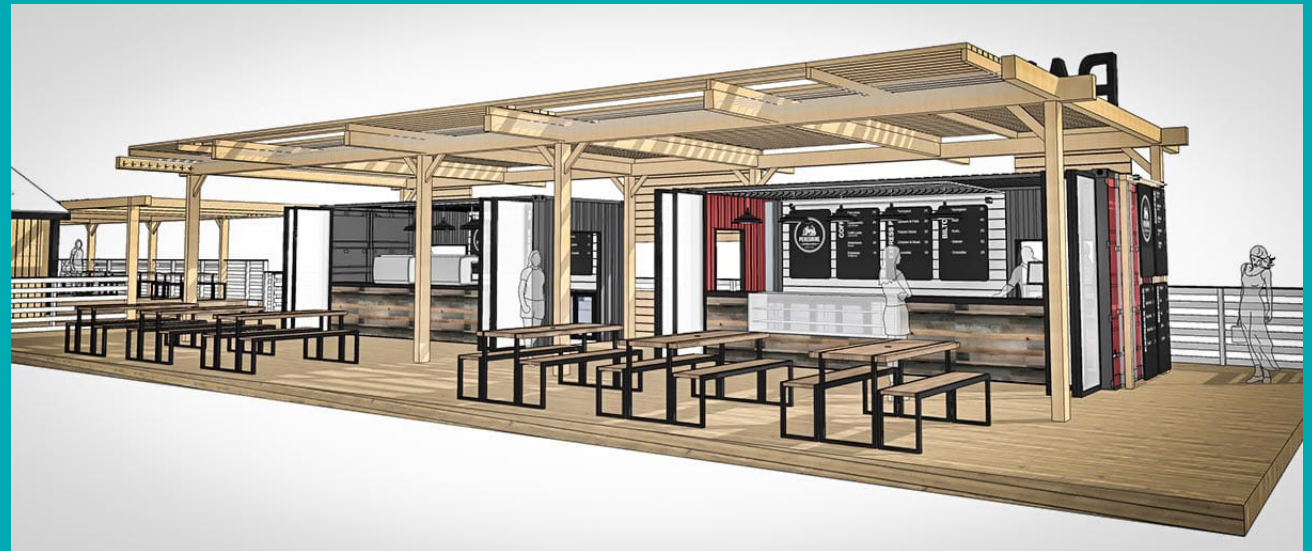


Figure 101. The design of shading and structural elements.

6.2. Applying the Guidelines: Detailed Precinct Plans

In order to illustrate the application of the guidelines to the sub-precincts as discussed in this document, detailed precinct plan drawings have been developed to indicate development footprints, interfaces, surfaces and other elements that all contribute to the urban design and implementation of positive new developments and upgrading for the Robertson-Nkqubela integration area.

Figure 102 illustrates the consolidation of 3 detailed plans developed for sub-precincts 1A, 2 and 4 (See Annexure D for the individual plans). Detailed plans were not developed for 1B due to the fact that the existing feasibility study is underway and will guide the process of implementation, while sub-precinct 3 and 5 are subject to private discussions on longer-term land changes.

The precinct plan indicates the following elements which should be considered when designing and implementing the spatial proposals:

- Areas where tree and public space improvement should take place.
- New public squares in key strategic locations.
- Structuring routes established through tree planting, NMT infrastructure and public realm investment.
- Areas where urban agriculture could be incorporated into future development or rehabilitation.
- Areas within development areas where active interfaces should be established through on-street retail activity or house-shops/live-work units.
- Areas where positive interfaces must be emphasised along structuring routes through facing activity onto streets.
- Trading areas, in alignment with public space, open space and new development blocks.



Figure 102. Detailed Precinct Plan for sub-precincts 1A, 2 and 4

6.3. Implementation Levers: Delivery Plan

The preceding sections of this reports sets out the context socio-economic and policy context, strategic thinking, concept, and high-level project and programme identification, prioritisation, and pipeline investment estimates for restructuring a significant part of Robertson, with a focus on the integration of Nkqubela with the main town of Robertson.

The focus is not only on Nkqubela but larger; specifically, on how to provide infrastructure and space for further development, entrepreneurship and employment opportunity for the Municipality and town as a whole. In scope and depth of the interventions, the plan and investment are significant, perhaps ambitious.

Nevertheless, given the depth of need in the area, it is believed that a wide-ranging plan is required, identifying all the issues and potential opportunities, as well as the relationships between them. Given limited local and national resources, not everything will happen simultaneously. However, the overall plan provides a tool to ensure that successive investments build on each other, and associated infrastructure needs and relationships with other, adjacent opportunities are identified.

6.3.1. Gearing up for implementation

It is believed essential to commence implementation planning with a structured discussion – possibly a half-day workshop – between all the parties responsible preparing the Investment Plan. This would include representatives of National Treasury, the Provincial Government, and Municipality (under leadership of the Municipal Manager).

At this meeting, the key requirements and protocols from National Treasury and Provincial Government for medium term budget planning and funding can be discussed, and how the

Municipality meets these in its own planning and work. Additional considerations for discussion as part of implementation planning are outlined below.

6.3.2. Key considerations for implementation

6.3.2.1 Communicating the plan

The Robertson/ Nkqubela Investment Plan must be communicated at every opportunity as a primary and flagship regeneration initiative of the Municipality. The plan must be shared and owned among all – within the Municipality, among government partners and across the functional divisions of government, business, and community sectors and organisations (including local media). This implies a specific responsibility for municipal leadership. The Mayor, for example, needs to actively promote the plan at every opportunity and over a sustained period of time.

To assist in communicating the plan, a summary, accessible version of the Investment Plan should be prepared.

6.3.2.2 Institutional arrangements

It is doubtful whether the plan will be implemented without dedicated and special institutional arrangements. Provisional recommendations are:

- Establishing a high-level municipal coordinating committee – possibly as part of the Municipal management team and chaired by the Municipal Manager – which takes responsibility for plan implementation and the coordination of actions across municipal divisions. In this way, plan implementation is shared, and becomes part of the daily management of the Municipality without establishing additional management arrangements.
- Establishing a inter-governmental coordinating committee for business planning with representatives of National Government,

Provincial Government, and the Municipality (in some way building on the cooperation and inter-governmental interaction and coordination exhibited during the preparation of the Investment Plan). This committee could possibly include representatives from the business and community sectors in the Municipality.

6.3.2.3 Using the plan in project deliberations

The plan should be used as a guide in all project and programme deliberations concerning the area, including project identification, budgeting, and resourcing. The key question should always be how needs can be accommodated within the framework of the plan, how an individual initiative – even if not foreseen by the plan – can be accommodated and reinforce the aims of the plan.

6.3.2.4 Prioritising and preparation of business plans

More detailed business plans are required for aspects of the Investment Plan. Provisionally, it is believed that business plans are required for:

- The comprehensive package of infrastructure investments required to support the development proposed.
- Priority investment areas, specifically the Triangle site and Bullida Gronde.

It is anticipated that National Treasury will fund the preparation of these business plans (and ensure that plans fully address National Treasury requirements and standards), with the intent that these business plans identify and address, amongst others, the:

- Project's feasibility.
- Development approach.
- Project programme and implementation lead.
- Project risks and risk mitigation measures.
- Sources of funding for planning, management, implementation, operation and maintenance.

- Project phasing and integration into wider precinct.
- Operations, management and maintenance programme.

6.3.2.5 *Testing the “market”*

In parallel to the preparation of business plans – and lending support to business planning – the Municipality can perhaps, through the office of the Municipal Manager, test the extent of development interest for key precincts (specifically Bullida Grounds, the Triangle Site, and Showgrounds). Critical would be to understand the conditions under which private investors will be willing to partner with government in the initiative while meeting municipal objectives (including, for example, the need to broaden access to opportunity for emerging and smaller enterprises in the case of Bullida Grounds and the Triangle Site, and to increase the range of housing opportunity available in Robertson in the case of the Showgrounds).

These discussions can test the nature and extent of incentives that could be offered to investors, including making municipal land available on longer term affordable leasehold as opposed to sale to offset costs and enable infrastructure contributions.

Annexure A:

Annexure A: Summary of Workshop Inputs and Responses

Issue/ suggestion raised by attendees at workshops	Response - Informants to the Plan
Importance of positive building interfaces, tree planting, and pedestrian friendly spaces.	Development guidelines for the Triangular Site and the Bullida Grounds should include clear requirements for positive building interfaces. A major public space is proposed for the Triangular Site.
Better pedestrian crossings at the R60 towards town and the new shopping centre.	Development of the Triangular Site offers the opportunity to redesign the R60 as an urban road with vehicular stops and safe crossings.
Beautification and rehabilitation of the dam/ wetland space to the east of the Callie de Wet Centre.	Beautification of the dam/ wetland space can take place as a Municipal environmental project or a requirement for development of adjacent underutilized space for housing.
Need for a technical school, FET College or skills development centre.	The Triangular Site is an ideal location for a technical school, FET College or skills development centre.
Need for a sport academy aligned with activities at Callie de Wet Centre.	There is sufficient land at Callie de Wet to accommodate a sports academy (should an entrepreneur want to take up the opportunity).
Trucks parking next to the railway line at the Nkqubela entrance.	The need for truck parking should be considered as part of the proposal to develop the Bullida Grounds.
Need for trading spaces for SMMEs, as well as spaces for manufacturing activities that are currently taking place in Nkqubela in areas that are not suitable to noise or industrial activities (e.g. Abattoir).	Development of the Triangular Site should provide for trading spaces and SMMEs. Development of the Bullida Grounds should accommodate space for emerging entrepreneurs.
Strong support for an integrated public development at the entrance to Nkqubela.	Development of the Triangular Site could resolve the spatial quality of the main entrance to Nkqubela while providing opportunity at a strategic location also accessible to non-Nkqubela residents and passers-by.
Need for a clinic as current clinic may be moved to the CBD.	A clinic could be accommodated as part of the development of the Triangular Site.
A lack of safe play areas for children and general safe recreation areas/ retreats.	Small safe play areas should be provided in association with the main local street network.
Positive entertainment and activities for adults.	Development of the Triangular Site should provide entertainment activities (also accessible to non-Nkqubela residents and passers-by).
A broader range of housing type to address the needs of different groups.	Medium to higher density housing could be considered on undeveloped land surrounding the Callie de Wet Centre and the area of the Bullida Grounds south of the railway line.
Expanding airport activities to support economic growth.	The southern part of the airport site parallel to the R60 is a logical location for industrial and commercial development (also possibly in support of airport activities).
A dedicated bus or taxi terminus in Nkqubela is required.	Ideally, the development of the Triangular Site should include a central bus and taxi terminus.
Small farmers need dedicated spaces to grow vegetables and can be aligned with school programmes and supported by local businesses or markets.	The area east of the Bullida Grounds (mooted as an ecological park) could potentially include opportunity for small scale farming.

Annexure B:

Annexure B: Spatial Concept Background Work

Theme 1: Addressing infrastructure challenges

The possible associated initiatives for addressing infrastructure challenges to enable development and improve linkage and connectivity between places across barriers are:

- Providing a range of safe crossings (bridges, underpasses, and/ or at grade crossings) enabling seamless movement across the railway line and R60.
- Upgrading open stormwater infrastructure to enable seamless movement between parts of Nkqubela.
- A possible new road connection between Nkqubela centre and the R317 to Bonnievale.
- A possible new road connection through the Bullida Grounds from the proposed R317 intersection to a new intersection with the R60 towards Ashton.
- Linked pedestrian and NMT movement throughout the precinct area (specifically along and connecting Wolhuter Street, Burwana Street, and Church Street).

Theme 2: A new community heart for Nkqubela

The possible associated initiatives for establishing a new community heart for Nkqubela, accessible to the whole of Robertson and passers-by are:

- Initiatives to improve the sense of arrival to Robertson from the east, including traffic calming, signage, landscaping, and improved building frontage (in contrast to the new shopping centre which turns its back on the R60).
- A destination place on the triangular site which includes a well-designed and significant public space and a range of social, economic, cultural, and recreational opportunities.

- Accommodation and thoughtful design of landmark buildings on the triangular space in a manner which celebrates its status as a dignified and shared destination place.

Theme 3: A safe, integrated and walkable street network

The possible associated initiatives for developing a safe, integrated and walkable street network are:

- Upgrade key streets to ensure seamless and safe pedestrian and NMT within Nkqubela and between Nkqubela and adjacent areas.
- Focus new and upgrade existing public spaces as part of the key street network throughout the precinct.
- Reconfigure a section of the R60 (between the new shopping centre and the triangular site) to enable spatial integration (physically and visually).
- Locate/ focus public facilities and commercial activity on the key routes and ensure that buildings respond positively to these streets throughout the precinct (with active frontage, also enabling surveillance of the main street network).

Theme 4: Celebrating local culture and landscape through place-making

The possible associated initiatives for celebrating the local culture and landscape through place-making initiatives are:

- Develop the triangular site as a mixed-use cultural, social, and economic centre and heart for Nkqubela.
- Expand and upgrade Callie de Wet as a multifunctional recreational facility.

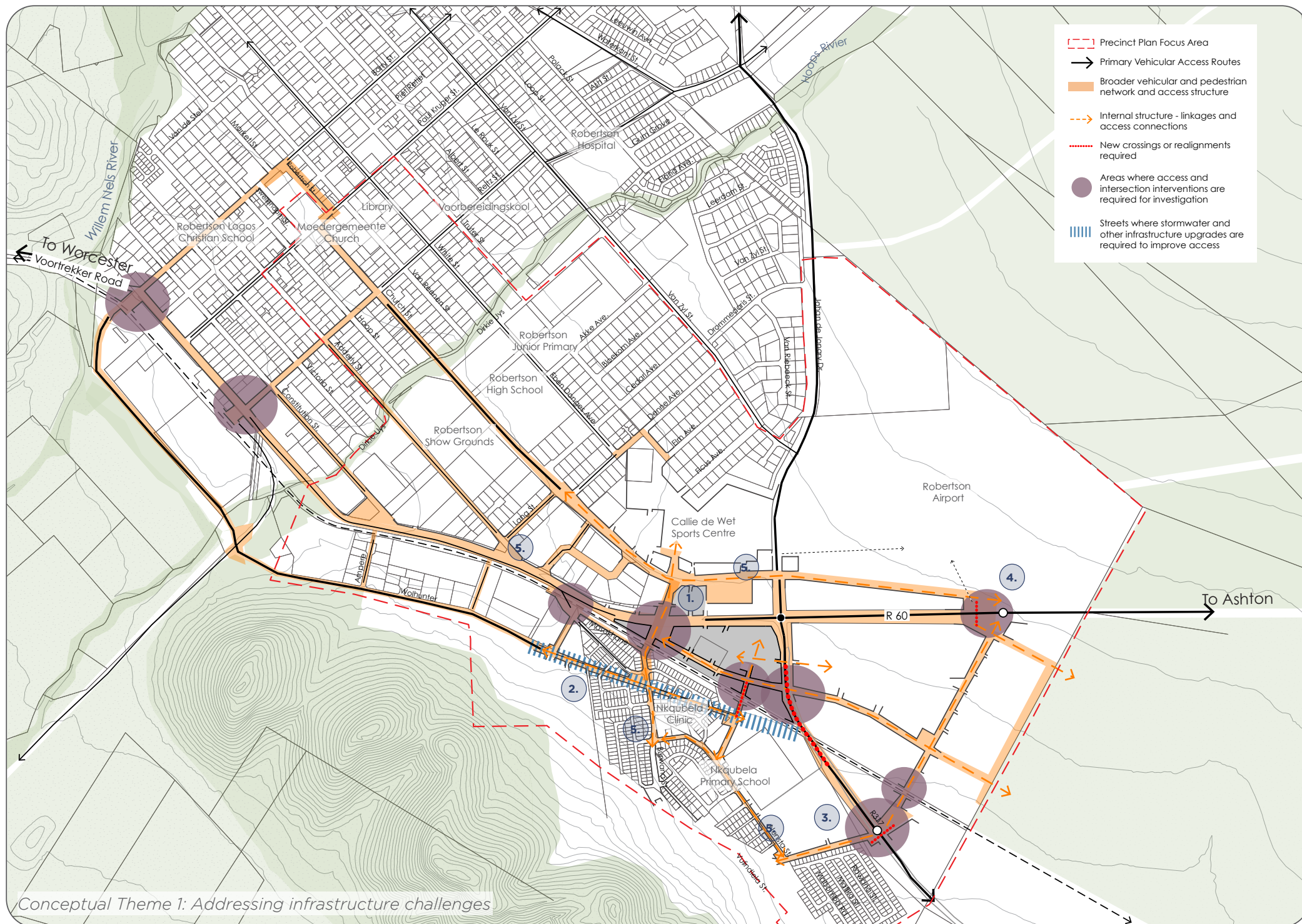
- Upgrade and expand the Nkqubela sports and recreational facility to ensure continues use (including community gardens).
- Develop an ecological park and trails east of the Bullida Grounds.
- Integrate the key street network and historical places and buildings to enable a visitors' "heritage walk" throughout the integration precinct.

Theme 5: Infill and intensification to create a range of livelihood opportunities and attractions

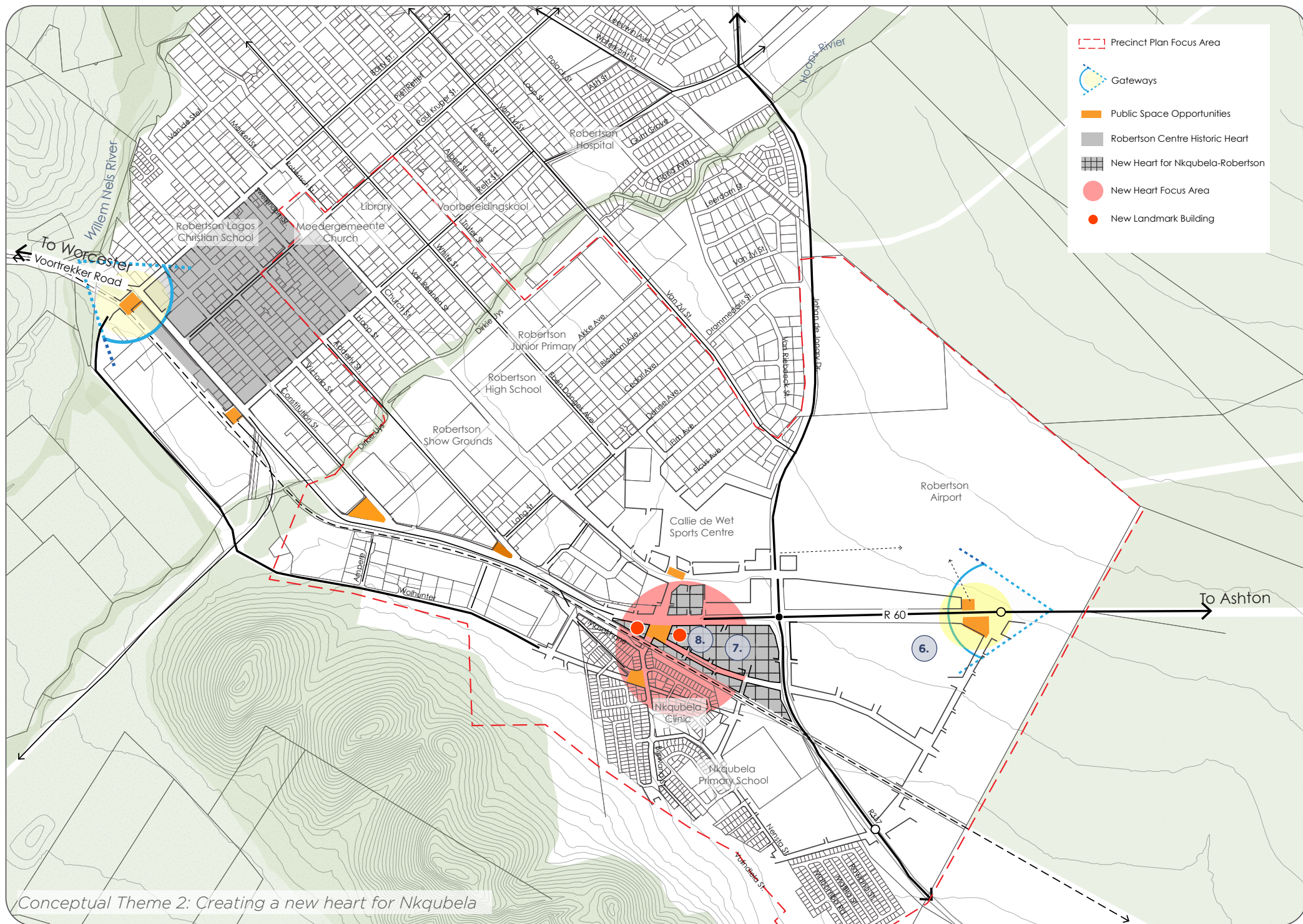
The possible associated initiatives for supporting infill and intensification to create a range of livelihood opportunities and attractions are:

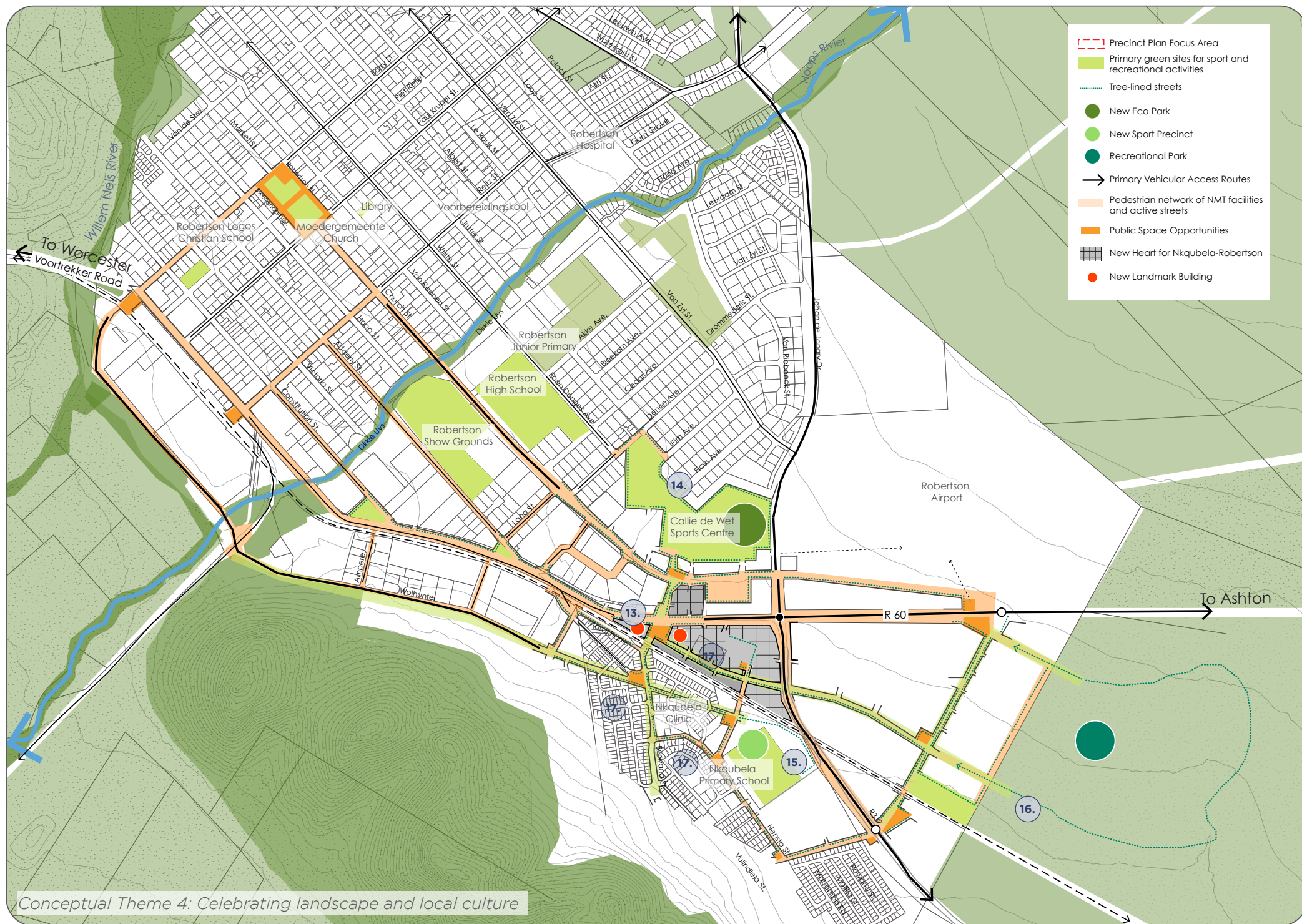
- Optimise the use of underdeveloped and vacant land to grow livelihood opportunities (as opposed to only providing housing) throughout the precinct.
- Prioritise the development of land closest to existing opportunity (as opposed to land further up the hills and away from existing opportunity).
- Ensure that infill development provide for a mix of uses and opportunity.
- Explore the opportunity associated with developing the area adjacent to the R60 north of the Bullida Grounds (possibly as an airport support precinct).
- Develop the Bullida Grounds in a manner which enables economic development, assist job creation, and improve environmental quality (including providing opportunity for small entrepreneurs).

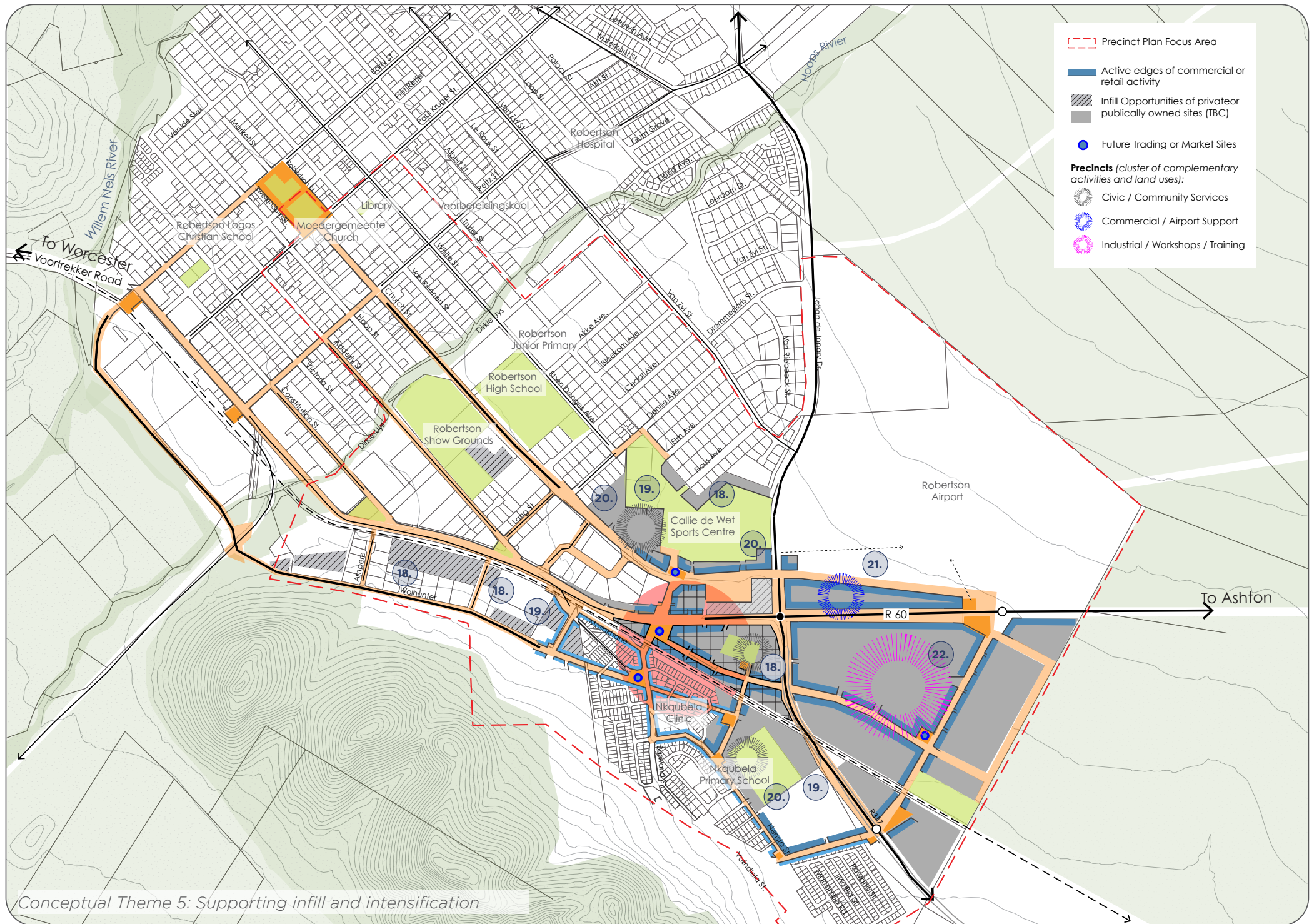
The following figures relate to each of the themes and spatialises certain elements of the conceptual proposals.



Conceptual Theme 1: Addressing infrastructure challenges









Annexure C:

Annexure C: Cost Estimates for Future Development Proposals

Project Number	Description	Land Area (Footprint)	Coverage	Gross Floor Area	Unit	Qty	Rate	Amount	Comments/Assumptions
	New Public Primary and High School	25000	50%	12 500	m²	12 500	R25 000	R312 500 000	3,000 Learner school
	New Cultural Centre	5000	50%	2 500	m²	2 500	R20 000	R50 000 000	Concept based on Guga S'thebe in KwaLanga, CPT
	New Callie de Wet infill housing	32100		32 100	Unit	321	R400 000	R128 400 000	Social Housing - 100 Units/ha (multi-storey)
	New Clinic for Nkqubela	9000	60%	5 400	m²	5 400	R30 000	R162 000 000	Community Health Centre (CHC)
	Technical School and Training Centre	1600	50%	800	m²	1 600	R15 000	R24 000 000	Shed design with basic provisions (joinery, shelving, furniture) excluding specialist equipment
	Various Nkqubela Residential Infill Projects	39800		39 800	units	398	R400 000	R159 200 000	Social Housing - 100 Units/ha (multi-storey)
	Various New Industrial Infill	33900	70%	23 730	m²	23 730	R8 400	R199 332 000	
	Various New Commercial and /or Retail Infill	111600	50%	55 800	m²	55 800	R18 750	R1 046 250 000	
	New Urban Park	12000	50%	6 000	m²	6 000	R1 200	R7 200 000	
	Upgrading of Callie de Wet Sports Facilities	70000	76%	53 000	m²	53 000	R886	R46 950 050	
	New School Sports Sports Fields	5100	100%	1	item	1	R10 000 000	R10 000 000	Soccer / Rugby pitch, astro-turf, athletics track, multi-courts
	Tree Planting and Landscaping				item	1	R10 000 000	R10 000 000	
	Paved Public Space System	100000	100%	100000	m²	100000	R100	R10 000 000	
	Stormwater Upgrades	1000	100%	1000	m²	1000	R3 000	R3 000 000	
					TOTAL ESTIMATE EXCLUDING VAT			R5 390 440 050	

Project Number	Description	Land Area (Footprint)	Coverage	Gross Floor Area	Unit	Qty	Rate	Amount	Comments/Assumptions
	New intersections and vehicular bridge over railway line	N/A	N/A	N/A	m ²	2100	R45 000	R94 500 000	<i>Vehicular bridge is based on a 100m long x 14m wide bridge with other areas covering ancillaries, (stormwater drains, access paths, landscaping, etc).</i>
	New vehicular bridge over railway line	N/A	N/A	N/A	m ²	2100	R45 000	R94 500 000	<i>Distance between R60 and current housing location will not allow adequate transition or vehicular movement. Proposal considers aligning rail line to move under the road with that section converted into a beam bridge.</i>
	New pedestrian bridge over R317 and intersection	N/A	N/A	N/A	m ²	1200	R21 500	R25 800 000	<i>Foot bridge of 5m wide x 50m long giving a surface area of 650m². The other 550m² covers columns and bridge ancillaries.</i>
	New pedestrian bridge over R60	N/A	N/A	N/A	m ²	1200	R21 500	R25 800 000	<i>Foot bridge of 5m wide x 50m long giving a surface area of 650m². The other 550m² covers columns and bridge ancillaries.</i>
	New pedestrian underpass for crossing R60	N/A	N/A	N/A	m ²	1200	R32 500	R39 000 000	<i>Underpasses considered as mirror image on foot having similarities of support infrastructure. The higher rate covers the earth works associated with underpasses.</i>
	New pedestrian bridge over railway line	N/A	N/A	N/A	m ²	1200	R21 500	R25 800 000	<i>Foot bridge of 5m wide x 50m long giving a surface area of 650m². The other 550m² covers columns and bridge ancillaries.</i>
	New intersection into airport development	N/A	N/A	N/A	m	1600	R2 500	R4 000 000	<i>Considered 400m of rehabilitation for each direction at the fourway intersection.</i>
	New intersection into Bullida development and airport activities	N/A	N/A	N/A	m	1600	R2 500	R4 000 000	<i>Considered 400m of rehabilitation for each direction at the fourway intersection.</i>
TOTAL ESTIMATE EXCLUDING VAT								R313 400 000	

Annexure D:

Annexure D: Detailed Precinct Plans for Sub-Precincts 1A, 2 and 4

