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TRIBUNAL MEETING

OF STELLENBOSCH MUNICIPALITY

FRIDAY, 2021-03-19 FROM 10:00-15:00

VOLUME 2

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THE STELLENBOSCH MUNICIPALITY			
PLANNING REPORT: LAND USE AND LAND DEVELOPMENT APPLICATION: **APPLICATION FOR SUBDIVISIONAL AREA ZONING, AMENDMENT OF A SUBDIVISION PLAN, CONSENT USES AND PERMISSION IN TERMS OF THE STELLENBOSCH ZONING SCHEME BYLAW IN ORDER TO RECONFIGURE THE EXISTING DEVELOPMENT TO THE PROPOSED STTELENBOSCH BRIDGE DEVELOPMENT: PORTION 5 OF FARM 742, PAARL**			
Application Reference number	File Ref: Farm 745/2, Paarl Division (LU/10577)	Application Date	2019-11-15

PART A: APPLICANT DETAILS			
First name(s) & Surname	Anton Lotz and André Roux		
Company name	Anton Lotz Town & Regional Planning and A. Roux Town Planning in association		
SACPLAN registration number	Pr.Pln A/1138/1999 & Pr.Pln A/5141/5015		
Registered owner(s)	Safamco Enterprises (Pty) Ltd	Is the applicant properly authorised to submit the application	Yes

PART B: PROPERTY DETAILS			
Property description	Portion 5 of Farm 742	Town/ City	Paarl
Physical address	Located to the West of Klapmuts		
Extent (m^2 /ha)	107,9147ha	Current zoning	Agriculture & Subdivisional Area
Existing Development and Current land use	Mostly vacant, with no buildings or structures.		
Any unauthorised land use/building work	None		
Title Deed Nr.	T23M6/2009		

PART C: APPLICATION DETAILS	

Applications(s)	The Applicant applied for the following land use applications in terms of the Stellenbosch Municipality: Land Use Planning By-law, 2015 for Portion 5 of Farm 742, Paarl:
	
	• Application for the amendment of the approved subdivision plan for Portion 5 of Farm 742, Paarl in terms of Section 15(2)(h) of the Stellenbosch Bridge Municipality Land Use Planning By-Law (2015), to allocate the following land uses for Portion 5 of Farm 742, Paarl, as indicated on the proposed Subdivision Plan, Plan No 18096-001, rev F, dated 2020-09-10:
	
	  • Portion 1: Multi-Unit Residential Zone (± 30.4ha)
	  • Portion 2: Mixed-Use Zone (± 36.15ha)
	  • Portion 3: Industrial Zone (± 1.46ha)
	  • Portion 4: Industrial Zone (±0.15ha)
	  • Portion 5: Private Open Space (± 1.09ha)
	  • Portion 6: Agricultural & Rural Zone (± 33.85ha)
	  • Portion 7: Public Roads & Parking Zone (± 2.87a)
	  • Portion 8: Public Roads & Parking Zone (±1.94ha)
	
	• Application for the amendment of conditions of approval to reallocate the land use rights granted in 2011-2017 for **Phase 1,** *(located on portion 5 of Farm 742)* with the inclusion of non-residential floor area (including business, industrial and institutional and agricultural land uses) in terms of Section 15(2)(h) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit the following development rights as indicated on **Precincts A1, A3 and B1** of the amended Development Framework Plan, Plan No 18096-003, Rev B, dated 2020-08-17, for Portion 5 of Farm 742, Paarl to develop:
	  • 1577 residential units consisting of dwelling houses, flats and group housing units
	  • 28 000m² non-residential floor area (including business, industrial and institutional land uses)

	• Application for Consent in terms of Section 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit Commercial gymnasiums, Conference facilities, Day care, Gambling places, Hospitals, Indoor sport, Liquor Stores, Occasional use (> one event/year), Parking garages, Places of assembly, Places of education, Places of entertainment, Renewable energy structures, Rooftop base telecommunication stations, Tertiary educational institutions, and houses on **Portion 2** (zoned Mixed-Use Zone). • Application for Consent Use in terms of Section 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit Business Premises on the Industrial Zone Spot zoning on **Portion 2** (zoned Mixed-Use Zone). • Application for Consent Use in terms of Section 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit Business Premises on **Portions 3 and 4** (zoned Industrial Zone). • Application for Council's permission in terms of Section 15(2)(g) of the Stellenbosch Municipality Land Use Planning By-Law (2015) and Item 106(1) of the Stellenbosch Municipality Zoning Scheme By-Law (2019) to permit flats on the ground floor on **Portion 2** (zoned Mixed-Use Zone). • Application for the approval of the amended Development Framework for Stellenbosch Bridge (attached **Annexure C**)
Purpose of Application	To facilitate the development of the subject property for mixed land uses to create a vibrant live-work-play-innovate development, which is achieved with a strong urban design concept, a clear development framework and active management.
Pre-consultation	A number of pre-application meetings and discussions took place between the applicant and the department.

PART D: APPLICATION BACKGROUND

1. Location of the Property

The development on the subject property is to be known as Stellenbosch Bridge and is situated to the west of Klapmuts, abutting the western edge of the existing Klapmuts urban area. The railway line forms the northern boundary of the property (see **Annexure A** for locality plan).

2. The prevailing development context of the subject / neighbouring area

The land to the west of the subject property (Portion 5 of Farm 745) consists of farmland currently utilised for vineyards, fruit cultivation and livestock grazing. The subject property is situated within the Klapmuts urban edge as approved in 2019 and as noted above will form part of the Stellenbosch Bridge development. The subject property is used primarily for agricultural purposes and is bordered to the north by the railway line and to the east by a proposed light industrial area which is to be directly linked to the application under consideration to form the industrial precinct of the development.

Access to the subject property will be gained from the Old Main Road / R101 via a railway underpass, over a portion of Council owned property, with a secondary access road also being proposed which will connect the subject property to the R44 via the adjoining property located on its eastern boundary.

3. Historic use and development of the property, incl. existing and illegal uses

The subject property is used primarily for agricultural purposes but currently is not intensively farmed.

4. Overview of application history if applicable

In 2008 a land use application was submitted to the Stellenbosch Municipality on behalf of Stellenbosch Wine & Country Estate to allow a mixed-use development on the site (then registered as Portion 3 and the Remainder of Farm 742, Paarl).

In 2011 the Stellenbosch Municipality granted a rezoning and subdivision approval for the Klapmuts Hills development on Portion 5 of Farm 745. The approval granted included the Development Framework, rezoning, subdivision and departures to permit urban development within an approved

Basket of Rights which comprised the development of 1 577 residential units together *with associated services and facilities* as part of Phase 1of the development.

Due to a number of factors, development of these rights has not yet commenced and thus the application under consideration is to facilitate a new vision, a dynamic, innovative and sustainable hub. The vision and concept also include the rebranding of the development as *Stellenbosch Bridge*. (Previous approval is attached as **Annexure R** of this report.)

The application under consideration is to facilitate the first component of The Bridge development which will comprised of **Precincts A1, A3** and **B1** as indicated on the Development Framework Plan, Plan No 18096-003, Rev B, dated 2020-08-17, for Portion 5 of Farm 742. (Attached as **Annexure C** of this report.)

The Development framework as provided is only to be used to contextualize what is proposed for the total property by the applicant as the Framework Plan has no formal status.

PART E: APPLICATION OVERVIEW AND MOTIVATION

1. The Stellenbosch Bridge Development Concept

Stellenbosch Bridge is a visionary development that will be focussed around an innovation precinct which will attract local and international innovation stakeholders to locate in a mixed-use, live, work, play and innovate environment. It will attract investment by connecting and building bridges between people, science, business, innovation and entrepreneurship in one place.

It is the intention of the owners to develop this project over the next 15 to 50 years and to fully integrate it into the larger Stellenbosch spatial vision, and with the participation of all stakeholders. This will include the Stellenbosch Municipality, University of Stellenbosch, the Klapmuts community and the Western Cape Government.

The heart of the Stellenbosch Bridge development will be the innovation precinct where entrepreneurs, researchers, academics and corporates will connect to develop and incubate new products and services for fast-growing and promising industry clusters. The precinct will have a mixed-use character providing for all aspects of a live-work-play environment designed around significant public spaces.

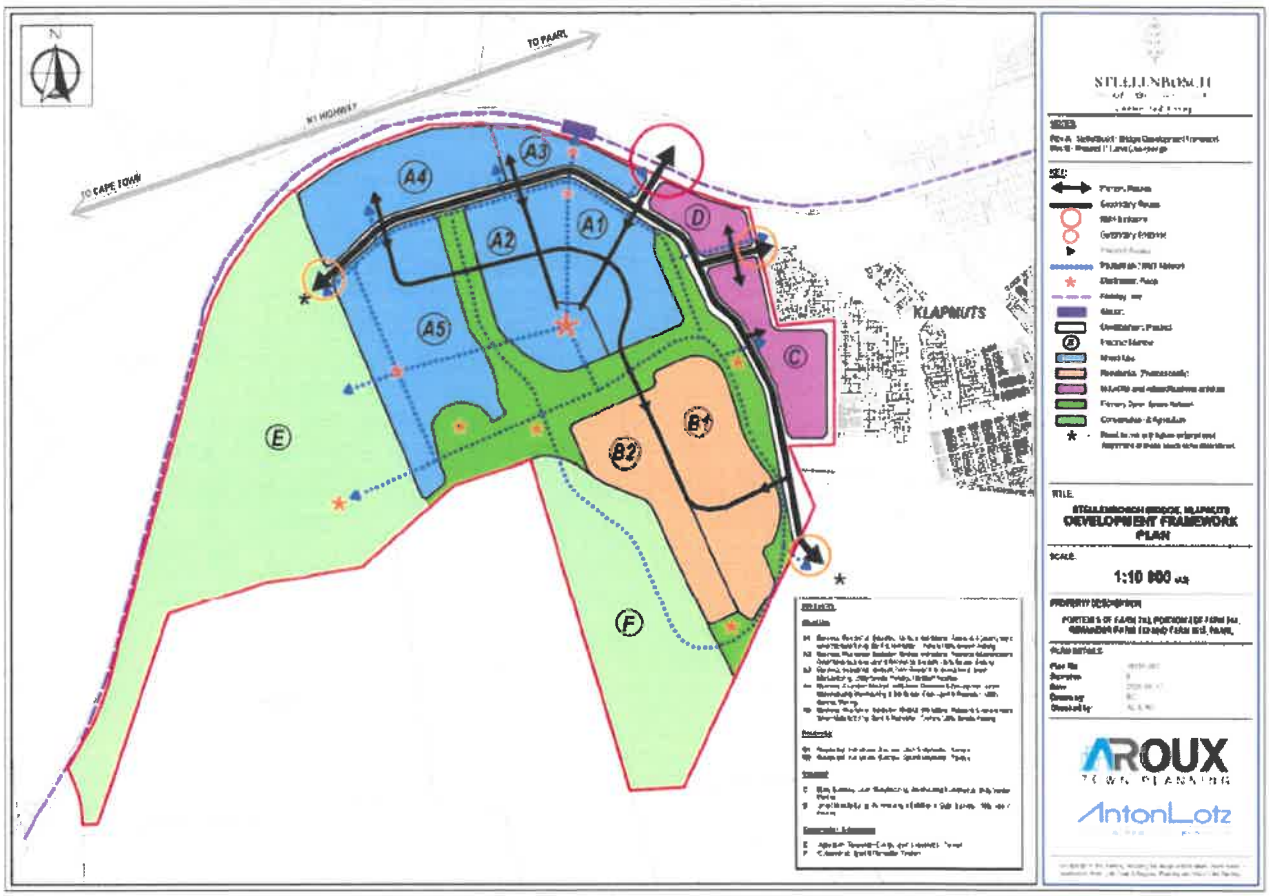
Linked to the innovation precinct are business hubs, green and smart industry precincts, dedicated living spaces, a transportation node, as well as retail and logistic precincts all integrated by a network of green spaces to connect its citizens and communities.

2. Overview of the proposed Stellenbosch Bridge Development

The Stellenbosch Bridge development framework proposes to divide the development into four main development precincts (with sub-precincts to facilitate phasing) with two open space precincts. The proposed precincts have been listed below for ease of reference with the Development Framework Plan on the next page.

- **Precinct A** (Innovation): The innovation precinct (Sub-Precincts A1 – A5) integrates all aspects of a live-work-play-innovate environment around a network of public spaces. The proposed zoning is Mixed-use Zone.
- **Precinct B** (Residential): The high-density residential precinct (Sub-precincts B1 and B2) incorporates complimentary social and business uses and multi-functional open spaces areas to create a high-quality living environment. The proposed zoning is Multi-unit Residential Zone.
- **Precinct C** (Industrial): The green and smart industrial precinct. The proposed zoning is Industrial Zone: Data Centre; Business; Smart Manufacturing; Warehousing, Logistics and Distribution; Utility Service; Parking; Private Open Space; Private Road.
- **Precinct D** (Data Centre): The precinct accommodating the main data centre. The proposed zoning is Industrial Zone: Data Centre; Smart Manufacturing; Business; Utility Service; Parking; Private Open Space; Private Road.
- **Precinct E** (Agricultural Research): The land area west of the urban edge. The zoning is Agriculture and Rural Zone: Agricultural Research; Renewable Energy; Sports and Recreation; Tourism.
- **Precinct F** (Conservation): The natural vegetation area south of the development area. The zoning is Agriculture and Rural Zone: Conservation; Sports and Recreation; Tourism; Environmental Education.

As noted above the application under consideration is to facilitate the first component of The Bridge development which which comprises of **Precincts A1, A3** and **B1** as depicted in the Development Framework Plan, attached as **Annexure C.**



Development Framework Plan.

3. Overview of the application

Below is an extract of the approval granted in 2011, to which an extension of validity was granted in 2017:

1. *"That **approval be granted** for the Development Framework Plan for the proposed development, as per Site Development Plan dated September 2007, drawn by dhk urban concepts, attached as **APPENDIX 3**;*

2. *That **approval be granted** in terms of Section 16 of the Land Use Planning Ordinance, 1985 (Ordinance No. 15 of 1985) for the rezoning of Farm No. 742/3 & the Remainder of Farm No. 742, Paarl Division from Agricultural Zone I to Subdivisional Area to accommodate the zoning categories of Residential Zone I, Residential Zone III, Residential Zone IV, Open Space Zone II & Transport Zone II in order to permit the development of 1577 residential units together with associated services and facilities, as per Site Development Plan dated September 2007, drawn by dhk urban concepts, attached as **APPENDIX 3**;*

3. *That **approval be granted** in terms of Section 25 of the Land Use Planning Ordinance, 1985 (Ordinance No. 15 of 1985) for the **subdivision** of the subject properties to establish a phased development consisting of five (5) phases, namely Phases A, B, C, D & E, as per Figure 16: Indicative Phasing, compiled by Anton Lotz Town and Regional Planning dated October 2008, attached as **APPENDIX 4;***

4. *That **approval be granted** in terms of Section 25 of the Land Use Planning Ordinance, 1985 (Ordinance No. 15 of 1985) for the **subdivision** of **Phase A** of the proposed development into 186 portions, as per Site Development Plan Phase A dated October 2008, drawn by dhk urban concepts, attached as **APPENDIX 5;***

5. *That **approval be granted** in terms of Section 15(1)(b) of the Land Use Planning Ordinance, 1985 (Ordinance No. 15 of 1985) for a departure to use alternative land use parameters as stipulated in the Section 8 Zoning Scheme Regulations."*

The purpose of the application is to reconfigure the existing land use rights granted in the above approval, together with proposed additional land use rights, and in terms of an amended subdivision plan, to give effect to the proposed Stellenbosch Bridge development as discussed above.

The proposed additional land use rights consist of 28 000m² non-residential floor area (including business, industrial and institutional land uses), as well as a full complement of consent uses ascribed to the respective base zonings applied for.

The existing approval, in addition to the range of residential uses, also made provision for unqualified "*Associated Services and Facilities*". The existing approval further included unqualified land use departures from the development parameters.

The application also proposes the adoption of a Development Framework Plan (DFP) as depicted in **Annexure C**. The DFP was however requested from the applicant to provide context within which to view and consider the individual applications that would form part of the broader Stellenbosch Bridge development.

4. Applicant's Motivation

Compliance with LUPA and SPLUMA:

The proposed development supports the land use development principles contained in LUPA and SPLUMA and is ensures improved utilisation of land with economic opportunities to be created to the benefit of the local community. The proposed development will be spatially compact and will not contribute towards urban sprawl but, optimizes the use of the existing resources and infrastructure.

Consistency with PSDF:

The proposal is aligned with the policies of the PSDF as it involves the development of a property within the urban edge, being a natural extension of the existing urban area, and will add significantly to job creation and business development opportunities across a variety of sectors.

Consistency with MSDF:

The Stellenbosch Municipality have been consulted extensively during the development and design process of the Stellenbosch Bridge development concept and plans. The development plan for the Stellenbosch Bridge development is partially compliant with the 2019 MSDF as the urban edge as approved runs through the property. The MSDF specifically refers to the Innovation Precinct Concept as reference for the future development of Klapmuts.

Socio-Economic Impact:

The existing Klapmuts community has a high-employment rate and the socio-economic status of most families is low. The local community is in dire need of economic investment and accessible employment creation. The proposed mixed-use development will be a catalyst for local economic growth and will create employment opportunities for semi-skilled and unskilled labour. It will also create opportunities for local residents to be upskilled. Economic and employment opportunities will also be created for the local community during the construction phase of the development as well as post construction.

Compatibility with Surrounding Uses:

The property presents a good location for a mixed-use residential development as proposed.

Impact on Safety, Health and Wellbeing of the Surrounding Community:

The internal layout of each precinct will be designed to be sensitive to its surroundings. None motorized forms of transport will be promoted to ensure that the existing surrounding community will have access to the various work opportunities created during and post construction.

Heritage Impact:

The property is not located within a heritage conservation area and does not contain any heritage elements.

Impact on the Biophysical Environment:

Due to disturbance by human activity in the past, the property does not contain sensitive environmental elements and it is thus not anticipated that the proposed development will result in any negative environment impact.

Traffic Impact:

A Traffic Impact Assessment (TIA) has been prepared by the project traffic engineer and supports the proposed development, subject to various upgrades to the existing external road network. (Refer to **Annexure M** of this report)

Impact on Municipal Engineering Services:

A Civil Engineering Report has been prepared by the project civil engineer and the proposal is supported, subject to a number of bulk service upgrades that will have to implemented. (Refer to **Annexure L** of this report)

PART F: PUBLIC PARTICIPATION, COMMENTS AND RESPONSE

1. Process followed:

The applicant has, in terms of the Section 45 of the Stellenbosch Municipality Land Use Planning By-Law, 2015, notified the external departments, advertised in the local newspaper and notified (serving notices) all interested and affected parties, as well as community organisations and also placed notices on the property. The advertising period was from 19 November 2020 to 21 December 2020.

Methods of Advertising				**Date Published**	**Closing date for objections / comments**
Press (Eikestad News)	**Y**	N	N/A	19 November 2020	21 December 2020
Notices	**Y**	N	N/A	19 November 2020	21 December 2020
Ward councillor	**Y**	N	N/A	19 November 2020	21 December 2020
On-site display	**Y**	N	N/A	19 November 2020	21 December 2020
Community organisations	**Y**	N	N/A	19 November 2020	21 December 2020
State departments	**Y**	N	N/A	19 November 2020	21 February 2021

2. Public & stakeholder inputs

No comments on the application were received from interested parties, property owners or community organisations.

3. Government related inputs received

a) The **Department of Environmental Affairs and Development Planning** (Environmental Management) provided the applicant with an ROD for the 2011 approval which is still valid. The Environmental consultant has applied to amend this approval which is still in process. (see **Annexure G**).

b) The **Department of Environmental Affairs and Development Planning** (Development management) responded to the application with some points of consideration. (see **Annexure S**).

c) The **Department of Agriculture (Elsenburg and National)** has no objection to the proposal (see **Annexure H**).

d) **Heritage Western Cape**, in response to a submission of a Notice of Intent to Develop, confirmed support for the proposal (see **Annexure I**).

e) The **Road Network Management Directorate of the Department of Transport and Public Works** supports the application subject to conditions (see **Annexure J**).

4. Comments from internal service departments

a) The **Manager: Spatial Planning** supports the proposal subject to conditions. (see **Annxure K**).

b) The **Manager: Development (Infrastructure Services)** supported the proposal, subject to conditions (see **Annexure L**):

5. Response by Applicant to Comments Received.

As all comments are in support of the application, no response was submitted by the Applicant.

PART G: ASSESSMENT OF LAND USE AND LAND DEVELOPMENT APPLICATION

1. Legislative and Policy Context of land use and land development application

The following legislative/ principles/ policies/ guidelines/ plans are considered as relevant to the application under consideration:

- Greater Cape Metro Regional Spatial Implementation Framework
- Provincial Spatial Development Framework
- Stellenbosch Municipality Land Use Planning Bylaw 2015,
- Stellenbosch Municipality Zoning Scheme Bylaw 2019,
- Stellenbosch Municipality Integrated Development Plan
- Stellenbosch Municipality Spatial Development Framework 2019
- National Environmental Management Act, 1998 (Act No 1991 of 1998)
- National Heritage Resources Act, 1999 (No 55 of 1999)
- Subdivisional of Agricultural Land (Act 70 of 1970)

The subject land use and land development application was submitted and processed in accordance with and in compliance with the prescripts of the said Bylaw.

2. SPLUMA Principles

2.1 Spatial Justice

The proposed development will ensure the improved utilization of land with economic opportunities to be created to the benefit of the local community which is classified as a previously disadvantaged community. The proposed development will contribute significantly to employment creation for the local community over the short and long term. The proposal will also facilitate skills development within the community.

2.2 Spatial Sustainability

The proposed development will be spatially compact and not contribute towards urban sprawl as it will form a natural extension of Klapmuts. The proposed development will also not result in the loss of

viable agricultural land or an environmentally sensitive area as an ROD has been provided by the Department of Environmental Affairs and Development Planning.

The proposed development will optimize the use of existing resources and infrastructure located within the approved urban edge. The development will be integrated within the existing urban area and will contribute towards a mix of land uses, in particular commercial, residential and light-industrial.

2.3 Spatial Resilience

The proposed development does not limit future benefits that the property may have.

2.4 Good Administration

The application has been taken through the public participation process by the Stellenbosch Municipality and the Applicant and all relevant departments were contacted. The decision-making process will be guided by statutory land use planning regulations and systems.

3. Greater Cape Metro Regional Spatial Implementation Framework

The Greater Cape Metro Regional Spatial Implementation Framework has recognised the Klapmuts area as a Regional node and provides the following context:

To take development proposals forward, the following needs to be considered:

- Existing infrastructure (i.e. N1, R101, R44 and the Paarl-Bellville railway line and station) which dictate the location of certain transport, modal change or break-of-bulk land uses.
- Existing development footprint of Klapmuts as well as potential development land parcels which include land located north of the N1 and the N1-R101-railway line corridor east of Klapmuts, the latter extending up to Paarl South Industrial and including a proposed green logistics hub.
- Potential for an in-land port and agri-processing, packaging and dispatch platform.
- Avoiding daily movement across the N1 between place of work and residence or social facilities.

Achieving an appropriate metro gateway.

- Addressing the Klapmuts development issue clearly requires a collaborative sub-regional growth management spatial framework between the Stellenbosch and Drakenstein Municipalities in order to avoid unsustainable "twin developments".

4. Western Cape Provincial Spatial Development Framework

The Western Cape Provincial Spatial Development Framework does not discuss regional nodes, but the framework sets out high-level transitions required to achieve the optimised development. The PSDF strategically aligns with these transitional agendas to ensure the optimization and alignment of Provincial planning policies with infrastructure delivery.

5. Stellenbosch Municipal Spatial Development Framework.

The portion of the subject property that is to be developed falls partially within the Klapmuts urban edge and is delineated for urban development. The MSDF recognises the "innovation precinct" and "smart city" development in Klapmuts of which the subject forms part of.

The proposed development supports the MSDF's as the area to be approved for development is located within the urban edge and so doing will unlocks the development potential of Klapmuts with an emphasis on job creation over the short and long term.

6. Applicable planning policies and guidelines

The focus of the **Integrated Development Plan (IDP)** is on economic growth and development of the area with a specific emphasis on poor communities. Klapmuts and Stellenbosch Town are considered strategic priorities for the Municipality and the positioning of Stellenbosch Bridge as an economic development hub is key, the basis for which is grounded in the IDP as a strategic implementation document of the Stellenbosch Municipality.

7. Service infrastructure capacity and sustainability

The Directorate: Infrastructure supports the application as the amended development plan retains the development rights initially applied for and have confirmed that there is sufficient service capacity available to accommodate the proposed development as the relevant infrastructure will be upgraded as required. (Refer to **Annexure L**)

8. Any investigations carried out in terms of other laws that are relevant to the consideration of the subject application

8.1 A **Traffic Impact Study** has been prepared by the traffic engineering consultants and confirms that the expected road improvements as per the previous conditions of approval will remain applicable as the newly proposed developments impact is less than previously approved. (Refer to the TIA attached as **Annexure M**)

The Provincial Roads Engineer has requested that the development proposals for each precinct / Site Development Plan submitted to the Stellenbosch Directorate: Planning and Economic Development also be circulated to his department for comment prior to being approved. (Refer to the PRE comments attached as **Annexure J**).

8.2 A **Socio-Economic Assessment** was undertaken by Multipurpose Business Solutions (see **Annexure P**). According to the report, a number of benefits are associated with the proposed Stellenbosch Bridge development:

Stellenbosch Bridge will facilitate investment in local people encouraging tenants to focus on skills development, capability building and job creation. It will be an inclusive and sustainable development that will benefit a broad range of citizens for generations to come. The primary thrust of this development is economic progress and advancement through science, technology and innovation.

To facilitate a targeted response, the developers appointed Johan Olivier of Ranyaka (2019) to facilitate a collaborative relationship between the developer and the Klapmuts community in identifying the socio-economic challenges that affect community well-being in the town. Ranyaka's community engagement and research informed the project team's work in finalising the development strategy and they will continue to work hand-in-hand with local residents, businesses, other stakeholders and the developer to help implement various initiatives as part of an over-arching strategy to facilitate the socio-economic upliftment in Klapmuts.

The Protocol for Social Management (PSM) must be used for the planning and establishment of the project before and during the construction phase. Adherence to a Social Management Protocol framework is necessary to establish a vibrant and sustainable Klapmuts community and for the successful implementation and management thereof during construction. To ensure that these programs are implemented threshold will be imposed as conditions of approval.

8.3 A **Visual Impact Assessment** was undertaken which will inform the required landscaping plan as well as the aesthetical guidelines as conditions of approval (See **Annexure N**).

8.4 A **Botanical Site Sensitivity Assessment** was also undertaken to inform the development proposal.

8.5 A **Heritage Notice of Intent to develop** was issued for the proposed development (See **Annexure O**).

8.6 A report on the **Integration of Stellenbosch Bridge with Klapmuts Town** was requested to inform and address the development in the context of the existing Klapmuts **(See Annexure T).**

9. The applicable provisions of the zoning scheme

The application provided no details on the development parameters regarding densities or bulk other than the total figure for the entire development.

10. General

10.1 Compatibility with surrounding area

The proposed development is deemed compatible with the surrounding area as a mixed-use development is being proposed, which remains sensitive to the existing surrounding land uses, including the formal and informal residential settlements within the town, surrounding agricultural land and conservation areas.

10.2 The Stellenbosch Bridge Development Framework

Although the Development Framework is well planned and noted as such, it cannot be given any statutory status as it remains a framework plan to help motivate the application at hand and has not follow any prescribed legal process to obtain a formal approval.

10.3 Integration with existing Klapmuts Community

The socio-economic and physical integration of the Stellenbosch Bridge project with the Klapmuts town have been central to the planning of the project as the transportation strategy and project layout has focused on creating physical linkages with the existing town whilst limiting the negative impacts that increased vehicular traffic will have on existing roads.

The primary movement system consists of a number of public roads of which a new eastern link via Merchant Street will facilitate direct movement integration with the existing town.

A pedestrian/NMT system will form a major part of the development plans submitted for the various precincts, as well as the open space system to ensure a walkable environment and to further enhance the links between the proposed developments, the town, and the broader area.

Socio-economic integration for the project will also entail social investment into the local community by the developer beyond the potential benefits intrinsically linked to the project itself. These social investment initiatives will be intended to ensure that downstream benefits from the project accrue to the local population, to fund community social projects via the sales and operations of the project and to ensure a local procurement initiative for employment and SMMEs.

10.4 Socio-economic Impact

The Klapmuts community has a high unemployment rate and the socio-economic status of most families are low. The local community is in need of economic investment and job opportunities. The proposed development is expected to generate many employment opportunities for semi-skilled and unskilled labour and should result in a significant positive impact on the local economic growth of this area.

10.5 Movement Routes

Three levels of movement form part of the framework:

- The primary movement system consists of the main north-south route (R101 to R44) as well as the western (Elsenburg Road) and eastern (Merchant Street) link roads that integrate the four road access points and links the development to the broader area.
- The secondary movement system is made up of a network of private roads and accesses that provides internal access and circulation to the various precincts.
- The third level of movement involves the Pedestrian/NMT system which will be catered for along the primary and secondary routes as well as the open space system which will ensure a walkable environment and links the development to the broader area.

10.6 Access Points

The development, when completed, will be accessed by means of vehicular/pedestrian accesses from the R101 (Old Paarl Road), R44 (Stellenbosch Road), DR 1090 (Elsenburg Road) and Merchant Street as well as the railway station:

- The primary access is a northerly link to the R101 via an underpass under the railway line. This access will link the development to the N1 via the existing R44 Interchange as well as a new future interchange at the Groenfontein Road location. The access from the north of the rail underpass will be over Council land (Farm 739/0) as initially proposed and approved. Approval has been granted by Council to the applicant to develop a section of public road over Farm 739/0, which cost for this road will be for the account of the developer. Should the application be approved, a condition of approval must be imposed to such effect to ensure that this portion of road is developed by the developer at his/ her cost.
- Three secondary accesses will be phased (the regional road network plan will determine the priority and timing):
  - Merchant Street link: This access will have an integration function between the development and Klapmuts, providing for lower-order distribution only.
  - R44 Access: A road link to the R44 will provide access from the south-east.
  - DR 1090 Access: A road link to the Elsenburg Road will provide access from the west.
- Stellenbosch Bridge Station – A new station serving the development is proposed between the Klapmuts and Muldersvlei Stations.

10.7 Internal Road layout

The main collector roads (Portion 7 & 8) that are proposed have been layout to facilitate the collection and distribution of traffic from the adjoining Industrial area which is to be located on Portion 2 of Farm 744. This property will also form the industrial precinct of the Stellenbosch Bridge development and is indicated as Precinct C & D on the Development Framework plan.

A secondary lower order access route is also proposed over Portion 2 of Farm 744 which will facilitate access to the R44 via Merchant Street. This section of road over Portion 2 of Farm 744 forms part of the application for the development proposed on Portion 2 of Farm 744. As the main access routes for the subject property and the adjoining property (Portion 2 of Farm 744) are integral in providing access to the developments proposed on both properties. These access roads will need to be constructed prior to any further applications being considered for approval on these properties

To ensure that the main access road to the R101 and the internal collector roads over the subject property are constructed, a condition of approval must be imposed should the development be supported, which requires that the main access and collector roads on the subject property must be constructed prior to any further approvals being granted for the development of the various precincts within the development under consideration on portion 5 of Farm 742.

A similar condition of approval should also be imposed for Portion 2 of Farm 744, should the application for development on that property be supported, to ensure that the main access road to the Old Main Road / R101 via the under pass is developed as this route is considered to be the main access route to the developments proposed on these two properties.

10.8 Open Space System

The open space systems as noted in the Master development Plan for the subject property will consists of the following:

- Primary Open Space System - the linear network of green spaces incorporating the existing tree lines, tree clumps and enhanced water features within the urban edge. The experience of this space will be enhanced through landscaping and the system will be linked into a wider green network including a link to Klapmutskop.
- Urban Space System - the road spaces and public squares internal to the development precincts will be designed to give pedestrians equal importance of movement and to facilitate social interaction and economic opportunity.
- Destination Places - the central square, public squares, and open space destination places such as water features, eventing facilities and the labyrinth. These places form focal points in the open space system and facilitate use, pedestrian movement, economic opportunity, and social interaction.

10.9 Urban design Approach

The urban design concept for the Stellenbosch Bridge development is based on traditional urban design principles which provides living, working and recreational spaces for a diverse community of people in combination with creating a catalytic environment that provides opportunities for technological and social enhancements which define a smart city. With a development of this scale it is imperative that a proper urban design is proposed for each precinct and that the design ensures that a sense of place is created.

It is foreseen that the individual buildings in general will have strong features, but differ in detail and still be part of the "same family". The development spine proposed is a north-south pedestrian street linking two main squares around which all the parts of the development will be orientated and grouped. The area will be a safe pedestrian environment in which open walls, streets, squares, parks, and sports fields are articulated as positive spaces, providing an array of experiences and functions.

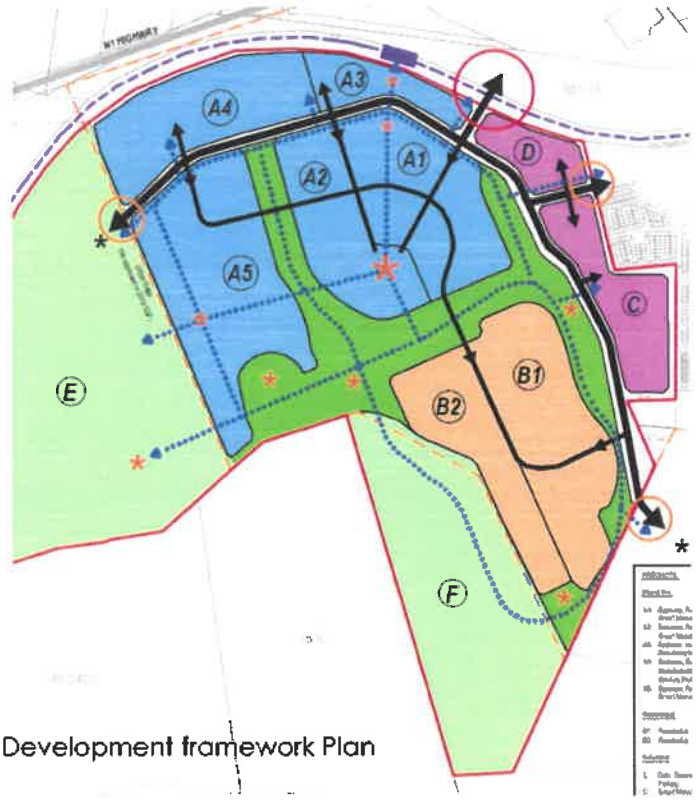
Parking for visitors and residents will be accommodated on streets and within courtyards, semi-basements and basements concealed within the development. From inception the development will use the materials and technology required to achieve a GBCSA rating. Landscaping and a green environment are to integrate into the architecture to soften the look and feel of the area.

10.10 Land Use Projection

The application under consideration will result in a substantial development that will consist of 1577 residential units as well as 28 000m² mixed use rights which include industrial, business, and residential uses. The proposal under consideration consists in part to reallocate existing land use rights as well as to approve additional land use rights which will collectively compromise **Phase 1** of the total development. Phase 1 consist of **Precincts A1, A3 & B1.**

As noted below in the table below the Development Framework envisage a development comprising a total of 6 000 residential units with 680 00m² (or 68 hectares) of non-residential rights which include industrial, business, and institutional uses.

Precincts	Residential	Business	Industrial	Institutional
	Dwelling units du	Floor Area - m²	Floor Area - m²	Floor Area - m²
Precinct A	**2 500**	**256 500**	**43 000**	**144 000**
A1	600	149 000	-	43 500
A2	450	43 500	-	58 700
A3		15 000	12 000	-
A4	-	-	31 000	20 000
A5	1 450	49 000	-	41 800
Precinct B	2 500	-	-	-
B1	1 600		-	-
B2	900	-	-	
Precinct C	-	-	75 500	-
Precinct D	-	10 000	15 000	-
Floating	1 000	47 000	60 000	29 000
Sub-Total	**6 000**	**313 500**	**193 500**	**173 000**
TOTAL	**6 000**			**680 000**



Development framework Plan

The enormous scale of new developments envisaged in the Klapmuts area can however only be fully understood if the development scope of the Klapmuts North LSDF is also added to the envisaged development of The Bridge as indicated in the table below. This aspect is discussed in detail in the comments received by the Spatial Department of the Municipality and Department of Environment Affairs and Development Planning, Directorate: Development Planning. (attached **Annexure K & S**)

Nature/scope of development component	Klapmuts North (Bulk m²) or units	Klapmuts South (Bulk m²) or units	Total scope of development (Bulk m²) and units
Residential Erven	16 356 units	6 000 units	22 356 units
Commercial - offices	912 354 m²	313 500 m²	1 225 854 m²
Commercial - retail	187 839 m²		187 839 m²
Light industrial	370 120 m²	193 500 m²	563 620 m²
Innovation		173 000m²	173 000 m²
Total Residential Units			**22 356 units**
Total Non-residential (Bulk m²)			**2 172 669 m²**

Total land use allocation for the Klapmuts area in general.

The Stellenbosch MSDF has included the properties that will comprise of Stellenbosch Bridge development partially into the urban edge and the current land use applications falls within the urban edge. The Stellenbosch MSDF supports development of Klapmuts (north and south) as this is a significant area of economic opportunity which is located strategically on one of the metropolitan area's major freight routes and its proximity to work opportunities is unique.

11. Concluding Summary on the evaluation of the proposed Application

A full overview of the applications under consideration was provided above in Part E (# 3) of this report. Notwithstanding the favourable evaluation of the proposals under consideration, it must be noted however that the specific application as proposed to facilitate the additional land use rights approval are not accurate and problematic.

The scope of the original approval does not allow for an application for the amendment of a condition of approval for the establishment of the proposed additional land use rights for 28 000m² of non-residential floor area for business, industrial and institutional land uses. The proposed amendment of the subdivision plan, although required and supported for the purpose to reconfigure the proposed development along the vision for Stellenbosch Bridge development, can also not serve as a mechanism to acquire such additional land use rights.

The steadfastness of the applicant to retain the existing rights, as well as an initial erroneous believe that the wording of the existing approval that related to "associated services and facilities" can be ascribed to lay claim to existing rights for the 28 000m² in accordance with provisions that was presented in the traffic impact assessment at the time, has possibly resulted in this unfortunate state of affairs. The applicant preferred not to submit a fresh application untrammelled by the existing land use rights. Consequently, the application of June 2020 was presented as a mere reconfiguration of existing land use rights on the strength of a proposed amended subdivision plan and which in itself is not a difficulty to deal with.

When it was later discovered that there is no supporting proof to lay claim on the additional land use rights for the additional floor area of 28 000m², the application was accordingly amended in September 2020 to portray these land use rights as fresh additions to the existing land use rights. This mix of existing rights and proposed additional rights, in the context of the existing approved subdivisional area, does however present a difficulty in terms of the available decision-making mechanism and vehicle to facilitate such approval. It must therefore be submitted that the proposed application on record that deals specifically with the additional land use rights, is not accurate to facilitate this outcome.

It is however presented and proposed that a favourable decision which is justifiable and accurate can be taken on the application. The important matter which must be considered is the rational connection between what was presented in the application and advertised for public input, and what will ultimately be supported.

It is submitted that, notwithstanding the chosen legal mechanism and resulting wording of the application by the applicant, there can be no dispute on the exact nature of the application and what development rights it entailed. The inaccurate wording of the application is also only relevant to the application for the additional land use rights and consequently immaterial in the context of understanding the exact intent of the proposal that was presented to all parties concerned. It is therefore submitted that the wrongly worded application as it relates to this single aspect of the development can therefore be condoned in terms of the provisions of Section 63(2) of the Stellenbosch Land Use Planning Bylaw (2015), which reads:

> *"(2) The Municipality may, on its own initiative or on application by the applicant or interested party, upon good cause shown, condone an error in a procedure, if the condonation does not have a material adverse effect on, or unreasonably prejudice, any party."*

In essence the intent and purpose of the application remains to reconfigure the existing land use rights granted in the previous approval, together with proposed additional land use rights, and in terms of an proposed amended subdivision plan, to give effect to the proposed Stellenbosch Bridge development as discussed above.

It is submitted that this proposed application can be supported by a revised recommendation for approval for the subdivisional area that includes the additional development rights for the 28 000m² non-residential floor area earmarked for business, industrial and institutional land uses. The preferred proposed wording for a decision will be presented in the recommendation of this report for consideration.

There are also other matters of the application to be noted, and which includes worrying aspects of the existing approval which may be deemed to remain in force, but which will be qualified should this proposed development be supported as recommended.

The existing approval, in addition to the range of residential uses, also made provision for "*Associated Services and Facilities*". This description was however unqualified and cannot be articulated into any land uses other than perhaps those ancillary uses which are readily compatible with and in support of a predominantly residential area, such as playschools, convenience neighbourhood shop, etc. These types of uses can still be readily considered as part of subdivision plans with the vesting of land use rights and managed for desirable outcomes in terms of site development plans.

The existing approval also included unqualified land use departures from the development parameters which again cannot be applied sensibly other than specific proposals and approvals during the consideration of either site development plans or building plan submissions.

The application provided no details on the development parameters regarding densities or bulk other than the total figure for the entire development, and as would be required for the allocation of subdivisional area zoning allocations. The absence of supporting details for the allocation of the bulk as applied for makes it impossible to consider the application rationally and nor can the implementation of such bulk allocations to individual developments be managed sensibly. Consequently, any required departures from the zoning scheme to facilitate such allocated bulk cannot be fathomed and nor are there any application to support any possible required departures from the zoning scheme provisions on development parameters.

Support for the development and specifically for the bulk applied for can therefore only be approved insofar as the applicable development parameters of the zoning scheme prevails and any departure that may be required to attain such allocated bulk will have to be applied for and properly considered and decided on.

For the purpose of the implementation and sensible management of the allocated bulk, a development framework with density/ bulk allocations and associated phasing will have to be considered and approved before any further subdivisions will be considered.

The applicant has also not provided any details in respect of the Consent Uses being applied for. Such unqualified blanket approval of the full range of available consent uses on an unqualified scale may transpire in an unintended development context and will have to be carefully considered. Some of the consent uses applied for are considered potentially detrimental if they are allowed to be developed unchecked, whilst other consent uses are viewed to be more compatible as true associated uses to the development vision of the Stellenbosch Bridge Development.

If the development is supported, careful consideration should thus be applied to which consent uses can be readily supported, and which cannot be supported on face value without a proper proposal.

The consent uses which cannot readily be supported includes Conference facilities, Gambling places, Hospitals, Indoor sport, Liquor Stores, Occasional use (> one event/year), Places of assembly, Places of education, Places of entertainment, Tertiary educational institutions, Business Premises, and Houses. Those consent uses which may be considered for approval includes Commercial gymnasiums, Day care, Parking garages, Renewable energy structures, Rooftop base telecommunication stations.

Any consent uses can also not be supported unqualified, as the location and scale may also be important considerations for the sensible development of the Bridge vision. Such consent uses (either through prior approval or later by individual application) can therefore only readily be supported with the clear qualification that they will not be attached unqualified to the base zonings, but may only be vested with the exclusive consideration and approval of specifically a subdivision plan (or as a later individual application on such subdivided property), together with the proviso that the nature, scale and extent of such consent use will be considered and approved on such subdivided property in terms of a site development plan.

The proposal for flats on the ground floor within the mix used zoned is also viewed problematic as it may result therein that vast areas which are supposed to be readily accessible as vibrant areas are sterilised by needed security measures.

PART H: SUMMARY OF KEY FINDINGS OF ASSESSMENT

After having independently considered and weighted all the relevant information the evaluation of the subject land use and land development application concludes that:

1. The Development Framework Plan is noted and serves to provide a context within which to consider the application under consideration. This plan can however not carry any statutory status on land use rights.

2. The proposed development ensures high-density infill development on existing vacant land within the Klapmuts urban edge.

3. The locality of the property on the periphery of the existing Klapmuts village is considered suitable for the proposed Mixed-Use development, as it will be accessible to the local community via the various access routes proposed.

4. The proposed development will contribute significantly to local economic growth and job creation as a high number of employment opportunities are expected to be created by the approval of the proposed development as the first component of the Stellenbosch Bridge development.

5. As confirmed by all specialist studies undertaken during the environmental impact assessment process, the property does not contain any sensitive environmental or heritage elements.

6. Sufficient service capacity is available to accommodate the proposed development, which in part is linked to the installation of bulk service infrastructure which are to be installed by the developer as part of the Stellenbosch Bridge development.

7. The relevant authorities support the proposed development from a traffic perspective, with the required road infrastructure improvements.

8. The proposal will be consistent with the provisions and proposals of the MSDF as the property is situated within the urban edge and delineated by the SDF for urban development.

9. The MSDF recognises the "innovation precinct" and "smart city" development in Klapmuts South, of which the application under consideration will form a major part of.

10.

PART I: RECOMMENDATION

1. That the following applications in terms of the Stellenbosch Municipal Land Use Planning By-Law, promulgated by notice number 354/2015, dated 20 October 2015, for the proposed development on Portion 5 of Farm 742, Klapmuts:

   1.1 Consent use in terms of Section 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit Conference facilities, Gambling places, Hospitals, Indoor sport, Liquor Stores, Occasional use (one event/year), Places of assembly, Places of education, Places of entertainment, and houses on **Portion 2** (zoned Mixed-Use Zone).

1.2 Council's permission in terms of Section 15(2)(g) of the Stellenbosch Municipality Land Use Planning By-Law (2015) and Item 106(1) of the Stellenbosch Municipality Zoning Scheme By-Law (2019) to permit flats at ground floor on **Portion 2** (zoned Mixed-Use Zone).

1.3 Application for approval of the proposed Stellenbosch Bridge Development Framework Plan;

BE REFUSED in terms of Section 60 of the said Bylaw for the following reasons:

(a) No detail was provided in respect of the extent of the Consent Uses which unqualified approval may result in an unintended development context which can be potentially detrimental for the intended development of the area.

(b) Flats on ground floor in a mix used zoned may result therein that vast areas which are supposed to be readily accessible as vibrant areas are sterilised by needed security measures.

(c) The Development Framework cannot be approved or given any statutory status as it did not follow any prescribed legal process to obtain a formal approval.

2. That the following applications in terms of the Stellenbosch Municipal Land Use Planning By-Law, promulgated by notice number 354/2015, dated 20 October 2015, for the proposed development on Portion 5 of Farm 742, Klapmuts:

2.1 For the purpose of reconfiguring the existing development rights and the allocation of additional supporting land use rights to facilitate the proposed Stellenbosch Bridge Development, the existing subdivisional area for the Klapmuts Heights Development be rezoned in terms of Section 15(2)(a) of said Bylaw to Subdivisional area to permit the following development of Stellenbosch Bridge on **Precincts A1, A3 and B1** in terms of the Development Framework Plan, Plan No 18096-003, Rev B, dated 2020-08-17:

2.1.1 The existing rights for 1577 residential units and

2.1.2 Additional non-residential uses with a maximum floor area 28 000m² for business, industrial and institutional uses.

2.2 The amendment of the approved subdivision plan in terms of Section 15(2)(h) of the said Bylaw in accordance with the subdivisional area to make provision for the associated land use rights as indicated on the proposed Subdivision Plan, Plan No 18096-001, rev F, dated 2020-09-14:

2.2.1 Portion 1: Multi-Unit Residential Zone (± 31.7ha)
2.2.2 Portion 2: Mixed-Use Zone with Industrial spot-zoning (± 35ha)
2.2.3 Portion 3: Industrial Zone (± 1.57ha)
2.2.4 Portion 4: Industrial Zone (±0.27ha)
2.2.5 Portion 5: Private Open Space (± 1.19ha)
2.2.6 Portion 6: Agricultural & Rural Zone (± 33.1ha)
2.2.7 Portion 7: Public Roads & Parking Zone (± 3ha)
2.2.8 Portion 8: Public Roads & Parking Zone (±2.04ha)

2.3 Consent use in terms of Section 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit Commercial gymnasiums, Day care, Parking garages, Rooftop base telecommunication stations, to only be accommodated in **Precincts A1 and A3** of the amended Development Framework Plan, Plan No 18096-003, Rev B, dated 2020-08-17, (see **Annexure C**).;

2.4 Consent use in terms of Section 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit Business Premises on the Industrial Zone Spot zoning on **Portion 2** (zoned Mixed-Use Zone).

BE APPROVED in terms of Section 60 of the said Bylaw, **SUBJECT** to conditions in terms of Section 66 of the said Bylaw.

3. Conditions of Approval

3.1 The approval applies only to the application in question and shall not be construed as authority to depart from any other legal prescriptions or requirements from Council.

3.2 That the applicant submits an electronic copy (shp,dwg,dxf) of the Subdivision Plan which was preliminary approved by the SG. The following information must be indicated:
3.2.1 Newly allocated Erf Numbers
3.2.2 Co-ordinates
3.2.3 Survey Dimensions
3.2.4 Street names (if approved by Council)

3.3 All public places and public streets be transferred to the Local Authority upon transfer of the first unit/erf in the subdivision. All cost for the surveying and transfer of public land will be for the account of the applicant/developer.

3.4 No subdivided portion of land may be transferred prior to the construction of the link road across Farm 739 that provide access for the development to the Old Main Road / R101.

3.5 A development framework with the accurate allocation of development rights to development precincts and the phasing thereof be submitted to the municipality for approval prior to any subdivisional applications being made and approved.

3.6 A detailed subdivision plan be submitted for each portion / precinct that is created by this approval to further develop these portions / precincts.

3.7 A detailed Landscaping Plan be submitted for approval prior to the first subdivision for the total development that implements the recommendations made in the Visual Impact Assessment done by Megan Anderson Landscape Architect attached as **Annexure N** of this report.

3.8 A site development plan, landscaping plan, and architectural guidelines be submitted for approval with each property that is created by this approval with the subdivision plan for each precinct.

3.9 A bulk register to be submitted with each Site Development Plan for record keeping purposes.

3.10 The industrial activities be limited to light industrial activities aimed primarily at Information Technology and related uses and which may not include manufacturing which will have a negative impact on the adjoining residential areas as well as cause a noise disturbance, air pollution or is dependent on heavy vehicles or freight transfer.

3.11 Architectural and Aesthetic Guidelines be submitted for approval to the municipality with the subdivision application for each precinct and that these guidelines comply with the recommendations made in the Visual Impact Assessment done by Megan Anderson Landscape Architect attached as **Annexure N** of this report.

3.12 That the development of the property and all subsequent subdivisions, and notwithstanding the approved rights for 1577 residential units and 28 000m² of non-residential floor area, will remain subject to all applicable development parameters in terms of the Stellenbosch Municipality Zoning Scheme By-law 2019, and should any departure be required from such development parameters due application must be made for consideration.

3.13 Any consent uses approved in terms of this application will not be attached unqualified to the associated base zonings and may only be vested with the exclusive consideration and approval of a subdivision plan. Any other consent uses will only be vested in terms of a duly approved application.

3.14 All consent uses will require a site development plan approval from the municipality to determine inter alia, but not limited to, the nature, scale and extent of such consent use.

3.15 That the internal road layout plans for the subdivision of the various precinct makes provision for NMT routes / public transport parking embayment's and Pedestrian routes which link the industrial area to the adjoining residential area and public roads.

3.16 The applicant is to provide a detailed plan for the Social Investment Strategy to be approved by the Municipality, with the identification of thresholds which will activate the require the implementation of the various identified community programs.

3.17 A Service agreement be entered to with the municipality, which agreement must contain all the conditions of approval as imposed by the Directorate: Infrastructure Service in their memo dated 17 December 2020 and that these conditions be complied with, as attached as **Annexure L** of this report.

3.18 That development contributions are payable in accordance with the prevailing Council Tariffs for such Development Contributions at the time of payment.

3.19 That the conditions of approval as imposed by the Road Network Management Directorate of the Department of Transport and Public Works be complied with, as **attached as Annexure J** of this report.

3.20 A phasing plan must be submitted, based on a traffic study assessing the traffic demand for each phase and indicating the road improvements required per phase, taking into account recent traffic count data and reasonable background traffic growth forecasts for 5 years after completion of the relevant phases, and such phasing plan, once accepted by Stellenbosch Municipality and the Road Network Management Directorate of the Department of Transport and Public Works, can be changed by mutual agreement between Stellenbosch Municipality, the Road Network Management Directorate of the Department of Transport and Public Works and the developer.

3.21 The design of all road improvements be initiated in time for construction to commence before each phase is allowed to commence to the satisfaction of the Directorate Infrastructure Services.

3.22 No development may commence prior to the approval of a precinct plan for the relevant portion of the subject property, for which a traffic impact statement/assessment shall be prepared, in which the impact on proclaimed roads and associated intersections shall be determined and necessary upgrades to accommodate the additional traffic shall be identified, and approval of any precinct plan will require commitment by the applicant for the funding and implementation of such upgrades as the Road Network Management Directorate of the Department of Transport and Public Works cannot commit to providing any funding for these upgrades.

3.23 The Applicant submit for approval by the Road Network Management Directorate of the Department of Transport and Public Works a traffic impact statement/assessment report for any proposed change of use, or of the scale of any particular use for consideration.

4. Reasons for the decisions.

4.1 The property is well located for a mixed-use development, being on the periphery of the existing Klapmuts settlement.

4.2 The proposal will be consistent with the provisions and proposals of the MSDF as the property is situated within the urban edge and delineated by the SDF for urban development.

4.3 The MSDF recognises the "innovation precinct" and "smart city" development in Klapmuts South, of which the application under consideration will form a major part of;

PART J: ANNEXURES

ANNEXURE A:	LOCALITY PLAN
ANNEXURE B:	SUBDIVISION PLAN
ANNEXURE C:	DRAFT STELLENBOSCH BRIDGE DEVELOPMENT FRAMEWORK
ANNEXURE D:	APPLICANT'S MOTIVATION
ANNEXURE E:	COPY OF TITLE DEED
ANNEXURE F:	PUBLIC PARTICIPATION PORTFOLIO
ANNEXURE G:	APPLICATION SUBMITTED TO THE DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING TO AMEND THE APPROVED EIA.
ANNEXURE H:	COMMENT FROM THE DEPARTMENT OF AGRICULTURE (ESLENBURG & NATIONAL)
ANNEXURE I:	COMMENT FROM HERITAGE WESTERN CAPE
ANNEXURE J:	COMMENT FROM THE DEPARTMENT OF TRANSPORT AND PUBLIC WORKS (PRE)
ANNEXURE K:	COMMENT FROM MANAGER: SPATIAL PLANNING
ANNEXURE L:	COMMENT FROM MANAGER: DEVELOPMENT (INFRASTRUCTURE SERVICES)
ANNEXURE M:	TRAFFIC IMPACT STUDY
ANNEXURE N:	VISUAL IMPACT ASSESSMENT
ANNEXURE O:	HERITAGE NOTICE OF INTENT TO DEVELOP
ANNEXURE P:	SOCIO-ECONOMIC IMPACT ASSESSMENT
ANNEXURE Q:	DEVELOPMENT MANUAL
ANNEXURE R:	LAND USE APPROVAL GRANTED IN 2011-2017
ANNEXURE S:	DEPARTMENT OF ENVIRONMENT AFFAIRS AND DEVELOPMENT PLANNING-DIRECTORATE: DEVELOPMENT PLANNING
ANNEXURE T:	INTEGRATION OF STELLENBOSCH BRIDGE WITH KLAPMUTS TOWN

PART K: COMPILATION OF PLANNING APPLICATION ASSESSMENT REPORT

APPLICATION FOR SUBDIVISIONAL AREA ZONING, AMENDMENT OF A SUBDIVISION PLAN, CONSENT USES AND PERMISSION IN TERMS OF THE STELLENBOSCH ZONING SCHEME BYLAW IN ORDER TO RECONFIGURE THE EXISTING DEVELOPMENT TO THE PROPOSED STTELENBOSCH BRIDGE DEVELOPMENT: PORTION 5 OF FARM 742, PAARL

Author of Planning Assessment Report:

Name: R P Fooy

Capacity: Senior Town Planner

SACPLAN Registration:

Signature: RP Fooy

Date: 04/03/2021

PART L : REVIEW OF PLANNING APPLICATION ASSESSMENT REPORT

APPLICATION FOR SUBDIVISIONAL AREA ZONING, AMENDMENT OF A SUBDIVISION PLAN, CONSENT USES AND PERMISSION IN TERMS OF THE STELLENBOSCH ZONING SCHEME BYLAW IN ORDER TO RECONFIGURE THE EXISTING DEVELOPMENT TO THE PROPOSED STTELENBOSCH BRIDGE DEVELOPMENT: PORTION 5 OF FARM 742, PAARL

Review of Planning Assessment Report:

Name: Chizelle Kriel

Capacity: MTPM

SACPLAN Registration: A212/10

Signature:

Date: 04/03/2021

PART M CONDONATIONS OF ERRORS OR OMMISIONS DURING THE PROCESSING OF THE PLANNING APPLICATION

APPLICATION FOR SUBDIVISIONAL AREA ZONING, AMENDMENT OF A SUBDIVISION PLAN, CONSENT USES AND PERMISSION IN TERMS OF THE STELLENBOSCH ZONING SCHEME BYLAW IN ORDER TO RECONFIGURE THE EXISTING DEVELOPMENT TO THE PROPOSED STTELENBOSCH BRIDGE DEVELOPMENT: PORTION 5 OF FARM 742, PAARL

Authorised Official to condone errors or omissions

As the duly authorised official in terms of Council Delegation LUP 42 the error in the processing of the land use and land development application:

(a) The chosen legal mechanism and resulting wording of the application and the advertisement was inaccurate as it relates to the additional user rights being applied for.

BE CONDONED in terms of section 63(2) of the Stellenbosch Land Use Planning Bylaw, 2015.

Reason for the decision:

(i) The condonation will not have a material adverse effect on, or unreasonably prejudice, any party as the exact intent, nature and extent of the development application was not misrepresented and is not in dispute, and the error is consequently immaterial in the context of the accurate presentation of the development proposal that was presented to all parties concerned and which will be presented for consideration for approval.

Name: A. Barnes

Capacity: Director Planning and Economic Development

Signature:

Date: 04 - 03 - 2021

PART N: SUBMISSION OF PLANNING APPLICATION ASSESSMENT REPORT

APPLICATION FOR SUBDIVISIONAL AREA ZONING, AMENDMENT OF A SUBDIVISION PLAN, CONSENT USES AND PERMISSION IN TERMS OF THE STELLENBOSCH ZONING SCHEME BYLAW IN ORDER TO RECONFIGURE THE EXISTING DEVELOPMENT TO THE PROPOSED STTELENBOSCH BRIDGE DEVELOPMENT: PORTION 5 OF FARM 742, PAARL

Authorised Employee to assess and make a recommendation on a land use and land development application for consideration by the authorised decision maker:

As the duly authorised official in terms of Section 56 of the Stellenbosch Municipal Land Use Planning Bylaw (2015) to assess and make a recommendation on the above planning application, the subject planning report is hereby submitted for consideration to the duly authorised decision maker in accordance with the Categorisation Model for Land Use and Land Development Applications as approved by the Stellenbosch Municipality in accordance with Section 69(1) of the said Bylaw.

In terms of the Categorisation Model duly approved in terms of Section 69(1) of the said Bylaw vide Item 7.7.1 and dated 8 April 2020, the subject application is categorised as follows:

Category:

Decision Making Authority: SMPT

Rational: Rezoning of Subdivisional Area and subdivision of area greater than 50000m²

Name: Steven Carstens

Capacity: Snr. Man Development Management

SACPLAN Registration: A/1551

Signature:

Date: 4/3/2021

PART O: ADMINISTRATION OF PLANNING APPLICATION ASSESSMENT REPORT

APPLICATION FOR SUBDIVISIONAL AREA ZONING, AMENDMENT OF A SUBDIVISION PLAN, CONSENT USES AND PERMISSION IN TERMS OF THE STELLENBOSCH ZONING SCHEME BYLAW IN ORDER TO RECONFIGURE THE EXISTING DEVELOPMENT TO THE PROPOSED STTELENBOSCH BRIDGE DEVELOPMENT: PORTION 5 OF FARM 742, PAARL

Administrator to Stellenbosch Municipal Planning Tribunal:

It is hereby confirmed that proper notice was served of the Municipal Planning Tribunal meeting at which this land use and land development application will serve for consideration.

The land use and land development application will serve at the scheduled meeting of the Stellenbosch Municipal Planning Tribunal on:

Date: .....

Name:
Capacity:
Signature:
Date:

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STELLENBOSCH • PNIEL • FRANSCHHOEK

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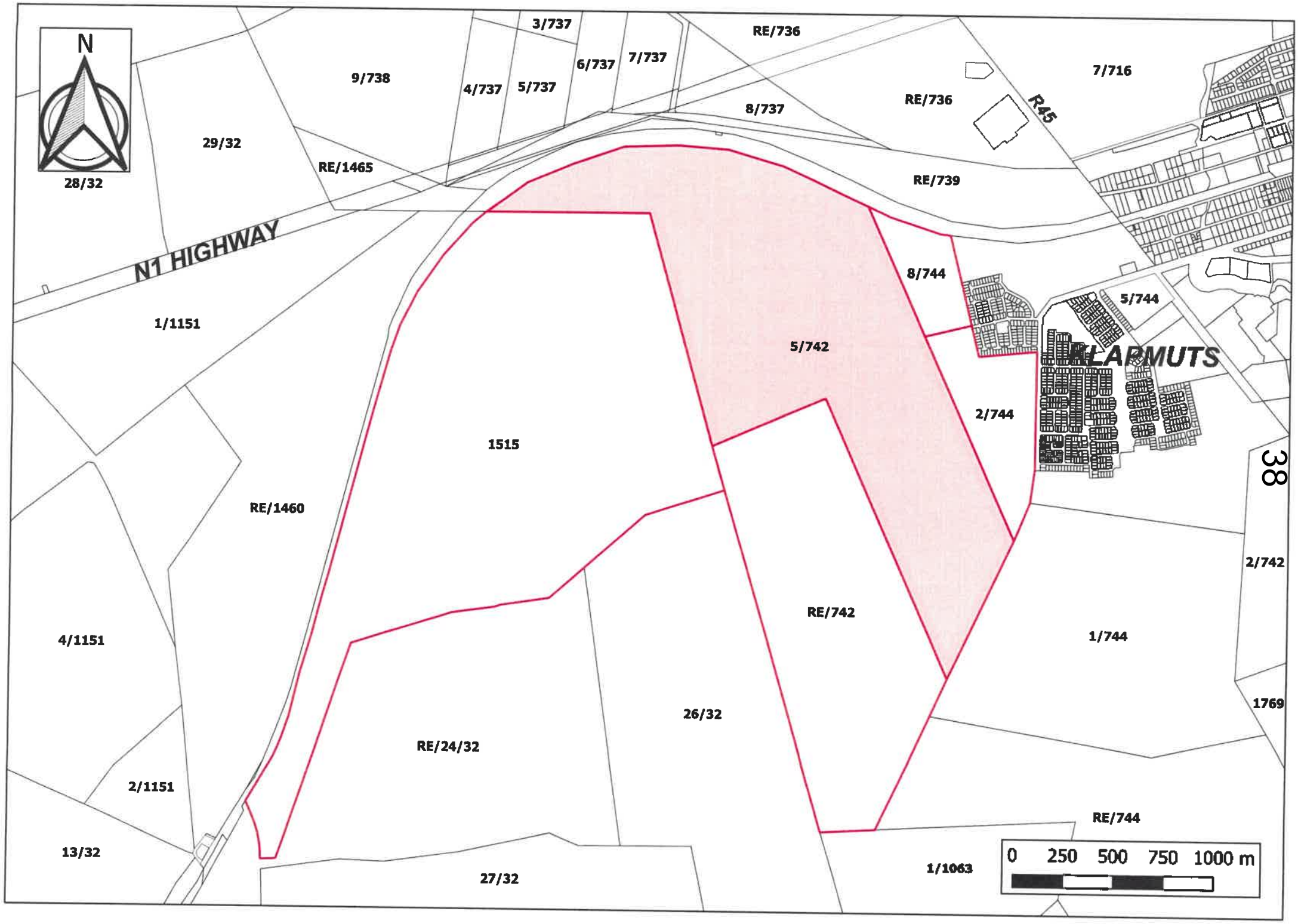
ANNEXURE A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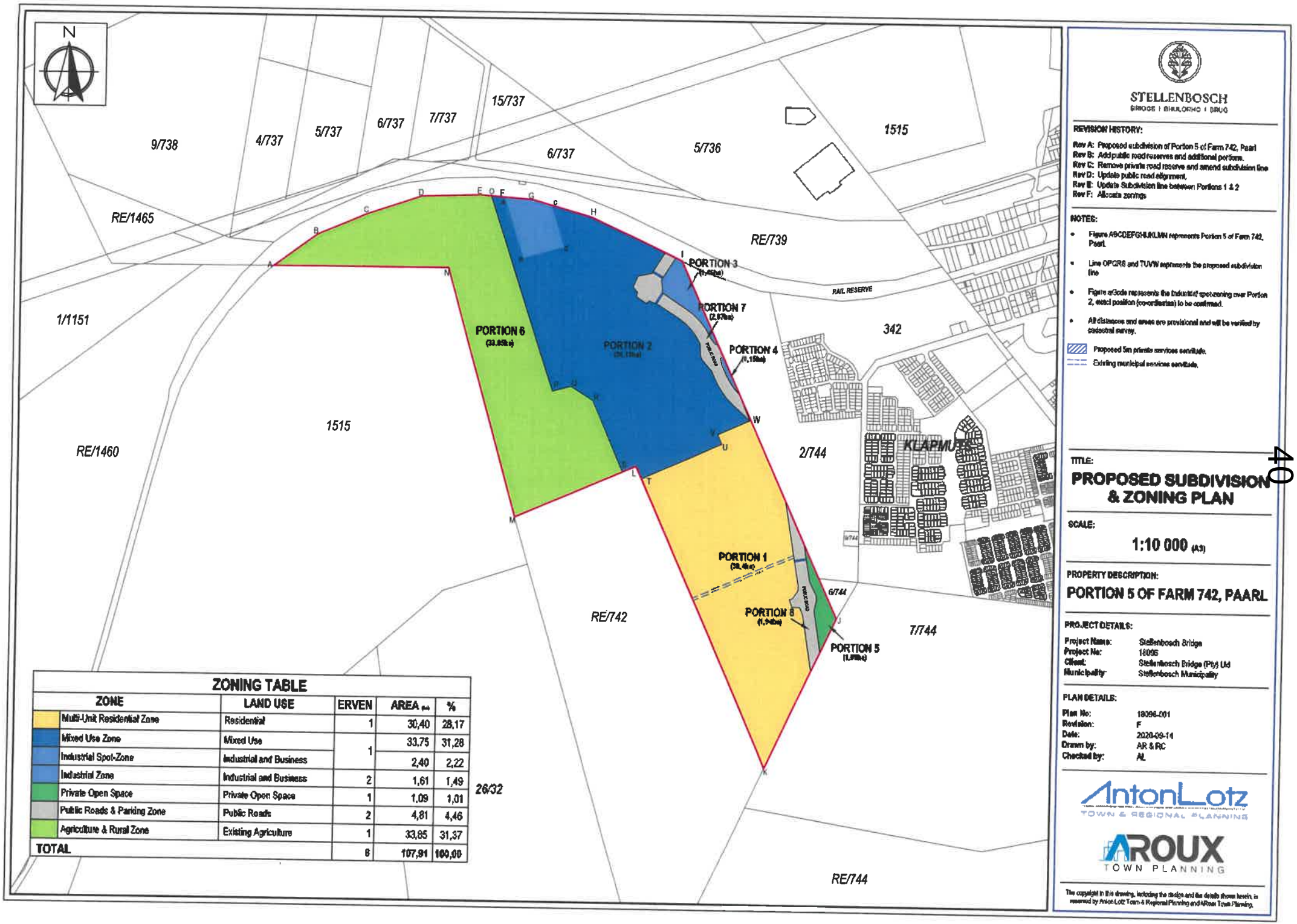
ANNEXURE B



ZONING TABLE

ZONE	LAND USE	ERVEN	AREA (ha)	%
Multi-Unit Residential Zone	Residential	1	30,40	28,17
Mixed Use Zone	Mixed Use	1	33,75	31,28
Industrial Spot-Zone	Industrial and Business		2,40	2,22
Industrial Zone	Industrial and Business	2	1,61	1,49
Private Open Space	Private Open Space	1	1,09	1,01
Public Roads & Parking Zone	Public Roads	2	4,81	4,46
Agriculture & Rural Zone	Existing Agriculture	1	33,85	31,37
TOTAL		8	107,91	100,00

26/32

STELLENBOSCH
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REVISION HISTORY:

Rev A: Proposed subdivision of Portion 5 of Farm 742, Paarl
Rev B: Add public road reserves and additional portions.
Rev C: Remove private road reserve and amend subdivision line
Rev D: Update public road alignment.
Rev E: Update Subdivision line between Portions 1 & 2
Rev F: Allocate zonings

NOTES:

- Figure ABCDEFGHIJKLMN represents Portion 5 of Farm 742, Paarl.
- Line OPQRS and TUVW represents the proposed subdivision line
- Figure xGode represents the Industrial spot-zoning over Portion 2, exact position (co-ordinates) to be confirmed.
- All distances and areas are provisional and will be verified by cadastral survey.

Proposed 5m private services servitude.
Existing municipal services servitude.

TITLE:

PROPOSED SUBDIVISION & ZONING PLAN

SCALE:

1:10 000 (A3)

PROPERTY DESCRIPTION:

PORTION 5 OF FARM 742, PAARL

PROJECT DETAILS:

Project Name:	Stellenbosch Bridge
Project No:	18096
Client:	Stellenbosch Bridge (Pty) Ltd
Municipality:	Stellenbosch Municipality

PLAN DETAILS:

Plan No:	18096-001
Revision:	F
Date:	2020-09-14
Drawn by:	AR & RC
Checked by:	AL

AntonLotz TOWN & REGIONAL PLANNING

AROUX TOWN PLANNING

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ANNEXURE C

STELLENBOSCH BRIDGE

DEVELOPMENT FRAMEWORK

FARMS 742/5, REM 742, 744/2, PAARL RD & 1515, STELLENBOSCH RD

SEPTEMBER 2020

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EXECUTIVE SUMMARY

INTRODUCTION

Stellenbosch Bridge is a visionary private sector-led project that combines the leading-edge concepts of innovation district and smart city to create a knowledge economy-based focus area within a mixed-use, environmentally conscious, people-centred development. The intent is to create a vibrant live-work-play-innovate development. To achieve this requires a strong urban design concept, a clear development framework and active management within which investment, economic development and communities can flourish.

International precedent has shown that innovation-driven, smart environments need dynamic land use management to facilitate swift reaction to rapidly changing circumstances. In addition, the post-COVID world will be an irrevocably altered urban landscape of changes in land use demand and urban management that cannot be anticipated or planned for. To position this development to survive and thrive in these unpredictable circumstances, its planning and implementation need to deal with rapid change thereby being Future Proactive. It requires a strategy that allows flexibility but within clear controls. The basis of achieving a Future Proactive development is the F.I.R.S.T. Principles:

- **Flexibility:** Capability to adapt to changing circumstances by planning for it proactively.
- **Innovation:** Being open to and able to respond to new thinking in a rapidly changing environment.
- **Resilience:** Ability to prepare for, recover from, and absorb change.
- **Sustainability:** Ability to maintain a balance between economic, social and environmental demands.
- **Thresholds:** Identification of clear limits at which action needs to be taken or investments made to maintain the balance of the development and its environment.

The interlinked development control mechanisms to be used to ensure that the project's implementation is dynamic and responsive to changing opportunities include the phased process of approval provided by the Package of Plans process; use of the Mixed-use Zone for the Innovation Precinct, a Floor Area Float to allow flexibility to address future demand changes; Sustainable Precinct Certification to help monitor attainment of sustainability goals; management of design adherence through the Design Review Process; use of Services Thresholds to monitor land use implementation within the overall basket allowing flexibility in the phasing, composition, and location thereof; and using a Development Register and traffic and services statements for implementation applications to confirm availability of rights.

VISION, PRINCIPLES AND OBJECTIVES

Vision for Stellenbosch Bridge:

A dynamic, innovative, collaborative and sustainable hub, building bridges locally and globally.'

The development will be based on the following development principles:

- **Sustainability:** Balancing environmental, social, and economic needs by protecting the environment; ensuring resource management; pursuing biophilic design; enhancing circular resource flows; and integrating sustainable designs.
- **Human Scale:** A people-centric urban form focussed on walkability and promoting a healthy and active lifestyle.
- **Conviviality:** A design that fosters social interaction in a range of safe public spaces.
- **Efficiency:** A compact, high-density urban form offering efficient urban systems and balancing resource consumption and development outcomes.
- **Innovation:** Pioneering the incorporation of ICT into all development aspects and the fusion of design thinking with technological advancements.
- **Opportunity:** Building a place for personal, social, and economic opportunity by creating a range of locations, services, facilities and information that provide opportunity for employment, economic engagement, education, and recreation.
- **Integration:** Integrating into the larger environmental, socio-economic and cultural-geographic system, essential for its sustainability.
- **Social Justice:** A catalyst for the improvement of the social well-being and prosperity of the Klapmuts communities and seeking to expand the benefit of its innovation and economic opportunity to uplift people within its zones of influence.
- **Integrity:** Being implemented and managed by means of accountable, transparent, and competent decision-making.

The development objectives for the project:

- **Environmental Sustainability:** Achieving Sustainable Precinct Certification (First 5-star GBCSA rating in Africa).
- **Entrepreneurial Ecosystem:** An economically connected mixed-use development linking various sectors in an integrated business environment.
- **Spatial Innovation:** A multi-faceted, human-scaled, robust development that can rapidly respond to change, allowing the incorporation of new ideas and concepts.
- **Connecting to Global and Local Contexts:** Build connections within the global innovation community whilst integrating physically, economically and socially with the Klapmuts town and the wider region.
- **Architectural Design to Acknowledge Unique Cape Heritage:** Integrating Cape heritage elements with modern and innovative design.
- **Integrated and Connected Communities:** Facilitating social interaction, building integration and connection between communities and people.
- **Socially Vibrant, Safe and Secure Communities:** A safe and secure environment for residents and visitors, making them welcome in socially vibrant, active, healthy, and integrated communities.
- **Use of Innovative Technologies:** Innovation will be encouraged and integrated in all levels of planning and implementation.
- **Active Precinct and Resource Management:** Hands-on management of the urban environment, resources, services and technology.

DEVELOPMENT COMPONENTS AND ELEMENTS

Stellenbosch Bridge is made up of development and open space precincts. The four development precincts are integrated through a central open space system. The main components together with planning and design elements of this development are:

- **Innovation Precinct:** A well-managed, dynamic and creative mixed-use environment where innovative design, a quality public space system, and a complete innovation ecosystem can help knowledge economy entrepreneurs, academics and corporates connect to develop and incubate new products and services for fast-growing and promising industry clusters that are central to the future expansion of the Western Cape and South African knowledge economy (use of knowledge and education that leads to technical and scientific advance), including agriculture, clean technology; bio-technology; information and communication technology (ICT); and sports and gaming (Klapmuts with Stellenbosch Bridge as its core could, over time, grow into an Innovation District).
- **Research and development** (R&D): An important component of a successful innovation district is its capability for R&D through which prototype products and services are researched, designed, tested, produced. and assembled. Having the University of Stellenbosch as a key partner provides for university-industry collaboration, research capability and commercialization expertise (through Innovus) to attract investment for innovation and entrepreneurial activity.
- **Incubator:** Within the Innovation Precinct a facility offering a range of space, facilities and services to assist entrepreneurs to create and launch their businesses.
- **Smart City:** A smart city is a spatial or urban ecosystem that uses ICT and Internet to improve its efficiency, governance and functioning and is often intricately linked to innovation district development. Implementation across eight functional areas will be targeted including mobility, infrastructure, energy, buildings, technology, governance, citizens, and healthcare. Smart technology allows real-time monitoring of these systems to better inform strategic decision-making.
- **High-Density Residential:** Housing is an essential component of an Innovation District. An assortment of residential opportunities will cater for the full spectrum of family structures offering choice and diversity. The mixed-use Innovation Precinct makes provision for the integration of residential uses and a high-density Residential Precinct will provide a high-quality living environment.
- **Lights Industrial:** Innovation districts incorporate clusters of industry that service the innovation industry and contribute to a balanced urban ecosystem. The Industrial Precinct provides for logistics and distribution and smart manufacturing (computer-integrated manufacturing). Components of smart manufacturing such as 3D printing can easily integrate into the mixed-use Innovation Precinct.
- **Data Centre:** An important component of an innovation precinct/smart city is a data centre - a facility for a large group of networked computer servers used for the remote storage, processing, or distribution of large amounts of data.
- **Integrated Open Space System:** The integration of a central green network through which existing tree line/clumps and dams are retained and enhanced, with urban spaces, quality street space and destination places will enhance the liveability of the development, making it easier to walk, bike, and use other NMT to work, live and socialize. Walkability is central to the success of the development.
- **Road System:** The development is served by a primary public road system linking the development to Klapmuts and the regional road network, and a secondary road network of private roads providing internal circulation and access.
- **Agricultural Remainder:** The land area outside the urban edge will be used for agricultural research related to the agriculture innovation cluster, renewable energy provision, sport and recreation, and tourism.

- **Conservation:** The natural vegetation area (Boland Granite, Swartland Renosterveld and/or Swartland Alluvium Fynbos) located on the ridgeline south of the development area is protected and links the development to Klapmutskop.
- **Mixed-use Environment:** Knowledge-based economic activity needs to be integrated into a dynamic mixed-use urban environment. The live and work/innovate components are integrated with the business, recreational, and social facilities which will contribute to the liveability of the development. This integration will happen both vertically (within buildings) and horizontally (with street blocks and precincts). The innovation precinct is designed on the principle of flexible urbanism – buildings and spaces that adapt to evolving needs without compromising the urban design vision and under coordinated management.
- **Environmentally Conscious Development:** As an innovation-driven smart city it will lead thinking and implement innovations and technology that contribute to 'Innovating to Zero' (a journey towards a more sustainable future). The use of renewable energy; design and engineering solutions that reduce resource demand; circular resource economy; biophilic and sustainable designs of spaces, buildings and services; waste reduction; integration of NMT; convenient pedestrian routes; and social innovation are some of the measures to be implemented.
- **People-Centred & Quality of Place:** The development is underpinned by a focus on Quality of Life, where emphasis is placed on enjoyment and living a healthy and active lifestyle. It includes a Design for Community - a layout that fosters inclusion, equal opportunity and choice; and a Place for Self – space for personal health and wellness (mind, body, soul).

DEVELOPMENT FRAMEWORK PLAN

The Development Framework Plan sets out the basic physical structure for the development of the site in accordance with the urban design concept. The following structuring elements will guide its implementation:

ACCESS POINTS

The development will be accessed by means of four new vehicular/pedestrian accesses from the R101 (Old Paarl Road), R44 (Stellenbosch Road), DR 1090 (Elsenburg Road) and Merchant Street as well as a new railway station:

- The primary access is a northerly link to the R101 via an underpass under the railway line. This access will link the development to the N1 via the existing R44 Interchange as well as a new interchange at the Groenfontein Road location.
- Three secondary accesses will be phased (the regional road network plan will determine the priority and timing):
  - Merchant Street link: This access will have an integration function between the development and Klapmuts, providing for lower-order distribution only.
  - R44 Access: A road link to the R44 will provide access from the south-east.
  - DR 1090 Access: A road link to the Elsenburg Road will provide access from the west.
- Stellenbosch Bridge Station – A new station serving the development is proposed between the Klapmuts and Muldersvlei Stations.

MOVEMENT ROUTES

Three levels of movement form part of the framework:

- The primary movement system consists of the main north-south route (R101 to R44) as well as the western (Elsenburg Road) and eastern (Merchant Street) link roads that integrate the four road access points and links the development to the broader area.
- The secondary movement system is made up of a network of private roads and accesses that provides internal access and circulation to the precincts.
- The third level of movement involves the Pedestrian/NMT system which will be catered for along the primary and secondary routes as well as the open space system which will ensure a walkable environment and links the development to the broader area.

OPEN SPACE SYSTEM

The open space system consists of the following:

- Primary Open Space System - the linear network of green spaces incorporating the existing tree lines, tree clumps and enhanced water features within the urban edge. The experience of this space will be enhanced through landscaping and the system will be linked into a wider green network including a link to Klapmutskop.
- Urban Space System - the road spaces and public squares internal to the development precincts will be designed to give pedestrians equal importance of movement and to facilitate social interaction and economic opportunity.
- Destination Places - the central square, public squares, and open space destination places such as water features, eventing facilities and the labyrinth. These places form focal points in the open space system and facilitate use, pedestrian movement, economic opportunity, and social interaction.

PRECINCTS AND LAND USE

The site is divided into four development precincts (with sub-precincts to facilitate phasing) and two open space precincts. Each precinct has been allocated a primary use category being 1) Innovation, 2) Residential, 3) Industrial, 4) Data Centre, 5) Agricultural Research or 6) Conservation and a suite of land use allocations as based on the design concept:

- **Precinct A** (Innovation): The innovation precinct (Sub-Precincts A1 – A5) integrates all aspects of a live-work-play-innovate environment around a network of public spaces. The proposed zoning is Mixed-use Zone.
  - Precinct A1 – Business; Residential; Education; Medical; Institutional; R&D; Smart Manufacturing; Sports, Gaming and Recreation; Tourism; Utility Service; Parking; Private Open Space; Private Road.
  - Precinct A2 – Business; Residential; Education; Medical; Institutional; R&D; Smart Manufacturing; Sports, Gaming and Recreation; Tourism; Utility Service; Parking; Private Open Space; Private Road.
  - Precinct A3 – Business; Institutional; Medical; Data Centre; R&D; Smart Manufacturing; Utility Service; Parking; Transport Facilities; Private Open Space; Private Road.
  - Precinct A4 – Business; Education; Medical; Institutional; R&D; Smart Manufacturing; Warehousing and Distribution; Data Centre; Sports, Gaming and Recreation; Utility Service; Parking; Private Open Space; Private Road.
  - Precinct A5 – Business; Residential; Education; Medical; Institutional; Research and Development; Smart Manufacturing; Sports, Gaming and Recreation; Tourism; Utility Service; Parking; Private Open Space; Private Road.
- **Precinct B** (Residential): The high-density residential precinct (Sub-precincts B1 and B2) incorporates complimentary social and business uses and multi-functional open spaces areas to create a high-quality living environment. The proposed zoning is Multi-unit Residential Zone.
  - Precinct B1 – Residential; Institutional; Business; Sport and Recreation; Tourism; Private Open Space; Private Road.
  - Precinct B2 – Residential; Institutional; Business; Sport and Recreation; Tourism; Private Open Space; Private Road.
- **Precinct C** (Industrial): The green and smart industrial precinct. The proposed zoning is Industrial Zone: Data Centre; Business; Smart Manufacturing; Warehousing, Logistics and Distribution; Utility Service; Parking; Private Open Space; Private Road.
- **Precinct D** (Data Centre): The precinct accommodating the main data centre. The proposed zoning is Industrial Zone: Data Centre; Smart Manufacturing; Business; Utility Service; Parking; Private Open Space; Private Road.
- **Precinct E** (Agricultural Research): The land area west of the urban edge. The zoning is Agriculture and Rural Zone: Agricultural Research; Renewable Energy; Sports and Recreation; Tourism
- **Precinct F** (Conservation): The natural vegetation area south of the development area. The zoning is Agriculture and Rural Zone: Conservation; Sports and Recreation; Tourism; Environmental Education.

BASKET OF RIGHTS

The land use rights to achieve the mixed-use development vision is summarised in Table 1:

Table 1: Basket of Rights

Precincts	Residential	Business	Industrial	Institutional	Other
	Dwelling units du	Floor Area - m²	Floor Area - m²	Floor Area - m²	Floor Area - m²
Precinct A	**2 500**	**243 000**	**43 000**	**144 000**	**13 500**
A1	600	145 500	-	43 500	3 500
A2	450	43 500	-	38 700	-
A3	-	15 000	12 000	-	-
A4	-	-	31 000	20 000	-
A5	1 450	39 000	-	41 800	10 000
Precinct B	**2 500**	**-**	**-**	**-**	**-**
B1	1 600	-	-	-	-
B2	900	-	-	-	-
Precinct C	-	-	**75 500**	-	-
Precinct D	-	**10 000**	**15 000**	-	-
Floating	**1 000**	**35 000**	**60 000**	**24 000**	**17 000**
Sub-Total	**6 000**	**288 000**	**193 500**	**168 000**	**30 500**
TOTAL	**6 000**				**680 000**

The Basket of Rights will be applied for incrementally according to the application schedule agreed with the Municipality. These rights will be allocated per precinct and sub-precinct and part thereof will be used as floating floor area. Once the final land use approval is granted for the areas recently incorporated into the Klapmuts urban edge the various subdivisions will be consolidated to create four development erven that will each be registered as a sectional title scheme. No further subdivision will be required. It is the intention that following consolidation the land use rights allocated to the sub-precincts of A and B can be utilised throughout the consolidated erven A & B respectively, as guided by the approved Precinct Plans, land use allocations and urban design guidelines.

The floating floor area component will be available to cater for changes in land use demand or land use categories that were not anticipated in the base development scenario and that cannot be accommodated within the allocated precinct floor area.

The implementation of services will be based on the services thresholds identified by the services reports and set out in the Service Level Agreement. Within these thresholds the roll-out of development rights will be directed and allocated to the various precincts and sub-precincts in the following anticipated order:

- Precincts A1, B1, C and D
- Precincts A3 and B2
- Precincts A2, A4 and A5

The urban design framework will play an essential role in the timing and location of these rights within the precincts as the establishment of the spatial structure and key open space elements such as the central square and pedestrian boulevard are critical to the success of the project.

It is based on a clear understanding of the upper limit of service and infrastructure demands for the total development's land use scenario (base scenario) that the services thresholds can be mapped out. Various land use implementation scenarios can play out without unnecessary delays as the development register and services statements are used to monitor land use implementation within the overall basket, allowing flexibility in the phasing, composition, and location thereof.

The efficiency of the development is improved as infrastructure is implemented as and when required and the approach allows flexibility to adjust land use combinations according to market demand without negatively impacting the broader area.

IMPACT OF THE DEVELOPMENT

The Stellenbosch Bridge development will have a significant socio-economic impact on Klapmuts, the region and the Western Cape. It will be a major catalyst in achieving the Stellenbosch Municipality's vision to "be a valley of opportunity and innovation" and to attract investment, stimulate economic growth and create employment.

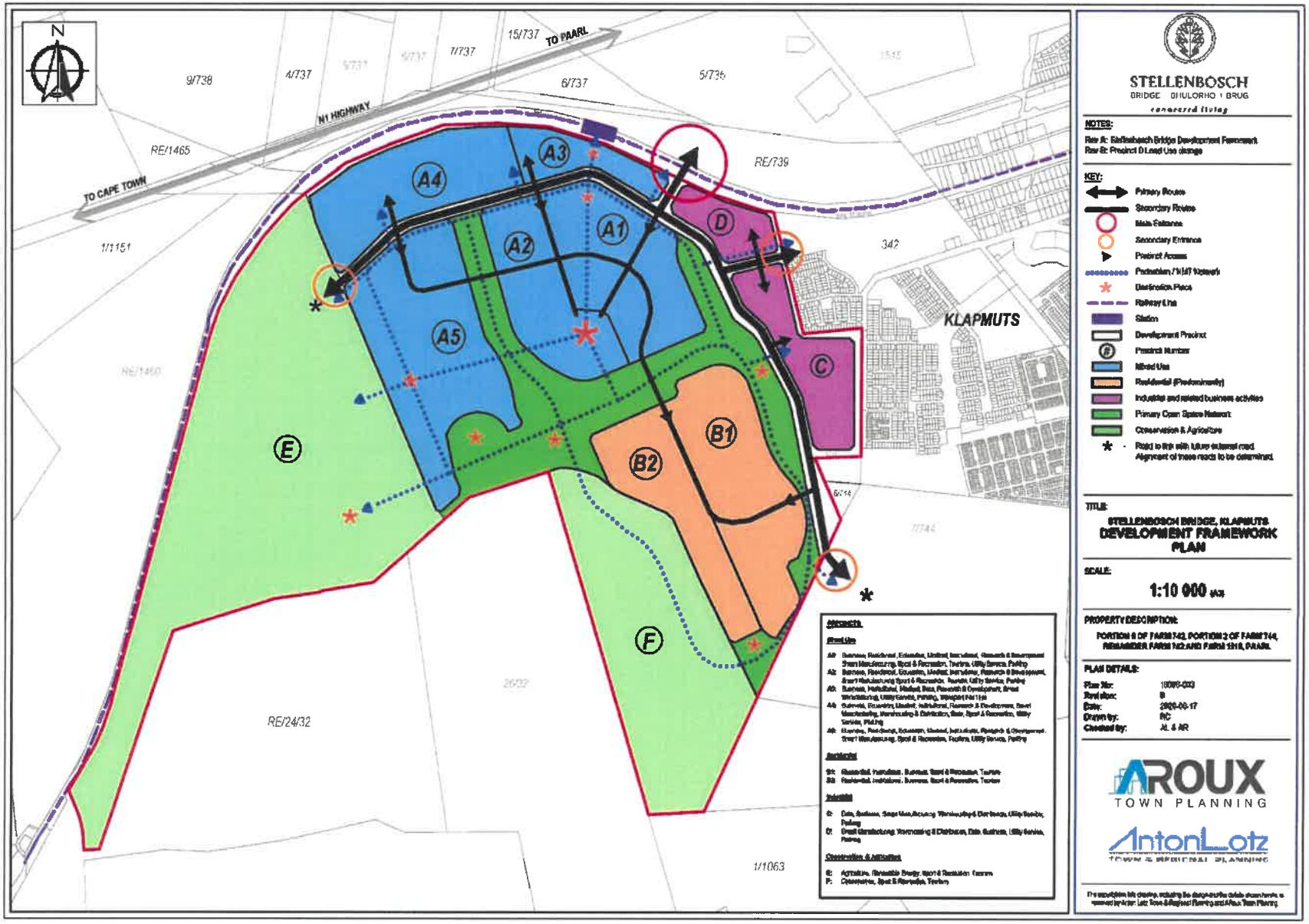
By becoming a world-renowned innovation and smart city development it will stimulate growth and job-creation in an array of sectors. The innovation precinct will initially lead with the creation of highly skilled jobs, but as the mixed-use development grows, the jobs in other fields will stimulate economic prosperity and social well-being of the communities of Klapmuts. The physical and socio-economic integration of the development with the existing town will be central to its success.

The impact of initial construction costs for the full project on the Western Cape and Stellenbosch Municipal economy is estimated at R59 billion and R8,8 billion respectively. Over the 15 – 20 year implementation period the employment opportunities during construction totals approximately 14 100, whilst the ongoing job opportunities for the full project is estimated at approximately 12 900 per annum.

The strategic location of Klapmuts alongside the N1 Freeway (designated primary development axis/transport route) and the Cape Town-Johannesburg railway line makes it a potentially significant centre for economic activity and residence within the larger region. It is based on these locational advantages and being an area of lesser natural and cultural significance (Low Value Cultural Landscape area) that the Stellenbosch SDF (2019) has designated Klapmuts as a Primary Node/Regional Centre

It is the intention to achieve certification as the first 5-star GBCSA Sustainable Precinct development in Africa. The project's social context, together with its economic potential and environmental innovation puts it in a unique position to create and maintain a world-leading position in sustainability. The developers have committed themselves to contributing to the improvement of the urban landscape and physical environment as well as the social upliftment and economic well-being of its communities as part of the success of this ground-breaking project.

This report, the Development Framework formulates the first level of plans pertaining to the Stellenbosch Bridge development and is submitted to the Stellenbosch Municipality for approval to guide the further development of the development area on the Stellenbosch Bridge landholdings.


N
TO PAARL
N1 HIGHWAY
TO CAPE TOWN
KLAPMUTS
A1
A2
A3
A4
A5
B1
B2
C
D
E
F
RE/1465
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1/1063
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5/736
15/737
7/737
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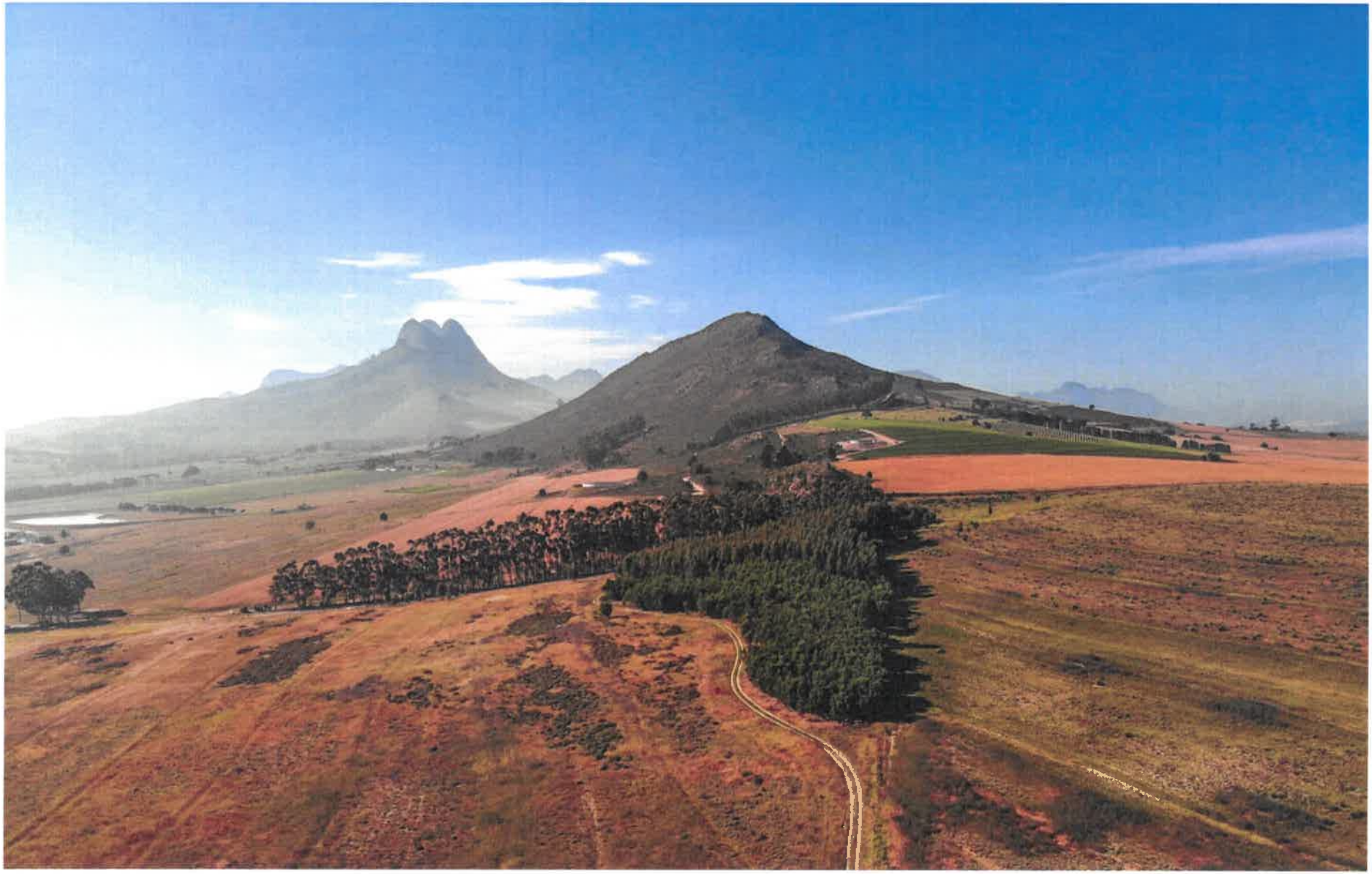
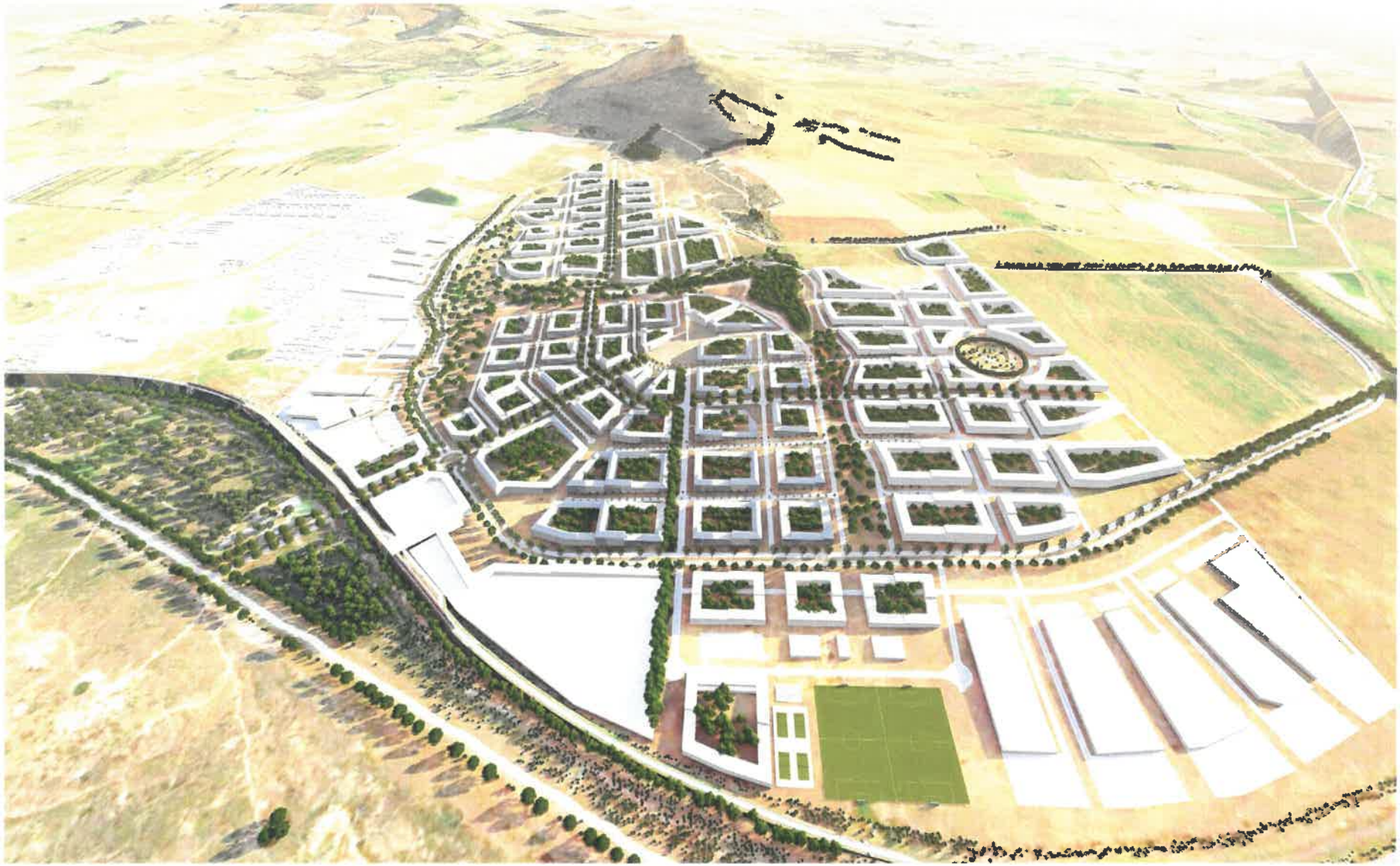
STELLENBOSCH
BRIDGE
NOTES:
KEY:
Primary Routes
Secondary Routes
Main Entrance
Secondary Entrance
Precinct Access
Destination Place
Railway Line
Station
Development Precinct
Precinct Number
Mixed Use
Residential (Predominantly)
Industrial and related business activities
Primary Open Space Network
Conservation & Agriculture
TITLE:
STELLENBOSCH BRIDGE, KLAPMUTS
DEVELOPMENT FRAMEWORK PLAN
SCALE:
1:10 000 @A3
PROPERTY DESCRIPTION:
PORTION 6 OF FARM 742, PORTION 2 OF FARM 744, REMAINDER FARM 742 AND FARM 1018, PAARL
PLAN DETAILS:
Plan No:
Revision:
Date:
2020-09-17
Drawn by:
RC
Checked by:
JL & AR
AROUX
TOWN PLANNING
AntonLotz





1.0 INTRODUCTION

1.1 BACKGROUND

Klapmuts enjoys a strategic location – its proximity to the Cape Town metropolitan area, Paarl and Stellenbosch as well as its excellent regional and national accessibility owing to the proximity of the N1 Freeway and Cape Town - Gauteng railway line have held huge promise for its future development.

These locational advantages encouraged a group of investors to form the Stellenbosch Wine and Country (Pty) Ltd in 2003 and invest in land adjacent to the Klapmuts urban edge. Following a lengthy process, the Stellenbosch Municipality granted approval for the Klapmuts Hills development in 2011, a higher-density, high-income residential development featuring 1 577 residential units and a Gross Lettable Area (GLA) of 23 200m² for business and other associated uses. The residential market was in a deep slump by the time these rights were granted which resulted in a significant delay in implementation.

Then, in 2018 the Klapmuts Special Development Area Economic Feasibility Study proposed the establishment of an innovation hub in Klapmuts. This allowed a reimagining of what the Klapmuts Hills landholdings could be used for. The now restructured company, Stellenbosch Bridge (Pty) Ltd appointed a consultant team to research and design a mixed-use innovation precinct and by mid-2019 this work resulted in a mixed-use Smart City concept called Stellenbosch Bridge.

At the same time, the Stellenbosch MSDF (2019) designated Klapmuts as the secondary growth node to the town of Stellenbosch. The Stellenbosch Municipality supported the creation of an innovation precinct as the new core of the Klapmuts node and allowed this vision to guide their decisions on the Klapmuts urban edge and spatial budget.

This is in recognition that the successful development of an innovation precinct in Klapmuts will hold significant socio-economic benefit not only for the town, but also for the Stellenbosch Municipality and the wider region.

1.2 PURPOSE OF THIS REPORT

Stellenbosch Bridge is one of the most significant and innovative mixed-use developments to be undertaken in the Western Cape in recent years and it needs to be planned and implemented logically and in phases to ensure the success and viability thereof.

The development site comprises various land units, some of which already have been through application processes and have development rights and others that only recently were incorporated into the Klapmuts urban edge and still need to be subjected to the various application processes.

In addition, the post-COVID world that we are about enter, requires a development concept that is robust and adaptable to survive and thrive in an irrevocably altered urban landscape. We cannot anticipate how the urban landscape is going to change, but we can incorporate the flexibility into the spatial framework, roll-out mechanisms, and basket of rights to allow the development to pro-actively respond to these changes.

Market interest in the innovation precinct is already significant and to avoid unnecessary long process delays which could potentially result in the missing of an economic growth cycle a series of applications will be submitted in terms of a clear vision and spatial framework for the innovation precinct to facilitate an expedient roll-out of rights and services.

The Package of Plans process will allow flexibility in the implementation of the approved rights according to appropriate levels of information in terms of which the authorities can verify and monitor the roll-out. It makes provision for a logical sequence of plans to be submitted at different stages in the planning process to activate various components of an approved basket of rights and guide the implementation of services and infrastructure.

This report, the Development Framework formulates the first level of plans pertaining to the Stellenbosch Bridge development and is submitted to the Stellenbosch Municipality for approval to guide the further development of the landholdings.

2.0 THE PACKAGE OF PLANS APPROACH

2.1 PACKAGE OF PLANS PROCESS

The 'Package of Plans' approach is a tiered planning process which provides a mechanism to plan and manage the development of large or strategic urban development areas by facilitating the phased roll-out of a basket of rights over an extended period. The benefits of this approach include that:

- it provides greater flexibility to accommodate the different phases of the complex development proposal;
- it responds to changing market conditions; and
- it provides mechanisms for delegations in the decision-making process.

The Package of Plans approach appears complicated, but if implemented correctly is a sound planning tool that starts with broader district-wide considerations at the Contextual Framework level, becoming more and more specific as plans move from context to the project and then to individual precincts and sites. Therefore, it is a phased process of negotiation, planning and approvals, whereby increasing detail is provided for each following step of development.

2.2 PLAN LEVELS

A Package of Plans consists of the following components that are listed in a hierarchy from higher-order to lower-order plans, and the lower-order plans must be in compliance with the higher-order plans:

- **Contextual Framework**

The Contextual Framework provides a broad overview of how a site relates to its context in terms of access, services, and urban connectivity as well as its functional role. The recently completed Stellenbosch SDF provides sufficient information on the role and vision for Klapmuts not to require a stand-alone Contextual Framework for this project.

A Contextual Summary is provided in section 3.1.

- **Development Framework**

The Development Framework sets out the framework elements for the site itself and ensures guidance to the change of use for the total site. The Development Framework views the planning for the site as a process as opposed to a fixed-state master plan, which will therefore require refinement as time passes and circumstances change.

The Development Framework is:

- A set of goals and policies to guide future conservation and development; and
- A basic physical structure (main structuring elements) which organises the site and relates it to its surroundings.

The Development Framework also provides a breakdown of the basket of rights (uses and the number and floor area provisions of these land uses) for the development of the site.

The Development Framework needs to be action-orientated and strategic, capable of being updated by means of a process agreed with the Municipality.

Although the Development Framework specifies maximums in terms of numbers, types and sizes, it is important that the approval provides enough flexibility to allow the movement of rights between precincts without further process.

The plan information provided is conceptual and therefore should not be dimensioned, other than the descriptions contained in the text.

This report is the Development Framework for the Stellenbosch Bridge project.

- **Precinct Plans**

The Development Framework Area is divided into sub-areas or precincts that have common features, functional relationships or phasing requirements. The precinct plan is a conceptual illustration of each precinct and provides the basis for determining the spatial responsibilities, limitations and rights, and forms the basis of more detailed zoning provisions.

The precinct plan provides a clear guide to the form, size and shape of the future development parcels and residential blocks and the urban design and the other controls that apply. It also defines a hierarchy of access, describes the open space system and provides dimensions for the different elements.

- **Subdivision Plans**

Subdivision plans are dimensioned plans processed in terms of planning law and establishes new cadastral boundaries within the precinct in line with the approved Precinct Plan. This level also facilitates the transfer of units and GLA from the basket of rights acquired as part of the Precinct Plan approval. Subdivision Plans may be approved at any stage after the Development Framework has been approved.

- **Site Development Plans**

Site Development Plans (SDP) are more detailed plans for groups of erven or larger individual sites. These could also include subdivision plans for specific areas and provide the basis for determining the zonings for the various properties including details relating to land use, floor space, building lines, height, parking requirements, municipal services and landscaping, as well as details relating to the position and appearance of buildings, open space, pedestrian links and traffic movement.

- **Building Plans**

Building plans, when submitted for approval, are reviewed against the relevant Precinct and Site Development Plans and contain detailed specifications as required by the National Building Act, and once approved by the local authority, authorise building work to be performed.

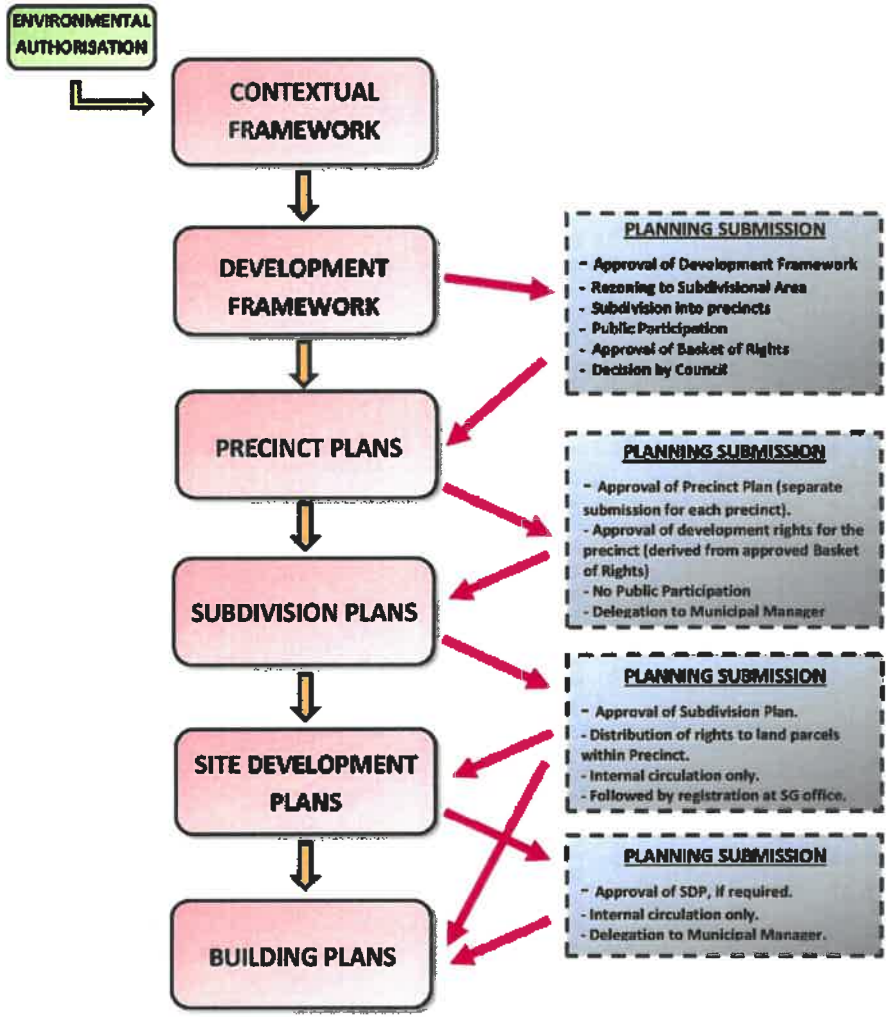


Figure 1 – Package of Plans and Application Methodology Diagram

3.0 CONTEXT AND SITE DESCRIPTION

3.1 CONTEXTUAL SUMMARY

The development context for this project as provided by the Stellenbosch Municipality SDF (2019) can be summarised as follows:

- The Stellenbosch Bridge landholdings, consisting of Farm 742/5, REM 742 and 744/2 Paarl RD as well as Farm 1515, Stellenbosch RD) is situated to the west of Klapmuts. The area of development is included in the Klapmuts urban edge (SDF, 2019) and the update of the Klapmuts SDF in 2020 will confirm the detail of the urban edge alignment.
- Klapmuts is one of the three main settlements within the jurisdiction of the Stellenbosch Municipality (SM). The municipality is home to some 176 000 people (2018) and located in the heart of the Cape Winelands, a highly valued cultural landscape with globally important natural habitats.
- Politically, SM forms part of the Cape Winelands District Municipality of the Western Cape Province. The municipality adjoins the City of Cape Town to the west and south and the Breede Valley, Drakenstein and Theewaterskloof Municipalities to the east and north.
- Functionally, the SM forms part of the Greater Cape Town metropolitan area. SM covers a geographical area of approximately 830km^2.
- The SM Integrated Development Plan 2017-2022 (IDP) is aimed at coordinating the efforts of various municipal departments in achieving the municipality's vision to be a "valley of opportunity and innovation". The Valley of Possibility focus area looks to attract investment, growing the economy and employment.
- It is estimated that 91% of the people living in the urban areas of the municipality by 2031 will reside in Stellenbosch town, Klapmuts or Franschhoek.
- Klapmuts does not form part of the World Heritage Landscape, Protected Areas or Green Network of the SM and it is located in a Low Value Cultural Landscape area.
- Pursuant of the SDF's goal to direct new growth to areas of lesser natural and cultural significance that offers movement opportunity, Klapmuts has been designated as a Primary Node/Regional Centre. The N1 was designated as a primary development axis/transport route.
- A significant proportion of the municipal population is poor and reliant on the informal sector for livelihoods. Approximately 53,1% of households in SM fall within the low-income bracket, of which 20,4% have no income. Less than 50% of households fall within the middle to higher income categories, split between 35,6% in middle income group and 11,5% in the higher income group. Overall, SM's unemployment rate increased to approximately 11% in 2017.
- The SDF concludes that SM will continue to grow without the economy necessarily being fully geared to provide work opportunities or generate funds to provide needed services; the growth in the informal sector as the only means to ensure livelihoods to poorer citizens is expected to continue; and economic sectors accommodating unskilled workers (especially manufacturing and agriculture) show slow growth.
- The SDF expresses support for the development of an Innovation Precinct and Smart City on the Stellenbosch Bridge landholdings.
- Klapmuts is 50 km east of the Cape Town CBD and the Cape Town International Airport and approximately 15 km from Kraaifontein, Paarl and Stellenbosch (Refer to **Figure 2**).
- According to the Klapmuts Special Development Area – Status Quo Report (BEAL Africa, 2017), the Klapmuts land use (Refer to **Figure 3**) includes 2 071 residential, 15 business and 21 industrial properties, as well as 122 farmland and related properties. Community-related land use include a police station, primary school, safe house, community centre, crèche and three churches. 91% of the residential units are single dwelling homes, mainly in the middle- and lower-income brackets.
- The more recent urban development concentrated in the town proper include a local shopping centre along Klapmuts Old Main Road (R101) and the Rozenmeer upper-middle-income gated housing development. Warehousing is being developed at the Simonsberg Business Park south of the town along the R44 road, while lower-middle-income housing was developed, west of the industrial township. Klapmuts has seen significant growth in subsidised public housing with more than 500 additional housing units developed along its southern edge.
- Limited tourist uses, such as wine cellars offering wine-tasting and guest accommodation, and other uses associated with the wine industry operate in the surrounding rural-agricultural area.

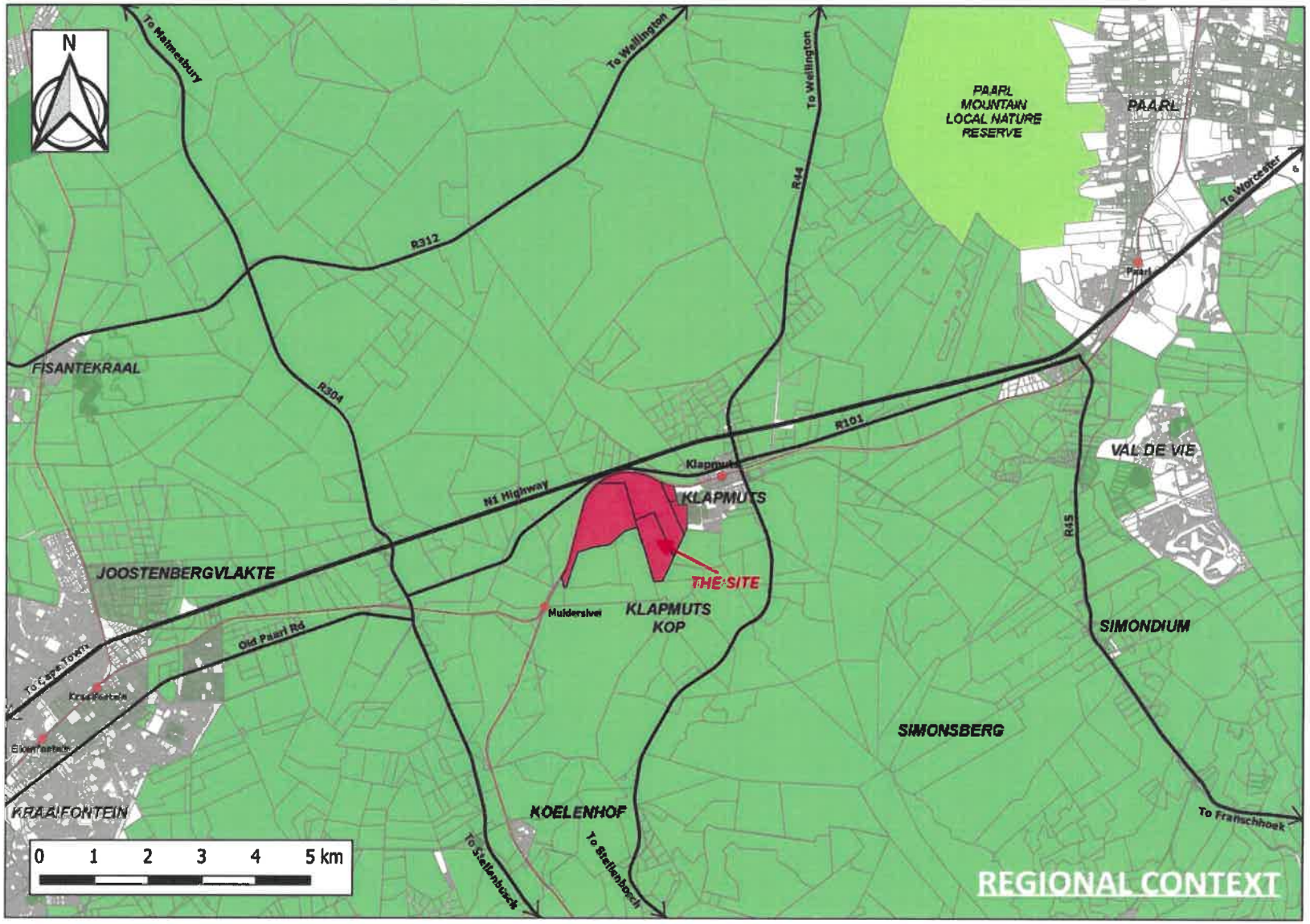


Figure 2: Regional Context

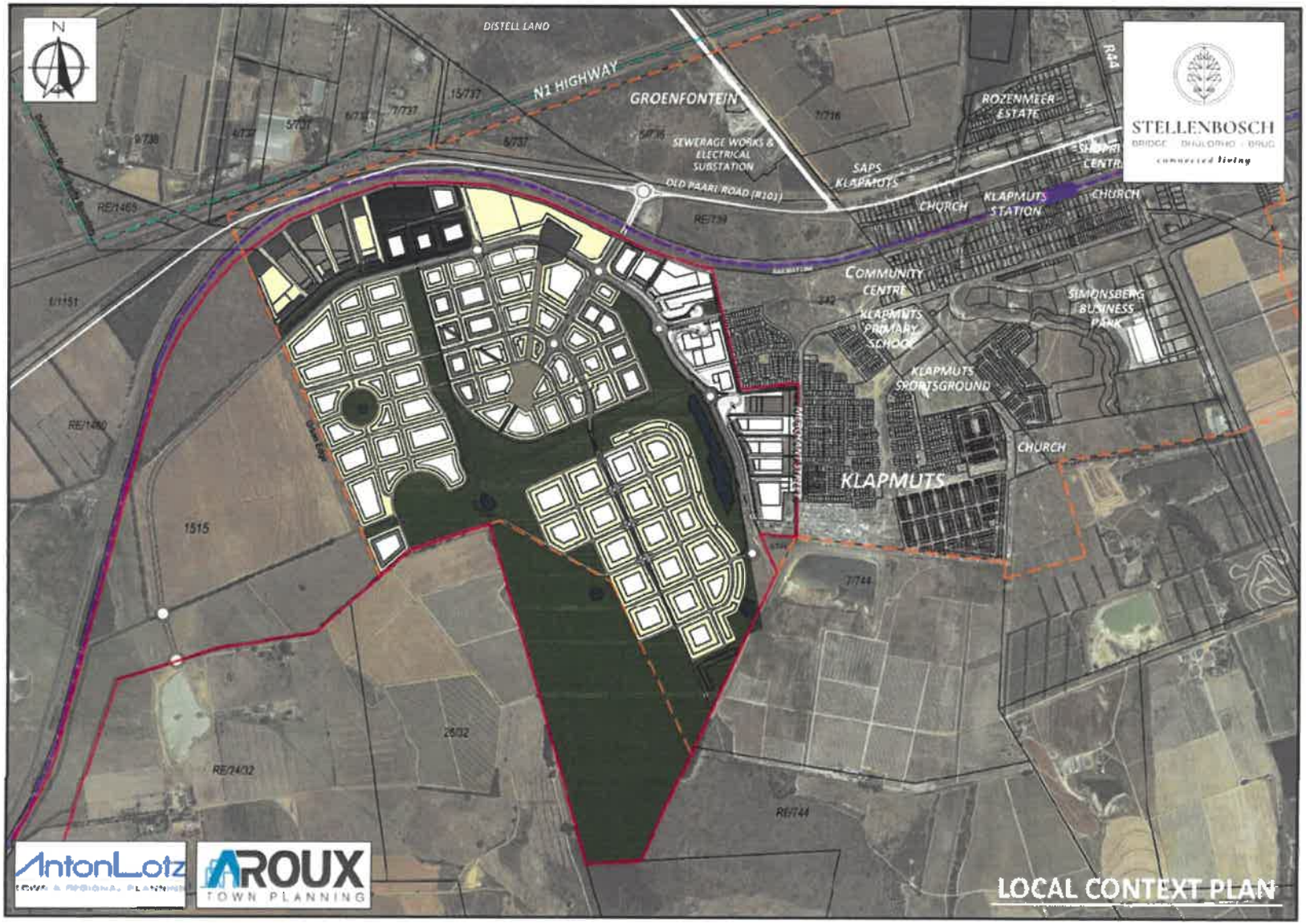


Figure 3: Local Context

- Recently approved land use applications (BEAL Africa, 2017) on agricultural land include the gated or lifestyle housing estates to the east and southeast of Klapmuts town allowing about 295 new housing units; 518 new housing units next to Rozenmeer north of Klapmuts town, and the Anura Lifestyle Estate approved for 154 new housing units.
- Distell Limited received land use approval to relocate and consolidate many of its beverage production, bottling, warehousing and distribution facilities on land north of the N1. The Distell facilities will take up 53 ha of the 200 ha landholdings, allowing commercial and mixed-use development opportunities on the non-sensitive remainder of the site for Distell's suppliers and other businesses to co-locate.
- Klapmuts north of the N1 Freeway falls into the Drakenstein municipal area. Co-operation and coordination between the two municipalities on planning and service provision is critical to maximise the development potential of the larger Klapmuts area.
- SM have already made significant investment in the expansion of the water and sewerage infrastructure of Klapmuts to unlock the potential of the area for private-sector economic development.

3.2 IMPACT OF THE DEVELOPMENT

The following development considerations are relevant to the Stellenbosch Bridge project:

- The Stellenbosch Bridge Innovation Precinct and Smart City development will be a major catalyst in achieving the Stellenbosch Municipality's vision to "be a valley of opportunity and innovation" and to attract investment, stimulate economic growth and create employment as part of the 'valley of opportunity' focus area.
- The Stellenbosch SDF (2019) has designated Klapmuts as a Primary Node/Regional Centre (together with town of Stellenbosch) based on it being an area of lesser natural and cultural significance (Low Value Cultural Landscape area) and enjoying strategic transport access.
- The strategic location of Klapmuts alongside the N1 Freeway (designated primary development axis/transport route) and the Cape Town-Johannesburg railway line makes it a potentially significant centre for economic activity and residence within the larger region. Stellenbosch Bridge will kickstart this economic and residential activity.
- Through its designation as a primary development node, the regional role and growth potential of Klapmuts have changed from a residential village to a key urban growth centre. Substantial infrastructure investment will be required to facilitate this growth and a project of significant size is needed to unlock the investment in new infrastructure.
- Stellenbosch Bridge needs a substantial footprint and high-density built form to achieve the scale necessary to ensure its success and attain international status, whilst also integrating a significant central green system. The project's design proposal was carefully constructed to ensure a walkable, mixed-use development that is economically viable whilst pursuing biophilic design principles.
- The development will have a significant socio-economic impact on Klapmuts, the region and the Western Cape. By becoming a world-renowned innovation and smart city development it will stimulate growth and job-creation in an array of sectors. The innovation precinct will initially lead with the creation of highly skilled jobs, but as the mixed-use development grows, the jobs in other fields will stimulate the economic prosperity and social well-being of the communities of Klapmuts. The physical and socio-economic integration of the development with the existing town will be central to its success.
- The impact of initial construction costs for the full project on the Western Cape and Stellenbosch Municipal economy is estimated at R59 billion and R8,8 billion respectively. Over the 15 – 20 year implementation period the employment opportunities during construction totals approximately 14 100 whilst the per annum ongoing job opportunities for the full project is estimated at approximately 12 900.
- Although the Klapmuts area has been designated as having lesser natural and cultural significance, the design proposal will include a range of design and landscaping proposals to mitigate negative visual impacts and create a development that contributes positively to its landscape.
- To change public perception of Klapmuts as a low-income area and turn the town into a destination, it needs a landmark to locate it in people's mental maps. The visibility of the buildings and design features at Stellenbosch Bridge will create the landmark needed to achieve this.
- It is the intention to achieve certification as the first 5-star GBCSA Sustainable Precinct development in Africa. The developers commit themselves to the improvement of the urban landscape and physical environment as well as the social upliftment and economic well-being of its communities as part of the success of this ground-breaking project.

3.3 SITE ANALYSIS (Legacy Environmental)

Site opportunities and constraints (Refer to **Figures 4 and 5**):

- **Size**: The Stellenbosch Bridge landholdings are 338ha in size of which 204ha falls within the Klapmuts urban edge. The area inside the urban edge is referred to as the development area.
- **Klapmutskop**: The surrounding landscape is relatively undulating, with Klapmutskop as a distinctive feature to the south of the landholdings. It is elongated in a southeast-northwest direction, with its crest at about 522m above mean sea level (a.m.s.l.). Its northern elongated ridgeline slopes to the northwest from 522m a.m.s.l. at its crest to 180m a.m.s.l. adjacent to the railway line on the northern edge of the landholdings.
- **Site Topography**: The landholdings contain no strongly defining topographical features. There is a gentle slope across the extent of the land, barring the eastern portion, which is located on relatively level land. The high point is at 251m a.m.s.l. and the low point at 180m a.m.s.l. The average slope across the development area is approximately 1:12 to 1:20, allowing for views across to the distant mountains from the higher lying areas. These slopes are ideal for development whilst the higher-lying ridgeline of Klapmutskop will not be broken, thereby preventing an intrusion into the cultural landscape. The raised railway line along the northern edge also mitigates the views of the development area from the R101 and N1 Roads.
- **Water Features**: There are no natural wetlands, rivers or drainage lines on the landholdings, but a number of man-made drainage furrows, stormwater retention facilities, and small dams are retained as part of the open space system. No riverine vegetation exists along the gullies and drainage ditches. A number of small, shallow ephemeral pans are scattered over the landholdings. These have little botanical significance as species diversity is low (single species of sedge). Artificial wetlands have developed around the elongated dam on the south-western edge of the landholdings as well as the dams along the eastern side of the development area. The botanist considers these water features to be disconnected and note that they are of little significance in the highly disturbed habitat and have been incorrectly designated as critical biodiversity areas. These water features including the main stormwater channel and the dams located in the centre of the landholdings are to be retained and improved for functional and recreational purposes.
- **Soils and Geology**: The lower eastern slopes (development area) contain coarse sandy hillwash, which represents the remnants of weathered sandstone and granite. This hillwash horizon overlies Malmesbury Group shales and phyllite which has been intruded into by granites of the Stellenbosch-Paarl Pluton. The granites weather to form intact, moist mottled clays. The clay may have dispersion, swelling and collapsing characteristics which may cause buildings to crack if mitigation measures are not taken with foundations and wall construction.
- **Tree Lines and Clumps**: A number of tree lines and clumps exist on the landholdings, but none of these are of environmental value. While these are alien species (Blue Gum and Oak), they are important landscape features and will be protected and improved as part of the area's scenic beauty and to assist in reducing the visual impact of the development.
- **Vegetation in the Development Area**: There is no intact indigenous vegetation in the development area. It has been transformed by years of farming (croplands and grazing) and mining (of sand and laterite) and is not restorable. No active cultivation of crops has occurred for some time with limited grazing of community livestock in the recent past. The open space system within the development will be landscaped using plant species of the Boland Granite Fynbos and/or Swartland Alluvium Fynbos. A search and rescue approach will be undertaken to bolster such species, especially bulbs that are scattered over the properties.
- **Natural vegetation**: The Boland Granite, Swartland Renosterveld and/or Swartland Alluvium Fynbos located on the higher ridgeline to the south and west of the development area which have been excluded from the urban edge will be protected. These naturally vegetated corridors within the development will connect to Klapmutskop and will provide recreational, tourism and environmental education opportunities.
- **Vineyards**: Small areas of the better-quality agricultural soils, mainly on the upper ridgeline and the western slopes of the landholdings have been used for vineyards. The viability of these vineyards is limited.
- **Fauna**: Given the extremely low biodiversity and open nature of the eastern slopes, the high grazing use and human activity, the presence of fauna is limited to rodents (gerbils and moles) and some bird species. The low fauna and flora diversity of the development area will not constrain the layout but the proposed biophilic design, integrated open space system, landscaping, improvement of water bodies and focussed management will assist in encouraging a larger variety of fauna and increased biodiversity over time.

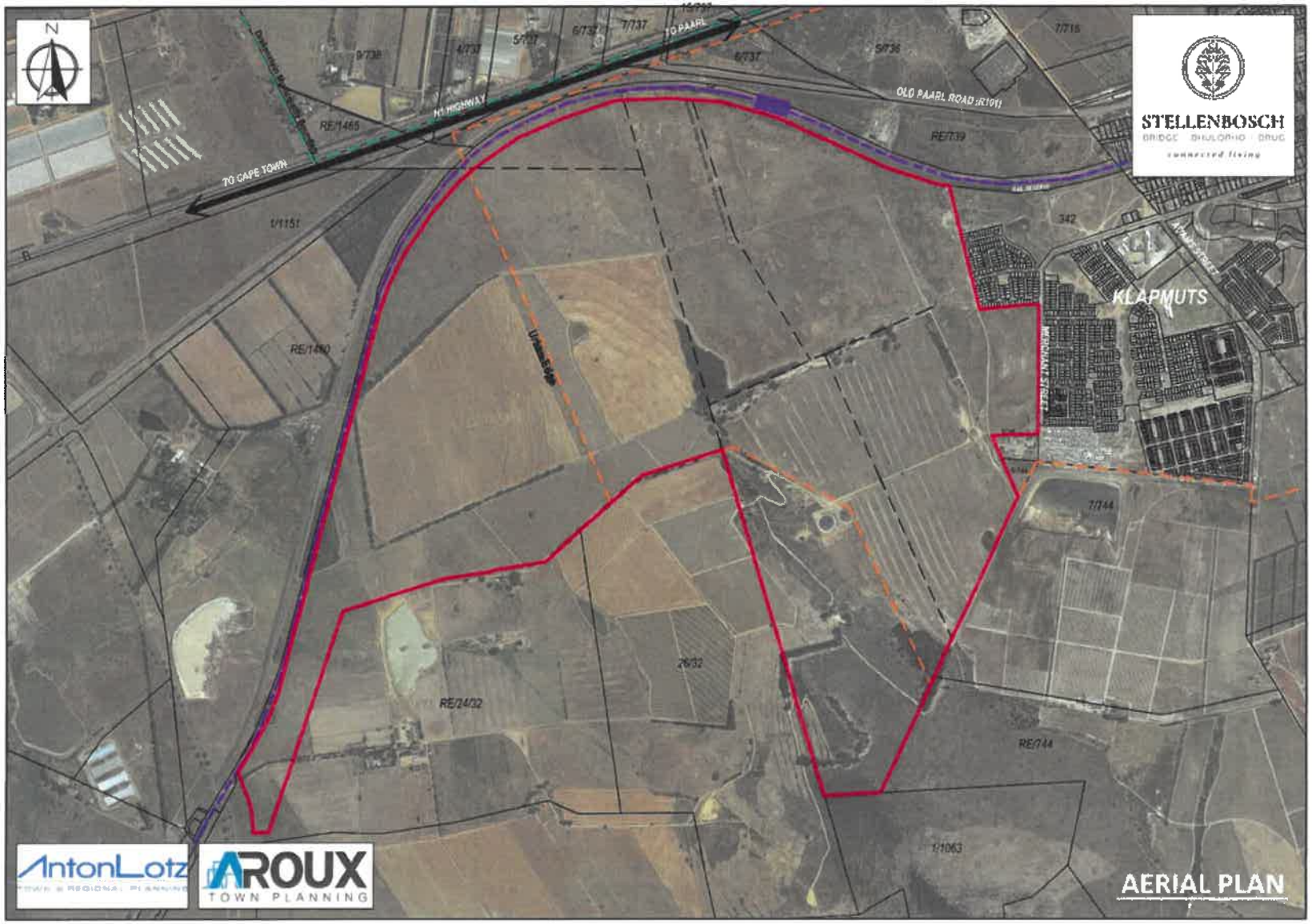


Figure 4: The Site

Figure 5: Panoramic Photographs

4.0 DEVELOPMENT CONCEPT

The Vision for Stellenbosch Bridge:

'A dynamic, innovative, collaborative and sustainable hub, building bridges locally and globally.'

4.1 DEVELOPMENT GOALS

To achieve the vision the development will be based on the following development principles:

- **Sustainability**

Sustainability should inform all aspects of the development. Meeting current development needs without compromising the ability of future generations to meet theirs should inform its planning and decision-making processes. This includes protecting and enhancing the natural environment; ensuring resource management; balancing environmental, social and economic needs; pursuing biophilic design; enhancing circular resource flows; and integrating sustainable designs for all spaces, buildings and services.

- **Human Scale**

The development should have a people-centric urban form. Walkability is central to its success – its zoning should allow a higher density, mix of uses designed around safe and dynamic public spaces and streets encouraging human interaction and promoting a healthy and active lifestyle. Shops, jobs, amenities and social activities should be at a walkable distance from workplaces and higher-density residential areas.

- **Conviviality**

The development design and layout should foster social interaction through the creation of a hierarchy of places, devised for the full range of social relations, from opportunities for personal solitude to friendship and community life. Vibrant towns are interactive and socially engaging and offer diverse social and economic groups opportunities for gathering and interaction in a range of safe public spaces.

- **Efficiency**

The development should create a compact, high-density urban form which results in more efficient urban systems including services and transport. It encourages optimum use of land, roads, facilities, services and infrastructural networks, reducing per household costs, while increasing affordability, productivity, access and civic viability. Efficiency promotes a balance between the consumption of resources such as energy, time and money, and planned achievements in comfort, safety, security, access, tenure, productivity and hygiene.

- **Innovation**

The development should pioneer initiatives for the incorporation of information and communications technology (ICT) and Internet of Things (IoT) into all aspects of the urban ecosystem. The mixed-use environment and urban management will benefit from a fusion of design thinking with the technological advancements facilitating local solutions; social and technological innovation; entrepreneurship; optimisation of infrastructure; connected living; smart city management; green and clean technologies; use of smart and sustainable materials; off-grid energy solutions; and a move towards zero-waste.

- **Opportunity**

The development should create an environment for personal, social, and economic opportunity. This is achieved by facilitating access to a range of places, services, facilities and information providing a variety of opportunities for enhanced employment, economic engagement, education, and recreation.

The emergent knowledge-based economy on which this development is based is changing urban fabric and functioning and requires new approaches to the integration of complementary sectors and land uses. The development should play an equalizing role in allowing all citizens to grow and access opportunities according to their capabilities and efforts.

- **Integration**

The development should integrate into the larger environmental, socio-economic and cultural-geographic system, essential for its sustainability. The integration into various contexts from local level to global level are relevant with a focus on the direct zones of influence including the Klapmuts town and the Stellenbosch Municipality and Winelands region.

Integration within the local context include respect for the environmental features and cultural heritage of the place; considered physical linkages via roads, services and land use; understanding of the social challenges faced by the communities; and insight into the economic needs of its people.

- **Social Justice**

The development should strive to be a leader in the social and economic upliftment of previously disadvantaged communities. The social stability of South Africa is dependent on communities working together to create equal opportunity and quality of life. Stellenbosch Bridge will be a catalyst for the improvement of the social well-being and prosperity of the communities of Klapmuts and will seek expanding the benefit of its innovation and economic opportunity to uplift the people within its zones of influence.

- **Integrity**

The development should be implemented and managed by means of accountable, transparent, and competent decision-making. This includes a long-term commitment by management and other role-players to the vision and principles; sustainable management practices; leadership in decision-making; a transparent system of participation for residents and other stakeholders; adherence to a system of design and development review; and opportunities for wider stakeholder responsibility in the implementation of the project.

4.2 DEVELOPMENT OBJECTIVES

The development objectives for this development are the following:

- **Environmental Sustainability**: All aspects of the development will contribute to environmental sustainability, achieving a Sustainable Precinct Certification (First 5-star GBCSA rating in Africa).
- **Creating an Entrepreneurial Ecosystem**: The innovation precinct will form the heart of an economically connected mixed-use development linking various sectors in an integrated business environment.
- **Spatial Innovation**: The planning approach and urban design will result in a multi-faceted, human-scaled, robust development that can rapidly respond to change, allowing the incorporation of new ideas and concepts. The mixed-use zoning will allow the integration of a broad range of uses in within a dynamic urban environment.
- **Connecting to Global and Local Contexts**: The project will build connections within the global innovation community whilst integrating physically, economically and socially with the Klapmuts town and the wider region.
- **Architectural Design that Acknowledge its Unique Cape Heritage**: The architecture for the project acknowledges the Cape heritage elements and integrates the fundamentals thereof with modern design components introduced through the innovation and biophilic design focus.
- **Integrated and Connected Communities**: The robust urban design framework facilitates social interaction, building integration and connection between its people and communities.
- **Socially Vibrant, Safe and Secure Communities**: The development will provide a safe and secure environment for residents and visitors, making them welcome in a socially vibrant active, healthy, and integrated community.
- **Use of Innovative Technologies**: Innovation will be encouraged and integrated in all levels of planning and implementation.
- **Active Precinct Management**: Hands-on management of the urban environment and smart city services and technology will be the foundation of the success of the development.

4.3 DEVELOPMENT POLICIES

To achieve the goals and objectives of this development the following development policies are proposed:

- **Smart City**: An urban ecosystem based on an ICT and IOT backbone should be the basis of all aspects of urban functioning. Technology should be harnessed to create a sustainable urban environment.
- **Mixed-use Development**: A broad mix of land uses should be facilitated to maximise urban infrastructure; create a people-centric urban form; and ensure the efficiency and resilience of the development.
- **Drive towards Higher Density**: Achieving higher urban densities should be pursued to ensure the efficiency and sustainability of the development. Good design principles will ensure that higher density achieves sustainable, healthy living environments.
- **Social Diversity**: Linked to a mix of uses, the development should cater for social and cultural diversity to support a sustainable South African future.
- **Neighbourhood Focus**: The local neighbourhood should become the focus of activity by ensuring that all live, work, play needs are met locally, thereby reducing the need for travel and increasing the sustainability of the development.
- **Dense Diversity**: The development should aim to create housing choice for a range of incomes, mobility, ages and tastes at a high density. Housing developments and mixed-use buildings should allow for the integration of residents' activities and serving of their complimentary non-residential needs.
- **Quality of Semi-private Space**: Housing complexes and high-density residential blocks should provide quality semi-private space that can serve a variety of recreational and functional purposes.
- **Drive towards Renewable Energy and Renewable Resources**: To address resource scarcity, cost considerations and reliability of public-sector supply the development will drive a move towards private sector service provision and alternative energy solutions.
- **Resource Efficiency and Management**: Design and engineering solutions should ensure a reduction in resource demand, result in better management of resources, and facilitate an increase in resource harvesting, recycling & reuse.
- **Robust Urban Design Principles**: A clear design framework and agreed set of principles should be implemented and adhered to in order to create and maintain the envisioned design vision within a dynamic and innovative development environment.
- **Local Identity and Sense of Place**: The design and landscaping should focus on creating a sense of place and a local identity for the project, with landmark buildings, public art, the landscaping theme and the design style contributing to achieving this.
- **Sustainable Design**: Green buildings, green technology and sustainable precincts should be a standard requirement in developments and designs.
- **Safety and Security**: Design solutions together with active and passive security measures should ensure the safety of the development area.
- **Walkability**: To maximise the significant environmental, economic and social benefits the development should ensure walking accessibility of all services and facilities.
- **Perimeter Block Design**: To activate spaces and facilitate safe public environments building frontages along street and open space edges should be required.
- **Activated Street Edges**: Along identified streets active edges should be created to ensure future economic opportunity and commercial activity. The provision of parking and design of parking areas should be carefully considered along these streets.
- **Non-motorised Transport (NMT)**: An integrated NMT system should be planned to support the reduction of internal private transport movement and improve urban efficiency.
- **Accommodation of Private Transport**: Access roads, parking and the design solutions should cater for the private car, but innovation and creativity should drive solutions that will ensure the balancing of pedestrian and cars whilst reducing the need for private transport.
- **Public Realm as a Social Space**: The design and management of the public realm should facilitate opportunity for social interaction.
- **Quality of Place**: Design quality should form a cornerstone of all aspects of the development.
- **Design for Changing Uses**: Building and services design should be able to accommodate changing user demands and land uses over time.

- **Health and Wellness:** The development should pro-actively design and cater for the physical, mental, and social well-being of its communities.
- **Local Context:** The development as a catalyst for the socio-economic transformation of Klapmuts should be sensitive to the town, its communities, and the landscape.
- **Network of Public Spaces:** To facilitate access, use and safety all public spaces should be linked into an integrated, legible public space network.
- **Access to Green Space:** The development should facilitate access to its natural and agricultural surroundings and create a variety of urban parks providing opportunity for sport, recreation and socialization.
- **Urban Greening and Sustainable Architecture:** To expand its environmental, social and health benefits, site and building design should incorporate biophilic principles.
- **Sustainable Environmental Management**: The implementation of the development should be based on an environmental management system.
- **Development Management**: Systems of design review and precinct management should be set up to ensure the implementation of the development policies and guidelines.
- **Community Participation:** Mechanisms should be created to facilitate community participation in and feedback on the attainment of the development goals and objectives.
- **Innovation:** The development concept and implementation should provide the flexibility to respond to new ideas and concepts in a rapidly changing environment.

4.4 DEVELOPMENT COMPONENTS

Stellenbosch Bridge is a visionary development – it is a private sector-led initiative that combines two leading-edge global concepts – **innovation district** and **smart city** – to create a knowledge economy-based focus area within a **mixed-use, environmentally conscious, people-centred** location. These five components are integrated to create a vibrant **live-work-play-innovate development**. The main components and planning focus are:

- **Innovation Precinct**

An innovation district is a planned, well-managed economic activity hub where a high density of innovation institutions, firms, and other organizations locate to benefit from mutually beneficial interaction, a high-quality innovation ecosystem, and easy access to external role players and markets.

The **Innovation Precinct** is the core of the Stellenbosch Bridge project. (Klapmuts and environs, with Stellenbosch Bridge as its core may, over time, grow into a significant innovation district ecosystem, hence the use of the term Precinct here to allow future expansion.)

It is planned and designed to enable the clustering, co-location and partnering of businesses and organisations in the growth sectors that are central to the future expansion of the Western Cape and South African **knowledge economy** (use of knowledge and education to create a product or service that leads to technical and scientific advance), including Agriculture (e.g. agri-tech and agro-processing); Clean Technology (e.g. energy, waste, water); Bio-Technology (e.g. bio-medical, agri-bio tech); Information and Communication Technology (ICT) and Sport and Gaming. The convergence and interaction of these co-located business clusters will stimulate cooperation and innovation.

Important to a successful innovation district is its research and development (R&D) capability and Incubator offer. Having the **University of Stellenbosch** as a key partner in the Innovation Precinct provides the university-industry collaboration, the research capability and knowledge as well as the commercialization expertise (through Innovus and Launchlab) to assist corporates, business start-ups and other stakeholders to research, develop, commercialise and attract investment for innovation and entrepreneurial activity.

Important to the success of the Innovation Precinct are planning parameters and zoning rights that can accommodate a range of land uses over time as needs and opportunities evolve; a development that understands and caters for the needs of the whole continuum of innovation role players; adequate engineering and ICT services; being transit accessible from throughout the region and beyond; outstanding precinct management; and an integrated public space system that facilitates interaction, communication and connection in order to share knowledge.

The importance of public spaces where people can socialise is underpinned by the collision density principle – research of innovation districts has found that innovation is stimulated is public squares and places such as coffee shops in which people can meet or 'bump into each other by chance', sharing ideas, building trust and making new connections. In a post-Covid-19 environment with more online interaction, the need for safe spaces for interaction and collaboration will be even more important.

In summary, the Innovation Precinct is a dynamic and creative mixed-use environment where innovative design, a quality public space system and a people-centric focus can help knowledge economy entrepreneurs, established companies, and academic and private-sector ideas-leaders build unexpected relationships and find transformative solutions for the challenges humanity and cities face.

- **Smart City**

The implementation of ICT to drive innovation in the urban environment is often intricately linked to innovation district development. A **Smart City** is defined as a spatial or urban ecosystem which uses ICT and Internet to improve its efficiency, governance and functioning.

Eight functional areas form the basis of smart city implementation: Mobility (e.g. transport sharing, intelligent parking, NMT); Infrastructure (e.g. intelligent networks, digital waste management, preventative maintenance); Energy (e.g. intelligent consumption, smart metering, renewable supply); Buildings (e.g. integrated photovoltaics, climate control, automated services); Technology (e.g. seamless connectivity, smart homes, e-education); Governance (e.g. open space security, community engagement, service payments); Citizens (e.g. energy conscious, job opportunities; social responsibility); and Healthcare (e.g. disaster management, healthcare management, medical monitoring to limit the spread of infections).

Smart technology allows real-time monitoring of systems to better inform strategic decision-making. The development will be more resilient to respond to environmental challenges; more sustainable in resource use and management; can better optimise its services and infrastructure; and will be better equipped to serve the needs of its communities. It allows for efficiencies that will reduce costs on the environment and for the ratepayer.

Benefits of the project's smart technology that can practically be applied to the advantage of the Klapmuts communities will be used for socio-economic upliftment and function improvement of the town, e.g. deployment of the technology to streamline the supply of services and products by small business; to help workers access jobs and register for skills development; and for personal health management.

- **Mixed-use Environment**

Knowledge-based economic activity needs to be integrated into a dynamic mixed-use urban environment. The innovation precinct is designed on the principle of **Flexible Urbanism** – the creation of flexible buildings and spaces that adapt to evolving needs without compromising the urban design vision and under coordinated management.

Housing is an essential component. A diverse assortment of residential opportunities will cater for the full spectrum of family structures. Innovation in design, sustainability and configuration will address the needs and priorities of new, environmentally conscious generations – the talent that is needed for entrepreneurship and innovation to flourish. Higher density is essential to ensure the efficiency and sustainability of the development.

Higher density does not raise the risk of communicable disease such as Covid-19 when high-quality, safe public and semi-private spaces and NMT movement systems are created. The availability of open space and the walkability of the neighbourhood allow the community to be more physically active, thereby reducing the risk of chronic disease, and with that their risk of communicable disease infections.

The R&D component will require laboratories, offices and other facilities for research, design and testing and the production and assembly of prototype products. Innovation districts also incorporate clusters of industry – these service the innovation industry, but also contributes to a balanced urban ecosystem. Smart Manufacturing (Industry 4.0) which pioneers digital automation of manufacturing and uses new technology such as 3D printing can easily integrate into mixed-use environments.

The live and work/innovate components are integrated with the business, recreational, and social facilities. Provision is made for a full range of retail, education, institutional and entertainment uses that will contribute to the liveability of the development. It is anticipated that this integration will happen both vertically (within buildings) and horizontally (with street blocks and precincts).

The technology-driven, creativity-based knowledge economy requires proactive land use management to deal with the dynamic nature thereof. The integration of complementary sectors and land uses and dealing with the challenges of changing urban fabric land use demands and functioning require adaptability.

- **Environmentally Conscious Development**

The term '**Innovating to Zero**' (Frost and Sullivan) speaks of a journey to create environmentally conscious, sustainable cities of the future. This entails efforts to promote for example zero-waste cities, zero-emission zones, zero accidents, zero crime, and zero debt cities.

Stellenbosch Bridge as an innovation-driven smart city will strive to lead thinking and implement innovations and technology that contribute towards this vision. The use of renewable energy; design and engineering solutions that reduce resource demand; circular resource economy; biophilic and sustainable designs of spaces, buildings and services; waste reduction; integration of NMT; convenient pedestrian routes; and social innovation are some of the measures to be implemented to better balance the environmental, social and economic needs of this development.

- **People-Centred Place-making**

The development is underpinned by a focus on **Quality of Life**, where emphasis is placed on enjoyment and living a healthy and active lifestyle. It includes a Design for Community - a layout that fosters inclusion, equal opportunity and choice; and the opportunity to live closer to each other and being better able to mingle in central spaces, streets, and other outdoor places; and a Place for Self – space for personal health and wellness (mind, body, soul) by integrating opportunities for quite reflection, exercise and inspiration.

The design of the integrated open space system enhances the liveability, making it easier to walk, bike, and use other NMT to work, socialize, and make meaningful connections. Open space areas include cafes and other facilities which encourage people to interact with each other. Methods such as triangulation are used to facilitate conviviality in public places and streets.

The utilisation of semi-private space such as green roofs and community gardens within courtyards will also enhance social interaction and personal fulfilment while contributing to the sustainability of the development.

4.5 DEVELOPMENT ELEMENTS

Stellenbosch Bridge is made up of a number of development and open space precincts. These precincts are integrated through a central open space system. The main elements of this development are:

- **Precinct A (Innovation)**: At the heart is the mixed-use innovation precinct where entrepreneurs, academics and corporates connect to develop and incubate new products and services for fast-growing and promising industry clusters. Residential, manufacturing, business education, social and recreational uses and a transport hub are integrated with innovation uses providing for all aspects of a live-work-play environment designed around a network of public spaces.
- **Precinct B (Residential)**: The precinct is a high-density residential area that incorporates complimentary social and business uses and is designed to provide multi-functional open spaces areas, creating a high-quality living environment.

- **Precinct C (Industrial)**: Linked to the innovation precinct is a green, smart manufacturing and distribution precinct serving the development. Allowance is made for the integration of business uses to expand the functionality of the area.
- **Precinct D (Data Centre)**: The precinct accommodates the main data centre together with business uses requiring high visibility.
- **Integrated Open Space System**: The development is integrated by a central open space system which fulfils a variety of social, economic, environmental, service, and recreational functions.
- **Pedestrian/NMT Network**: An integrated pedestrian/NMT system links the open space system with the development precincts and surrounding built fabric.
- **Destination Places**: The central square is the primary destination place to the development forming an economic and social focal point. It is supported by a variety of smaller public squares and open space destination places such as water features, eventing facilities and a labyrinth.
- **Road System**: The development is served by a primary public road system linking to Klapmuts and the regional road network. A secondary road network of private roads providing internal circulation.
- **Precinct E (Agricultural Research)**: The land outside the urban edge will be used for agricultural research related to the agriculture innovation cluster, renewable energy provision, sport and recreation, and tourism.
- **Precinct F (Conservation)**: The natural vegetation area located on the ridgeline south of the development area is protected (excluded from the urban edge). It links the development to Klapmutskop and will provide recreational, tourism and environmental education opportunities.

4.6 URBAN DESIGN APPROACH (Osmond Lange Architects)

The urban design concept (Refer to **Figure 6**) for the Stellenbosch Bridge development is based on traditional urban design principles which provides living, working and recreational spaces for a diverse community of people in combination with creating a catalytic environment that provides opportunities for technological and social enhancements which define a smart city.

The Urban Design vision is based on the following urban design principles:

- Daily needs within walking distance (mixed-use environment)
- Interconnected system of streets
- A central focus: main streets and square
- Perimeter buildings orientated to the public realm
- Clear distinction between private and public space
- Sharing of infrastructure over a 24-hour period

The design of the mixed-use environment will focus on place-making, urban fit and spatial integration. The development can contribute significantly to the transformation of Klapmuts to a location to be experienced and enjoyed at pedestrian scale across boundaries. This aim becomes possible because of the critical mass of built form, mix of uses and the relationship of mass to a designed external and internal open space system. A place where many different building types, allowing for a variety of experiences and functions can exist side by side within a unified whole.

The individual buildings will have strong features, differ in detail, but will be part of the "same family". The development spine is a north-south pedestrian street linking two main squares around which all the parts of the development are collected and grouped. The area will be a safe pedestrian environment in which open walls, streets, squares, parks and sports fields are articulated as positive spaces, providing an array of experiences and functions

Parking will be accommodated on streets and within courtyards, semi-basements and basements concealed within the development. From inception the development will use the materials and technology required to achieve a GBCSA rating. Landscaping and a green environment are integral to the architecture. Vertical and horizontal planes will be planted, and planting will be integral to the design of outdoor spaces and courts, which will be wind-sheltered and contain features such as arbours, structured planting, fountains, pergolas, street furniture and sculptures.

Stellenbosch Bridge via the central transport node, roads and pedestrian routes will integrate seamlessly with the surrounding built fabric and its network of routes and connections. It also maximizes the site conditions, taking advantage of the magnificent views from the development, whilst the views towards the development have been carefully considered.

Figure 6: Urban Design Concept

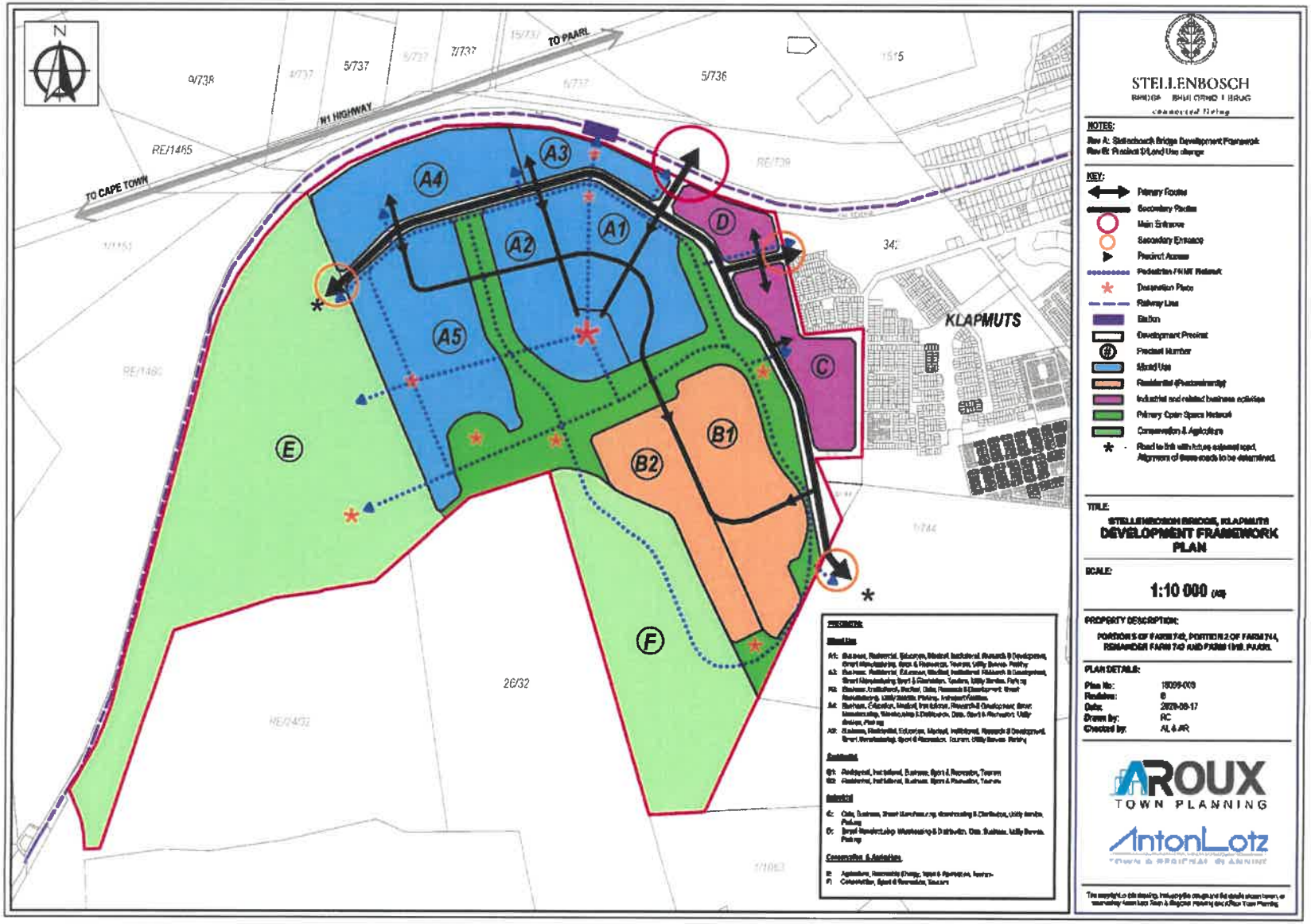


Figure 7: Development Framework Plan

5.0 DEVELOPMENT FRAMEWORK PLAN

The Development Framework Plan (See **Figure 7**) for the Stellenbosch Bridge sets out the basic physical structure for the development of the site in accordance with the urban design concept.

It identifies the key structuring elements that will guide future development implementation for the project.

5.1 ACCESS POINTS

The development will be accessed by means of four new vehicular/pedestrian accesses from the R101 (Old Paarl Road), R44 (Stellenbosch Road), DR 1090 (Elsenburg Road) and a link via Merchant Street as well as a new railway station:

- The primary access is a northerly link to the R101 via an underpass under the railway line. This access will link the development to the N1 via the existing R44 Interchange as well as a new interchange at the Groenfontein Road location.
- Three secondary accesses will be phased in (the regional road network plan will determine the timing and priority):
  - Merchant Street link: This access will have an integration function between the development and Klapmuts, providing for lower-order distribution only.
  - R44 Access: A road link to the R44 will provide access from the south-east.
  - DR 1090 Access: A road link to the Elsenburg Road will provide access from the west.
- Stellenbosch Bridge Station – A new station serving the development is proposed between the Klapmuts and Muldersvlei Stations, providing access from Paarl, Stellenbosch and the Cape Town Metro.

5.2 MOVEMENT ROUTES

Three levels of movement form part of the framework:

- The primary movement system consists of the main north-south route (R101 to R44) as well as the western (Elsenburg Road) and eastern (Merchant Street) link roads that integrate the four road access points and links the development to the broader area.
- The secondary movement system is made up of a network of private roads and accesses that provides internal access and circulation to the precincts.
- The third level of movement involves the Pedestrian/NMT system which will be catered for along the primary and secondary routes as well as the open space system which will ensure a walkable environment and links the development to the broader area.

5.3 OPEN SPACE SYSTEM

The open space system consists of the following:

- Primary Open Space System - the linear network of green spaces incorporating the existing tree lines, tree clumps and enhanced water features within the urban edge. The experience of this space will be enhanced through landscaping and the system will be linked into a wider green network including a link to Klapmutskop.
- Urban Space System - the road spaces and public squares internal to the development precincts. The system will be designed to give pedestrians equal importance of movement and to facilitate social interaction and economic opportunity.
- Destination Places - the central square, public squares and open space destination places such as water features, eventing facilities and the labyrinth. These places form focal points in the open space system and facilitate use, pedestrian movement, economic opportunity and social interaction.

5.4 PRECINCTS

The site is divided into four development precincts (with sub-precincts to facilitate phasing) and two open space precincts. Each precinct has been allocated a primary use category being 1) Innovation, 2) Residential, 3) Industrial, 4) Data Centre, 5) Agricultural Research or 6) Conservation. The precincts, use category together and proposed zoning are listed below:

- **Precinct A** (Innovation): The innovation precinct (Sub-Precincts A1 – A5) integrates all aspects of a live-work-play-innovate environment around a network of public spaces. The proposed zoning is Mixed-use Zone.
- **Precinct B** (Residential): The high-density residential precinct (Sub-precincts B1 and B2) incorporates complimentary social and business uses and multi-functional open spaces areas to create a high-quality living environment. The proposed zoning is Multi-unit Residential Zone.
- **Precinct C** (Industrial): The green and smart industrial precinct. The proposed zoning is Industrial Zone.
- **Precinct D** (Data Centre): The precinct accommodating the main data centre. The proposed zoning is Industrial Zone.
- **Precinct E** (Agricultural Research): The land area west of the urban edge. The zoning is Agriculture and Rural Zone.
- **Precinct F** (Conservation): The natural vegetation area south of the development area. The zoning is Agriculture and Rural Zone.

5.5 LAND USES

- **Precinct A** (Innovation) – Mixed-Use Zone:
  - Precinct A1 - Business, Residential, Education, Medical, Institutional, Research and Development, Smart Manufacturing, Sport, Gaming and Recreation, Tourism, Utility Service, Parking, Private Open Space, Private Road.
  - Precinct A2 – Business, Residential, Education, Medical, Institutional, Research and Development, Smart Manufacturing Sport, Gaming and Recreation, Tourism, Utility Service, Parking, Private Open Space, Private Road.
  - Precinct A3 – Business, Institutional, Medical, Data Centre, Research and Development, Smart Manufacturing, Utility Service, Parking, Transport Facilities, Private Open Space, Private Road.
  - Precinct A4 - Business, Education, Medical, Institutional, Research and Development, Smart Manufacturing, Warehousing and Distribution, Data Centre, Sport, Gaming and Recreation, Utility Service, Parking, Private Open Space, Private Road.
  - Precinct A5 - Business, Residential, Education, Medical, Institutional, Research and Development, Smart Manufacturing Sport, Gaming and Recreation, Tourism, Utility Service, Parking, Private Open Space, Private Road.
- **Precinct B** (Residential) - Multi-unit Residential:
  - Precinct B1 – Residential, Institutional, Business, Sport and Recreation, Tourism, Private Open Space, Private Road.
  - Precinct B2 – Residential, Institutional, Business, Sport and Recreation, Tourism, Private Open Space, Private Road.
- **Precinct C** (Industrial) – Industrial: Data Centre, Business, Smart Manufacturing, Warehousing, Logistics and Distribution, Utility Service, Parking, Private Open Space, Private Road.
- **Precinct D** (Data Centre) - Industrial: Data Centre, Smart Manufacturing, Business, Utility Service, Parking, Private Open Space, Private Road.
- **Precinct E** (Agricultural Research) - Agriculture and Rural: Agricultural Research, Renewable Energy, Sport and Recreation, Tourism.
- **Precinct F** (Conservation) - Agriculture and Rural: Conservation, Sport and Recreation, Tourism, Environmental Education.

In addition to the land uses contained and defined in the Stellenbosch Municipality Zoning Scheme Bylaw, 2018 the following uses are proposed:

- **Smart Manufacturing**: Computer-integrated manufacturing that uses data analytics, advanced robotics, 3D printing and/or a flexible technical workforce in an optimised, dynamic supply chain.
- **Research and Development**: Two related processes by which new products and services are created through technological innovation. It requires laboratories, offices and other facilities for research, development, design, testing and consultation as well as space for the production and assembly of prototype products.
- **Data Centre**: A facility for a large group of networked computer servers used by organizations for the remote storage, processing, or distribution of large amounts of data.
- **Gaming**: The playing electronic games through consoles, computers, or any other medium for which event venues such as halls, competition facilities and accommodation are required.

6.0 DEVELOPMENT RIGHTS

6.1 IMPLEMENTATION

The development vision is to create a knowledge economy-driven development set within a vibrant, mixed-use, sustainable, people-centred environment, but international precedent has shown that such innovation-driven, smart environments need dynamic land use management to facilitate swift reaction to rapidly-changing circumstances. In addition, the post-COVID world will be an irrevocably altered urban landscape with changes in land use demand and urban management that cannot yet be anticipated. To position this development to survive and thrive in these unpredictable circumstances, its planning and implementation need to be **Future Proactive.** It requires a strategy that allows flexibility but within clear controls. The basis of achieving a Future Proactive development is the **F.I.R.S.T. Principles:**

- **Flexibility:** Capability to adapt to changing circumstances by planning for it proactively – the package of plans, approvals and roll-out of design concept and services need to allow flexibility within broad approvals.
- **Innovation**: Being open to and able to respond to new thinking in a rapidly changing environment – the design guidelines, design review and implementation approach should provide scope to incorporate new ideas and concepts.
- **Resilience:** Ability to prepare for, recover from, and absorb changes – the mixed-use nature of the development proposal allows this project to broaden its resilience by being diverse, dynamic, inclusive and accessible. This will be applicable to the economic, social, environmental, management, transportation and services components of the project.
- **Sustainability**: Ability to maintain a balance between economic, social and environmental demands – the project's social context, together with its economic potential and environmental innovation puts it in a unique position to create and maintain a world-leading position in sustainability.
- **Thresholds**: Identification of clear limits at which action need to be taken or investments made to maintain the balance of the development and its environment – the management of development impact by monitoring development impact thresholds will allow land use flexibility and enable a more efficient response to changes in market demand and development opportunities.

The following interlinked Development Controls Mechanisms will be used to ensure the Future Proactive nature of this project:

- **Package of Plans:** The phased process of approval allows confirmation of rights as implementation happens. The incremental allocation of the basket of rights (Section 6.2) will be done by means of Precincts Plans and Site Development Plans (in the absence of Subdivision Plans as the development will be a Sectional Title Scheme) and will facilitate roll-out according to the demand timing of the various market elements and variability in the take-up rate.
- **Mixed-Use Zone:** The Innovation Precinct will be allocated a Mixed-use Zoning and development parameters in terms of the Stellenbosch Municipality Zoning Scheme Regulations, 2018 providing for the widest range of uses to facilitate the integrated nature thereof. Land uses not provided for under this zone and revised development parameters could be included by means of an overlay zone or similar mechanism.
- **Floating Floor Area:** The development entity will become an Independent Power Supplier and current legislation limits the number of erven the IPS may serve – the entire development area will be subdivided and consolidated to create four development erven, each functioning as a sectional title scheme to which rights from the basket will be allocated. It is proposed that part of the total basket of rights function as a floor area float – these rights will only be required once all approvals are in place, the detailed planning has been finalized and rights already allocated to that Precinct have been used but the additional rights fit in with the vision and the urban design guidelines. This will allow flexibility to respond to future demand changes and new land use options.
- **Threshold Planning:** The starting point is a land use base scenario for the total development on which the upper limit of service and infrastructure demands is calculated. The required infrastructure improvements for roads, civil and electrical services are agreed and captured in a service level agreement (SLA). These services thresholds, together with the development register and urban design guidelines are used to monitor land use implementation within the overall basket, allowing flexibility in the phasing, composition, and location thereof. The efficiency of the development is improved as infrastructure is implemented as and when required and allows flexibility to adjust land use combinations according to market demand without negatively impacting the broader area.

- **Development Register:** Each implementation application will be accompanied by a Development Register Summary, Traffic Statement and Services Statement to confirm the availability of the floor area, balance of rights available and adherence to the services thresholds.
- **GBCSA Sustainable Precinct Certification:** The Certification is monitored and requires continued action in various categories which will assist in focussing the implementation on achieving its sustainability goals.
- **Development Manual and Design Review Process:** Adherence to the urban design guidelines is managed through the design review process.

6.2 BASKET OF RIGHTS

The land use rights to achieve the mixed-use development vision is summarised in **Table 1.** This basket is considered the land use base scenario:

Table 1: Basket of Rights

Precincts	Residential	Business	Industrial	Institutional	Other
	Dwelling units du	Floor Area - m²	Floor Area - m²	Floor Area - m²	Floor Area - m²
Precinct A	**2 500**	**243 000**	**43 000**	**144 000**	**13 500**
A1	600	145 500	-	43 500	3 500
A2	450	43 500	-	38 700	-
A3	-	15 000	12 000	-	-
A4	-	-	31 000	20 000	-
A5	1 450	39 000	-	38 300	10 000
Precinct B	**2 500**	-	-	-	-
B1	1 600	-	-	-	-
B2	900	-	-	-	-
Precinct C	-	-	**75 500**	-	-
Precinct D	-	**10 000**	**15 000**	-	-
Floating	**1 000**	**35 000**	**40 000**	**24 000**	**17 000**
Sub-Total	**6 000**	**288 000**	**193 500**	**168 000**	**30 500**
TOTAL	**6 000**				**680 000**

The Basket of Rights will be applied for incrementally according to the application schedule agreed with the Municipality. These rights will be allocated per precinct and sub-precinct and part thereof will be used as floating floor area.

Once the final land use approval is granted for the areas recently incorporated into the Klapmuts urban edge the various subdivisions will be consolidated to create four development erven that will each be registered as a sectional title scheme. No further subdivision will be required. It is the intention that the land use rights allocated to the sub-precincts of A and B can be utilised throughout the consolidated erven A & B as guided by the approved Precinct Plans, land use allocations and urban design guidelines.

The floating floor area will be allocated when the rights of a specific land use category have been allocated and the urban design concept can accommodate the additional rights or when a use that is complimentary to the predominant land use of that precinct is proposed for which provision was not made in the base land use scenario. Ultimately, provision could also be made for the reallocation of rights between the land use categories if these changes do not exceed the services thresholds planned for in the land use base scenario. These additions or changes will be done only if the development control mechanisms are satisfied and in agreement with the Stellenbosch Municipality.

6.3 PHASING AND SERVICES ROLL-OUT

The roll-out of development rights and implementation of services for this project will facilitate development within the following precincts as based on the services thresholds set out in **Table 2:**

- Precincts A1, B1, C and D
- Precincts A3 and B2
- Precincts A2, A4 and A5

The urban design framework will play an essential role in the timing and location of these rights within the precincts as the establishment of the spatial structure and key open space elements such as the central square and pedestrian boulevard are critical to the success of the project.

Table 2: Draft Rights Roll-out and Services Thresholds

Threshold	Water Demand		Sewerage	Electricity	Stormwater	Development Rights (up to)	
	AADD (up to)	Upgrades	Upgrades	Upgrades		Residential	Non-residential
1	Immediately prior to starting development, will create capacity up to 1 300kl/day	• Master plan items • SKW1.1, SKW1.2a, SKW1.2b, SKW1.12 (Supply to Lower Reservoir) • SKW1.5, SKW1.9a, SKW1.9b, SKW1.10, SKW1.11, SKW1.15, SKW1.16, SKW1.21 & SKW1.27 (Appl 1 & 2 bulk network)	• Master plan items SK2.4, SK2.5, SK2.6, SK2.7, SK2.8	• Brick-built switching substation • Primary MV cabling from Eskom 132/11kV step-down substation • Four secondary MV cable bulk supplies • 132/11kV step-down substation • new brick-built switching substation, • interlinking primary MV cabling and secondary MV cable rings	• Stormwater management plan to finalise improvements	1 577 units	118 500m²
						Applications 1 & 2	
2				• Further brick-built switching substations • Primary MV cabling from 132/11kV step-down substation and • Secondary MV cable rings		1 900 units	222 500m²
3			• Master plan items SKS2.4 to SKS2.8	• Further brick-built switching substations • Primary MV cabling from 132/11kV step-down substation and • Secondary MV cable rings	• Stormwater management plan to finalise	2 200 units	322 500m²
						Application 3	
4	1 900kl/day	• Master Plan items SKW.B1, SKW.B3 & SKW.B4		• Brick-built switching substation • Primary MV cabling from Eskom 132/11kV step-down substation • Four secondary MV cable bulk supplies		2 983 units or 2 440 units	278 700m² or 400 700m²
5	4 060kl/day	• New 12,0 ML reservoir • Further master plan items to be finalised	• SKS1.8, SKS1.13, SKS1.14, SKS5.2 & SKS5.3 • SKS1.7, SKS6.2, SKS 6.3 • SKS1.12 & SKS 7.3 • Upgrade Klapmuts WWTW	• 132/11kV step-down substation • new brick-built switching substation, • interlinking primary MV cabling and secondary MV cable rings	• Stormwater management plan to finalise	6 000 units	680 000m²
						Application 4	
Threshold	**Roads**					**Development Rights (up to)**	
	Upgrades					Residential	Non-residential
Background	• Dualling of R44 between N1 & Klapmuts-Simondium Rd • Upgrade of N1/R44 & N1/R304 interchanges • Upgrade of R304/Old Paarl Rd intersection • Left-turn lanes on two R44-approaches to R44/Klapmuts –Simondium Rd intersection						
1	• Access road link to Merchant St & roundabout at the Merchant St/access road intersection • Realignment of section of Merchant St & roundabout at the Groenfontein Rd/Merchant St intersection • Underpass-road (dual) (Klapmuts Hills Rd) between Old Paarl Rd and Merchant access road link & roundabouts • Klapmuts Hills single lane road from link Merchant access road to second industrial access (Precinct C) • Dualling of Old Paarl Rd between Groenfontein Rd and underpass road & roundabouts at intersections • Dedicated left-turn lane along the Stellengate Boulevard-approach to the R44 intersection					1 577 units	118 500m²
						Applications 1 & 2	
3	• Groenfontein Rd-interchange on N1 • Upgrade/dualling of Groenfontein Rd between interchange and Old Paarl Rd with roundabout at intersection • Dualling of Klapmuts Hills Rd between underpass-road and access road link to Merchant St • Extension of Klapmuts Hills Rd to Precinct B second access					2 200 units	322 500m²
						Application 3	
5	• To be completed following Regional Road Network Study prior to submission of Application 4					6 000 units	680 000m²
						Application 4	

7.0 CONCLUSION

It is the intention of Stellenbosch Bridge (Pty) Ltd to develop this property over the next 15 to 20 years, fully integrated into the larger Stellenbosch spatial vision, and with the participation of its stakeholders. This will include the Stellenbosch Municipality, University of Stellenbosch, the Klapmuts community and the communities that will live, work, innovate and socialise within the development.

Facing challenges such as climate change, diminishing city resources, rapid population growth as well as increasing traffic congestion, social divergence and socio-economic hardship, the developments of tomorrow need to be more flexible, innovative, resilient and sustainable.

The post-COVID world that we are about enter, requires a development concept that is robust and adaptable to survive and thrive in an irrevocably altered urban landscape. We cannot anticipate how the urban landscape is going to change, but we can incorporate the flexibility into the spatial framework, roll-out mechanisms, and basket of rights to allow the development to pro-actively respond to these changes.

The development intent is to create a knowledge economy-driven development set within a vibrant, mixed-use, sustainable, people-centred environment. Stellenbosch Bridge integrates the leading-edge global concepts – smart cities and innovation precincts which creates high-impact synergies that will attract innovative and high-performance companies to locate and thrive within the development. It is a place where individual brilliance and talent meets resourced establishments, venture capitalists and government support.

Stellenbosch Bridge will enhance business development and innovation through clustering, and co-location of fast-growing sectors and public and private research establishments from South Africa, Africa and the rest of the World. The emphasis on state-of-the-art technology and smart systems will ensure that Stellenbosch Bridge is the premier address to locate a business on the African continent. The accessible location of Stellenbosch Bridge will be strengthened through virtual networks that span globally.

The design of the mixed-use environment will focus on place-making, urban fit and spatial integration. The development can also contribute significantly to the transformation of Klapmuts to a location to be experienced and enjoyed at pedestrian scale.

The incorporation of liveability and sustainability is key. Liveability considers measures such as quality of life and walkability. The design of the integrated open space system enhances the liveability, making it easier move, socialize, and make meaningful connections. The aesthetics and user-friendliness of the urban spaces and open space network will be part of the attraction.

Sustainability considers ecological design and inclusive development – the ability to maintain a balance between economic, social and environmental demands – the project's social context, together with its economic potential and environmental innovation puts it in a unique position to create and maintain a world-leading position in sustainability.

Stellenbosch Bridge will facilitate investment in local people encouraging skills development, capability building and job creation. It will be an inclusive and sustainable development that will benefit its communities for generations to come. The developers have committed themselves to contributing to the improvement of the urban landscape and physical environment as well as the social upliftment and economic well-being of its communities as part of the success of this ground-breaking project.

International precedent has shown that innovation-driven, smart environments need dynamic land use management to facilitate swift reaction to rapidly changing circumstances. To achieve this requires a strong urban design concept, a clear development framework and active management within which investment, economic development and communities can flourish. By using services thresholds various land use implementation scenarios can play out within the capacity of services infrastructure.

Stellenbosch Bridge is one of the most significant and innovative mixed-use developments to be undertaken in the Western Cape in recent years.

Prepared for:

STELLENBOSCH
BRIDGE I IBHULORHO I BRUG

Stellenbosch Bridge (Pty) Ltd

By:

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WEC Consulting Engineers
GLS Consulting
Sustnet

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ANNEXURE D

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PORTION 5 OF FARM 742, PAARL

APPLICATION FOR AMENDMENT OF CONDITIONS OF APPROVAL, AMENDMENT OF APPROVED SUBDIVISION & ZONING PLAN, COUNCIL'S CONSENT, COUNCIL'S PERMISSION AND APPROVAL OF THE STELLENBOSCH BRIDGE DEVELOPMENT FRAMEWORK ("APPLICATION 3")

PREPARED ON BEHALF OF STELLENBOSCH BRIDGE PROPERTIES (PTY) LTD

SEPTEMBER 2020
(REVISION 1)

AntonLotz
TOWN & REGIONAL PLANNING

PORTION 5 OF FARM 742, PAARL

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STELLENBOSCH
BRIDGE BHULORHO BRUG
connected living

PREPARED BY

AntonLotz
TOWN & REGIONAL PLANNING

ANTON LOTZ TOWN & REGIONAL PLANNING

ASSISTED BY

AROUX
TOWN PLANNING

AROUX TOWN PLANNING

IN ASSOCATION WITH

Osmond & Lange Architects
Legacy Environmental Management Consultants
De Villiers and Moore Consulting Engineers
UDS Africa Consulting Services
WEC Consulting Engineers
GLS Consulting
Sustnet

EXECUTIVE SUMMARY

THE APPLICATION

Table I below provides a summary of the property and application details:

Table I – Summary of Property and Application Details	
Property Description	Portion 5 of Farm 742, Paarl
Registered Owner	Stellenbosch Bridge Properties (Pty) Ltd
Applicant	Anton Lotz Town & Regional Planning (assisted by ARoux Town Planning)
Property Extent	107, 91 ha
Development Area	74,06 ha
Current Zoning	Subdivisional Area
Current Land Use	Vacant / agriculture
Applicable Zoning Scheme	Stellenbosch Municipality Zoning Scheme By-Law 2019
Municipality	Stellenbosch Municipality
Title Deed No.	T23646/2009
Title Deed Restrictions	None
Proposed Development / Land Use	Mixed-Use Development
Subject to PHRA / SAHRA	Required approval has been obtained
Subject to NEMA	Environmental Basic Assessment currently in process.
Policy Compliant	Yes

Application is hereby made for the following in terms of the Stellenbosch Municipality: Land Use Planning By-law:

- Application for **amendment of conditions of approval** to permit the following development rights on Portion 5 of Farm 742, Paarl:
  - 2 200 residential units (2 000 flats and 200 group housing units)
  - 229 500m^2 non-residential floor area (including business, industrial and institutional land uses)

- Application for the **amendment of the approved Subdivision & Zoning Plan** for Portion 5 of Farm 742, Paarl to allocate zonings to the respective portions (currently zoned Subdivisional Area).

- Application for **Council's Consent** to permit Commercial gymnasiums, Conference facilities, Day care, Gambling places, Hospitals, Indoor sport, Liquor Stores, Occasional use (> one event/year), Parking garages, Places of assembly, Places of education, Places of entertainment, Renewable energy structures, Rooftop base telecommunication stations, Tertiary educational institutions, and Warehouses on Portion 2 (zoned Mixed-Use Zone).

- Application for **Council's Consent** to permit Business Premises on the Industrial Zone Spot-zoning on Portion 2.
- Application for **Council's Consent** to permit Business Premises on Portions 3 and 4 (zoned Industrial Zone).
- Application for **Council's permission** to permit flats at ground floor on Portion 2 (zoned Mixed-Use Zone).
- Application for approval of the proposed Stellenbosch Bridge **Development Framework**.

BACKGROUND

- Development rights were previously obtained for a portion of Farm 742/5 which formed the previous Klapmuts Hills development. These rights allowed for 1577 residential units and 23 200m² commercial GLA for retail and other associated facilities.
- A new vision for Klapmuts allowed a reimagination of what the Klapmuts Hills land could be used for. Specialist consultants were appointed to research and design a mixed-use innovation precinct on the landholdings. This led to the formulation of the Stellenbosch Bridge development concept, which also included additional land parcels.
- To facilitate an expedient development roll-out and to utilise the existing development rights on a portion of the site, a series of applications will be submitted. A Package of Plans process is proposed to allow flexibility in the implementation of the approved rights according to appropriate levels of information. The first application in this series was submitted in June 2019 and applied for the reallocation of the existing development right to align with the new Stellenbosch Bridge Master Plan (known as 'Application 1').
- This application is the third application in this series (known as 'Application 3') and applies to the same development area to which the previous development rights were provided (i.e. a portion of Farm 742/5). It includes an application for increased development rights for this portion, as well as the amendment of the approved Subdivision & Zoning Plan (to allocate zonings to the land units). The Stellenbosch Bridge Development Framework is also submitted for Council approval.

THE STELLENBOSCH BRIDGE DEVELOPMENT FRAMEWORK

- Stellenbosch Bridge is a visionary private sector-led project that combines the leading-edge concepts of innovation district and smart city to create a knowledge economy-based focus area within a mixed-use, environmentally conscious, people-centred development. The intent is to create a vibrant live-work-play-innovate development. To achieve this requires a

strong urban design concept, a clear development framework and active management within which investment, economic development and communities can flourish.

- It is the intention of Stellenbosch Bridge (Pty) Ltd to develop this property over the next 15 to 20 years, fully integrated into the larger Stellenbosch spatial vision, and with the participation of its stakeholders. This will include the Stellenbosch Municipality, University of Stellenbosch, the Klapmuts community and the communities that will live, work, innovate and socialise within the development.

- The Development Framework forms the first component of the package plans process for Stellenbosch Bridge and sets out the basic physical structure for the development of the site in accordance with the urban design concept. The structuring elements defined by the Development Framework include Access Points, Movement Routes, Open System and Precincts.

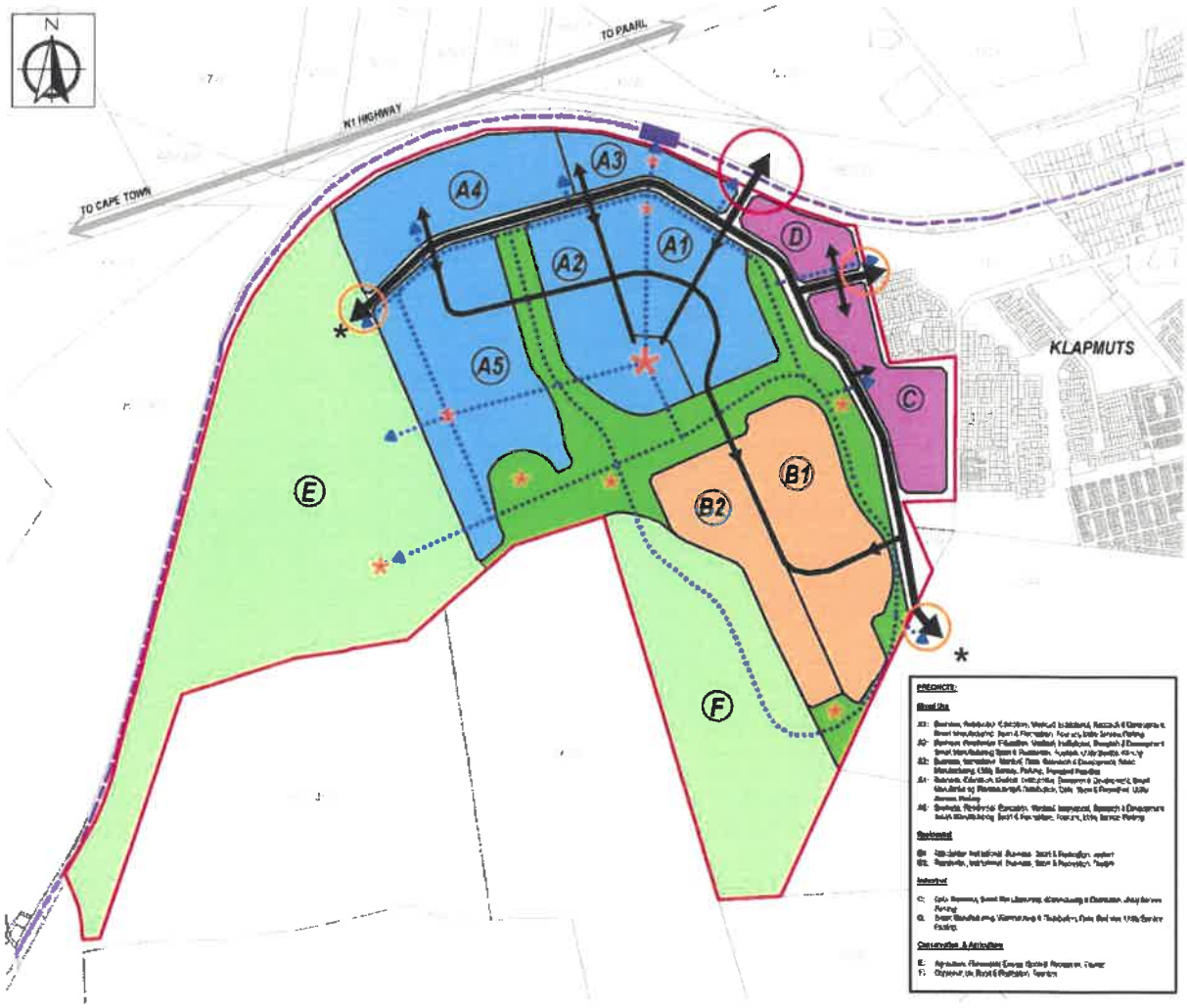
- The proposed development consists of four development precincts, with sub-precincts to facilitate phasing and two open space precincts. Each precinct has been allocated a primary use category:

    - **Precinct A – Innovation:** The innovation precinct (Sub-Precincts A1 – A5) integrates all aspects of a live-work-play-innovate environment around a network of public spaces.
    - **Precinct B – Residential:** The high-density residential precinct (Sub-precincts B1 and B2) incorporates complimentary social and business uses and multi-functional open spaces areas to create a high-quality living environment.
    - **Precinct C – Industrial:** The green and smart industrial precinct.
    - **Precinct D - Data Centre:** The precinct accommodating the main data centre.
    - **Precinct E - Agricultural Research:** The land area west of the urban edge.
    - **Precinct F – Conservation**: The natural vegetation area south of the development area.

- The development will ultimately consist of six main land units, with additional portions to be created for public road reserves, electrical substations, etc. Each of these land units will form a development precinct while Portions A and B will contain a number of sub-precincts.

- These portions will not be subdivided into smaller portions due to electrical requirements. Sectional title schemes will be registered on these portions with sections being created for the various buildings and smaller developments.

- The proposed land units do not correlate with the existing farm portions as some of the land units traverse more than one existing farm portion. The application process for the development therefore involves various subdivisions and consolidations to create the land units which form the respective development precincts, road reserves, open spaces, etc.



The Stellenbosch Bridge Development Framework

BASKET OF RIGHTS

- To position this development to survive and thrive in the post COVID-19 unpredictable circumstances, its planning and implementation need to be Future Proactive. It requires a strategy that allows flexibility but within clear controls. A number of interlinked Development Control Mechanisms are proposed to ensure the Future Proactive Nature of this project, including the Package of Plans approach, the Mixed-Use Zone, Floating Floor Area, Threshold Planning, a Development Register a Development Manual and Design Review Process.

- A Basked of Rights is proposed for the Stellenbosch Bridge development and allows for 6 000 residential units and 680 000 m^2 non-residential floor area across all precincts, in accordance with the Basket of Right Table below. The Basket of Rights will be applied for incrementally

according to the application schedule agreed with the Municipality. These rights will be allocated per precinct and sub-precinct and part thereof will be used as floating floor area.

Table II - Proposed Stellenbosch Basket of Rights					
Precincts	Residential	Business	Industrial	Institutional	Other
	Dwelling units du	Floor Area - m²	Floor Area - m²	Floor Area - m²	Floor Area - m²
Precinct A	**2 500**	**243 000**	**43 000**	**144 000**	**13 500**
A1	600	145 500	-	43 500	3 500
A2	450	43 500	-	38 700	-
A3	-	15 000	12 000	-	-
A4	-	-	31 000	20 000	-
A5	1 450	39 000	-	41 800	10 000
Precinct B	2 500	-	-	-	-
B1	1 600	-	-	-	-
B2	900	-		-	-
Precinct C	-	-	75 500	-	-
Precinct D	-	10 000	15 000	-	-
Floating	1 000	35 000	60 000	24 000	17 000
Sub-Total	**6 000**	**288 000**	**193 500**	**168 000**	**30 500**
TOTAL	**6 000**				**680 000**

THIS APPLICATION

- The purpose of this application is to obtain additional development rights on development footprint that obtained development rights previously, including additional residential units, commercial and industrial floor space, in order to align the development layout and bulk in this area with the draft Stellenbosch Development Framework and Master Development Plan.

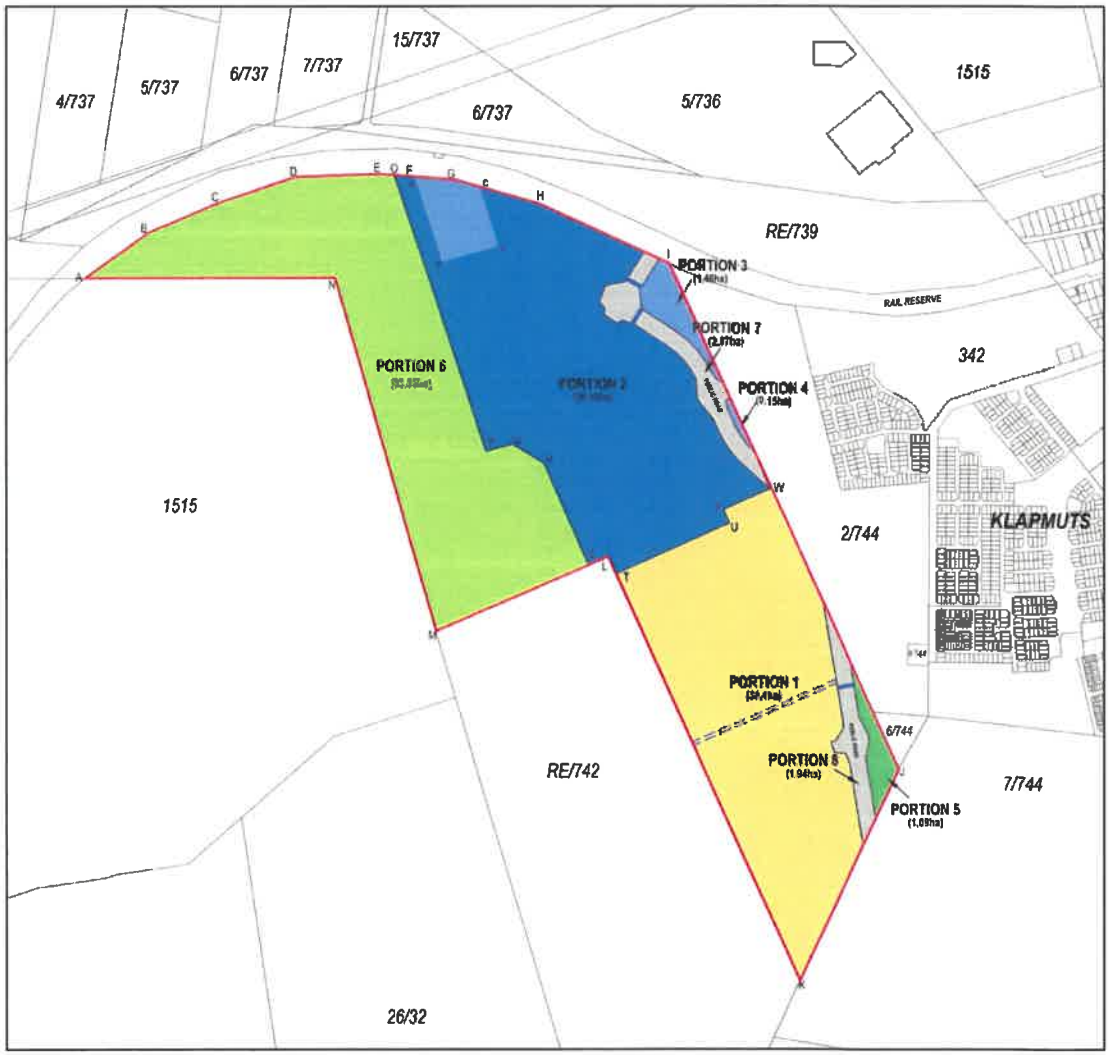
- It is proposed that additional uses be approved to allow a basket of rights for the following:

  - Further 623 residential units to allow **2 200 residential units** (2 000 flats and 200 group housing units)

  - Further 201 500m² to allow **229 500m² non-residential floor area** (including business, industrial and institutional land uses)

- Is also proposed that the approved Subdivision & Zoning Plan be amended to include the allocation of zonings to the portions of this subdivision. The additional development rights being applied for does not change the approved subdivision layout. However, as there is now more clarity on the development layout, the proposed land units and the envisaged final land units, specific zonings can now be allocated to the 8 portions, as follows:

- Portion 1: Multi-Unit Residential Zone.
- Portion 2: Mixed-Use Zone with Industrial Zone spot zoning
- Portion 3: Industrial Zone
- Portion 4: Industrial Zone
- Portion 5: Private Open Space
- Portion 6: Agricultural & Rural Zone
- Portion 7: Public Roads & Parking Zone
- Portion 8: Public Roads & Parking Zone



The Proposed Amended Subdivision & Zoning Plan

- The proposed development layout for the subject area remain consistent with the development framework and subdivision plans submitted as part of Application 1. The development in this area is separated into two components, which will ultimately form part of two separate precincts, namely:

- A predominantly residential component to the south (on Portion 1 of the approved subdivision plan) which will form Precinct B1; and
- A mixed-use component to the north (on Portion 2 of the approved subdivision plan) forming Precincts A1 and A3 as well as a portion of Precinct D.

- The residential component on the southern portion will accommodate a total of 1 600 residential units, which will mostly be in the form of high- and medium-density sectional-title schemes.

- The 229 500m^2 non-residential floor area is proposed to be allocated to the mixed-use and industrial component precincts. The mixed-use area will form the centre of the Innovation Precinct and will accommodate business, residential, education, medical, institutional, data centre, research and development, smart manufacturing, sport, gaming and recreation, tourism, utility service, parking, transport facilities, private open space and private road.

MOTIVATION

- The Stellenbosch Bridge Innovation Precinct and Smart City development will be a major catalyst in achieving the Stellenbosch Municipality's vision to "be a valley of opportunity and innovation" and to attract investment, stimulate economic growth and create employment as part of the 'valley of opportunity' focus area.

- The Stellenbosch SDF (2019) has designated Klapmuts as a Primary Node/Regional Centre (together with town of Stellenbosch) based on it being an area of lesser natural and cultural significance (Low Value Cultural Landscape area) and enjoying strategic transport access.

- The strategic location of Klapmuts alongside the N1 Freeway (designated primary development axis/transport route) and the Cape Town-Johannesburg railway line makes it a potentially significant centre for economic activity and residence within the larger region. Stellenbosch Bridge will kickstart this economic and residential activity.

- Through its designation as a primary development node, the regional role and growth potential of Klapmuts have changed from a residential village to a key urban growth centre. Substantial investment in road and services infrastructure will be required to facilitate this growth and a development project of significant size such as Stellenbosch Bridge is needed to unlock the investment in new infrastructure.

- Stellenbosch Bridge needs a substantial footprint and higher density built form to achieve the scale necessary to ensure its success and attain international innovation status, whilst also integrating a significant central green system. The project's design proposal was carefully constructed to ensure a walkable, mixed-use development that is economically viable whilst pursuing biophilic design principles.

- The development will have a significant socio-economic impact on Klapmuts, the region and the Western Cape. By becoming a world-renowned innovation and smart city development it will stimulate growth and job-creation in an array of sectors.

- Although the Klapmuts area has been designated as an area of lesser natural and cultural significance and bearing in mind the need to ensure visibility, the design proposal will include a range of design and landscaping proposals to mitigate negative visual impacts and create a development that contributes positively to its landscape.

- To change public perception of Klapmuts as a low-income residential village and turn the town into a destination of regional importance, it needs a landmark to locate it in people's mental maps. The visibility of the buildings and design features at Stellenbosch Bridge will create the landmark needed to achieve this.

- It is the intention to achieve certification as the first 5-star GBCSA Sustainable Precinct development in Africa. The developers therefore commit themselves to contributing to the improvement of the urban landscape and physical environment as well as the social upliftment and economic well-being of its communities as part of the success of this ground-breaking project.

CONCLUSION

Anton Lotz Town & Regional Planning recommends that this application, for the amendment of conditions of approval, amendment of the approved Subdivision & Zoning Planning Plan, Council's Consent, Council's Permission and the approval of the Stellenbosch Bridge Development Framework, be considered for approval.

Perspective View of Stellenbosch Bridge

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1.0 INTRODUCTION

1.1 PROPERTY AND APPLICATION DETAILS

Table 1 below provides a summary of the property and application details:

Table 1 – Summary of Property and Application Details	
Property Description	Portion 5 of Farm 742, Paarl
Registered Owner	Stellenbosch Bridge Properties (Pty) Ltd
Applicant	Anton Lotz Town & Regional Planning (assisted by ARoux Town Planning)
Property Extent	109,91 ha
Development Area	74,06 ha
Current Zoning	Subdivisional Area
Current Land Use	Vacant / agriculture
Applicable Zoning Scheme	Stellenbosch Municipality Zoning Scheme By-Law 2019
Municipality	Stellenbosch Municipality
Title Deed No.	T23646/2009
Title Deed Restrictions	None
Proposed Development / Land Use	Mixed-Use Development
Subject to PHRA / SAHRA	Required approval has been obtained
Subject to NEMA	Environmental Basic Assessment currently in process.
Policy Compliant	Yes

Application is hereby made for the following in terms of the Stellenbosch Municipality: Land Use Planning By-law:

- Application for **amendment of conditions of approval** in terms of Section 15(2)(h) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit the following development rights on Portion 5 of Farm 742, Paarl:
    - 2 200 residential units (2 000 flats and 200 group housing units)
    - 229 500m^2 non-residential floor area (including business, industrial and institutional land uses)

- Application for the **amendment of the approved Subdivision & Zoning Plan** for Portion 5 of Farm 742, Paarl in terms of Section 15(2)(h) of the Stellenbosch Municipality Land Use Planning By-Law (2015), to allocate the following zonings:
    - Portion 1: Multi-Unit Residential Zone
    - Portion 2: Mixed-Use Zone with Industrial spot-zoning
    - Portion 3: Industrial Zone
    - Portion 4: Industrial Zone

- Portion 5: Private Open Space
- Portion 6: Agricultural & Rural Zone
- Portion 7: Public Roads & Parking Zone
- Portion 8: Public Roads & Parking Zone

- Application for **Council's Consent** in terms of Section 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit Commercial gymnasiums, Conference facilities, Day care, Gambling places, Hospitals, Indoor sport, Liquor Stores, Occasional use (> one event/year), Parking garages, Places of assembly, Places of education, Places of entertainment, Renewable energy structures, Rooftop base telecommunication stations, Tertiary educational institutions, and Warehouses on Portion 2 (zoned Mixed-Use Zone).

- Application for **Council's Consent** in terms of Section 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit Business Premises on the Industrial Zone Spot-zoning on Portion 2.

- Application for **Council's Consent** in terms of Section 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit Business Premises on Portions 3 and 4 (zoned Industrial Zone).

- Application for **Council's permission** in terms of Section 15(2)(g) of the Stellenbosch Municipality Land Use Planning By-Law (2015) and Item 106(1) of the Stellenbosch Municipality Zoning Scheme By-Law (2019) to permit flats at ground floor on Portion 2 (zoned Mixed-Use Zone).

- Application for approval of the proposed Stellenbosch Bridge **Development Framework** (attached as **Annexure E**).

1.2 BACKGROUND

Klapmuts enjoys the benefit of a strategic location in relation to the Cape Town metropolitan area, Paarl and Stellenbosch as well as excellent regional and national accessibility due to its proximity to the N1 Freeway and the Cape Town - Gauteng railway line. The locational advantages of Klapmuts encouraged a group of investors to form the Stellenbosch Wine and Country (Pty) Ltd and to invest in land adjacent to the Klapmuts urban edge for a large-scale, higher-density residential development that would add higher-income residential units to the town.

After a lengthy process to include the site into the Klapmuts urban edge, get environmental authorization and apply for rezoning and subdivision, the Stellenbosch Municipality granted approval for the Klapmuts Hills development on Portion 3 of Farm 742, Paarl and the Remainder of Farm 742, Paarl (now registered as Portion 5 of Farm

742, Paarl) in 2011 (refer to **Annexure** I). The approval included the development framework, rezoning, subdivision and departures to permit urban development within an approved Basket of Rights which allowed for 1577 residential units and a Gross Lettable Area (GLA) of 23 200m² for retail and other uses for associated services and facilities to the residential development (refer to **Figure 1** below).

Figure 1 – The previously approved Klapmuts Hills development

The residential market was in a deep slump by the time these rights were approved in 2011 which resulted in a significant delay in implementation of the rights. During 2017/2018 Beal Consulting undertook the Klapmuts Special Development Area Economic Feasibility Study on behalf of the Stellenbosch Municipality. This document went through substantial public participation and received widespread endorsement, including from the local community, for the establishment of an innovation hub in Klapmuts.

The new vision for Klapmuts allowed a reimagination of what the Klapmuts Hills land could be used for. At the same time the ownership structure of Stellenbosch Wine and Country (Pty) Ltd went through significant change which resulted in a renaming and rebranding of both the company and the development to Stellenbosch Bridge and Stellenbosch Bridge (Pty) Ltd respectively. Stellenbosch Bridge validated the vision for the landholdings as a dynamic, innovative and sustainable innovation precinct, building bridges locally and globally both socially and economically.

Specialist consultants were appointed with members of the original project team to research and design a mixed-use innovation precinct on the landholdings. The planning team also provided input to the 2018/2019 Stellenbosch MSDF to allow the vision of the Klapmuts innovation hub to guide decisions on the Klapmuts urban edge and spatial budget. Klapmuts has been designated in the Stellenbosch MSDF as the secondary node to the town of Stellenbosch and the growth and development thereof as an innovation hub will hold significant socio-economic benefit for the town and the region.

1.3 THIS APPLICATION AND PROCESS TO DATE

Stellenbosch Bridge is one of the most significant and innovative mixed-use developments to be undertaken in the Western Cape in recent years and it needs to be planned and implemented logically and in phases to ensure the success and viability thereof. At the same time, the development site contains various land units, some of which already have been through application processes and have valid development rights and others that only recently got incorporated into the Klapmuts urban edge and still need to be subjected to various application processes.

Market interest in the innovation precinct is already significant. To avoid unnecessary long process delays which could potentially result in the missing of an economic growth cycle a series of applications have been, and will be, submitted in terms of a clear vision and spatial framework for the innovation precinct to facilitate an expedient roll-out of rights and services. A Package of Plans process is proposed (see Chapter 4.0 of this report) to allow flexibility in the implementation of the approved rights according to appropriate levels of information in terms of which the authorities can verify and monitor the rollout.

Four applications are planned (also refer to **Figure 2**):

- **Application 1**: Reallocation of the existing rights for Farm 742/5 in terms of the vision for the redevelopment of the site as part of the innovation precinct and in terms of the services capacities already provided for. The application involves amendment of the approved Development Framework Plan, Phasing Plan, Subdivision Plan and conditions of approval to accommodate the revised development layout plan. The revised development plan ties in with the proposed Stellenbosch Bridge Development Framework. This application was submitted in August 2019 and is currently being processed by the Stellenbosch Municipality with approval expected to be issued in shortly;

- **Application 2**: Rezoning and Subdivision of Farm 744/2 which has since before 2001 been within the Klapmuts urban edge and forms part of the larger development. This application was submitted in December 2019 and the public participation phase was recently concluded.

- **Application 3 (this application)**: Application for additional development rights on Farm 742/5 in terms of a Development Framework with supporting documentation and plans for the Stellenbosch Bridge Innovation Precinct. The application also includes the submission of the Stellenbosch Bridge Development Framework as the first step in the Stellenbosch Bridge package of plans process;

- **Application 4**: Application for additional development rights for additional land included into the urban edge in terms of the 2019 Stellenbosch MSDF.

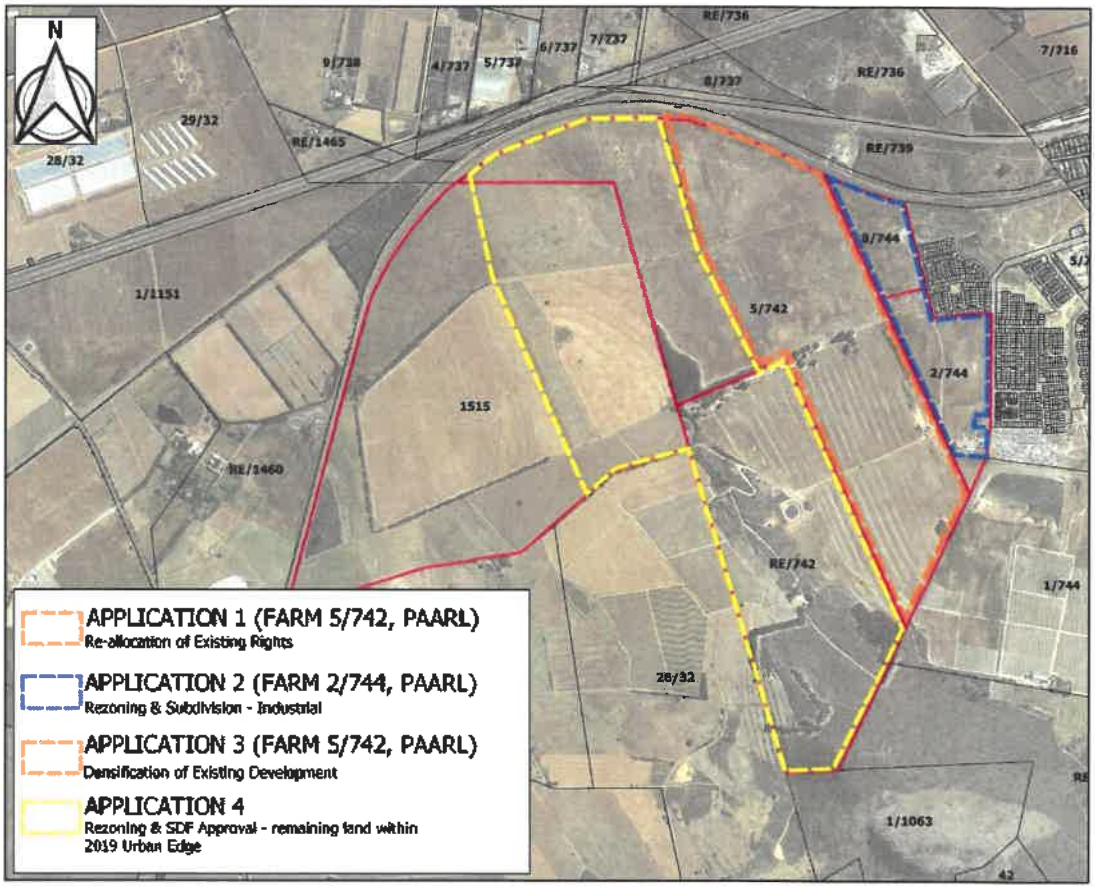


Figure 2 – Application Site Areas

This application constitutes 'Application 3' of the Stellenbosch Bridge series of applications, following the submission of Applications 1 and 2 in 2019. The application applies to the same development area as 'Application 1', which correlates to the previous Klapmuts Hills footprint. The purpose of the application is to obtain additional development rights on this footprint, including additional residential units and non-residential floor area (including business, industrial and institutional land use), in order to align development in this area with the Stellenbosch Bridge Development Framework and draft Master Development Plan.

The application also includes the Stellenbosch Bridge Development Framework document which is submitted for approval as the first step in the package of plans process.

This purpose of this application document is thus twofold:

1. To provide the baseline information regarding the Stellenbosch Bridge development, including the development vision and concept, development framework, layout, basket of rights and implementation, and needs to be read with the attached Stellenbosch Bridge Development Framework document; and

2. To provide the motivation and supporting information for the application for amendment of conditions of approval and amendment of the approved Subdivision and Zoning Plan for Farm 742/5, which include the allocation of zonings to the concerned land units, and associated applications for Council's Consent and Permission (i.e. Application 3).

Anton Lotz Town & Regional Planning (assisted by ARoux Town Planning) has been appointed as part of a multi-disciplinary project team for the Stellenbosch Bridge development. Power of attorney has been provided by the property owner to submit all land use applications to the Stellenbosch Municipality relating required for the Stellenbosch Bridge development (refer to **Annexure B**).

1.4 STATUTORY INFORMATION OF THE PROPERTY

1.4.1 Property Ownership and Registration

The Stellenbosch Bridge site consist of the following properties (ownership in brackets):

- Portion 2 of Farm 744, Paarl (Safamco Enterprises (Pty) Ltd)
- Portion 5 of Farm 742, Paarl (Stellenbosch Bridge Properties (Pty) Ltd)
- Remainder Farm 742, Paarl (Starke Family Trust)
- Farm 1515 (Stellenbosch Bridge Properties (Pty) Ltd)

This application relates to Portion 5 of Farm 742, Paarl (Farm 742/5). Note that although the property was previously subdivided to form Portion 6 and Remainder of Portion 5 of Farm 742, Paarl respectively, these properties were never formally registered. The subdivision approval has since lapsed. The subject property therefore remains Portion 5 of Farm 742, Paarl.

Although the property's title deed indicates the registered owner as Stellenbosch Wine & Country (Pty) Ltd, the name of the company has been officially changed to Stellenbosch Bridge Properties (Pty) Ltd. The property's title deed and the CPIC documents confirming this name change are attached as **Annexure C**.

As confirmed by the Conveyancer during the previous application the property's title deed does not contain any restrictive conditions.

1.4.2 Servitudes

The property contains one 8m pipeline servitude, which crosses the site in an east-west direction (refer to the SG Diagram attached as **Annexure D**). The servitude is accommodated within the future development layout.

1.5 APPLICATIONS IN TERMS OF OTHER LEGISLATION

1.5.1 Environmental Impact Assessment in terms of the National Environmental Management Act

An environmental authorisation was issued by the Department of Environmental Affairs & Development Planning in 2011 to permit the development of 1577 mixed residential units, open spaces, commercial areas, roads and a reservoir. An amended decision was issued by the above-mentioned department on 8 March 2016, whereby the validity period of the environmental authorisation was extended to five years from the date of issue of the amended decision, thereby extending the lapsing date to 8 March 2021.

The amended development plan as part of Application 1 was regarded as a "non-substantive amendment" to the previous environmental authorisation (EA) and an additional environmental process was not required. However, the amended development plan as part of this application, which include additional development rights, is regarded as a "substantive amendment" to the environmental authorisation.

Legacy Environmental Management Consulting has been appointed as the environmental practitioner for this project and to undertake the above-mentioned substantive amendment to the EA application, which is currently in process. The amended EA will be provided when available.

1.5.2 Approval in terms of National Heritage Resources Act

A Heritage Impact Assessment is being conducted as part of the Environmental Basic Assessment process mentioned above. The Record of Decision from Heritage Western Cape (HWC) will be provided as soon as available.

1.5.3 Approval in terms of Subdivision of Agricultural Land Act

Approval was obtained from the National Department of Agriculture, Forestry & Fisheries to permit (1) the subdivision of Portion 5 of Farm 742, Paarl into two portions, and (2) to

permit township establishment on "Portion A" of the above-mentioned subdivision, in terms of the Subdivision of Agricultural Land Act No.70 of 1970, in 2014 and 2013 respectively (refer to **Annexure J**).

The approval to permit subdivision of Portion 5 of Farm 742, Paarl has however lapsed in January 2019. The Department of Agriculture is currently being consulted and the necessary application will be submitted shortly for the renewed approval for the subdivision of this property. A new approval from the Department of Agriculture, Forestry & Fisheries will be provided in due course.

2.0 CONTEXTUAL ANALYSIS & SITE DESCRIPTION

2.1 LOCALITY AND CONTEXT

Klapmuts is strategically located within a metropolitan region as it enjoys good road and rail accessibility. It is situated 50 km east of the Cape Town CBD and approximately 15 km from Kraaifontein, Paarl and Stellenbosch. Klapmuts falls under the administrative jurisdiction of the Stellenbosch Municipality (refer to **Figure 3**).

The Stellenbosch Bridge site is situated to the west of the Klapmuts village at the foot of Klapmutskop (refer to **Figure 4**). The location is predominantly rural, with surrounding farms such as Muldersvlei and Elsenburg south of the site containing mainly vineyards with limited cultivation of fruit and the keeping of livestock (refer to **Figure 5**). Tree lanes, windbreaks, and homesteads add to the aesthetic appeal of the setting. The landscape offers both short distance views over the agricultural landscape and Klapmutskop and long-distance views across the valleys to the surrounding mountains such as Simonsberg, Paarl Berg, as well as the Klein Drakenstein and Du Toitskloof Mountains.

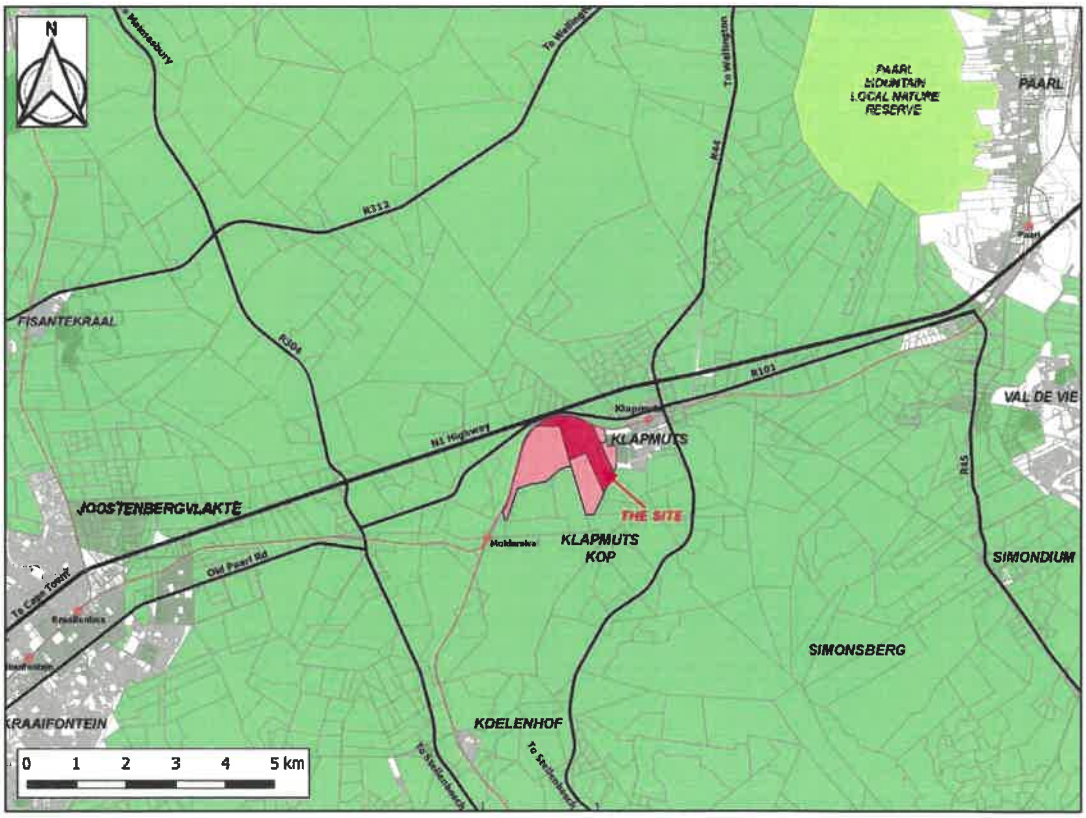


Figure 3 – Regional Context (Farm 742/5 in red)

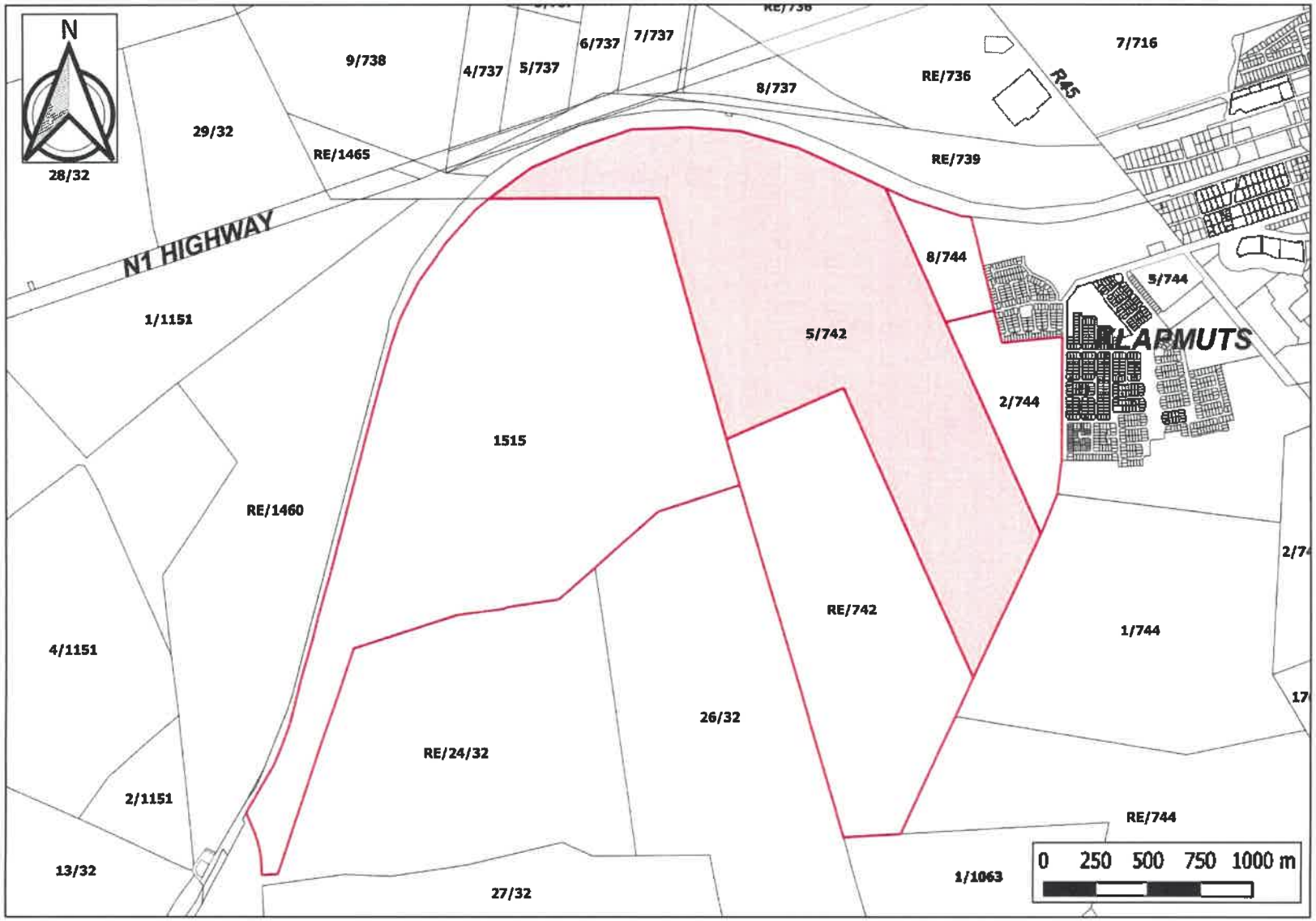


Figure 4 – Locality Map

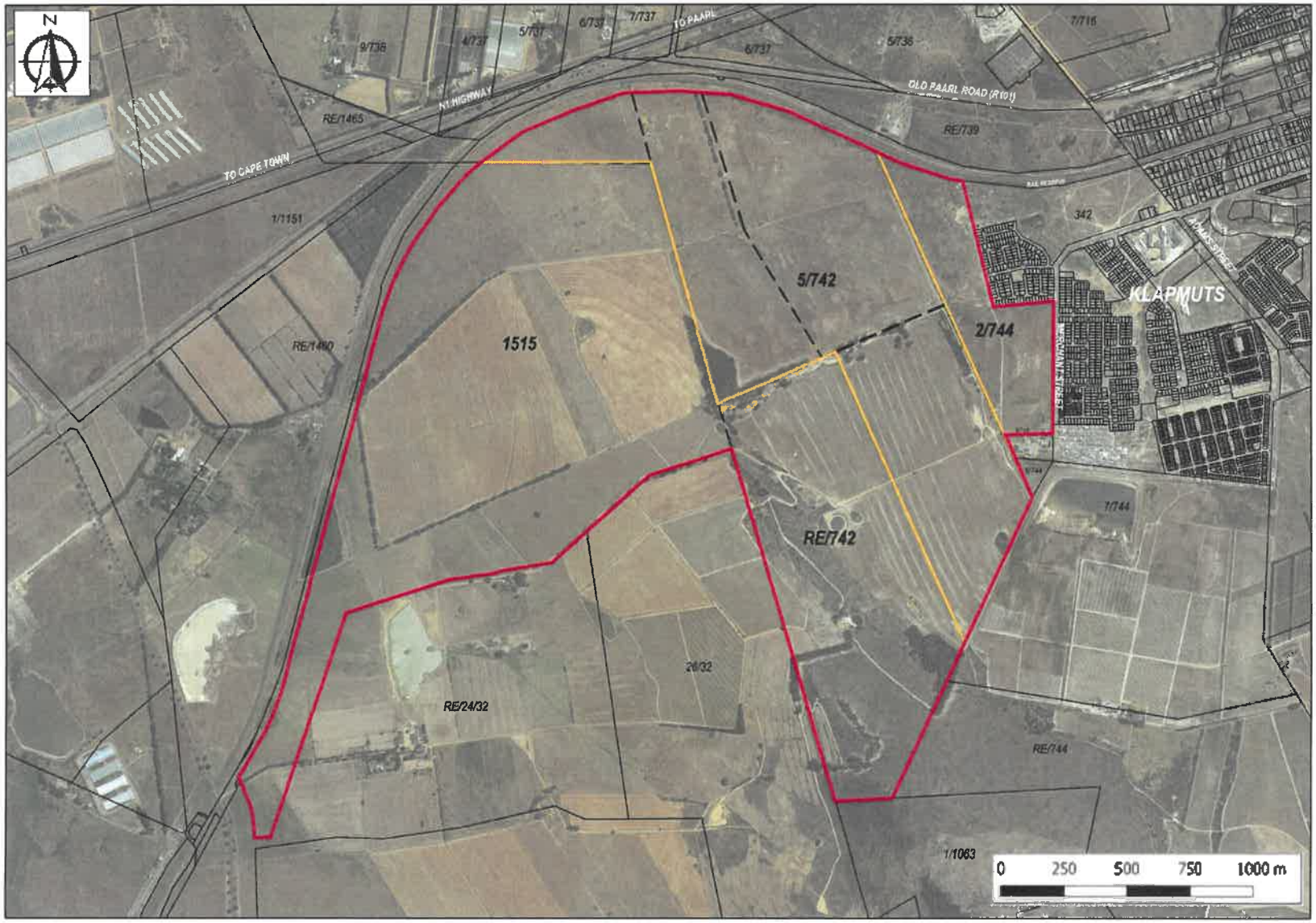


Figure 5 – Aerial Image

Klapmuts consists primarily of low-income and state-assisted housing, with middle-income residential opportunities between the railway line and the N1 Freeway. Several retail and light industrial/distribution opportunities exist along the Old Paarl Road and the R44. The section of existing retail along the Old Paarl Road is starting to develop into a well-functioning village centre. There is also small-scale tourism- and recreation-related activities located along the R44.

2.2 CONTEXTUAL SUMMARY

The development context for this project as provided by the Stellenbosch Municipality SDF (2019) can be summarised as follows (also refer to the Local Context Map – **Figure 6**):

- The Stellenbosch Bridge landholdings are situated to the west of Klapmuts. The area of development is included in the Klapmuts urban edge (SDF, 2019) and the update of the Klapmuts SDF in 2020 will confirm the detail of the urban edge alignment.

- Klapmuts is one of the three main settlements within the jurisdiction of the Stellenbosch Municipality (SM). The municipality is home to some 176 000 people (2018) and located in the heart of the Cape Winelands, a highly valued cultural landscape with globally important natural habitats.

- Politically, SM forms part of the Cape Winelands District Municipality of the Western Cape Province. The municipality adjoins the City of Cape Town to the west and south and the Breede Valley, Drakenstein and Theewaterskloof Municipalities to the east and north.

- Functionally, the SM forms part of the Greater Cape Town metropolitan area. SM covers a geographical area of approximately 830km^2.

- The SM Integrated Development Plan 2017-2022 (IDP) is aimed at coordinating the efforts of various municipal departments in achieving the municipality's vision to be a "valley of opportunity and innovation". The Valley of Possibility focus area looks to attract investment, growing the economy and employment.

- It is estimated that 91% of the people living in the urban areas of the municipality by 2031 will reside in Stellenbosch town, Klapmuts or Franschhoek.

- Klapmuts does not form part of the World Heritage Landscape, Protected Areas or Green Network of the SM and it is located in a Low Value Cultural Landscape area.

- Pursuant of the SDF's goal to direct new growth to areas of lesser natural and cultural significance that offers movement opportunity, Klapmuts has been designated as a Primary Node/Regional Centre. The N1 was designated as a primary development axis/transport route.

Figure 6 – Local Context Map

- A significant proportion of the municipal population is poor and reliant on the informal sector for livelihoods. Approximately 53,1% of households in SM fall within the low-income bracket, of which 20,4% have no income. Less than 50% of households fall within the middle to higher income categories, split between 35,6% in middle income group and 11,5% in the higher income group. Overall, SM's unemployment rate increased to approximately 11% in 2017.

- The SDF concludes that SM will continue to grow without the economy necessarily being fully geared to provide work opportunities or generate funds to provide needed services; the growth in the informal sector as the only means to ensure livelihoods to poorer citizens is expected to continue; and economic sectors accommodating unskilled workers (especially manufacturing and agriculture) show slow growth.

- The SDF expresses support for the development of an Innovation Precinct and Smart City on the Stellenbosch Bridge landholdings.

- According to the Klapmuts Special Development Area – Status Quo Report (BEAL Africa, 2017), the Klapmuts land use includes 2 071 residential, 15 business and 21 industrial properties, as well as 122 farmland and related properties. Community-related land use include a police station, primary school, safe house, community centre, crèche and three churches. 91% of the residential units are single dwelling homes, mainly in the middle- and lower-income brackets.

- The more recent urban development concentrated in the town proper include a local shopping centre along Klapmuts Old Main Road (R101) and the Rozenmeer upper-middle-income gated housing development. Warehousing is being developed at the Simonsberg Business Park south of the town along the R44 road, while lower-middle-income housing was developed, west of the industrial township. Klapmuts has seen significant growth in subsidised public housing with more than 500 additional housing units developed along its southern edge.

- Limited tourist uses, such as wine cellars offering wine-tasting and guest accommodation, and other uses associated with the wine industry operate in the surrounding rural-agricultural area.

- Recently approved land use applications on agricultural land include the gated or lifestyle housing estates to the east and southeast of Klapmuts town allowing about 295 new housing units; 518 new housing units next to Rozenmeer north of Klapmuts town, and the Anura Lifestyle Estate approved for 154 new housing units.

- Distell Limited received land use approval to relocate and consolidate many of its beverage production, bottling, warehousing and distribution facilities on land north of the N1. The Distell facilities will take up 53 ha of the 200 ha landholdings, allowing

commercial and mixed-use development opportunities on the non-sensitive remainder of the site for Distell's suppliers and other businesses to co-locate.

- Klapmuts north of the N1 Freeway falls into the Drakenstein municipal area. Co-operation and coordination between the two municipalities on planning and service provision is critical to maximise the development potential of the larger Klapmuts area.

- SM have already made significant investment in the expansion of the water and sewerage infrastructure of Klapmuts to unlock the potential of the area for private-sector economic development.

2.3 SITE ANALYSIS

The site contains the following environmental features (input by Legacy Environmental Management Consulting):

- **Size**: The Stellenbosch Bridge landholdings are 338ha in size of which 204ha falls within the Klapmuts urban edge. The area inside the urban edge is referred to as the development area.

- **Klapmutskop**: The surrounding landscape is relatively undulating, with Klapmutskop as a distinctive feature to the south of the landholdings. It is elongated in a southeast-northwest direction, with its crest at about 522m above mean sea level (a.m.s.l.). Its northern elongated ridgeline slopes to the northwest from 522m a.m.s.l. at its crest to 180m a.m.s.l. adjacent to the railway line on the northern edge of the landholdings.

- **Site Topography**: The landholdings contain no strongly defining topographical features. There is a gentle slope across the extent of the land, barring the eastern portion, which is located on relatively level land. The high point is at 251m a.m.s.l. and the low point at 180m a.m.s.l. The average slope across the development area is approximately 1:12 to 1:20, allowing for views across to the distant mountains from the higher lying areas. These slopes are ideal for development whilst the higher-lying ridgeline of Klapmutskop will not be broken, thereby preventing an intrusion into the cultural landscape. The raised railway line along the northern edge also mitigates the views of the development area from the R101 and N1 Roads.

- **Water Features**: There are no natural wetlands, rivers or drainage lines on the landholdings, but a number of man-made drainage furrows, stormwater retention facilities, and small dams are retained as part of the open space system. No riverine vegetation exists along the gullies and drainage ditches. A number of small, shallow ephemeral pans are scattered over the landholdings. These have little botanical significance as species diversity is low (single species of sedge). Artificial wetlands have developed around the elongated dam on the south-western edge of the

landholdings as well as the dams along the eastern side of the development area. The botanist considers these water features to be disconnected and note that they are of little significance in the highly disturbed habitat and have been incorrectly designated as critical biodiversity areas.

- **Soils and Geology**: The lower eastern slopes (development area) contain coarse sandy hillwash, which represents the remnants of weathered sandstone and granite. This hillwash horizon overlies Malmesbury Group shales and phyllite which has been intruded into by granites of the Stellenbosch-Paarl Pluton. The granites weather to form intact, moist mottled clays.

- **Tree Lines and Clumps**: A number of tree lines and clumps exist on the landholdings, but none of these are of environmental value. While these are alien species (Blue Gum and Oak), they are important landscape features and will be protected and improved as part of the area's scenic beauty and to assist in reducing the visual impact of the development.

- **Vegetation in the Development Area**: There is no intact indigenous vegetation in the development area. It has been transformed by years of farming (croplands and grazing) and mining (of sand and laterite) and is not restorable. No active cultivation of crops has occurred for some time with limited grazing of community livestock in the recent past.

- **Natural vegetation**: The Boland Granite, Swartland Renosterveld and/or Swartland Alluvium Fynbos located on the higher ridgeline to the south and west of the development area which have been excluded from the urban edge will be protected. These naturally vegetated corridors within the development will connect to Klapmutskop and will provide recreational, tourism and environmental education opportunities.

- **Vineyards**: Small areas of the better-quality agricultural soils, mainly on the upper ridgeline and the western slopes of the landholdings have been used for vineyards. The viability of these vineyards is limited.

- **Fauna**: Given the extremely low biodiversity and open nature of the eastern slopes, the high grazing use and human activity, the presence of fauna is limited to rodents (gerbils and moles) and some bird species.

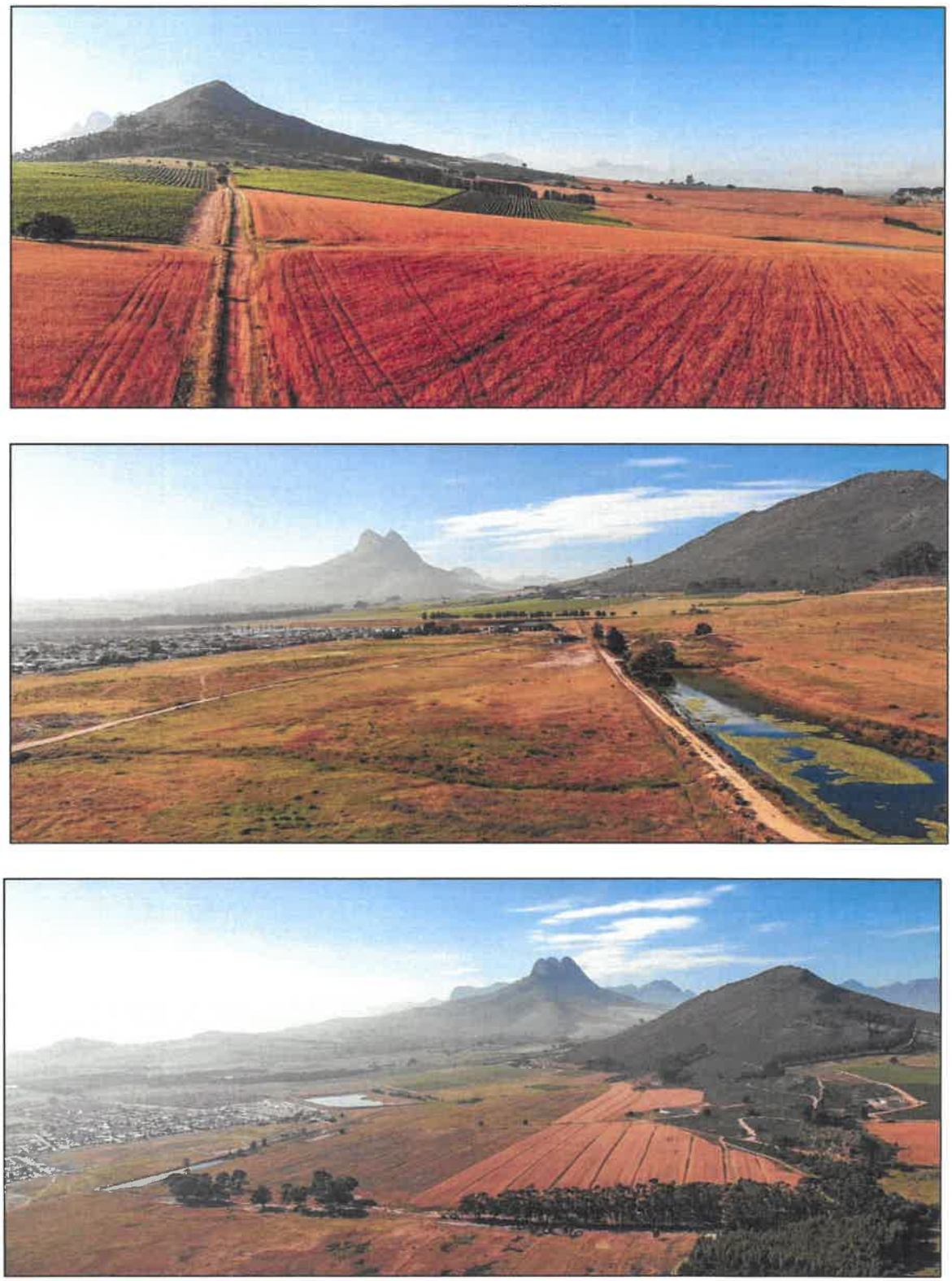


Figure 7 – Site Images

3.0 THE STELLENBOSCH BRIDGE CONCEPT

3.1 DEVELOPMENT VISION

Stellenbosch Bridge is a visionary development – it is intended to be a dynamic, innovative and sustainable hub that is focussed around an innovation precinct that will attract local and international innovation stakeholders to locate in a mixed-use, live, work, play and innovate environment. It will attract investment by connecting and building bridges between people, science, business, innovation and entrepreneurship in one place.

Figure 8 - Architectural illustration of the Stellenbosch Bridge development

It is the intention of the owners to develop this property over the next 15 to 20 years, fully integrated into the larger Stellenbosch spatial vision, and with the participation of all stakeholders. This will include the Stellenbosch Municipality, University of Stellenbosch, the Klapmuts community and the Western Cape Government. To this end the owners recently donated 30 hectares of the property to University of Stellenbosch to provide space for amongst others Launchlab, the business incubator and Innovus, the commercialization arm of the University of Stellenbosch and allow the institution to become a key partner.

Stellenbosch Bridge will enhance business development and innovation through clustering, and co-location of fast-growing sectors and public and private research establishments from South Africa, Africa and the rest of the World. The emphasis on state-of-the-art technology and smart systems will ensure that Stellenbosch Bridge is the

premier address to locate a business on the African continent. The accessible location of Stellenbosch Bridge will be strengthened through virtual networks that span globally. Stellenbosch Bridge will facilitate investment in local people encouraging tenants to focus on skills development, capability building and job creation. It will be an inclusive and sustainable development that will benefit a broad range of citizens for generations to come. The primary thrust of this development is economic progress and advancement through science, technology and innovation. It is a place where individual brilliance and talent meets resourced establishments, venture capitalists and government support.

Coupling technology with infrastructure design and sustainability this development will become a model for modernized development and living, working and leisure trends. Stellenbosch Bridge aspires to use the latest smart and green technologies and is a showcase destination for technology development and a prosperous knowledge economy.

3.2 DEVELOPMENT PRINCIPLES

To achieve the vision the development will be based on the following development principles:

- **Sustainability -** Sustainability should inform all aspects of the development. Meeting current development needs without compromising the ability of future generations to meet theirs should inform its planning and decision-making processes. This includes protecting and enhancing the natural environment; ensuring resource management; balancing environmental, social and economic needs; pursuing biophilic design; enhancing circular resource flows; and integrating sustainable designs for all spaces, buildings and services.

- **Human Scale** - The development should have a people-centric urban form. Walkability is central to its success – its zoning should allow a higher density, mix of uses designed around safe and dynamic public spaces and streets encouraging human interaction and promoting a healthy and active lifestyle. Shops, jobs, amenities and social activities should be at a walkable distance from workplaces and higher-density residential areas.

- **Conviviality** - The development design and layout should foster social interaction through the creation of a hierarchy of places, devised for the full range of social relations, from opportunities for personal solitude to friendship and community life. Vibrant towns are interactive and socially engaging and offer diverse social and economic groups opportunities for gathering and interaction in a range of safe public spaces.

- **Efficiency -** The development should create a compact, high-density urban form which results in more efficient urban systems including services and transport. It encourages

optimum use of land, roads, facilities, services and infrastructural networks, reducing per household costs, while increasing affordability, productivity, access and civic viability. Efficiency promotes a balance between the consumption of resources such as energy, time and money, and planned achievements in comfort, safety, security, access, tenure, productivity and hygiene.

- **Innovation** - The development should pioneer initiatives for the incorporation of information and communications technology (ICT) and Internet of Things (IoT) into all aspects of the urban ecosystem. The mixed-use environment and urban management will benefit from a fusion of design thinking with the technological advancements facilitating local solutions; social and technological innovation; entrepreneurship; optimisation of infrastructure; connected living; smart city management; green and clean technologies; use of smart and sustainable materials; off-grid energy solutions; and a move towards zero-waste.

- **Opportunity** - The development should create an environment for personal, social, and economic opportunity. This is achieved by facilitating access to a range of places, services, facilities and information providing a variety of opportunities for enhanced employment, economic engagement, education, and recreation.

  The emergent knowledge-based economy on which this development is based is changing urban fabric and functioning and requires new approaches to the integration of complementary sectors and land uses. The development should play an equalizing role in allowing all citizens to grow and access opportunities according to their capabilities and efforts.

- **Integration -** The development should integrate into the larger environmental, socio-economic and cultural-geographic system, essential for its sustainability. The integration into various contexts from local level to global level are relevant with a focus on the direct zones of influence including the Klapmuts town and the Stellenbosch Municipality and Winelands region.

  Integration within the local context include respect for the environmental features and cultural heritage of the place; considered physical linkages via roads, services and land use; understanding of the social challenges faced by the communities; and insight into the economic needs of its people.

- **Social Justice** - The development should strive to be a leader in the social and economic upliftment of previously disadvantaged communities. The social stability of South Africa is dependent on communities working together to create equal opportunity and quality of life. Stellenbosch Bridge will be a catalyst for the improvement of the social well-being and prosperity of the communities of Klapmuts and will seek expanding the benefit of its innovation and economic opportunity to uplift the people within its zones of influence.

- **Integrity** - The development should be implemented and managed by means of accountable, transparent, and competent decision-making. This includes a long-term commitment by management and other role-players to the vision and principles; sustainable management practices; leadership in decision-making; a transparent system of participation for residents and other stakeholders; adherence to a system of design and development review; and opportunities for wider stakeholder responsibility in the Implementation of the project.

3.3 DEVELOPMENT OBJECTIVES

The development objectives for the proposed Stellenbosch Bridge development are the following:

- **Creation of a Leading Smart City**: The project will be the first successful smart city with an innovation precinct at its core to be created in the Western Cape.
- **Environmental Sustainability**: All aspects of the development will contribute to environmental sustainability, achieving a Sustainable Precinct Certification (First 5-star GBCSA rating in Africa).
- **An Economically Connected Space**: The innovation precinct will form the heart of an economically connected mixed-use development linking various sectors in an integrated business environment.
- **Spatial Innovation**: The planning approach and urban design will result in a multi-faceted, human-scaled, robust development that can rapidly respond to change, allowing the incorporation of new ideas and concepts. The mixed-use zoning will allow the integration of a broad range of uses in within a dynamic urban environment.
- **Connecting to Global and Local Contexts**: The project will build connections within the global Innovation community whilst integrating physically, economically and socially with the Klapmuts town and the wider region.
- **Design and Urban Form that is Integrated and Connects Communities**: The robust urban design framework facilitates social interaction, building integration and connection between its people and communities.
- **Socially Vibrant, Safe and Connected Communities**: The development will provide a safe and secure environment for residents and visitors, making them welcome in a socially vibrant active, healthy, and integrated community.
- **Use of Innovative Technologies**: Innovation will be encouraged and integrated in all levels of planning and implementation.

- **Active Precinct Management:** Hands-on management of the urban environment and smart city services and technology will be the foundation of the success of the development.

3.4 DEVELOPMENT COMPONENTS & ELEMENTS

Stellenbosch Bridge is made up of development and open space precincts. The four development precincts are integrated through a central open space system. The main components and elements of this development are:

- **Innovation Precinct**: A well-managed, dynamic and creative mixed-use environment where innovative design, a quality public space system, and a complete innovation ecosystem can help knowledge economy entrepreneurs, academics and corporates connect to develop and incubate new products and services for fast-growing and promising industry clusters that are central to the future expansion of the Western Cape and South African knowledge economy (use of knowledge and education that leads to technical and scientific advance), including agriculture, clean technology; bio-technology; information and communication technology (ICT); and sports and gaming (Klapmuts with Stellenbosch Bridge as its core could, over time, grow into an Innovation District).

- **Research and development** (R&D): An important component of a successful innovation district is its capability for R&D through which prototype products and services are researched, designed, tested, produced. and assembled. Having the University of Stellenbosch as a key partner provides for university-industry collaboration, research capability and commercialization expertise (through Innovus) to attract investment for innovation and entrepreneurial activity.

- **Incubator:** Within the Innovation Precinct a facility offering a range of space, facilities and services to assist entrepreneurs to create and launch their businesses.

- **Smart City:** A smart city is a spatial or urban ecosystem that uses ICT and Internet to improve its efficiency, governance and functioning and is often intricately linked to innovation district development. Implementation across eight functional areas will be targeted including mobility, infrastructure, energy, buildings, technology, governance, citizens, and healthcare. Smart technology allows real-time monitoring of these systems to better inform strategic decision-making.

- **Mixed-use Environment:** Knowledge-based economic activity needs to be integrated into a dynamic mixed-use urban environment. The live and work/innovate components are integrated with the business, recreational, and social facilities that will contribute to the liveability of the development. This integration will happen both vertically (within buildings) and horizontally (with street blocks and precincts). The innovation precinct is designed on the principle of flexible urbanism – the creation of

flexible buildings and spaces that adapt to evolving needs without compromising the urban design vision and under coordinated management.

- **Environmentally Conscious Development**: Stellenbosch Bridge as an innovation-driven smart city will strive to lead thinking and implement innovations and technology that contribute towards 'Innovating to Zero' (a journey towards a more sustainable future). The use of renewable energy; design and engineering solutions that reduce resource demand; circular resource economy; biophilic and sustainable designs of spaces, buildings and services; waste reduction; integration of NMT; convenient pedestrian routes; and social innovation are some of the measures to be implemented.

- **People-Centred Place-making**: The development is underpinned by a focus on Quality of Life, where emphasis is placed on enjoyment and living a healthy and active lifestyle. It includes a Design for Community - a layout that fosters inclusion, equal opportunity and choice; and a Place for Self – space for personal health and wellness (mind, body, soul).

- **Integrated Open Space System:** The integration of a central green network through which existing tree line/clumps and dams are retained and enhanced, with urban spaces, quality street space and destination places will enhance the liveability of the development, making it easier to walk, bike, and use other NMT to work, live and socialize. Walkability is central to the success of the development.

- **High-Density Residential**: Housing is an essential component of an Innovation District. An assortment of residential opportunities will cater for the full spectrum of family structures. The mixed-use Innovation Precinct makes provision for the integration of residential uses and a high-density Residential Precinct will provide a high-quality living environment.

- **Industrial**: Innovation districts incorporate clusters of industry that service the innovation industry and contribute to a balanced urban ecosystem. The Industrial Precinct provides for logistics and distribution as well as smart manufacturing (computer-integrated manufacturing). Components of smart manufacturing such as 3D printing can easily integrate into the mixed-use Innovation Precinct.

- **Data Centre**: An important component of an innovation precinct/smart city is a data centre - a facility for a large group of networked computer servers used for the remote storage, processing, or distribution of large amounts of data.

- **Road System**: The development is served by a primary public road system linking the development to Klapmuts and the regional road network, and a secondary road network of private roads providing internal circulation and access.

- **Agricultural Remainder**: The land area outside the urban edge will be used for agricultural research related to the agriculture innovation cluster, renewable energy provision, sport and recreation, and tourism.

- **Conservation**: The natural vegetation area (Boland Granite, Swartland Renosterveld and/or Swartland Alluvium Fynbos) located on the ridgeline south of the development area is protected and links the development to Klapmutskop.

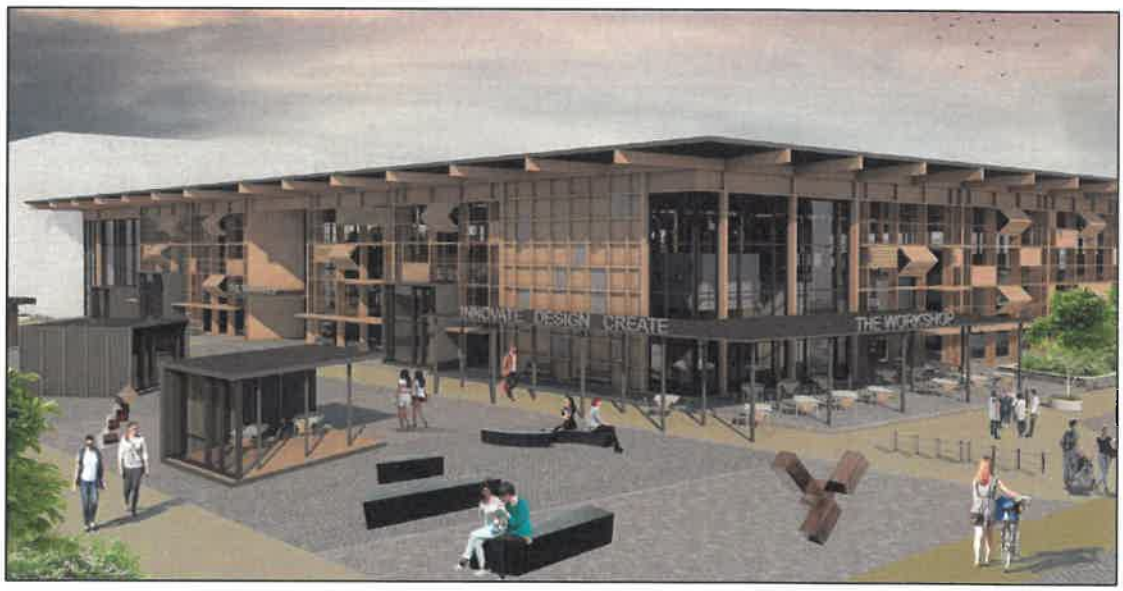


Figure 9 –Illustration of "The Workshop" being planned for the Innovation Precinct

4.0 THE PACKAGE OF PLANS APPROACH

4.1 PACKAGE OF PLANS PROCESS

The 'Package of Plans' approach is a tiered planning process which provides a mechanism to plan and manage the development of large or strategic urban development areas by facilitating the phased roll-out of a basket of rights over an extended period. The benefits of this approach include that:

- it provides greater flexibility to accommodate the different phases of the complex development proposal;
- it responds to changing market conditions; and
- it provides mechanisms for delegations in the decision-making process.

The Package of Plans approach appears complicated, but if implemented correctly is a sound planning tool that starts with broader district-wide considerations at the Contextual Framework level, becoming more and more specific as plans move from context to the project and then to individual precincts and sites. Therefore, it is a phased process of negotiation, planning and approvals, whereby increasing detail is provided for each following step of development.

4.2 PLAN LEVELS

A Package of Plans consists of the following components that are listed in a hierarchy from higher-order to lower-order plans, with the lower-order plans being compliant with the higher-order plans (also refer to **Figure 10**):

4.2.1 Contextual Framework

The Contextual Framework provides a broad overview of how a site relates to its context in terms of access, services and urban connectivity as well as its functional role in the general location. The Contextual Framework is strategic in nature and is deliberately kept as general as possible to allow sufficient flexibility in order to respond to changing market conditions over the long-term. As a bare minimum, the local environmental fixes, local road system and bulk services networks are fixed at this stage.

4.2.2 Development Framework

The Development Framework sets out the framework elements for the site itself and ensures agreement to the change of use for the total site. The Development Framework views the planning for the site as a process as opposed to a fixed-state master plan, which will therefore require refinement as time passes and circumstances change.

The Development Framework is:

- A set of goals and policies to guide future conservation and development; and
- A basic physical structure (main structuring elements) which organises the site and relates it to its surroundings.

The Development Framework also provides a breakdown of the basket of rights (uses and the number and floor area provisions of these land uses) for the development of the site. Although the Development Framework specifies maximums in terms of numbers, types and sizes, it is important that the approval provides enough flexibility to allow the movement of rights between precincts without further process.

4.2.3 Precinct Plans

The Development Framework Area is divided into sub-areas or precincts that have common features, functional relationships or phasing requirements. The precinct plan is a conceptual illustration of each precinct and provides the basis for determining the spatial responsibilities, limitations and rights, and forms the basis of more detailed zoning provisions.

The precinct plan provides a clear guide to the form, size and shape of the future development parcels and residential blocks and the urban design and the other controls that apply. It also defines a hierarchy of access, describes the open space system and provides dimensions for the different elements.

4.2.4 Subdivision Plans

Subdivision plans are dimensioned plans processed in terms of planning law and establishes new cadastral boundaries within the precinct in line with the approved Precinct Plan. This level also facilitates the transfer of units and GLA from the basket of rights acquired as part of the Precinct Plan approval. Subdivision Plans may be approved at any stage after the Development Framework has been approved.

4.2.5 Site Development Plans

Site Development Plans (SDP) are more detailed plans for groups of erven or larger individual sites. These could also include subdivision plans for specific areas and provide the basis for determining the zonings for the various properties including details relating to land use, floor space, building lines, height, parking requirements, municipal services and landscaping, as well as details relating to the position and appearance of buildings, open space, pedestrian links and traffic movement.

4.2.6 Building Plans

Building plans, when submitted for approval, are reviewed against the relevant Precinct and Site Development Plans and contain detailed specifications as required by the National Building Act, and once approved by the local authority, authorise building work to be performed.

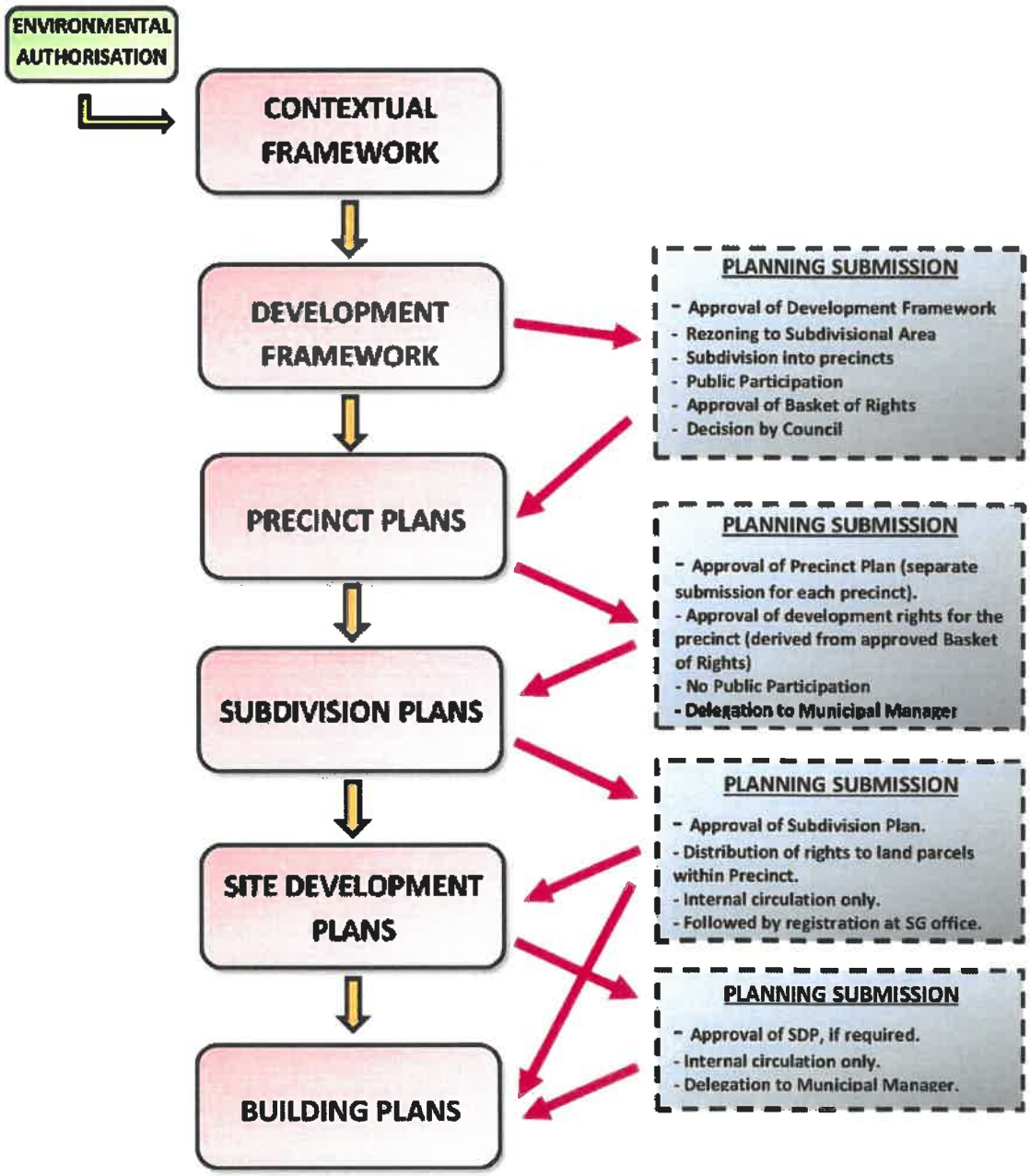


Figure 10 - The Package of Plans diagram

4.3 THE STELLENBOSCH BRIDGE PACKAGE OF PLANS APPROACH

The Stellenbosch Bridge development follows the Package of Plans approach as set out above, although some plan levels will be combined, for example the Contextual Framework and Development Framework Plans. The development will be divided into separate precincts, each with its own character, identity and function. The Package of Plans approach will allow the overall development framework for the development to be approved, which will include the total basket of rights. Applications for precinct plan and SDP approval will be submitted for each precinct and site with the detailed layout of these precincts and sites to be addressed at that stage (note that as the precincts will be developed as sectional title schemes, the Stellenbosch Bridge Package of Plans process does not include the submission of subdivision plans – refer to Section 5.2 of this report).

The Development Framework Plan for Stellenbosch Bridge has been finalised and is submitted with this application for approval. Precinct Plans and Site Development Plans will be submitted as separate applications following approval of the Development Framework and initial land use applications.

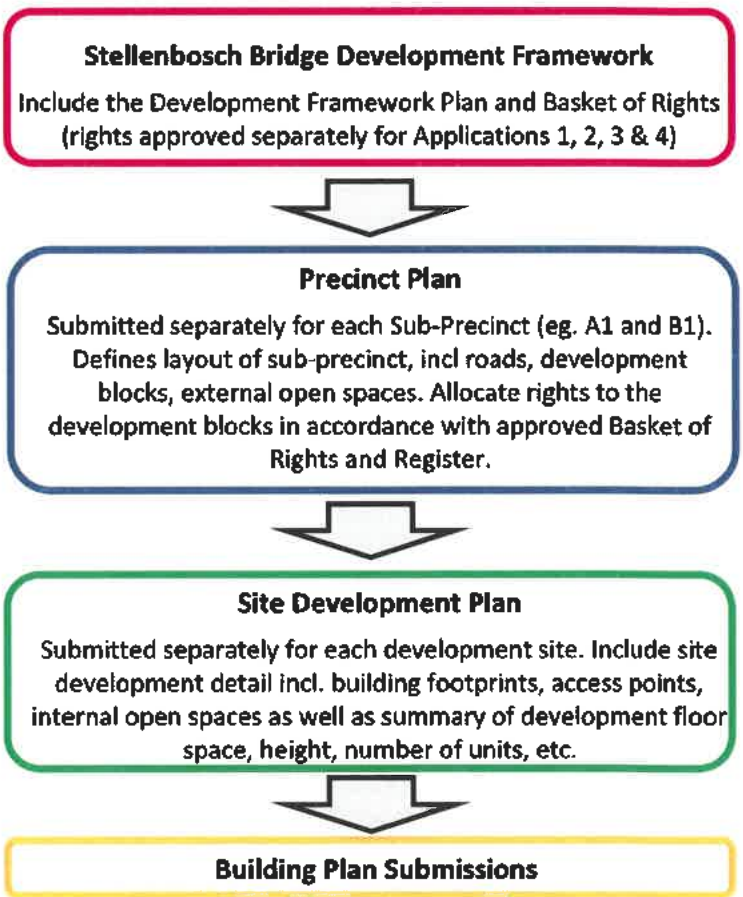


Figure 11 – Summary of Stellenbosch Bridge Package of Plans process

5.0 THE DEVELOPMENT FRAMEWORK

The Development Framework forms the first component of the package plans process for Stellenbosch Bridge and sets out the basic physical structure for the development of the site in accordance with the urban design concept. A copy of the Stellenbosch Bridge Development Framework is attached as **Annexure E**.

This chapter summarises the two key components of the Development Framework, namely the Development Framework Plan and the Basket of Rights.

5.1 STELLENBOSCH BRIDGE DEVELOPMENT FRAMEWORK PLAN

The Stellenbosch Bridge Development Framework Plan consists of the following key structuring elements that will guide future development implementation for the project (also refer to **Figure 12**):

5.1.1 Access Points

The development will be accessed by means of four new vehicular/pedestrian accesses from the R101 (Old Paarl Road), R44 (Stellenbosch Road), DR 1090 (Elsenburg Road) and a link via Merchant Street as well as a new railway station:

- The **primary access** is a northerly link to the R101 via an underpass under the railway line. This access will link the development to the N1 via the existing R44 Interchange as well as a new interchange at the Groenfontein Road location.
- Three **secondary accesses** will be phased in (the regional road network plan will determine the timing and priority):
    - Merchant Street link: This access will have an integration function between the development and Klapmuts, providing for lower-order distribution only.
    - R44 Access: A road link to the R44 will provide access from the south-east, and / or
    - DR 1090 Access: A road link to the Elsenburg Road will provide access from the west.
- **Stellenbosch Bridge Station** – A new station serving the development is proposed between the Klapmuts and Muldersvlei Stations, providing access from Paarl, Stellenbosch and the Cape Town Metro.

5.1.2 Movement Routes

Three levels of movement form part of the framework:

- The **primary movement system** consists of the main north-south route (R101 to R44) as well as the western (Elsenburg Road) and eastern (Merchant Street) link roads that integrate the four road access points and links the development to the broader area.
- The **secondary movement system** is made up of a network of private roads and accesses that provides internal access and circulation to the precincts.
- The **third level of movement** involves the Pedestrian/NMT system which will be catered for along the primary and secondary routes as well as the open space system which will ensure a walkable environment and links the development to the broader area.

5.1.3 Open Space System

The open space system consists of the following:

- **Primary Open Space System** - the linear network of green spaces incorporating the existing tree lines, tree clumps and enhanced water features within the urban edge. The experience of this space will be enhanced through landscaping and the system will be linked into a wider green network including a link to Klapmutskop.
- **Urban Space System** - the road spaces and public squares internal to the development precincts. The system will be designed to give pedestrians equal importance of movement and to facilitate social interaction and economic opportunity.
- **Destination Places** - the central square, public squares and open space destination places such as water features, eventing facilities and the labyrinth. These places form focal points in the open space system and facilitate use, pedestrian movement, economic opportunity and social interaction.

5.1.4 Precincts

The site is divided into four development precincts (with sub-precincts to facilitate phasing) and two open space precincts. Each precinct has been allocated a primary use category being 1) Innovation, 2) Residential, 3) Industrial, 4) Data Centre, 5) Agricultural Research or 6) Conservation. The precincts, use category, proposed zoning and land uses are listed below:

Precinct A (Innovation)

The innovation precinct (Sub-Precincts A1 – A5) integrates all aspects of a live-work-play-innovate environment around a network of public spaces. The proposed zoning is Mixed-use Zone.

The Sub-Precincts will contain the following land uses:

- ***Precinct A1*** - Business, Residential, Education, Medical, Institutional, Research and Development, Smart Manufacturing, Sport, Gaming and Recreation, Tourism, Utility Service, Parking, Private Open Space, Private Road.
- ***Precinct A2*** – Business, Residential, Education, Medical, Institutional, Research and Development, Smart Manufacturing Sport, Gaming and Recreation, Tourism, Utility Service, Parking, Private Open Space, Private Road.
- ***Precinct A3*** – Business, Institutional, Medical, Data Centre, Research and Development, Smart Manufacturing, Utility Service, Parking, Transport Facilities, Private Open Space, Private Road.
- ***Precinct A4*** - Business, Education, Medical, Institutional, Research and Development, Smart Manufacturing, Warehousing and Distribution, Data Centre, Sport, Gaming and Recreation, Utility Service, Parking, Private Open Space, Private Road.
- ***Precinct A5*** - Business, Residential, Education, Medical, Institutional, Research and Development, Smart Manufacturing Sport, Gaming and Recreation, Tourism, Utility Service, Parking, Private Open Space, Private Road.

Precinct B (Residential)

The high-density residential precinct (Sub-precincts B1 and B2) incorporates complimentary social and business uses and multi-functional open spaces areas to create a high-quality living environment. The proposed zoning is Multi-unit Residential Zone.

The Sub-Precincts will contain the following land uses:

- ***Precinct B1*** – Residential, Institutional, Business, Sport and Recreation, Tourism, Private Open Space, Private Road.
- ***Precinct B2*** – Residential, Institutional, Business, Sport and Recreation, Tourism, Private Open Space, Private Road.

Precinct C (Industrial)

The green and smart industrial precinct. The proposed zoning is Industrial Zone.

Land uses include: Data Centre, Business, Smart Manufacturing, Warehousing, Logistics and Distribution, Utility Service, Parking, Private Open Space, Private Road.

Precinct D (Data Centre)

The precinct accommodating the main data centre. The proposed zoning is Industrial Zone.

Land uses include: Data Centre, Smart Manufacturing, Business, Utility Service, Parking, Private Open Space, Private Road.

Precinct E (Agricultural Research)

The land area west of the urban edge. The zoning is Agriculture and Rural Zone. Land uses include: Agricultural Research, Renewable Energy, Sport and Recreation, Tourism.

Precinct F (Conservation)

The natural vegetation area south of the development area. The zoning is Agriculture and Rural Zone. Land Uses include: Agriculture and Rural: Conservation, Sport and Recreation, Tourism, Environmental Education.

In addition to the land uses contained and defined in the Stellenbosch Municipality Zoning Scheme Bylaw, 2018 the following uses are proposed:

- **Smart Manufacturing**: Computer-integrated manufacturing that uses data analytics, advanced robotics, 3D printing and/or a flexible technical workforce in an optimised, dynamic supply chain.
- **Research and Development**: Two related processes by which new products and services are created through technological innovation. It requires laboratories, offices and other facilities for research, development, design, testing and consultation as well as space for the production and assembly of prototype products.
- **Data Centre**: A facility for a large group of networked computer servers used by organizations for the remote storage, processing, or distribution of large amounts of data.
- **Gaming**: The playing electronic games through consoles, computers, or any other medium for which event venues such as halls, competition facilities and accommodation are required.

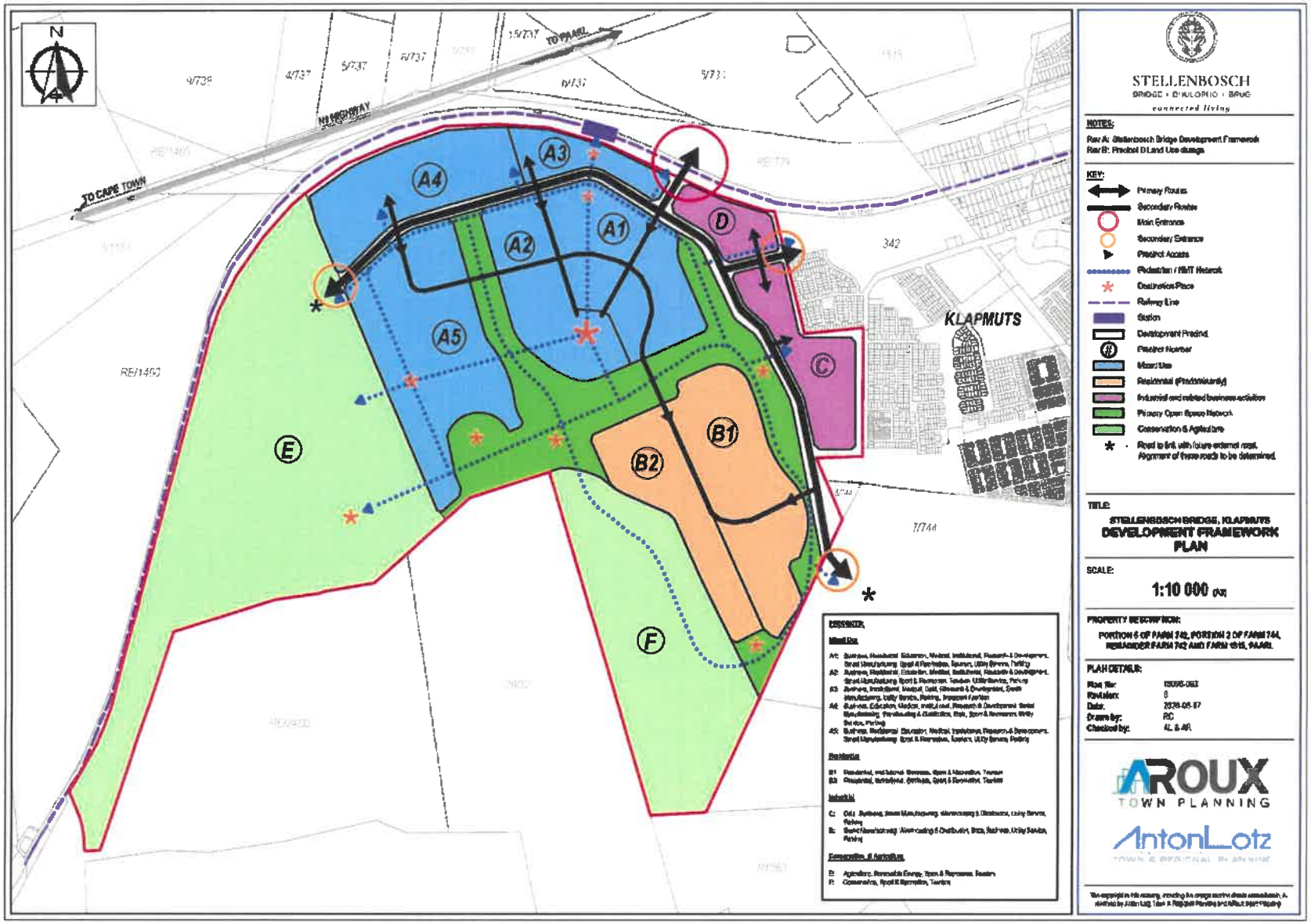


Figure 12 - The Stellenbosch Bridge Development Framework Plan

5.2 SUBDIVISION & FORMATION OF LAND UNITS

The Stellenbosch Bridge site consists of four existing land parcels. The application process for the development therefore involve various subdivisions and consolidations in order to create the land units which form the respective development precincts, road reserves, open spaces, etc.

It is important to note that the precinct areas will not be subdivided into smaller portions to accommodate buildings and development on separate properties. The reason for this relates mostly to the development's private internal electricity distribution system. Although Eskom will supply bulk electricity to the development, a private network will distribute electricity to the various development blocks and buildings. Eskom do not allow the registration of properties without an Eskom connection point. As such the development will consist of large development properties with an electrical connection to each of these properties. Development within these properties will be registered as sectional title schemes.

The development will ultimately consist of six main land units, with additional portions to be created for public road reserves, electrical substations, etc. These portions include (also refer to the Land Units Plan – **Figure 13**):

- Portion A – The Innovation Precinct
- Portion B – Residential Precinct
- Portion C – Industrial Precinct
- Portion D – Data Centre
- Portion E – Agricultural Research (situated outside of existing Klapmuts urban edge)
- Portion F – Conservation Area

Each of these land units will form a development precinct while Portions A and B will contain a number of sub-precincts. These portions will however not be subdivided into smaller portions due to the electrical requirements mentioned above. Sectional title schemes will be registered on these portions with sections being created for the various buildings and smaller developments, as opposed to erven. Separate properties will be created for the north-south class 3 road, electrical substations, etc.

The proposed land units do not correlate with the existing farm portions as some of the land units traverse more than one existing farm portion. As a result, each application (i.e. 'Applications' 1,2,3 and 4) will include a subdivision which is aligned with the Stellenbosch Bridge master development plan. A separate application for consolidation will then be required to consolidate some of these portions and to formulate the land units for the above-mentioned precinct.

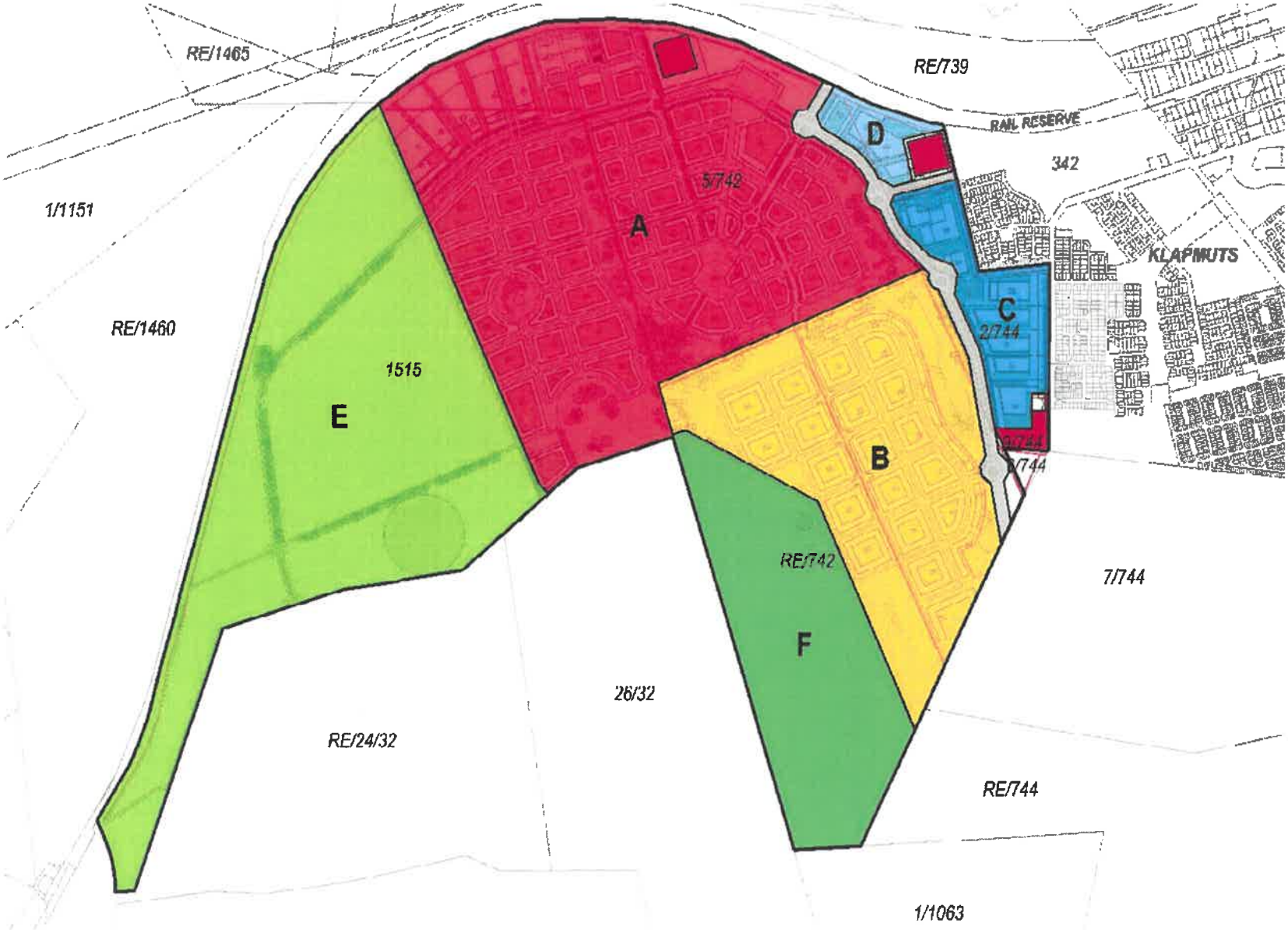


Figure 13 – The envisaged Final Land Units for Stellenbosch Bridge (excl. service properties)

The various portions to be created by the subdivisions and the subsequent consolidations to formulate the required land units is illustrated in **Figure 14** below.

Note that this process is followed, as opposed to a consolidation of all land units and subdividing the consolidated property into the final land units, to ensure that the existing development rights on a portion of the site (i.e. Farm 742/5) can be implemented while the environmental authorisation and agricultural approvals are obtained for the remainder of the site that previously fell outside of the Klapmuts SDF.

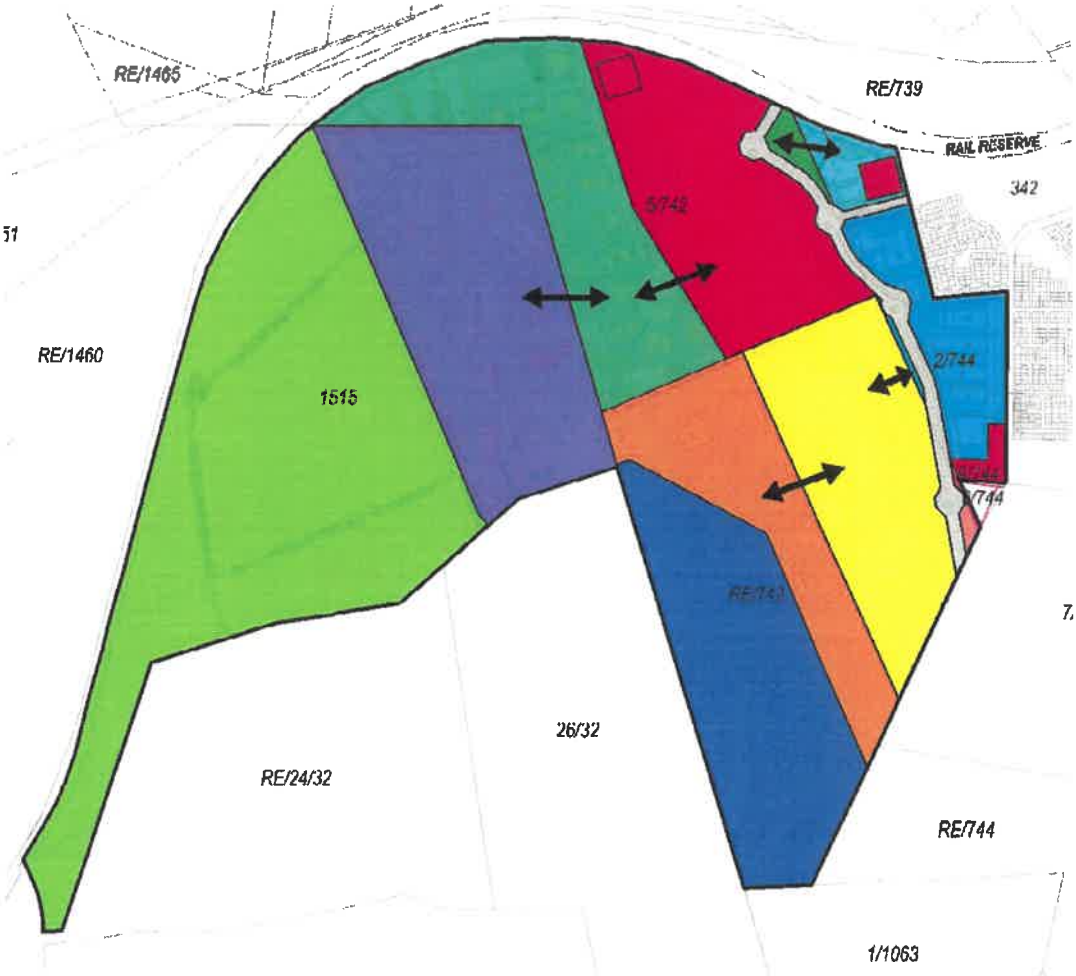


Figure 14 – Subdivisions and Consolidations to create final land units

5.3 DEVELOPMENT RIGHTS

5.3.1 Implementation

The development vision is to create a knowledge economy-driven development set within a vibrant, mixed-use, sustainable, people-centred environment, but international precedent has shown that such innovation-driven, smart environments need dynamic land use management to facilitate swift reaction to rapidly-changing circumstances. In addition, the post-COVID world will be an irrevocably altered urban landscape with changes in land use demand and urban management that cannot yet be anticipated. To position this development to survive and thrive in these unpredictable circumstances, its planning and implementation need to be **Future Proactive.** It requires a strategy that allows flexibility but within clear controls. The basis of achieving a Future Proactive development is the **F.I.R.S.T. Principles**:

- **Flexibility**: Capability to adapt to changing circumstances by planning for it proactively – the package of plans, approvals and roll-out of design concept and services need to allow flexibility within broad approvals.

- **Innovation**: Being open to and able to respond to new thinking in a rapidly changing environment – the design guidelines, design review and implementation approach should provide scope to incorporate new ideas and concepts.

- **Resilience**: Ability to prepare for, recover from, and absorb changes – the mixed-use nature of the development proposal allows this project to broaden its resilience by being diverse, dynamic, inclusive and accessible. This will be applicable to the economic, social, environmental, management, transportation and services components of the project.

- **Sustainability**: Ability to maintain a balance between economic, social and environmental demands – the project's social context, together with its economic potential and environmental innovation puts it in a unique position to create and maintain a world-leading position in sustainability.

- **Thresholds**: Identification of clear limits at which action need to be taken or investments made to maintain the balance of the development and its environment – the management of development impact by monitoring development impact thresholds will allow land use flexibility and enable a more efficient response to changes in market demand and development opportunities.

The following interlinked Development Controls Mechanisms will be used to ensure the Future Proactive nature of this project:

- **Package of Plans**: The phased process of approval allows confirmation of rights as implementation happens. The incremental allocation of the basket of rights (Section 6.3.3) will be done by means of Precincts Plans and Site Development Plans (in the absence of Subdivision Plans as the development will be a Sectional Title Scheme) and will facilitate roll-out according to the demand timing of the various market elements and variability in the take-up rate.

- **Mixed-Use Zone**: The Innovation Precinct will be allocated a Mixed-use Zoning and development parameters in terms of the Stellenbosch Municipality Zoning Scheme Regulations, 2018 providing for the widest range of uses to facilitate the integrated nature thereof. Land uses not provided for under this zone and revised development parameters could be included by means of an overlay zone or similar mechanism.

- **Floating Floor Area**: The development entity will become an Independent Power Supplier and current legislation limits the number of erven the IPS may serve – the entire development area will be subdivided and consolidated to create four development erven, each functioning as a sectional title scheme to which rights from the basket will be allocated. It is proposed that part of the total basket of rights function as a floor area float (20% of non-residential floor area and 1 000 residential units)– these rights will only be required once all approvals are in place, the detailed planning has been finalized and rights already allocated to that Precinct have been used but the additional rights fit in with the vision and the urban design guidelines. This will allow flexibility to respond to future demand changes and new land use options.

- **Threshold Planning**: The starting point is a land use base scenario for the total development on which the upper limit of service and infrastructure demands is calculated. The required infrastructure improvements for roads, civil and electrical services are agreed and captured in a service level agreement (SLA). These services thresholds, together with the development register and urban design guidelines are used to monitor land use implementation within the overall basket, allowing flexibility in the phasing, composition, and location thereof. The efficiency of the development is improved as infrastructure is implemented as and when required and allows flexibility to adjust land use combinations according to market demand without negatively impacting the broader area.

- **Development Register**: Each implementation application will be accompanied by a Development Register Summary, Traffic Statement and Services Statement to confirm the availability of the floor area, balance of rights available and adherence to the services thresholds.

- **GBCSA Sustainable Precinct Certification:** The Certification is monitored and requires continued action in various categories which will assist in focussing the implementation on achieving its sustainability goals.

- **Development Manual and Design Review Process:** Adherence to the urban design guidelines is managed through the design review process.

5.3.2 Basket of Rights

The land use rights to achieve the mixed-use development vision is summarised in **Table 2.** This basket is considered the land use base scenario.

The Basket of Rights will be applied for incrementally according to the application schedule agreed with the Municipality. These rights will be allocated per precinct and sub-precinct and part thereof will be used as floating floor area.

Table 2 - Proposed Stellenbosch Basket of Rights

Precincts	Residential	Business	Industrial	Institutional	Other
	Dwelling units du	Floor Area - m^2	Floor Area - m^2	Floor Area - m^2	Floor Area - m^2
Precinct A	**2 500**	**243 000**	**43 000**	**144 000**	**13 500**
A1	600	145 500	-	43 500	3 500
A2	450	43 500	-	38 700	-
A3	-	15 000	12 000	-	-
A4	-	-	31 000	20 000	-
A5	1 450	39 000	-	41 800	10 000
Precinct B	**2 500**	-	-	-	-
B1	1 600	-	-	-	-
B2	900	-		-	-
Precinct C	-	-	75 500	-	-
Precinct D	-	10 000	15 000	-	-
Floating	1 000	35 000	60 000	24 000	17 000
Sub-Total	**6 000**	**288 000**	**193 500**	**168 000**	**30 500**
TOTAL	**6 000**				**680 000**

Once the final land use approval is granted for the areas recently incorporated into the Klapmuts urban edge the various subdivisions will be consolidated to create four development erven that will each be registered as a sectional title scheme. No further subdivision will be required. It is the intention that the land use rights allocated to the sub-precincts of A and B can be utilised throughout the consolidated erven A & B as guided by the approved Precinct Plans, land use allocations and urban design guidelines.

The floating floor area will be allocated when the rights of a specific land use category have been allocated and the urban design concept can accommodate the additional rights

or when a use that is complimentary to the predominant land use of that precinct is proposed for which provision was not made in the base land use scenario. Ultimately, provision could also be made for the reallocation of rights between the land use categories if these changes do not exceed the services thresholds planned for in the land use base scenario. These additions or changes will be done only if the development control mechanisms are satisfied and in agreement with the Stellenbosch Municipality.

5.3.3 Phasing and Services Roll-Out

The roll-out of development rights and implementation of services for this project will facilitate development within the following precincts as based on the services thresholds set out in **Table 3**:

- Precincts A1, B1, C and D
- Precincts A3 and B2
- Precincts A2, A4 and A5

The urban design framework will play an essential role in the timing and location of these rights within the precincts as the establishment of the spatial structure and key open space elements such as the central square and pedestrian boulevard are critical to the success of the project.

Table 3 – Draft Rights Roll-out and Services Thresholds							
Threshold	**Water Demand**		**Sewerage**	**Electricity**	**Stormwater**	**Development Rights (up to)**	
	AADD (up to)	Upgrades	Upgrades	Upgrades		**Residential**	**Non-residential**
1				• Brick-built switching substation • Primary MV cabling from Eskom 132/11kV step-down substation • Four secondary MV cable bulk supplies	• Stormwater management plan to finalise improvements	1 577 units	118 500m²
2	1 300kl/day	• Master plan items SKW1.1, SKW1.2a, SKW1.2b & SKW1.12				1 900 units	222 500m²
3			• Master plan items SKS2.4 to SKS2.8	• 132/11kV step-down substation • new brick-built switching substation, • interlinking primary MV cabling and secondary MV cable rings	• Stormwater management plan to finalise improvements	2 200 units	322 500m²
	Upgrades					**Residential**	**Non-residential**
Background	• Dualling of R44 between N1 & Klapmuts-Simondium Rd • Upgrade of N1/R44 & N1/R304 interchanges • Upgrade of R304/Old Paarl Rd intersection • Left-turn lanes on two R44-approaches to R44/Klapmuts –Simondium Rd intersection						
1	• Access road link to Merchant St & roundabout at the Merchant St/access road intersection • Realignment of section of Merchant St & roundabout at the Groenfontein Rd/Merchant St intersection • Underpass-road (dual) (Klapmuts Hills Rd) between Old Paarl Rd and Merchant access road link & roundabouts • Klapmuts Hills single lane road from link Merchant access road to second industrial access (Precinct C) • Dualling of Old Paarl Rd between Groenfontein Rd and underpass road & roundabouts at intersections • Dedicated left-turn lane along the Stellengate Boulevard-approach to the R44 intersection					1 577 units	118 500m²
3	• Groenfontein Rd-interchange on N1 • Upgrade/dualling of Groenfontein Rd between interchange and Old Paarl Rd with roundabout at intersection • Dualling of Klapmuts Hills Rd between underpass-road and access road link to Merchant St • Extension of Klapmuts Hills Rd to Precinct B second access					2 200 units	322 500m²

6.0 DEVELOPMENT LAYOUT & DESIGN

6.1 THE MASTER DEVELOPMENT PLAN

The Stellenbosch Bridge Master Development Plan is illustrated in **Figure 16** and provides more detail with regards to the internal road network, development blocks, open space and land uses.

At the heart of the development will be the Innovation Precinct, centrally situated within the development. Linked to the Innovation Precinct are business hubs, green and smart industry precincts, dedicated living spaces, a transportation node, as well as retail and logistic precincts all integrated by a network of green spaces to connect its citizens and communities.

The high-density residential precinct is situated to the south of the Innovation Precinct, separated by the open space network.

The light-industrial and data centre precincts form the eastern edge of the development. Light-industrial and educational development is proposed along the northern boundary.

Figure 15 – Stellenbosch Bridge Masterplan

6.2 LAND USE DISTRIBUTION

The land-use map below illustrates the proposed distribution of land uses within the development (**Figure 16**). In summary:

- The Innovation Precinct is a mixed-use precinct comprising of office, commercial, residential, retail, hotels, entertainment, education and transport.
- There is a low- and high-density Residential precinct to the south and a light industrial precinct to the west and north of the future Innovation Precinct.
- The Education / School Precinct is located between the transport interchange and Industrial Precinct.

Note that the proposed land use mix is indicative and is subject to change based on the basket of rights and allocation of development rights.

Figure 16 – Land Use Map

6.3 DEVELOPMENT HEIGHT

Refer to **Figure 17** which illustrates the various height zones of the development. The heights of buildings will be regulated by the controls assigned to each land parcel as part of the Architectural Design Guidelines and Precinct Plans.

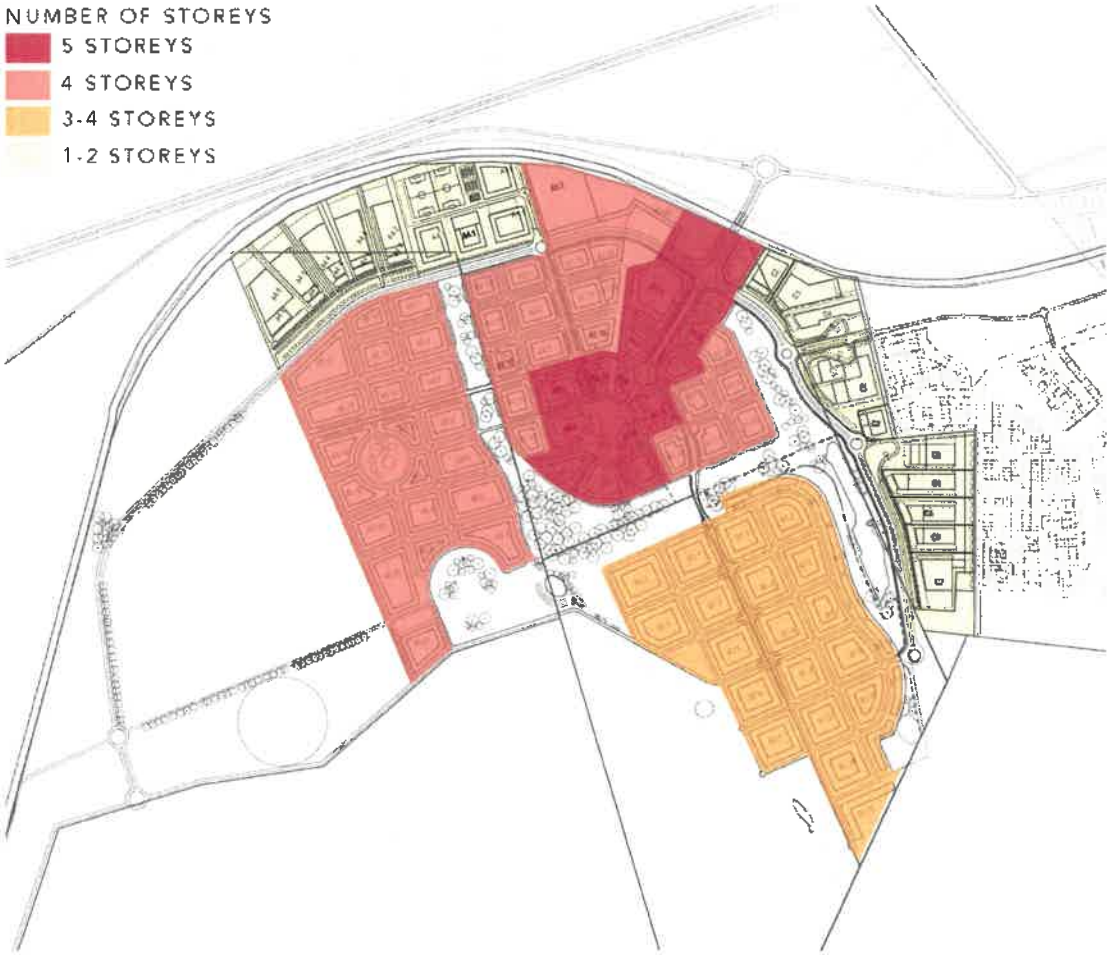


Figure 17 – Height Zone Map

6.4 URBAN DESIGN OBJECTIVES

The Urban Design concept for Stellenbosch Bridge is based on traditional urban design principles which provides living, working and recreational spaces for a diverse community of people in combination with creating a catalytic environment that provides opportunities for technological and social enhancements which define a smart city.

The Urban Design Vision is based on the following urban design principles:

- Daily needs within walking distance (mixed use)
- Interconnected system of streets
- A central focus: main streets and square
- Perimeter buildings orientated to the public realm
- Clear distinction between private and public space
- Supportive of public transport
- Sharing of infrastructure over a 24-hour period

In addition to the principles listed above, the Innovation Hub is envisaged as an integrated mixed-use precinct that is concerned with place making, urban fit and proper spatial integration. Whilst it is a private development, it contains the critical elements necessary to contribute significantly to the transformation of Klapmuts, to a spatial continuum designed to be experienced and enjoyed at pedestrian scale across boundaries.

This aim becomes possible because of the critical mass of built form, mix of uses and the relation of mass to a designed external and internal open space system. A place where many different building types, allowing for a variety of experiences and functions such as retail, commerce, education, residential, entertainment, etc are all able to exist side by side within an overall unified whole.

The individual building will have strong features, differ in detail, but will be part of the "same family". A north-south pedestrian street is proposed, linking two main squared acting as a spine, around which all parts of the development are collected and grouped. The vision proposed is a primarily safe pedestrian environment, in which open walls, streets, squared, plaza's, parks and sports fields have been articulated as positive spaces, accommodating a wide variety of experiences and functions.

Parking will be accommodated on streets and within courtyards, semi-basements and basements concealed within the development. The vision is underpinned by environmental strategies.

From inception the intention with Stellenbosch Bridge is to include all of the best materials and technology required for it to achieve a GBCSA rating. Landscaping and a green environment are integral to the architecture.

Vertical and horizontal planes will be planted and planting will be integral with the planning and design of the outdoor spaces and courts, which will be wind sheltered and contain features such as arbours, structures planting, fountains, pergolas, street furniture and sculptures.

Stellenbosch Bridge is seen as a "town within a town". It is envisaged as a 'hub' – a central transport node, including rail, vehicular and pedestrian and as such integrates seamlessly with the surrounding built fabric and its network of routes and connections.

The development will maximize the given site conditions. Advantage has been taken of the magnificent views from the development, whilst the views towards the development have been carefully considered.

The draft Stellenbosch Bridge Design Manual is attached as **Annexure K** and contains the detail of the Stellenbosch Bridge urban design principles and architectural codes. It is proposed that this document be formally approved by the Stellenbosch Municipality as an official design manual document and that all development within Stellenbosch Bridge need to conform with these guidelines and principles.

Figure 18 – Perspective View of Stellenbosch Bridge

6.5 LANDSCAPING

A Landscaping Framework and Design Guidelines document has been prepared by Square One Landscape Architects and is attached as **Annexure L**. This document provides the overall landscape intent and vision for the Stellenbosch Bridge development.

The landscape framework will ensure a unified landscape and built form that responds to place, community, character and function. It is intended to provide a long-term vision, enabling the creation of a planned and deliverable network of high-quality green spaces as the setting of the future development.

The vision of the landscape framework is to create a resilient receiving environment that is able to provide a host of ecosystem services to all users of the site and to the valley as a whole. This must be structured in a way that facilitates ease of management through design and by engendering a clear and valued sense of identity and place.

6.5.1 Landscaping Design Principles

The principles provide a set of objectives intended to guide the landscape design. They are adapted in part from *Guidelines for the Provision of Open Space in South Africa* and are as follows:

- **Put Nature First** - Protecting ecological processes should be of the highest order in determining and designing for open space (protection and provision).

- **Promote Water Sensitive Design** - This approach acknowledges stormwater as a valuable asset and resource for the development. It uses natural systems to slow, and filter surface water run-off, mimicking natural processes whilst providing social, ecological and amenity value for the development.
- **Provide Continuities of Blue-Green Open Space** - Provide for continuities of green space (e.g. a blue-green lattice of park and the bioswale corridor along street edges). This is necessary to provide biologically diverse natural habitats that can respond and adapt to ecological change (resulting from changing environments, etc.) And provide resilient landscapes.

- **Promote locally-sourced Hard and Softscape Materials** - Materials provided for the development should be locally sourced. This is not only closely tied to the cultural identity of the area but is also intended to minimize the impact of the development on the environment. Softscape planting should be similarly considered as a part of the development's identity.

- **Design for Low Maintenance** - In terms of these spaces, on-going maintenance is essential as spaces that are not maintained have the potential to become liabilities rather than assets.

- **View all open space as positive social space** - There should be no residual or leftover space. All space has the potential to serve as positive social space and contribute to a positively performing settlement. Open spaces (parks, streets, squares, etc) often have different roles but they need to be considered as a single spatial system that together forms a primary element of the public open space structure of the

development. Open space has an important influence on our physical and mental health and wellbeing. It provides opportunities for healthy lifestyles and community interaction.

- **Provide Multi-functional Open spaces** - All open space should be designed to be multi-functional, generously accommodating a variety of formal and informal recreational activities.

- **Design for Human Comfort** - Open space elements should be designed for human comfort. They can provide protection from the wind, provide shading in summer and sun in winter. Low planter walls can serve as informal seating as well as spatial demarcation.

- **Consider Safety and Security** - Though safety and security cannot be solved through design, they can be mitigated through design by providing passive surveillance opportunities, etc.

- **Provide for Sense of Arrival** - As part of the landscape, provide clear identity that creates a sense of arrival that is integrated with the surrounding landscape.

- **Views, Vistas and Viewing Corridors** - The development is located on a hill. It is therefore beneficial to maximize the views from the development, providing Viewing corridors along recognizable View lines.

Figure 19 - The Landscape Framework Concept

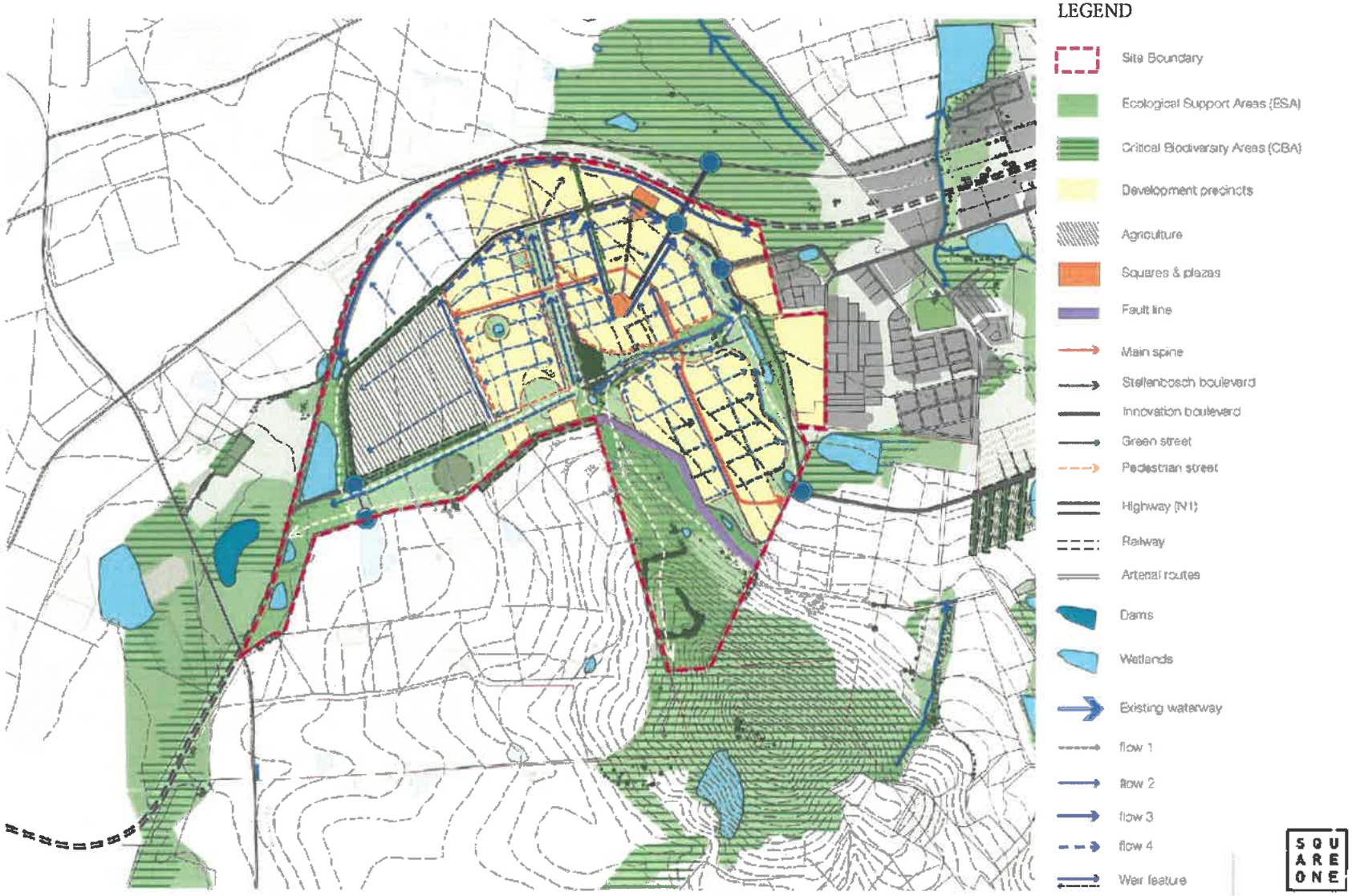


Figure 20 - The Landscape Framework

7.0 THIS APPLICATION

7.1 ADDITIONAL DEVELOPMENT RIGHTS

The previous approval for the Klapmuts Hills development on a portion of Farm 742/5 provided for a basket of rights which include 1 577 residential units and 23 200m^2 GLA for retail and other associated services and facilities. The subsequent submission of the "Stellenbosch Bridge Application 1" applied for the amendment of the development framework and subdivision plan in order to ensure alignment with the renewed Stellenbosch Bridge concept and draft master development plan, in line with the previously approved basket of rights.

The purpose of this application is to obtain additional development rights on this development footprint, including additional residential units, commercial and industrial floor space, in order to align the development layout and bulk in this area with the draft Stellenbosch Development Framework and Master Development Plan.

It is proposed that additional uses be approved to allow a basket of rights for the following:

- Further 623 residential units to allow **2 200 residential units** (2 000 flats and 200 group housing units)
- Further 201 500m^2 to allow **229 500m^2 non-residential floor area** (including business, industrial and institutional land uses)

7.2 AMENDMENT OF SUBDIVISION & ZONING PLAN

In addition to the increasedl development rights, it is also proposed that the approved Subdivision & Zoning Plan be amended to include the allocation of zonings to the portions of this subdivision.

The additional development rights being applied for as part of this application does not change the approved subdivision layout. However, as there is now more clarity on the development layout, the proposed land units and the envisaged final land units, specific zonings can now be allocated to the 8 portions.

As previously stated, Stellenbosch Bridge will ultimately consist of four land units that will accommodate development, with sectional title schemes to be registered on these land units to accommodate development blocks within different sections. The portions within this subdivision plan will therefore not be subdivided into smaller portions but will at a later stage be consolidated with adjacent land units (currently situated on other farm

portions) to form the final land units. The respective zonings that will apply to these future land units can therefore be allocated to these portions at this stage.

The updated Subdivision and Zoning Plan is attached as **Annexure F** (also refer to **Figure 21**). The following zonings are proposed:

- **Portion 1: Multi-Unit Residential Zone.** This zoning will allow the various forms of residential development proposed for this portion, including flats and group housing. Although limited commercial and institutional land uses are envisaged for this portion, this will be applied for in future (as part of the future 'Application 4') and will be allowed by means of spot zonings (for other more appropriate zonings).

- **Portion 2: Mixed-Use Zone** with **Industrial Zone spot zoning.** The Mixed-Use zoning will allow the various residential, business and institutional land uses proposed as part of the Innovation Precinct. Smart manufacturing, service industry and warehousing & distribution facilities are also proposed for this portion (as part of Precinct A3) but are not permitted by the Mixed-Use zoning. It is therefore proposed that the Industrial Zone be allocated to these areas by means of spot-zonings to accommodate these land uses.

  Additional consent uses are also applied for to permit additional land uses within the Mixed-Use and Industrial Zone areas (see Section 7.3).

- **Portion 3: Industrial Zone.** This portion will be consolidated with an adjacent land unit and will form Precinct D that will accommodate the Data Centre and business land uses. This portion is therefore zoned Industrial Zone with an additional consent use for business premises (Note that the adjacent portion with which Portion 3 will be consolidated with is also proposed to be zoned Industrial Zone as part of Application 2).

- **Portion 4: Industrial Zone.** This small portion will be consolidated with the adjacent proposed portion of Farm 744/2 which forms part of Application 2 and is also proposed to be zoned Industrial Zone.

- **Portion 5: Private Open Space.** This portion is not desirable for development as it is a small portion of land in the corner of the site created by the public road reserve. It is thus proposed that this portion be zoned Private Open Space as it will form part of the existing natural environment.

- **Portion 6: Agricultural & Rural Zone.** This portion's existing zoning and as per the previous Subdivision & Zoning Plan. This portion will be rezoned as part the future Application 4.

- **Portion 7: Public Roads & Parking Zone.** Remaining unchanged from the previous Subdivision & Zoning Plan. To accommodate the public road reserve.

- **Portion 8: Public Roads & Parking Zone.** Remaining unchanged from the previous Subdivision & Zoning Plan. To accommodate the public road reserve.

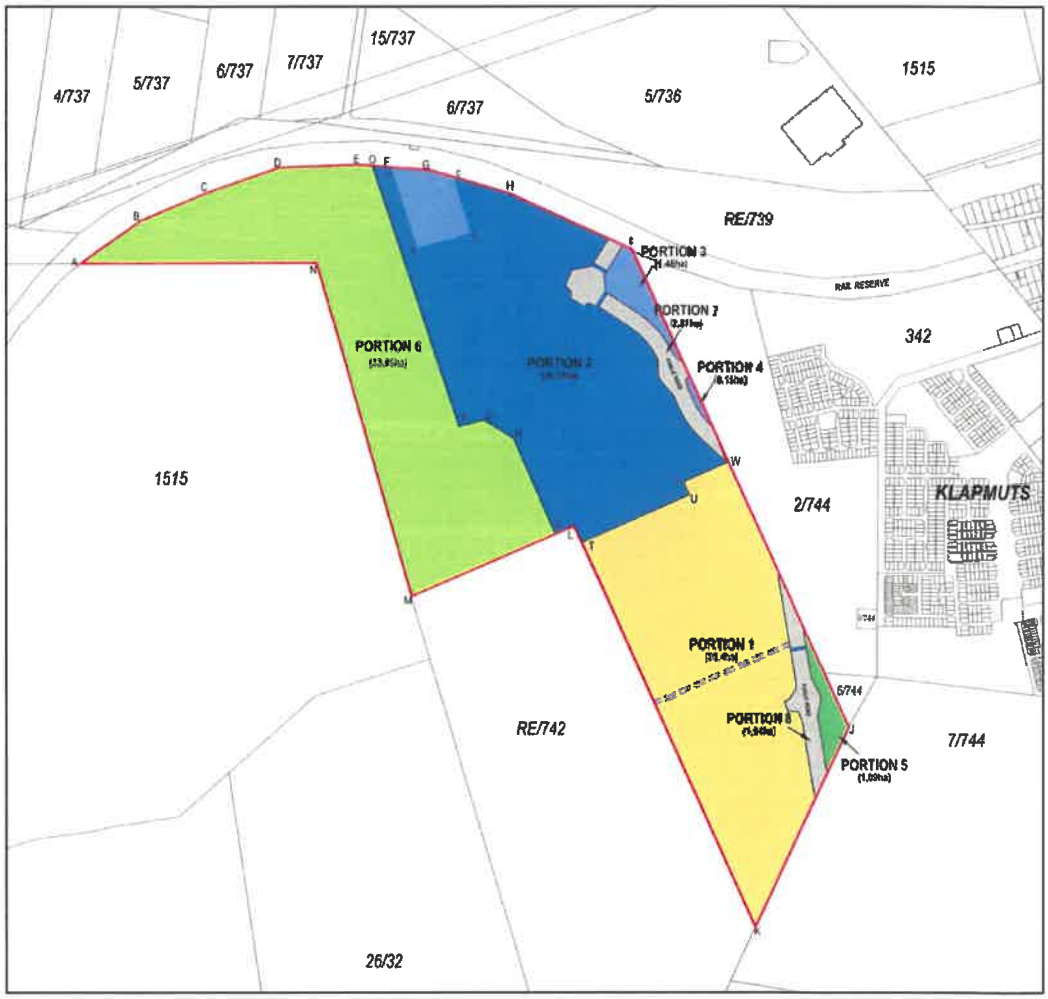


Figure 21 - Proposed Amended Subdivision & Zoning Plan

7.3 APPLICATION FOR COUNCIL'S CONSENT AND PERMISSION

In addition to the allocation of zonings set-out above, applications for Council's consent are also included to permitted additional land uses on the respective zonings which are not permitted as primary land use rights in the Stellenbosch Zoning Scheme By-Law, but as additional land uses permitted with Council's consent. This include:

- **Portion 2** - Innovation Precinct (zoned Mixed-Use Zone)
  - Commercial gymnasiums
  - Conference facilities
  - Day care
  - Gambling places
  - Hospitals
  - Indoor sport
  - Liquor Stores
  - Occasional use (> one event/year)
  - Parking garages
  - Places of assembly
  - Places of education
  - Places of entertainment
  - Renewable energy structures
  - Rooftop base telecommunication stations
  - Tertiary educational institutions
  - Warehouses
- **Portion 2** – Innovation Precinct (Industrial Spot Zone)
  - Business Premises
- **Portion 3** – Data Centre (zoned Industrial Zone)
  - Business Premises
- **Portion 4** – Industrial (zoned Industrial Zone)
  - Business Premises

The additional land uses for Portion 2 form part of the Innovation Precinct mixed-use environment and are aligned with the overall commercial function and character of this precinct.

The additional Business Premises land uses proposed for the Industrial spot-zoning on Portion 2 and on Portions 3 and 4 are to allow the additional business activities which will form part of the light-industrial and smart manufacturing activities on these portions.

Note that the exact position and scale of the above listed additional land uses will be confirmed at Precinct Plan level.

In addition to the application for Council's consent, application is also made for Council's permission to allow flats on the ground storey of buildings within the Mixed-Use zone of Portion 2. This will allow the incorporation of residential blocks, but will not compromise the activation of the main pedestrian routes and street interfaces within this precinct.

7.4 DEVELOPMENT LAYOUT

The proposed development layout for the subject area remain consistent with the development framework and subdivision plans submitted as part of Application 1. The development in this area is separated into two components, which will ultimately form part of two separate precincts, namely:

- A predominantly residential component to the south (on Portion 1 of the approved subdivision plan) which will form Precinct B1; and
- A mixed-use component to the north (on Portion 2 of the approved subdivision plan) forming Precincts A1 and A3 as well as a portion of Precinct D.

The two development areas are separated by a green open space system which will form part of the main Stellenbosch Bridge open space network and accommodates stormwater systems and existing treelines which will create interest and variety in the development.

The main vehicular access to the development will remain via an underpass road from Old Paarl Road and will be supported by a road link into the Klapmuts town. Two north-south vehicular routes will accommodate traffic movement on site and will connect with the future circular movement system on the adjacent properties that will form part of the proposed Stellenbosch Bridge development.

The open space system will be designed in an integrated manner to facilitate pedestrian movement via a combination of hard and soft landscaped open spaces.

7.4.1 Residential Component (Precinct B1)

The residential component on the southern portion will accommodate a total of 1 600 residential units, which will be in the form of high- and medium-density sectional-title schemes. The development plan (**Figure 22**) indicates the indicative development layout of this precinct. Note that the plans illustrating the allocation of these units and the detailed development layout will be submitted as part of Precinct Plan approval application which will follow the approval of this application.

Note that limited non-residential floor area within this residential area (to accommodate retail and institutional facilities) will be accommodated as part of the 'floating bulk', obtained as part of Application 4, allowing for the addition of such facilities where appropriate.

7.4.2 Mixed-Use Component (Precincts A1, A3 & portion of D)

The 229 500m^2 non-residential floor area applied for as part of this application is proposed to be allocated to the mixed-use and industrial component precincts. The mixed-use area will form the centre of the Innovation Precinct and will accommodate

business, residential, education, medical, institutional, data centre, research and development, smart manufacturing, sport, gaming and recreation, tourism, utility service, parking, transport facilities, private open space and private road.

As mentioned, this component will form Precincts A1, A3 and a portion of Precinct D, which will be consolidated with the remainder of the Precinct D that currently forms part of Portion 2 of Farm 744, Paarl (and part of Application 2).

Figure 22 indicates the indicative development layout of this precinct. The plans illustrating the allocation of the land uses, floor space and units, as well and the detailed development layout, will be submitted as part of the Precinct Plan approval applications which will follow the approval of this application.

Figure 22 - Proposed Development Plan for Farm 742/5

8.0 MOTIVATION: NEED, DESIRABILITY & IMPACT

8.1 CONSISTENCY WITH PLANNING LEGISLATION (SPLUMA & LUPA)

Both the Spatial Planning and Land Use Management Act No.16 of 2013 (SPLUMA) and the Western Cape Land Use Planning Act No.3 of 2014 (LUPA) prescribes a set of land use planning principles to guide land use planning. The proposed amended development framework adheres to the land use principles relevant to development proposals as follows:

- ***Spatial Justice*** – The proposed amended development framework will ensure the improved access to, and utilization of land and the provision of affordable housing and additional employment opportunities.

- ***Spatial Sustainability*** – The proposed amended development framework contributes to spatially compact land development as it will ensure that the site is developed at a higher average density. The amended plan also provides for a more intensified mixed-use environment.

- ***Efficiency*** – The proposed development optimizes the use of existing (approved) resources and infrastructure as it densifies development on a site with approved land use rights.

- **Good administration** – The proposed development is aligned with the provincial and municipal spatial development frameworks and land use policies.

8.2 CONSISTENCY WITH SPATIAL DEVELOPMENT FRAMEWORKS AND MUNICIPAL POLICIES

8.2.1 Western Cape Provincial Spatial Development Framework

The Western Cape Spatial Development Framework (PSDF) was approved by the executive authority in 2014 and endorsed by the Provincial Cabinet to replace the previous PSDF. The PSDF puts in place a coherent framework for the province's urban and rural areas that (1) gives spatial expression to the National and Provincial development agendas, (2) serves as basis for coordinating, integrating and aligning 'on the ground' delivery of National and Provincial departmental programmes, (3) supports the municipalities to fulfil their municipal planning mandate in line with the National and Provincial agendas and (4) communicates government's spatial development intentions to the private sector and civil society.

The PSDF applies the following spatial principles:

- **Spatial justice** – A socially just society is based on the principles of equity, solidarity and inclusion. Past spatial and other development imbalances should be redressed through improved access to and use of land by disadvantaged communities.

- **Sustainability & Resilience** – Land development should be spatially compact, resource-frugal, compatible with cultural and scenic landscapes, and should not involve the conversion of high potential agricultural land or compromise ecosystems.

- **Spatial Efficiency** – Relates to the form of settlements and use of resources – compaction as opposed to sprawl, mixed-use as opposed to mono-functional land uses, residential areas close to work opportunities as opposed to dormitory settlement and prioritisation of public transport over private car use.

- **Accessibility** – Improving access to services, facilities, employment, training and recreation, and safe and efficient transport modes.

- **Quality and Liveability** – A quality built environment is one that is legible, diverse, varied and unique, Legible built environments are characterised by the existing of landmarks such as notable buildings and landscaping, well-defined public spaces and navigable street networks.

The PSDF's policy framework covers Provincial spatial planning's three interrelated themes, namely (1) Sustainable use of the Western Cape's spatial assets, (2) Opening-up opportunities in the Provincial space-economy, and (3) Developing integrated and sustainable settlements.

Sustainable Use of Spatial Assets

The PSDF emphasise that the Province's biodiversity and agricultural resources should be protected as the unique scenic and cultural landscapes, which underpin the tourism economy, are being eroded and fragmented from inappropriate development.

The site area of the proposed development remains as previously approved and does not involve additional environmental or agricultural land. Although the Stellenbosch Bridge development will extend beyond the approved development footprint, the additional land is situated within the approved Klapmuts urban edge and has therefore already been demarcated by the Municipality for urban development (as part of Stellenbosch Bridge).

The proposed development is designed to remain sensitive to the surrounding rural setting. Protected environmental elements in the surrounding area will not be affected.

Opening-up opportunities in Space-economy

The PSDF's strategy of opening-up opportunities in the urban space-economy places emphasis on the upgrading of the built environment in dysfunctional townships so they became enabling living environments. Incentives should be put in place to attract economic activities close to dormitory residential areas, facilitate brownfields development (e.g. mixed-use development and densification in appropriate locations) and private sector involvement in the rental and gap housing markets.

The existing Klapmuts community has limited job creation opportunities outside of the agricultural sector and a development such as this will add significant job creation and business development opportunities across a variety of sectors.

Developing Integrated and Sustainable Settlements

The PSDF promotes smart growth of urban settlements by ensuring efficient use of land and infrastructure by containing urban sprawl and prioritising infill, intensification and redevelopment within settlements. It further encourages the increase of densities of settlements and dwelling units in new housing projects.

The proposed development responds positively to this strategy of the PSDF as it facilitates more efficient use of land with an existing urban area (inside the urban edge). The amended development plans will allow future development at a higher density and greater mix and intensification of land uses.

It is thus evident that the proposed development is consistent with the policies of the PSDF.

8.2.2 Stellenbosch Municipality Spatial Development Framework (2019)

The Stellenbosch Municipality Spatial Development Framework (2019 SSDF) has been approved by the Council of the Stellenbosch Municipality on 2 August 2019.

The 2019 SSDF highlights the following key principles in working towards its vision of developing a "Valley of Opportunity and Innovation":

1) Maintain and grow the assets of the Stellenbosch Municipality's natural environment and farming areas.
2) Respect and grow our cultural heritage, the legacy of physical artefacts and intangible attributes of society inherited from past generations maintained in the present and preserved for the benefit of future generations.
3) Within developable areas – areas not set aside for limited development owing to its natural or cultural significance – allow future opportunity to build on existing

infrastructure investment, on the opportunity inherent in these systems when reconfigured, augmented or expanded.

4) Clarify and respect the different roles and potentials of existing settlements.
5) Address human needs – for housing, infrastructure, and facilities – clearly in terms of the constraints and opportunity related to natural assets, cultural assets, infrastructure, and the role of settlements.
6) Pursue balanced communities
7) Focus energy on a few catalytic areas that offer extensive opportunity and address present risk.

Klapmuts

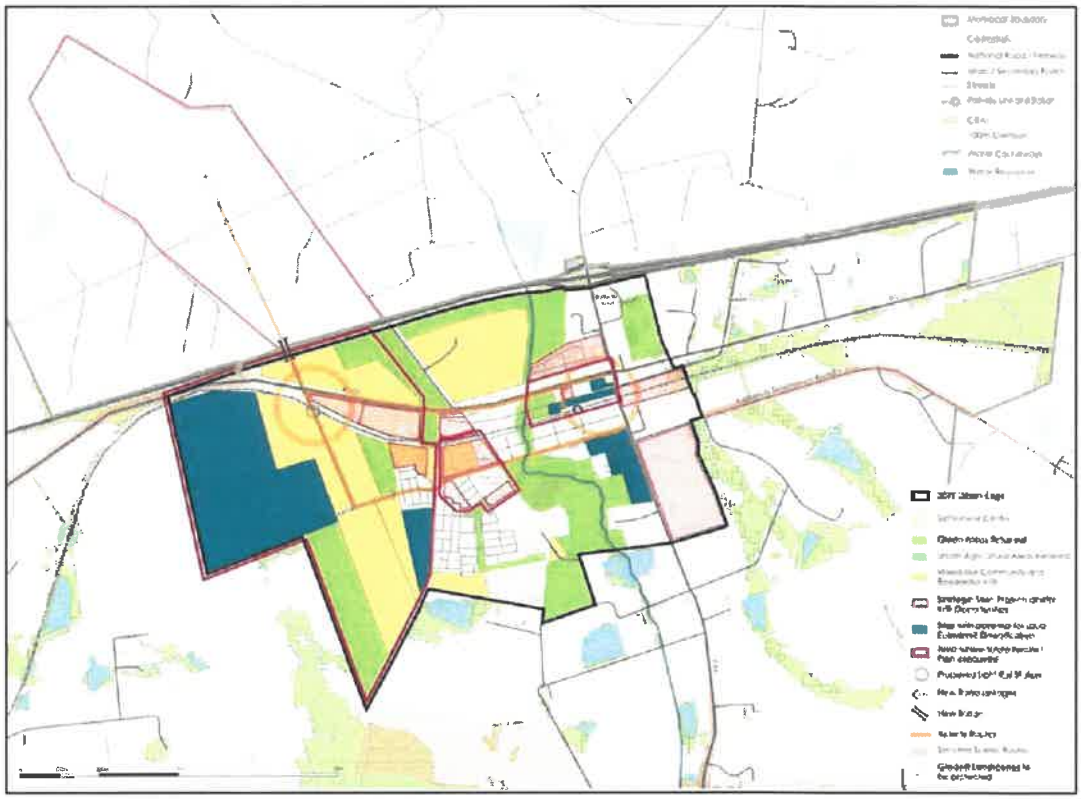


Figure 23 - Approved Stellenbosch Spatial Development Framework (2019) – Klapmuts Plan

Located as it is on the N1 transport corridor, which carries 93% of metropolitan bound freight traffic, Klapmuts is a potentially significant centre for economic activity and residence within the metropolitan region and Stellenbosch Municipality. To date, the settlement is characterized by residential use and limited commercial and work-related activity. Public sector resource constraints have prevented the infrastructure investment required to enable and unlock the full potential of the area for private sector economic development.

The SSDF recognised the significant progress that has been made in planning for an "Innovation Precinct" or "Smart City" district west of but contiguous to Klapmuts. This includes a land agreement with the University of Stellenbosch to establish education and innovation-related activities in this area. The urban edge has been adjusted in recognition of the opportunity associated with this initiative.

The 2019 SSDF include the following proposals for Klapmuts:

- **Protective Actions:**
  - Maintain and improve the nature areas surrounding Klapmuts;
  - Work to increasingly connect and integrate nature areas, also with urban green areas, to form an integrated green web or framework across the municipal area;
  - Improve public continuity, access and space along the stream corridors;
  - Retain and improve the relationship between Klapmuts and surrounding agricultural land;
  - As a general principle, contain the footprint of Klapmuts as far as possible within the existing urban edge;
  - Retain the strong sense of transition between agriculture and human settlements at the entrances to the town;
  - Maintain the integrity of historically and culturally significant precincts and places.

- **Change Actions:**
  - Prioritise informal settlements for upgrading and service provision;
  - Pro-actively support higher density infill residential opportunity in Klapmuts South;
  - Retain and actively support mixed use redevelopment and building within the town centre and surrounding areas, comprising living space above active street fronts;
  - Proactively improve conditions for walking and NMT within Klapmuts;
  - Prioritise NMT connections between Klapmuts North and South;
  - Cluster community facilities together with commercial, transport, informal sector and other activities so as to maximise convenience, safety and socio-economic potential;
  - As far as possible, focus investment in parks, open space and social facilities accessible by public and NMT, in this way also increasing the surveillance of these facilities.

- **New Development Actions:**
  - Support the development of Farm 736/RE in Klapmuts North to unlock the development potential of Klapmuts (with emphasis on job creation);
  - Support the development of an "innovation precinct" or "smart city" in Klapmuts South;
  - Ensure that housing in Klapmuts South provides for a range of income groups;

- Improve linkages between Klapmuts North and South, specifically along Groenfontein Road and a possible NMT crossing over the N1.
- Explore the feasibility of changing / complementing the rail service along the Baden Powell Drive-Adam Tas-R304 corridor to a system providing a more frequent, flexible service better integrated into the urban realm. Alternatively, a regular bus service should be explored serving the same route.

The Stellenbosch Municipality, including the Planning & Economic Development and Infrastructure Services departments, have been consulted extensively during the development and design process of the Stellenbosch Bridge development concept and plans. These discussions are ongoing as the Municipality is an important stakeholder in the project. The current development plans for the Stellenbosch Bridge development therefore incorporates the proposals of the SSDF. The MSDF also includes the Innovation Precinct Concept Plan (See Figure 56 of MSDF) as reference for the future development of Klapmuts.

This proposed development responds positively to the principles and proposals of the draft 2019 SSDF as it contributes to:

- The development of higher-density mixed-use development, with an emphasis on integrating living space with commercial and other uses;
- An emphasis on walking and NMT systems in the development layout;
- The integration and clustering of commercial opportunities, residential spaces, recreational facilities and transport systems;
- Housing provision to a range of income groups;
- An improved relationship between development and the surrounding residential areas;
- The incorporation of existing treelines and dams into the open space network of the proposed development;

8.3 SOCIO-ECONOMIC IMPACT

A socio-economic impact study for Stellenbosch Bridge was conducted by Multipurpose Business Solutions. A copy of the report is attached as **Annexure M.**

The Stellenbosch Spatial Development Framework and IDP are the primary planning tools for the Stellenbosch area and therefore the proposed development, as it incorporates the provisions of all other broader level plans for the area and therefore forms the initial basis for the economic assessment of the proposed Stellenbosch Bridge development. Stellenbosch town and Klapmuts were identified as spatial areas for priority development over the MSDF planning period.

Assessment of the spatial planning frameworks of the local, district and provincial authorities suggests that the proposed Stellenbosch Bridge development supports and

fits with the spatial planning principles of the Stellenbosch Municipality as indicated in the IDP and SDF from a socio-economic perspective and specifically with the focus on Klapmuts. The Stellenbosch Bridge development is in the delineated urban edge of Klapmuts and the part not included, is earmarked for agriculture.

The proposed development is positioned as a development that is intended to contribute towards business, housing and infrastructure development in the Klapmuts area, but specifically in a node where the community needs private investment to uplift their socio-economic well-being and create more sustainable employment.

Potential Positive and Prescribed Impacts

A number of benefits are associated with the proposed Stellenbosch Bridge development:

- **Job creation**: The findings of the employment analysis are considered in the context of Application 1 and Application 2, both of which are phased over 4 years and envisaged to run in parallel. Application 1 of the Stellenbosch Bridge development could sustain on average 1 090 to 1 199 jobs per annum over 4 years of the construction period. If employment is considered at the Stellenbosch Municipal level, 1 023 to 1 125 jobs will be created in the Stellenbosch Municipal area per annum over 4 years envisaged for the construction. For Application 2, an average of 1 439 to 1 583 jobs opportunities per annum could be sustained per annum over 4 years of the construction period. Alternatively, Application 2 could sustain 1 352 to 1 487 jobs per annum in the Stellenbosch Municipal Area over 4 years.

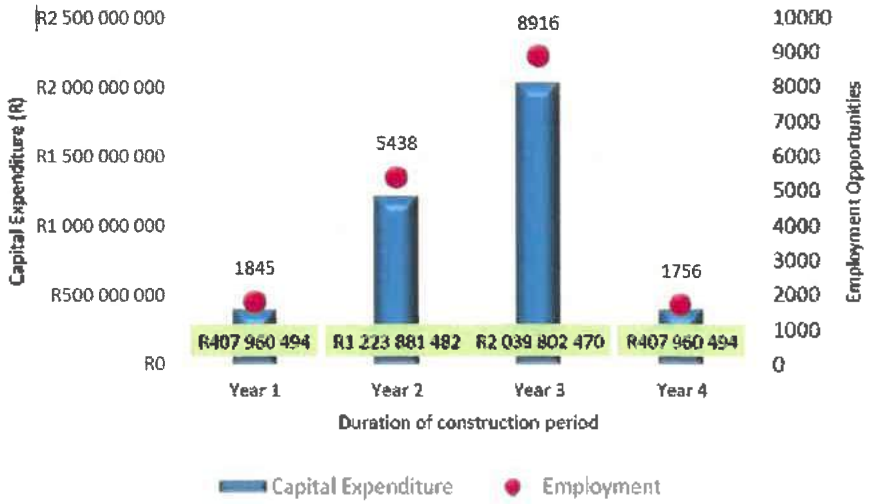


Figure 24 - Nett job opportunities aligned with capital expenditure for SM Area (Application 3)

During operations, an estimated total of 1 090 direct jobs opportunities will exist once the planned construction of components envisaged for Application 1 is complete. Most opportunities will exist for retail, commercial and to an extent the housing component of the project. Application 2 entails industrial activity. An estimated 1 900 job opportunities could arise from the development of and provision for 90 500 m^2 of Gross lettable Area. These figures do not include additional employment (indirect and induced employment) created by the needs of the operating components and outsourcing opportunities.

- **Economic income**: A combined initial investment of R1 204 million (R963 million net of the initial import leakage) for Application 1 will give rise to a multiplied output increase in GVA of R4 192 million in the Western Cape Province over the four-year construction period. Approximately R628 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. For Application 2, a combined initial investment of R1 486 million (R1 188 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R4 101 million in the Western Cape Province over the construction period. In addition, approximately R 614 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project.

- **Revenue accruing to public authorities:** The total cumulative rates over the first 10 years from the commencement of construction and occupation of the different components is estimated at R62.9 million. The total cumulative rates over the first 10 years from the commencement of construction of the industrial components is estimated at R128.9 million.

- **New business development**: A mix of residential and various commercial activities are envisaged. Commercial activities are essential for serving the needs of a community and create demand for other businesses operating in the immediate and surrounding area. The Industrial precincts entails light industrial activity and related uses that would include a mix of warehousing, light manufacturing and other related business and service activities. These activities will require a range of goods and services that could be provided by existing and or new businesses operating in the Stellenbosch and Drakenstein Municipalities.

Potential Negative Impacts

The following **concerns** (medium or higher impact after mitigation) have been identified:

- **Impact on traffic flows:** A significant increase in traffic along the access routes can be expected during construction and operations, which will negatively impact surrounding land-users in particular.

- **Sense of place**: The relatively high-density development will be visible to a large number of receptors and may negatively affect surrounding land users.

- **Nuisance factors,** in particular dust and noise generated during the introduction of services and construction of top structures;

- **Influx of job-seekers** during the construction phase could result in additional people settling in Klapmuts and subsequent burden on local social services.

Mitigation Measures

Many of the negative socio-economic impacts that were identified could be mitigated by introducing the measures proposed by various specialists that must be considered as requirements for approval of the development. Monitoring of specifically the social impact and assessing the outcomes over time would further enhance the social and economic fabric within the development and the surrounding communities.

The following mitigation measures are suggested:

Construction Phase:

- **Large construction vehicular traffic:** The TIS recommends several road improvements that are required to ensure acceptable traffic flows during operations. These improvements should also ease the traffic flows during the estimated 5-year construction phase.

- **Nuisance factors (dust and noise)**: Dust and noise emissions during the construction period should be minimized by employing a Construction Environmental Management Plan (CEMP).

- **Influx of job-seekers**: Contractors need to show a commitment to employ people from the Stellenbosch and Drakenstein Municipalities whenever possible.

- **Increase in local crime**: Co-operation between the Developer and contractors and on-site security, such as perimeter fencing, controlled access and security guards and patrols will minimize the risk.

Operational Phase:

- **Sense of Place** – surrounding land users: Mitigation measures were proposed in the Visual Impact Assessment and Heritage Impact Assessment and should be implemented by the Developers.

- **Surrounding property values – Existing residential erven**: Implementation if the recommendations made by the various specialists to mitigate potential negative impacts (such as visual, traffic and nuisance factors) will be essential to minimize negative impacts to surrounding land owners.

- **Increased vehicular traffic**: The TIS recommend several road improvements that are required to ensure acceptable traffic flows during operations.

- **Increase in local crime**: Local residents must be employed to reduce the level of unemployment in the Klapmuts area. On-site security measures, such as perimeter fencing, controlled access and security guards could also discourage criminals from the area.

- **Bulk infrastructure capacity**: Recommendations were made in the Civil Engineering Services Report to ensure the appropriate infrastructure for the various bulk services is provided by the Developer.

The Socio-Economic Impact Assessment concluded that the proposed Stellenbosch Bridge development will have a positive socio-economic impact provided that the recommendations / suggested mitigation measures are implemented.

8.4 ENVIRONMENTAL IMPACT

8.4.1 Environmental features

The site contains the following environmental opportunities and constraints:

- **Klapmutskop**: The surrounding landscape is relatively undulating, with Klapmutskop as a distinctive feature to the south of the landholdings. It is elongated in a southeast-northwest direction. Its northern elongated ridgeline slopes to the northwest.

- **Site Topography**: The landholdings contain no strongly defining topographical features. There is a gentle slope across the extent of the land, barring the eastern portion, which is located on relatively level land. These slopes are ideal for development whilst the higher-lying ridgeline of Klapmutskop will not be broken, thereby preventing an intrusion into the cultural landscape. The raised railway line along the northern edge also mitigates the views of the development area from the R101 and N1 Roads.

- **Water Features**: There are no natural wetlands, rivers or drainage lines on the landholdings, but a number of man-made drainage furrows, stormwater retention facilities, and small dams are retained as part of the open space system. No riverine vegetation exists along the gullies and drainage ditches. A number of small, shallow ephemeral pans are scattered over the landholdings. These have little botanical

significance as species diversity is low (single species of sedge). Artificial wetlands have developed around the elongated dam on the south-western edge of the landholdings as well as the dams along the eastern side of the development area. The botanist considers these water features to be disconnected and note that they are of little significance in the highly disturbed habitat and have been incorrectly designated as critical biodiversity areas. These water features including the main stormwater channel and the dams located in the centre of the landholdings are to be retained and improved for functional and recreational purposes.

- **Soils and Geology**: The lower eastern slopes (development area) contain coarse sandy hillwash, which represents the remnants of weathered sandstone and granite. This hillwash horizon overlies Malmesbury Group shales and phyllite which has been intruded into by granites of the Stellenbosch-Paarl Pluton. The granites weather to form intact, moist mottled clays. The clay may have dispersion, swelling and collapsing characteristics which may cause buildings to crack if mitigation measures are not taken with foundations and wall construction.

- **Tree Lines and Clumps**: A number of tree lines and clumps exist on the landholdings, but none of these are of environmental value. While these are alien species (Blue Gum and Oak), they are important landscape features and will be protected and improved as part of the area's scenic beauty and to assist in reducing the visual impact of the development.

- **Vegetation in the Development Area**: There is no intact indigenous vegetation in the development area. It has been transformed by years of farming (croplands and grazing) and mining (of sand and laterite) and is not restorable. No active cultivation of crops has occurred for some time with limited grazing of community livestock in the recent past. The open space system within the development will be landscaped using plant species of the Boland Granite Fynbos and/or Swartland Alluvium Fynbos. A search and rescue approach will be undertaken to bolster such species, especially bulbs that are scattered over the properties.

- **Natural vegetation**: The Boland Granite, Swartland Renosterveld and/or Swartland Alluvium Fynbos located on the higher ridgeline to the south and west of the development area which have been excluded from the urban edge will be protected. These naturally vegetated corridors within the development will connect to Klapmutskop and will provide recreational, tourism and environmental education opportunities.

- **Vineyards**: Small areas of the better-quality agricultural soils, mainly on the upper ridgeline and the western slopes of the landholdings have been used for vineyards. The viability of these vineyards is limited.

- **Fauna**: Given the extremely low biodiversity and open nature of the eastern slopes, the high grazing use and human activity, the presence of fauna is limited to rodents

(gerbils and moles) and some bird species. The low fauna and flora diversity of the development area will not constrain the layout but the proposed biophilic design, integrated open space system, landscaping, improvement of water bodies and focussed management will assist in encouraging a larger variety of fauna and increased biodiversity over time.

8.4.2 Environmental Impact Assessment

An environmental authorisation was issued by the Department of Environmental Affairs & Development Planning in 2011 to permit the development of 1577 mixed residential units, open spaces, commercial areas, roads and a reservoir. An amended decision was issued by the above-mentioned department on 8 March 2016, whereby the validity period of the environmental authorisation was extended to five years from the date of issue of the amended decision, thereby extending the lapsing date to 8 March 2021.

The amended development plan as part of Application 1 was regarded as a "non-substantive amendment" to the previous environmental authorisation (EA) and an additional environmental process was not required. However, the amended development plan as part of this application, which include additional development rights, is regarded as a "substantive amendment" to the environmental authorisation.

Legacy Environmental Management Consulting has been appointed as the environmental practitioner for this project and to undertake the above-mentioned substantive amendment to the EA application, which is currently in process. The amended EA will be provided when available.

8.5 HERITAGE IMPACT

A Heritage Impact Assessment (HIA) was undertaken by Cindy Postlethwayt Heritage consultant for the amended development layout of the site. A copy of the report is attached as **Annexure N**.

The Stellenbosch Municipality has undertaken a heritage inventory which has been approved by Heritage Western Cape (HWC) in 2018, In terms of this, the following is noted in respect of the identification if heritage resources and grading:

- The Heritage Inventory identifies a cluster of heritage resources in the original settlement area, described as the Klapmuts Core. The Mandela City area to the east of the overall Stellenbosch Bridge Innovation Precinct is explicitly identified as "Not Conservation Worthy". The Scenic Route of the R44 stops short of Klapmuts.
- The property concerned is situated in a landscape graded **IIIB**. The landscape to the west of the ridgeline is regarded as being more significant as a landscape than Farm

742/5. This relates to its direct association with the more intact agricultural landscape west of Klapmuts Kop.

- No other tangible heritage resources have been identified on the property or in the vicinity. Landscape significance aside, the 2008 ACO HIA noted that no significant archaeological material was observed and no physical heritage resources of value were identified within the proposed development site. There is no reason to find otherwise under current circumstances.

- Functional areas in Klapmuts are defined to include the Klapmuts Core, Belt (in which portion of Farm 742/5 and Remainder Farm 742 are situated), and Outskirts. The 'Belt' functions to hold Klapmuts within a larger natural structure. The gateway to the west forms part of this belt system. The outskirts are not a particular area with a specific character, rather a grouping of random and fragmented landscapes with different land uses caused by the number of roads that cut through this landscape.

- The western foot slopes of Klapmuts Kop form part of the Muldersvlei and Klapmuts Foot slope landscape unit, which comprises "vineyards and fallow fields, service roads and remnant plantations with pockets of fynbos and dams characterize the gentle slopes of Klapmutskop. The use of terracing in the landscape makes it an exceptional cultural landscape with a degree of rarity in the Stellenbosch Municipal area.

- This landscape unit has a rural character to it. It has largely been spared from development, except for an intrusive housing estate, but is now threatened by an expanding Klapmuts. The exceptional use of terracing on the higher slopes of Klapmuts Kop forms an important gradation between wilderness and cultivated landscape. The landscape has significance for its rarity, aesthetic and scenic beauty. This pocket should remain rural in character and accessible, and any form of development that compromises the integrity of the cultural landscape should be prohibited.

No heritage resources of value were identified within the proposed development site. In terms of physical heritage resources, the immediately adjacent residential area does not hold any significant historical or heritage value. The only potential concern in terms of heritage would be the impact of the scale of the development inserted into an established settlement pattern and style of the surrounding area. The scale of the proposed development is also mentioned as a concern in the Visual Impact Assessment but it is maintained that the potential of the site's ability to conceal and absorb the proposed development has been rated moderate to high. The concern of bulk and elevation may in effect be mitigated by the predicted expansion and growth of the area into a substantial town of 25000 people.

There is the potential for impact on the landscape as a result of the scale and mass of the proposed development. The independent visual impact assessment supports the development proposal and contends that the site has a high visual absorption capacity. Retention of windbreaks and tree alignments will soften the visual impact of the development. There will, therefore, be very little to no negative impact on heritage resources or on the historical landscape.

Mitigation

- To ensure the least disruption to the village and its rural setting it is recommended that any recommendations made in the visual impact study be given strict consideration.

- Landscaping of gardens and streetscapes will be put in place to further reduce any significant visual impacts (when mature) on the surrounding rural landscape.

- Architectural guidelines will also be in place to guide the architectural style and bulk of the buildings to be built in a way that it is not visually intrusive.

- The density of the proposed development will reduce further upslope towards the farm boundary. In addition, the size of the erven will also increase upslope.

8.6 VISUAL IMPACT

A visual impact assessment (VIA) for Stellenbosch Bridge was conducted by Megan Anderson Landscape Architect. A copy of the report is attached as **Annexure O.**

While development of the site is being promoted by the Stellenbosch Municipality's Spatial Development Framework, and while parts of these areas are indicated as being of little agricultural significance at the municipal scale, the Landscape Character of the proposed sites is crucial to the natural, cultural and scenic value of the valley and Stellenbosch Municipality.

Development on the ridgeline exceeds a visual threshold whereby it will intrude into the Krom River Valley, whose visual characteristic is rural and highly rated and once developed, the visual scenery becomes eroded. This development must ensure that it is sympathetic to the rural landscape of the Cape Winelands area and enhances the scenic landscape and does not detract from it.

To this end, Highly Visually sensitive areas must be developed so as to be a part of the scenic, cultural landscape and not try to compete, erode or degrade it.

According to the VIA, the 'Application 3' land area generally has a low visual sensitivity and is conducive to development. This exclude the stream and water feature in the central portion of the site which will be retained and incorporated as part of the proposed development's natural open space system.

There is potential for visual impact on the R10 Scenic Route and 'Entrance' place to Klapmuts, with respect to transitioning from rural to urban as well as eroding the rural setting and scenery of Klapmuts. These associated impacts will however be managed and minimised in the development design to protect the integrity of the scenic landscape, scenic route and special place of arrival.

The scale of the development has been determined as being unusual as the proposed development will consist of 3 and 4 storey buildings as opposed to the typical single storey buildings of Klapmuts. However, the rural scenic resources of the area are of value and the site has an ability to absorb the proposed development and an opportunity exists to add to the scenic resources of the area. The proposed siting and layout has made good use of the natural topography keeping taller buildings lower, lower buildings higher, all next to Klapmuts and below the ridgeline. Large open spaces and landscaping allow for visual mitigation. The local topography also reduces the zone of visual influence to an arc 3 – 4 km`s to the north-east and south–east of the site. Within this zone, buildings and vegetation, windbreaks, orchards and other trees further reduce the visibility of the site and proposed development.

Along the scenic routes such as the N1 and R44, views of the site are interrupted by trees (windbreaks, orchards), buildings and railway berms. The visibility from the N1 is limited to a couple of hundred meters, while the proposed development will be visible from longer sections of the R44 but still within the Zone of Visual Influence which is 3kms.

The potential of the sites' landscape and topography to conceal the proposed development is however moderate to high. The gentle slopes on the site together with the proposed development layout, green treed spaces, higher buildings in lower spaces etc., and general tree planting will result in the development being able to be absorbed into the landscape. The western urban edge of Klapmuts has been restricted to the 200m contour line. This height delimitation will also assist in reducing the visual impact of the proposed development.

Mitigation:

- The proposed development layout goes a long way in mitigating potential visual impacts through being adjacent to the existing village of Klapmuts, being sited on lower lying slopes (below 200m), having taller buildings sited on lower lying areas and lower buildings on higher lying areas, and providing large open spaces and street tree planting along major roads and paved squares.

- Architectural Guidelines will address:

  - building form and style, ensuring that it complements the rural landscape
  - colour, an agreed palette should be decided to avoid visually obtrusive colours
  - finishes such as roofing materials and reflective surfaces should be specified to prevent visual obtrusion (e.g. dark grey roofs to blend in with the backdrop of Klapmutskop).
  - The visual mitigation of the development is highly dependent on the planting and establishment of the landscape, in particular large trees along streets to visually absorb building.
  - Lighting is a potential visual impact and appropriate technology is available and must be used to ensure light pollution is avoided. A specialist must be appointed to plan and design the lighting for the development, including all public and security lighting, such that light pollution is mitigated and spillage is nullified. Lighting must also be energy efficient.

8.7 TRAFFIC IMPACT

To be finalised when TIA is available.

8.8 IMPACT ON MUNICIPAL ENGINEERING SERVICES

In addition to the road upgrades explained above, the roll-out of the proposed development will be done in accordance with the implementation of service infrastructure with several required services upgrades providing certain development rights thresholds.

A Civil Engineering Services Report for the proposed development on Farm 742/5 has been prepared by the project civil engineer (WEC Consult) and it attached as **Annexure Q.** The report also contains the layout plans for the required service upgrades. The following in summary.

8.8.1 Water Supply

The site is not located immediately adjacent to existing bulk reticulation infrastructure. In order for the development to connect to the bulk reticulation network a number of bulk connector / link pipelines are required (listed in detail in the services report).

A number of water bulk network upgrades are also required to alleviate current low water pressure currently experienced in certain areas of Klapmuts, which is mainly due to the undersized water mains to and from the Klapmuts Lower Reservoir flowing in the Klapmuts reticulation network. These upgrades will have to be implemented by the Stellenbosch Municipality and are required in order to accommodate the proposed development on Farm 742/5.

It has been confirmed that additional reservoir storage capacity will only be required once the water demands exceeds 1900 kl / day. Thee development rights applicable to Farm 742/5 will therefore not trigger the need for a new reservoir.

8.8.2 Sewerage

The site is not located immediately adjacent to existing bulk sewer reticulation infrastructure. In order for the development to connect to the bulk reticulation network a number of bulk connector / link pipelines are required (listed in detail in the services report).
Apart from these upgrades to connect to the reticulation network, there are no further upgrades required to the bulk sewer distribution network to accommodate the proposed development on Farm 742/5. The Klapmuts Waste Water Treatment Works (WWTW) has a treatment capacity if 3,5Ml/day. Current flows into the plant are in the order of 1.2Ml/day. The additional flows will not exceed the capacity of the existing treatment plant.

8.8.3 Stormwater

Runoff provisions are made for cases of minor storms (1:2 year) by providing adequate stormwater infrastructure in the road reserve. Excess runoff during major storms will be conveyed along existing drainage paths and residential streets. Overland flow escape routes will be provided at all low points and other strategic locations. A detailed stormwater management plan will be compiled and submitted to the local authority where more detailed information regarding the flood calculations and position and size of detention ponds will be provided.

There will be no upgrades required to the downstream water courses and piped stormwater systems. Stormwater detention ponds will be designed and constructed to ensure that the post-development stormwater runoff does not increase from the pre-development scenario.

9.0 CONCLUSION & RECOMMENDATION

It is the intention of Stellenbosch Bridge (Pty) Ltd to develop this property over the next 15 to 20 years, fully integrated into the larger Stellenbosch spatial vision, and with the participation of its stakeholders. This will include the Stellenbosch Municipality, University of Stellenbosch, the Klapmuts community and the communities that will live, work, innovate and socialise within the development.

Facing challenges such as climate change, diminishing city resources, rapid population growth as well as increasing traffic congestion, social divergence and socio-economic hardship, the developments of tomorrow need to be more flexible, innovative, resilient and sustainable.

The post-COVID world that we are about enter, requires a development concept that is robust and adaptable to survive and thrive in an irrevocably altered urban landscape. We cannot anticipate how the urban landscape is going to change, but we can incorporate the flexibility into the spatial framework, roll-out mechanisms, and basket of rights to allow the development to pro-actively respond to these changes.

Anton Lotz Town & Regional Planning recommends that this application, for the amendment of conditions of approval, amendment of the approved Subdivision & Zoning Planning, Council's Consent, Council's Permission and the approval of the Stellenbosch Bridge Development Framework, be considered for approval.

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK
MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

ANNEXURE E

CLUVER MARKOTTER STELLENBOSCH TEL: (021) 808-5600

117
MB.

UITVOERING / EXECUTION

Datum van indiening / Date of lodgement

LODGED 2009-05-11 INGEDIEN

26 MAY

A. VIR AKTEKANTOOR GEBRUIK / FOR DEEDS OFFICE USE

1	Ondersoekers / Examiners	Kamers / Rooms	Skakeling / Linking		Reject / Verwerp	Passeer / Pass
2	P. Mc BRIDE 1261					
3	R. KERSHAW 1232		6	4		
4						

Portion 3 of the Farm Klapmuts Kivier No 742 Stellenbosch

(Kort beskrywing van eiendom (slegs para 1 in Akte) Brief description of property (merely para 1 in Deed))

B. VIR AKTEBESORGER SE GEBRUIK / FOR CONVEYANCER'S USE

Aard van Akte / Nature of Deed: SVT

Stellenbosch Wine and Country Estate (Pty) Ltd

Verw. No./Ref. No STA1/0002

T 023646/09

Skakeling / Linking		Titelaktes, ens. binne / Title deeds, etc. within
6	4	(1) Diagram LG No 173/2009 (2) (2) T73758/2004

GELYKTYDIGES / SIMULS

No. in stel/batch	Kode Code	Name van Partye / Names of Parties	Naam van Firma / Name of Firm	Firma / Firm No.
1	T	Starke Fam Tr: Stbosch Wine	Cluver Markotter	117
2	BC	Starke Fam Tr: Nedbank	Cluver Markotter	117
3	BC	Starke Fam Tr: Nedbank	Cluver Markotter	117
4	T	SVT: Stbosch Wine + Country	Cluver Markotter	117
5	BC	Art 40(5)(a): Stbosch Wine: ABSA	Malan Laas	103
6	BC	Art 40(5)(a): Stbosch Wine: ABSA	Malan Laas	103
7				
8				

HANDED IN FOR EXECUTION MAY 2009

080003233319

Registrasie versoek deur:
Registration request by:
Datum: 27 MAY 2009
Date

117
CLUVER MARKOTTER INC

Prepared by me

CONVEYANCER
J A L DE WAAL

SEËLREG
DUTY R.....
FOOI
FEE R 110,00

for further end p7

T 023646/09

CERTIFICATE OF CONSOLIDATED TITLE

IN TERMS OF SECTION 40(3) OF ACT 47 OF 1937

WHEREAS

HERMANUS STEYN, acting herein for and on behalf of

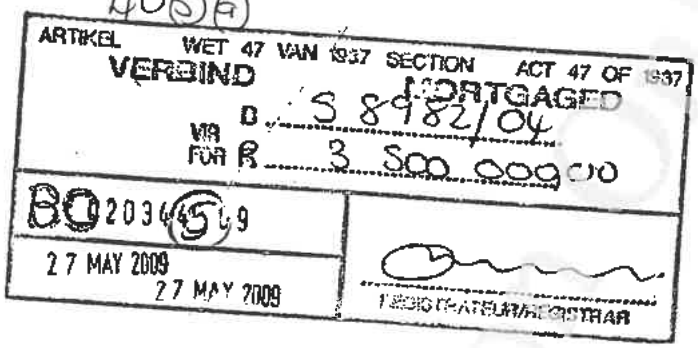
STELLENBOSCH WINE AND COUNTRY ESTATE (PROPRIETARY) LIMITED
REGISTRATION NUMBER 2003/024513/07

has applied for the issue to the Company of a Certificate of Consolidated Title under the provisions of Section 40(3) of the Deeds Registries Act 47 of 1937;

{MIB/MIB7539.DOC/CERT-CON/H12345}

DATA / CAPTURE
22 JUN 2009
LARNEY FATGEYAH

40(5)(a)



40(5)(a)

AND WHEREAS

STELLENBOSCH WINE AND COUNTRY ESTATE (PROPRIETARY) LIMITED REGISTRATION NUMBER 2003/024513/07

is the registered owner of:

1. **PORTION 4 of the Farm KLAPMUTS RIVIER NO 742 in the Municipality of STELLENBOSCH, Division PAARL, Province of the WESTERN CAPE**

   HELD BY Deed of Transfer Number T 023645/09 /2009; and

2. **PORTION 3 of the Farm KLAPMUTS RIVIER NO 742 in the Municipality of STELLENBOSCH, Division PAARL, Province of the WESTERN CAPE**

   HELD BY Deed of Transfer Number T73758/2004

which pieces of land have been consolidated into the land hereinafter described;

NOW, THEREFORE, in pursuance of the provisions of the said Act, I, the Registrar of Deeds at CAPE TOWN, do hereby certify that the said

STELLENBOSCH WINE AND COUNTRY ESTATE (PROPRIETARY) LIMITED REGISTRATION NUMBER 2003/024513/07

THEIR administrators, or assigns, is the registered owner of

PORTION 5 of the Farm KLAPMUTS RIVIER NO 742 in the Municipality of STELLENBOSCH, Division PAARL, Province of the WESTERN CAPE

MEASURING: 107,9147 (ONE HUNDRED AND SEVEN COMMA NINE ONE FOUR SEVEN) Hectares

AS WILL APPEAR on Diagram SG No 173/2009

I. **IN RESPECT of the figure "KnHJ" on the hereto annexed Diagram S.G. No 173/2009:**

A. SUBJECT to the conditions referred to in Deed of Transfer Number T22922/1972.

B. SUBJECT to the special conditions contained in Deed of Partition Transfer Number T4239/1933 and imposed for the benefit of the Appearer's Principal and John Isaac Starke and their successors in title to the land conveyed to the Appearer's Principal by said Deed of Partition Transfer Number T4239/1933 and to the land conveyed to the said John Isaac Starke by Deed of Partition Transfer Number T4240/1933, namely:

"1. That the owner of the land described above shall not have the right to reduce the width below twelve comma five nine (12,59) metres of any existing road contiguous to Appearer's Principals' mutual boundaries or at present used by them jointly.

2. That all storm water sluits passing through said land shall be kept clean by the Transferee to obviate as far as possible damage by stormwater."

II. **IN RESPECT of the figure "A Railway fence via BCDEF to GnLM" on the hereto annexed Diagram S.G. No 173/2009:**

A. SUBJECT to the conditions referred to in Deed of Transfer Number T32799/1972.

B. SUBJECT FURTHER to the following special conditions mentioned in Deed of Partition Transfer Number T4239/1933 dated 14 July 1933 and imposed for the benefit of Maria Jacoba Christina Starke, born Kotze widow and John Isaac Starke and their successors in title to the land conveyed to the said Maria Jacoba Christina Starke by the said Deed of Partition Transfer Number T4239/1933 and to the land conveyed to the said John Isaac Starke by Deed of Partition Transfer Number T4240/1933 dated 14 July 1933, namely:

"1. That the owner of the land described above shall not have the right to reduce the width below twelve comma five nine metres of any existing road contiguous to Appearer's Principals' mutual boundaries or at present used by them jointly.

4. No offensive drainage shall be discharged onto said land described above but the sewerage outfall shall remain as at present laid down for the joint use of the Transferee and said John Isaac Starke as owners respectively of said land described above and in paragraphs 2 and 4 of this Deed and in paragraphs 1.2 and 3 of the Deed of Transfer to be passed in favour of said John Isaac Starke for a period of one year reckoned from 2nd March 1932 but that the Transferee shall be bound and obliged to make her own sewerage arrangements as soon as

possible therafter and she shall not encroach on the lands of said John Isaac Starke.

5. That all storm water sluits passing through said land shall be kept clean by the Transferee to obviate as far as possible damage by storm water."

And that by virtue of these presents the said

STELLENBOSCH WINE AND COUNTRY ESTATE (PROPRIETARY) LIMITED, REGISTRATION NUMBER 2003/024513/07

THEIR administrators, or assigns, now is and henceforth shall be entitled thereto, conformably to local custom, the State, however, reserving its rights.

IN WITNESS WHEREOF I, the said Registrar, have subscribed to these presents, and have caused the seal of office to be affixed thereto.

Thus done and executed at the Office of the Registrar of Deed at CAPE TOWN on this 27 **day of** MAY **in the year of Our Lord, Two Thousand and Nine (2009).**

REGISTRAR OF DEEDS

117
CLUVER MARKOTTER INC

Prepared by me

CONVEYANCER
J A L DE WAAL

APPLICATION FOR THE ISSUING OF A CERTIFICATE OF CONSOLIDATED TITLE

The Registrar of Deeds
Deeds Office
CAPE TOWN
8000

I, the undersigned,

HERMANUS STEYN, acting herein for and on behalf of

STELLENBOSCH WINE AND COUNTRY ESTATE (PROPRIETARY) LIMITED
REGISTRATION NUMBER: 2003/024513/07

duly authorised thereto in terms of a Resolution by the Directors,

do hereby apply in terms of Section 40(3) of the Deeds Registries Act 47 of 1937 for the issue of a Certificate of Consolidated Title in respect of:

1. **PORTION 4 of the Farm KLAPMUTS RIVIER NO 742 in the Municipality of STELLENBOSCH, Division PAARL, Province of the WESTERN CAPE**

   MEASURING: 34,7669 (THIRTY FOUR COMMA SEVEN SIX SIX NINE) Hectares

   HELD BY Deed of Transfer to be registered; and

2. **PORTION 3 of the Farm KLAPMUTS RIVIER NO 742 in the Municipality of STELLENBOSCH, Division PAARL, Province of the WESTERN CAPE**

   IN EXTENT: 73,1478 (SEVENTY THREE COMMA ONE FOUR SEVEN EIGHT) Hectares

   HELD BY Deed of Transfer No T73758/2004

which properties have been consolidated into:

PORTION 5 of the Farm KLAPMUTS RIVIER NO 742 in the Municipality of STELLENBOSCH, Division PAARL, Province of the WESTERN CAPE

MEASURING: 107,9147 (ONE HUNDRED AND SEVEN COMMA NINE ONE FOUR SEVEN) Hectares

AS WILL more fully appear from Diagram S.G. Number 173/2009

SIGNED at STELLENBOSCH on this 2nd day of March 2009

AS WITNESSES:

1. _____

2. _____

JACOBUS ADRIAAN LOUW DE WAAL
KOMMISSARIS VAN EDE
COMMISSIONER OF OATHS
PROKUREUR / ATTORNEY R.S.A.
MEULPLEIN GEBOU/BUILDING
MEULSTRAAT / MILL STREET
STELLENBOSCH

_____

H STEYN on behalf of the
STELLENBOSCH WINE AND
COUNTRY ESTATE (PTY) LTD

Prod DEEDS REGISTRATION SYSTEM - CAPE TOWN DATE : 20090511 TIME : 13:47:40.1 PAGE : 1
Prepared By : DRS08022 - BOSHOFF, BELINDA

TRACK NUMBER : 80003233319

BLACK-BOOKING ENQUIRY ON NAME - STELLENBOSCH WINE & COUNTRY ESTATE PTY LTD
ID NUMBER - 200302451307
BIRTH DATE - 0
MARITAL STATUS -
MAIDEN NAME -
TYPE OF PERSON - COMPANY

OTHER REFERENCES LINKED TO THIS PERSON :
STELLENBOSCH HILLS WINE ESTATE PTY LTD

PERSON NAME AND ID		CONTRACTS/INTERDICTS	NOTED ON MICROFILM REF
STELLENBOSCH WINE & COUNTRY ESTATE PTY LTD	200302451307	BC46545/2008	20080611 2008 0658 4301

** Please Note : The information appearing on this printout is furnished for purposes of information only.
For more detailed information, please refer to the registered source documents.

* * * END OF REPORT * * *

Prod DEEDS REGISTRATION SYSTEM - CAPE TOWN DATE : 20090511 TIME : 13:48:42.4 PAGE : 1
Prepared By : DRS08022 - BOSHOFF, BELINDA

TRACK NUMBER : 800033233319

PROPERTY DETAILS PRINT FOR PORTION 3
FARM NO 742
REG DIV PAARL RD

PROVINCE WESTERN CAPE
PREV DESCRIPTION
DIAGRAM DEED NO T9681/1944
EXTENT 73.1478 H
CLEARANCE WINELANDS DC
FARM NAME KLAPMUTS RIVIER

NO INTERDICTS

DOCUMENTS	HOLDER & SHARE	AMOUNT	O/P/A	MICROFILM REF	MMDD
B38039/2008	A B S A BANK LTD	R3800000.00		2008 0658 4421	0611
B58982/2004	A B S A BANK LTD	R3500000.00		2008 0658 4415	0730
FARM PL 742/3				1985 0056 2216	

OWNER DETAILS

FULL NAME & SHARE	PURCH DATE	AMOUNT/REASON	O/P/A	IDENTITY	TITLE DEED	MMDD	MICROFILM REF
STELLENBOSCH WINE & COUNTRY ESTATE PTY LTD				200302451307	T73758/2004	0000	2008 0658 4381
	20031211	R5000000.00	P				

* O/P/A - O - MULTIPLE OWNER P - MULTIPLE PROPERTY A - MULTIPLE OWNER AND PROPERTY

** Please Note : The information appearing on this printout is furnished for purposes of information only.
For more detailed information, please refer to the registered source documents.

* * * END OF REPORT * * *

Prod DEEDS REGISTRATION SYSTEM - CAPE TOWN DATE : 20090511 TIME : 13:49:16.5 PAGE : 1

Prepared By : DRS08022 - BOSHOFF BELINDA

TRACK NUMBER - B0003956013

* * * ENQUIRY ON PROPERTY * * *

PORTION NUMBER - 00005
FARM NUMBER - 0000742
REGISTRATION DIVISION - PAARL RD

REG DIV OR FARM NO OR FARM PORTION DOES NOT EXIST

* * * END OF REPORT * * *

CERTIFIED COPY FOR REGISTRATION
FOR SURVEYOR-GENERAL
DATE 11 FEB 2009

Friedlaender, Burger & Volkmann - Land Surveyors

S.G. No.
173/2009
Approved.
for
Surveyor - General
Date : 2009.05.11

SHEET 1 OF 2 SHEETS

Components:

1. The figure A Railway fence via BCDEF to GHJKLM represents Portion 3 of the Farm Klapmuts Rivier No. 742, vide Dgm. No. 4667/1943, D/T 1944- -9681
2. The figure KnHJ represents Portion 4 of the Farm Klapmuts Rivier No. 742, vide Dgm. No.172/2009 D/T

The figure A Railway fence via BCDEF to GHJKLM represents 107,9147 hectares of land, being

PTN. 5 OF THE FARM KLAPMUTS RIVIER No. 742 and comprises 1. and 2. as above

Situate in the Stellenbosch Municipality
Administrative District of Paarl
Province of Western Cape
Compiled in November 2008
by me

PLS 0080 D P Burger | Pr Land Surveyor

This diagram is annexed to	The original diagrams are	File No.Parl 742
No. 023646/09	as quoted above	S.R. No. Compiled
Dated i.f.o. 27 MAY 2009		Comp. BH-88AD (3755)
		BH-88CB (3761)
Registrar of Deeds		LPI C0550000

742/5 Farm Klapmuts Rivier

STELLENBOSCH MUNICIPALITY

LAND USE MANAGEMENT

ERF/ERVEN SUBDIVIDED IN TERMS OF SECTION 25 OF ORDINANCE 15 OF 1985 HEREIN REFLECTED IN ORDER FOR REGISTRATION IN TERMS OF SECTION 31(1) OF THE SAID ORDINANCE

DIRECTOR: PLANNING & ENVIRONMENT

4/5/09
DATE

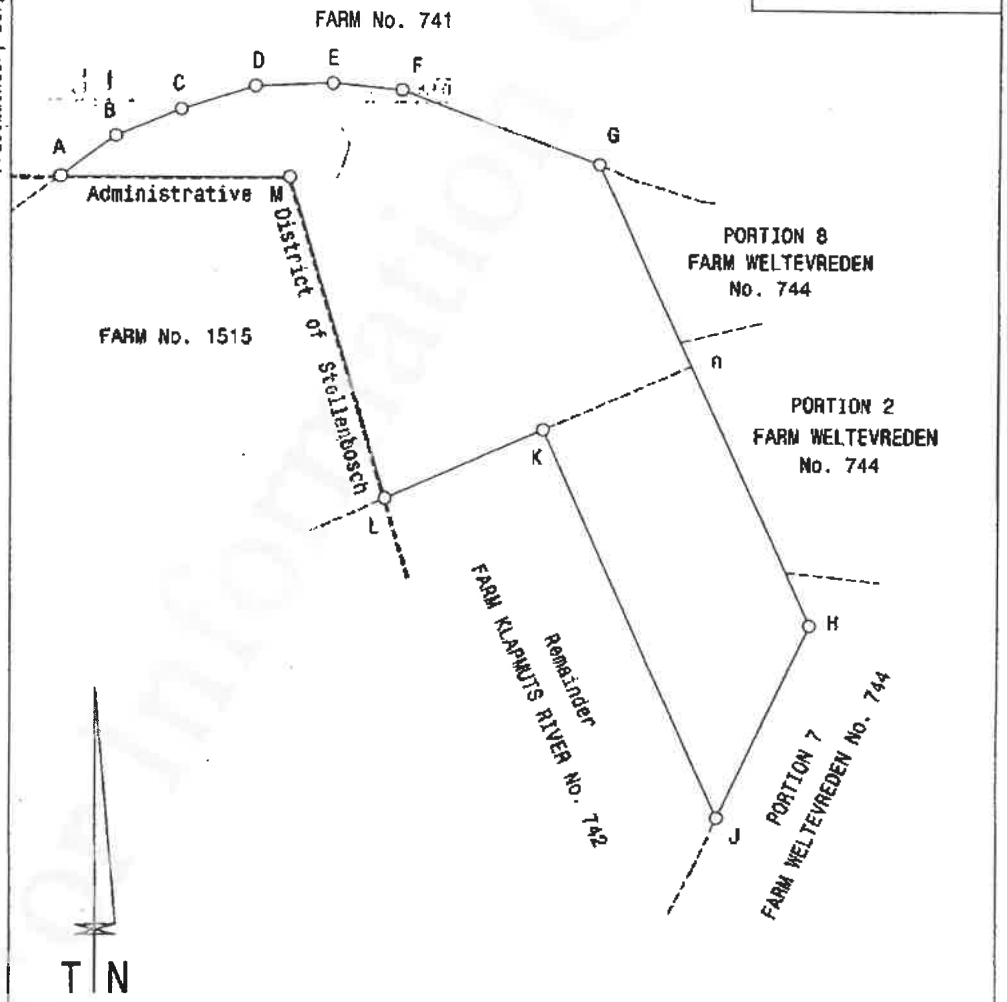
Friedlaender, Burger & Volkmann - Land Surveyors

S.G. No.
173/2009

Approved.

for
Surveyor - General
Date : 2009-02-11

SHEET 2 OF 2 SHEETS



PORTION 5 OF THE FARM KLAPMUTS RIVIER No. 742

Administrative District of Paarl

Compiled in November 2008
by me

SCALE 1 : 15000

PLS 0080 D P Burger | Pr Land Surveyor

STELLENBOSCH MUNICIPALITY

LAND USE MANAGEMENT

ERF/ERVEN SUBDIVIDED IN TERMS OF SECTION 25 OF ORDINANCE 15 OF 1985 HEREIN REFLECTED IN ORDER FOR REGISTRATION IN TERMS OF SECTION 31(1) OF THE SAID ORDINANCE

DIRECTOR: PLANNING & ENVIRONMENT

4/5/09.
DATE

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK
MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

ANNEXURE F

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK
MUNISIPALITEIT • UMASIPALA • MUNICIPALITY

DEPARTMENT OF DEVELOPMENT MANAGEMENT

LAND DEVELOPMENT APPLICATION:

PUBLIC PARTICIPATION PROCESS PORTFOLIO OF EVEIDENCE CHECKLIST AND DECLARATION

Erf/~~Erven~~ Farm no	742	Portion(s) if farm	5	Allotment Area	PAARL DIVISION
Owner/ Applicant	AROUX TOWN PLANNING			LU/#	LU/10577
Notice Period	From:	19 November 2020		To:	21 DECEMBER 2020

CONFIRMATION OR DOCUMENTATION SUBMITTED	OWNER/APPLICANT YES	NO	N/A	ADMIN VERIFY
1. The declaration is duly signed	✓			
2. Applicant confirms that the public participation process was duly undertaken as instructed and attached to this POE.	✓			
3. Approval for notices were obtained prior to the public participation process and attached to this POE.	✓			
4. Municipality informed of the start date and closure date.	✓			
5. The advertisement period complies with the required 30 days (60 days for state entities).	✓			
6. If applicable, confirms that the site notice was placed and kept on site for the duration of the public participation process.			✓	
7. All communications (other than notices) in respect of the public participation process attached.	✓			
Proof of notices published				
8. If applicable, photo evidence to confirm site notice.	✓			
9. Wording of the advertisement accurate as approved & attached.	✓			
10. Proof of notices published (Publication date visible)	✓			
Proof of notices served				
11. Wording of notice accurate as approved and attached	✓			
12. Proof of all notices served to neighbouring properties attached	✓			
13. Proof of all notices to Interest & Community Groups attached	✓			
14. Proof of all notices to Govt. Dept's and Entities attached	✓			
Comments received				
15. All objections/comments received attached	✓			
16. All comments from internal Municipal Departments received (must also be attached to POE).	✓			
17. Applicant's comments on all the objections attached			✓	

Please complete and sign the following declaration on above:

DECLARATION

I, (full names & surname) REEVE CUPIDO

and ID #: 9612095123082, as the Applicant for the above application,

hereby confirms that the public participation process for the subject application was duly undertaken in accordance with the instruction for such process and the associated requirements stipulated in the Stellenbosch Municipal Land Use Planning Bylaw, and that the information contained in the above checklist and the accompanied information and documentation in the portfolio of evidence for the concluded public participation process, are accurate and complete:

Duly signed by the APPLICANT _____ on this date/ month/ year

16 FEBRUARY 2021 at place OFFICE B1, CA CONCORDE BUILDING, 57 MAIN ROAD, PAARL

_____ 16/02/2021

Signature Applicant Date

For office use only	
CHECKED BY ADMINISTRATIVE OFFICER	
CHECKED BY TOWN PLANNER	
DATE VERIFIED	

NOTES TO BE RECORDED:

SWORN AFFIDAVIT

AFRIKAANSE POLISIEDIENS
COMMUNITY SERVICE CENTRE
2021 -02- 15
PAARL
SOUTH AFRICAN POLICE SERVICE

I, the undersigned [Full Name (s) and Surname]: REEVE CUPIDO

Identity Number 9612095123082

in my capacity as (owner or authorised person through power of attorney): AUTHORISED PERSON THROUGH POWER OF ATTORNEY (TOWN PLANNER)

do hereby declare under oath that:

1. The application for: AMENDMENT OF CONDITIONS OF APPROVAL, COUNCIL'S CONSENT & PROPOSED DEVELOPMENT FRAMEWORK.

on Erf/ Farm Number: FARM 742/5, PAARL DIVISION

Was advertised in at least two of the official languages of the Province in the following newspaper(s)[i]:

(a) PAARL POST (b)

From 19 NOVEMBER 20 20 to 21 DECEMBER 20 20

2. The public notices were prominently displayed and maintained in a legible condition for a continuous period of thirty (30) days from the date of the advertisement as indicated in Section (2) above[ii];
3. A notice containing the requirements as set out in the Stellenbosch Land Use Planning By-Law (2015), was posted per registered mail[iii] to all adjoining property owners/occupants/ interested and affected parties, during the same date of the advertising period as specified in Section (2) above;
4. Furthermore, a notice of the application was sent to the relevant Intergovernmental State Departments, per registered mail[iv], commencing the same date as in Section (2) above with an **additional 30 days (minimum 60 days)** for comment;
5. That all comments and objections to the application concerned were forwarded to Stellenbosch Municipality as contemplated in sections 1 – 4 above.

The Deponent acknowledges that he / she knows and understands the contents of this Affidavit.

Signature:

Signed at

On this 15 day of Feb 2021

At:

Commissioner of Oaths Stamp & Signature

I certify that the above statement was taken down by me and that the deponent has acknowledged that he/she knows and understands the contents of this statement. This statement was sworn to before me and the deponent's signature/thumbprint was placed thereon in my presence.

Ek sertifiseer dat die bostaande verklaring deur my afgeneem is en dat die verklaarder erken dat hy/sy die inhoud van die verklaring ken en verstaan. Hierdie verklaring is voor my beëdig/bevestig en verklaarder se handtekening/merk/duimafdruk is in my teenwoordigheid daarop aangebring.

on 2021-02-15 at 2023

(HANDTEKENING) KOMMISSARIS VAN EDE
(SIGNATURE) COMMISSIONER OF OATHS

VOLLE VOORNAME EN VAN IN DRUKSKRIF
FULL FIRST NAMES AND SURNAME IN BLOCK LETTERS

BESIGHEIDSADRES (STRAATADRES)
BUSINESS ADDRESS (STREET ADDRESS)

RANG/RANK

SA POLISIEDIENS
SA POLICE SERVICE

---

[i] Must conform to Section 47 of the Stellenbosch Municipality Land Use Planning By-law (2015) [THE BY-LAW] - attach copy of advert (s)
[ii] Site Displays must conform to Section 46 (2)(a) of the By-law – attach photos
[iii] Attach original registration post slips and copies of letters that were distributed containing the required information as per Section 47 of the By-law
[iv] Attach original registration post slips and copies of letters that were distributed containing the required information as per Section 47 of the By-law

AFFECTED/INTERESTED PARTIES ON FARM 1392, STELLENBOSCH
30 DAYS TO COMMENT

FARM #	OWNER&ADDRESS	17 FEB 2020 DAYS TO COMMENT
RE529	MUNISIPALITEIT STELLENBOSCH POSBUS 17 STELLENBOSCH 7599	30 REGISTERED LETTER (with a domestic insurance option) RC 140 495 418 ZA A BOOK COPY
535/1	KATHREIN SOUTH AFRICA PTY ltd POBOX 1008 SOMERSET WEST 7129	30 REGISTERED LETTER (with a domestic insurance option) RC 140 495 466 ZA A BOOK COPY
537	DAXCON DEVELOPMENT TRUST ERF 537 ANNANDALE ROAD STELLENBOSCH 7600	30 REGISTERED LETTER RC379751355ZA A BOOK COPY
537/9	AKKERDRAAI TRUST EKKERDRAAI POSBUS 22 LYNEDOCH 7603	30 REGISTERED LETTER (with a domestic insurance option) RC 140 495 470 ZA A BOOK COPY
537/13	SAMUEL ZETLER TRUST POSBUS 98 STELLENBOSCH 7599	30 REGISTERED LETTER (with a domestic insurance option) RC 140 495 364 ZA A BOOK COPY
537/18	MEV E DU PLESSIS KLEIN AKKERDRAAI POSBUS 12758 DIE BOORD 7613	30 REGISTERED LETTER (with a domestic insurance option) RC 140 495 381 ZA A BOOK COPY
537/20	SAMUEL ZETLER TRUST POBOX 12714 DIE BOORD 7613	30 REGISTERED LETTER (with a domestic insurance option) RC 140 495 378 ZA CUSTOMER COPY
1291/1	MR P MCNAUGHTON SUITE 144 PRIVATE BAG X4 7613	30 REGISTERED LETTER (with a domestic insurance option) RC 140 495 395 ZA A BOOK COPY
1537	AUDACIA WINES PTY ltd POBOX 12679 STELLENBOSCH 7599	30 REGISTERED LETTER (with a domestic insurance option) RC 140 495 449 ZA A BOOK COPY

STELLENBOSCH INTEREST GROUP
POBOX 2217
DENNESIG
7601

30
REGISTERED LETTER
(with a domestic insurance option)
RC 140 495 452 ZA
A BOOK COPY

17 FEB 200

STELLENBOSCH RATEPAYERS ASSOCIATION
POBOX 399
STELLENBOSCH
7599

30
REGISTERED LETTER
(with a domestic insurance option)
RC 140 495 404 ZA
A BOOK COPY

DEPARTMENT OF TRANSPORT AND PUBLIC WORKS
POBOX 2603
CAPE TOWN
8000

60
REGISTERED LETTER
(with a domestic insurance option)
RC 140 495 421 ZA
A BOOK COPY


STELLENBOSCH
NOTICE
PENDING: LAND USE
DEVELOPMENT APPLICATION

Nuwe mark nou oop

Franschhoek het die afgelope naweek 'n vroeë Kersgeskenk ontvang in die vorm van 'n fantastiese nuwe markruimte vir informele handelaars.

Xavel Mbofana en burgemeester Gesie van Deventer vier die opening van die mark in een van die nuwe uitstalruimtes in Franschhoek.

Daar word reeds vir meer as 15 jaar handel gedryf langs die munisipale kantoor in Franschhoek.

'n Netjiese perseel is egter noodsaaklik vir goeie sake en daarom het Stellenbosch-munisipaliteit in 2017 besluit om die bestaande perseel op te knap. Konstruksie het in Junie 2018 begin en dit is binne 18 maande voltooi. Die koste van die projek het R2,2 miljoen beloop.

Die toekenning van stalletjies in die markruimte is gedoen volgens die munisipaliteit se informelehandelaarsbeleid. Die ruimtes is geadverteer en 'n keuringsproses is gevolg vir alle aansoekers wat die plek wil gebruik om seker te maak die munisipaliteit skep 'n volhoubare sakeomgewing wat in ooreenstemming is met die ekonomiese ontwikkelingsbeleid.

"Die beleid vereis dat al die handelaars onderworpe is aan die reëls sodat almal 'n gelyke en regverdige geleentheid kry om sake by die mark te doen. Voorkeur word gegee aan inwoners van Franschhoek, handelaars wat net in Franschhoek sake doen en die volhoubaarheid van die produkte en ware word ook in ag geneem," het adv. Gesie van Deventer, burgemeester van Stellenbosch-munisipaliteit, gesê.

"Die nuwe markruimte skep 'n veiliger en aangename omgewing vir handelaars en besoekers. Ons onderneem ook om op die lang termyn hierdie handelaars by te staan met sakeopleiding en so volhoubare sakepraktyke en kennis aan die gemeenskap oor te dra.

"Verskeie ruimtes is reeds aan plaaslike handelaars op 'n kontrakbasis toegeken en die verskeidenheid van pragtige handelsware is besonders. Gaan besoek gerus die mark en doen sommer jou Kersinkopies daar," het Van Deventer gesê.

WCED seeking assistants

The Western Cape Education Department (WCED) is looking to recruit more than 20 000 education assistants and general school assistants for schools over the next year, as part of President Cyril Ramaphosa's Presidential Employment Stimulus Programme.

The initiative is being implemented through the Basic Education Employment Initiative (BEEI).

The WCED is looking to recruit 12 777 education assistants and 7 625 general school assistants under this programme.

Education assistants will:

- Support teachers with technical preparations of the classroom for teaching and learning and ensure that teaching materials are available and ready for use;
- Assist with the reading programme for the Foundation Phase;
- Support teachers in libraries, science laboratories, IT laboratories and technical workshops; and
- Provide after school support to learners where applicable.

General School Assistants will:

- Assist in administration, data capturing, textbook issuing and record keeping;
- General maintenance;
- Care and support; and
- IT support.

The programme will run from 1 December 2020 to 31 March 2021.

The initiative is targeting youth and young adults between the ages of 18 and 35 years old.

Requirements include:

- Education assistants up to the age of 35 years old, who are qualified unemployed graduates (NQF6/7) or an NQF 4 (Matric) qualification
- School assistants up to the age of 35 years with or without an NQF 4 qualification (matric) or Year 4 Schools of Skills qualifications or higher qualifications.

Potential candidates can apply online on SA Youth. (https://sayouth.datafree.co/p/dbe)

They cannot apply at schools, nor through the WCED.

This is a zero-rated mobisite that can be accessed through a mobile phone.

If experiencing trouble with this site, as demands are high, they can register on http://bit.ly/DeptEducationMenu - but this site is not data-free.

Candidates without access to the internet can call 0800 727272, which is a toll-free number.

Candidates will find out whether their application is successful by 1 December 2020.

The stipend to be paid for all education assistants and school assistants will be R3 500 per month, as allocated to the WCED by National Treasury.

NOTICE OF LAND DEVELOPMENT APPLICATION IN THE STELLENBOSCH MUNICIPAL AREA

Application for Amendment of conditions of approval, Council's consent, Council's approval and approval of the Stellenbosch Bridge Development Framework for Farm 742/5, Paarl

Application Address: Old Paarl Road, Klapmuts

Applicant: Anton Lotz Town Planning and ARoux Town Planning in association andre@arouxplanning.co.za

Owner: Stellenbosch Bridge Properties (PTY) Ltd

Application Reference: LU/ 10577

Description of land development application:

- Application for the amendment of conditions of approval to amend the approved Development Framework for Portion 5 of Farm 742, Paarl in terms of Section 15(2)(h) of the Stellenbosch Bridge Municipality Land Use Planning By-Law (2015), to allocate the following land uses for Portion 5 of Farm 742, Paarl, as indicated on the proposed Subdivision Plan, Plan No 18096-001, rev F, dated 2020-09-14:
  - Portion 1: Multi-Unit Residential Zone
  - Portion 2: Mixed-Use Zone with Industrial spot-zoning
  - Portion 3: Industrial Zone
  - Portion 4: Industrial Zone
  - Portion 5: Private Open Space
  - Portion 6: Agricultural & Rural Zone
  - Portion 7: Public Roads & Parking Zone
  - Portion 8: Public Roads & Parking Zone
- Application for the amendment of conditions of approval to relocate the land use rights granted in 2011-2017 for phase 1 with the inclusion of non-residential floor area (including business, industrial and institutional land uses) in terms of Section 15(2)(h) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit the following development rights as indicated on Precincts A1, A3 and B1 of the amended Development Framework Plan, Plan No 18096-003, Rev B, dated 2020-08-17, for Portion 5 of Farm 742, Paarl to develop:
  - 1577 residential units consisting of flats and group housing units
  - 28 000m² non-residential floor area (including business, industrial and institutional land uses)
- Application for Council's Consent in terms of Section 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit Commercial gymnasiums, Conference facilities, Day care, Gambling places, Hospitals, Indoor sport, Liquor Stores, Occasional use (> one event/year), Parking garages, Places of assembly, Places of education, Places of entertainment, Renewable energy structures, Rooftop base telecommunication stations, Tertiary educational institutions, and Warehouses on Portion 2 (zoned Mixed-Use Zone).
- Application for Council's Consent in terms of Section 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit Business Premises on the Industrial Zone spot-zoning on Portion 2.
- Application for Council's Consent in terms of Section 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-Law (2015) to permit Business Premises on Portions 3 and 4 (zoned Industrial Zone).
- Application for Council's permission in terms of Section 15(2)(g) of the Stellenbosch Municipality Land Use Planning By-Law (2015) and item 106(1) of the Stellenbosch Municipality Zoning Scheme By-Law (2019) to permit flats at ground floor on Portion 2 (zoned Mixed-Use Zone).
- Application for approval of the proposed Stellenbosch Bridge Development Framework.

Notice is hereby given in terms of the said Bylaw that the above-mentioned application has been submitted to the Stellenbosch Municipality for consideration. The application is available for inspection on the Planning Portal of the Stellenbosch Municipal Website for the duration of the public participation process at the following address: https://www.stellenbosch.gov.za/planning/documents/planning-notices/land-use-applications-advertisements. If the website or documents cannot be accessed, an electronic copy of the application can be requested from the Applicant.

Written comments, which must include the reference to the application, the name, contact details and physical address of the person to submit the comments, the reasons for the comments, and the interest of the person in the application, may be submitted in terms of Section 60 of the said Bylaw to the Applicant by electronic mail as follows: André Roux, andre@arouxplanning.co.za

The comments must be submitted within 30 days from the date of this notice to be received on or before the closing date of 21 December 2020.

For any enquiries on the Application or the above requirements, or if you are unable to write and /or submit your comments as provided for, you may contact the Applicant for assistance at the e-mail address provided or telephonically at 021 180 3171 during normal office hours.

KENNISGEWING VAN GRONDONTWIKKELINGSAANSOEK IN DIE STELLENBOSCH MUNISIPALE AREA

Aansoek vir Wysiging van goedkeuringsvoorwaardes, vergunningsgebruik, Raadsgoedkeuring en goedkeuring van die Stellenbosch Brug Ontwikkelingsraamwerk vir Plaas 742/5, Paarl.

Adres van eiendom: Ou Paarlpad, Klapmuts

Aansoeker: Anton Lotz Stadsbeplanning en ARoux Stadsbeplanning in assosiasie, andre@arouxplanning.co.za

Eienaar: Stellenbosch Bridge Properties (PTY) Ltd

Aansoek Verwysing: LU/ 10577

Beskrywing van grondontwikkelingsaansoek:

- Aansoek om wysiging van goedkeuringsvoorwaardes om die goedgekeurde ontwikkelingsraamwerk vir Gedeelte 5 van plaas 742, Paarl, te wysig ingevolge Artikel 15(2)(h) van die Verordening op Grondgebruikbeplanning van Stellenbosch Munisipaliteit (2015), om die volgende grondgebruike toe te laat vir Gedeelte 5 van Plaas 742, Paarl, soos aangedui op die voorgestelde Onderverdelingsplan, Plan Nr 18096-001, rev F, gedateer 2020-09-14:
  - Gedeelte 1: Multi-eenheid Residensiële sone
  - Gedeelte 2: Gemengde Gebruikssone met Nywerheid toekenning
  - Gedeelte 3: Nywerheidsone
  - Gedeelte 4: Nywerheidsone
  - Gedeelte 5: Privaat oop ruimte
  - Gedeelte 6: Landbou- en Landelike Sone
  - Gedeelte 7: Openbare Paaie en Parkeersone
  - Gedeelte 8: Openbare paaie en Paaiesones
- Aansoek om die wysiging van die goedkeuringsvoorwaardes om die grondgebruikregte wat in 2011-2017 toegestaan is vir die Fase 1 te verskuif, met die insluiting van nie-residensiële vloeroppervlaktes (insluitend besigheids-, nywerheids- en institusionele grondgebruike) ingevolge Artikel 15(2)(h) van die Verordening op Grondgebruikbeplanning van die Munisipaliteit Stellenbosch (2015) om die volgende ontwikkelingsregte toe te laat, soos aangedui op die gedeeltes A1, A3 en B1 van die gewysigde Raamwerkplan vir Ontwikkeling, Plan No 18096-003, Rev B, gedateer 2020-08-17, vir Gedeelte 5 van Plaas 742, Paarl om te ontwikkel:
  - 1577 woongeriewe wat bestaan uit woonstelle en groepbehuisingseenhede;
  - 28 000m² nie-residensiële vloeroppervlakte (insluitend besigheids-, industriële en institusionele grondgebruike).
- Aansoek om vergunning van die Raad ingevolge Artikel 15(2)(o) van die Verordening op grondgebruikbeplanning (2015) om kommersiële gimnasiums, konferensiegeriewe, dagsorg, dobbelplekke, hospitale, binnenshuise sport, drankwinkels, tydelike gebruike (> een geleentheid / jaar), Parkeergarages, Byeenkomsplekke, Onderwysplekke, Vermaaklikheidsplekke, Hernubare energiestruktuur, Telekommunikasie-stasies op die dak, Tersiêre opvoedkundige instellings, en Pakhuise op Gedeelte 2 (Gemengde gebruikssone).
- Aansoek om vergunning van die Raad ingevolge Artikel 15(2)(o) van die Verordening op grondgebruikbeplanning van die Munisipaliteit van Stellenbosch (2015) om besigheidsperseel op die Nywerheidsone op gedeelte 2 toe te laat.
- Aansoek om vergunning van die Raad ingevolge Artikel 15(2)(o) van die Verordening op grondgebruikbeplanning van die Stellenbosch Munisipaliteit (2015) om besigheidsperseel op Gedeeltes 3 en 4 (gesoneerde Nywerheidsone) toe te laat.
- Aansoek om goedkeuring van die Raad ingevolge Artikel 15(2)(g) van die Verordening op grondgebruikbeplanning van die Munisipaliteit Stellenbosch (2015) en item 106(1) van die Stellenbosch Munisipaliteit Sonering/skema Verordening (2019) om woonstelle toe te laat op grondvloer op Gedeelte 2 (Multi-eenheid Residensiële sone).
- Aansoek om goedkeuring van die voorgestelde Stellenbosch Brug OntwikkelingsraamwerK

Kennis word hiermee gegee in terme van die genoemde Verordeninge dat bovermelde aansoek by die Stellenbosch Munisipaliteit ingedien is vir oorweging. Die aansoek is beskikbaar vir insae op die Beplannings Portaal van die Stellenbosch Munisipaliteit se Webtuiste vir die tydsduur van die publieke deelname proses by die volgende adres: [https://www.stellenbosch.gov.za/planning/documents/planning-notices/land-use-applications-advertisements]. Indien die webtuiste of tersaaklike dokumente nie toeganklik is nie, kan die Aansoeker versoek word om 'n elektroniese kopie beskikbaar te stel.

Skriftelike kommentaar, wat besonderhede ten opsigte van die verwysings nommer van die aansoek, die name, fisiese adres en kontak besonderhede van die persoon wat die kommentaar lewer, die redes vir die kommentaar, en die belang van die persoon wat die kommentaar lewer in die aansoek, kan ingedien word in terme van Artikel 60 van genoemde Verordeninge aan die Aansoeker by wyse van elektroniese pos as volg: André Roux, andre@arouxplanning.co.za

Die kommentaar moet binne 30 dae vanaf die datum van hierdie kennisgewing gestuur word en moet ontvang word voor of op die laaste dag van die sluitings datum van 21 Desember 2020.

Indien daar enige navrae op die aansoek of bovermelde vereistes vir die lewer van kommentaar is, of indien dit alle moontlik is om gestruwe kommentaar te lewer of die kommentaar op die wyse te lewer soos voorsiening gemaak is nie, kan die Aansoeker geskakel word vir bystand by die vermelde elektroniese pos adres of telefonies by 021 180 3171, normale kantoor ure.

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK

MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

ANNEXURE G

LEGACY | ENVIRONMENTAL MANAGEMENT CONSULTING

Postal Address: PO Box 12410, DIE BOORD 7613
Street Address: Unit 8, Technostell Building
9 Quantum Road, Technopark
STELLENBOSCH 7600

Fax: +27 (0) 21 205 1966
Tel: +27 (0) 21 887 4000
e-mail: aubrey@legacyemc.co.za

OUR REF NO: LW19026
DEADP REF NO.: 14/3/1/1/B4/23/0128/16

Date: 3 March 2021

For Attention: Mr Anton Lotz

via email: alotz@iafrica.com

ENVIRONMENTAL PROCESS FOR THE PROPOSED HIGH DESITY SUBSTANTIVE AMENDMENT OF THE RESIDENTIAL AND MIXED-USE DEVELOPMENT ON PORTION 5 OF FARM NO. 742, KLAPMUTS, STELLENBOSCH. THIS DEVELOPMENT WAS PREVIOUSLY KNOWN AS THE KLAPMUTS HILLS DEVELOPMENT ON PORTION OF PORTION 3 OF THE FARM NO. 742 AND PORTION OF REM. OF THE FARM 742

1. Application for the Non-Substantive Amendment of Original Approval

The approval of the original Klapmuts Hills development lapses on 7 March 2021. As such, a Non-Substantive Amendment Application was submitted to the Appeals Division of the Department of Environmental Assessment and Development Planning (DEADP) on 11 January 2021 to amendment the time frame by 5 years so that sufficient time is granted for the approval of the Substantive Amendment for the proposed higher density development on the property.

This development still enjoys approval from Heritage Western Cape (HWC).

2. Application for a Substantive Amendment of the Original Approval

An Environmental Impact Assessment Report (EIA) for the Amendment of the original Klapmuts Hills residential and Mixed-use development was undertaken for the proposed higher density development on the property.

The draft EIA Report and Substantive Application has been lodged with the DEADP. The public participation process runs from Friday 5 February to 17 March 2021. The Stellenbosch Municipality has been informed of this application.

A Notice of Intent to Develop was submitted by the Heritage Consultants to HWC. HWC called for a visual impact assessment and a heritage impact assessment to be undertaken for this proposed higher density development. These studies have been undertaken, together with a host of other specialist studies. HWC will only consider this higher density application once the public participation process has been undertaken and consideration has been given to visual and heritage impacts.

The heritage application to HWC will only be considered by HWC once feedback has been given on heritage and visual matters. This application should be submitted to HWC by the end of March 2021. This means it will only be considered by the BELCom of HWC in April 2021.

The Substantive Application and the Final EIA Report will also be submitted to the Appeals Division of the DEADP before the end of March 2021. The Appeals Division will need to make a decision on this Substantive Amendment application by about the middle of July 2021.

You are welcome to contact me should you require any further information.

Aubrey Withers

AW WITHERS
for LEGACY ENVIRONMENTAL MANAGEMENT CONSULTING

083 658 8744

Western Cape Government
Environmental Affairs and Development Planning

MINISTRY OF LOCAL GOVERNMENT, ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

REFERENCE NO: 14/3/1/1/B4/23/0128/16

Mr Klaus-Gustav Gobel
Stellenbosch Wine and Country Estate (Pty) Ltd
PO Box 6442
WELGEMOED
7538

Tel: (021) 554 1086
Email: Klaus.gobel@sartino.co.za

Dear Mr Gobel

AMENDMENT APPLICATION FOR RESIDENTIAL DEVELOPMENT ON PORTION 5 OF FARM KLAPMUTS RIVER NO. 742, PAARL (PREVIOUSLY KNOWN AS PORTION 3 OF FARM KLAPMUTS RIVER NO. 742, PAARL AND REMAINDER OF FARM KLAPMUTS RIVER NO. 742, PAARL)

Your application for the amendment of the appeal Record of Decision ("RoD") for the above-mentioned development, refers.

By virtue of the powers conferred on myself by the NEMA 2014 EIA Regulations, I have decided to amend the decision granted on 15 April 2011 as follows:

The validity period of the appeal RoD, to reads as follows:

> *"These activities must commence within a period of five (5) years from the date of issue of this amended appeal decision. If commencement of the activities does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken."*

The location details which reads as follows:

> *"The activities will be located on a portion of Portion 3 of the Farm Klapmuts River No. 742 and a Portion of the Remainder of the Farm Klapmuts River No. 742, Paarl",*

is amended as follows:

> *"The activities will be located on Portion 5 of Farm Klapmuts River No. 742, Paarl."*

809 Utilitas Building, Cape Town, 8001 Private Bag X9186, Cape Town, 8000
tel: +27 21 483 3721 fax: +27 21 483 4174 www.westerncape.gov.za/eadp

The reasons to amend the appeal RoD are as follows:

i. Due to market conditions, it has not been financially feasible for the applicant to commence with the development. As such the holder of the appeal RoD wishes to have the validity period of the RoD extended.

ii. The amendment of the property description to refer to Portion 5 of Farm Klapmuts River No. 742 due to cadastral changes since the submission of the original application.

iii. The granting of the proposed amendments is not likely to adversely affect the environment or the rights or interests of other parties.

Yours faithfully

ANTON BREDELL
WESTERN CAPE MINISTER OF LOCAL GOVERNMENT, ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

DATE: 8/3/2016

CC: Mr AW Withers (Withers Environmental Consultants (Pty) Ltd)

Fax: (021) 883 2952

MINISTRY OF LOCAL GOVERNMENT,
ENVIRONMENTAL AFFAIRS and
DEVELOPMENT PLANNING

Provincial Government of the Western Cape

Tel : +27 21 483-3721 – Fax : +27 21 483-4174
1 Dorp Street, Cape Town
Private Bag x 9186, Cape Town, 8000
www.capegateway.gov.za

M 3/6/5

DATE OF ISSUE 15 APR 2011

Mr. Herman Steyn
The Board of Directors
Stellenbosch Wine and Country Estate (Pty) Ltd
P.O. Box 6442
WELGEMOED
7538

Tel : (021) 913 4938
Fax: (021) 913 4921

Dear Mr Steyn

APPEAL: RESIDENTIAL DEVELOPMENT ON A PORTION OF PORTION 3 OF THE FARM KLAPMUTS RIVER NO. 742 AND A PORTION OF REMAINDER OF THE FARM KLAPMUTS RIVER NO. 742, PAARL.

Having considered the information at my disposal I, the Minister for Local Government, Environmental Affairs and Development Planning have decided in terms of Section 35(4) of the Environment Conservation Act, 1989 (Act No. 73 of 1989) to set aside the decision of the Director: Integrated Environmental Management (Region A) issued on 30 July 2010 and to authorise the activity as set out herein below:

APPEAL RECORD OF DECISION

A. DESCRIPTION OF ACTIVITY:

The activity entails development of the Klapmuts Hills Residential Estate on a Portion of Portion 3 of the Farm Klapmuts River No. 742 and a Portion of the Remainder of the Farm Klapmuts River No. 742, Paarl. The development (see Appendix 1) will comprise of:

- 1577 mixed residential units,
- Open spaces,
- Commercial areas,
- Roads, and
- A reservoir

These are activities identified in:
Schedule 1 of Government Notice No. R1182 of 5 September 1997, as amended, being:

Item 1 (c): The construction, erection or upgrading of, with regard to any substance which is dangerous or hazardous and is controlled by national legislation –
(ii) storage, handling, treatment or processing facilities for any such substance (i.e. for the potential temporary storage of fuel for construction purposes),

Item 1 (d): The construction, erection or upgrading of roads, and associated structures.
Item 1 (k): The construction, erection or upgrading of reservoirs for public water supply,
Item 1 (n): The construction, erection or upgrading of sewage treatment plants and associated infrastructure,

Item 2 (c): The change in land use from agriculture or zoned undetermined use or an equivalent zoning to any other land use.

Government Notice No. R544 of 18 June 2010, includes the following:
Activity Number 22:
The construction of a road, outside urban areas,
(i) with a reserve wider than 13.5 metres or,
(ii) where no reserve exists where the road is wider than 8 metres,

Government Notice No. R545 of 18 June 2010, includes the following:
Activity Number 15:
Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more;

except where such physical alteration takes place for:
(i) linear development activities; or
(ii) agriculture or afforestation where activity 16 in this schedule will apply,

hereinafter referred to as "the activities".

B. LOCATION:

The activities will be located on a portion of Portion 3 of the Farm Klapmuts River No. 742 and a Portion of the Remainder of the Farm Klapmuts River No. 742, Paarl.

hereinafter referred to as "the site".

C. APPLICANT:

Stellenbosch Wine and Country Estate (Pty) Ltd
% Mr. Herman Steyn
P.O. Box 6442
WELGEMOED
7538
Tel: (021) 913 4938
Fax: (021) 913 4921

D. CONSULTANT:

Withers Environmental Consultants
% Mr. Aubrey Withers
P.O. Box 6118
UNIEDAL
7600
Tel/Fax: (021) 887 4000

E. SITE VISIT(S):

No site visit was conducted as part of the evaluation of the appeal.

F. DECISION:

In terms of Section 35(4) of the Environment Conservation Act, 1989 (Act No. 73 of 1989) the decision of the Director: Integrated Environmental Management (Region A) is set aside, and the relevant authority (as defined in GN No. R 1183 of 5 September 1997, as amended) hereby grants **authorisation with conditions** contained in this appeal Record of Decision ("RoD") for the execution of the activities described above.

This Authorisation has been granted in terms of Section 35(4) of the Environment Conservation Act, 1989 (Act No. 73 of 1989) and the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") solely for the purposes of undertaking the activities referred to above, and does not exempt the holder thereof from compliance with any other relevant legislation.

This application was submitted in terms of the previous Environmental Conservation Act, 1989 (Act No. 73 of 1989) ("ECA") EIA Regulations, and was pending at the time of the promulgation of the NEMA EIA Regulations 2010. Some of the activities authorised were not listed under the previous NEMA EIA Regulations, but are now listed in terms of the NEMA EIA Regulations 2010. In accordance with Regulation 74(3) of GN No. R. 543, these activities may be authorised as if it was applied for.

G. CONDITIONS OF AUTHORISATION:

1. One week's notice, in writing, must be given to the Directorate: Integrated Environmental Management (Region A), of the Department of Environmental Affairs and Development Planning ("DEA&DP"), before commencement of construction activities.

   1.1 Such notice shall make clear reference to the site location details and reference number given above.

   1.2 The said notice must also include proof of compliance with the following conditions described herein:

   Conditions: 1, 6, 13 and 14.

2. The applicant must, in writing, within 20 days of the issue of this appeal Record RoD, confirm acceptance of the conditions of this authorisation. Failure to accept may suspend this RoD until such time that the conditions are accepted.

3. An integrated waste management approach must be used that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate. Any solid waste shall be disposed of at a landfill licensed in terms of section 20 of the Environment Conservation Act, 1989 (Act No. 73 of 1989).

4. The project manager must, at all times, ensure that the construction activities comply with the Noise regulations in terms of the Environmental Conservation act, 1989 (Act No. 36 of 1998).

5. No surface or ground water may be polluted due to any activity on the property/site. The relevant requirements of the National Water Act, 1998 (Act No. 36 of 1998) must be complied with at all times.

6. The final layout and building plans must be approved by the Stellenbosch Municipality and must incorporate the recommendations of the Visual Impact Assessment and the Traffic Impact Assessment.

7. The development must be kept below the 200m contour line.

8. The Urban Design and Architectural Guidelines for the development must be strictly adhered to within all components of the development.

9. Only local indigenous vegetation must be used in the landscaping of the development. Tree lines/windbreaks must be retained or recreated to soften visual impacts.

10. The construction of solid walls that prevent the movement of smaller animals must be avoided. If barriers are necessary, fences, stone packed walls (with small holes at the bottom) and/or hedges must be used.

11. Water saving devices and technologies (e.g. dual flush toilets, low-flow shower heads and taps, etc.) must be used in all components of the development and a water demand management and water conservation plan must be prepared and implemented for the proposed development and included in the Environmental Management Plan ("EMP").

12. The EMP for Construction and Operation submitted as part of the application for authorisation must be amended to include a water demand management and water conservation plan and submitted to this Department before construction commences.

13. The applicant must appoint a suitably qualified and experienced Environment Control Officer (or Site Agent where appropriate) before commencement of any land clearing or construction activities to ensure compliance with the provisions of the construction phase EMP and the RoD.

14. The applicant must, within five (5) calendar days of being notified of this appeal RoD (the date of "being notified" is deemed to be the date the notice of this decision was sent) inform all Registered Interested and Affected Parties of the outcome of this decision.

15. Should any heritage remains be exposed during excavations, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape ("HWC") (in terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999)). Heritage remains uncovered or disturbed during earthworks must not be disturbed further until the necessary approval has been obtained from Heritage Western Cape.

    If any archaeological remains (including but not limited to fossil bones and fossil shells, coins, indigenous and/or colonial ceramics, any articles of value or antiquity, stone artefacts and bone remains, structures and other built features, rock art and rock engravings) are discovered during construction they must immediately be reported to Heritage Western Cape and must not be disturbed further until the necessary approval has been obtained from Heritage Western Cape, and

    If any graves or unmarked human burials are discovered, they must be treated with respect and South African Heritage Resources Association ("SAHRA") must be notified immediately and the burials must not be disturbed further until the necessary approval has been obtained from SAHRA. An archaeologist must be contracted to remove the remains at the expense of the developer.

16. All outdoor advertising associated with this activity, whether on or off the property concerned, must comply with the applicable Local Authority By-Law for the control of Outdoor advertising or in the absence of local legislative controls, must comply with the South African Manual for Outdoor Advertising Control (SAMOAC) available from:

    The Director: Environmental Impact Management

    Department of Environmental Affairs

    Private Bag X447

    PRETORIA

    0001

17. The holder of the authorisation shall be responsible for ensuring compliance with the conditions contained in this environmental authorisation by any person acting on his behalf, including but not limited to, and agent, sub-contractor, employee or any person rendering a service to the holder of the authorisation.

18. The owner and/or developer must notify this Directorate and any other relevant authority, in writing, within 24 hours thereof if any condition of this authorisation is not adhered to.

19. Departmental officials shall be given access to the property referred to in B above for the purpose of assessing and/or monitoring compliance with the conditions contained in this Record of Decision, at all reasonable times.

H. RECOMMENDATIONS:

The following recommendation should be considered and implemented:

- The use of energy saving devices within all components of the development, e.g. energy saving lamps, etc.
- The use of local labour and the promotion of skills development during the construction phase of the development.

I. KEY FACTORS AFFECTING THE DECISION:

The following was taken into account in the decision-making process resulting in this Appeal RoD:

Need and Desirability

The village of Klapmuts comprises primarily of low income and state assisted housing with very little employment opportunities in the immediate vicinity. The scale and typology of the Klapmuts Hills Residential Estate will be mostly medium income single residential housing and group housing. This addresses the shortage of residential opportunities which exist in the middle income bracket.

Furthermore, it is envisaged to have a long term significant positive socio-economic impact on the village of Klapmuts, not only in the form of job opportunities, but also, as commercial support to existing and new retail opportunities.

Planning Context

The September 2007 Klapmuts SDF was approved by the Stellenbosch Council on 06 May 2010 which includes the Klapmuts Hills Residential Estate on a Portion of Portion 3 of the Farm Klapmuts River No. 742 and a Portion of the Remainder of the Farm Klapmuts River No. 742, Paarl, within the urban edge. Thus, the development of approximately 35 ha of the 54 ha of the development is located within the urban edge. The remaining 19ha portion which is located above the 200m contour line will be used to accommodate a 1000m² tourist facility. The average gross density for the development is 25.5 dwelling units per hectare which is in line with the Provincial Spatial Development Framework's recommendation of 25 du/ha.

The September 2007 Klapmuts SDF defines the urban edge along the western portion of the land (see Appendix 2 – Plan 19) which begins at the railway line in the north and ends at the boundary of Farm 744/1. The north eastern-most portion of the of the edge reflects the need to protect valuable agricultural soil, as identified in an agricultural potential study undertaken for the property, and as defined by a prominent tree line in this area.

Immediately south of this, the edge follows the 200m contour line, which is the height at which the visual impact of the development will not impact significantly on Klapmuts Hill. This was determined through a detailed visual impact study.

The eastern portions of Farm 742/3 and 742/RE, as well as the remainder of Farms 744/2 and 744/3 have been included in the Urban Edge and have been identified as suitable for infill development. The infill of Klapmuts has, however, been identified as a phased development with the above-mentioned erven earmarked for Phase 3, with a realistic timeframe for development in the medium to long term (6 – 10 years). This document was compiled in 2007 and it is now 2011 (~4 years later) so that this application can be deemed to be in line with the development timeframe of the KSDF.

Affected Environment

Most of the site comprises fallow agricultural land, which was previously used as stock grazing for the last few years. No active cultivation of crops has occurred for some time. The lower-lying areas adjacent to developed portion of Klapmuts have been used for sand and gravel mining and are currently infested by alien vegetation. No naturally vegetated areas are therefore present on the site.

The development will only take place on low to low-medium potential agricultural soil. Medium to high potential agricultural soil will continue to be used for agricultural purposes (vineyards) within the proposed Stellenbosch Wine and Country Estate, in the western portion of Klapmuts Hills Residential Estate.

Visual Impact

The upper section of the development will to some degree be visually exposed from surrounding vantage points. This visual obtrusiveness demands that careful urban and architectural designs and landscaping be taken into consideration. In anticipation of the potential visual impacts and as the development seeks to maintain the rural character of the area, extensive green areas and substantial tree planting will be undertaken. The Urban Design and Architectural Guidelines for the development contain the general building and urban design restrictions, as well as the aesthetic controls for the architectural style.

Alternatives

The following alternatives were considered:

Alternative 1 (preferred option):

The activity entails development of the Klapmuts Hills Residential Estate on a Portion of Portion 3 of the Farm Klapmuts River No. 742 and a Portion of the Remainder of the Farm Klapmuts River No. 742, Paarl. The development will comprise of:

- 1577 mixed residential units,
- Open spaces,
- Commercial areas,
- Roads, and
- A reservoir.

This alternative is preferred as it makes use of higher densities to allow for a more compact and town-like development. The average gross density for the development is 25.5 dwelling units per hectare which is in line with the Provincial Spatial Development Framework's recommendation of 25 du/ha. Furthermore, no development will occur above the 200m contour line apart from a 1000m² tourist facility and more public open spaces are allowed for within the development.

Alternative 2:

This alternative entails a layout that makes use of lower densities over a larger area. The development will comprise of:

- 1225 dwelling units,
- Open spaces,
- Roads, and
- A reservoir.

This alternative was not preferred as it necessitates that the development extends further up the hill than in the preferred option, resulting with some erven being located above the 200m contour line. This alternative also allows for less public open spaces within the development when compared to the preferred alternative.

No-go alternative

This alternative means that the land would remain undeveloped. Thus, the land will continue to be used only for agricultural purposes as one consolidated farm together with the adjacent Stellenbosch Wine and Country Estate.

Public Participation

Public Participation Process ("PPP") comprised of the following:

- Release of the Background Information Document ("BID") to the public.
- The availability of the BID was advertised in the regional newspapers, i.e. the Cape Times and "Die Burger", as well as the local "Elkestadnuus" newspapers respectively, on 3 June 2005.
- A Public Open Day was held in the Klapmuts Primary School Hall on 14 June 2005.
- The availability of the Draft Scoping Report was advertised in the "Paarl Post" newspaper on 6 October 2005, as well as in "Die Burger" and the "Elkestadnuus" newspapers, respectively on 7 October 2005.
- The availability of the Draft Environmental Impact Report ("EIR") was advertised in the "Paarl Post" newspaper on 6 November 2008, as well as the "Elkestadnuus" newspaper, and "Die Burger" and the Cape Times newspapers respectively, on 7 November 2008.
- A public meeting and open day was held in the Klapmuts Primary School Hall on 19 November 2008.

During the PPP comments were received and adequately addressed by the applicant, EAP and the project team.

Authorities Consulted

The following authorities commented on the development:

- Heritage Western Cape,
- CapeNature,
- Department of Agriculture,
- The Department of Water Affairs and Forestry,
- Stellenbosch Municipality.

Consideration of the Appeal:

I have considered the issues raised in the appeal and have addressed these issues in the Key Factors of this appeal RoD as it relates to the KSDF and the edge issues.

Furthermore, I have considered the responding statement, which was submitted by the Stellenbosch Interest Group ("SIG"), supporting the Department's decision dated 30 July 2010. The issues raised have been reported on in the Key Factors of the Record of Decision.

In addition, the confirmation dated 13 August 2010 from the Stellenbosch Municipality approving the September 2007 Klapmuts SDF included the bulk of this application within the urban edge.

I am satisfied that no new issues have been raised and that the issues raised have been adequately addressed and considered. It has been assessed that the construction of the Klapmuts Hills Residential Estate will not result in a substantial detrimental effect on the environment.

In view of the above, I am satisfied that, subject to compliance with the conditions contained in this appeal RoD, the proposed activity will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental impacts resulting from the activity can be mitigated to acceptable levels. The application is accordingly authorised.

J. **DURATION AND DATE OF EXPIRY**

"These activities must commence within a period of five (5) years from the date of issue of this appeal decision. If commencement of the activities does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken, unless the holder of the Environmental Authorisation has lodged a valid application for the amendment of the duration of expiry of this appeal decision before the expiry of this appeal decision, in which case, the validity of this appeal decision is automatically extended from the day before this appeal decision would otherwise have expired until the amendment application for extension is decided (the period of automatic extension). The activities including site preparation, may not commence during the period of automatic extension.

Your interest in the future of our environment is greatly appreciated.

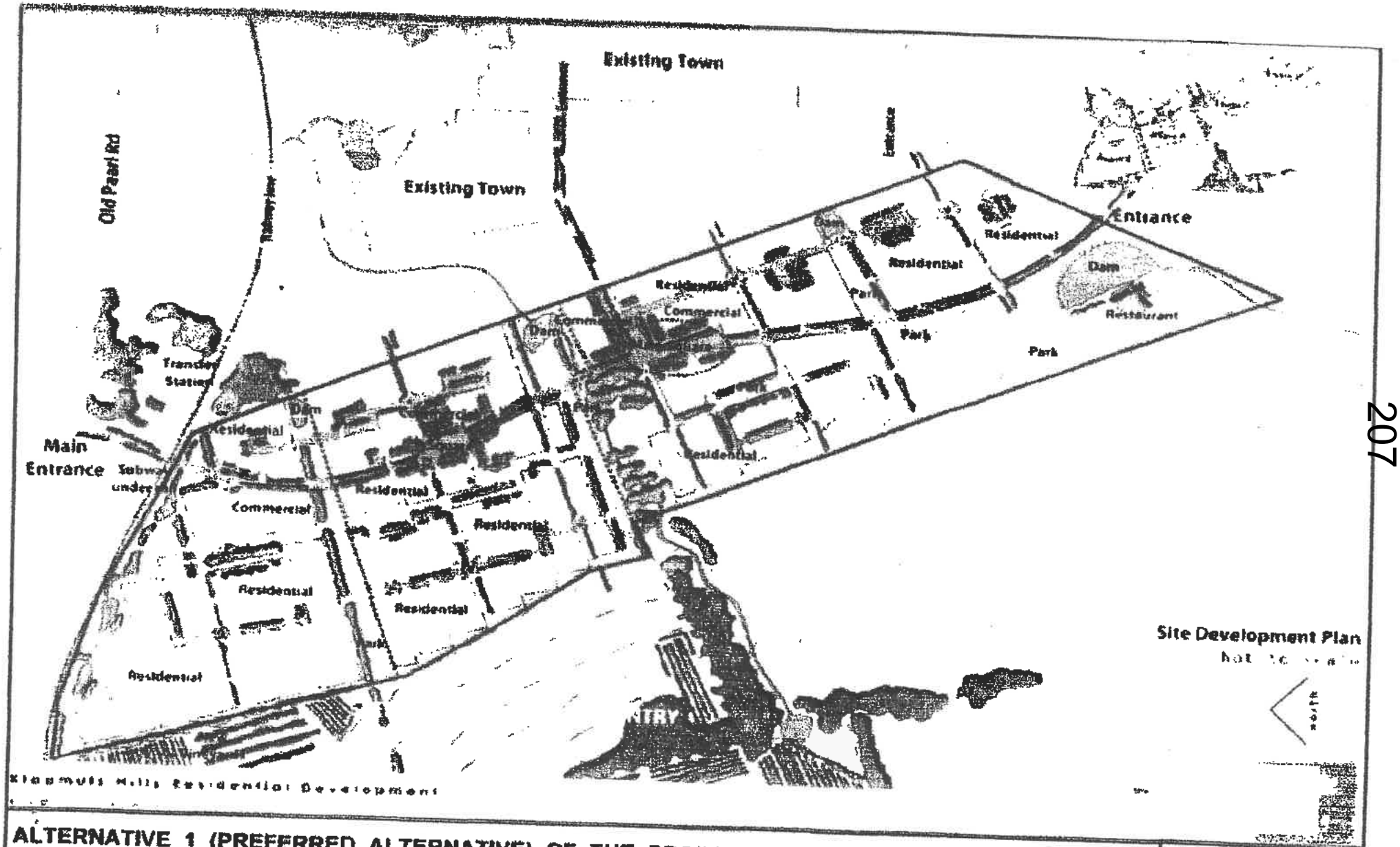
Yours faithfully.

ANTON BREDELL
WESTERN CAPE MINISTER OF LOCAL GOVERNMENT,
ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

DATE 15/4/2011

Copies to: (1) Mr. A Withers (Withers Environmental Consultants) Fax: (021) 883 2952
(2) The Municipal Manager (Stellenbosch Municipality) Fax: (021) 808 8313
(3) Ms P Botha (Stellenbosch Interest Group) Fax: (086) 560 6100
(4) Mr J du Plessis (Johan du Plessis Attorney) Fax: (021) 851 4852

Appendix 1



ALTERNATIVE 1 (PREFERRED ALTERNATIVE) OF THE PROPOSED KLAPMUTS HILLS RESIDENTIAL DEVELOPMENT, KLAPMUTS

FIGURE 3

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ANNEXURE H

Western Cape Government
Agriculture

Cor Van Der Walt
LandUse Management
Email: LandUse.Elsenburg@elsenburg.com
tel: +27 21 808 5099 fax: +27 21 808 5092

OUR REFERENCE : **20/9/2/5/4/748**
YOUR REFERENCE : **LU/10577**
ENQUIRIES : **Cor van der Walt**

Anton Lotz Town Planning
20 Vredehoek Ave
Vredehoek
Cape Town
8001

Att: Anton Lotz

PROPOSED FOR THE SUBDIVISION, REZONING AND CONSENT USE: DIVISION PAARL PORTION 5 OF THE FARM NO 742

Your application received by our office on 20 November 2020 has reference.

The Western Cape Department of Agriculture: Land Use Management has no objection to the proposed change of land use on condition that a hard edge or transition area be incorporated in order to prevent sprawl onto farm:

i. Remainder of Farm No. 742
ii. Portion 7 of the Farm No. 744
iii. Remainder of the Farm No. 1515

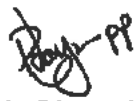
Please note:

- That this is comment to the relevant deciding authorities in terms of the Subdivision of Agricultural Land Act 70 of 1970.

- Kindly quote the above-mentioned reference number in any future correspondence in respect of the application.

- The Department reserves the right to revise initial comments and request further information based on the information received.

Yours sincerely



Mr. CJ van der Walt
LANDUSE MANAGER: LANDUSE MANAGEMENT
2021-02-23

Copies:
Stellenbosch Municipality
PO Box 17
STELLENBOSCH
7599

Directorate Land Use and Sustainable Resource Management
National Department of Agriculture
Private Bag X 120
PRETORIA
0001

Department of Environmental Affairs & Development Planning
1 Dorp Street
Cape Town
8000

agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

Private Bag X120, Pretoria 0001
Delpen Building, C/o Annie Botha & Union Street, Riviera, 0084

From: Directorate Land Use and Soil Management
Tel: 012 319-7634 Fax: 012-329-5936 E-mail: NhlakaD@daff.gov.za
Enquiries: Helpdesk Ref: 2013_10_0172

Anton Lotz Town & Regional Planning
P.O. Box 120
WATERFRONT
8002

Dear Sir

APPLICATION IN TERMS OF SUBDIVISION OF AGRICULTURAL LAND ACT 70 OF 1970: APPLICATION FOR SUBDIVISION OF AGRICULTURAL LAND ON PORTION 5 OF THE FARM KLAPMUTS RIVIER NO. 742, DIVISION PAARL, WESTERN CAPE PROVINCE

Your letter dated 05 August 2013 refers.

With reference to the above-mentioned subject I wish to inform you that the application has been granted.

Consent No. 49299 issued in terms of section 4 of the Act, is enclosed in duplicate.

The Conveyancer must lodge the signed copy of the Consent with the Registrar of Deeds together with the documents for registration.

Kindly note that the properties concerned are subject to the provisions of the Conservation of Agricultural Resources Act 1983 (Act 43 of 1983).

Yours faithfully

MR I.B. KGAKATSI
ACTING CHIEF DIRECTOR: NATURAL RESOURCES MANAGEMENT
DELEGATE OF THE MINISTER
DATE: 15/01/2014

CC: The Surveyor-General Private Bag X 9028 CAPE TOWN 8000
CC: Land Use and Soil Management P O Box 380 BELLVILLE 7535
CC: Mr Brandon Layman Landuse Management Department of Agriculture: Western Cape Private Bag x 1 ELSENBURG 7607

King/2014/Farm No. 742 Ptn: 5

agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

VERW/REF.

2013_10_0272

TOESTEMMING
KRAGTENS DIE WET OP DIE ONDERVERDELING VAN LANDBOUGROND, 1970

CONSENT
IN TERMS OF THE SUBDIVISION OF AGRICULTURAL LAND ACT, 1970

49299

By virtue of the powers delegated to me by the Minister of Agriculture, Forestry and Fisheries consent is hereby granted in terms of section 4(2) of the Subdivision of Agricultural Land Act, 1970, for the subdivision of the agricultural land described in paragraph 1, as indicated in paragraph 2, subject to the conditions set out in paragraph 3.

PARAGRAPH 1: THE AGRICULTURAL LAND TO WHICH THIS CONSENT APPLIES

PORTION 5 OF THE FARM KLAPMUTS RIVIER NO. 742, IN EXTENT 107, 9147 HECTARES, DIVISION PAARL, WESTERN CAPE PROVINCE

PARAGRAPH 2: CONSENT GRANTED

The subdivision of the above-mentioned agricultural land into two portions measuring approximately 73 hectares and 35 hectares represented by the figures marked Ptn A and the Rem. 742/5 as shown on the sketch plan which is attached to this Consent.

PARAGRAPH 3: CONDITIONS PERTAINING TO THIS CONSENT

3.1 Simultaneously with registration of transfer, a condition must be registered against the relevant title deeds to the effect that the portion measuring approximately 35 hectares(Rem. 742/5) and Farm No. 1515, in extent 144, 5837 hectares, Division Stellenbosch, may, except in the case of the expansion of existing mortgage bonds to include the incoming portion, not be mortgaged separately, transferred, alienated separately or otherwise dealt with separately without the written consent of the Minister of Agriculture.

3.2 This Consent does not imply that the above-mentioned subdivisions are assured of a permanent water supply.

3.3 This Consent does not exempt any person from any provision of any other law, with special reference to the Conservation of Agricultural Resources Act 1983 (Act 43 of 1983) and does not purport to interfere with the rights of any person who may have an interest in the agricultural land.

3.4 This Consent is valid for 5 years from date of this Consent.

15/01/2014
DATE

MR I.B. KGAKATSI
ACTING CHIEF DIRECTOR: NATURAL RESOURCES MANAGEMENT
DELEGATE OF THE MINISTER

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ANNEXURE I

Our Reference: HM/ Farm Klapmuts River 742/3 Prtn of Farm 742
Email: nnjobe@pgwc.gov.za
Enquiries: Ntombekhaya Njobe
Tel. (021) 483 9783
19-05-2009

iLifa leMveli leNtshona Kolonii
Erfenis Wes-Kaap
Heritage Western Cape

Heritage Western Cape hereby notifies:

Tim Hart
Archaeology Contracts Office
Dept of Archaeology UCT
Private Bag
Rondebosch
7701

RECORD OF DECISION

Of its intention to comment in terms of
Section 38 (8) of the National Heritage Resources Act (Act 25 of 1999)
and Regulation 3(3)(a) of PN 298 (29 August 2003)

For: Proposed Development

At: Farm Klapmuts River 742/3, Portion of Farm 742, KLAPMUTS.

Decision: The Committee agreed that the receiving environment needs to be further analyzed and the proposed layout should take cognisance of the urban morphology of Klapmuts.

The proposal must be integrated into the existing settlement.

Yours faithfully

NNjobe

Ntombekhaya Njobe (Ms)
For Accounting Officer: Heritage Resources Management Service
p.p. Heritage Western Cape

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ANNEXURE J

Western Cape Government

TRANSPORT & PUBLIC WORKS: ROADS
Chief Directorate: Road Planning
Email: grace.swanepoel@westerncape.gov.za
Tel: +27 21 483 4669
Room 335, 9 Dorp Street, Cape Town, 8001
PO Box 2603, Cape Town, 8000

REFERENCE: **TPW (Job 19472)**
ENQUIRIES: **Ms G Swanepoel**
DATE: **1 February 2021**

Director: Planning and Economic Development
Stellenbosch Municipality
PO Box 17
STELLENBOSCH
7599

Attention: Mr U von Molendorff

Dear Sir

PORTION 5 OF FARM 742 PAARL: MAIN ROAD 27 (R44) AND MAIN ROAD 189 (R101 OLD PAARL ROAD): APPLICATION FOR AMENDMENT OF CONDITIONS OF APPROVAL, COUNCIL'S CONSENT AND COUNCIL'S APPROVAL

1. The following refer:

1.1 Undated notice of land development, Stellenbosch Municipality application no. LU/10577, received in this Branch on 2 December 2020 from Mr A Roux of Anton Lotz Town Planning and ARoux Town Planning in association;

1.2 Proposed subdivision and zoning plan for the Stellenbosch Bridge development on Farm 742/5, Drawing no. 18096-001 Rev. F dated 2020-09-14;

1.3 Klapmuts Hills Traffic Impact Assessment (TIA) report dated March 2009;

1.4 Addendum to 2009 TIA (paragraph 1.3 above) dated 15 September 2011;

1.5 Traffic Impact Statement (TIS) dated 12 August 2019 and

1.6 Addendum to 2019 TIS (paragraph 1.5 above) dated 26 November 2020.

2. Portion 5 of Farm 742 Paarl is located to the west of the currently developed area of Klapmuts, south of Main Road 189 (the R101 Old Paarl Road) and the main railway line to Paarl and the interior, but within the urban fringe of Klapmuts as indicated in the 2019 Stellenbosch Spatial Development Framework.

3. The application is for the following:

3.1 Amendment of the conditions of approval for the subject property to relocate land use rights granted in 2011-2017 for Phase 1 to permit the development of 1 577 residential units (flats and group housing), and 28 000m² of non-residential floor area (including business, industrial and institutional uses);

3.2 Consent for a Mixed-Use Zone on Portion 2, permitting a wide range of land uses;

3.3 Consent for Industrial Zone spot-zoning on Portion 2 to permit business premises;

3.4 Consent to permit business premises on Portions 3 and 4 (zoned Industrial);

3.5 Consent to permit flats at ground floor on Mixed Use Zone Portion 2 and

3.6 Approval of the proposed Stellenbosch Bridge Development Framework.

4. While the residential component of the development is unchanged, the non-residential portion of the proposed development is being amended. Where the original proposal had 17 500m² of commercial/office floorspace, 4 700m² of retail and 4 000m² of gym, the amended application is shown as mixed use, with a modestly sized area allocated as industrial spot zone, and with two smaller portions of industrial. In the land use application, the range of potential uses under mixed zone is wide, with trip generation also potentially varying widely. The TIS for the present land use application specifies 3 000m² GLA of commercial/office floorspace, 5 000m² GLA of data centre and a 1 200 learner private school (area/ GLA not specified).

5. The original 2009 TIA listed external road network upgrades required to accommodate the proposed developments on Farm 742/5. These are listed in Section 6.5 of the current land use application report (paragraph 1.1 above). The Traffic Impact Statement (TIS) for the current application (paragraph 1.5 above) indicates a slight decrease in morning peak hour trips generated compared with the original application, and a significant decrease in evening peak hour trips generated by the proposed development in its revised form. However, the TIS does not evaluate how these changes, together with the impact of development, road upgrades already implemented, and traffic growth on the external road network in the interim, may change the external road network upgrades required in terms of the original TIA.

6. The November 2020 Addendum to the 2019 TIS (paragraph 1.6 above) proposes providing a half-diamond interchange on the N1 at the west side of Groenfontein Road. The Addendum indicates that EMME modelling showed this to remove the need to dual Main Road 27 (the R44) between Main Road 23 (Simondium Road)/Merchant Street and Main Road 189 Old Paarl Road as a requirement for the proposed development of Farm 742/5, due to diversion of traffic. It is noted that any proposals to upgrade or implement new interchanges on the N1 would require detailed negotiations between local and provincial authorities and SANRAL and may only be implemented with the approval of SANRAL. This may place limitations on the timing and/or scale of future developments in the Klapmuts area.

7. Numerous other developments in the Klapmuts area, of varying sizes and locations, are currently being considered or planned, and depending on the timing of development, it is likely that these would trigger some of the upgrades identified in the 2009 TIA as being required to accommodate the generated traffic on the external road network (the R44 Main Road 27 and the R101 Main Road 189; Divisional Road 1104 Groenfontein Road and N1 interchanges). Other additional upgrades may, however, be required. It is also

indicated in the Addendum to the 2019 TIS that additional applications are planned to intensify the development on Farm 742/5 and to expand the Stellenbosch Bridge development to include adjacent properties. It is important therefore that the planning process is flexible and that as development takes place, the necessary road infrastructure upgrades are implemented timeously.

8. The application for Farm 742/5 indicates the intention to follow a "Package of Plans" approach, commencing with the Conceptual and Development Frameworks and proceeding consecutively to Precinct Plans, Subdivision Plans, Site Development Plans and finally Building Plans. The current application combines the Conceptual and Development Framework stages and seeks approval of a "basket of rights" (specifying land uses and the number and floor area of these uses) for the development of the site, allowing for flexibility to move these rights between precincts.

9. The basket of rights must require the applicant to submit for the approval of the Municipality and this Branch, any changes in use or scale (area/number of units), including an assessment of the traffic impacts of these changes. For example, mixed use zoning may allow for a variety of land uses, but different uses generate different numbers of trips. This is particularly important, since a data centre generates low traffic volumes, whereas a gym, for example, has a high trip generation rate. A condition of this Branch offering no objection will therefore be a requirement not to exceed the number of trips specified in the TIS and to submit a traffic impact study for any proposed change of use, or of the scale of any particular use.

10. This Branch offers no objection to the land use application for Portion 5 of Farm 742 Stellenbosch, as detailed in the documents referenced in paragraphs 1.1 to 1.6 above, subject to the following:

10.1 The "basket of rights" for the proposed development is limited to 1 577 residential units, 3 000m² GLA offices, 5 000m² data centre and educational facilities for 1 200 learners; in addition, total trip generation shall not exceed 2 214 trips in the AM peak hour and 1 794 trips in the PM peak hour;

10.2 A phasing plan must be submitted, based on a traffic study assessing the traffic demand for each phase and indicating the road improvements required per phase, taking into account recent traffic count data and reasonable background traffic growth forecasts for 5 years after completion of the relevant phases;

10.3 The phasing plan once accepted by Stellenbosch Municipality and this Branch can be changed by mutual agreement between Stellenbosch Municipality, this Branch and the developer;

10.4 Stellenbosch Municipality must ensure that the design of all road improvements is initiated in time for construction to commence before each phase is allowed to commence;

10.5 No development may commence prior to the approval of a precinct plan for the relevant portion of the subject property, for which a traffic impact statement/assessment shall be prepared, in which the impact on proclaimed roads and associated intersections shall be determined and necessary upgrades to accommodate the additional traffic shall be identified. Approval of any such precinct plan will require commitment to the funding and implementation of such upgrades. This Branch cannot commit to providing any funding for these upgrades;

10.6 The Applicant shall submit for approval a traffic impact statement/assessment report for any proposed change of use, or of the scale of any particular use and

10.7 Stellenbosch Municipality will monitor the approval process to ensure that the above conditions are adhered to and the necessary road infrastructure upgrades are implemented.

Yours Sincerely

SW CARSTENS
***For* DEPUTY DIRECTOR-GENERAL: ROADS**

ENDORSEMENTS

1. Stellenbosch Municipality
   Attention: Mr Ulrich von Molendorff (e-mail)
   Mr Johan Fullard (e-mail: Johan.Fullard@stellenbosch.gov.za)
   Mr Nigell Winter (e-mail: Nigell.Winter@stellenbosch.gov.za)

2. ARoux Town Planning
   Attention: Mr Andre Roux (e-mail: andre@arouxplanning.co.za)

3. District Roads Engineer
   Paarl

4. Mr Elroy Smith (e-mail)

5. Cape Winelands District Municipality
   Attention: Mr A Stevens (e-mail: aubrey@capewinelands.gov.za)

6. Mr SW Carstens (e-mail)

7. Mr B du Preez (e-mail)

8. Mr E Burger (e-mail)

9. Mr HW Thompson (e-mail)

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ANNEXURE K

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Spatial Planning, Heritage and Environment

To	:	**Manager: Development Management**
From	:	**Manager: Spatial Planning**
Reference	:	**FARMS 742/5, 742, 744/2, ERF 1515 KLAPMUTS, STELLENBOSCH BRIDGE**
Date	:	**16 February 2021**
Re	:	**VARIOUS APPLICATIONS IN KLAPMUTS**

I refer to your request for comment on the above application as well as several meetings in person.

BACKGROUND

Located as it is on the N1 transport corridor – which carries 93% of metropolitan bound freight traffic – Klapmuts is a potentially significant centre for economic activity and residence within the metropolitan region and Stellenbosch Municipal area (as identified in the GCM RSIF). To date, the settlement is characterized by residential use and limited commercial and work-related activity. Public sector resource constraints have prevented the infrastructure investment required to enable and unlock the full potential of the area for private sector economic development as envisaged in the GCM RSIF.

The Stellenbosch MSDF (2019) designated Klapmuts as the secondary growth node to the town of Stellenbosch. The Stellenbosch Municipality supported the creation of an innovation precinct as the new core of the Klapmuts node and allowed this vision to guide their decisions on the Klapmuts urban edge and spatial budget. have been through application processes and have development rights and others that only recently were incorporated into the Klapmuts urban edge and still need to be subjected to the various application processes.

Significant progress has been made in planning for a "Innovation Precinct" or "Smart City" district west of but contiguous to Klapmuts south. This includes a land agreement with the University of Stellenbosch to possibly establish university related activities in this area. The urban edge has been adjusted in recognition of the opportunity associated with this initiative.

This application is the first step of many to obtain the land use rights to start with the development, although the area was included in the MSDF and identified as a "catalytic project" which should receive focussed attention from the municipality and in terms of the Capital Expenditure Framework (CEF) to enable the substantial development to take place over the next decade or two.

KLAPMUTS IN CONTEXT

Klapmuts is located within the Stellenbosch Local Municipality, adjacent to the N1 (between Cape Town and Paarl) and the R44 (between Stellenbosch and Paarl). It is approximately 50km from Cape Town, ±15km north of the Stellenbosch CBD, ±15km south-west of the Paarl CBD and ±30km north-west of Franschhoek, along the N1 highway. It is a hamlet that is home to approximately 7703 people (2011 census) and surrounded by the rural areas commonly referred to as the Cape Winelands. The Stellenbosch municipal boundary (in relation to Klapmuts) is now the N1. The land north of the N1 (previously part of the Klapmuts area), therefore, falls within the area of jurisdiction of the Drakenstein Municipality.

Various local spatial plans were drafted for the hamlet focussing mainly on the settlement in isolation with a view to grow the settlement in a balanced way and to address various backlogs related to housing and bulk services.

The municipality first realised during the drafting of a Spatial Perspective for Stellenbosch that Klapmuts has enormous potential for growth. The Spatial Perspective proposed inter alia the following:

- Protect, maintain, renew, and enrich some settlements through containment, increased opportunity (selective infill), making critical connections, and removing conflicts.
- Create new places of opportunity, building on the "energy" of existing infrastructure.
- Protect the historic core of Stellenbosch, Franschhoek, and the Dwarsrivier complex.
- Protect the rural and agricultural areas which are sensitive e.g., Idasvalley, Jonkershoek, Dwarsrivier en Franschhoek!
- Enable the development and dignified expression of new cultures.

To achieve this, the following strategy was proposed:

- Promote a system of large and small interdependent settlements fulfilling specific functions, each with inherent opportunity. (Nodal development)
- Grow settlements linked to regional movement systems (tap available energy along "external" linkages to the regional economy).
- Maintain the links between each settlement and surrounding agriculture/ nature areas.
- Ensure "choice" in each (different housing types, a range of facilities, urban agriculture)
- Establish limits to growth for each settlement ("urban edges within edges")

The proposed Spatial Perspective is illustrated in **FIGURE 1** below.

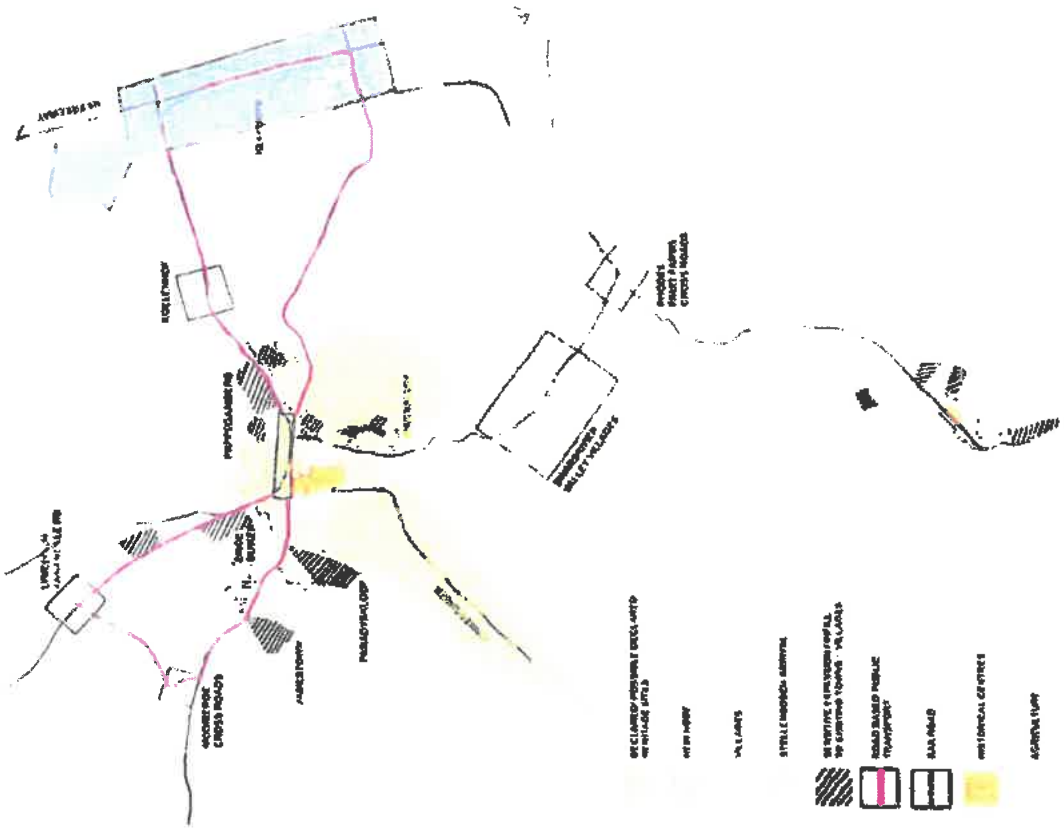

FIG 1. Spatial Perspective

Following the spatial perspective (which was approved by Council) the view that Klapmuts remains a rural hamlet was replaced with an understanding that the settlement has enormous potential for growth and could alleviate development pressure in more environmentally and culturally sensitive areas and could potentially absorb substantial growth whilst it can by linked by road and rail to other settlements in Stellenbosch.

Subsequent investigations and plans recognized that Klapmuts can be viewed as a settlement that have regional growth potential due to its strategic location next to the N1 and railway line. The Provincial Spatial Development Framework (PSDF) and the Greater Cape Metro Regional Spatial Implementation Framework (RSIF) also gave recognition to the potential of Klapmuts by identifying it as a settlement of regional importance.

Through the latter planning policies Klapmuts is therefore not only recognized as area with great growth potential as seen from a Stellenbosch perspective but also one that has regional aspirations.

POLICY CONTEXT

1. NATIONAL POLICY

The National Development Plan's (NDP) key objectives to be achieved by the year 2030 are to eliminate income poverty and reduce inequality. The following NDP spatial priorities are relevant to the planning of Klapmuts:

a) Urban and Rural Transformation:
Spatial transformation is advocated given the enormous costs imposed by existing spatial divides. The NDP recognises that achieving this is a complex long-term process. The NDP's human settlement targets are: more people living closer to their places of work; better quality public transport; and more jobs in proximity to townships. To achieve these targets, it advocates strong measures to prevent further development of housing in marginal places, increased urban densities to support public transport, incentivising economic activity in and adjacent to townships; and engaging the private sector in the gap housing market. The NDP also targets the development of a more inclusive and integrated rural economy. Its rural strategy is based on land reform, agrarian transformation, livelihood and employment creation, and strong environmental safeguards.

b) Improving Infrastructure:
The NDP identifies infrastructure as essential for development and prioritises upgrading informal settlements on suitably located land; rolling out public transport systems; improving freight logistics; augmenting water supplies; diversifying the energy mix towards gas (i.e., imported liquid natural gas and finding domestic gas reserves) and renewables; and rolling-out broadband access.

c) Building Environmental Sustainability and Resilience:
"South Africa's primary approach to adapting to climate change is to strengthen the nation's economic and societal resilience. This includes ensuring that all sectors of society are more resilient to the future impacts of climate-change by decreasing poverty and inequality; creating employment; increasing levels of education and promoting skills development; improving health care and maintaining the integrity of ecosystems and the many services that they provide" [NDP 2012, p209]. The long-term strategy is to transition to a low carbon economy.

Integrated Urban Development Framework (IUDF)

The 2016 Integrated Urban Development Framework (IUDF) is another key national policy that informed the planning of Klapmuts. The IUDF steers urban growth towards a sustainable model of compact, connected and coordinated towns and cities. The IUDF provides a roadmap to implement the NDP's vision for spatial transformation – creating liveable, inclusive, and resilient towns and cities while reversing apartheid's spatial legacy. To achieve this transformative vision, the IUDF sets four strategic goals:

1. Spatial integration - To forge new spatial forms in settlement, transport, social and economic areas.

2. Inclusion and access - To ensure people have access to social and economic services, opportunities, and choices.
3. Growth - To harness urban dynamism for inclusive, sustainable economic growth and development.
4. Governance - To enhance the capacity of the state and its citizens to work together to achieve spatial and social integration.

In the case of city-regions the IUDF advocates plans to forge a shared vision and spatial agenda. Provincial government, specifically the Office of the Premier, is targeted with the responsibility of facilitating collaborative planning and intergovernmental delivery. The RSIF for the Greater Cape Metro region has been prepared in accordance with this mandate.

2. PROVINCIAL POLICY

Provincial Strategic Plan

The RSIF builds-on the Provincial Strategic Plan (PSP 2015) and gives regional expression to achieving the Western Cape's Provincial Strategic Goals (PSGs), namely:

PSG 1: Create opportunities for growth and jobs.
PSG 2: Improve educational outcomes and opportunities for youth development.
PSG 3: Increase wellness, safety and tackle social ills.
PSG 4: Enable a resilient, sustainable, quality, and inclusive living environment.
PSG 5: Embed good governance and integrated service delivery through partnerships and spatial alignment.

Provincial Spatial Development Framework (PSDF)

The Provincial Spatial Development Framework (PSDF 2014) gives spatial expression to the PSP and takes the Western Cape on a path towards:

- More inclusivity, productivity, competitiveness, and opportunities in its urban and rural space-economies.
- Better protection of its placed based (i.e., spatial) assets.
- Strengthened resilience of its natural and built environments; and
- Improved effectiveness in spatial governance and on-the-ground delivery of public services, facilities, and amenities.

Greater Cape Metro Regional Spatial Implementation Framework (RSIF)

The PSDF gives priority to bolstering the spatial performance of the Greater Cape Metro (GCM) region, and to this end recommended preparation of this RSIF.

During the RSIF's preparation GCM municipalities identified various urban growth 'hotspots' on their boundaries, which they prioritised for inter-municipal planning and management interventions (see **FIGURE 2** below). Klapmuts was identified as a "hotspot" area indicated as number 4 in the figure 2. The N1, N2 and N7 gateways were also flagged as strategic regional corridors that are subject to intense development pressures.

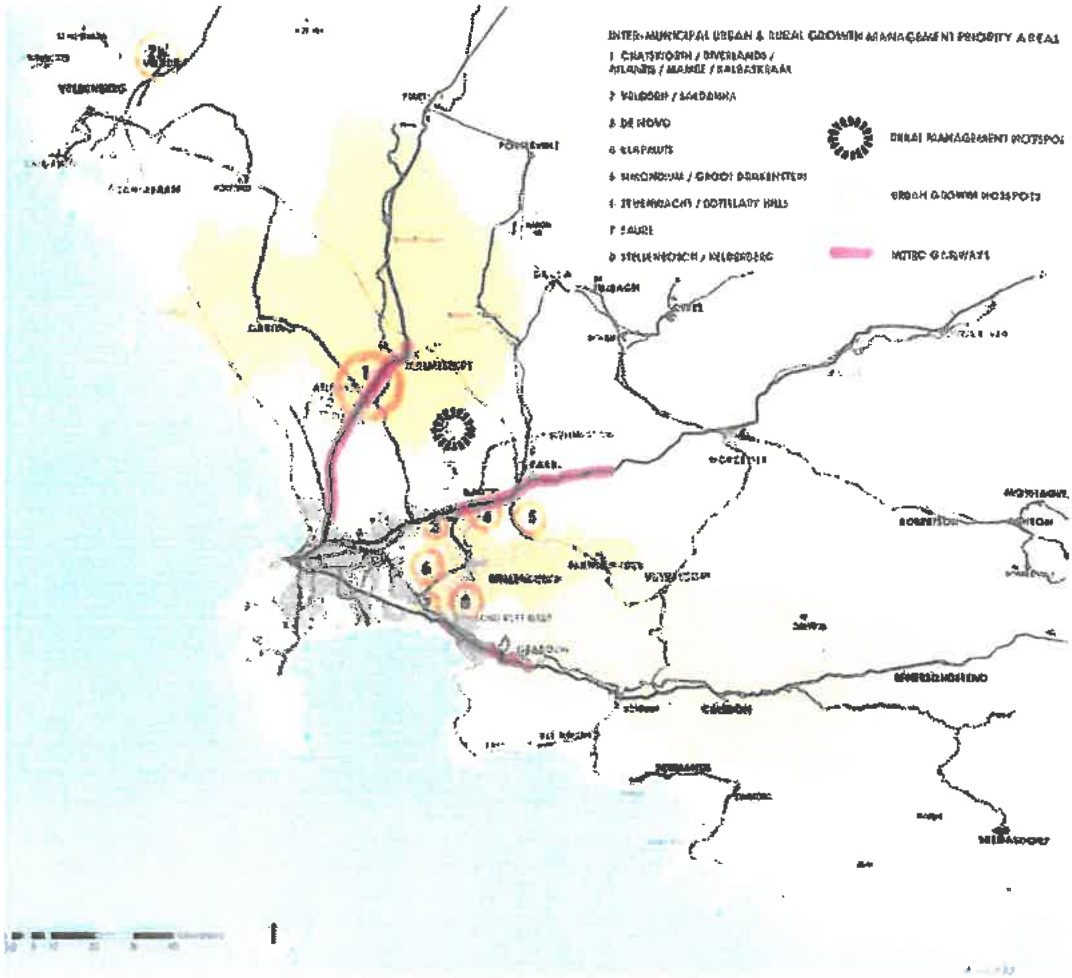

FIG 2. Inter-Municipal Urban & Rural Growth Management Priority Areas
Both Stellenbosch and Drakenstein Municipalities have identified Klapmuts as a prospective sub-regional urban node along the N1. Residential and industrial development opportunities have been identified north and south of the N1, and the area has also been identified as having potential to serve as a regional freight logistics hub.

To take develop proposals forward the RSIF proposed the following needs to be considered:

- **Existing infrastructure (i.e., N1, R101, R44 and the Paarl-Bellville railway line and station) which dictate the location of certain transport, modal change, or break-of-bulk land uses.**
- **Existing development footprint of Klapmuts as well as potential development land parcels including land north of the N1 and the N1-R101-railway line corridor east of Klapmuts, the latter extending up to Paarl South Industria and including a proposed green logistics hub.**
- **Potential for an In-land port and Agri-processing, packaging, and dispatch platform.**

- Avoiding daily movement across the N1 between place of work and residence or social facilities. -- Achieving an appropriate metro gateway.

The RSIF cautions that suburban sprawl on the edges of major urban areas erodes rural landscapes of significance with agriculture being reduced to 'islands. This is the case on the edges of Cape Town, Stellenbosch, and Paarl where the lateral spread of urban development has eroded landscapes of the Cape Winelands. The high degree of the accessibility of the Cape Winelands from Cape Town and its role in providing green spaces on the urban fringes of the city makes them desirable tourism and weekend recreational destinations. The growing trend of establishing commercial tourism facilities can have negative impacts on landscape and scenic route character if not carefully managed. The growing diversification of agricultural activities is changing the character of the region's rural landscapes particularly in the Cape Winelands and can have negative visual impacts, e.g., tunnel farming. The gentrification of the region's rural landscapes through lifestyle 'rural' gated residential estates is a major threat to their authenticity and integrity. Heritage and scenic landscapes are threatened by several development trends and management challenges that cut across municipal boundaries.

3. STELLENBOSCH MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK (MSDF)

The MSDF was prepared recently and approved by Council in November 2019. A prerequisite for drafting a MSDF is that it must comply and include National and Provincial policy. Hence the MSDF built upon the policy alluded to in the previous paragraphs as it relates to Klapmuts.

To this extend the MSDF identified 7 principles to guide the spatial development of Stellenbosch and provides planning and design guidelines and principles to direct spatial form in the Stellenbosch Municipal Area. The principles include the following:

- Maintain and grow natural assets.
- Respect and grow cultural heritage.
- Direct growth to areas of lesser natural and cultural significance as well as movement opportunity
- Clarify and respect the different roles and functions of settlements.
- Clarify and respect the roles and functions of different elements of movement structure.
- Ensure balanced, sustainable communities.
- Focus collective energy on critical lead projects of which Klapmuts is one.

The MSDF as it relates to Klapmuts is shown in **FIGURE 3** below.

FIGURE 3. MSDF (KLAPMUTS)

With respect to Klapmuts as an urban settlement and identified "hot spot" the Greater Cape Metro Regional Spatial Implementation Framework (RSIF) contains very specific policy directives related to Klapmuts, aimed at addressing pressing sub-regional and local space economy issues. Key policy objectives include:

- Using infrastructure assets (e.g., key movement routes) as "drivers" of economic development and job creation.
- Recognition that existing infrastructure in the area (i.e., N1, R101, R44 and the Paarl-Bellville railway line and station) dictate the location of certain transport, modal change or break-of bulk land uses.
- Recognition of the Klapmuts area as a significant new regional economic node within metropolitan area and spatial target for developing a "consolidated platform for export of processed agri-food products (e.g., inland packaging and containerisation port)" and "an inter-municipal growth management priority".
- The consolidation of and support for existing and emerging regional economic nodes as they offer the best prospects to generate jobs and stimulate innovation.
- The clustering of economic infrastructure and facilities along public transport routes.
- Maintaining valuable agricultural and nature assets.
- Providing work opportunity in proximity to living areas.

The decision by Distell Limited to relocate to and consolidate its operations in Klapmuts is critical to commence more balanced development of the settlement. Distell Limited proposes to develop a beverage production, bottling, warehousing and

distribution facility on Paarl Farm 736/RE, located north of the N1, consolidating certain existing cellars, processing plants, and distribution centres in the Greater Cape Town area. The farm measures some 200 ha in extent. The beverage production, bottling, warehousing and distribution facility will take up approximately 53 ha. The project proposal includes commercial and mixed-use development on the remainder of the site which is not environmentally sensitive to provide opportunities both for Distell's suppliers to co-locate, and for other business development in the Klapmuts North area. The site does not have municipal services, and the proposed development will therefore require the installation of bulk service infrastructure, including water, wastewater treatment, stormwater, electricity, and internal roads.

Several issues require specific care in managing the development of Klapmuts over the short to medium term.

- The first is speculative applications for land use change on the back of the proposed Distell development.
- The second is the linkages between Klapmuts north and south, specifically along Groenfontein Road and a possible NMT crossing over the N1 linking residential areas south of the N1 directly with Farm 736/RE. Without these linkages, residents to the south of the N1 will not be able to benefit from the opportunity enabled north of the N1.
- The third is speculative higher income residential development in the Klapmuts area, based on the area's regional vehicular accessibility. Higher income development is not a problem in and of itself, but ideally it should not be in the form of low-density gated communities.

The Local Spatial Development Framework for Klapmuts North (Prepared by the Drakenstein Local Municipality – see **FIGURE 4** and **TABLE 2** below) envisages a very significant extent of development for Klapmuts North.

Nature and scope of Development Component	Units or bulk m^2
Group Residential on erven of larger 250 m^2	1 949 units
Medium Density Residential on erven larger than 250 m^2	2 356 units
High Density Residential - flats	12 051 units
Commercial - Office	912 354 m^2 (Bulk)
Commercial – retail	187 839 m^2 (Bulk)
General light industrial	370 120 m^2 (Bulk)

Source: Akanya Development Solutions and Beal Africa (2018)

Table 2. Development Scope

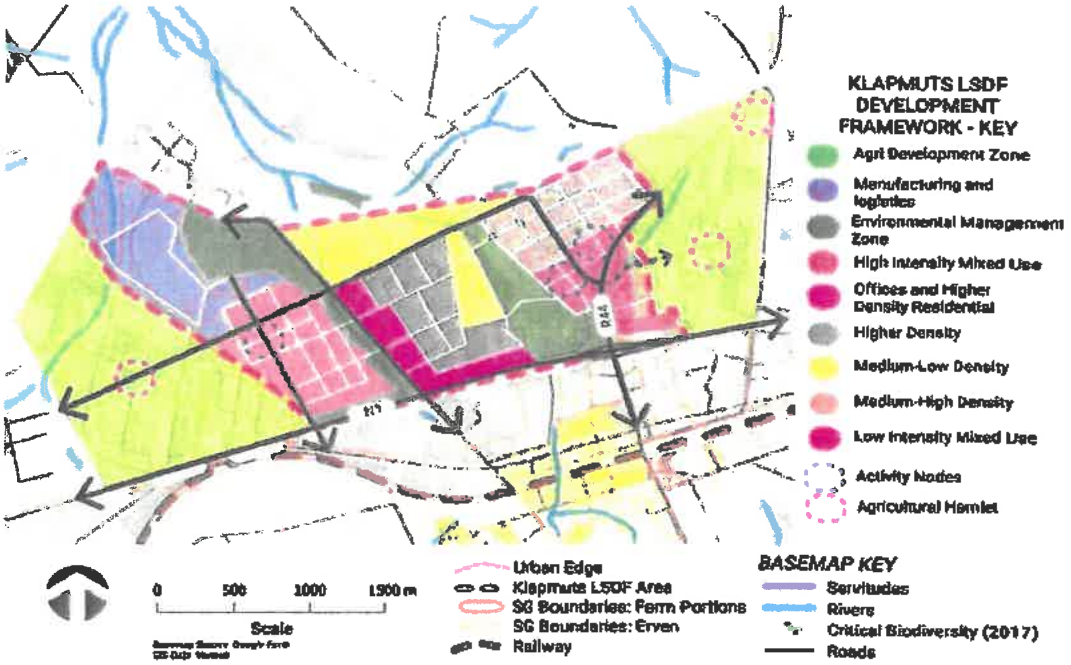

FIG 4. Klapmuts North LSDF

Specifically, in terms of a 20-year growth trajectory, Commercial Office development of 912 354m² is envisaged, Commercial Retail development of 187 839m², and General Light Industrial Development of 370 120m². Several issues emerge:

Firstly, the realism of these land use projections within the context of the regional economy is questionable. To illustrate: Considering the envisaged Commercial Office allocation, it is noted that Cape Town CBD currently has some 940 000m² of office space, Sandton in Gauteng is larger at over 1,2 million m² of Commercial Office space, Midrand at some 640 000m², and Century City (some 20 years in the making) at some 340 000m².

In relation to Commercial Retail space, it is noted that more of this use is envisaged for Klapmuts North than Century City's current 140 000m². While 370 120m² is provided for General Light Industrial Development, the proposed Distell distribution centre alone will comprise 125 000m², and many new logistic centres recently completed in the Kraaifontein/ Brackenfell area range in size between 45 000m² and 120 000m.

Secondly, these land use allocations need to be viewed against the policy context, which sees Klapmuts as a regional freight/ logistics hub – with a focus on job creation – and establishing a balanced community. The LSDF over-emphasises commercial office and retail development, "exploiting" the areas' access to regional vehicular routes, and private vehicular access, at the expense of job creation at scale – and establishing a regional light industrial hub – serving an existing poorer community in proximity to a freight movement corridor.

Thirdly, it is maintained that the infrastructure service requirements – and affordability – of the projected land use allocations are understated. For example, it is known that any development north of the N1 over and above the proposed Distell distribution centre of 125 000m² will involve very costly reconfiguration and augmentation of intersections with the N1. It would be irresponsible to create expectations around land use without these associated requirements being resolved to a fair degree of detail.

TABEL 1 below summarises key place-specific inter-municipal planning issues. As a basis, the issues and comments as contained in the Cape Town MSDF are listed, expanded upon with comments from the perspective of the Stellenbosch MSDF.

KLAPMUTS		
	To take develop proposals forward the following needs to be considered: • Existing infrastructure (i.e. N1, R101, R44 and the Paarl-Bellville railway line and station) which dictate the location of certain transport, modal change or break-of-bulk land uses. • The existing development footprint of Klapmuts as well as potential development land parcels including land north of the N1 and the N1-R101- railway line corridor east of Klapmuts, the latter extending up to Paarl South Industria and including a proposed green logistics hub. • Potential for an inland port and agri-processing, packaging and dispatch platform. • Avoiding daily movement across the N1 between place of work and residence or social facilities. • Achieving an appropriate metro gateway. • A collaborative sub-regional growth management spatial framework between the Stellenbosch and Drakenstein municipalities in order to avoid unsustainable "twin developments"	The SM MSDF supports development of Klapmuts (north and south) as a significant area of economic opportunity – located on the metropolitan area's major freight route – and place of settlement proximate to work opportunity. The Distell led development of Farm 736/RE is supported, unlocking work opportunity for a significant community in an area of lesser agricultural opportunity and nature/ cultural value. Key considerations into the future include: • Realistic assumptions about the extent of future land use categories and take-up rates. • Careful consideration of land use change east of Farm 736/RE. • NMT integration of the north and south across the N1. • Careful consideration of high-end, gated residential development capitalising on the private vehicular accessibility of Klapmuts. The area stretching from Klapmuts to Paarl, situated between the N1 and Old Paarl Road – including Ben Bernard – appears to have significant metropolitan-wide potential for enterprises depending on good freight access. Its future should also be the subject of inter-municipal planning.

TABEL 1. Inter-municipal issues 1

APPLICATION

The application submitted is for the following in terms of the Stellenbosch Municipality: Land Use Planning By-law, 2015 in relation to Portion 5 of Farm 742, Paarl:

- Amendment of conditions of approval to amend the approved Subdivision Plan.
- Amendment of conditions of approval to relocate approved land use rights with inclusion of non-residential floor area to permit:
    - 1 577 residential units consisting of flats and group housing units.
    - 28 000m^2 non-residential floor area (including business, industrial and institutional land uses).
- Application for Council's Consent to permit additional land uses on Portion 2 (zoned Mixed-Use Zone).
- Application for Council's Consent to permit Business Premises on Industrial Zone spot-zoning on Portion 2.
- Application for Council's Consent to permit Business Premises on Portions 3 and 4 (zoned Industrial Zone).
- Application for Council's permission to permit flats at ground storey on Portion 2 (zoned Mixed-Use Zone).
- Application for approval of proposed Stellenbosch Bridge Development Framework.

DISCUSSION

To comment evaluate the applications it is essential to first engage with the development framework submitted as part of the application in a meaningful way. Although the framework will not have any statutory rights *per se* due to it not being processed in the correct procedural way nor endorsed by council, it does have relevance when evaluating the various applications that will follow. Mainly the framework must be evaluated against the approved MSDF and policy documents referred to earlier on in the report.

1. Stellenbosch Bridge Development Framework

Stellenbosch Bridge is a private sector-led project that combines the leading-edge concepts of innovation district and smart city to create a knowledge economy-based focus area within a mixed-use, environmentally conscious, people-centred development. The intent is to create a vibrant live-work-play-innovate development. To achieve this requires a strong urban design concept, a clear development framework and active management within which investment, economic development and community can flourish.

Innovation-driven, smart environments need dynamic land use management to facilitate swift reaction to rapidly changing circumstances. In addition, the post-COVID world will be an irrevocably altered urban landscape of changes in land use demand and urban management that cannot be anticipated or planned for. To position this development to survive and thrive in these unpredictable circumstances, its planning and implementation need to deal with rapid change thereby being Future Proactive. It requires a strategy that allows flexibility but within clear controls. The basis of achieving a Future Proactive development is the F.I.R.S.T. Principles:

- **Flexibility:** Capability to adapt to changing circumstances by planning for it proactively.

- **Innovation**: Being open to and able to respond to new thinking in a rapidly changing environment.
- **Resilience**: Ability to prepare for, recover from, and absorb change.
- **Sustainability**: Ability to maintain a balance between economic, social, and environmental demands.
- **Thresholds**: Identification of clear limits at which action needs to be taken or investments made to maintain the balance of the development and its environment.

The Development Framework Plan sets out the basic physical structure for the development of the site in accordance with the urban design concept. The following structuring elements will guide its implementation:

Access Points

The development, when completed, will be accessed by means of four new vehicular/pedestrian accesses from the R101 (Old Paarl Road), R44 (Stellenbosch Road), DR 1090 (Elsenburg Road) and Merchant Street as well as a new railway station:

- The primary access is a northerly link to the R101 via an underpass under the railway line. This access will link the development to the N1 via the existing R44 Interchange as well as a new interchange at the Groenfontein Road location.
- Three secondary accesses will be phased (the regional road network plan will determine the priority and timing):
  - Merchant Street link: This access will have an integration function between the development and Klapmuts, providing for lower-order distribution only.
  - R44 Access: A road link to the R44 will provide access from the south-east.
  - DR 1090 Access: A road link to the Elsenburg Road will provide access from the west.
- Stellenbosch Bridge Station – A new station serving the development is proposed between the Klapmuts and Muldersvlei Stations.

Movement Routes

Three levels of movement form part of the framework:

- The primary movement system consists of the main north-south route (R101 to R44) as well as the western (Elsenburg Road) and eastern (Merchant Street) link roads that integrate the four road access points and links the development to the broader area.
- The secondary movement system is made up of a network of private roads and accesses that provides internal access and circulation to the precincts.
- The third level of movement involves the Pedestrian/NMT system which will be catered for along the primary and secondary routes as well as the open space system which will ensure a walkable environment and links the development to the broader area.

Open Space System

The open space system consists of the following:

- Primary Open Space System - the linear network of green spaces incorporating the existing tree lines, tree clumps and enhanced water features within the urban edge. The experience of this space will be enhanced through landscaping and

the system will be linked into a wider green network including a link to Klapmutskop.

- Urban Space System - the road spaces and public squares internal to the development precincts will be designed to give pedestrians equal importance of movement and to facilitate social interaction and economic opportunity.
- Destination Places - the central square, public squares, and open space destination places such as water features, eventing facilities and the labyrinth. These places form focal points in the open space system and facilitate use, pedestrian movement, economic opportunity, and social interaction.

Precincts and Land Use

The site is divided into four development precincts and two open space precincts. Each precinct has been allocated a primary use category being 1) Innovation, 2) Residential, 3) Industrial, 4) Data Centre, 5) Agricultural Research or 6) Conservation and a suite of land use allocations as based on the design concept:

- **Precinct A** (Innovation): The innovation precinct (Sub-Precincts A1 – A5) integrates all aspects of a live-work-play-innovate environment around a network of public spaces. The proposed zoning is Mixed-use Zone.

- **Precinct B** (Residential): The high-density residential precinct incorporates complimentary social and business uses and multi-functional open spaces areas to create a high-quality living environment. The proposed zoning is Multi-unit Residential Zone.
  -
- **Precinct C** (Industrial): The green and smart industrial precinct. The proposed zoning is Industrial Zone: Data Centre; Business; Smart Manufacturing; Warehousing, Logistics and Distribution; Utility Service; Parking; Private Open Space; Private Road.

- **Precinct D** (Data Centre): The precinct accommodating the main data centre. The proposed zoning is Industrial Zone: Data Centre; Smart Manufacturing; Business; Utility Service; Parking; Private Open Space; Private Road.

- **Precinct E** (Agricultural Research): The land area west of the urban edge. The zoning is Agriculture and Rural Zone: Agricultural Research; Renewable Energy; Sports and Recreation; Tourism.

- **Precinct F** (Conservation): The natural vegetation area south of the development area. The zoning is Agriculture and Rural Zone: Conservation; Sports and Recreation; Tourism; Environmental Education.

The different development precinct is depicted in the Stellenbosch Bridge Development Framework which is attached as **FIGURE 6** below.

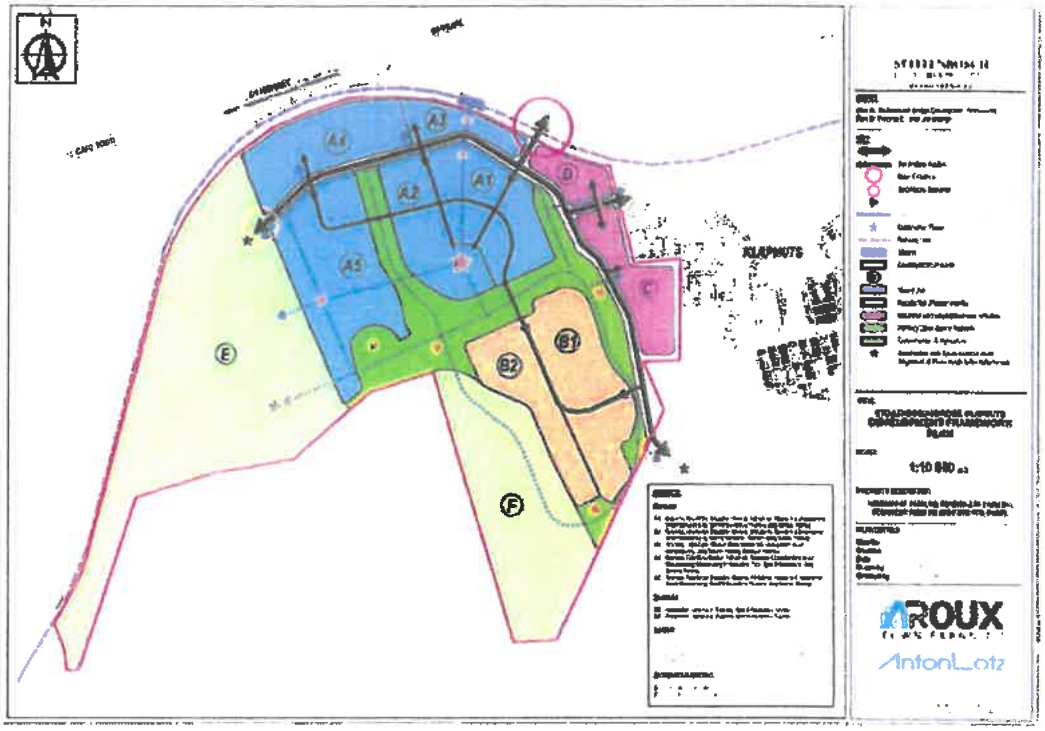

FIG 5. Stellenbosch Bridge Development Framework

Urban design Approach

The urban design concept (Refer to **FIGURE 6** below) for the Stellenbosch Bridge development is based on traditional urban design principles which provides living, working and recreational spaces for a diverse community of people in combination with creating a catalytic environment that provides opportunities for technological and social enhancements which define a smart city.

FIG.6. Urban Design Approach

With a development of this scale it is imperative that a proper urban design is proposed. The Urban Design vision is based on the following urban design principles:

- Daily needs within walking distance (mixed-use environment)
- Interconnected system of streets
- A central focus: main streets and square
- Perimeter buildings orientated to the public realm.
- Clear distinction between private and public space
- Sharing of infrastructure over a 24-hour period

The design of the mixed-use environment will focus on place-making, urban fit, and spatial integration.

The individual buildings will have strong features, differ in detail, but will be part of the "same family". The development spine is a north-south pedestrian street linking two main squares around which all the parts of the development are collected and grouped. The area will be a safe pedestrian environment in which open walls, streets, squares, parks, and sports fields are articulated as positive spaces, providing an array of experiences and functions.

Parking will be accommodated on streets and within courtyards, semi-basements and basements concealed within the development. From inception the development will use the materials and technology required to achieve a GBCSA rating. Landscaping and a green environment are integral to the architecture.

Land Use Projection

The Land Use Projections for the total development is indicated in **Table 2** below.

Precincts	Residential	Business	Industrial	Institutional
	Dwelling units du	Floor Area - m²	Floor Area - m²	Floor Area - m²
Precinct A	2 500	256 500	43 000	144 000
A1	600			
A2		43 500		
A3		15	2	
A4				0
A5	1			
Precinct B	2 500	-	-	-
B1	60			
B2				
Precinct C	-	-	75 500	-
Precinct D	-	10 000	15 000	-
Floating	1 000	47 000	60 000	29 000
Sub-Total	6 000	315 500	193 500	173 000
TOTAL	6 000			680 000

Table 2. Land Use Projections

From the table it is apparent that the application entails a substantial development that will provide at least 6 000 residential units as well as 680 00m² (or 68 hectares) of non-residential rights which include industrial, business, and institutional uses.

However, the enormous scale of new development envisaged at Klapmuts can only be fully understood should the development scope of the Klapmuts North LSDF be added to those envisaged by this application. **TABLE 3** below represents the potential extent of development rights should this application be approved and if the future development unfolds as proposed by the Drakenstein Local Municipality bearing in mind that several very real issues are obstructing the implementation of the plans of which the availability and cost of bulk infrastructure is possible the most pressing.

Nature scope of development component	Klapmuts North (Bulk m²) or units	Klapmuts South (Bulk m²) or units	Total scope of development (Bulk m²) and units
Residential Erven	16 356 units	6 000 units	22 356 units
Commercial - offices	912 354 m²	313 500 m²	1 225 854 m²
Commercial - retail	187 839 m²		187 839 m²
Light industrial	370 120 m²	193 500 m²	563 620 m²
Innovation		173 000m²	173 000 m²
Total Residential Units			**22 356 units**
Total Non-residential (Bulk m²)			**2 172 669 m²**

Table 3. Total Land use allocation

Albeit a development that is envisaged to role out over the next 15 to 20 years – perhaps even longer, the development aims to fully integrate into the larger Stellenbosch spatial vision, and with the participation of its stakeholders. This will include the Stellenbosch Municipality, University of Stellenbosch, the Klapmuts community and the community that will live, work, innovate and socialise within the development.

Stellenbosch MSDF included the proposed development within the urban edge but cautioned against the sheer scale of what is envisaged. The SM MSDF supports development of Klapmuts (north and south) as a significant area of economic opportunity – located on the metropolitan area's major freight route – and place of settlement proximate to work opportunity. The Distell led development of Farm 736/RE is supported, unlocking work opportunity for a significant community in an area of lesser agricultural opportunity and nature/ cultural value. Key considerations into the future include:

- Realistic assumptions about the extent of future land use categories and take-up rates.
- Careful consideration of land use changes east of Farm 736/RE.
- NMT integration of the north and south across the N1.
- Careful consideration of high-end, gated residential development capitalising on the private vehicular accessibility of Klapmuts.

RECOMMENDATION

Although the Development Framework is well planned and noted as such, it cannot be approved or given any statutory status as it remains a framework plan to motivate the application at hand and did not follow any prescribed legal process to obtain formal approval.

The desirability and feasibility to obtain primary access from the Old Paarl Road to Stellenbosch Bridge rather than to the N1 need to be investigated as the Old Paarl Road might not be able to cope with the eventual volume of traffic.

In order to understand the future development of Klapmuts as an urban node situated in two adjacent municipal areas of jurisdiction, it is recommended that Stellenbosch Municipality, Drakenstein Municipality and the Cape Metro engage urgently to liaise around the scale and extent of the proposed development, to agree on the scale and extent of the total development, the provision of bulk services, and clarify to the proposed land use allocations in view of the vision of Klapmuts as a regional freight/ logistics hub.

Such discussion must include the necessary linkages between Klapmuts North and Klapmuts South across the N1.

Application to amend the conditions of approval as granted in 2011 to permit the development rights as indicated in sections A1, A3 and B2 of the Development Framework for potions 5 of Farm 742, Paarl.

In 2011 the Stellenbosch Municipality granted approval for the Klapmuts Hills development, which included approval of the Development Framework, rezoning, subdivision and departures to permit urban development on this site within an approved Basket of Rights, allowing for 1 577 residential units and associated services and facilities.

The existing land use approval for Portion 5 of Farm 742, Paarl presents an opportunity for these development rights to be utilised as a first phase of the Stellenbosch Bridge development project. This will allow development to commence on the site, while being aligned with the Development Framework for the Stellenbosch Bridge development.

Application is made for the reallocation of the existing rights approved for Portion 5 of Farm 742, Paarl in terms of the vision for the redevelopment of the site as part of the Stellenbosch Bridge innovation precinct and in terms of the services capacities already provided for. Application is also made for an additional 28 000m^2 non-residential floor space (business, institutional and light industrial). Note that this floor space was incorporated into the service calculations of the previous Klapmuts Hills proposal, including the subdivision plan for Phase A, as well as the NEMA environmental authorization. However, these rights were not expressly allocated, and the scale or bulk thereof described in the original approval. Therefore, although this non-residential floor space may have been the intention of the previous development proposal, it was not formally approved in the previous application, it is now included within this application as additional rights over and above rights previously awarded.

This application involves the amendment of conditions of approval to amend the approved Subdivision Plan, to reallocate the approved land use rights with additional non-residential floor area, Council's consent to permit additional land uses on various

portions and the approval of the proposed Stellenbosch Bridge Development Framework.

Although the development concept between the approved and proposed Development Framework plans is different, the overall development structure and development area remains similar, as illustrated in **FIGURE 7** below.

FIG 7. Amended Layout for application 1.

The main vehicular access to the development remains from the north with a new access road being constructed via a new rail underpass from the Old Paarl Road. The road link into the existing town was recently approved by Council and will function as the primary access road during the development of the first phase until the norther underpass is constructed.

Although the roads department indicated that the development (1 577 residential units plus 28 000 non-residential uses) can obtain access over council property via Merchant Street the traffic generated by the construction and use of this first phase will have a serious impact on Merchant Street which is a lower order street. This impact will reflect negatively on the current community and school as the road is well used for NMT purposes.

Alternative and/or additional access to the development is crucial. Although Merchant street is indicated as access for the interim, the application for industrial

rights will already make use of the street. The underpass indicated to link with Old Paarl Road is essential before any development can take place.

The green open space which separates the northern and southern development areas is retained in the amended Development Plan.

In terms of broad land use categories, there are similarities between the two development plans. Both development plans provide for residential development on the southern portion of the site, with limited commercial opportunities as ancillary land uses to the residential development. The northern portions of both the approved and proposed development plans provides for a mix of uses. Whereas the approved development plan provides for a mix of commercial and residential development, the proposed amended Development Framework provides for commercial, light industrial, institutional and residential development as part of the innovation precinct.

The light industrial component is envisaged to be a "clean" industrial area aimed at supporting the innovation hub and may include uses such as a data centre. However, should this plan not realize the development of a light industrial area within a residential area is a possibility and may lead to serious conflict with the residential component (noise, pollution, heavy vehicles etc.). Care should thus be taken to limit and ensure that the proposed industrial site is exclusively allocated to "clean" industrial and cannot be developed into an industrial site that is incompatible with residential uses.

The development footprint areas for the northern commercial component are largely similar to the approved Development Framework, although the density and character of this area will be different.

The development footprint of the southern residential portion is also similar, although the open space area now moves from the western side of the site to the eastern side allowing for a better alignment of movement and services systems.

Apart from the open-ended use of land zoned for industrial purposes and the use of Merchant street as the primary access point for the development, the proposed amendment of conditions as well as the additional 28 000m² non-residential land use rights are thus supported.

This department do not fully understand how the land use rights and bulk applied for relates to the parameters of the Stellenbosch Municipality Integrated Zoning Scheme (IZS) i.e., coverage, bulk, number of storeys etc. and cannot evaluate the possibility of departures from the development parameters. As such, the application must be evaluated in terms of what the IZS allows.

RECOMMENDATION

That the application to amend the conditions of approval is supported as it essentially is an improved design that has the potential to be extended in future subject to the appropriate application process being successfully concluded.

The approval of 28 000 m² non-residential land use rights (light industrial, business and institutional) is also subject to the following conditions:

1. The zoning of light industrial must be defined as a use that is primarily aimed at IT and related uses and may not include manufacturing that may cause a noise disturbance, air pollution or is dependent on heavy vehicles or freight transfer.

2. Clarity be obtained as to how much floor space will be required for which use as the "non- residential use is too much of an open-ended land use right. The land use rights must be described clearly and restricted to a maximum bulk per land use.

3. Without an indication of how the development compares with the development parameters of the IZS, the proposed development and particularly the 28 000 m² additional non-residential land uses should be in line with the current development parameters allowed in the IZS.

CONCLUSION

In conclusion, from all policy reports Klapmuts must be viewed as a regional centre and should not be a mere rural settlement on the outskirts of Stellenbosch. This implies substantial development in future. Klapmuts has the potential to develop into a town or even city over time depending on the investment of bulk infrastructure. The full extent of the potential development should be recognised and planned in an integrated way to allow Klapmuts to develop into a well-planned and integrated way.

The current application must be evaluated as a stand-alone application independent of the bigger vision. It is the view of this office that the application at hand can be supported on its own irrespective of the bigger potential demonstrated by the Framework plan.

BJG de la Bat
MANAGER: SPATIAL PLANNING

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ANNEXURE L

MEMO

DIRECTORATE: INFRASTRUCTURE SERVICES
DIREKTORAAT: INFRASTRUKTUURDIENSTE

TO	:	**The Director: Planning and Development**
FOR ATTENTION	:	**Bulelwa Mdoda**
FROM	:	**Manager: Development (Infrastructure Services)**
AUTHOR	:	**Tyrone King**
DATE	:	**17 December 2020**
RE.	:	**Farm 742/5: Stellenbosch Bridge Development (Application 1): Conversion of existing development rights to 1577 Residential units and 28 000m² GLA**
YOUR REF	:	**LU/10577**
OUR REF	:	**2104 CIVIL LU**

Details, specifications and information reflected in the following documents refer:

- The abovementioned application and motivation report by Anton Lotz and A Roux dated November 2020;
- Proposed Subdivision and Zoning Plan, Plan No 18096-001 Rev F dated 2020-09-14 by Anton Lotz and A Roux;
- Transport Impact Statement by ICE, dated 12 Aug 2020 (Ref iCE/S/493A) and addendum dated 26 November 2020;
- Preliminary Civil Engineering Services Report – Application 1, dated August 2019, by WEC Consult;
- GLS water and sewer capacity analysis report dated 16 October 2020;
- Stellenbosch Bridge Development Framework: Table 2: Service Thresholds – September 2020

These comments and conditions are based on the following proposed development parameters – as per e-mail from Anton Lotz to Tyrone King dated Thu 2020/11/05 11:59:

- Residential Units = 794 (flats) + 624 (Medium density < 250m2) + 159 (Single res < 500m2) = 1 577 units
- Total GLA: 28 000m^2 GLA (Business)

Any development beyond these parameters would require a further approval and/or a recalculation of the Development Charges from this Directorate.

It is further acknowledged that this application is for the re-allocation of existing, approved development rights for 1577 residential units.

This document consists of the following sections:

A. Definitions
B. Recommendation to decision making authority
C. Specific conditions of approval: These conditions must be complied with before clearance certificate, building plan or occupation certificate approval; whichever is applicable to the development in question.
D. General conditions of approval: These conditions must be adhered to during implementation of the development to ensure responsible development takes place. If there is a contradiction between the specific and general conditions, the specific conditions will prevail:

A. Definitions

1. that the following words and expressions referred to in the development conditions, shall have the meanings hereby assigned to except where the context otherwise requires:

   (a) *"Municipality"* means the STELLENBOSCH MUNICIPALITY, a Local Authority, duly established in terms of section 9 of the Local Government Municipal Structures act, Act 117 of 1998 and Provincial Notice (489/200), establishment of the Stellenbosch Municipality (WC024) promulgated in Provincial Gazette no. 5590 of 22 September 2000, as amended by Provincial Notice 675/2000 promulgated in Provincial Gazette;

   (b) *"Developer"* means the developer and or applicant who applies for certain development rights by means of the above-mentioned land-use application and or his successor-in-title who wish to obtain development rights at any stage of the proposed development;

(c) *"Engineer"* means an engineer employed by the *"Municipality"* or any person appointed by the "*Municipality*" from time to time, representing the Directorate: Infrastructure Services, to perform the duties envisaged in terms of this land-use approval;

2. that all previous relevant conditions of approval to this development application remain valid and be complied with in full unless specifically replaced or removed by the *"Engineer"*;

B. Recommendation:

3. **The development is recommended for approval, subject to the conditions as stated below.**

C. Specific conditions of approval

4. **Background/Context:** It is understood that this application is in essence to create the "basket of rights" in terms of which the development will be implemented. This application does therefore not go into the detail of the buildings to be developed, as such details will be provided at a later stage namely precinct plans, subdivision plans and SDP approval (par 4.2 of motivation report). Such further detail might lead to new or revised conditions by the Infrastructure Services department when such applications are received and assessed. The requirements regarding the internal services and/or link services will also be addressed in more detail at the SDP approval stage.

5. It should further be noted that this Application forms part of the larger Stellenbosch Bridge development and should not be considered in isolation. It is also not possible to predict the sequence of the implementation of the larger development, which is why a "services threshold" approach has been selected to identify when infrastructure upgrades are triggered. The "services threshold" approach means that regardless the sequencing of construction, the cumulative service demand of the overall development will determine which upgrades are triggered.

6. **Development thresholds triggering bulk service upgrades (Annexure: Services Thresholds):** The Services Thresholds table indicates at which stage of the overall Stellenbosch Bridge Development the various upgrades are triggered. In order to identify when such a trigger occurs, each subsequent development application i.e. SDP application, must indicate the cumulative demand that will realize due to that application. Therefore, each

subsequent application must be accompanied by a Traffic Impact Study, an Engineering Services Report, a Water and Sewer capacity analysis report by the municipality's master planning specialist, as well as an updated Service Threshold Table, to analyze the impact of each specific application and to identify which of the upgrades are triggered. **No taking up of proposed rights including subdivision clearance or building plan approval (whichever comes first) will be allowed before the identified upgrades have been completed.**

7. Following the SDP approval, detail engineering drawings for the identified bulk upgrade items must be submitted for approval. These drawings must comply with the municipality's minimum standards and specifications and any additional and specific requirements regarding detail design will be identified at this stage.

8. Should the "Developer" wish to discuss the possibility of proceeding with building work parallel with the provision of the bulk services listed above, he must present a motivation and an implementation plan to the "Engineer" for his consideration and approval. The implementation plan should include items like programmes for the construction of the internal services and the building construction. Only if the programme clearly indicates that occupation is planned after completion of the bulk services, will approval be considered. If such proposal is approved, it must still be noted that no occupation certificate will be issued prior to the completion and commissioning of the bulk services. Therefore should the proposal for proceeding with the development's construction work parallel with the provision of the bulk services be agreed to, the onus is on the "Developer" to keep up to date with the status in respect of capacity at infrastructure listed above in order for the "Developer" to programme the construction of his/her development and make necessary adjustments if and when required. **The Developer is also responsible for stipulating this condition in any purchase contracts with the buyers of the properties. Proof of this may be required before building plans are approved;**

9. **Public Transport:** If public transport is not adequately addressed, the reliance on private transport will increase and have a negative effect on the surrounding road and traffic networks. Therefore, the establishment of a multi modal public transport facility must be investigated in conjunction with the Municipality, and the roles and responsibilities between the various stakeholders for the planning and construction of such a facility must be identified. Recommendations must be identified in the TIS for SDP applications. Further conditions regarding public transport may be set at SDP approval stage.

10. **Stormwater Network:** The consulting engineer, appointed by the "*Developer*", must analyse the existing stormwater systems and determine the expected stormwater run-off for the proposed development, for both the minor and the major storm event. Should the existing municipal stormwater system not be able to accommodate the expected stormwater run-off, the difference between the pre- and post-development stormwater run-off must be accommodated on site, or the existing system must be upgraded to the required capacity at the cost of the "*Developer*" and to the standards and satisfaction of the Directorate: Infrastructure Services. The aforementioned stormwater analysis is to be submitted concurrent with the SDP applications;

11. **Solid Waste:** Prior to occupation of the development, the Developer must make arrangements with the Municipality (Solid Waste Department) wrt providing a solid waste removal service.

12. **Bulk infrastructure projects not on municipal budget:** Any of the upgrades required, that are not currently on the Municipality's approved budget will be the Developer's responsibility to implement. Where upgrades may be offset against the Development Charges, and should the Development Charges be sufficient, the "Developer" may enter into a Services Agreement with the "Municipality" to do these upgrades in-lieu of Development Charges. Should the Development Charges not be sufficient, the Developer may decide to cover the shortfall. If the Developer is not in a position to cover the shortfall, then the implementation of the development must be re-planned around the availability of the bulk services in question.

Development Charges

13. that the "*Developer*" hereby acknowledges that Development Charges are payable towards the following bulk civil services: water, sewerage, roads, stormwater, solid waste and community facilities as per Council's Policy;

14. that the "*Developer*" hereby acknowledges that the development charges levy as determined by the "Municipality" and or the applicable scheme tariffs will be paid by the "*Developer*" towards the provision of bulk municipal civil services in accordance with the relevant legislation and as determined by Council's Policy, should this land-use application be approved;

15. that the "*Developer*" accepts that the Development Charges will be subject to annual adjustment up to date of payment. The amount payable will therefore be the amount as calculated according to the applicable tariff structure at the time that payment is made;

16. that the "*Developer*" may enter into an engineering services agreement with the "*Municipality*" to install or upgrade bulk municipal services at an agreed cost, to be off-set against Development Charges payable in respect of bulk civil engineering services;

17. that the Development Charges levy to the amount of **R 114 467 591. 40** (Excluding VAT) as reflected on the DC calculation sheet, dated **11 November 2020**, and attached herewith as **Annexure DC**, will be payable by the "*Developer*" towards the provision of bulk municipal civil services in accordance with the relevant legislation and as determined by Council's Policy. These Development Charges are indicative at this stage and based on the entire "Basket of Rights" as per this application. It will be recalculated per individual SDP application when these applications are received;

18. Once recalculated , the Development Charges will be paid by the "*Developer*" per phase –
    - prior to the approval of any building- and/or services plans in the case of a Sectional title erf in that phase or where a clearance certificate is not applicable and/or;
    - prior to the approval of Section 28 Certification (subdivision clearance) in terms of the Stellenbosch Municipal Land Use Planning By-law – where individual erven with new development rights have been created;
    - if one the above does not apply, then prior to the erf or portion thereof being put to the approved use;

19. that the development shall be substantially in conformance with the Site Development Plan submitted in terms of this application. Any amendments and/or additions to the Site Development Plan, once approved, which might lead to an increase in the number of units i.e. more than **1577 units [794 (flats) + 624 (Medium density < 250m2) + 159 (Single res < 500m2)]**, or which might lead to an increase in the Gross Leasable Area i.e. a GLA of more than **28 000** m², will result in the recalculation of the Development Charges;

20. Bulk infrastructure Development Charges and repayments are subject to VAT and are further subject to the provisions and rates contained in the Act on Value Added Tax of 1991 (Act 89 of 1991) as amended;

Site Development Plan: the following general principles will be applicable. More detail must be provided at the precinct plan / SDP submission stage.

21. that provision be made for a stacking distance of 6m (< 15 units served); 12m (15-40 units served); site specific requirements (> 40 units served or a business premises). The stacking distances shall be measured from the edge of the closest sidewalk or cycle lane to the entrance gate. The guiding principle is that vehicle and pedestrian traffic should not be obstructed by stacking vehicles;

22. that sufficient entrance and exit widths will be created at the vehicle access points: 2.7m minimum and 4,0m maximum width for a single entrance or exit way; 5,0m min and 8,0m maximum for a combined entrance and exit way. To accommodate emergency vehicles, at least one lane should be 4, 0 metres wide and have a minimum height clearance of 4.3 m.

23. that, where access control is being provided, a minimum of 2 to 3 visitor's parking bays be provided on site, but outside the entrance gate, for vehicles not granted access to the development;

24. that provision be made for a 3-point turning head in front of the entrance gate, to the satisfaction of the Directorate: Infrastructure Services in order to enable a vehicle to turn around;

25. that provision be made for a refuse room as per the specification of the standard development conditions below;

26. that if the "Developer" wishes to remove the waste by private contractor, provision must still be made for a refuse room should this function in future revert back to the "Municipality";

27. that provision be made for a refuse embayment off the roadway/sidewalk to accommodate refuse removal. (Embayment to be minimum 15m x 2.5m). This must be clearly indicated on the engineering drawings when submitted for approval. The specifications of such embayment shall be as per the standard development conditions below;

28. that the layout be amended to accommodate continuous forward movement by service trucks and all cul-de-sacs have a minimum of 11 m radius turning circle, to ensure continuous forward movement;

29. that any amendments to cadastral layout and or site-development plan to accommodate the above requirements will be for the cost of the "*Developer*" as these configurations were not available at land-use application stage;

Ownership and Responsibility of services

30. Where private roads and established, all services along such roads and/or on the said private development will be regarded as private services and will be maintained by the "*Developer*" and or Owner's Association;

31. Any public roads and services will be maintained by the Municipality;

32. More detail must be provided at the precint plan/SDP submission stage;

Internal- and Link Services

33. that the "*Developer*", at his/her cost, construct the internal (on-site) municipal civil services for the development, as well as any link (service between internal and available bulk municipal service) municipal services that need to be provided;

Bulk Water Meter

34. that the "*Developer*" shall install a bulk water meter conforming to the specifications of the Directorate: Engineering Services at his cost at the entrance gate of **each individual erf** and that clearance will only be issued if the bulk watermeter is installed, a municipal account for the said meter is activated and the consumer deposit has been paid;

Solid Waste

35. For large spoil volumes from excavations, to be generated during the construction of this development, will not be accepted at the Stellenbosch landfill site. The Developer will have to indicate and provide evidence of safe re-use or proper disposal at an alternative, licensed facility. This evidence must be presented to the Manager: Solid Waste (021 808 8241; clayton.hendricks@stellenbosch.gov.za), before building plan approval and before implementation of the development. Clean rubble can be utilized by the Municipality and will be accepted free of charge, providing it meets the required specification.

Servitudes

36. **The property contains an 8m wide pipeline servitude, which crosses in an east-west direction. The servitude must be accommodated within the future development layout. It is acknowledged that the servitude is indicated on the subdivision plan.**

37. Servitudes must be registered wherever private services crosses municipal property. It is acknowledge that such servitudes are indicated on the subdivision plan.

Damage to municipal services

38. that the "*Developer*" will be held liable for any damage to municipal infrastructure incl roads, caused as a direct result of the development of the subject property. The "*Developer*" will therefore be required to carry out the necessary rehabilitation work, at his/her cost, to the standards of the Directorate: Infrastructure Services, before any clearances, building plan or occupation certificate are issued;

Electricity

39. Electrical Engineering comments:
    a. No conditions.
    b. Outside Stellenbosch are of supply.
    c. All Electrical requirements to be directed to ESKOM.

40. The development resides in an Eskom area of supply. As such the Developer must liaise with Eskom regarding the available capacity of Electricity supply and the cost thereof.

41. In terms of SPLUMA section 49(3), the Developer must satisfy the Municipality that adequate arrangements have been made for the provision of electricity. The developer must supply written proof to this effect.

D. General conditions of approval: The following general development conditions are applicable. If there is a contradiction between the specific and general development conditions, the specific conditions will prevail:

42. that the "*Developer*" will enter into an Engineering Services Agreement with the "*Municipality*" in respect of the implementation of the infrastructure to be implemented in lieu of DCs if the need for such infrastructure is identified at any stage by the Municipality;

43. that should the "*Developer*" not take up his rights for whatever reason within two years from the date of this memo, a revised Engineering report addressing services capacities and reflecting infrastructure amendments during the two year period, must be submitted to the Directorate: Infrastructure Services by the "*Developer*" for further comment and conditions. Should this revised Engineering report confirm that available services capacities is not sufficient to accommodate this development, then the implementation of the development must be re-planned around the availability of bulk services as any clearances for the development will not be supported by the Directorate: Infrastructure Services for this development if bulk services are not available upon occupation or taking up of proposed rights;

44. that the "*Developer*" indemnifies and keep the "*Municipality*" indemnified against all actions, proceedings, costs, damages, expenses, claims and demands (including claims pertaining to consequential damages by third parties and whether as a result of the damage to or interruption of or interference with the municipalities' services or apparatus or otherwise) arising out of the establishment of the development, the provision of services to the development or the use of servitude areas or municipal property, for a period that shall commence on the date that the installation of services to the development are commenced with and shall expire after completion of the maintenance period.

45. that the "*Developer*" must ensure that he / she has an acceptable public liability insurance policy in place;

46. that, if applicable, the "*Developer*" approach the Provincial Administration: Western Cape (District Roads Engineer) for their input and that the conditions as set by the Provincial Administration: Western Cape be adhered to before Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law will be issued;

47. that the "*Developer*" informs the project team for the proposed development (i.e. engineers, architects, etc.) of all the relevant conditions contained in this approval;

48. that the General Conditions of Contract for Construction Works (GCC) applicable to all civil engineering services construction work related to this development, will be the SAICE 3rd Edition (2015);

49. that the "*Developer*" takes cognizance and accepts the following:

a.) that no construction of any civil engineering services may commence before approval of internal – and external civil engineering services drawings;

b.) that no approval of internal – and external civil engineering services drawings will be given before land-use and or SDP approval is obtained;

c.) that no approval of internal – and external civil engineering services drawings will be given before the "*Developer*" obtains the written approval of all affected owners where the route of a proposed service crosses the property of a third party;

d.) that no building plans will be recommended for approval by the Directorate: Infrastructure Services before land-use and or SDP approval is obtained;

e.) that no building plans will be recommended for approval by the Directorate: Infrastructure Services before the approval of internal – and external civil engineering services drawings;

f.) that no building plans will be recommended for approval by the Directorate: Infrastructure Services before a Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law is issued unless the *"Developer"* obtains the approval of the *"Engineer"* for construction work of his development parallel with the provision of the bulk services.

Site Development Plan

50. that it is recognized that the normal Site Development Plan, submitted as part of the land-use application, is compiled during a very early stage of the development and will lack engineering detail that may result in a later change of the Site Development Plan. Any later changes will be to the cost of the "Developer";

51. that even if a Site Development Plan is approved by this letter of approval, a further fully detailed site plan be submitted for approval prior to the approval of engineering services plans and or building- and/or services plans to allow for the setting of requirements, specifications and conditions related to civil engineering services. Such Plan is to be substantially in accordance with the approved application and or subdivision plan and or precinct plan and or site plan, etc. and is to include a layout plan showing the position of all roads, road reserve widths, sidewalks, parking areas with dimensions, loading areas, access points, stacking distances at gates, refuse removal arrangements, allocation of uses, position and orientation of all buildings, the allocation of public and private open spaces, building development parameters, the required number of parking bays, stormwater detention facilities, connection points to municipal water- and sewer services, updated land-use diagram and possible servitudes;

52. that if the fully detailed Site Development Plan, as mentioned in the above item, contradicts the approved Site Development Plan, the "Developer" will be responsible for the amendment thereof and any costs associated therewith;

53. that an amended Site Development Plan be submitted for approval prior to the approval of building plans for new buildings not indicated on the Site Development Plan applicable to this application and or changes to existing buildings or re-development thereof;

Internal- and Link Services

54. that the "*Developer*", at his/her cost, construct the internal (on-site) municipal civil services for the development, as well as any link (service between internal and available bulk municipal service) municipal services that need to be provided;

55. that the Directorate: Infrastructure Services may require the "*Developer*" to construct internal municipal services and/or link services to a higher capacity than warranted by the project, for purposes of allowing other existing or future developments to also utilise such services. The costs of providing services to a higher capacity could be offset against the Development Charges payable in respect of bulk civil engineering services if approved by the Directorate: Infrastructure Services;

56. that the detailed design and location of access points, circulation, parking, loading - and pedestrian facilities, etc., shall be generally in accordance with the approved Site Development Plan and / or Subdivision Plan applicable to this application;

57. that plans of all the internal civil services and such municipal link services as required by the Directorate: Infrastructure Services be prepared and signed by a Registered Engineering Professional before being submitted to the aforementioned Directorate for approval;

58. that construction of services may only commence after municipal approval has been obtained;

59. that the construction of all civil engineering infrastructure shall be done by a registered civil engineering services construction company approved by the "*Engineer*";

60. that the "*Developer*" ensures that his/her design engineer is aware of the Stellenbosch Municipality Design Guidelines & Minimum Standards for Civil Engineering Services (as

amended) and that the design and construction/alteration of all civil engineering infrastructure shall be generally in accordance with this document, unless otherwise agreed with the Engineer. The said document is available in electronic format on request;

61. that a suitably qualified professional resident engineer be appointed to supervise the construction of all internal – and external services;

62. that all the internal civil services (water, sewer and stormwater), be indicated on the necessary building plans for approval by the Directorate: Infrastructure Services;

63. that prior to the issuing of the Certificate of Practical Completion, in terms of GCC 2015 Clause 5.14.1, all internal - and link services be inspected for approval by the "*Engineer*" on request by the "*Developer's*" Consulting Engineer;

64. that a Certificate of Practical Completion, in terms of GCC 2015 Clause 5.14.1 be issued before Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law will be issued (prior to transfer of individual units or utilization of buildings);

65. that Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law will only be issued if the bulk watermeter is installed, a municipal account for the said meter is activated and the consumer deposit has been paid;

66. that a complete set of test results of all internal – and external services (i.e. pressure tests on water - and sewer pipelines as well as densities on road structure and all relevant tests on asphalt), approved and verified by a professional registered engineer be submitted to the "Engineer" on request;

67. that the "*Developer*" shall adhere to the specifications of Telkom (SA) and or any other telecommunications service provider;

68. that the *"Developer"* shall be responsible for the cost for any surveying and registration of servitudes regarding services on the property;

69. that the *"Developer"* be liable for all damages caused to existing civil and electrical services of the "*Municipality*" relevant to this development. It is the responsibility of the contractor and/or sub-contractor of the "*Developer*" to determine the location of existing civil and electrical services;

70. that all connections to the existing services be made by the "*Developer*" under direct supervision of the *"Engineer"* or as otherwise agreed and all cost will be for the account of the *"Developer".*

71. that the developer takes cognizance of applicable tariffs by Council in respect of availability of services and minimum tariffs payable;

72. that the "*Developer*", at his/her cost, will be responsible for the maintenance of all the internal (on-site) municipal – and private civil engineering services constructed for this development until at least 80% of the development units (i.e. houses, flats or GLA) is constructed and aoccupied whereafter the services will be formally handed over to the Owner's Association, in respect of private services, and to the Municipality in respect of public services;

Servitudes

73. that the "*Developer*" ensures that all main services including roads to be taken over by the Directorate: Infrastructure Services, all existing municipal – and or private services including roads, crossing private - and or other institutional property and any other services/roads crossing future private land/erven are protected by a registered servitude before Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law will be given;

74. The width of the registered servitude must be a minimum of 3 m or twice the depth of the pipe (measured to invert of pipe), whichever is the highest value. The "*Developer*" will be responsible for the registration of the required servitude(s), as well as the cost thereof;

75. that the *"Developer"* obtains the written approval of all affected owners where the route of a proposed service crosses the property of a third party before final approval of engineering drawings be obtained.

Stormwater Management

76. Taking into account the recent water crisis, and associated increase in borehole usage, it is important that the groundwater be recharged as much as possible. One way of achieving the above is to consider using Sustainable Drainage Systems (SuDS) approach wrt SW management. From Red Book: "SuDS constitute an approach towards managing stormwater runoff that aims to reduce downstream flooding, allow infiltration into the ground, minimise pollution, improve the quality of stormwater, reduce pollution in water bodies, and enhance biodiversity. Rather than merely collecting and discarding stormwater through a system of pipes and culverts, this approach recognises that stormwater could be a resource." The

Developer is encouraged to implement SuDS principles that are practical and easily implementable. Details of such systems can be discussed and agreed with the Municipality and must be indicated on the engineering drawings.

77. that the geometric design of the roads and/or parking areas ensure that no trapped low-points are created with regard to stormwater management. All stormwater to be routed to the nearest formalized municipal system;

78. that overland stormwater escape routes be provided in the cadastral layout at all low points in the road layout, or that the vertical alignment of the road design be adjusted in order for the roads to function as overland stormwater escape routes. If this necessitates an amendment of the cadastral layout, it must be done by the "*Developer*", at his/her cost, to the standards of the Directorate: Infrastructure Services;

79. that the design engineer needs to apply his/her mind to ensure a design that will promote a sustainable urban drainage system which will reduce the impacts of stormwater on receiving aquatic environments;

80. that no disturbance to the river channel or banks be made without the prior approval in accordance with the requirements of the National Water Act;

81. that for larger developments, industrial developments or developments near water courses a stormwater management plan for the proposed development area, for both the minor and major storm events, be compiled and submitted for approval to the Directorate: Infrastructure Services.

82. that the approved management plan be implemented by the "*Developer*", at his/her cost, to the standards of the Directorate: Infrastructure Services. The management plan, which is to include an attenuation facility, is to be submitted concurrent with the detail services plans;

83. that in the case of a sectional title development, the internal stormwater layout be indicated on the necessary building plans to be submitted for approval.

84. that no overland discharge of stormwater will be allowed into a public road for erven with catchment areas of more than 1500m² and for which it is agreed that no detention facilities are required. The *"Developer"* needs to connect to the nearest piped municipal stormwater system with a stormwater erf connection which may not exceed a diameter of 300mm.

Roads

85. that, where applicable, the application must be submitted to the District Roads Engineer for comment and conditions . Any conditions set by the District Roads Engineer will be applicable;

86. that no access control will be allowed in public roads;

87. that the layout must make provision for all deliveries to take place on-site. Movement of delivery vehicles may not have a negative impact on vehicular – and pedestrian movement on public roads and or public sidewalks;

88. The design and lay-out of the development must be such that emergency vehicles can easily drive through and turn around where necessary;

89. that, prior to commencement of any demolition / construction work, a traffic accommodation plan for the surrounding roads must be submitted to the Directorate: Infrastructure Services for approval, and that the approved plan be implemented by the "*Developer*", at his/her cost, to the standards of the Directorate: Infrastructure Services;

90. that visibility splays shall be provided and maintained on each side of the new access in accordance with the standard specifications as specified in the Red Book with regard to sight triangles at intersections;

91. that each erf has its own access (drive-way), *(the new access(es) (dropped kerb(s)) to the proposed parking bays be)* constructed to standards as set out by the the Directorate: Infrastructure Services and in line with the Road Access Guideline;

92. that the access road to the existing facility be kept in an acceptable condition, i.e. maintained to a standard which will result in a comfortable ride for a standard passenger vehicle and to a standard which will not endanger the lives or property of road users;

93. that the parking area be provided with a permanent surface and be clearly demarcated and accessible. Plans of the parking layout, pavement layerworks and stormwater drainage are to be approved by the Directorate: Infrastructure Services before commencement of construction and that the construction of the parking area be to the standards of the Directorate: Infrastructure Services;

94. that no parking be allowed in the road reserve;

Bridge Requirement:

95. that any bridge(s) in the proposed road lay-out be designed and constructed to not impact on the natural flow of water, and to be able to accommodate the 1:50 year flood. The underside of the bridge(s) must be above the 1:100 year flood level;

96. that the bridge(s) be constructed by the *"Developer"*, at his/her cost, to the standards of the Directorate: Infrastructure Services. An adequate level of supervision by a suitably qualified Registered Engineering Professional must be provided for the full duration of the works. The Registered Engineering Professional shall arrange for any tests that may be necessary to determine whether the workmanship and materials conform to the required standards;

97. that a certificate stating that all work has been carried out in accordance with the Directorate: Infrastructure Services's specifications and requirements, signed by the Registered Engineering Professional, must be submitted with the "As Built" drawings on completion of the bridge(s). The certificate must make reference to all material testing, and confirm that the test results meet or exceed the requirements of the specifications;

Culvert Requirement:

98. that the proposed culvert under rail in the proposed road lay-out be designed and constructed by a professional engineer and to the satisfaction of all affected institutions i.e. Provincial Government, Stellenbosch Municipality, Metrorail, PRASA, etc;

99. that the culvert be constructed by the "*Developer*", to the standards of the Directorate: Infrastructure Services. An adequate level of supervision by a suitably qualified Registered Engineering Professional must be provided for the full duration of the works. The Registered Engineering Professional shall arrange for any tests that may be necessary to determine whether the workmanship and materials conform to the required standards;

100. that a certificate stating that all work has been carried out in accordance with the Directorate: Infrastructure Services's specifications and requirements, signed by the Registered Engineering Professional, must be submitted with the "As Built" drawings on completion of the culvert. The certificate must make reference to all material testing, and confirm that the test results meet or exceed the requirements of the specifications;

101. that stormwater in the culvert be addressed without utilizing mechanical pumps to the satisfaction if the "*Engineer*";

Wayleaves

102. that way-leaves / work permits be obtained from the Directorate: Infrastructure Services prior to any excavation / construction work on municipal land or within 3,0m from municipal services located on private property;

103. that wayleaves will only be issued after approval of relevant engineering design drawings;

104. that it is the Developer's responsibility to obtain wayleaves from any other authorities/service provider's who's services may be affected.

Owner's Association (Home Owner's Association or Body Corporate)

105. that an Owner's Association be established in accordance with the provisions of section 29 of the Stellenbosch Municipal Land Use Planning By-law and shall come into being upon the separate registration or transfer of the first deducted land unit arising from this subdivision;

106. that the Owner's Association take transfer of the private roads simultaneously with the transfer or separate registration of the first deducted land portion in such phase;

107. that in addition to the responsibilities set out in section 29 of the Stellenbosch Municipal Land Use Planning By-law, the Owner's Association also be responsible for the maintenance of the private roads, street lighting, open spaces, retention facilities and all internal civil services;

108. that the Constitution of the Owner's Association specifically empower the Association to deal with the maintenance of the roads, street lighting, open spaces, retention facilities and all internal civil services;

109. that the Constitution of the Owner's Association specifically describes the responsibility of the Owner's Association to deal with refuse removal as described in the "Solid Waste" section of this document;

Solid Waste

110. The reduction, reuse and recycle approach should be considered to waste management:

- Households to reduce waste produced
- Re-use resources wherever possible

- Recycle appropriately

To give effect to the above, the following are some typical waste minimization measures that should be implemented by the Developer, to the satisfaction of the Stellenbosch Municipality:

- Procedures should be stipulated for the collection and sorting of recyclable materials;
- Provision should be made for centralized containers for recyclable materials including cardboard, glass, metal, and plastic and green waste;
- A service provider should be appointed to collect recyclable waste. Such service provider must be legally compliant in terms of all Environmental Legislation and/or approved by the Municipality's Solid Waste Management Department;
- Procedures for removal of waste (materials that cannot be reused or recycled) from the site should be stipulated;
- General visual monitoring should be undertaken to identify if these measures are being adhered to;
- Record shall be kept of any steps taken to address reports of dumping or poor waste management within the Development;

Where an Owner's Association is to be established in accordance with the provisions of section 29 of the Stellenbosch Municipal Land Use Planning By-law, the Constitution of the Owner's Association shall incorporate the above in the Constitution and:

- Each party's (Developer/Owner's Association/Home Owner) responsibilities w.r.t. waste management and waste minimization should be clearly defined in such constitution
- A set of penalties for non-compliance should be stipulated in the Constitution

111. that it be noted that the Solid Waste Branch will not enter private property, private roads or any access controlled properties for the removal of solid waste;

112. that the "*Developer*" must apply and get approval from the Municipality's Solid Waste Department for a waste removal service prior to clearance certificate or occupation certificate (where clearance not applicable). Contact person: Senior Manager: Solid Waste (021 808 8241; clayton.hendricks@stellenbosch.gov.za)

113. that should it not be an option for the *"Municipality"* to enter into an agreement with the *"Developer"* due to capacity constraints, the "*Developer*" will have to enter into a service agreement with a service provider approved by the *"Municipality"* prior to clearance certificate or occupation certificate (where clearance not applicable);

114. that if the "Developer" removes the waste by private service provider, provision must still be made for a refuse room should this function in future revert back to the "Municipality";

115. Access to all properties via public roads shall be provided in such a way that collection vehicles can complete the beats with a continuous forward movement;

116. Access shall be provided with a minimum travelable surface of 5 meters width and a minimum corner radii of 5 meters;

117. Maximum depth of cul-de-sac shall be 20 meters or 3 erven, whichever is the lesser. Where this requirement is exceeded, it will be necessary to construct a turning circle with a minimum turning circle radius of 11m or, alternatively – a turning shunt as per the Directorate: Infrastructure Services' specifications. With respect to the latter, on street parking are to be prohibited by way of "red lines" painted on the road surface as well as "no parking" signboards as a single parked vehicle can render these latter circles and shunts useless;

118. Minimum turning circle radius shall be 11 meters to the center line of the vehicle;

119. Road foundation shall be designed to carry a single axle load of 8.2 tons;

120. Refuse storage areas are to be provided for all premises other than single residential erven;

121. Refuse storage areas shall be designed in accordance with the requirements as specified by the Solid Waste Branch. Minimum size and building specifications is available from the Solid Waste Branch;

122. A single, centralized, refuse storage area which is accessible for collection is required for each complete development. The only exception is the case of a single residential dwelling, where a refuse storage area is not required;

123. The refuse storage area shall be large enough to store all receptacles needed for refuse disposal on the premises, including all material intended to recycling. No household waste is allowed to be disposed / stored without a proper 240 ℓ Municipal wheelie bin;

124. The size of the refuse storage area depends on the rate of refuse generation and the frequency of the collection service. For design purposes, sufficient space should be available to store two weeks' refuse;

125. Where the premises might be utilized by tenants for purposes other than those originally foreseen by the building owner, the area shall be sufficiently large to store all refuse generated, no matter what the tenant's business may be;

126. All black 85 ℓ refuse bins or black refuse bags is in the process of being replaced with 240 ℓ black municipal wheeled containers engraved with WC024 in front, and consequently refuse storage areas should be designed to cater for these containers. The dimensions of these containers are:

Commercial and Domestic : 585 mm wide x 730 mm deep x 1100 mm high

127. With regard to flats and townhouses, a minimum of 50 litres of storage capacity per person, working or living on the premises, is to be provided at a "once a week" collection frequency;

128. Should designers be in any doubt regarding a suitable size for the refuse storage area, advice should be sought from the Solid Waste Department : Tel 021 808-8224

129. Building specifications for refuse storage area:

Floor

The floor shall be concrete, screened to a smooth surface and rounded to a height of 75mm around the perimeter. The floor shall be graded and drained to a floor trap (See: Water Supply and Drainage).

Walls and Roof

The Refuse Storage Area shall be roofed to prevent any rainwater from entering. The walls shall be constructed of brick, concrete or similar and painted with light color high gloss enamel. The height of the room to the ceiling shall be not less than 2.21 meters.

Ventilation and Lighting

The refuse storage area shall be adequately lit and ventilated. The room shall be provided with a lockable door which shall be fitted with an efficient self-closing devise. The door and ventilated area shall be at least 3 metres from any door or window of a habitable room. Adequate artificial lighting is required in the storage area.

Water Supply and Drainage

A tap shall be provided in the refuse storage area for washing containers and cleaning spillage. The floor should be drained towards a 100 mm floor trap linked to a drainage pipe which discharges to a sewer gully outside the building. In some cases a grease gully may be required.

130. Should the refuse storage area be located at a level different from the level of the street entrance to the property, access ramps are to be provided as stairs are not allowed. The maximum permissible gradient of these ramps is 1:7;

131. A refuse bay with minimum dimensions of 15 meters in length x 2, 5 meters in width plus 45 degrees splay entrance, on a public street, must be provided where either traffic flows or traffic sight lines are affected. The refuse bays must be positioned such that the rear of the parked refuse vehicle is closest to the refuse collection area;

132. Any containers or compaction equipment acquired by the building owner must be approved by the Directorate: Infrastructure Services, to ensure their compatibility with the servicing equipment and lifting attachments;

133. Refuse should not be visible from a street or public place. Suitable screen walls may be required in certain instances;

134. Access must be denied to unauthorized persons, and refuse storage areas should be designed to incorporate adequate security for this purpose;

135. All refuse storage areas shall be approved by the Directorate: Infrastructure Services, to ensure that the Council is able to service all installations, irrespective of whether these are currently serviced by Council or other companies;

AS-BUILTs

136. The "*Developer*" shall provide the "*Municipality*" with:

a. a complete set of as-built paper plans, signed by a professional registered engineer;

b. a CD/DVD containing the signed as-built plans in an electronic DXF-file format, reflecting compatible layers and formats as will be requested by the "*Engineer*" and is reflected herewith as Annexure X;

c. a completed Asset Verification Sheet in Excell format, reflecting the componitization of municipal services installed as part of the development. The Asset Verification Sheet will have to be according to the IMQS format, as to be supplied by the "Engineer", and is to be verified as correct by a professional registered engineer;

d. a complete set of test results of all internal – and external services (i.e. pressure tests on water - and sewer pipelines as well as densities on road structure and all relevant tests on asphalt), approved and verified by a professional registered engineer;

e. Written verification by the developer's consulting engineer that all professional fees in respect of the planning, design and supervision of any services to be taken over by the "*Municipality*" are fully paid;

137. All relevant as-built detail, as reflected in the item above, of civil engineering services constructed for the development, must be submitted to the "*Engineer*" and approved by the "*Engineer*" before any application for Certificate of Clearance will be supported by the "*Engineer*";

138. The Consulting Civil Engineer of the "*Developer*" shall certify that the location and position of the installed services are in accordance with the plans submitted for each of the services detailed below;

139. All As-built drawings are to be signed by a professional engineer who represents the consulting engineering company responsible for the design and or site supervision of civil engineering services;

140. Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law shall not be issued unless said services have been inspected by the "*Engineer*" and written clearance given, by the "*Engineer*";

Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law

141. It is specifically agreed that the "*Developer*" undertakes to comply with all conditions of approval as laid down by the "*Municipality*" before clearance certificates shall be issued, unless otherwise agreed herein;

142. that the "*Municipality*" reserves the right to withhold any clearance certificate until such time as the "*Developer*" has complied with conditions set out in this contract with which he/she is in default. Any failure to pay monies payable in terms of this contract within 30 (thirty) days after an account has been rendered shall be regarded as a breach of this agreement and the "*Municipality*" reserves the right to withhold any clearance certificate until such time as the amount owing has been paid;

143. that clearance will only be given per phase and the onus is on the "*Developer*" to phase his development accordingly;

144. **The onus will be on the "Developer" and or his professional team to ensure that all land-use conditions have been complied with before submitting an application for a Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law. Verifying documentation (proof of payment in respect of Development Charges, services installation, etc.) must be submitted as part of the application before an application will be accepted by this Directorate;**

145. that any application for Certificate of Clearance will only be supported by the "*Engineer*" once all relevant as-built detail, as reflected in the item "AS-BUILT's" of this document, is submitted to the "*Engineer*" and approved by the "*Engineer*".

Occupation Certificate in terms of Section 14 of the the National Building Regulations and Building Standards Act 103 of 1977 (where a subdivision and clearance certificate is not applicable)

146. It is specifically agreed that the "*Developer*" undertakes to comply with all conditions of approval as laid down by the "*Municipality*" before occupation certificates shall be issued, unless otherwise agreed herein;

147. that the "*Municipality*" reserves the right to withhold any occupation certificate until such time as the "*Developer*" has complied with conditions set out in this contract with which he/she is in default. Any failure to pay monies payable in terms of this contract within 30 (thirty) days after an account has been rendered shall be regarded as a breach of this agreement and the

"*Municipality*" reserves the right to withhold any occupation certificate until such time as the amount owing has been paid;

148. **The onus will be on the "Developer" and or his professional team to ensure that all land-use conditions have been complied with before submitting an application for an occupation certificate in terms of the National Building Regulations. Verifying documentation (proof of payment in respect of Development Charges, services installation, etc.) must be submitted as part of the application before an application will be accepted by this Directorate;**

Avoidance of waste, nuisance and risk

149. Where in the opinion of the "*Municipality*" a nuisance, health or other risk to the public is caused due to construction activities and/or a lack of maintenance of any service, the "*Municipality*" may give the "*Developer*" and or OWNER'S ASSOCIATION written notice to remedy the defect failing which the "*Municipality*" may carry out the work itself or have it carried out, at the cost of the "*Developer*" and or OWNER'S ASSOCIATION.

Streetlighting

150. The "*Developer*" will be responsible for the design and construction at his own expense of all internal street lighting services and street lighting on link roads leading to his development (excluding Class 1, 2 and 3 Roads) according to specifications determined by the municipality's Manager: Electrical Services and under the supervision of the consulting engineer, appointed by the "*Developer*";

151. Prior to commencing with the design of street lighting services, the consulting electrical engineer, as appointed by the "*Developer*" must acquaint himself with, and clarify with the municipality's Manager: Electrical Engineering, the standards of materials and design requirements to be complied with and possible cost of connections to existing services;

152. The final design of the complete internal street lighting network of the development must be submitted by the consulting electrical engineer, as appointed by the "*Developer*", to the municipality's Manager: Electrical Engineering for approval before any construction work commences;

153. Any defect with the street lighting services constructed by the "*Developer*" which may occur during the defects liability period of 12 (TWELVE) months and which occurs as a result of defective workmanship and/or materials must be rectified immediately / on the same day the

defect was brought to the attention of the consulting electrical engineer, appointed by the "*Developer*". Should the necessary repair work not be done within the said time the "*Municipality*" reserves the right to carry out the repair work at the cost of the "*Developer*";

154. The maintenance and servicing of all private internal street lighting shall be the responsibility and to the cost of the "Developer" and or Home Owner's Association.

TYRONE KING Pr Tech Eng

MANAGER: DEVELOPMENT (INFRASTRUCTURE SERVICES)

W:\2.0 DEVELOPMENT\00 Developments\2104 (TK) Farm 742-5 Paarl (LU-10577) (Stellenbosch Bridge Application 1)\2104 (TK) Farm 742-5 Paarl (LU-10577) (Stellenbosch Bridge Application 1)_1.doc

ATTACHMENT X

Geographic Information System (GIS) data capturing standards

In drawing up the As-build Plans relating to this development, the consultant must create the following separate layers in ESRI .shp, electronic file format in order for the data to reflect spatially correct.

Layer name	Content
TITLE	Title information, including any endorsements and references
NOTES	All noted information, both from the owner / surveyor and SG
PARENT_PROPLINES	Parent property lines
PARENT_PROPNUM	Parent erf number (or portion number)
PROPLINES	New portion boundaries
PROPANNO	New erf numbers
SERVLINES	Servitude polygons
SERVANNO	Servitude type
STREET_NAMES	Road centre lines with street names
STREET_NUMBERS	Points with street numbers
COMPLEX BOUNDARIES	Where applicable, polygon with complex name (mention whether gated or not and if so, where gates are)
SUBURB	Polygon with suburb name, where new suburb / township extension created
ESTATE	Where applicable, polygon with estate name (mention whether gated or not and if so, where gates are)

When data is provided in a .shp format it is mandatory that the .shx, .dbf, files should accompany the shapefile. The prj file containing the projection information must also accompany the shapefile.

It is important that different geographical elements for the GIS capture process remains separate. That means that political boundaries like wards or suburbs be kept separate from something like rivers. The same applies for engineering data types like water lines, sewer lines, electricity etc. that it is kept separate from one another. When new properties are added as part of a development, a list of erf numbers with its associated SG numbers must be provided in an electronic format like .txt, .xls or .csv format.

For road layer shapefiles; the road name, the from_street and to_street where applicable as well as the start en end street numbers needs to be included as part of the attributes. A rotation field needs to be added to give the street name the correct angle on the map.

In addition to being geo-referenced and in WGS 1984 Geographic Coordinate System, the drawing must be completed using real world coordinates based on the Stellenbosch

Municipality standard as follows:

- Datum : Hartebeeshoek WGS 84
- Projection : Transverse Mercator
- Central Longitude/Meridian 19
- False easting : 0.00000000
- False northing : 0.00000000
- Central meridian : 19.00000000
- Scale factor : 1.00000000
- Origin latitude : 0.00000000
- Linear unit : Meter

STELLENBOSCH BRIDGE: RIGHTS ROLL-OUT & SERVICES THRESHOLDS

ANNEXURE: SERVICE TRESHHOLDS

Threshold	Water Demand		Sewerage	Electricity	Stormwater	Development Rights (up to)	
	AADD	Upgrades	Upgrades	Upgrades		Residential	Non-residential
1	0 to 998kl/day	• SKW1.1, SKW1.2a, SKW1.2b, SKW1.12 (Municipality - currently on municipal budget OR Developer - with DCs) • SKW1.5, SKW1.9a, SKW1.9b, SKW1.10, SKW1.11, SKW1.15, SKW1.16, SKW1.21 & SKW1.27 (Developer – own cost) • SKW.B1, SKW.B3 & SKW.B4 (Municipality - currently on municipal budget OR Developer - with DCs)	• Master plan items SK2.4, SK2.5, SK2.6, SK2.7, SK2.8 (Developer – own cost)	• Brick-built switching substation • Primary MV cabling from Eskom 132/11kV step-down substation • Four secondary MV cable bulk supplies	• Stormwater management plan to finalise improvements	1 577 units	28 000m²
2	999kl/day to 1300kl/day	SKW.B5b Phase 1 of New 12 Ml reservoir (Municipality – if approved on municipal budget OR Developer - with DCs)			• Stormwater management plan to finalise	1 577 units	118 500m²
3	1301kl/day to 1547.4kl/day			• 132/11kV step-down substation • new brick-built switching substation, • interlinking primary MV cabling and secondary MV cable rings		2 200 units	320 000m²
4	1547.5kl/day to 4060kl/day	• Further master plan items to be finalised	• SKS1.8, SKS1.13 SKS1.14, SKS5.2 & SKS5.3 • SKS1.7, SKS6.2 & SKS 6.3 • SKS1.12 & SKS 7.3 • New Pump Station • Upgrade Klapmuts WWTW (Municipality – if approved on municipal budget OR Developer - with DCs)	• Brick-built switching substation • Primary MV cabling from 132/11kV step-down substation and • Secondary MV cable rings	• Stormwater management plan to finalise	6 000 units	680 000m²

Threshold	Roads			Development Rights (up to)	
	Peak Hour Trip Generation (*as per TIAs*)	Upgrades (*refer to Figure A*)		Residential	Non-residential
Background	n/a	1) a) Dualling of R44 between Klapmuts-Simondium Rd & N1 (up to and including) (Developer – DCs to a max of 20% of total project value – Provincial Road) 2) a) Upgrade of N1/R44 & N1/R304 interchanges (Developer – own cost – Provincial/National Roads) 3) a) Upgrade of R304/Old Paarl Rd intersection (Developer – own cost – Provincial Roads) 4) Left-turn lanes on two R44-approaches to R44/Klapmuts (Developer – DCs – Provincial/Municipal Roads) –Simondium Rd intersection (Developer – DCs to a max of 20% of total project value – Provincial Roads)	1) b) Groenfontein Rd-interchange on N1 (Developer – own cost – Provincial Roads/National Roads) 2) b) Upgrade of Groenfontein Rd between interchange and Old Paarl Rd (Developer – DCs to a max of 20% of total project value – Provincial Road) 3) b) Roundabout at intersection of Old Paarl Rd/Groenfontein Rd (Developer – DCs to a max of 50% of total project value – Groenfontein Rd is provincial north of Old Paarl Road and municipal south of Old Paarl Road.)		
1 + 2	AM: 2 214 + 461 = 2 675 PM: 1 794 + 461 = 2 255	5) Access road link to Merchant St & roundabout at the Merchant St/access road intersection (Developer – DCs – Municipal Road) 6) Realignment of section of Merchant St & roundabout at the Groenfontein Rd/Merchant St intersection (Developer – DCs – Municipal Road) 7) Underpass-road (dual) (Klapmuts Hills Rd) between Old Paarl Rd and Klapmuts Hills Rd & roundabouts at intersections (Developer – DCs – Municipal Road) 8) Klapmuts Hills single lane road from second industrial access (Precinct C) to underpass road (Developer – DCs – Municipal Road) 9) Dualling of Old Paarl Rd between Groenfontein Rd and underpass road & roundabouts at intersections (Developer – DCs to a max of 20% of total project value – Provincial Road) 10) Dedicated left-turn lane along the Stellengate Boulevard-approach to the R44 intersection (Developer – DCs – Provincial/Municipal Road)		1 577 units	118 500m²
3	*Total including existing rights-trips:* AM: 3 908 PM: 5 482	11) Groenfontein Rd-interchange on N1 and upgrade of Groenfontein Rd (if not yet implemented in 1b) (Developer – own cost – Provincial Roads/National Roads) 12) Dualling of Klapmuts Hills Rd between underpass-road and access road link to Merchant St (Developer – DCs – Municipal Road) 13) Extension of Klapmuts Hills Rd to Precinct B second access (Developer – DCs – Provincial Road)		2 200 units	320 000m²
4	TBD	14) To be completed following Regional Road Network Study prior to submission of Application 4		6 000 units	680 000m²

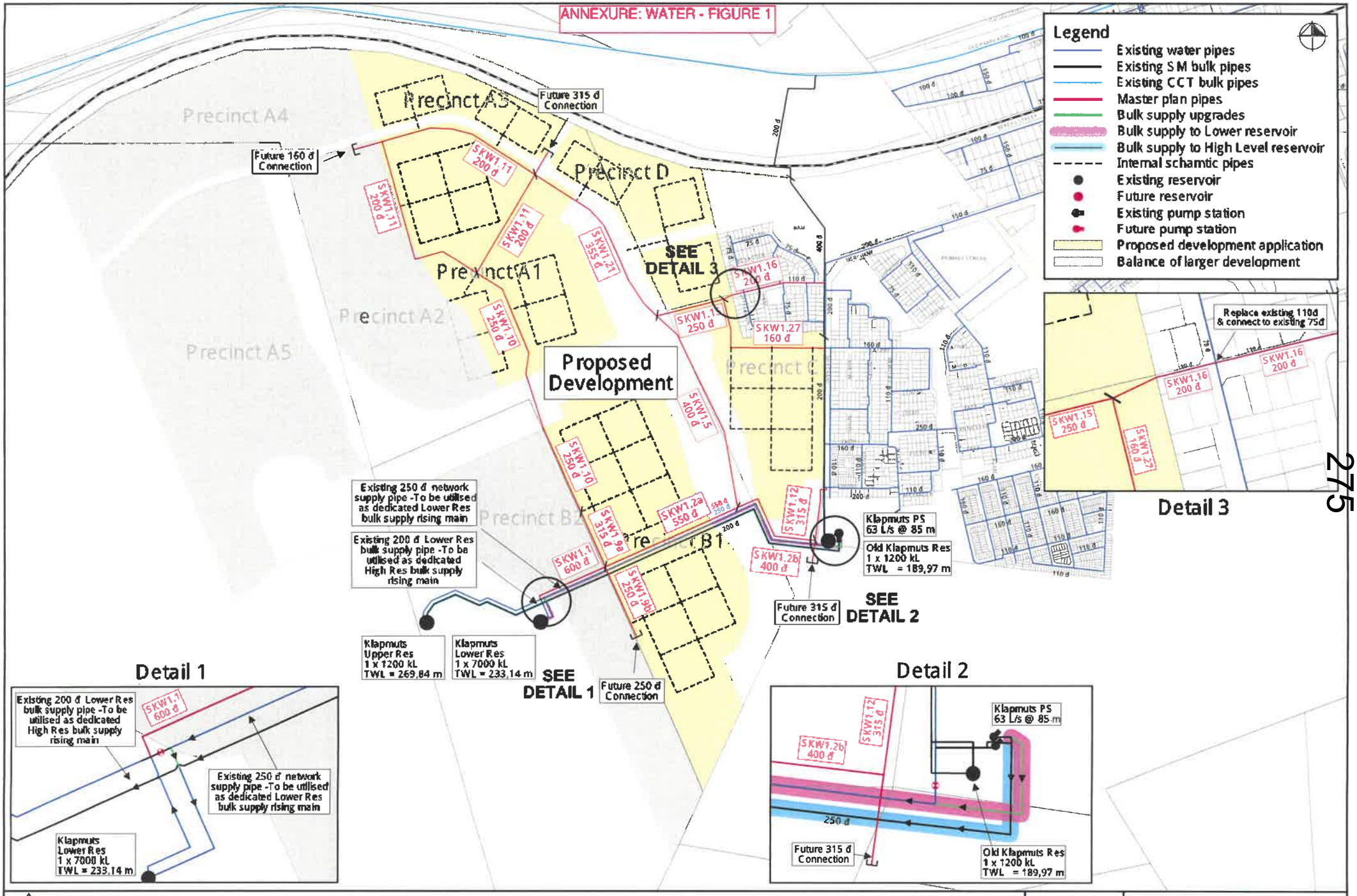
Notes:

1. Refer to the following Annexures for the locations of the above items:
- Water: **Annexure Water (GLS Figures 1 and 2)**
- Sewer: **Annexure Sewer (GLS Figure 3)**
- Roads: **Annexure Roads (UDS Figure A)**

2. Where an item is not on the Municipality's budget and where DCs have been indicated as "Developer – DCs": The full cost of the upgrade may be offset from DCs. Should the DCs available not be enough to cover the cost, the shortfall will be for the Developer's own cost.

3. Where funding is indicated as "Developer – own cost", this does not exclude the Developer from obtaining external funding sources i.e. from the relevant road authority e.g. Provincial and/or National Government.

4. Principles governing the utilisation of DCs on Municipal / Provincial Roads: Clause 14.6 of 2020/21 Stellenbosch Municipality DC Policy:
   - "Provincial Roads – 20% of the value of upgrades on provincial roads have been allowed for in the determination of the Development Charges tariffs and therefore this percentage will be allowed to be offset from Development Charges. The offsetting of Development Charges against the full cost of provincial road upgrades would result in an under-recovery of Development Charges for municipal roads. Exception is upgrades to intersections between municipal and provincial roads, where the full amount can be offset from Development Charges."
   - National Roads; intersections of National and Provincial Roads – not included in our DC tariffs – cannot be offset from DCs.

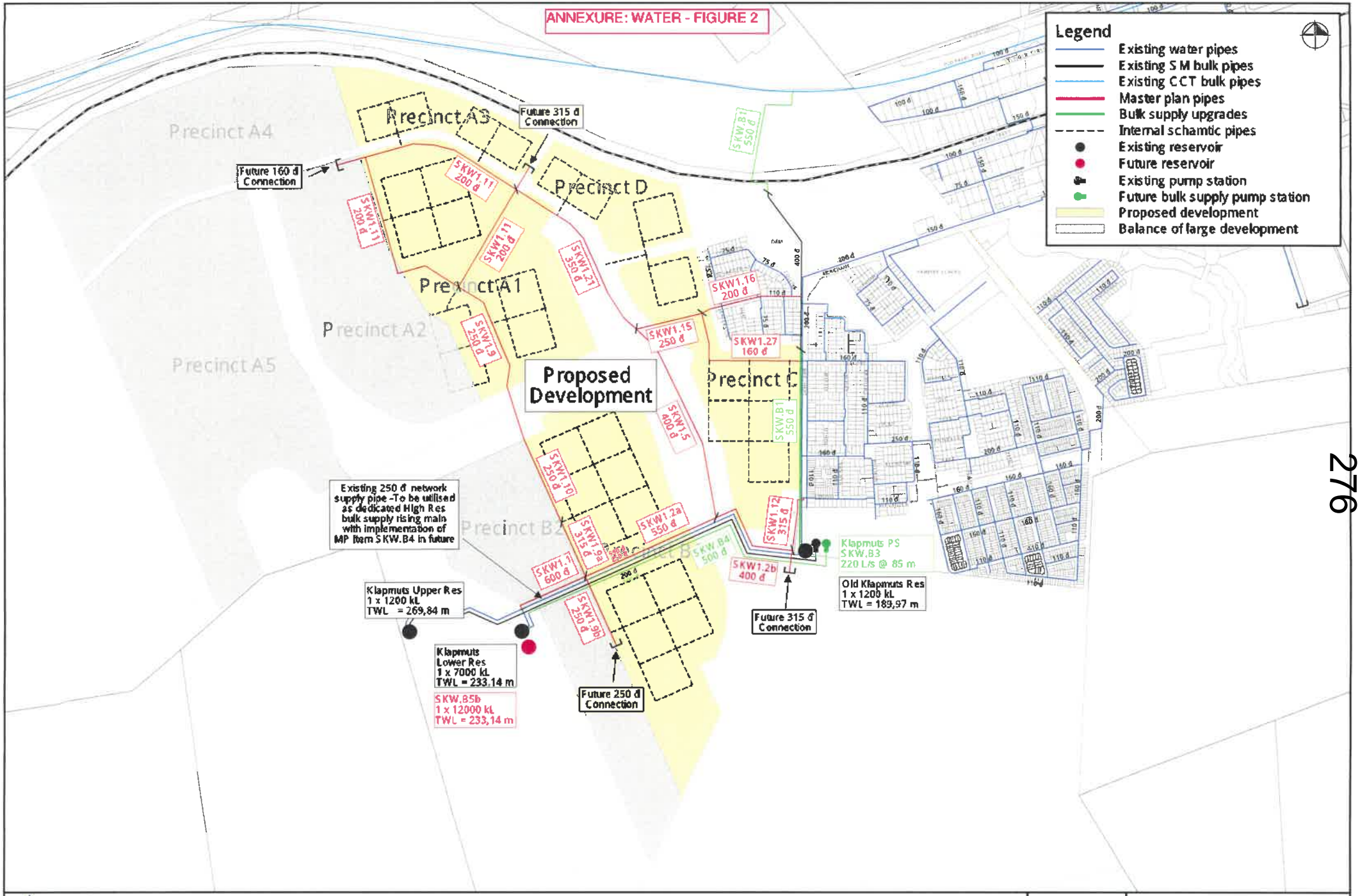


September 2020

Development of Portion 5 of Farm 742 - Klapmuts (Stellenbosch Bridge development)

gls consulting

Figure 1
Proposed Development
Ptn 5 of Farm 742 - Klapmuts
Water Reticulation System

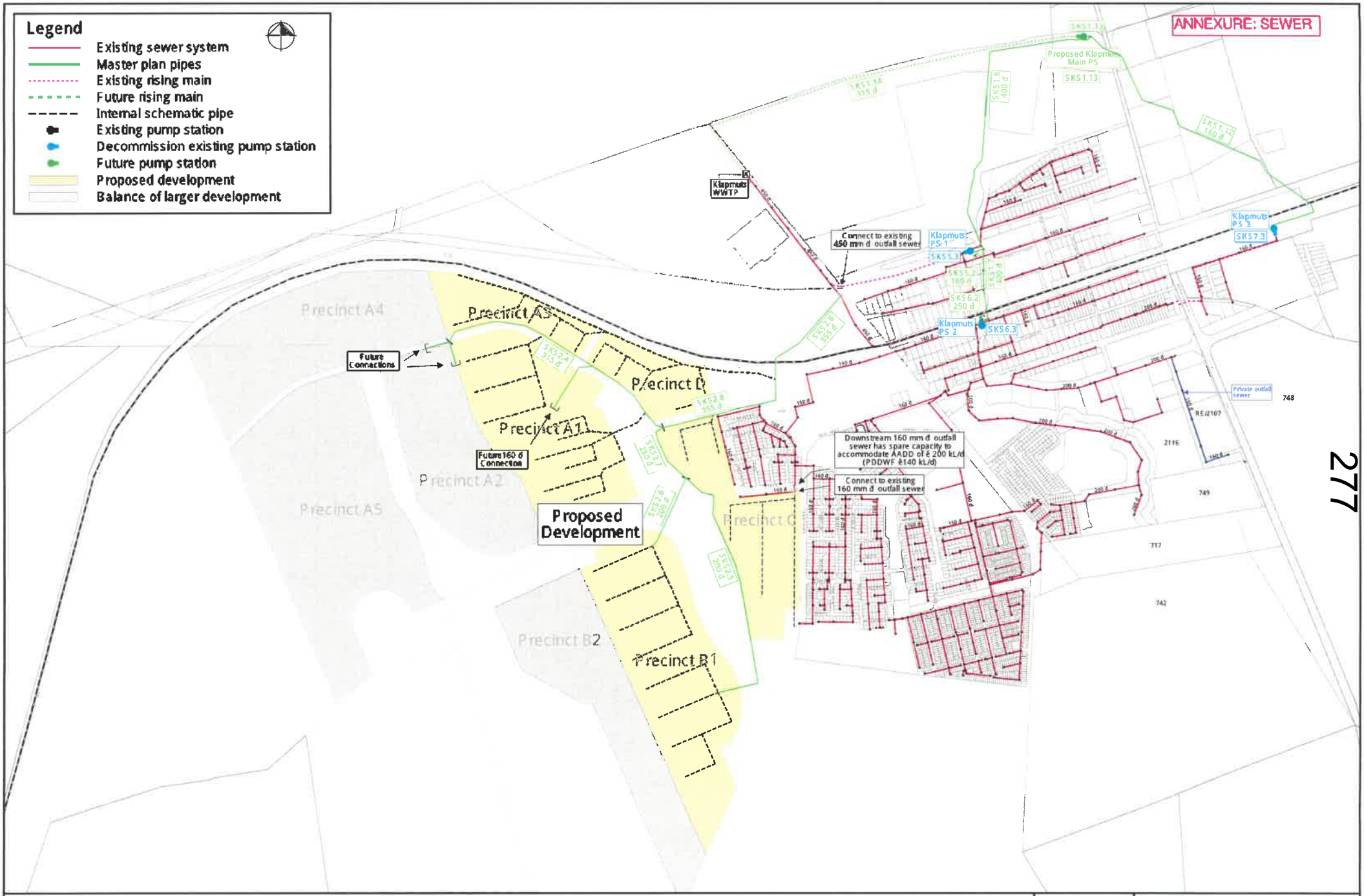


September 2020

Development of Portion 5 of Farm 742 - Klapmuts (Stellenbosch Bridge development)

gls consulting

Figure 2
Proposed Development
Ptn 5 of Farm 742 - Klapmuts
Bulk Water System


Legend
Existing sewer system
Master plan pipes
Existing rising main
Future rising main
Internal schematic pipe
Existing pump station
Decommission existing pump station
Future pump station
Proposed development
Balance of larger development
ANNEXURE: SEWER
Klapmuts WWTP
Connect to existing 450 mm ⌀ outfall sewer
Klapmuts PS 1
Klapmuts PS 2
Klapmuts PS 3
Proposed Klapmuts Main PS
SKS1.13
SKS5.3
SKS5.2
SKS6.2
SKS6.3
SKS7.3
Precinct A4
Precinct A3
Precinct D
Precinct A1
Precinct A2
Precinct A5
Precinct G
Precinct B2
Precinct B1
Future Connections
Future 160 ⌀ Connection
Proposed Development
Downstream 160 mm ⌀ outfall sewer has spare capacity to accommodate AADD of ± 200 kL/d (PDDWF ±140 kL/d)
Connect to existing 160 mm ⌀ outfall sewer
Private outfall sewer
RE/2107
2116
748
749
717
742
277
September 2020
Development of Portion 5 of Farm 742 - Klapmuts (Stellenbosch Bridge development)
gls consulting
Figure 3
Proposed Development
Ptn 5 of Farm 742 - Klapmuts
Sewer Master Plan

STELLENBOSCH BRIDGE: RIGHTS ROLL-OUT & SERVICES THRESHOLDS

Threshold	Roads			Development Rights (up to)	
	Peak Hour Trip Generation (as per TIA)	Upgrades (refer to Figure A)	Funding Source	Residential	Non-residential
Background	n/a	1) a) Dualling of R44 between Klapmuts-Simondium Rd & N1 (up to and including) 2) a) Upgrade of N1/R44 & N1/R304 interchanges 3) a) Upgrade of R304/Old Paarl Rd intersection 4) Left turn lanes on [illegible] approaches to R44/Klapmuts-Simondium Rd intersection; 1) b) Groenfontein Rd interchange on N1 2) b) Upgrade of Groenfontein Rd between interchange and Old Paarl Rd 3) b) Roundabout at intersection of Old Paarl Rd/Groenfontein Rd	*		
1 + 2	AM: [illegible]; PM: [illegible]	5) Access road link to Merchant St & roundabout at the Merchant St/access road intersection 6) Realignment of section of Merchant St & roundabout at the Groenfontein Rd/Merchant St intersection 7) Underpass-road [illegible] between Old Paarl Rd and Klapmuts Hills Rd & roundabouts at intersections 8) Klapmuts Hills single lane road from [illegible] access (Precinct C) to underpass road 9) Dualling of Old Paarl Rd between Groenfontein Rd and underpass road & roundabouts at intersections 10) Dedicated left-turn lane along the Stellengate Boulevard approach to the R44 intersection.	*	1 577 units	118 500m²
3	Total including existing rights: [illegible]; AM: [illegible]; PM: [illegible]	11) Groenfontein Rd interchange on N1, and upgrade of Groenfontein Rd (if not yet implemented in 1b) 12) Dualling of Klapmuts Hills Rd between underpass-road and access road link to Merchant St 13) Extension of Klapmuts Hills Rd to Precinct [illegible] second access	*	2 200 units	320 000m²
4	TBD	14) To be completed following Regional Road Network Study prior to submission of Application 4	*	6 000 units	680 000m²

uds africa

Stellenbosch Bridge - External Road Upgrades
(not to scale)

Figure A
UDS 318

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK
MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

ANNEXURE M

Contact Address:
iCE Group (Stellenbosch),
P O Box 131,
Stellenbosch, 7599

Tel No: +27 (0) 21 880 0443
Fax No: +27 (0) 21 880 0390
e-mail: piet@icegroup.co.za

GROUP (Pty) Ltd

Consulting Services
- Civil Engineering Services
- Roads
- Traffic Engineering

Contact Person: Piet van Blerk
Your Ref: Farm 742/5, Klapmuts
Our Ref: iCE/S/493A **Date:** 12 August 2019

Anton Lotz Town & Regional Planning

Attention: Mr Anton Lotz

Sir

APPLICATION FOR REALLOCATION OF EXISTING RIGHTS ON FARM 742 PORTION 5, KLAPMUTS, STELLENBOSCH: TRAFFIC IMPACT STATEMENT

This company was appointed to prepare a Traffic Impact Statement (TIS) for the proposed reallocation of existing rights on Farm 742/5, Klapmuts, Stellenbosch.

1. BACKGROUND AND LOCALITY

The subject property is situated to the west of the developed area of Klapmuts, which is situated to the west of the R44 and south of the N1, Stellenbosch. See the ***Locality Plan*** attached.

A previous approval for development on the subject property was obtained in 2011. It is now proposed to develop an updated development framework within the approved parameters, i.e. a reallocation of the existing rights.

This TIS accompanies the Application for (1) Amendment of Approved Development Framework, (2) Amendment of Plan of Subdivision, and (3) Amendment of Conditions, for Farm 742/5, Stellenbosch.

2. APPROVED DEVELOPMENT

2.1 Existing Development Rights

The existing development rights obtained in 2011 included residential and commercial components. The TIA accompanying the application of the said approval assessed the following:

Residential	1 577 units
Commercial/Offices	17 500 m² GLA
Retail	4 700 m² GLA
Gym	4 000 m² GLA

The abovementioned development was approved as four (4) phases, as follows:

Stellenbosch office:
Tel: 021 8800 443
Fax: 021 8800 390

Directors:
P.J.Van Blerk, PrEng.

iCE Group (Overberg) t/a
iCE Group (Stellenbosch)

Reg No: 2006/133238/23

Land use	Phase A	Phase B	Phase C	Phase D
Residential (*units*)	527	290	555	205
Offices (m^2 *GLA*)	-	2 900	10 600	-
Retail (m^2 *GLA*)	1 500	-	3 200	-
Gym (m^2 *GLA*)	4 000	-	-	-

2.2 Conditions of Approval

The conditions of approval to the abovementioned approval, included the following:

Phase A:

1) *Klapmuts Hills Road* – Construct Klapmuts Hills Road as a two-lane road from the development northwards up to the R101 (Old Paarl Road), including an underpass underneath the railway line;
2) *R101/Klapmuts Hills Road intersection* – Stop-control with short dedicated left- and right-turn lanes on the R101 approaches and on the Klapmuts Hills Road exit; Should the roundabout, however, be implemented only on circulating lane (4,5 metres wide) is required; The roundabout diameter should be 25 metres;
3) *R101/R44 intersection* – The layout proposed by BKS/UWP Engineers will be sufficient to accommodate Phase A traffic.

Phase B:

No upgrades additional to the Phase A-requirements were considered necessary to accommodate the addition of Phase B.

Phase C:

1) *R101/R44 intersection* – Additional lanes will need to be added to the BKS/UWP Engineers' design;
2) *R44* – This road should be a four-lane road from the R101 to beyond the Simondium Road/Merchant Street intersection;
3) *Merchant Street* – Construct Merchant Street extension as a two-lane road from the existing residential area to the Klapmuts Hills development;
4) *R44/Merchant Street/Simondium Road intersection* – Additional through lanes will have to be added on both the northern and southern R44 approaches.

Phase D:

1) *R101* – The R101 should be doubled from Klapmuts Hills Road eastwards up to the R44;
2) *R101/Klipheuwel Road intersection* – The intersection should be signalised;
3) *R44* – The section between Simondium Road and Klapmuts Hills Road should be doubled;
4) *Klapmuts Hills Road* – The Klapmuts Hills Road should be extended from the Klapmuts Hills development southwards up to the R44;
5) *R44/Klapmuts Hills Road intersection* – This intersection needs to be signalised in keeping with other intersections on the R44, with a layout; With a median island the through/right-turn lane on the northern approach should be changed to two through lanes and a dedicated right-turn lane;

6) *R44/Elsenburg Road intersection* – Provide a dedicated right-tun lane on Elsenburg Road in addition to turning lanes already required (for existing 2011 traffic) on the R44.

Of these conditions, Phase A-3 (signalisation of R101/R44 intersection) and Phase D-6 (turning lanes at R44/Elsenburg Road intersection) have since been implemented.

3. PROPOSED DEVELOPMENT

3.1 Proposed Amendments

The updated development mix proposed includes the following:

Residential	1 577 units
Commercial/Offices	3 000 m² GLA
Data Centre	5 000 m² GLA
Education	1 200 learners

See a schematic layout on the attached ***Development Framework Plan*** prepared by *Osmond Lange Architects and Planners.* It should be noted that the attached layout is purely schematic at this stage – Site Development Plans (SDP) will be submitted during further development applications.

3.2 Access to the Property

Access to the property will remain as previously proposed – see the photo below. Detail on access will be discussed in *paragraph 4* below.

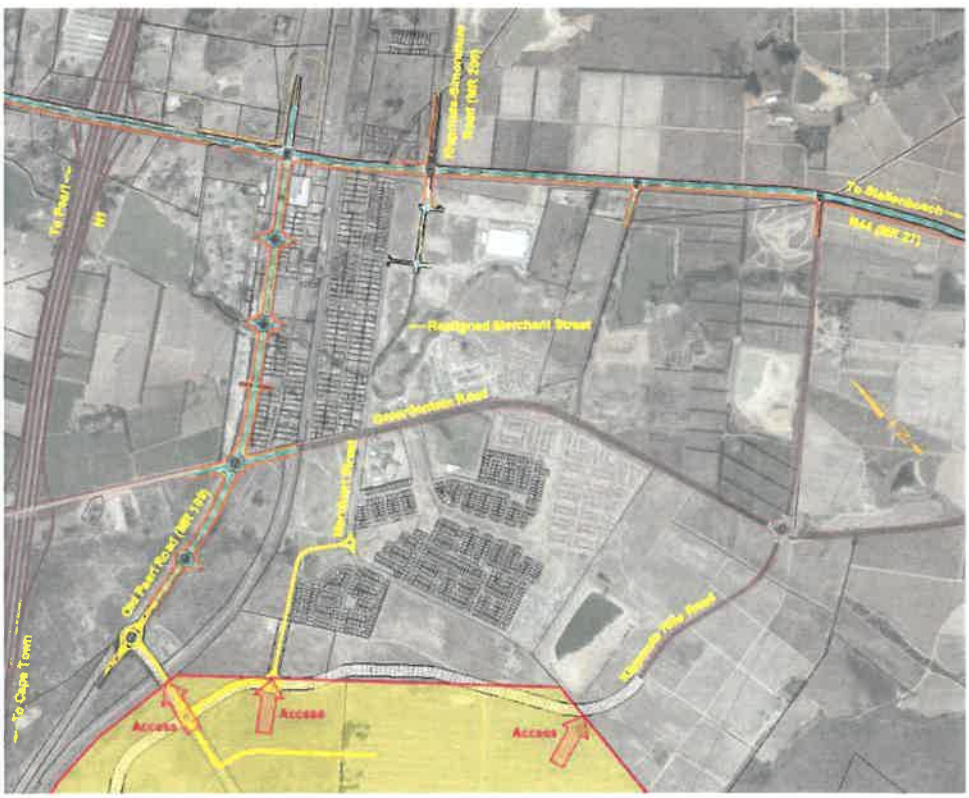


Photo 1 : Existing and proposed access(es)

4. TRAFFIC

4.1 Traffic Generation

At the time of the original TIA, the *South African Trip Generation Rates Manual* (SATGR) was applied. As a matter of consistency, the rates applied in the previous TIA were assumed for the relevant land uses. For the newly proposed land uses not previously included, trip generation rates as contained in the TMH17 *South African Trip Data Manual* were consulted. The rates applied are as follows:

	AM Peak Hour Rate	*Split (in/out)*	*PM Peak Hour Rate*	*Split (in/out)*
Residential (SATGR)	1,1 trips per unit	25/75	1,1 trips per unit	75/25
Offices (SATGR)	2,3 trips per 100 m² GLA	85/15	2,3 trips per 100 m² GLA	20/80
Private School (TMH17)	0,8 trips per learner	50/50	0,3 trips per learner	50/50

As a rate for the proposed data centre is not contained in the abovementioned manuals, alternative studies were consulted. A study compiled for a similar land use in England assessed a data centre with 12 277 m² floor space occupied by 45 employees. Based on this, it was assumed that approximately 20 employees would be present at the 5 000 m² data centre proposed. To estimate the potential trip generation of these employees, the SATGR trip generation rate per employee for offices (0,6 trips per employee) was applied.

According to the TMH17, the following trip generation rate adjustment factors are applicable to mixed-use developments:

Residential	15%
Offices	20%
Private School	30%

Based on all of the above, the proposed development could potentially generate the following peak hour trips:

	AM Peak Hour Trips			PM Peak Hour Trips		
	Total	In	Out	Total	In	Out
Residential (*1 577 units*)	1 475	369	1 106	1 475	1 106	369
Offices (*3 000 m² GLA*)	55	47	8	55	8	47
Data Centre (*5 000 m² GLA*)	12	10	2	12	2	10
Private School (*1 200 learners*)	672	336	336	252	126	126
Total	**2 214**	**762**	**1 452**	**1 794**	**1 242**	**552**

4.2 Trip Generation Comparison

The total external trip generation calculated in the previous TIA was 2 260 AM peak hour trips (833 in, 1 427 out) and 2 862 PM peak hour trips (1 823 in, 1 039 out). The newly proposed development mix will thus potentially generate **46 AM peak hour trips fewer** and **1 068 PM peak hour trips fewer** than the previously expected external peak hour traffic.

Based on the above, it can be expected that the road improvements as per the previous conditions of approval will remain applicable as the newly proposed development extent is less than that previously approved.

To assess the order of implementation of the required upgrades, it is suggested that TIS's be compiled for each SDP submitted for the individual pockets.

5. GEOMETRY

As mentioned above, access will remain as per the previous proposal. Access to the property will be via three (3) road links: Merchant Street, link to Old Paarl Road including underpass below railway line, and future Klapmuts Hills Road.

The access roads can be classified as follows:

R44	Class 2
Old Paarl Road	Class 3
Groenfontein Road	Class 3
Merchant Street	Class 4
Klapmuts Hills Road	Class 3

Detail on access control/layout, internal road layouts, refuse removal, parking, etc. will be addressed with the SDPs submitted during further development applications.

6. PUBLIC AND NON-MOTORISED TRANSPORT

Detail on public and non-motorised transport facilities will be addressed with the SDP submissions during further design. It is anticipated that facilities similar to that included with the approved development framework will be provided.

7. CONCLUSIONS

The following can be concluded from the report:

1) That this TIS accompanies the Application for (1) Amendment of Approved Development Framework, (2) Amendment of Plan of Subdivision, and (3) Amendment of Conditions, for Farm 742/5, situated to the west of the developed area of Klapmuts, which is situated to the west of the R44 and south of the N1, Stellenbosch;

2) That the previous approval included 1 577 residential units, 17 500 m² GLA offices, 4 700 m² GLA retail and 4 000 m² GLA gym which was approved in four (4) phases with required road upgrades phased accordingly;

3) That the newly proposed development framework includes 1 577 residential units, 3 000 m² GLA offices, 5 000 m² GLA data centre and educational facility accommodating 1 200 learners;

4) That the approved development had the potential to generate 2 260 AM peak hour trips (833 in, 1 427 out) and 2 862 PM peak hour trips (1 823 in, 1 039 out), that the newly proposed development has the potential to generate 2 214 AM peak hour trips (762 in, 1 452 out) and 1 794 PM peak hour trips (1 242 in, 552 out), thus 46 AM peak hour trips fewer and 1 068

PM peak hour trips fewer than the previously expected external peak hour traffic; and

5) That detail on access control/layout, internal road layouts, refuse removal, parking, public transport, NMT, etc. will be addressed with the SDPs submitted during further development applications.

8. RECOMMENDATIONS

From the above it is recommended that the proposed re-allocation of existing rights be approved on condition that TISs accompany the SDPs submitted during further design/development applications.

We trust that the Traffic Impact Statement will be to your satisfaction and will gladly provide any additional information required on request.

Yours faithfully

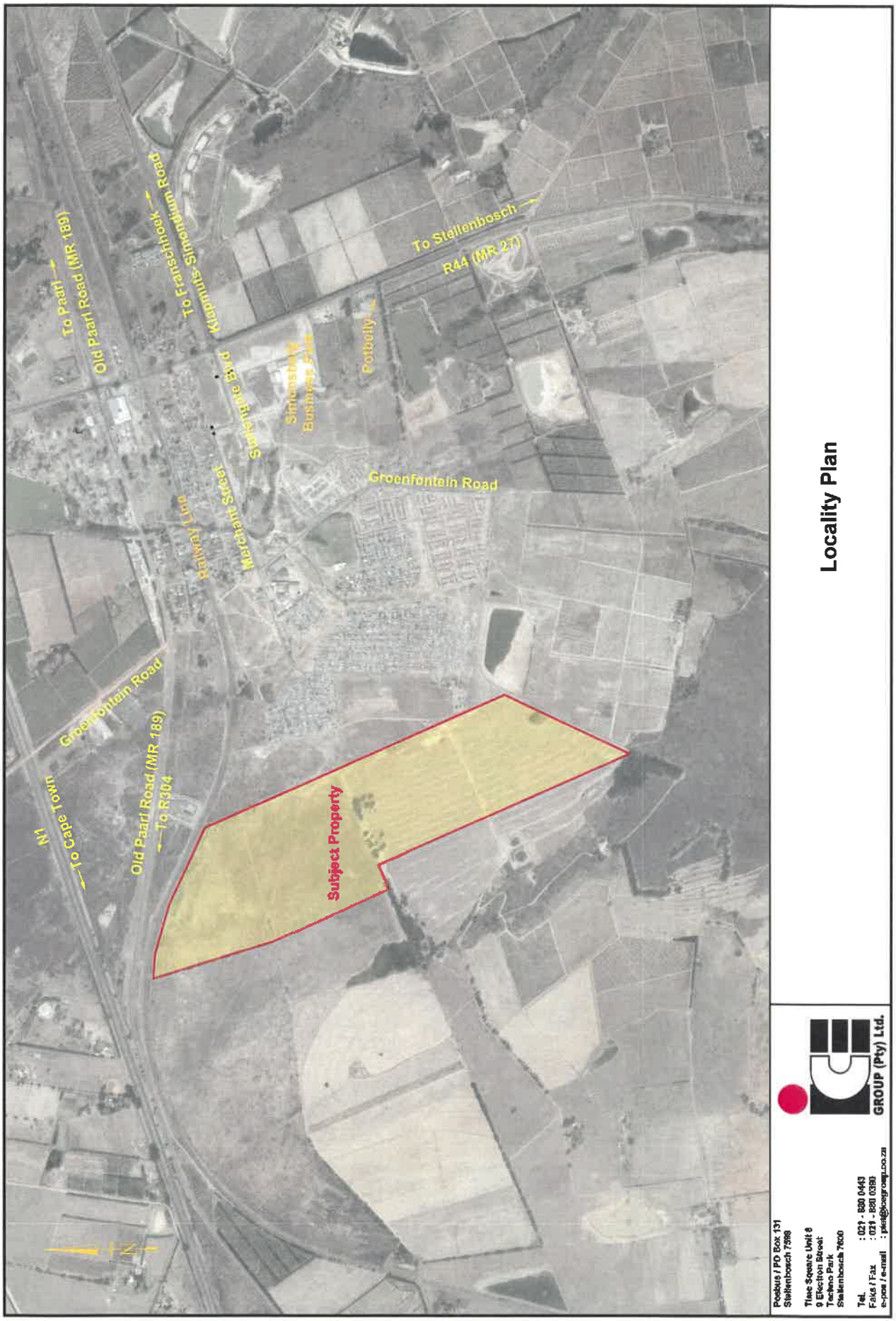
Yolandi Obermeyer (B. Eng Civil)
iCE GROUP (STELLENBOSCH)

Piet van Blerk Pr. Eng
iCE GROUP (STELLENBOSCH)

Attachments

Locality Plan

Development Framework Plan (*Osmond Lange Architects and Planners*)



Locality Plan

Postbus / PO Box 131
Stellenbosch 7599

Tiaan Square Unit 8
9 Election Street
Techno Park
Stellenbosch 7600

Tel. : 021 - 880 0443
Faks / Fax : 021 - 880 0360
e-pos / e-mail : piet@jcgroup.co.za

JC GROUP (Pty) Ltd.

Stellenbosch Bridge
Development Framework Plan | Portion 5 of Farm 742 | 1:5000

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ANNEXURE N

PROPOSED STELLENBOSCH BRIDGE DEVELOPMENT

Application 3 – Densification on Farm 742/5 (73 ha)
and
Application 4 - Proposed Mixed Use Development on Portions Rem. of Klapmuts Rivier Farm No. 742, Rem. Farm No. 742/5 and a portion of Farm No. 1515

Visual Framework Report

Draft Report

June 2020

Prepared for:

Legacy Environmental Management Consulting

PO Box 12410, Die Boord,

Stellenbosch, 7613

Prepared by:

Megan Anderson Landscape Architect

33 Hoop Street, Bredasdorp, 7280

1. EXECUTIVE SUMMARY

Megan Anderson Landscape Architects was appointed to undertake a Visual Impact Assessment for the Stellenbosch Bridge Development, west of Klapmuts. This report studies the Visual Baseline Data of Parcels 2 and 3 of the proposed development.

1.1 Visual Criteria Findings

The ratings of the Visual Criteria for both Parcels 2 and 3 are found in the Table Below

Visual Criteria	Parcel 2	Parcel 3
Scenic Resource Value	High	High
Zone of Visual Influence	Local - Regional	Local - Regional
Receptors	Highly, Moderately and Least Sensitive	Highly, Moderately and Least Sensitive
Visual Absorption Capacity	Moderate	Low
Visual Intrusion	Moderate	High
Site's Inherent Visual Sensitivity	Little High, Some Medium and Mainly Low	Some Very High, Mainly High, Some Medium and Little Low

1.2 Parcel 2 Visual Framework

Much of the site of Parcel 2, on which residential development was previously approved, has a low visibility and has a low visual sensitivity.

The southern portion of the site, approximately 25% of the total area, is outside of the current 2019 Klapmuts Urban Edge, is adjacent to rural landscapes and in close proximity to the Grade II listed Cultural Landscape approved by the 2019 Stellenbosch Municipal's Spatial Development Frameworks (SM SDF). These scenic aspects make this portion of the proposed site more visually sensitive. Development here should be sympathetic to the adjacent landscape character.

The north western corner of the site is adjacent to the "Entrance/Gateway" of the town of Klapmuts, a space that should make a clear distinction between urban and rural/natural landscapes - the development of this corner of the site should respond to this important junction.

The stream and wetland/pond in the centre and south east of the site are scenic features and must be retained as natural features and any upgrades should enhance the ecology and natural habitats of these features.

The site currently provides a rural setting for the Klapmuts Village. This rural character will be lost

1.3 Parcel 3 Visual Framework

The Visual Sensitivity of this Parcel of land is generally high to very high with some areas that are moderate (at best) and a very small portion is low. The parcel of land is highly visible being:

- on the upper slopes of Klapmutskop and it's ridgeline running northwards;
- straddling the ridgeline in the north west;
- containing the upper reaches of the stream flowing eastwards toward the Klapmuts River;
- Containing ecological support areas for the Klapmuts (Municipal) Conservancy around Klapmutskop in the south west, with natural vegetation and scenic features such as cliffs and rocky outcrops;
- adjacent to a Grade II listed Cultural Landscape in the south east,
- Providing the rural and natural setting of the village of Klapmuts and Klapmuts river valley; and
- adjacent to the R101 Scenic Route in the north west.

It is suggested that the Very Highly Sensitive (Visual) upper Klapmutskop portion of land in the south is a NO-Go area for any development with the exception of perhaps some hiking trails along existing tracks.

The Highly Sensitive stream area should be retained as a natural feature and any upgrades should enhance the ecology and natural habitats of this feature.

Development on the Visually Highly Sensitive ridgeline area should respond to the rural landscape to the west - ideally this should be an urban farming area. From a visual point of view, no buildings should break the skyline which means buildings should be set below the horizon and their heights limited so as not to break the skyline. In addition, a visually significant rural strip should remain along the ridgeline to maintain the cultural rural character of the valley

The 2019 SM SDF's proposed western "Gateway/Entrance" on the R101 (Old Paarl Road) to Klapmuts is set just on the Klapmuts River Valley side of the ridgeline, to the east of this Parcel 3's north eastern boundary point. The R101 west of this point is a Scenic Route. The proposed Gateway/Entrance is to clearly distinguish between urban and rural. The entire northern boundary of Parcel 3 runs along the R101 Scenic Route and should reflect rural development. Views of Klapmutskop should be retained.

The development of urban nature should be retained on the eastern slopes of the Klapmuts River Valley and should not be seen from, or visually encroach on, the rural landscape on the ridge and to the west.

2. NAME, EXPERTISE AND DECLARATION

2.1. Name

Megan Anderson, of Megan Anderson Landscape Architects, is a self-employed Landscape Architect who has been consulting in the Western Cape since 1991, to clients from the public and private sector.

2.2. Expertise

Megan Anderson's projects range from:

- visual impact assessments (VIAs) of proposed developments for EIA and HIA processes;
- environmental and landscape policy and planning;
- upgrading and rehabilitation of natural systems;
- planning and implementation in heritage and cultural precincts; and
- planning, design and landscape development in residential and urban areas and community projects.

PRINCIPAL AGENT:	Megan Anderson (PrLArch)	Registered Professional Landscape Architect BLArch (UP) 1983 MILASA

REGISTRATION OF PRINCIPLE AGENT

1994	South African Council for Landscape Architect Professionals (94063)
1992	Institute of Landscape Architects of South Africa (P217)

QUALIFICATIONS

1983 University of Pretoria Bachelor of Landscape Architecture

VISUAL IMPACT ASSESSMENT EXPERTISE

Megan Anderson has been doing Visual Impact Assessments (VIA's)since 1989 when working for OvP and BOLA. Since then, she has completed more than 100 VIA's for a variety of developments including mining, harbours, wind and solar farms, communication towers, commercial and residential developments. A list of selected projects can be found in Appendix 1.

2.3. Declaration of Independence

I Megan Anderson declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed Stellenbosch Bridge Project at Klapmuts in the Stellenbosch Municipality of the Western Cape, application or appeal in respect of which I was appointed, other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.

MEGAN ANDERSON
Megan Anderson Landscape Architects
Professional registration number: SACLAP - 94063

3. INTRODUCTION

3.1. Background to the Report

Stellenbosch Bridge Properties Pty Ltd propose to develop a phased Mixed Use Development to the west of Klapmuts.

The proposed site of development is comprised of a number of land parcels with a variety of planning and environmental processes required for authorisations on these different land parcels and their development proposals. Figure 1 below indicates the 3 land parcels for which separate but related NEMA processes for authorisations are required for the Stellenbosch Bridge Precinct Development.

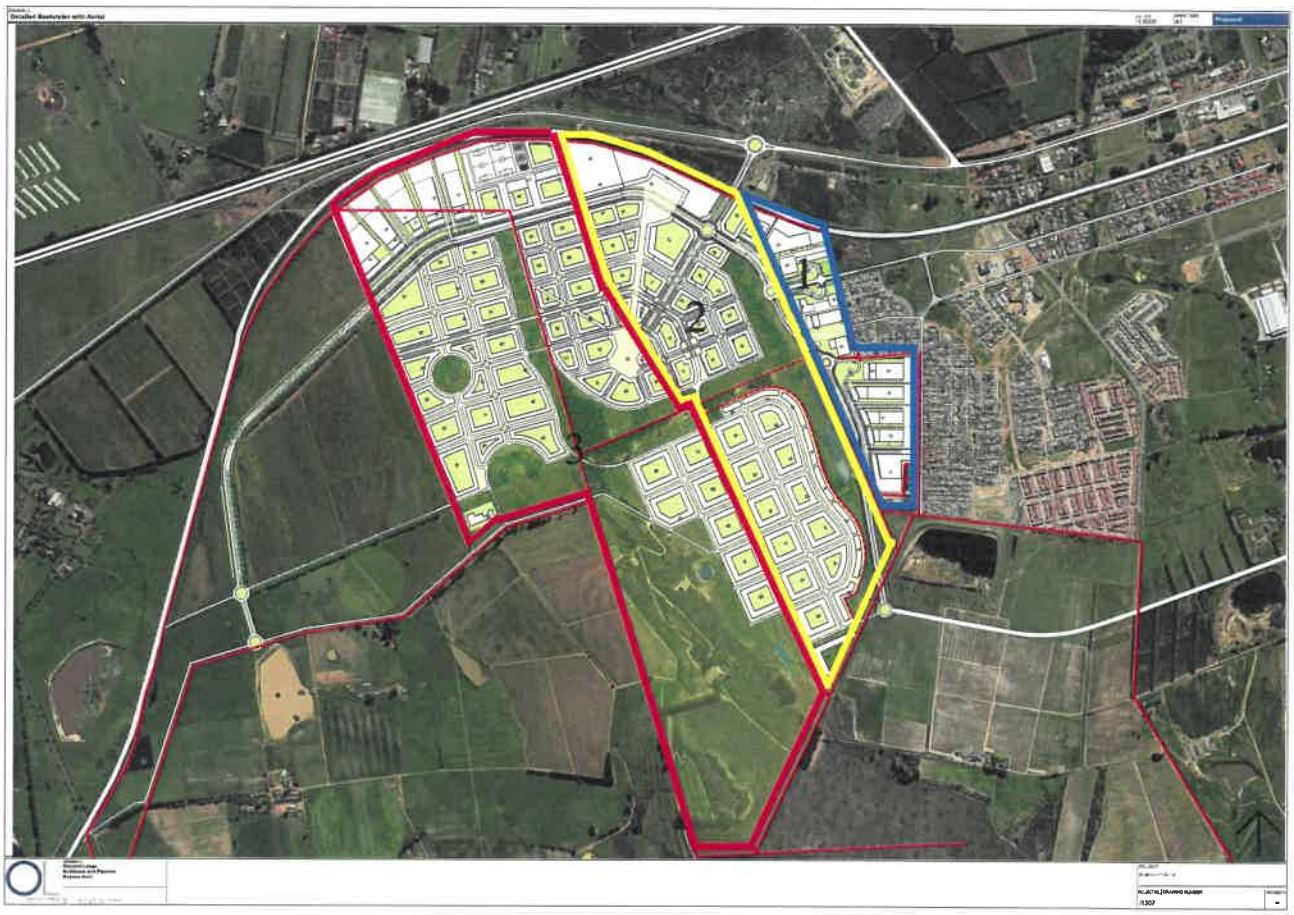


Figure 1: The 3 land parcels of the proposed Stellenbosch Bridge Development, which will be the subject of separate NEMA applications

Parcel 1, on Portions 2 and 8 of Farm Weltevreden No. 744, (Paarl District), is proposed to be developed for Light Industrial Development. A Basic Assessment Report (BAR) in terms of NEMA, is currently in process. A draft Visual Impact Assessment Report has been prepared for this proposed Light Industrial Development.

Parcel 2, on Portion 6 of Klapmuts River Farm No. 742 (Paarl District), was the subject of a previous Environmental Application in 2008, for which authorisation was granted. A Visual Impact Assessment was also prepared for that process. The 2008 proposal was for residential development. Due to higher density and mixed use development in the northern extent of this parcel of land, a Substantive Amendment will be submitted with a comparison of the impacts between the authorised development and the proposed Stellenbosch Bridge Development.

Parcel 3, on Portions Rem. of Klapmuts Rivier Farm No. 742 (Paarl District), Rem. Farm No. 742/5 (Paarl District)and a portion of Farm No. 1515 (Stellenbosch District), will undergo a Basic Assessment Report in terms of NEMA, for the proposed Stellenbosch Bridge Precinct development within the 2019 Stellenbosch SDF Urban Edge.

This report is the Visual Baseline Study for Parcels 2 and 3 of the proposed development.

3.2. Scope of Study

The scope of work of this Visual Baseline/Framework Study is to review and update the Baseline information from the VIA study done in 2007, as well as include baseline information for the greater Stellenbosch Bridge Development site.

This will include:

a) Reviewing of existing information:
- Planning information – development rights and SDP's
- Heritage Information
- Visual Issues raised
- Plans, maps and other survey information
- More detailed description of the proposed development

b) Site reconnaissance visit and photographic survey

c) Desk top study and draft Visual Framework report:
- Update the description and assessment of the scenic resources/visual characteristics of the area;
- Update the view catchment and zones of visual influence;
- Update identified view points and receptors and establish visual impact to these;
- Update evaluation of visual sensitivity of site (slope grades, landforms, vegetation, special features and land use) + assimilate a visual sensitivity map. (Info required: Archaeology, Heritage and Botanical specialist reports);

- Update the assessment of visual sensitivity criteria such as extent of visibility, the sites inherent sensitivity, visual sensitivity of the receptor's, visual absorption capacity of the area and visual intrusion on the character of the area;
- Establish probable/possible visual impacts;
- Prepare draft Visual Baseline Report/scoping report

3.3. Assumptions and Limitations

The desktop component of the visual study relies on a combination of 1:250 000 and 1:50 000 Topo-cadastral and Geological maps. The Western Cape Department of Agricultures Aerial Photographs have also been used.

While a number of inspections of the site and surrounds have been undertaken, a further inspection is required to complete the photographic survey to support this reports findings. This has not been possible because of the Covid '19 Lockdown Regulations. MALA is endeavouring to get permits in order to do this.

4. METHODOLOGY

This Visual Framework/Baseline report follows the preliminary site visit and meeting with the Client and Project Team, which was undertaken in mid August 2019. Subsequent visits to the surrounding areas have been undertaken on the 5 September 2019 and on 25 February 2020. Photographic survey's of the site and surrounds were undertaken at all site visits. Photographs were taken using a Canon EOS 1100D camera body with an EFS 18-55 mm lens and an i-phone.

A desktop study was undertaken to review policy literature and map the scenic resources (Geological Series), view catchment, zone of visual influence, viewpoints and receptors (Topographical maps 1:250 000 and 1: 50 000). Desktop mapping is still to be further verified by on-site fieldwork.

An evaluation was made of standard visual criteria such as extent of visibility, visual sensitivity of the receptor's, visual absorption capacity of the area and visual intrusion on the character of the area.
Recommendations are made with regards the levels of visual sensitivity of the site, in order to inform development.

5. POLICY AND GUIDELINE CONTEXT

This report covers the proposed development namely the Mixed Use Development on Parcels 2 and 3 of the proposed Stellenbosch Bridge Development.

The Western Cape Provincial SDF (2014) and the Stellenbosch Municipality SDF (11 November 2019) are of reference to this proposed site of development with a common theme prevailing, namely:

- Developing Integrated and Sustainable Settlements and preventing settlement encroachment into agricultural areas, Scenic Landscapes and Biodiversity Priority Areas
- Safegaurding Cultural and Scenic Assests
- Safegaurding water, agricultural and mineral resources.

All SDP's recognise the importance of the Scenic and Cultural Landscape and Sustainable development and propose the protection thereof and management of development therein such that the existing values are not lost.

The Western Cape Heritage and Scenic Resources, Inventory and Policy Framework (Oberholzer and Winter, 2013) was prepared to provide input into the Western Cape Provincial SDF (2014) and provides an inventory and policy guidelines with regards cultural and scenic resources.

Two documents of relevance that provide input into the Stellenbosch Municipality SDF are the:

- Phase 3 Report: Draft Revised Heritage Inventory of The Tangible Heritage Resources in the Stellenbosch Municipality, REVISED, May 2018.
- The Stellenbosch Environmental Management Framework; and

The Cape Winelands Biosphere reserve is also of reference to this study.

5.1. Stellenbosch Municipality Spatial Development Framework (11 November 2019)

The Stellenbosch Municipalities (SM) SDF identifies the attributes of the existing Biophysical Environment, including Scenic Landscapes and Elements

Table 6. Stellenbosch's Biophysical context - key attributes summarised

THEME	ATTRIBUTES	
Nature and Scenic Areas	• Significant portions of SM fall within globally recognized biosphere areas and designated public and private conservation areas. Eleven public conservation areas cover some 28 741ha or 34.6% of the municipal area, with a further 3 000ha managed as private conservation areas.	• The SM's landscape consisting of a series of valleys on a base of rolling hills to the west culminating in steep and dramatic mountain backdrops to the east and south-east, highly valued for its scenic beauty and sense of place. This landscape, which comprises the natural and human-made, has been assessed and graded in terms of its heritage significance and some of the landscape units identified, e.g. the Idas Valley has been classified as a Grade I area, i.e. of national importance (Stellenbosch Heritage Inventory, 2018).

Table 7. Stellenbosch's Biophysical context - issues and implications

KEY ISSUES	SDF IMPLICATIONS
• Biodiversity and related ecological services essential to human existence are threatened by the fragmentation of eco-systems, transformation and degradation of land.	• *The outward growth of settlements should be restricted to prevent the consumption of valuable agricultural and natural environments and associated economic benefits.*
• The most highly modified and polluted aquatic	

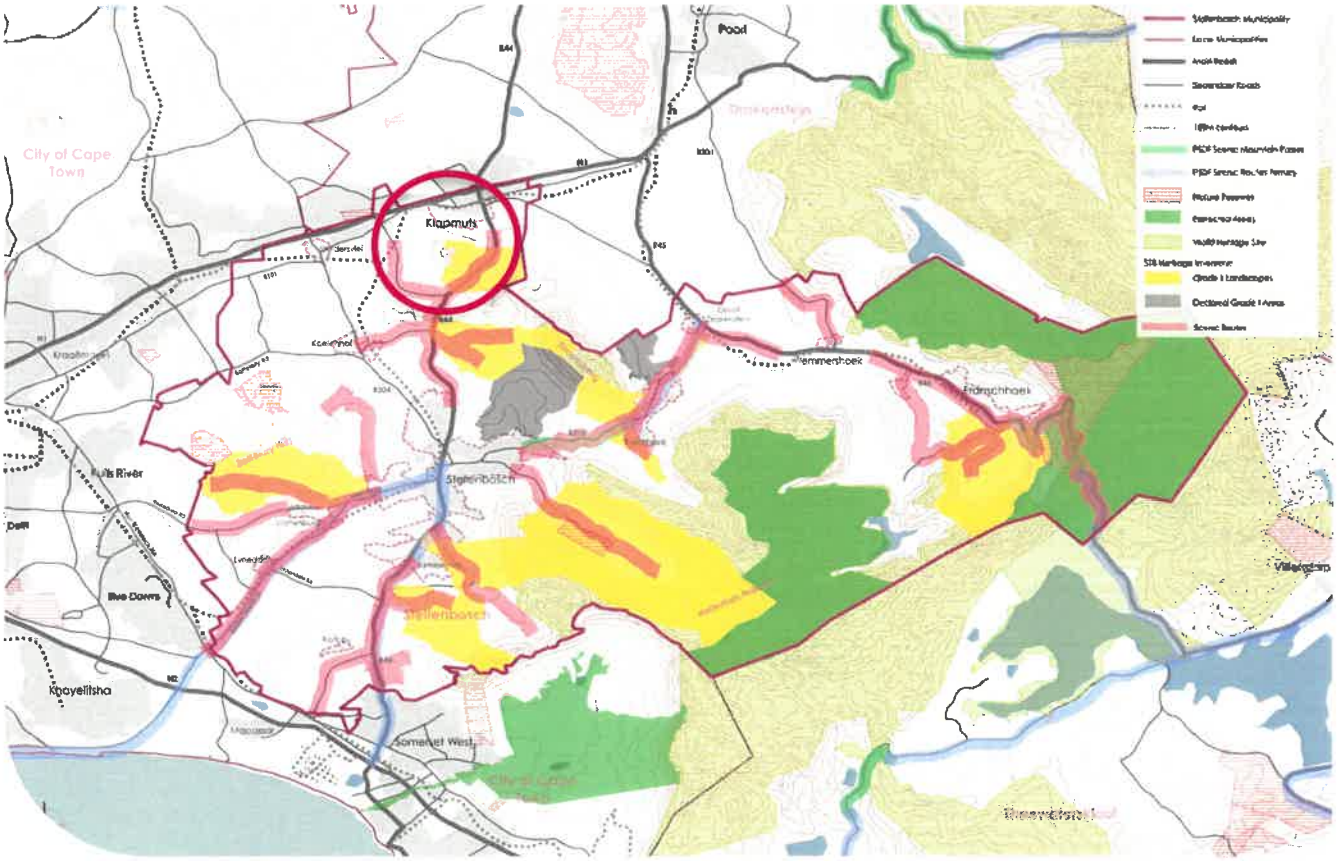


Figure 7. Scenic landscape elements and conserved landscaped/biophysical areas

Figure 2: Scenic landscape elements and conserved landscape/biophysical areas (Source SM SDF 2019)

The Stellenbosch Municipalities (SM) SDF identifies Klapmuts as a primary node/regional centre in the Stellenbosch Municipal Area and a potentially significant centre for economic activity and residence within the metropolitan region and SM (as identified in the GCM RSIF).

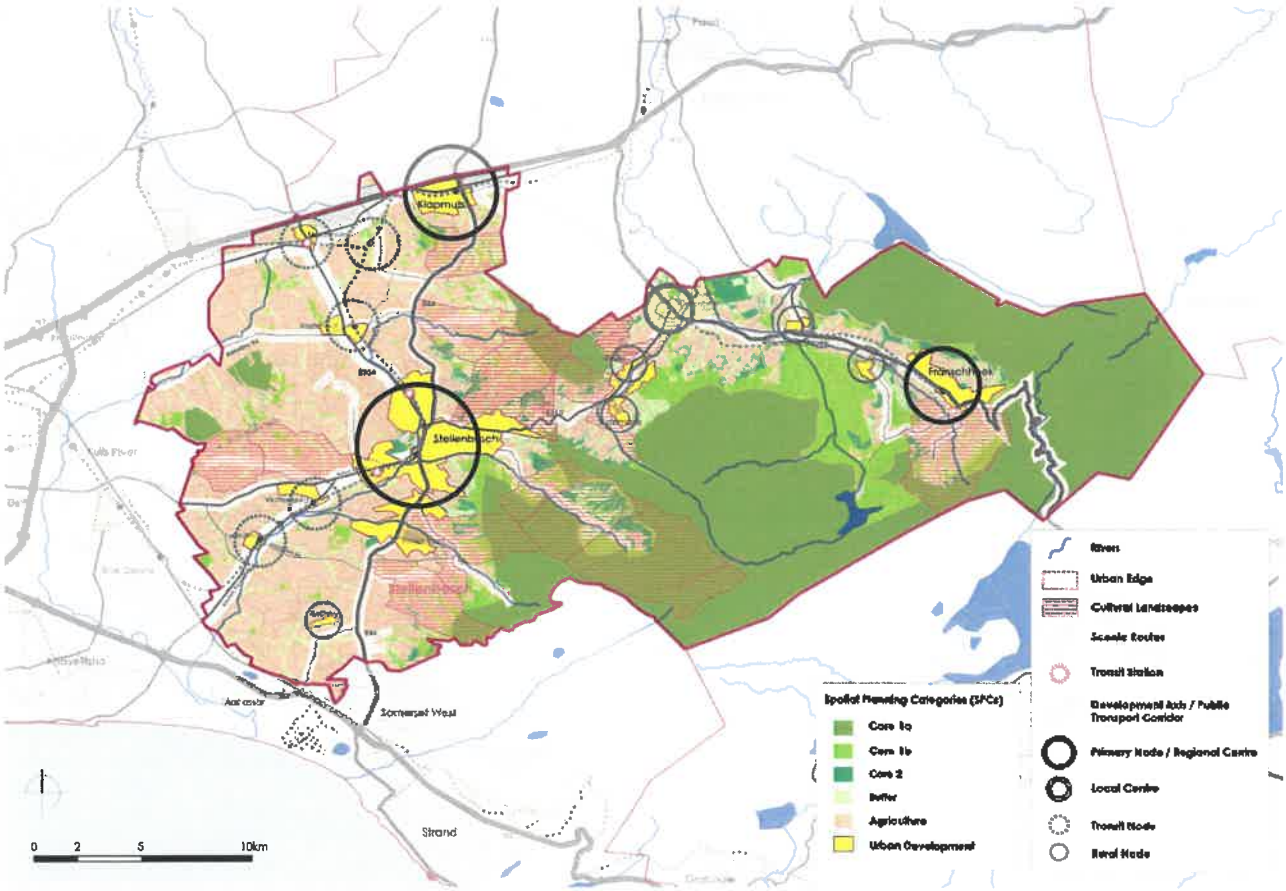


Figure 26. Municipal Spatial Framework for the SM area

Figure 3: Municipal Spatial Framework for the Stellenbosch Municipal Area (Source SM SDF 2019)

Protective Actions	Scenic landscapes, scenic routes, and special places of arrival	• Protect critical scenic routes and landscapes (as identified in surveys). • Maintain a clear distinction between urban development and nature/ agricultural areas at the entrances to settlements.
New Development Actions	Significant new mixed use development	• Support the development of a "innovation precinct" or "smart city" in Klapmuts South. • Support private sector led institutional arrangements to enable joint planning and development.

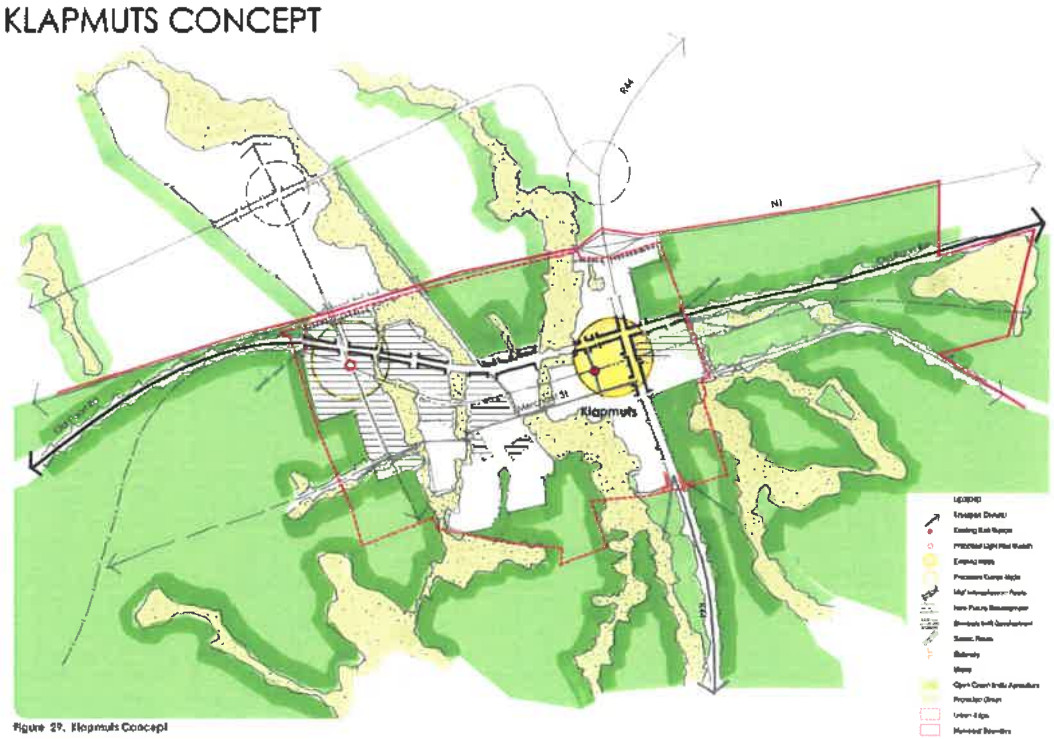


Figure 4: Concept Plan for Klapmuts (Source SM SDF 2019)

The Plan elements and proposals for Klapmuts include Protective, Change and New Development Actions which include the following with regards the scenic resources:

Protective Actions:

Scenic landscapes, scenic routes, special places	• Retain the strong sense of transition between agriculture and human settlement at the entrances to the town.

New Development Actions:

Significant new mixed use development	• Support the development of Farm 736/RE in Klapmuts North to unlock the development potential of Klapmuts (with an emphasis on job creation). • Support the development of a "innovation precinct" or "smart city" in Klapmuts South.	• Support private sector led institutional arrangements to enable joint planning and development.

The SM SDF Plan for Klapmuts is illustrated below in Figure 5

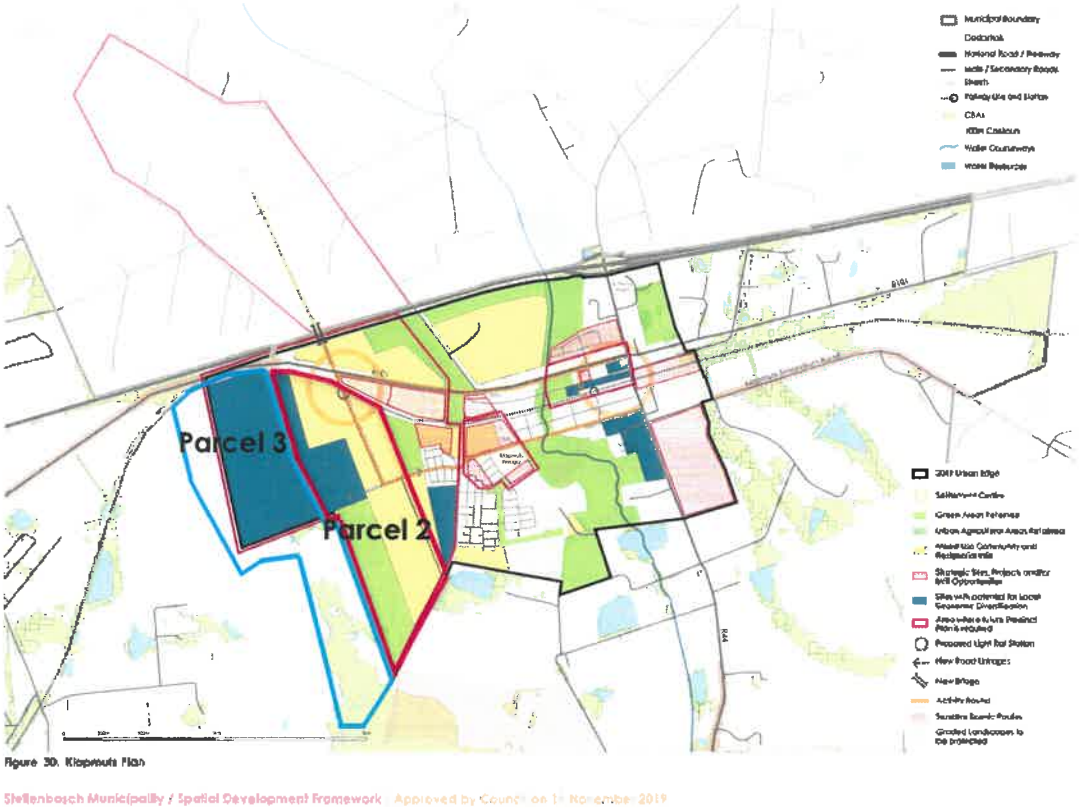


Figure 30: Klapmuts Plan

Stellenbosch Municipality / Spatial Development Framework - Approved by Council on 14 November 2019

Figure 5: The proposed SM SDF Klapmuts Plan (Source SM SDF 2019) with proposed Stellenbosch Bridge Parcels 2 and 3 boundaries superimposed.

Of relevance on the Klapmuts Plan, to this report are:

- the identified Scenic Routes;
- The Graded (Heritage) Landscape to the south east of the proposed Stellenbosch Bridge development which borders the Parcels of lands in that area;
- The natural green areas to be retained on the proposed Stellenbosch Bridge parcels; and
- the proposed Stellenbosch Bridge Parcels 2 and 3, as illustrated on Figure 6, extend beyond the western and southern Urban Edge line of Klapmuts as illustrated in Figure 5.

The SM SDF has provided a checklist of questions to assist in aligning day-to-day land use and building development management decision-making and detailed planning – public and private – with the MSDF. Relevant to scenic landscape and scenic routes:

SCENIC LANDSCAPES, SCENIC ROUTES AND SPECIAL PLACE OF ARRIVAL	
Does the proposal impact on a scenic landscape, scenic routes, or special place of arrival?	
Can associated impacts be managed and minimised without diminishing the integrity of the scenic landscape, scenic routes, or special place of arrival?	

An attempt will be made to address this question in the latter part of this report.

5.2. Draft Revised Heritage Inventory of the Tangible Heritage Resources in The Stellenbosch Municipality: Phase 3 Report, 8 May 2018 (Cape Winelands Professional Practices in Association)

This report, and its implications on the proposed Stellenbosch Bridge development, has been well presented in Draft Heritage Impact Assessment undertaken by Cindy Postlethwait. That section is presented below.

The Heritage Inventory of the tangible heritage resources in the Stellenbosch Municipality (approved 2018) identifies a cluster of heritage resources in the original Klapmuts village settlement area, described as the Klapmuts Core. The low income residential Mandela City area to the east of the overall Stellenbosch Bridge Innovation Precinct is identified as Not Conservation Worthy. "Within the larger context of Klapmuts, these new housing developments are seen as an intrusive feature as it neglects the fine grain of the town of Klapmuts and sprawl into the larger open fields". The Scenic Route of the R44 stops short of Klapmuts.

The property concerned is situated in a landscape graded IIIB – although portion of Farm 1515 Klapmuts is regarded as being more significant as a landscape than portion of Farm 742/5 and Remainder Farm 742. This relates to its direct association with the more intact agricultural landscape west of Klapmuts Kop.

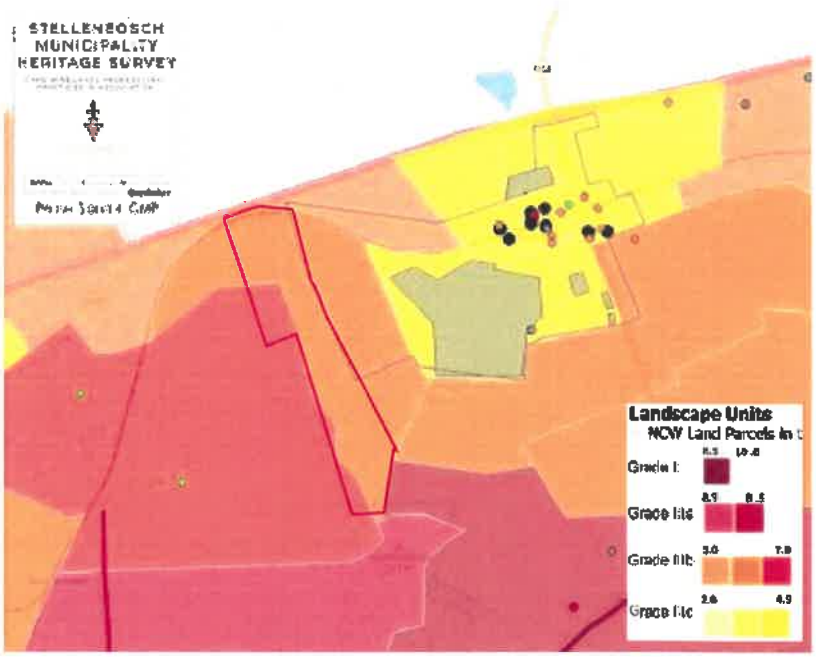


Figure 11: Heritage Inventory 2018 (it is to be noted that the Urban Edge has been subsequently amended (see 9.2 below). Approximate site boundaries outlined in red

Landscape functional areas in Klapmuts include the Klapmuts Core, Belt (in which portion of Farm 742/5 and Remainder Farm 742 are situated), and Outskirts. The 'Belt' functions to hold Klapmuts within a larger natural structure. The gateway to the west forms part of this belt system. The outskirts are not a particular area with a specific character, rather a grouping of random and fragmented landscapes with different land uses caused by the number of roads that cut through this landscape.

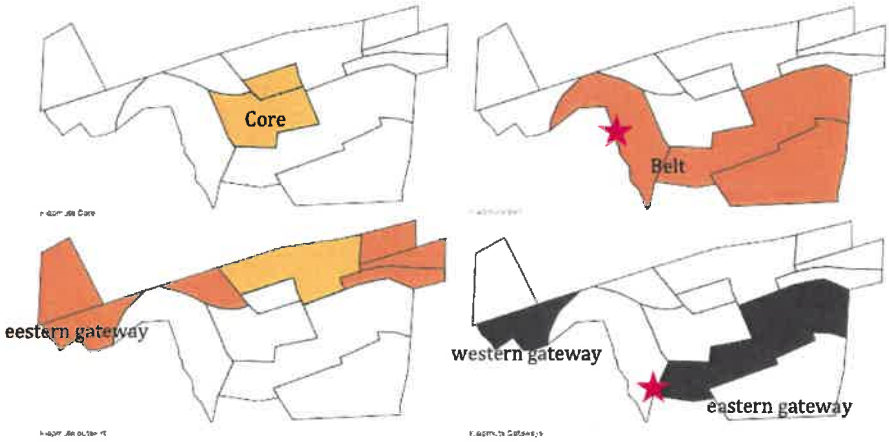


Figure 12: Klapmuts Functional Areas (Heritage Inventory 2018)

Figure ..: View across to Klapmuts towards Klapmutskop from east

"The northern footslopes of Klapmutskop gently slopes down from the crest, which feature a clump of trees and remnant Renosterveld which comprise a distinct critical biodiversity area in a natural condition. The majority of soils in the unit are moderately suitable for agriculture (viticulture), with a section immediately west of the Klapmuts being highly suitable. A large round reservoir is located in the upper reaches of the unit and a number of trails emanate from this point. The unit is elevated from the rest of the valley, which makes it highly visible and thus plays an important role in establishing the agricultural or pastoral character of Klapmuts. The northern footslopes are also highly visible from the N1 Highway.

Clusters of trees, contour paths and Renosterveld forms part of a beautiful composition, and has scenic and aesthetic as well as ecological and contextual value. This landscape forms part of the 'belt' that holds Klapmuts in place and maintains the character of Klapmuts. This landscape has the ability to fulfill a number of recreational needs of the town of Klapmuts, but urban sprawl will compromise its integrity."

Figure ..: Klapmutskop foot slopes from the east (Heritage Inventory) – which largely comprise development parcels 2 and 3

Figure ..: Remnant Eucalypthus plantation (Heritage Inventory)

To the east, the property concerned also adjoins the Klapmuts Gateway unit, a relatively flat area, "characterised by strong lines of windbreak trees protecting pockets of citrus trees and vineyards. These windbreaks .. distinctly form the western and southern gateway towards Klapmuts and are therefore some of the most important landscape features to retain within the Klapmuts area. A significant feature of this land unit is the fact that it is spans the R44 and therefore not only acts as a well-defined buffer of the Klapmuts node, but also a gateway to the Cape Winelands towards Stellenbosch.

On the western portion of the property, "Farm 1515 forms part of the Muldersvlei and Klapmuts Footslope landscape unit, which comprises "vineyards and fallow fields, service roads and remnant plantations with pockets of fynbos and dams characterise the gentle slopes of Klapmutskop. The use of terracing in the landscape makes it an exceptional cultural landscape with a degree of rarity in the Stellenbosch Municipal area. The area immediately south of Muldersvlei farm (De Meye) is considered an important critical biodiversity and ecological support area, mainly due to the wetland. A railway line and the Elsenburg Road traverse the unit. An intrusive and relatively-recent residential development is located to the west of the Elsenburg Road, seen across a large dam. A chicken farm is located to the south, close to the Muldersvlei station. This landscape unit reads with land unit A09 (to the south) and has a rural character to it. It has largely been spared from development, except for the intrusive housing estate, but is now threatened by an expanding Klapmuts. The exceptional use of terracing on the higher slopes of Klapmutskop forms an important gradation between wilderness and cultivated landscape. The landscape has significance for its rarity, aesthetic and scenic beauty. This pocket should remain rural in character and accessible, and any form of development that compromises the integrity of the cultural landscape should be prohibited." (Heritage Inventory) Development criteria are established for this landscape unit.

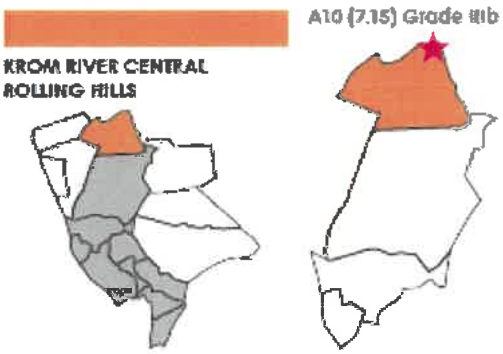


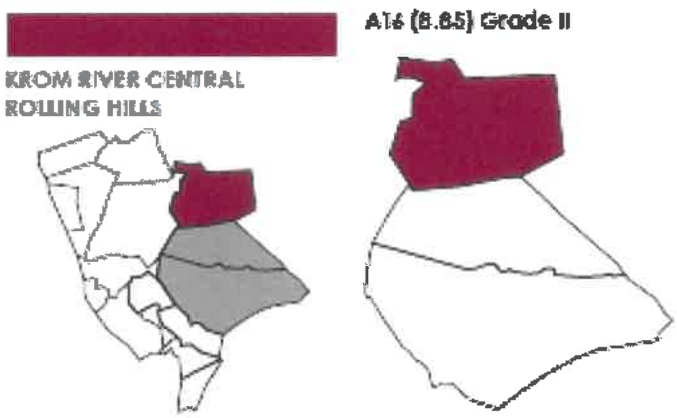
Figure 13: View towards Klapmutskop eastern footslopes showing terracing (Heritage Inventory)

The western gateway area looks across Farm 1515. "Predominantly flat, open fallow land is located between the railway line and N1 highway. The Old Paarl Road (R101) cuts through the unit, dividing it in two. It is characterised by the use of windbreak trees to shelter orchards and vineyards. .... Due to the open character of the surrounding landscape, the unit is very visible from the N1 highway, but also from the Krom River Valley. This unit .. acts as the gateway upon entering Klapmuts with the windbreak trees as defining element. Any insensitive development will impact on the pastoral character of the Krom River Valley.

Figure .. Gateway from the west, the footslopes of Klapmuts as seen from Krom River. Intrusive development in the foreground (Heritage Inventory). The property concerned visible on the ridgeline.

The site at its south-eastern coner abuts the Grade II designated landscape called the Gateway to Krom Rivier.

"Two hills flank the unit: Klapmutskop to the west and Skurweberg to the east. A large part of the landscape unit, especially on the upper slopes of these two hills, features critical biodiversity and ecological support areas.



A broad valley lies between the hills, where the R44 is aligned roughly down the middle and traverses the unit, dividing it roughly in half. The road is considered one of the most beautiful scenic routes in the study area, elegantly displaying natural and cultural features together with dams, plantations and vineyards. On the northern side of the R44, Mitre's Edge, Le Bonheur and Warwick Wine Estates are located amidst rolling vineyards and vegetated drainage valleys. The vineyards do not have a distinguishable pattern. The footslopes of the Simonsberg displays circular surface features (created by the specific plant species growing there) that refer to ancient Terminalia, or termite mounds. These, together with the undeveloped foothills and natural vegetation, gives the unit it a distinct character when entering the scenic route from Klapmuts. One of the oldest and original farms in the area is Natte Valleij. ..

The unit displays some of the more diverse and visually significant landscapes in the study area, with the R44 being considered a highly valued scenic route. The varied landscape features several historic wine farms dotted along the broad valley bottom and footslopes of the two hills flanking the unit."

Figure ..: View over Simonsberg and Klapmutskop from Anura **(Heritage Inventory)**

5.3. Heritage and Scenic Resources, Inventory and Policy Framework for the Western Cape (Oberholzer and Winter, 2013)

The proposed site of development is characterised by the Cape Winelands Scenic Resources described by the Oberholzer and Winter study (2013) as follows:

2.5 The Cape Winelands

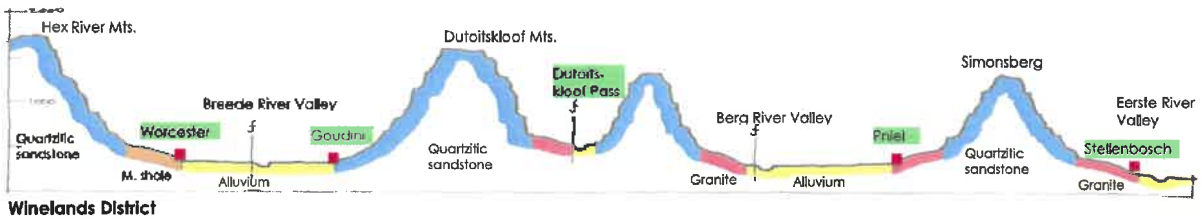
The Cape Winelands is an area of fertile valleys nestled between the Cape Fold Mountains with their rugged sandstone peaks. It is an area high in scenic and heritage significance, its famous vineyards earmarked for declaration as a World Heritage Site.

At the base of the sandstone massifs, the steep scree slopes grade into gently rolling foothills of weathered Cape granites and Malmesbury shales, which have been incised by rivers to form wide alluvial valleys in places, such as those of the Berg and Breede Rivers. Interestingly the pattern of vineyards has a strong correlation with the occurrence of the granites, the unique combination of soil and climate having made this the centre of viticulture and fruit farming.

Towns, villages and farmsteads are strung along the valleys in response to the topography, sources of water and productive agricultural soils, Stellenbosch and Paarl being two of the oldest colonial settlements. Other towns in the District with „Heritage Areas" include Franschhhoek, Wellington, Montagu, Worcester, McGregor and Tulbagh.

The combination of mountain scenery, rural landscapes, colonial architecture and wine routes make this area a prime tourism destination of critical importance to the economy of the region. The area is however also under great threat of fragmentation through creeping urbanization.

The rugged terrain and tapestry of rural landscapes have given rise a network of scenic routes and mountain passes, many of which began as wagon routes to the interior. Passes such as Bainskloof Pass (a



The sections illustrate the pronounced topography of the quartzitic sandstones (blue), as well as the location of settlements on the footslopes with access to water and productive soils of the granites, shales and alluvial valleys. River valleys often tend to follow fault lines.

Figure 6: Extract from Oberholzer and Winter (2013) Heritage Inventory describing the Cape Winelands Scenic Resources

The report identifies threats, as well as key management issues and challenges.

3.2 Threats to the Resources

There are numerous threats to heritage and scenic resources within the Western Cape. Key threats are listed and expanded on in Table 6 below.

RESOURCE	THREAT	EFFECTS
NATURAL LANDSCAPES	• Unconsolidated pattern of 'protected areas'. • Patterns of cultivation extending into visually sensitive wilderness landscapes. (E.g. Constantia). • Infrastructural developments (power lines, wind and solar facilities) within visually sensitive wilderness (and rural) landscapes. • Development on visually sensitive mountain slopes and ridgelines.	• Loss of scenic qualities of wilderness landscapes.
RURAL LANDSCAPES	• Development pressure and pattern of suburban sprawl on edges of major urban areas, E.g. Cape Winelands'. • Introduction of industrial activities and intrusion of large scale infrastructure in agricultural areas. (E.g. tunnel farming, wind farms). • Gentrification of rural landscapes through lifestyle 'rural' estates and relocation of farm labour to "off-farm" housing settlements.	• Incremental erosion and fragmentation of rural landscapes, E.g. Cape Winelands sprawl. • Agriculture reduced to 'islands'. • Visual cluttering of the landscape by non-agricultural development. • Loss of rural authenticity, character and scenic value.

Figure 7: Extract from Oberholzer and Winter (2013) Heritage Inventory describing threats to Scenic Resources

The report outlines principles to provide an overarching framework for the heritage and scenic guidelines. They are derived from international best practices as contained in various International Charters on Conservation and a number of local adaptations. The principles apply to the regional scale.

- Landscape significance - acknowledging the overall natural and cultural landscape, and the layered pattern of settlements in response to the natural landscape over time.
- Landscape integrity – retaining the essential character and intactness of wilderness, rural and urban areas in the face of fragmentation through unstructured urbanisation and commercial agriculture.
- Landscape connectivity – retaining the continuity and interconnectedness of wilderness and agricultural landscapes, including ecological corridors and green linkages.
- Landscape setting – maintaining the role of the natural landscape as a „container" within which settlements are embedded, the landscape providing the dominant setting or backdrop.
- The logic of landscape – recognising the intrinsic characteristics and suitability of the landscape and its influence on land use, settlement and movement patterns, in response to geology, topography, water, soil types and microclimate.
- Sense of place – responding to the unique topographical, geological and cultural features inherent in remote, cultivated and urban landscapes, each with their own sense of place.
- Sense of fit – maintaining a sympathetic relationship between settlement and topography - treading lightly on the landscape.
- Sense of timelessness – new development remaining sensitive to the context, and expressing a sense of rootedness in the local landscape.

The extract below from tables in the report set out policies and guidelines for the natural and cultural landscape resources and scenic routes

Policies and Guidelines for Natural Landscapes of Significance

NATURAL LANDSCAPES	POLICY	GUIDELINES
Granite and shale hills and outcrops.	**N.3** Conserve prominent granite or shale hills and outcrops, such as Paarl Mountain, for their scenic value and visual sensitivity.	• Extend existing nature reserves, or create new provincial or municipal reserves to protect these landforms, which are vital for the Western Cape's tourism economy and water security. • Avoid development or infrastructure, such as wind turbines and powerlines, on crests or ridgelines because of their high visibility and the visual sensitivity of the skyline. • Avoid development or infrastructure on land steeper than 1:4 for environmental and visual reasons. Visual problems include erosion and scarring, and unsightly cut/fill. (E.g. upper slopes of Constantia). • Avoid development on elevated exposed slopes because of their high visibility from the surroundings. Impose no-go zones for development above a certain contour. (E.g. the 150m contour in parts of the Cape Peninsula). • Limit cultivation on upper mountain slopes to protect scenic resources and water catchments, and to minimise visual scarring and erosion.
Geological features	**N.5** Conserve important geological features for their scenic and scientific interest.	• Identify all special geological features, such as rock outcrops, cliffs, caves, waterfalls etc. at the district and local level. • Include these resources in municipal nature reserves or other forms of protection for these features. (E.g. coastal limestone formations and caves at Macassar, Die Kelders and Arniston). • Provide educational, interpretive and tourism information on geological features.
Productive soils - granites, shales and alluvial valleys	**N.6** Conserve fertile agricultural areas because of their relative scarcity, the need for food security, and for the scenic and cultural value of traditional farming areas.	• Use local soil surveys to identify and protect areas of highly productive soils, particularly those on the granites, shales and alluvium of the Western Cape. • Avoid building development and extensive earthworks, such as landfills, cement works and quarries or borrow pits, in areas with productive soils.
Rivers, estuaries and vleis	**N.7** Conserve rivers, estuaries and wetlands for their water resources in a largely water-stressed region, as well as for their ecological, scenic and recreational value.	• Extend existing nature reserves where possible or create additional reserves and conservancies, providing a linked system of blue-green corridors, to protect important habitats and provide opportunities for recreation. (E.g. the Bot River, Klein River and Keurbooms estuaries). • Impose development setbacks from these water resources to provide protection from flooding as well as creating scenic corridors. (A min. setback of 30m is generally recommended, but depends on site-specific conditions). • Optimize the scenic and recreational opportunities provided by water impoundments. (E.g. Theewaterskloof, Voelvlei, Steenbras and Berg River dams).
Protected natural areas, public open spaces and patterns of access.	**N.9** Place emphasis on achieving a network of conservation areas and corridors by linking mountains, coastlines, rivers and wetlands.	• Prevent fragmentation and provide continuity within conservation networks, ensuring long term viability of ecosystems and areas of high scenic value. (E.g. Outeniqua Mountains and Garden Route lakes area). • Prevent privatisation of natural places forming part of the historical public open space resource network. (E.g. harbours and coastal estuaries). • Facilitate public access, education and interpretation to places of natural amenity by means of recreation trails and tourism facilities. (E.g. Hermanus cliff path). • Allow for sustainable, traditional use of natural places for recreational, spiritual and resource-collection purposes. (E.g. Traditional fishing and recreational activities along the coastline and use of the mountain areas as places of retreat).

Conservation of Natural Landscapes

Figure 8: Extract from Oberholzer and Winter (2013) Heritage regarding Guidelines and Policies for Natural Landscapes of Significant

5.2 Policies and Guidelines for Rural Landscapes of Significance

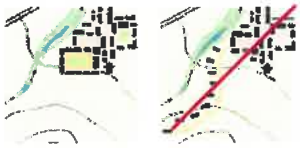
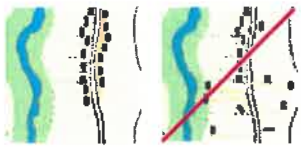
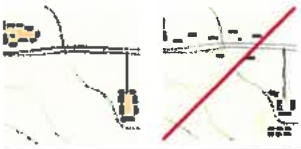
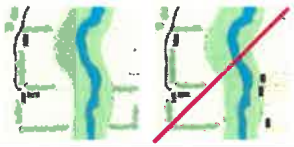
RURAL LANDSCAPES	POLICY	GUIDELINES
Natural visual setting	**R.1** Conserve the green or topographical 'containers' of rural landscapes and settlements.	• Prevent encroachment of development where these erode distinctive visual settings.
Dominance of rural landscapes	**R.2** Create compact rural settlements with well-defined urban edges. 	• Prevent urban sprawl in rural landscapes by clustering new development into distinct, compact footprints related to existing movement routes, embedded within zones of agricultural dominance as opposed to creating continuous swathes of development. • Give preference to the densification/reinforcement of existing settlements and settlement patterns rather than extending development outside the urban edge in an unstructured random manner. • Ensure that new subdivisions respond appropriately to the historical context and pattern of settlement. • Avoid the decentralisation of retail and office centres which contribute to urban sprawl. • Avoid large-scale infrastructure such as wind farms, solar energy facilities and transmission lines in natural and cultural landscapes of high significance.
Productive agricultural landscapes	**R.3** Consolidate and retain productive agricultural areas as viable units. 	• Avoid development on good agricultural soils, which are essential to maintaining productive landscape qualities. • Prevent piecemeal subdivisions and the fragmentation of farmland into unviable units or 'agricultural islands' resulting in farming activities becoming 'incompatible' with surrounding urban or suburban uses. • Prevent the gentrification of productive or working farmland as ornamental green space, as in the case of 'lifestyle rural estates'. • Consider restrictive zoning or overlay zones in historic farming areas, such as the Breede River and Berg River valleys, to conserve the scenic and heritage value of these agricultural valleys.
Rural settlement patterns	**R.4** Maintain the natural ordering system of town, village, hamlet and farmstead evolved in response to the natural environment and movement routes. 	• Ensure that new development is responsive to the historical rural context, and avoid suburban type layouts, particularly "gated" estates, in rural areas. • Ensure that new developments within rural contexts are in sympathy with the topography, drainage patterns and microclimate. • Observe the siting of traditional farmsteads, usually nestled into north-facing hillslopes, near a source of water, in a copse of trees, overlooking the lands. They avoided visually-exposed, wind-swept hillcrests, and frost-prone valley bottoms. • Ensure that new buildings within historical precinct or werf' contexts are in sympathy with the scale, massing, layout and idiom of surrounding buildings.
Cultural features	**R.5** Respect cultural features of significance.	• Ensure that new development responds positively to special cultural features (e.g. farmsteads) by providing them with 'breathing space', respecting their settings and leaving public views uncluttered and unobtrusive.
Planting patterns	**R.6** Conserve traditional patterns of planting in cultural landscapes of significance. 	• Ensure that windbreaks, avenues, copses and place-defining or gateway planting is not needlessly destroyed by new development. • Reinforce or replace traditional patterns of planting where appropriate with suitable species.
Socio-historical places and patterns of access	**R.7** Maintain traditional movement patterns across rural landscapes or to places of socio-historical value.	• Avoid privatization or creation of barriers to traditional access routes. • Retain old roadways, which have been replaced by newer roads, for use as recreation trails.
Protected Landscapes	**R.8** Protect landscapes of cultural significance by means of legislation, zoning and/or guidelines.	• Use the provisions of the NHRA (for National or Provincial Heritage Sites and Heritage Areas), or through zoning schemes (Heritage Overlay Zones), e.g. Idas Valley PHS and Dwars River Valley Heritage Overlay Zone.

Figure 9: Extract from Oberholzer and Winter (2013) Heritage inventory regarding Guidelines and Policies for development in Rural Landscapes

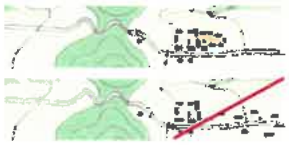
SCENIC ROUTES / PASSES	POLICY	GUIDELINES
Major scenic routes	**S.1** Protect and promote scenic routes and passes of regional, heritage and tourism significance, because of their cultural value and importance to the economy of the Western Cape. 	• Identify important scenic routes, particularly mountain passes / poorts, within each district, using the Provincial inventory contained in Part 1 of this study as a starting point. • Formally protect scenic routes of heritage significance through the provisions of the NHRA (National and Provincial Heritage Sites) or municipal zoning schemes (e.g. Scenic Overlay Zones and City of Cape Town's proclaimed scenic routes, such as Boyes Drive). • Prohibit obstruction of sea and mountain views along proclaimed scenic routes and avoid visual intrusions, such as inappropriate signage (billboards) and infrastructure, including transmission lines. Also, prevent the obstruction of views towards important cultural features. • Use by-laws to establish visual buffer zones with setbacks and height restrictions along scenic routes. (E.g. 100m setbacks for major national / provincial routes, and 30m for secondary routes, but these are dependent on view corridors and other local conditions).
Linking routes, networks and gateways	**S.2** Recognise the importance of linking routes that together with the scenic routes, provide valuable networks and gateways within the region.	• Identify important linking routes within each district and municipality, using the Provincial inventory contained in Part 1 of this study as a starting point. • Ensure that the scenic and linking routes form a coherent system, adding value to the network as a whole. • See the routes as important gateways to towns and other settlements, and to places of scenic or heritage significance, by means of appropriate signage and route markers for tourism purposes.
Landscape setting and design	**S.3** Respect the landscape setting and gateway qualities of important scenic routes and mountain passes, particularly those with a wilderness or rural setting.	• Ensure appropriate design of road verges, stormwater structures, fences, farmstalls and picnic sites, which should be in character with the natural or rural surroundings. (E.g. stone walls and picnic elements of Chapman's Peak Drive, Tradoux Pass and Outeniqua Pass). • Avoid over-engineered construction details, such as concrete kerbs and asphalt parking / pedestrian areas not in keeping with wilderness mountain areas. (E.g. Gydo Pass).
Thematic routes and trails	**S.4** Promote the local region by means of a range of scenic route themes, as well as rail and recreation trails.	• Establish and promote various route themes, such as wine routes, fynbos routes, birding routes, battle-site routes etc. Provide well-designed signage, maps and interpretive information at places of interest. • Consider resurrecting old wagon and rail routes, or historic donkey trails (E.g. Garnkaskloof), and using abandoned mountain pass roads for hiking, horse-riding or mountain-biking trails.

Figure 10: Extract from Oberholzer and Winter (2013) Heritage Inventory regarding Policies for Scenic Routes

5.4. Cape Floral Region World Heritage Site and Cape Winelands Biosphere Reserve

5.5.1 The Cape Floral Region Protected Areas World Heritage Site

The Cape Floral Region Protected Areas World Heritage Site was registered on the World Heritage List of UNESCO in 2004. The World Heritage Site comprises eight clusters in the Cape Floral Region, one thereof being the Boland Mountain Complex which includes part of the Stellenbosch Municipal area, particularly the Upper Mountain areas. The proposed site of development is not within these SM areas.

5.5.2 Cape Winelands Biosphere Reserve

"The essence of the biosphere reserve model is about the combination of three complementary functions: conservation (of landscapes, ecosystems, species and genetic variation); sustainable development (fostering economic development which is ecologically and culturally sustainable); and logistic support (promoting research, monitoring, education and training). These functions need to be implemented within a defined landscape, delimited according to a zonation system along a progression from preservation to sustainable resource use in the form of an inner core area, adjoining buffer zones and an outer transition zone."

The site of development falls within a transition area with the south western section, around Klapmutskop, being a Municipal Conservancy with ecological support areas on site.

5.6. Guideline for the Management of development on mountains, hills and ridges of the Western Cape

Key decision making criteria regarding development on mountains, hills and ridges, relevant to this VIA, are:

- to avoid inappropriate development (i.e. intrusive and consumptive development) on mountains, hills and ridges taking into account the character of the existing environment;
- to ensure that where development does take place, that its layout and design takes account of sensitive features and environmental constraints, thereby promoting environmentally sensitive development of projects on mountains, hills and ridges where development is authorized;
- to preserve landform features through ensuring that the siting of facilities is related to environmental resilience and visual screening capabilities of the landscape;
- to ensure that the scale, density and nature of the developments are harmonious and in keeping with the sense of place and character of the area.

Criteria to be evaluated in this VIA include:

- Density of development;
- Aesthetics (design, scale, layout);
- Location;
- Value in terms of 'sense of place';

- Character and nature of adjacent land use;
- Character of the general area; and
- Cumulative environmental impacts.

Environmental characteristics such as steep slopes (steeper than 1:4) and development on the crest of a mountain, hill or ridge will serve as key indicators of environmental sensitivity. The development pattern/s and the character of the area within which the proposed development will be situated must be described.

6. THE PROPOSED DEVELOPMENT

6.1. Site Location

The proposed development is on a number of farm portions namely:

- Parcel 1, on Portions 2 and 8 of Farm Weltevreden No. 744, (Paarl District), (proposed Light Industrial Development).
- Parcel 2, on Portion 6 of Klapmuts River Farm No. 742 (Paarl District), (the subject of a previous Environmental Application in 2008, for which authorisation was granted.) (Proposed higher density residential development and mixed use development in the northern extent)
- Parcel 3, on Portions Rem. of Klapmuts Rivier Farm No. 742 (Paarl District), Rem. Farm No. 742/5 (Paarl District)and a portion of Farm No. 1515 (Stellenbosch District), (proposed Stellenbosch Bridge Precinct development)

The proposed site is to the west of Klapmuts village and the Klapmuts River, south of the N1, Old Paarl Road and Wellington railway line.

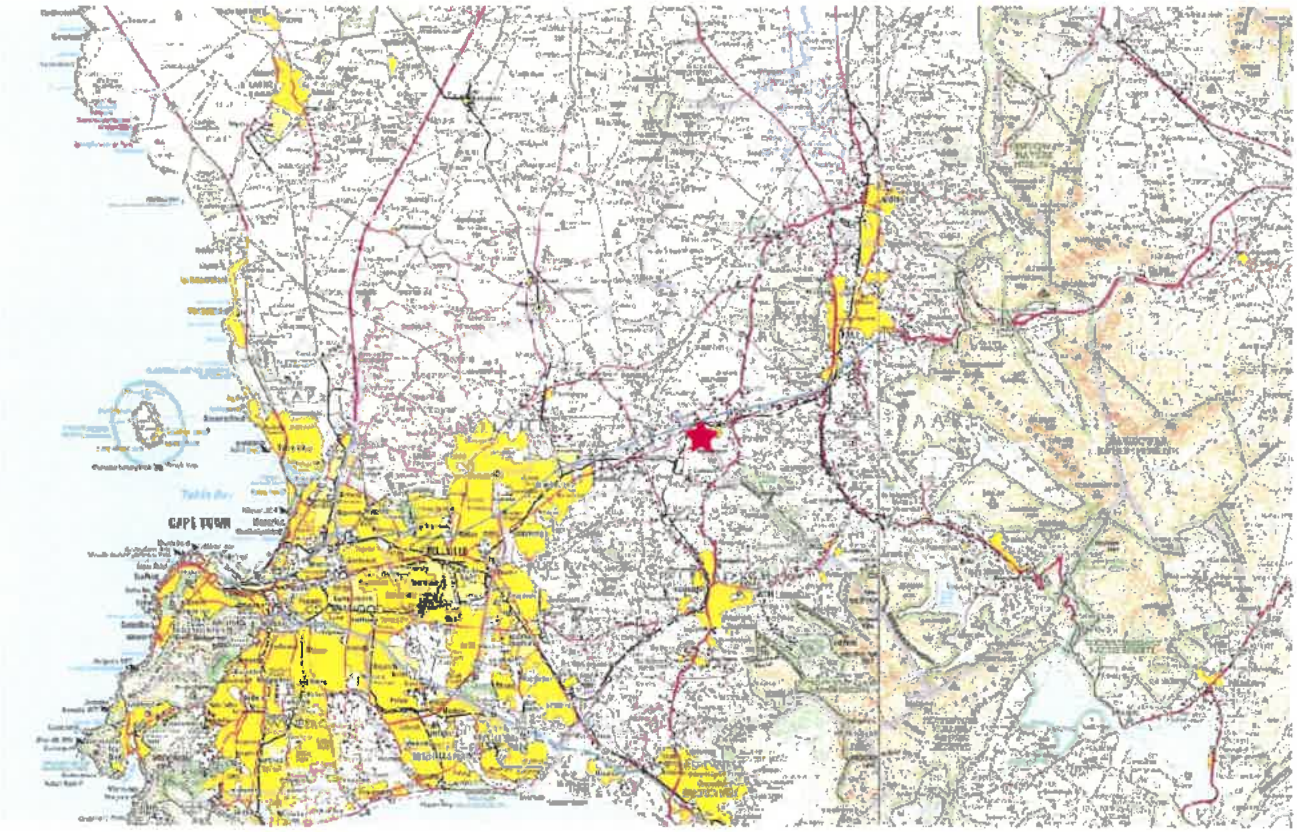


Figure 12: The site of proposed development indicated on a 1:250 000 topographical map

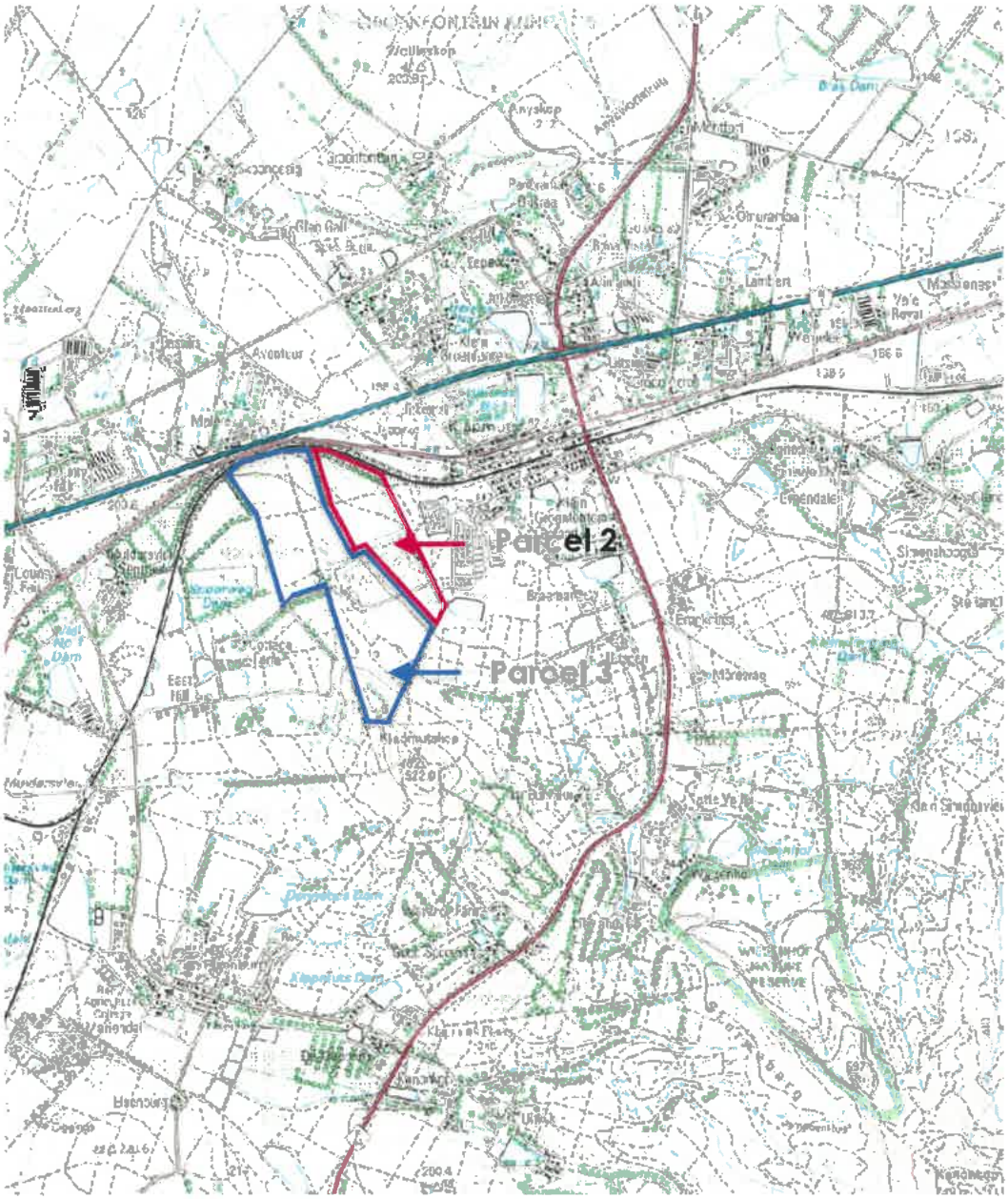


Figure 13: Location of the proposed site of development indicated on a 1:50 000 topographical map

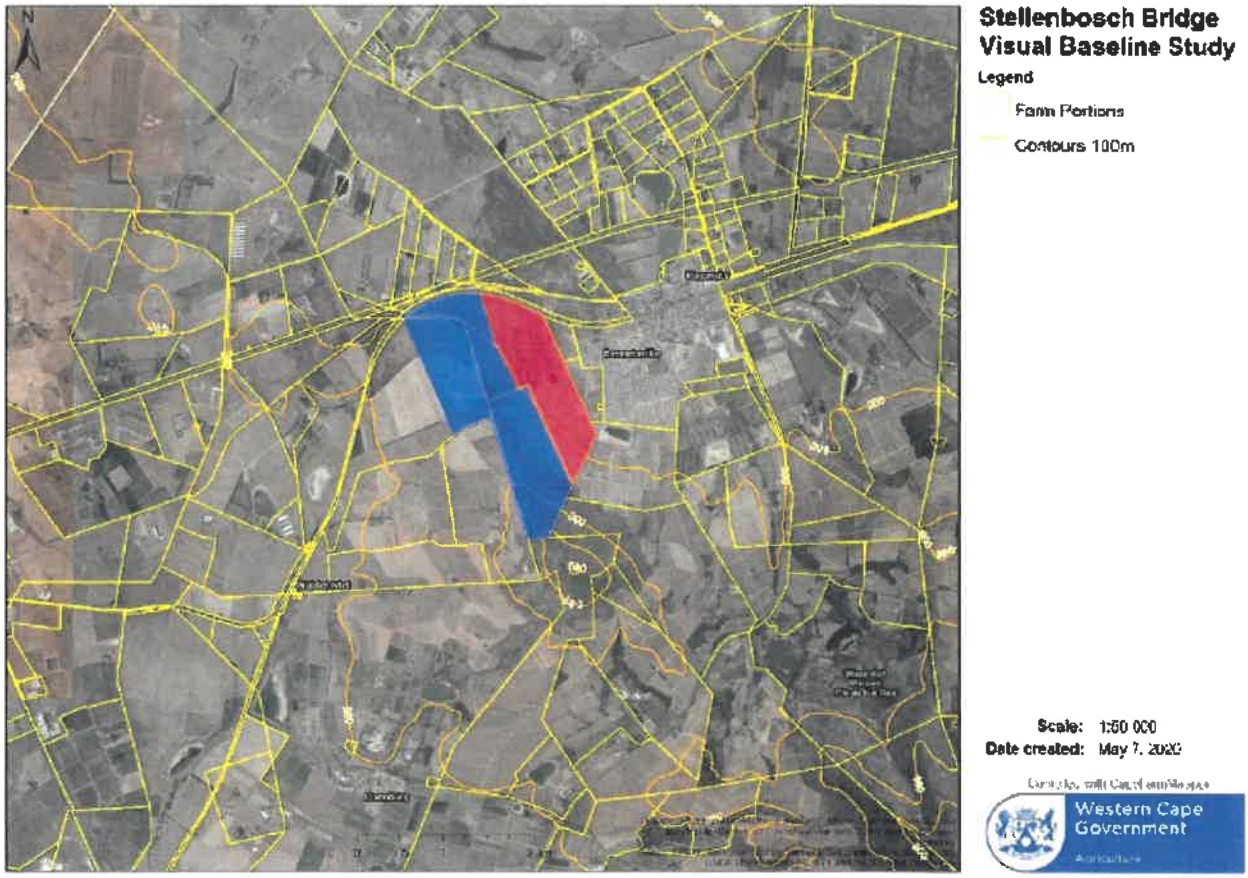


Figure 14: The site of the proposed Parcels 2 and 3 indicated on an aerial photograph indicating surrounding landuse and contours at 20m intervals (Source: CFM)

7. DEVELOPMENT DESCRIPTION

7.1 Preferred Alternative - Mixed Use Development

The current proposal is for a mixed use development:

Figure 15: Proposed Stellenbosch Bridge Mixed Use development on Parcels 2 and 3

7. VISUAL ASSESSMENT OF THE SITE AND PROPOSED DEVELOPMENT

7.1. Description of the Affected Area and the Scenic Resources

The scenic resources of the landscape in which the proposed Stellenbosch Bridge Development parcels of land are situated will be evaluated through identifying the underlying geology and the resulting landforms from weathering thereof, classifying the landuse patterns and vegetation cover, identifying prominent landscape features, scenic routes and ultimately Scenic Resources.

Geology and Topography - Landscape Types:

The older geological components are of the Malmesbury shales and these are the lower lying, gently rounded, rolling hills present to the north and west of the site predominantly and include the Tygerberg Hills. The intrusive Cape Granites are prominent rounded landforms which rise out of the shales to form Perdeberg, Paarl Mountain, Skurweberg, Bottelaryberg, Lions Head and Devil's Peak. The Klipheuwel Deposits are more resistant to weathering and form Klapmutskop, Joostenberg and Klipheuwel. Sandstone series form the high rugged Cape Fold Mountains including Table Mountain, Drakenstein Mountains, Simonsberg and Groot Drakenstein Mountains. The tertiary Sands, are a result of either erosion or by wind blown sands and are generally low lying and flat.

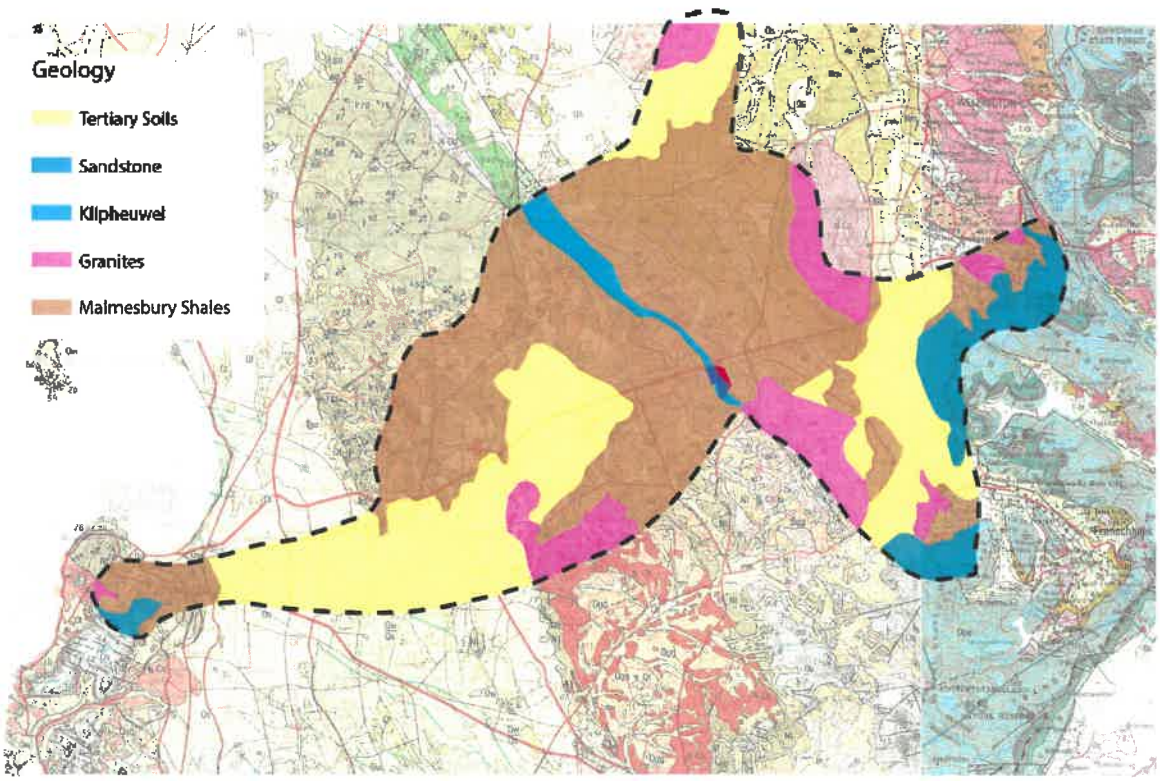


Figure 16: The geological formations that, together with weathering processes, define the landforms, and landscape of the study area

The proposed Stellenbosch Bridge Development is situated on the lower slopes of the Klapmuts Kop, which is the southern extent of the Klipheuwel Group of deposits. These deposits formed rocks that are more resistant to weathering and form the series of 'koppies' including Joostenberg and Klipheuwel, which run to the north west of Klapmuts.

Photo Plate 1 - Klapmutskop and Joostenberg are of Klipheuwel Deposits, more resistant to weathering resulting in "koppies" and related ridgelines in the landscape

Photo Plate 2 - View north from the slopes of Kanonkop, with Joostenberg rising above the adjacent weathered shales

To the north and west of the site, the landscape is characterised by gently rolling hills comprised of the older Malmesbury shales. Higher lying landforms, Tygerberg, Kanonkop and Rondebossie Berg, define the area and landscape in the west. Lower hills such as Wolvieskop, and Anysberg to the north east of the site and some un-named hills to the west and south west of the site, provide landforms that are significant enough to play a role in the Zone of Visual Influence discussed in 7.2.2.

Photo Plate 3 - View north west from the slopes of Kanonkop, with Tygerberg, Kononkop and Rondebossieberg in the distance

Photo Plate 4 - View north east from the slopes of Klapmutskop, showing Wolvieskop and Anysberg

The Cape Granite Suite of intrusive rocks rise above the valleys, plains and hills, to further characterise and define landscape. These rocks form prominent features surrounding the sites to the south, east and north and include Bottelaryberg to the south west, Skurweberg and Klein Simonsberg to south east, Paarl Rock to the west and Perdeberg to the far north.

Photo Plate 5 - View south west from the slopes of Kanonkop, showing Bottelaryberg

Photo Plate 6 - View south east from the site showing Skurweberg on right and Klein Simonsberg in centre

Photo Plate 7 - View north and north east from the site showing Perdeberg (left) and Paarl Mountain (right)

Further away, the sandstone mountains of Simonsberg and Stellenboschberg to the south, Drakensteinberg to the east and Table Mountain to the west form massive backdrops to the scenery.

Photo Plate 8 - Simonsberg south east of site

Photo Plate 9 - Drakenstein Mountains east of site

The Klapmuts, Mosselbank and Plankenburg River and their tributaries have eroded their courses through these hills further shaping the landforms.

The Klapmuts River and valley is to the east of the site, draining the eastern slopes of Klapmutskop, the northern slopes of the Skurweberg and western slopes of Klein Simonsberg. It forms steep sided valleys in the granite slopes before reaching the wider, upper valley, flood plain between Klapmutskop and Klein Simonsberg, below the site. Thereafter it flows perennially between the relatively flat but gently rounded shale hills till its confluence with streams from Perdeberg, thereafter flowing into the Mosselbank River near Klipheuwel.

Photo Plate 10 - Klapmuts River valley, east of site, with slopes of Klapmutskop in background

The north western slopes of Klamutskop drain into the upper Mosselbank River reaches which flows northwards across the gently sloping hills. The western slopes drain south westward into non-perennial streams, whose courses are interrupted but identified by farm dams, eventually spilling into the Plankenberg River which in turn flows into the Eerste River at Stellenbosch.

Prominent landscape features in the landscape are the higher lying hills and mountains (Klapmutskop, Skurweberg [and associated Kanonkop], Bottelaryberg, Paarl Mountain, Perdeberg, Tygerberg [and associated Kanonkop], Rondebossieberg and Joostenberg). These are of scenic interest.

The landscape in the study area, with the exception of the 'koppies' and mountains which remain mostly natural, have mostly been transformed by agriculture and development.

Immediately east of Klapmutskop lies the village of Klapmuts/Bennetsville, surrounded by rural development.

Photo Plate 11 - Rural Village of Klapmuts at toe of Klapmutskop

To the south, south west and east, vineyards and orchards are cultivated on the granite hills, and are protected by windrows of tall trees.

Photo Plate 12 - Vineyards and orchards

To the north, annual crops are cultivated on the shale hills with chicken batteries, piggeries, sheep and beef farming evident.

Photo Plate 13 - Annual crops, chicken batteries and stock farming to the north

Clusters of farmstead buildings are scattered across the rural landscape protected by large tree rows and clumps with small farm dams at regular intervals along the streams.

Photo Plate 14 - Clusters of farmsteads. Trees and farm dams

The upper, steeper slopes of Perdeberg, Paarl Mountain, Skurweberg, Klein Simonsberg, Bottelaryberg, Joostenberg and Klapmutskop are uncultivated and naturally vegetated with some areas being formally protected. Theses protected areas include Paarlberg Nature Reserve on top of Paarl Mountain, Wiesenhof Private Nature Reserve on the northern slopes of Skurweberg, Koopmanskloof Private Nature Reserve on the north western slopes of Bottelaryberg and Klapmutskop Conservancy around the Klapmuts Kop. Two smaller Nature Reserves are found in lower lying areas north of the site and N2, surrounded by cultivation namely Joostenburg Nature Reserve and JN Briers Louw Nature Reserve. The whole Stellenbosch Municipality falls within the Cape Winelands Biosphere Reserve with parts thereof within the Boland Mountain Complex of the Cape Floral Kingdom World Heritage Site .

Photo Plate 15a and 15b - left - the upper slopes of the Simonsberg and Skurweberg mountains are conserved as Nature Reserves, right - the upper slopes and peak of Klapmuts Kop is a conservancy

To the west, glimpses of the City of Cape Town's urban development can be seen at a distance of about 10kms away, through lower lying saddles between hills.

Photo Plate 16 - Glimpses of the City of Cape Town in the distance

The ***scenic resources*** of the **surrounding area,** are defined by the:

- naturally vegetated, **rugged mountains and koppies**, usually conserved;
- cultivated and sometimes intensively farmed **rural landscape** on the lower foothills and rolling landscapes;
- **rural settlements** including farmsteads and Klapmuts village, the latter's aesthetic historic core has been more recently compromised by unsympathetic residential development (although this is still contained); and
- **roads and railways,** some roads or parts thereof rated as **Scenic Drives**, others as major transport corridors.

These scenic resources are rated as ***High to very High*** *(rural and wilderness)*.

The **scenic resources** of the **Parcel 2 site** can be described as **natural, rural and rural village and is highly rated**

The **scenic resources** of the **Parcel 3 site** can be described as **natural, rural and rural village and is highly - Very Highly rated**

7.2. Visibility of the proposed development

7.2.1. View Catchment

The geographical area from which the project will theoretically be visible, known as the view catchment area, is dictated primarily by topography.

Parcel 2 of the proposed development is situated on a predominantly east to north east facing slopes of Klapmutskop.

Parcel 3 is on higher lying slopes of Kanonkop, above Parcel 2, with the western portion of the site straddling the ridgeline into the adjacent valleys, resulting in this parcel of land having a greater viewshed.

The viewshed of Parcel 2 is defined by the higher lying hills that form the eastern catchment line of the Klapmuts River between 5 kms east and 25km's to the north. Klapmutskop and Skurweberg form the viewshed to the south and south east at 1km and 7kms respectively. The ridgeline from Klapmutskop running north westward creates the Viewshed to the west at 500m - 10 kms.

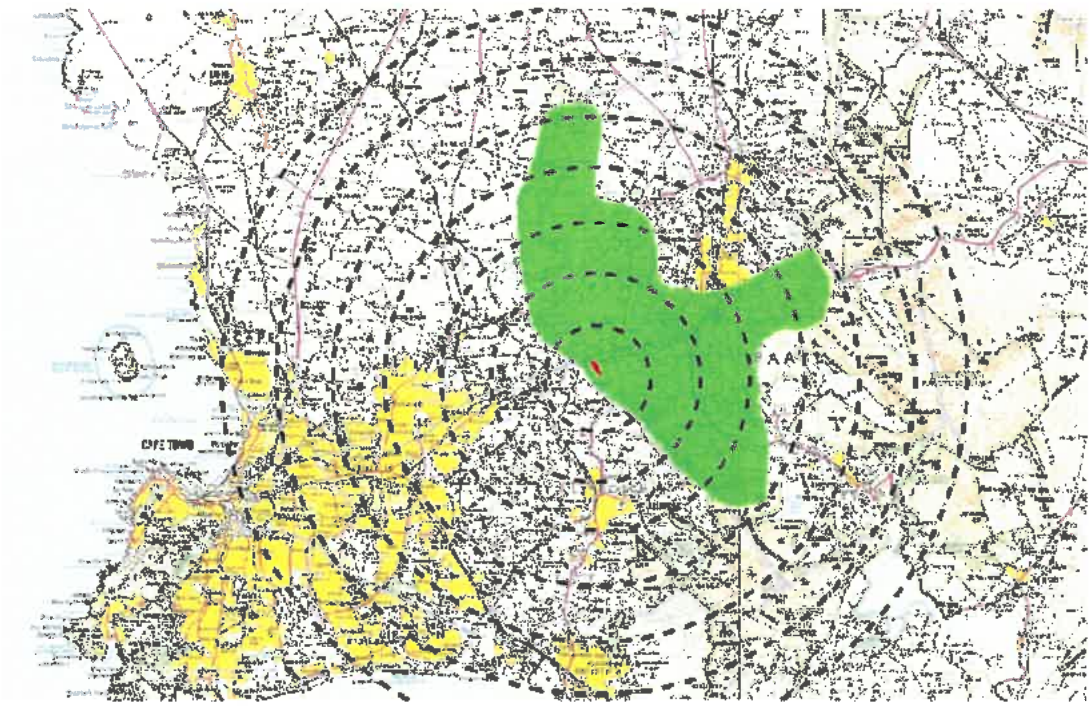


Figure 17: Viewshed of Parcel 2 (circles are 5km radii from site)

The Viewshed of Parcel 3 is the same as that of Parcel 2 in the south, south east, east and north, namely 2kms to south, 7kms to south east, 5kms to the east and 25 kms to the north but extends 40kms to the west and 15kms to the south west, because the upper western edge of the site straddles the Klapmutskop northern running ridgeline.

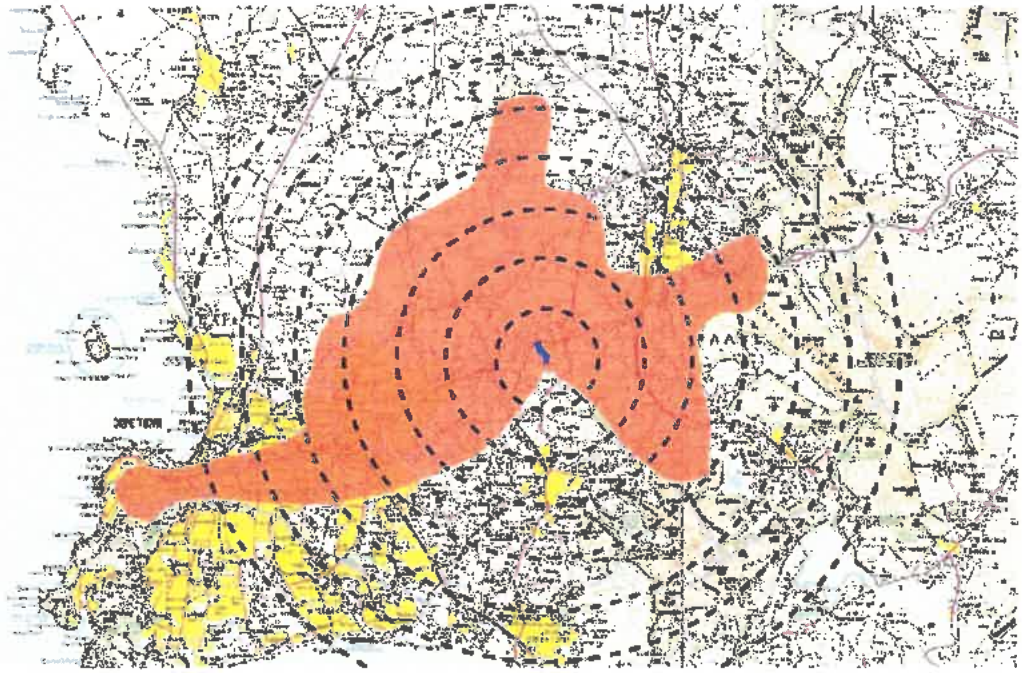


Figure 18: Viewshed of Parcel 3 (circles are 5km radii from site)

7.2.2. Zone of Visual Influence

Distance, vegetation, landforms and buildings will reduce the area from which the site will be seen. This reduced area is the zone of visual influence (ZVI).

The ZVI of Parcel 2 is reduced by distance, ridgelines, hills and "koppies" as follows:

- 1 km in the south and west, by Klapmutskop and it's northern ridgeline;
- Up to 7kms in the south east along the Skurweberg ridgeline
- 5 kms in the east along the Klein Simonsberg and associated ridgeline;
- 9 kms in the northeast to Paarl Mountain; and
- 7,5kms to Joostenberg in the north.

The ZVI of Parcel 3 will be

- 1 km in the south to Klapmutskop;
- Up to 7kms in the south east along the Skurweberg ridgeline
- 5 kms in the east along the Klein Simonsberg and associated ridgeline;
- 9 kms in the north east to Paarl Mountain;
- 7,5 kms to Joostenberg in the north; and along ridge lines to
- 6,5 kms in the southwest - to a hill top

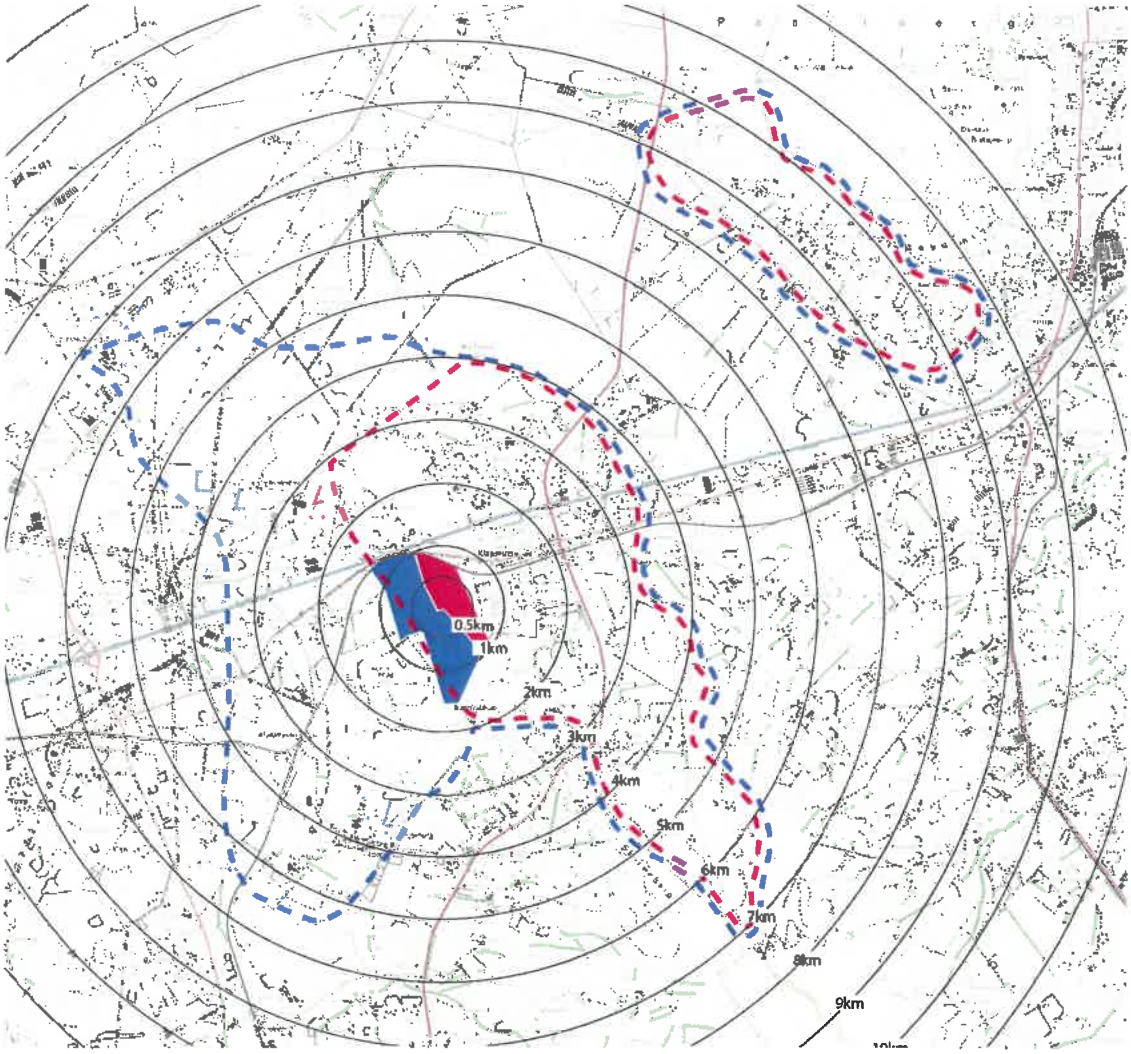


Figure 19: The ZVI of the proposed development on Parcel 2 and Parcel 3.

Within these areas, parts of the site will be obscured by trees or landforms or buildings or any combination thereof.

*The ZVI for the proposed development on Parcel 2 is restricted to the upper Klapmuts River Valley and **local** area, ranging from 500 m's to approximately 9,5 km's*

*The ZVI for the proposed development Parcel 3 is greater and possibly **local to regional** as it straddles into the Mosselbank and Plankenburg upper river valleys, with distances ranging between 2 and 9,5 kms*

7.2.3. View Corridors

Numerous roads pass the site or have sight of the site in the vicinity thereof. Some have been proclaimed Scenic Routes in terms of the recent SDF reports (Stellenbosch and Drakenstein). These include the R44, between Stellenbosch, past Klapmuts to Wellington, the N1 between Paarl and Kuilsriver, the Old Paarl Road (R101) and Simondium Road. The Wellington - Bellville/ Stellenbosch railway line, is also a View Corridor from which the proposed sites and development on Parcels 2 and 3 will be seen.

The R44, R301 and Simondium Road, being sensitive scenic routes, have been studied here as well as the N1 route, which carries commuter and tourist traffic.

7.2.3.1 R44

The proposed sites, or parts thereof, will be seen from a 10,5 km section of the R44 as it passes Klapmuts. 3 km's south of Klapmuts and 7,5 km's north of Klapmuts.

Five viewpoints (VP 1 – 5), positions indicated on Figure 20 below, illustrate the visibility of the proposed site of development parcels along this corridor.

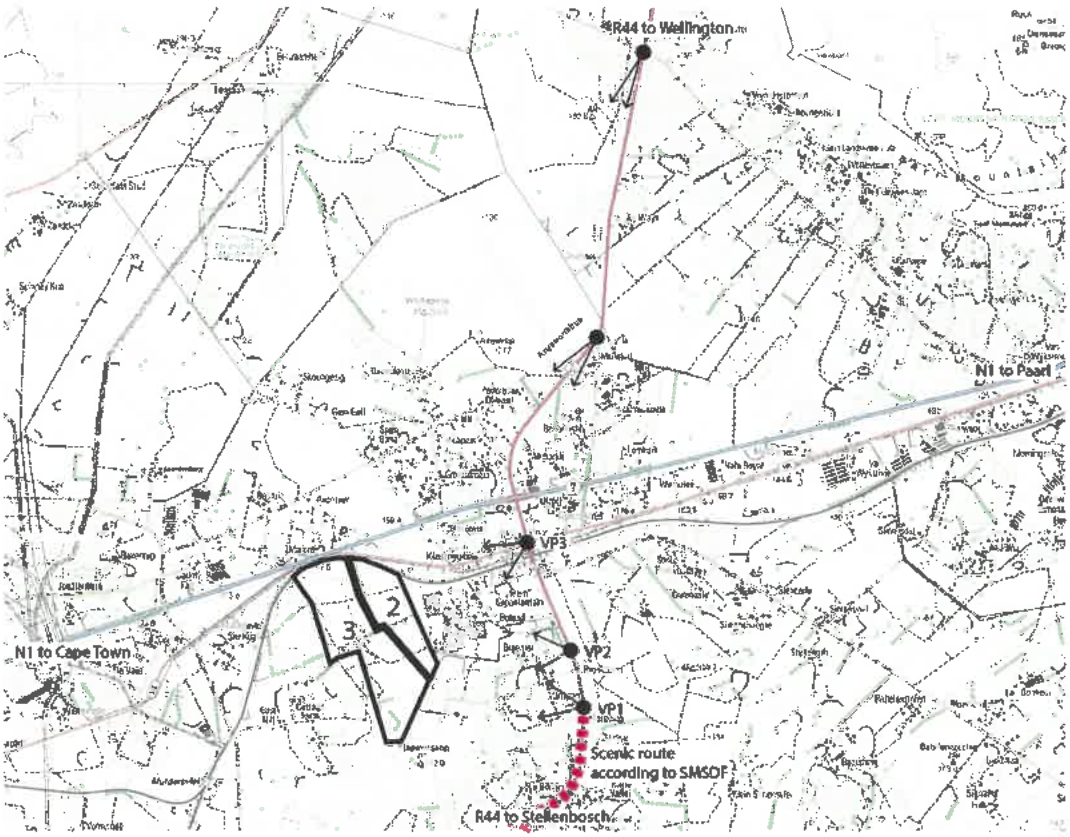


Figure 20: Identified viewpoints along R44 View Corridor (VP1-VP5) of the site.

***Viewpoint 1 (VP1):* From the R44 at the Gravel Junction entrance, approximately 3km south east of the site.**

Views to the north west will see the upper portions of Parcel 2. Trees will obscure the proposed development on the lower slopes.

Views to the north west will see the full extent of Parcel 3 that is on the east facing slopes and ridgeline of the Klapmutskop.

Photo Plate 18: The eastern portions of the site will be visible from the R44 south of Klapmuts, approximately 3kms to the south east of the site.

***Viewpoint 2 (VP2)*:** from the R44 at the approximately 3 kms east of the site. From here, the sites and proposed development on Parcels 2 and 3 will be seen.

Photo Plate 19: View of the proposed site of development, 3 kms south of the site, at the Purple Kitchen entrance road. The southern portion of Parcel 2 will be seen and a small part of Parcel 3 will be seen

***Viewpoint 3 (VP3)*:** From the intersection of the R44 and R101 (Old Paarl Road), at the entrance to Klapmuts Village. This point is 2 kms from the borderline between Parcels 2 and 3.

Looking west from this point:

- a very small part of the proposed Parcel 2 site and development, on the upper slopes of the northern extent will be visible. Klapmuts village street trees in the fore - midground will obscure most of the proposed development.

- more of the proposed Parcel 4 site and development will be visible. Klapmuts village street trees in the fore - midground will obscure parts of the proposed development.

Photo Plate 20: Small parts of the proposed development on Parcel 2 will be seen, most will be obscured by the trees in the foreground, while more of the proposed site and development Parcel 3 will be visible, particularly on the ridgeline

Viewpoint 4 (VP4): from the R44, approximately 5 kms from from the borderline between Parcels 2 and 3.

Looking south west from this point:

- much of the southern extent of the proposed site and development of Parcel 2 will be visible, with a small part of the northern extent.
- the south eastern extent of the proposed Parcel 3 site and development will be visible. The ridge line is clearly visible.

Photo Plate 21: Small parts of the proposed development on Parcel 2 will be seen, most will be obscured by the trees in the foreground, while more of the proposed site and development Parcel 3 will be visible, particularly on the ridgeline (photo to be updated)

Viewpoint 5 (VP5): from the intersection of the R44 and road going past Landskroon, Fairview and other wine farms, approximately 9 kms from the borderline between Parcels 2 and 3.

Looking south west from this point:

- much of the southern extent of the proposed site and development of Parcel 3 will be visible, with a small part of the northern extent.
- most of the proposed site and development of Parcel 3 will be visible. The ridge line is particularly visible.

Photo Plate 22: Most of the southern portion of the proposed site and development on Parcel 2 will be seen, with little of the northern portion visible. All the proposed Parcel 3 site and development on the eastern slopes and ridgeline will be visible.

7.2.3.2 N1 National Road

The proposed sites, or parts thereof, will be seen from most of a 9 km section of the N1 as it passes Klapmuts. 4 km's east of the R44 off/on ramps and 5 km's west of the R44 on/off ramps. Six viewpoints (VP 6 – 11), positions indicated on Figure 21 below, illustrate the visibility of the proposed site of development parcels along this corridor.

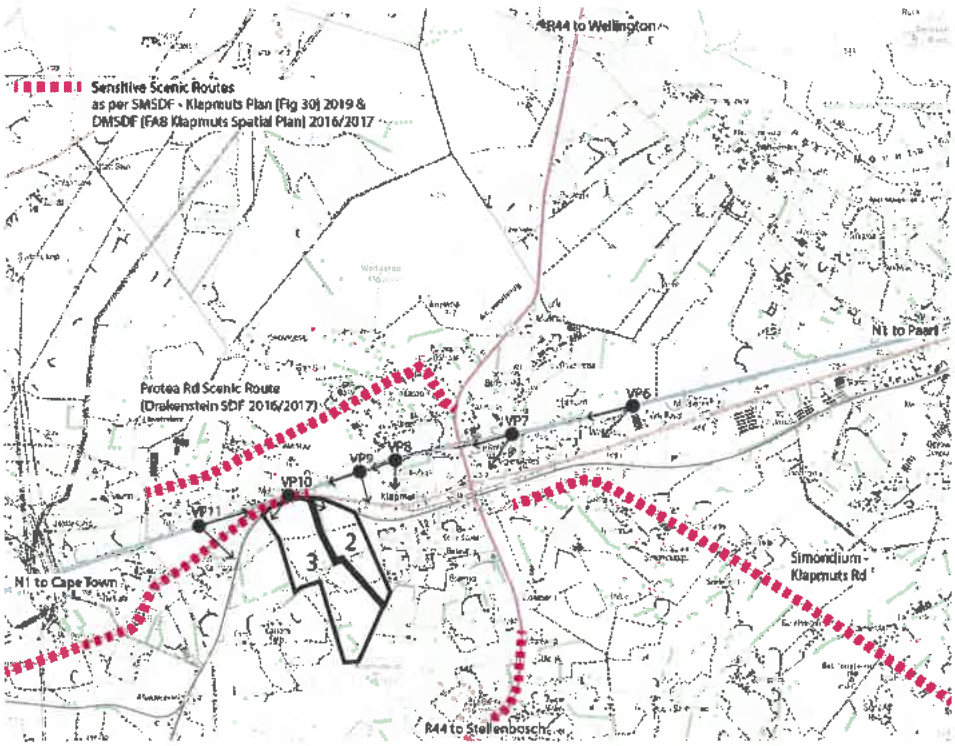


Figure 21: Identified viewpoints along N1 View Corridor (VP6-VP11) of the site.

Viewpoint 6 (VP6): from the N1, approximately 5 kms east of the borderline between Parcels 2 and 3, east of the R44 off/on ramp

Looking west from this point:

- none of the proposed site and development of Parcel 3 will be visible.
- Only the south eastern extent of the proposed Parcel 4 site will be visible. Currently no development is proposed on this portion of land

Photo Plate 23: (VP6) The south eastern extent of the proposed Parcel 3 site will be visible. No development is currently proposed on this portion.

Viewpoint 7 (VP7): from the N1, approximately 3 kms east of the borderline between Parcels 2 and 3, east of the R44 off/on ramp

Looking west from this point:

- Most of the proposed site and development of Parcel 2 will be visible.
- Most of the proposed Parcel 3 site and development will be visible, with the exception of the proposed development on the western slopes of Klapmuts.

Photo Plate 24: (VP7) Taken from the N1, approximately 3 kms east of the site, looking west

Viewpoint 8 (VP8): 1km west of the R44 intersection, and approximately 1,5 kms from the borderline between Parcels 2 and 3. Looking west from this point:

- Probably very little to none of the proposed Parcel 3 site and development will be visible,
- The north eastern portion of the proposed Parcel 4 site and development will be visible, including the ridgeline.

Photo Plate 25: (VP8) Photograph taken from the N1 1,5 kms north east of the proposed parcels of land.

Viewpoint 9 (VP9): looking south west from the N1, within 1km of the proposed parcels and development:

- Probably very little to none of the proposed Parcel 2 site and development will be visible,
- Most of the proposed Parcel 3 site and development will be visible, including the ridgeline.

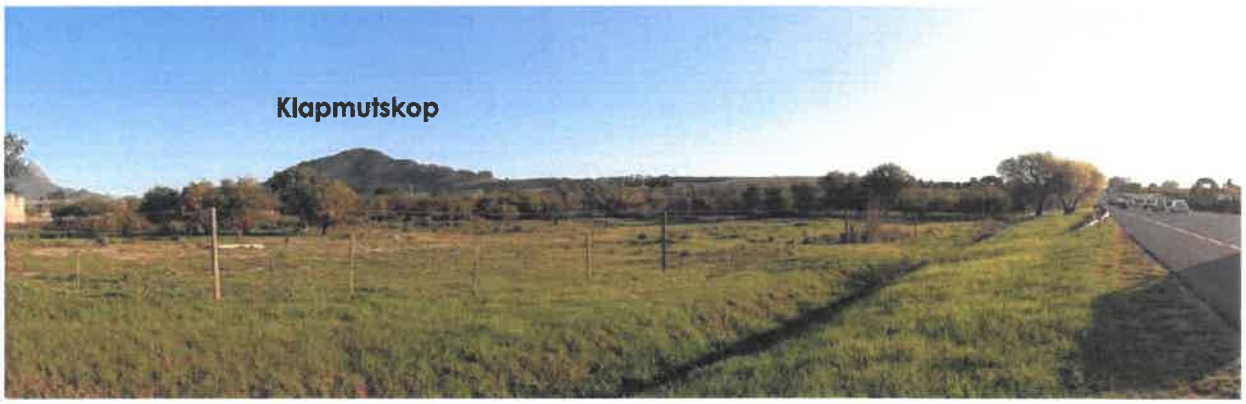


Photo Plate 26: (VP9) Photograph taken from the N1 within 1km of the site, looking south east to proposed Parcel 4 site and ridgeline

Viewpoint 10 (VP10): from the N1, on the ridgeline adjacent to the proposed site, within 100m's of the site.

- none of the proposed Parcel 2 site and development will be visible,
- the proposed Parcel 3 site and development on the upper north eastern slopes of the site, will be visible. The ridgeline is visually prominent.

Photo Plate 27: (VP10) View south from the N1, looking across the R101 (Old Paarl Road) and railway line to the proposed Parcel 3 site and development. Simonsberg in the background, Klapmutskop centre.

Viewpoint 11 (VP11): from the N1, west of the proposed Parcel 3 site of development. Looking south east, approximately 1km from the site. The proposed development on the western upper slopes of the Parcel 4 site will be visible from the N1

Photo Plate 28: (VP11) Photograph taken from the N1 west of the site, looking south east, approximately 1km from the Parcel 4 site.

7.2.3.3 R101, Old Paarl Road and Simondium Road

The proposed Parcels 2 and 3 sites, or parts thereof, will be seen from parts of a 7 km section of the R101 as it passes the site. This section comprises 2 km's east of the site and 5 km's west of the site.

The proposed Parcels 2 and 3 sites, or parts thereof, will be seen from an approximate distance of 1,5kms of the Simondium Road as it approaches the R44 and Klapmuts from the east.

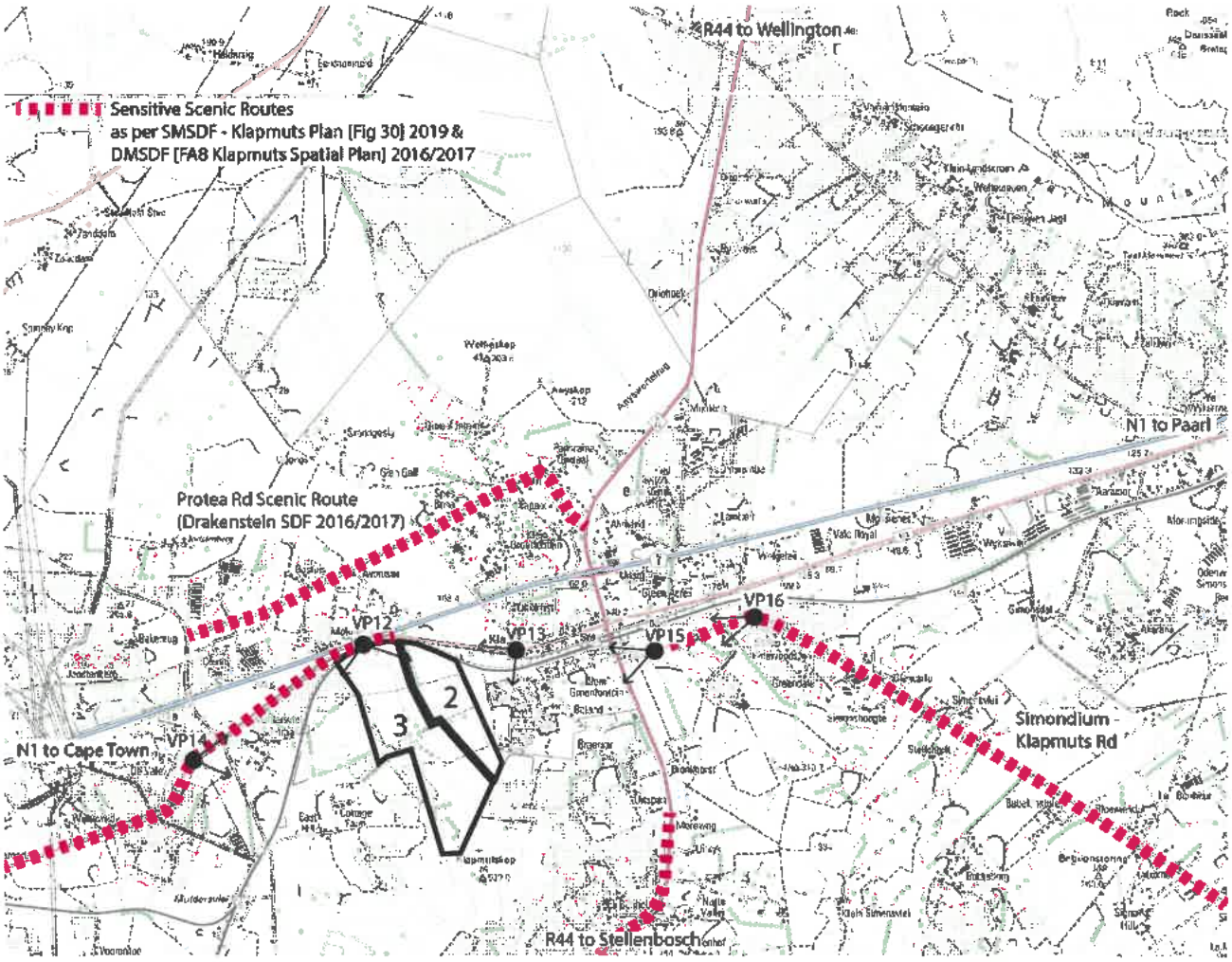


Figure 22: Identified viewpoints along R101 and Simondium Road View Corridors (VP12-VP16) of the site.

Viewpoint 12 (VP12): from the R101, immediately adjacent and north of the site of Parcel 3. Looking south from this point:

- none of the proposed site and development of Parcel 2 will be visible.
- the northern extent of the proposed Parcel 3 site will be visible.

Photo Plate 28: Photograph taken from the R101 immediately north of the site, looking south at the Parcel 3 site, beyond the railway line.

Viewpoint 13 (VP13): from the R101, east of the site of Parcels 2 and 3.

Looking west from this point:

- higher lying parts of the northern section of the proposed site and development of Parcel 2 will be visible.
- the areas on the east facing slopes and the ridgeline of the proposed Parcel 3 site will be visible.

Photo Plate 29: from the R101, east of the site, on the western extent of the existing Klapmuts Village, looking west

Viewpoint 14 (VP14): from the R101, west of the site of Parcels 3.

Looking east from this point:

- No parts of the proposed site and development of Parcel 2 will be visible.
- the areas on the west facing slopes and the ridgeline of the proposed Parcel 3 site will be visible.

Photo Plate 30: looking east from the R101 towards the proposed site of development - the west facing slopes and ridgeline are visible from this point

7.2.3.4 Simondium Road, as it approaches Klapmuts from the east

The proposed Parcels 2 and 3 sites, or parts thereof, will be seen from a distance of approximately 1.5kms of this road as it approaches the R44 and Klapmuts from the east. Only 1km of this section, i.e. the section further east, is a Scenic Route

Viewpoint 15 (VP14): from Simondium Road, at the intersection with the R44, east of the proposed site of Stellenbosch Bridge

- higher lying parts of the of the proposed site and development of Parcel 2 will be visible.
- the areas on the east facing slopes and the ridgeline of the proposed Parcel 3 site will be visible, although some parts screened by trees and signage in the foreground.

Photo Plate 31: Photograph taken east of the proposed Stellenbosch Bridge site, from Simondium Road at the intersection with the R44, looking at the southern portions of Parcel 2 and Parcel 3 sites.

Viewpoint 16 (VP14): from Simondium Road, 4kms east of the proposed Stellenbosch Bridge site.

- the southern and central areas of the proposed site and development of Parcel 2 will be visible.
- the southern and central areas on the east facing slopes, and the ridgeline, of the proposed Parcel 3 site will be visible.

Photo Plate 32: Photograph taken from Simondium Road, 4kms east of the proposed Stellenbosch Bridge site, looking at the southern and central portions of Parcel 2 and Parcel 3 sites.

7.3. Receptors

The level of visual impact considered acceptable is dependent on the type of receptors.

- ***High sensitivity – e.g. residential areas, nature reserves and scenic routes or trails;***
- ***Moderate sensitivity – e.g. sporting or recreational areas, or places of work;***
- ***Low sensitivity – e.g. industrial or degraded areas.***

Highly sensitive receptors include:

- Residential areas:
    - farmsteads and small holdings to the west, north and east of the site will be highly sensitive receptors of the parcels of land, these include wineries that are tourist destinations;
    - the residential settlement of Klapmuts and Benneton; and
    - the Grade II Cultural Landscape.

- Scenic routes:
    - R101 till the common boundary of Parcels 2 and 3, (north eastern corner of Parcel 3 and north western corner of Parcel 2), is a scenic route in terms the SM SDF;
    - R44 from the Klapmutskop - Skurwerberg saddle till 1.5kms to the R44/R301 intersection; and
    - the western extent of Simondium Road (to be verified on site)

- Nature Reserves:
    - Winelands Biosphere Reserve
    - Wiesenhof Private NR,
    - Paarlberg NR; and
    - Greater Simonsberg Conservancy including Klapmutskop.

Moderate sensitivity receptors include:

- Places of work on adjacent farms,

Low sensitivity receptors include:

- Industrial areas within the study area e.g. Klapmuts Industrial Area;
- Substation and Refuse Transfer station
- Powerline servitudes

*The receptors within the ZVI are inclusive of those rated as **low** to **highly** sensitive.*

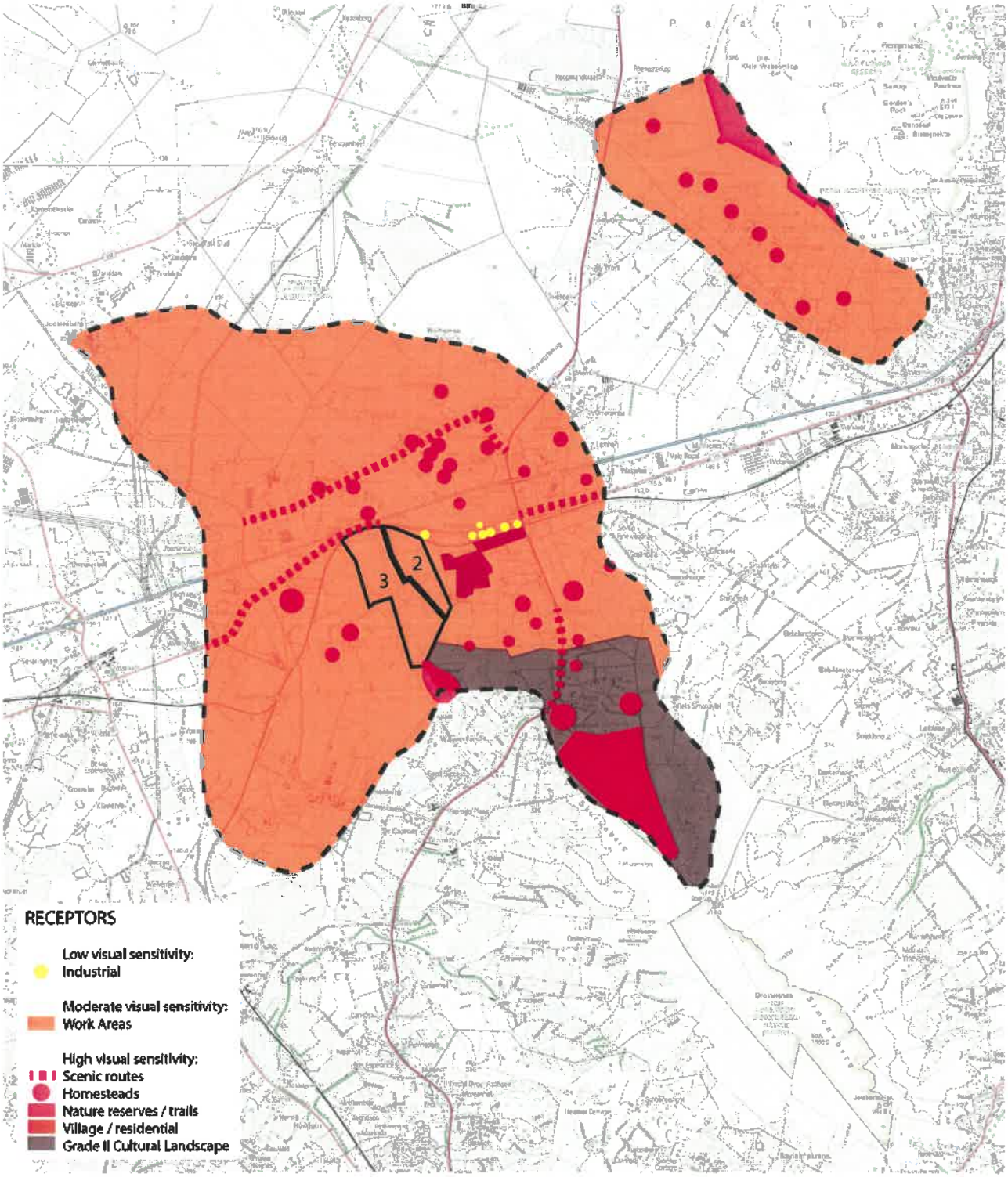


Figure 23: Receptors around the site

7.4. Visual Absorption Capacity

Visual Absorption Capacity is the potential of the landscape to conceal the proposed project

- ***High VAC* – e.g. effective screening by topography and vegetation;**
- ***Moderate VAC* - e.g. partial screening by topography and vegetation;**
- ***Low VAC* - e.g. little screening by topography or vegetation.**

Much of the site of development of Parcel 2 is situated on the lower slopes of Klapmutskop and is partially to mainly screened by trees and buildings on adjacent areas.
***The VAC of the Parcel 2 site is Moderate* e.g. partial screening by topography and vegetation.**

Parcel 3 is on a ridgeline and upper slopes and visible from a relatively wide area with minimal screening being provided. This hilltop/ridgeline provides screening of most of the Parcel 2 and minimal areas of Parcel 3, from the west. Little screening is provided by clusters of Eucalyptus trees on and around the site.
The VAC of the Parcel 3 site is low e.g. little screening by topography and vegetation.

7.5. Visual Intrusion

Visual Intrusion is defined as the level of compatibility or congruence of the project with the particular qualities of the area, or its 'sense of place'. This is related to the idea of context and maintaining the integrity of the landscape or townscape.

- ***High visual intrusion* – results in a noticeable change or is discordant with the surroundings;**
- ***Moderate visual intrusion* – partially fits into the surroundings, but clearly noticeable;**
- ***Low visual intrusion* – minimal change or blends in well with the surroundings.**

The proposed mixed use development on Parcel 2 is situated on the lower east facing slopes close to existing residential and mixed use development. It will both blend in well /partially fit into the surroundings. ***Moderate to Low visual intrusion***

The proposed mixed use development on Parcel 3 is situated on the upper east facing slopes , ridgeline and upper west facing slopes and will be highly noticeable.
The proposed development results in a noticeable change on the eastern slopes and will be discordant with the rural surroundings on the ridgeline and western slopes.

***High visual intrusion* – results in a noticeable change to the east and is discordant with the rural surroundings to the west, south and north.**

8. VISUAL SENSITIVITY OF THE PROPOSED SITE

The Visual Sensitivity of the site is based on the inherent site sensitivity namely topography, landforms, slope grades, land use, vegetation and special features.

The surrounding landscape is rural and natural with scenic resources that are very highly rated. So highly rated that they have protection status in terms of the Cape Winelands Biosphere Reserve and parts thereof are Grade II suggested in the Draft Cape Winelands Heritage Landscape. These are overarching aspects that add to the sites sensitivity.

8.1 Topography

The existing topography (contour levels/height above mean sea level) of the site can be described as being either Highly, Moderately or Less Visually Sensitive depending on the elevation above the surrounding landscape. The Figure below illustrates the 3 levels of sensitivity. Those areas below 200m are generally less visually sensitive as they are relatively low lying. Those areas between 200m and 230/240m are moderately visually sensitive as they are relatively higher lying and more visible. Those areas above approximately 230/240m are highly visually sensitive as they are elevated and highly visible and include the upper slopes of Klapmutskop.

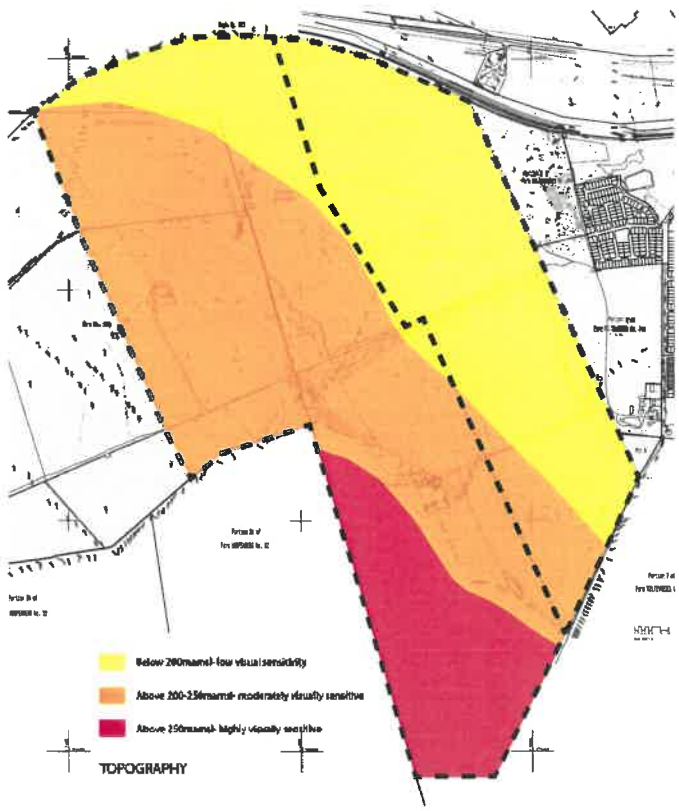


Figure 24: Visual Sensitivity of the Site - Topography

8.2 Landforms

The existing landforms of the site are either visually exposed, such as ridgelines, moderately exposed such as hillsides or visually enclosed like valleys or flat surfaces.

Figure 25 below illustrates the 3 levels of site sensitivity resulting from Landforms.

The small valley and low lying flat land are both visually enclosed providing some level of visual screening - these areas are generally less visually sensitive.

The hill slopes are moderately visually sensitive as they are relatively visually exposed and more visible.

The ridgeline from Kanonkop northwards is visually exposed as there is no 'background' to these areas and are highly visible and therefore highly visually sensitive.

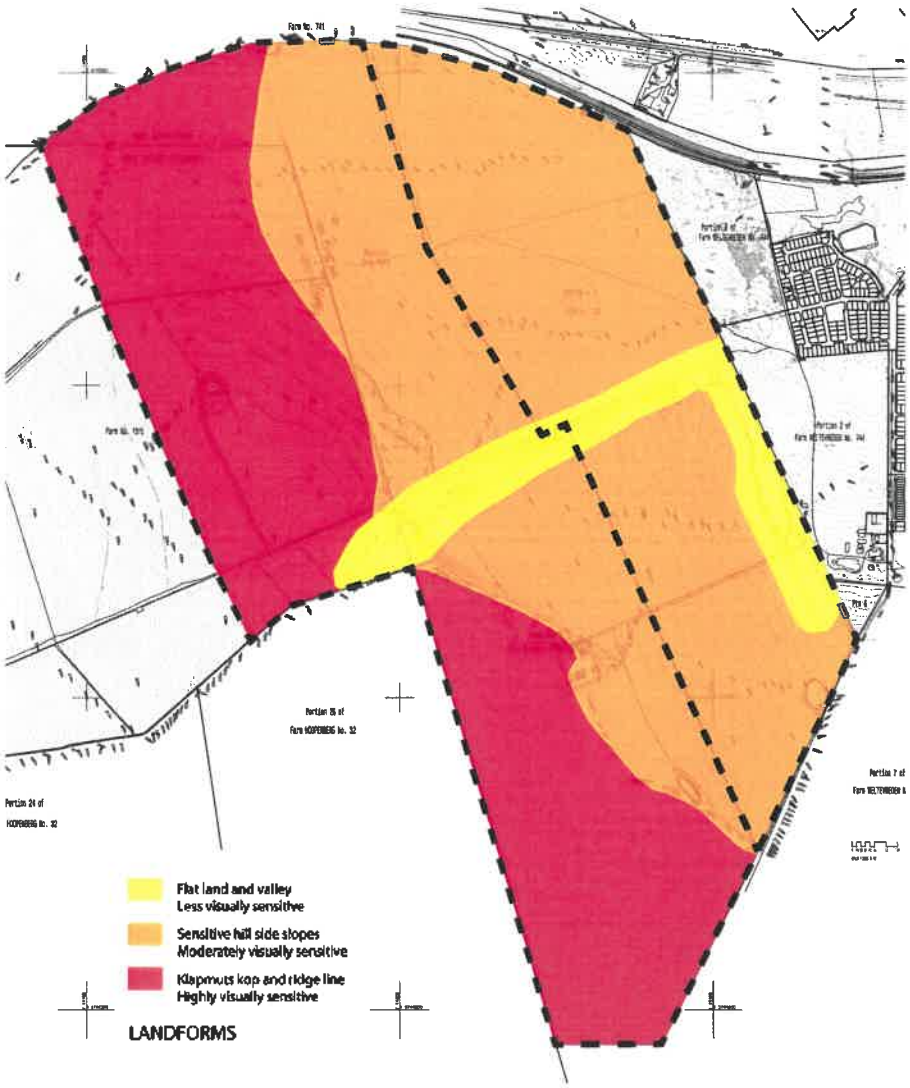


Figure 25: Visual Sensitivity of the Site - Landforms

8.3 Slope Gradients

The slope gradients are analysed as either:

- Flat - where the grade is less that 1:10 and will be less visible and visually sensitive as the land is generally flat and won't require large cuts or fills for development;
- Moderate - where the grade is between 1:10 and 1:4 and will be moderately visible and visually sensitive. The land is gently sloping and will require moderate terracing for development with resulting cut or fill slopes that will be able to be mitigated.
- Steep - where they are steeper than 1:4 and will be highly visible if developed on as large scale terracing with resulting cut and fill slopes which will be highly visible and therefore Highly Visually Sensitive

The slope grades have been calculated from the survey plan provided, which does not cover the south western portion of the site. The 1:50 000 topographic map contours have been used to calculate the slope grades here.

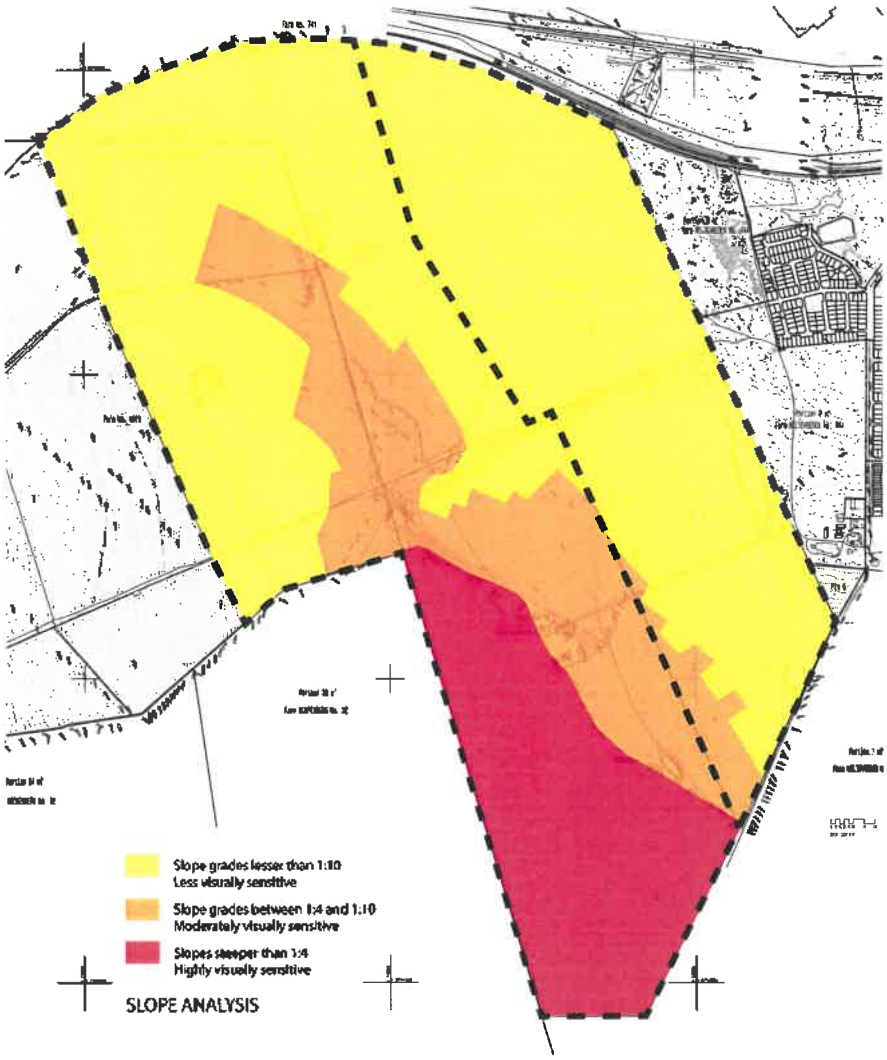


Figure 26: Visual Sensitivity of the Site - Slope Analysis

8.4 Landuse

The adjacent landuse provides visual enclosure or exposure:

- The landuse to the north east is residential and industrial in nature (Refuse Management Facility and proposedLight Industry) and provides visual enclosure resulting in that portion of the site being less visible and therefore it will have a low visual sensitivity;
- The landuse in the north is predominantly transport corridors and result in the site being more visible, with the exception of the elevated railway line in the north east, and therefore moderately visually sensitive; and
- The landuse to the west, south and south east is rural and natural with some degree of protection provided eg. Grade II Cultural Landscape and Klapmuts (Municipal) Conservancy. These areas of the site will be highly visible and therefore highly visually sensitive.

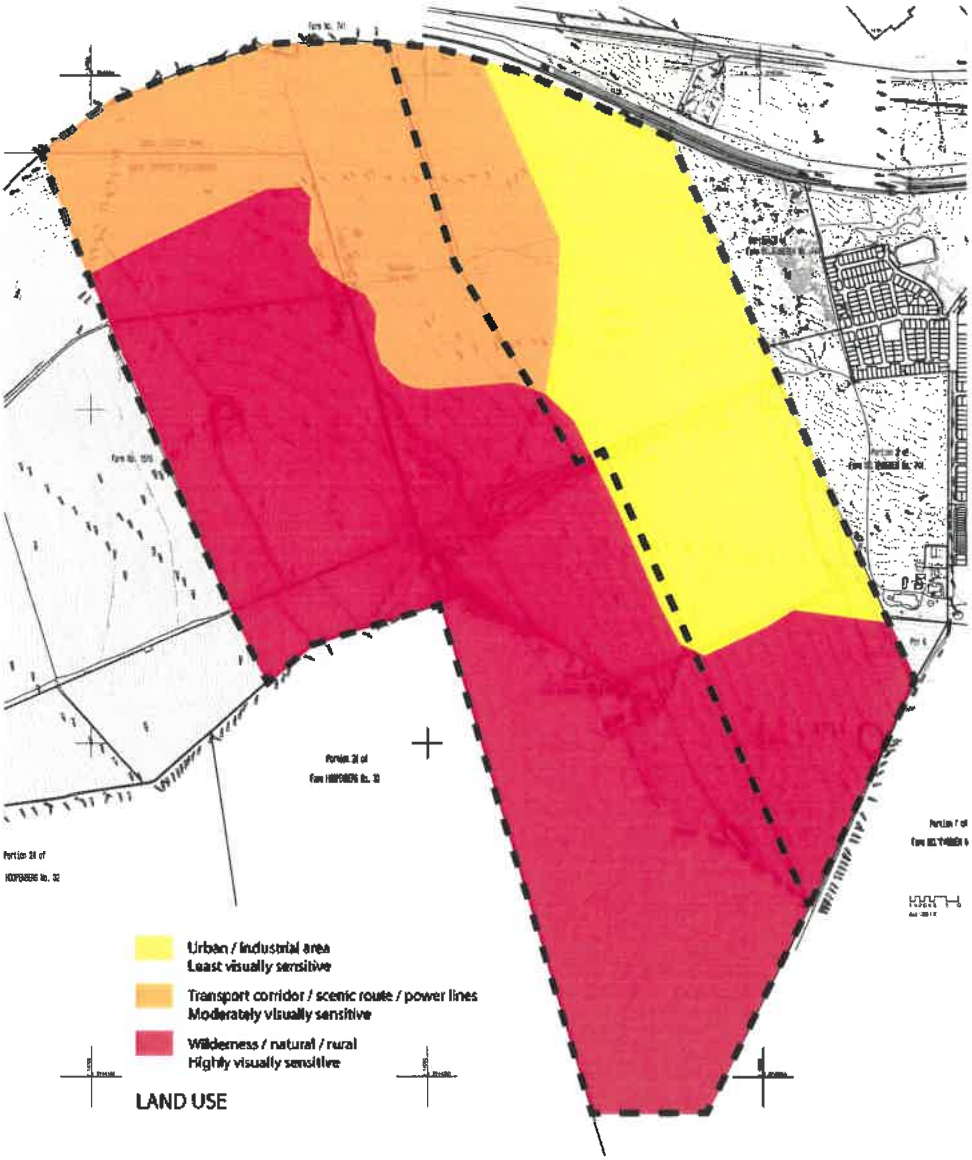


Figure 27: Visual Sensitivity of the Site - Adjacent Landuse

8.5 Vegetation

The vegetation on the site can provide screening if of a good height or if low in height will result in the site being highly visible (it must be noted that the vegetation in this section is evaluated in terms of it's height and screening capabilities and not in terms of its ecological value):

- A number of rows and clumps of trees are found on site which will provide visual screening and result in the adjacent areas of the site being less visible and therefore will have a low visual sensitivity;
- Areas in close proximity to these screened areas will have some screening and will be moderately visible in the landscape and therefore moderately visually sensitive; and
- Areas of the site covered in grass, annual crops or low growing natural vegetation will be highly visible as the height of the vegetation does not provide any screening and therefore result in those areas being highly visually sensitive.

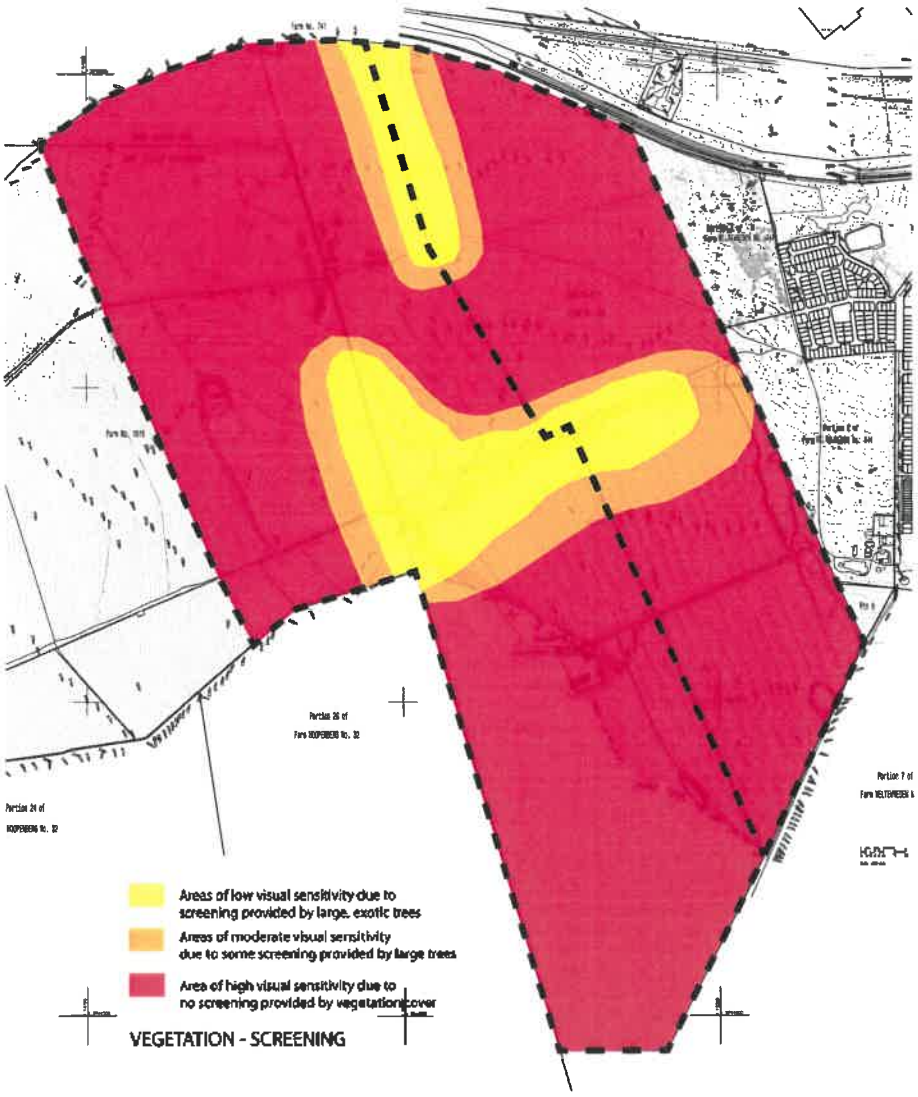


Figure 28: Visual Sensitivity of the Site - Vegetation

8.6 Special Features

Special Features such as scenic routes, waterbodies, natural vegetation, cliffs, rocky outcrops and tree rows/clumps add visual interest to a site and are therefor highly visually sensitive. These features result in the site having areas of high, moderate and low visual sensitivity as indicated on the Figure below.

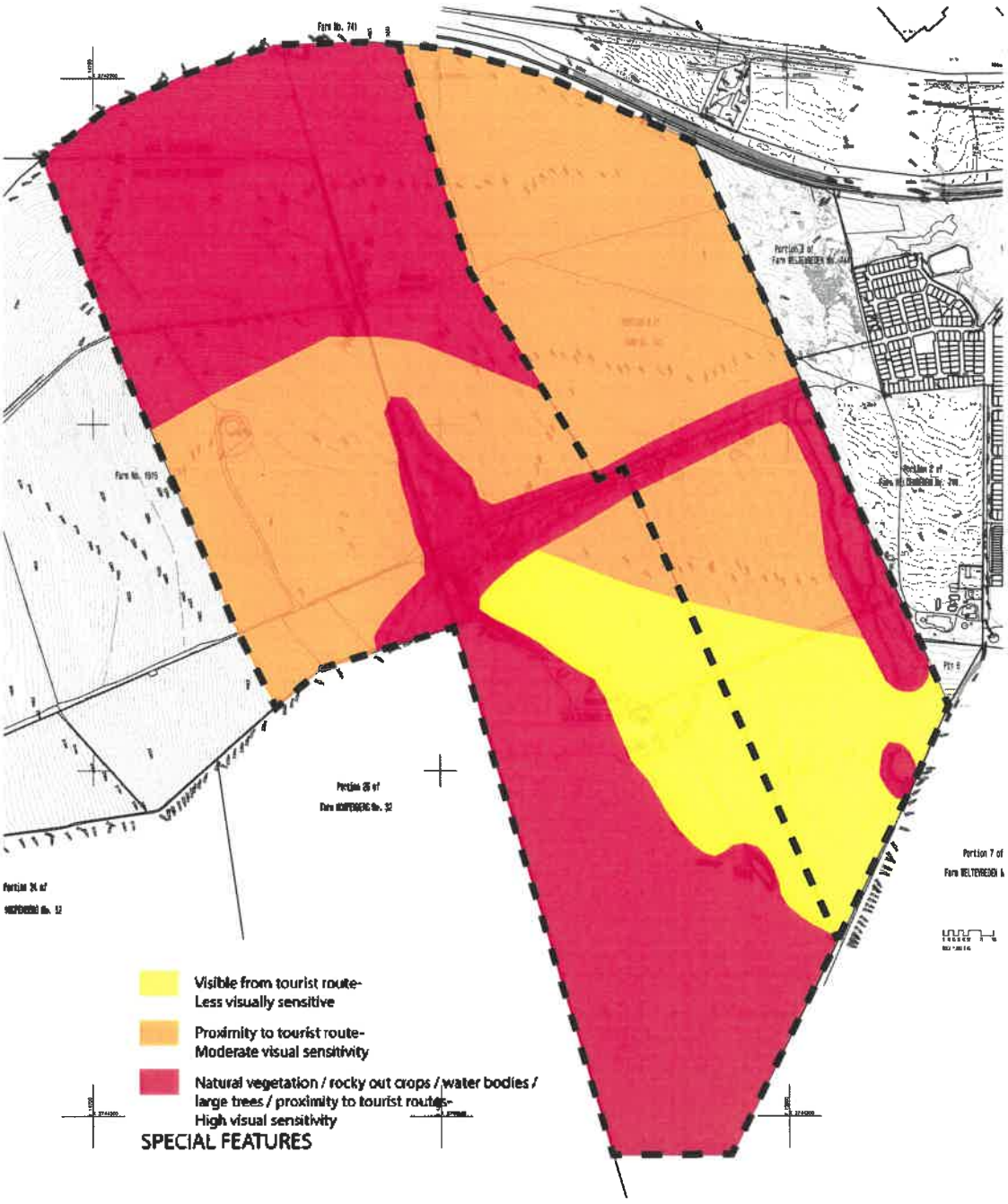


Figure 29: Visual Sensitivity of the Site - Special Features

8.7 Visual Sensitivity of the Site

The above layers are superimposed and the areas become rated as having a Very High, High, Moderate or Low Visually Sensitivity

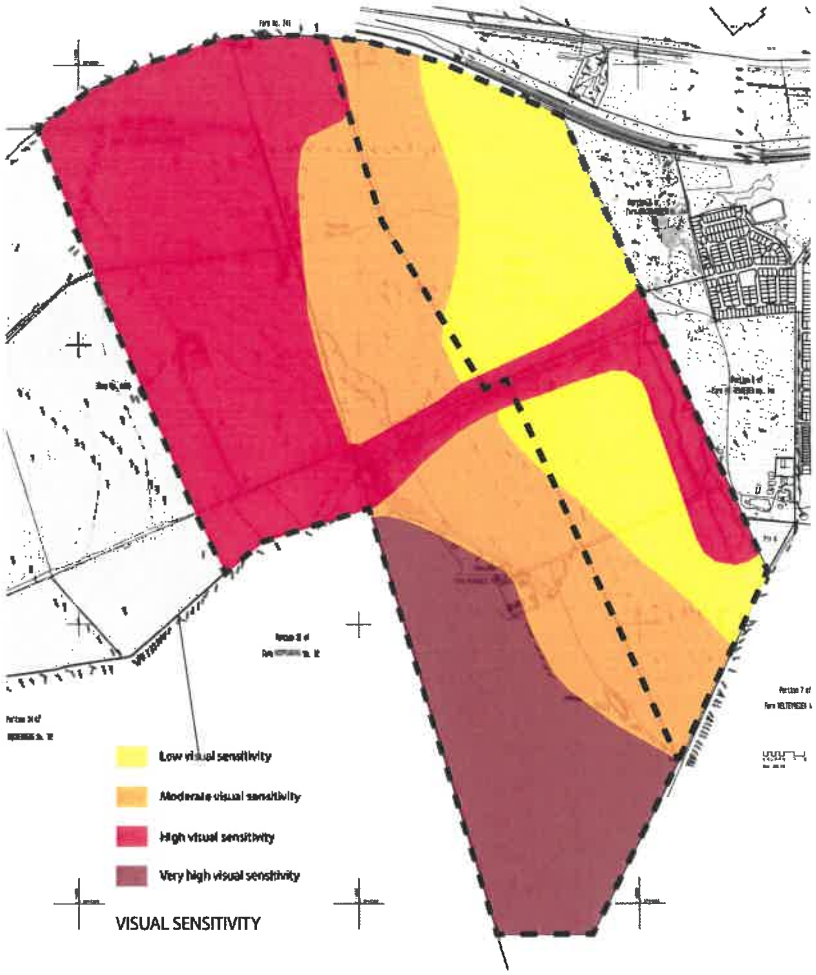


Figure 30: Visual Sensitivity of the Site

As seen in the Visual Sensitivity Figure above, the site has 4 levels of sensitivity namely:

i) Very High Visual Sensitivity - The upper slopes and ridgeline of Kanonkop, containing natural features and is an ecological support area - a NO-GO development area

ii) High Visual Sensitivity - areas that are higher lying, on or close to the ridgeline, have slope's that are steeper than 1:4, have no screening vegetation, are adjacent to Scenic Routes, Conservation areas or cultural Landscapes, are special features such as streams, wetlands, ponds, tree rows etc.

iii) Moderate Visual Sensitivity - upper hill slopes with slope grades of between 1:4 and 1:10, with some visual screening from large trees

iv) Low Visual Sensitivity - lower lying slopes with gradients less than 1: 10, adjacent to existing or proposed development.

9. VISUAL OPPORTUNITIES AND CONSTRAINTS OF THE PROPOSED SITE

The Visual Opportunities and Constraints of the proposed Stellenbosch Bridge Parcels 2 and 3 in Klapmuts are discussed below, having been informed by this visual framework study and current policies in place for the area.

9.1 Parcel 2 - Opportunities and Constraints

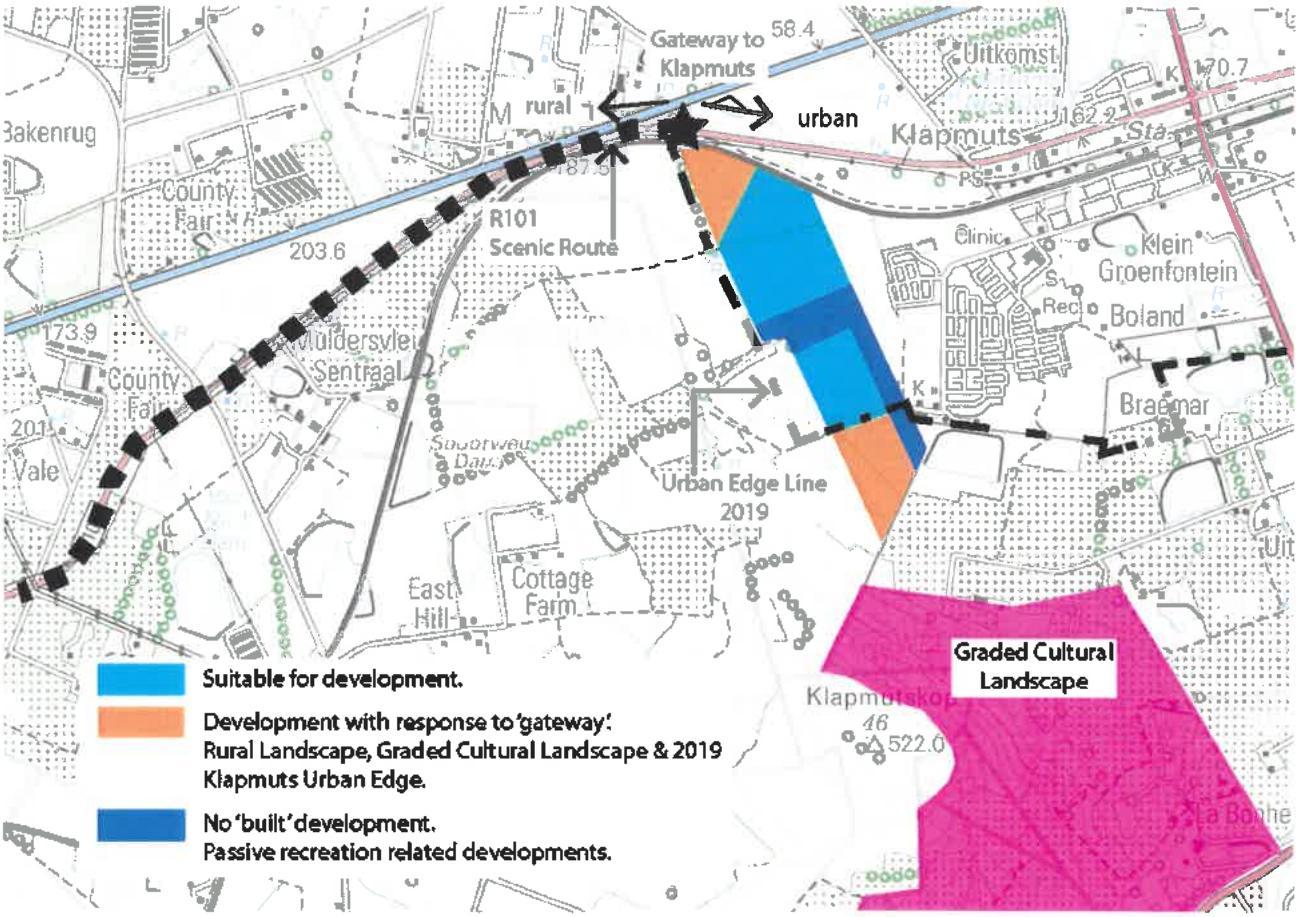
Parcel 2 is less visible and visually sensitive and has good Opportunities because:

- it is situated on lower lying foothill slopes of the Klapmutskop, adjacent to the Klapmuts River plain;
- the slopes are gently sloping, less steep than1:10 and therefore easier to develop without major earthworks and resulting large cut and fill slopes;
- it is adjacent to existing and or proposed residential and Light Industrial development in the north east and east;
- the site is adjacent to the R101 where it is identified as an intensification route as opposed to a Scenic Route.

Parcel 2 has some visual constraints in the following:

- there are some Special Features on the site that add visual value to it such as the stream that runs from west to east across the centre of the site and the low lying wetland/pond on the eastern border - while these have constraints to development, there are opportunities for passive recreation;
- the south and south eastern boundary is adjacent to a rural landscape with a Graded Cultural Landscape area close to the southern tip of the site. Development on this section of the parcel of land should be sympathetic to these land uses;
- the same south and south eastern portion of land, as discussed in the point above, is outside of the 2019 Klapmuts Urban Edge Line (however Stellenbosch acknowledge the proposed studies for development and require a Precinct Plan for approval);
- the 'Entrance' to the town where 'a strong sense of transition between agriculture and human settlement' is to be retained

Figure 31: Parcel 2 - Visual Opportunities and Constraints



9.2 Parcel 3 - Opportunities and Constraints

Parcel 3 is more visible and has a visual sensitivity that is moderate at best, with appropriate development in areas where the visual sensitivity is High and some visual buffer areas where the visual sensitivity is Very High. The areas with some Visual Opportunities are:

- the lower portion of the northern and southern areas of the Parcel 3 site where, although the area is visible and adjacent to rural and cultural landscapes, it is on disturbed land that has slopes less than 1:10 in the north and between 1: 4 and 1:10 in the south.
- these areas are set 'below' the prominant ridgeline with development possibly not breaking this ridge line
- these areas are set back from the R101 Scenic Route although will be visible from a couple of kilometres of the R44 and Simondium Scenic Routes.

The areas with Visual Constraints where appropriate development should take place to omit High Visual Impacts are:

- along the ridgelines where buildings will break the skyline and become highly visible as well as visually intrude on the rural landscape to the west;
- adjacent to the R101 scenic route where buildings will visually intrude onto the scenic route and Gateway and potentially block views of the Klapmutskop;
- along and adjacent to the stream which is a visual feature - development for passive recreation would be suitable and ecological restoration;
- it is outside of the current SM SDF (2019) indicated Urban Edge of Klapmuts; and
- It is on the rural side of the 'Entrance' to the town where 'a strong sense of transition between agriculture and human settlement' is to be retained, i.e. it will not be providing a sense of agriculture.

The area of Very High Visual Sensitivity should be conserved and undeveloped - NO GO area:

- the ridgeline and slopes are close to the Klapmutskop Peak (although Peak is off site to south) and well elevated above the surrounding areas, highly visible to these same areas;
- the mountain slopes are steep;
- the area is predominantly naturally vegetated or uncultivated;

- there are scenic rock outcrops and cliffs that are special visual features;
- it is adjacent to the Klapmutskop Conservancy, if not part thereof, so should be left undeveloped unless for hiking trails, and managed as a natural area;
- it is adjacent to the Graded Cultural Landscape to the east; and
- It is outside of the current SM SDF (2019) indicated Urban Edge of Klapmuts.

It is adjacent to the proposed western 'Gateway' into Klapmuts, (refer to SM SDF) which is east of the Klapmutskop ridgeline in the Klapmuts River Valley. This 'Gateway' along the R101 scenic route is a point where one leaves the rural landscape to enter the village of Klapmuts.

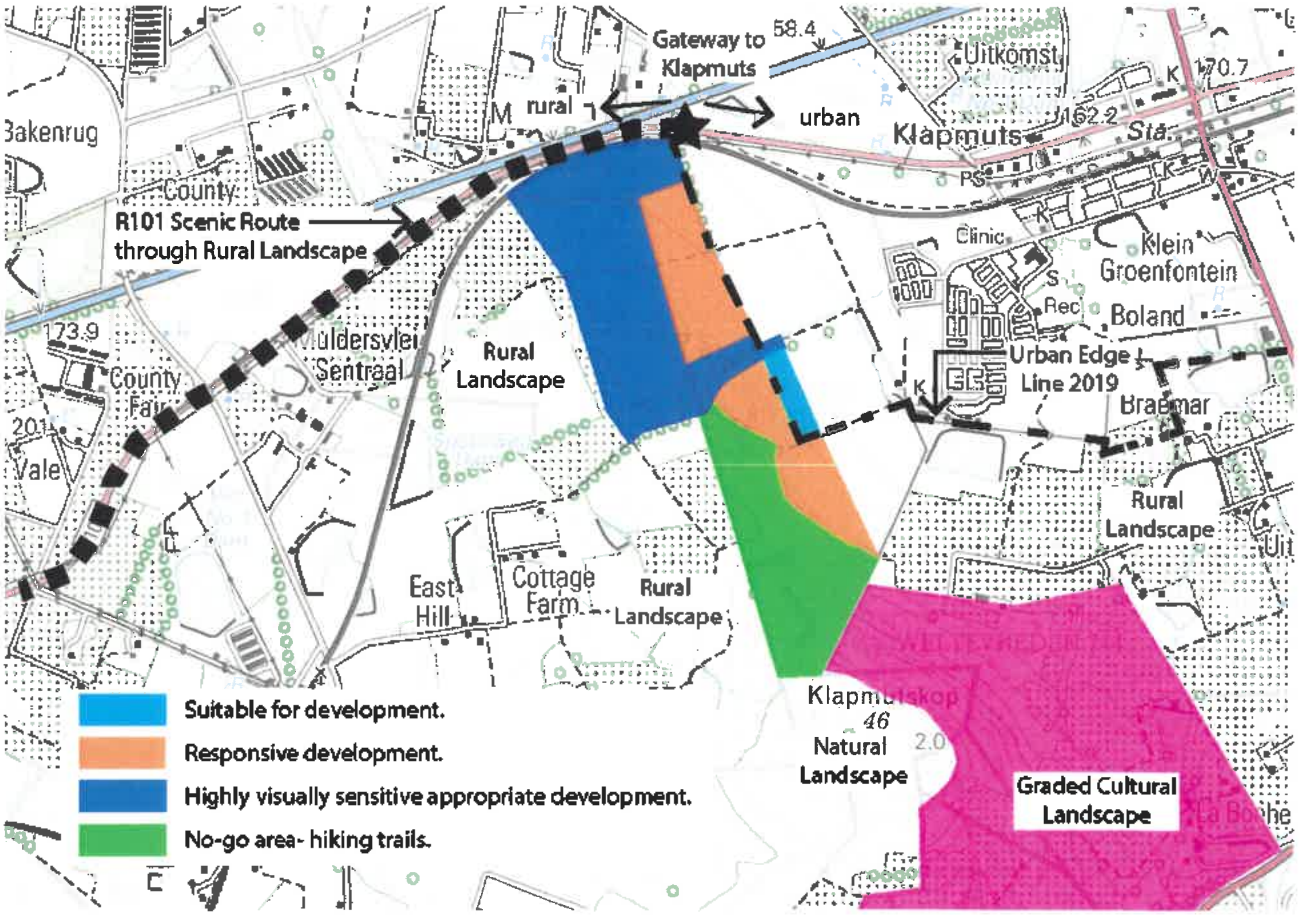


Figure 32: Parcel 3 - Visual Opportunities and Constraints

10 CONCLUSION OF THE VISUAL FRAMEWORK STUDY

Parcel 2 of the proposed Stellenbosch Bridge Development falls predominantly within the SM SDF (2019) Klapmuts Urban Edge, with the exception of the southern section, which falls outside thereof.

Approval was granted for residential development in 2008 but due to higher density and mixed use development in the northern extent of this parcel of land, a Substantive Amendment will be submitted with a comparison of the impacts between the authorised development and the proposed Stellenbosch Bridge Development.

With the exception of:

- the stream and water feature in the central portion of this site;
- the southern section indicated outside of the Urban Edge Line; and
- The proximity of the 'Entrance Gateway' in the north western corner of this site;

the site of Parcel 2 has a low visual sensitivity and is conducive to development.

Development in the southern section which falls outside of the 2019 Klapmuts Urban Edge Line and that is adjacent to rural landscapes and in close proximity of the Graded Cultural Landscapes, should respond to these rural landscape characteristics. These could be larger erven, less dense development or some urban agricultural development adjacent to the boundary.

Parcel 3 of the proposed Stellenbosch Bridge Development falls predominantly outside of the SM SDF (2019) Klapmuts Urban Edge, with the exception of the central portion near the stream, which falls within the Urban Edge of Klapmuts.

This Parcel of land is highly visible as it:

- is on the higher lying hill slopes;
- straddles a ridge line which makes development highly visible;
- is visually intrusive on the rural landscape to the east and west;
- is adjacent to the R101 Scenic Route section with development potentially blocking views of Klapmutskop;
- is on the rural side of the 'Entrance' transition site; and
- is adjacent to a Conservancy Area and Graded Cultural Landscape.

While Klapmuts has been identified as an economic growth point and primary node in the Stellenbosch Municipality's Spatial Development Framework (2019), this village is situated in an area, recognised both locally, nationally and internationally as being conservation worthy and has thus been included in international programmes as the Cape Winelands Biosphere Reserve.

Similarly, the Cape Winelands is also highly rated in terms of its unique cultural resources with a number of areas being protected under the Heritage legislation and by way of the SM SDF.

While development is being promoted, and while parts of these areas are indicated as being of little agricultural significance at the municipal scale, the Landscape Character of the proposed sites is crucial to the natural, cultural and scenic value of the valley and Stellenbosch Municipality.

Development on the ridgeline exceeds a visual threshold whereby it will intrude into the Krom River Valley, whose visual characteristic is rural and highly rated and once developed, the visual scenery becomes eroded. This development must ensure that it is sympathetic to the rural landscape of the Cape Winelands area and enhances the scenic landscape and does not detract from it.

To this end, Highly Visually sensitive areas must be developed so as to be a part of the scenic, cultural landscape and not try to compete, erode or degrade it.

In conclusion and to answer the Checklist Questions provided by the SM SDF:

SCENIC LANDSCAPES, SCENIC ROUTES AND SPECIAL PLACE OF ARRIVAL		
Does the proposal impact on a scenic landscape, scenic routes, or special place of arrival?		
Can associated impacts be managed and minimised without diminishing the integrity of the scenic landscape, scenic routes, or special place of arrival?		

Does the proposal impact on a scenic landscape, scenic route or special place of arrival?

Parcel 2 There is potential for visual impact on the R101 Scenic Route and 'Entrance' place to Klapmuts, with respect to transitioning from rural to urban as well as eroding the rural setting and scenery of Klapmuts.

Parcel 3 YES - there could be a significant visual impact on the Rural Scenic Landscape and R101 Scenic Route

Can associated impacts be managed and minimised without diminishing the integrity of the scenic landscape, scenic route or special place of arrival

Parcel 2 Yes

Parcel 3 Maybe

11 APPENDICES

Appendix 1: Expertise – list of projects

SELECTED PROJECT LIST SPECIFIC TO VISUAL IMPACT ASSESSMENTS

Visual Impact Assessments undertaken include for a variety of developments including industrial, energy (wind and solar farms), residential and mixed use at different scales and predominantly in the Western Cape with some projects in Mozambique and Uganda.

Capetel, Wemmershoek Mast, Level 2 VIA for Municipal authority.
La Motte Affordable Housing, Franschhoek, VIA for HIA, 2015
Elandskloof Community Re-settlement VIA for HIA, 2015
La Motte, S24 Visual Statement, 2014
Zanddrift Residential Development, South Paarl, VIA, 2014.
Cedar Park Residential Development, Sir Lowry's Pass, 2014
R44 between Somerset West and Stellenbosch, Upgrade of 3 Intersection, 2014
Philippi Urban Edge Amendment, Visual Statement, 2014
Val De Vie, Paarl, Residential Development, 2014
Preekstoel Residential development, Stilbaai, 2014
Zandrif Residential Development, Paarl, 2014
Philippi Urban Edge Amendment, Cape Town, 2014
Louisvale Winery, Stellenbosch, 2014
Elandskloof Historic settlement, Citrusdal, 2014
NBG: Bettys Bay, Worcester, Kirstenbosch and Niewoudtville – New Admin Buildings, 2014
Vredenheim Mixed Use Development, Stellenbosch, 2014
Proposed Boutique Lifestyle Centre, Stellenbosch, 2013
Namaqualand Mall, Springbok, 2013
Stellenbosch Mediclinic Development, Extension to building, 2013
Bosjesmansdam Valley, Worcester, Accommodation, chapel and wine tasting facility, 2013
Natures Path Lifestyle Village, Keurboomstrand, 2013
Brakkekloof and Donkergats Rivier Solar Farms, Atlantis, West Coast (2012)
Erf 2003 Melkbosstrand, Cape Town Mixed use development, 2011
Proposed wind energy farm at Clover Valley Farm, Darling on West Coast Plain (2011)
Jacobsbaai Tortoise Reserve – residential resort development on the west coast of West Cape (2011)
Proposed Development of a Wind Energy Project at Langefontein Farm near Saldanha Bay (2011)
Four proposed windfarms in the Garden Route area (2010 – 2011)
The Hill, Sedgefield – VIA of proposed housing development on dunes north of N2, Sedgefield (2009)

Leukenberg, Gordons Bay - VIA of proposed mixed use development on urban edge (2009)
Seawinds, Saldanha Bay – VIS of proposed new industrial Area at Blouwaterbaai, Saldanha (2008)
Skoongesig, St Helena Bay – VIA of proposed new electricity line and sub-station (2008)
Tullow Oil, Uganda, 2007
The Point, Kalk Bay – Visual sensitivity assessment to inform development (2001)
Erf 24, St Helena Bay – VIA of proposed housing development on hillside above west coast town (2005)

2012 VIAs

Paarl Boys High School, Paarl – sport fields development
Plattebosch, Stilbaai – residential development – VIA review
Rheebokskloof Farm, Paarl – proposed residential development
Groot Parys, Paarl - Residential development

2011 VIAs

Proposed Overberg Windfarm (2010 – 2011)
County fair chicken farm, Fisherhaven – (2011)
Visual statement for Kalbaskraal Solar Project
Somerset College, Somerset West – new sports facilities

2010 VIAs

Ascot Residential Development, Port Elizabeth
Caledon Residential Development
Constantia Nek Residential Development
Erf 29 + 30, Clifton, apartments development
3 Vodacom masts – Hermanus, Villiersdorp and Klipdale
De Hoek, power transmission lines

2009 VIAs

Klipland, Paarl – VIA of proposed housing development on N1 adjacent to Paarl
Salmonsvlei, Paarl – VIA of proposed housing development on N1 adjacent to Paarl
Swartland Mall – VIA of proposed mixed use development on urban edge of country town of Malmesbury

2008 VIAs

Dassenberg, Noordhoek – VIA of proposed housing development on hillside adjacent to Ou Kaapse Weg and TMNP

Dewaldorf, Stellenbosch – VIA of proposed mixed use development along R44 and on urban edge

Gevonden, Stellenbosch - VIA of proposed mixed use development on urban edge

Gordons Bay Mall – VIA of proposed commercial development outside urban edge

Klapmuts, Winelands – VIA of proposed mixed use development on urban edge

Stellenbosch Wine and Country Estate – VIA of proposed upgrading of an agricultural unit to create a Wine Estate development with residential and tourism opportunities

Paarl Waterfront - VIA of proposed mixed use development on Berg River, Paarl

The Estates, Stellenbosch – VIA of proposed wine tasting and restaurant facility on the R44

Voelklip, *Hermanus – VIA of housing development on Main Road, Hermanus*

Voortrekker Camp, Wemmershoek – VIA of proposed conference and camp facility development

Oudemolen Development – VIA of redevelopment for mixed use purposes, Pinelands

McGregor, WC - VIA of proposed housing development

2007 VIAs

Glencairn Erf 1 – residential development

Glencairn Erf 3410 – residential development

Herolds Bay – residential development

Rheebokskloof – resort development

Hawston – Afdaksrivier – residential development

2006 VIAs

Brandwacht farm No. 1049, Stellenbosch – Visual spatial analysis of historic farm 'werf' and proposed development

Proposed Eskom Mast, Perdekop, Farm 215, Baardskeerdersbos – Visual Impact Assessment of proposed Eskom Mast

Flaminkberg Vodacom Tower – VIA of proposed tower adjacent to N7 on mountain top in Knersvlakte

2000 – 2005 VIAs

Berg River Farm 913 - Visual impact assessment of proposed development of farm on Berg River, (2005)

La Cotte – Visual impact assessment of proposed development of historic farm, Franschhoek (2003)

Xai Xai Export Facility (harbour) visual Assessment, Mozambique (2003)

Linden Farm, Hout Bay – VIA of proposed development on historic farm (2003)

Siemens Communication mast – Kirstenbosch (2003)

Somerset West Vodacom Tower – Visual assessment of three options (2001)

Bloubergstrand East-West Arterial Road – VIA of four alternative proposed routes. (1999)

Blaauberg City - roads and housing development, 2000

Sonop Winery, Paardeberg – Visual Review of Development (2000)

'Die Dam' Vodacom tower – visual impact assessment (2000)

Versfeld Park, Piketberg – visual impact assessment of conference facility and housing development (2000)

Worcester Casino – Visual Impact Assessment of Proposed Development (2000)

Hout Bay Main Road – Visual Scoping of proposed alternative routes (2000)

R300 Ring Road – Visual sensitivity of proposed route (2000)

Die Dam - Vodacom mast along Overberg coastline, West Cape (2000)

Paapekuilsfontein – Struisbaai, Visual Impact Assessment of Proposed residential and commercial development in this coastal Village in Western Cape (2000),

Dido Park, Simonstown, Cape Town - VIAs for further development of this coastal area (2000)

Pringle Cove Abalone Farm – Visual Assessment for scoping phase of proposed development (2000)

Pre 2000 VIAs

Cape Metropolitan Area - visual sensitivity/significance mapping, 1999 – 2000, 2002

Coega IDZ, Port Elizabeth - supplementary VIA of Coega harbour, 1998

Soetwater and Millers Point – visual resource mapping for development opportunities, 1999

Blaaumountain - tourist development, 1998 – visual sensitivity mapping of the area to inform development

Capricorn Landmark - proposed landmark, 1998

Kenilworth Race Course housing developments (1998)

Milnerton Golf Hotel - proposed hotel development on Woodbridge Island, 1998

Vredekloof – Vodacom mast VIA of proposed mast (1998)

Farm 234 – Milnerton, VIA of the proposed housing development on Diep River (1997)

Fish Hoek By-Pass – Visual Assessment of proposed road (1990)

Outeniqua Pass Road – visual assessment of proposed upgrade (1990)

Du Toit's Kloof – Visual Assessment of Proposed upgrade (1989)

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ANNEXURE O

DRAFT SUPPLEMENTARY HERITAGE IMPACT ASSESSMENT

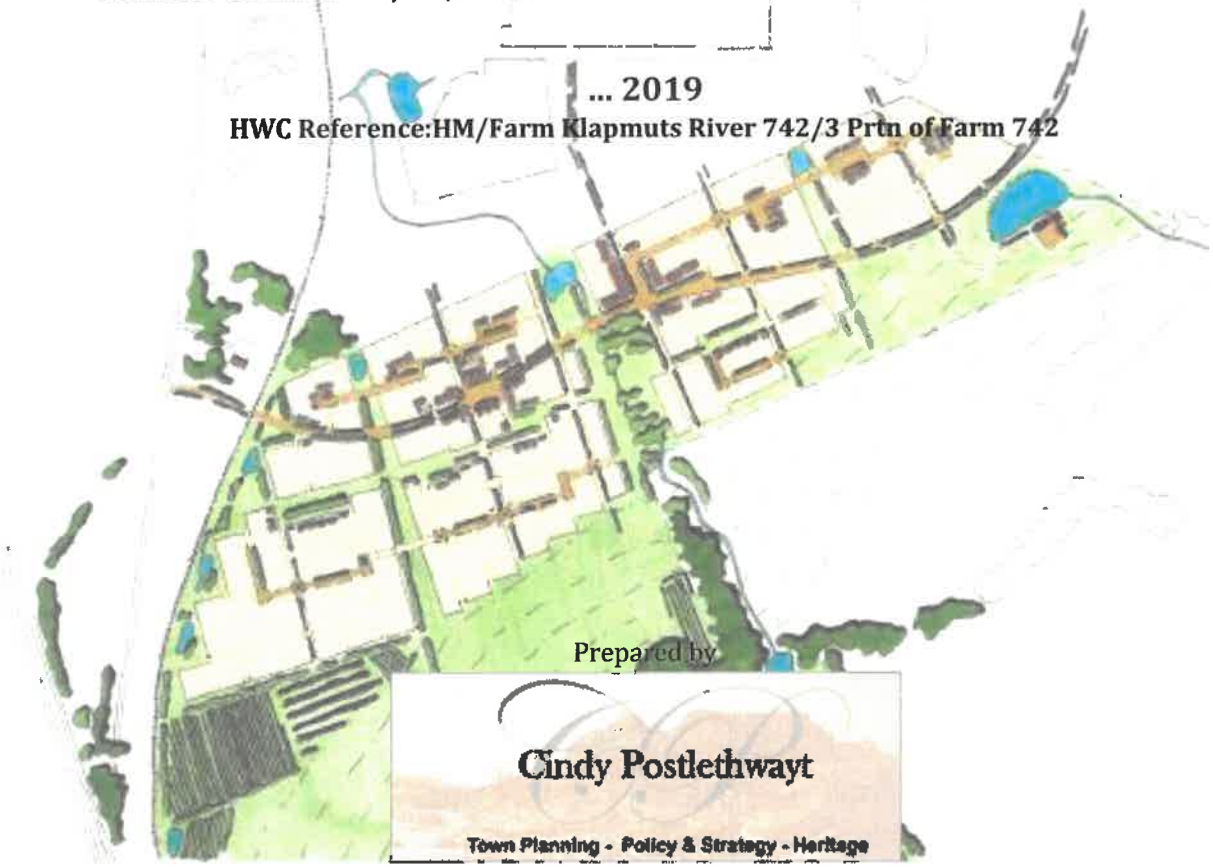
PROPOSED REVISION OF APPROVED SDP

Submitted for Final Comment in terms of s38(8) of the NHRA

PORTION OF FARM 742/5 KLAPMUTS: STELLENBOSCH BRIDGE INNOVATION PRECINCT

... 2019

HWC Reference:HM/Farm Klapmuts River 742/3 Prtn of Farm 742



Prepared by

Cindy Postlethwayt

Town Planning - Policy & Strategy - Heritage

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Statement of Independence

Cindy Postlethwayt hereby declares that I have no conflicts of interest related to the work of this report. Specifically, I declare that I have no personal financial interests in the property and/or development being assessed in this report, and that I have no personal or financial connections to the relevant property owners, developers or financiers of the development. I declare that the opinions expressed in this report are my own objective, independent views and a true reflection of my professional expertise.

Acknowledgements

This Report is directly informed by an HIA dated October 2008 by D Halkett and E Finnegan of ACO for the proposed development of Klapmuts Hills, Klapmuts (Portion of Farm Klapmuts Rivier No. 742/3, Portion of Farm 742, Remainder of Farm 744/2, Paarl Division)

Figure 1: Site in the regional context (Cape Farm Mapper – CFM)

1. Introduction

This Supplementary Heritage Impact Assessment (HIA) has been prepared to address a proposal to amend a 2011 DEA&DP approved Site Development Plan (SDP) for the property known then as the Klapmuts Hills Residential Development. The site originally comprised a portion of Portion 3 of the Farm 742 Klapmuts Rivier; a portion of Farm 742; and the remainder of Farm 744/2 in Klapmuts. It is supplementary to the original HIA completed in 2008 for which HWC issued a Record of Decision (RoD) in May 2009 and DEA&DP issued an RoD in April 2011.

2. Property details

Due to cadastral changes in the property description since the submission of the original application and approval, the property is now referred to as Portion 5 of Farm Klapmuts River 742. It is 74,97 ha in extent and located within the Urban Edge, between the village of Klapmuts and the lower slopes of the eastern foothills of Klapmuts Kop

3. Background

An HIA dated October 2008 was prepared by D Halkett and E Finnegan of ACO for the proposed development of Klapmuts Hills, Klapmuts (Portion of Farm Klapmuts Rivier No. 742/3, Portion of Farm 742, Remainder of Farm 744/2)(Annexure A). The HIA, with an associated Visual Impact Assessment (VIA) prepared by Megan Anderson Landscape Architects (MALA), was submitted to HWC in terms of section 38(8) of the NHRA, and a Record of Decision issued on 19 May 2009. Whilst not explicitly recorded, the Committee did not support the proposal before it, requiring further analysis of the receiving environment, cognisance to be taken of the urban morphology of Klapmuts and integration into the existing settlement.

Our Reference: HM/ Farm Klapmuts River 742/3 Prtn of Farm 742
Email: [redacted]
Enquiries: Ntombekhaya Njobe
Tel: (021) 483 9783
19-05-2009

Heritage Western Cape hereby notifies:

Tim Hart
Archaeology Contracts Office
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Private Bag
Rondebosch
7701

RECORD OF DECISION

Of its intention to comment in terms of
Section 38 (8) of the National Heritage Resources Act (Act 25 of 1999)
and Regulation 3(3)(a) of PN 298 (29 August 2003)

For: Proposed Development

At: Farm Klapmuts River 742/3, Portion of Farm 742, KLAPMUTS

Decision: The Committee agreed that the receiving environment needs to be further analyzed and the proposed layout should take cognisance of the urban morphology of Klapmuts.

The proposal must be integrated into the existing settlement

Yours faithfully

Ntombekhaya Njobe (Ms)
For Accounting Officer: Heritage Resources Management Service
p.p. Heritage Western Cape

Figure 2: The site (CFM)

The Final Environmental Impact Assessment Report dated January 2009 was submitted to DEA&DP by Withers Environmental Consultants. On 30 July 2010, DEA&DP issued an RoD refusing the proposed development (Annexure B1). Grounds for refusal included, *inter alia*:

- the Stellenbosch SDF indicated no further lateral growth the then current Klapmuts urban edge for the next decade. It was noted that a sizeable amount of the development exceeded the Klapmuts urban edge;
- the developmental focus should rather have been placed on infill development and the integration of new developments with the existing settlement of Klapmuts. Integration between the proposed development and the Weltevreden community was unlikely in the near future and the proposed development would remain isolated from the existing Klapmuts community as primary access would be off Old Paarl Road; and
- It was anticipated that the proposed development would create 968 direct and seasonal employment opportunities during the construction phase. However, these are by nature of a temporary duration and attention should have been placed on the creation of sustainable income generating opportunities that would benefit the surrounding communities.

An appeal was made by the developer in respect of this refusal, and in a letter dated 15 April 2011, the Western Cape Minister of Local Government, Environmental Affairs and Development Planning approved the development, subject to conditions (Annexure B2). Grounds for approval included, *inter alia*:

- The mostly medium income single residential development addressed the shortage of housing in the middle income bracket;
- The development was envisaged to have a long term significant socio-economic impact in terms of job opportunities and as commercial support to existing and new retail opportunities;
- The revised Klapmuts SDF, approved in May 2010, included the Klapmuts Hills residential estate within the urban edge. The remaining portion of land above the 200m contour would be used to accommodate a tourist facility.
- The edge of the residential development was defined by the need to protect valuable agricultural soils, as defined by a prominent tree line; and
- The VIA determined that the proposed development would not impact significantly on Klapmuts Kop.

4. 2011 approved development

The approved residential development provides for 1577 medium to high-density units developed over five phases (Table and Table below). This includes single residential units, town houses and cluster houses (semi-detached units) and two, three and four storey walk-ups (Figures 3 and 4). Village squares and a 'green system' of open corridors are components of the layout. The development was promoted as an extension to Klapmuts village rather than a separate estate.

The proponent encouraged social investment initiatives, and indicated support for a Development Trust, structured "to provide the impetus required to encourage small business development". Small-scale commercial enterprise would be promoted. The urban edge was extended between the period of the 2009 and 20011 NEMA decision, to include the site on land that had originally been earmarked for smallholdings and market-gardening (light agricultural activities). The Preferred Development Proposal was mooted as an extension of the existing Klapmuts village, but one that would double its size (ACO 2008)

Figure 3: Approved layout of Klapmuts Hills Residential Development. Phase 1 shown in colour

Figure 4: Google Earth manipulation showing the proposed development draped onto the landscape (AC

Table 1: The proposed phasing of the approved development

phase	phase area	developable area	gross density	average net density (u/ha)	bulk retail	bulk commercial	no of units: gen res	no of units: group res	no of units: single res	total no of units
Phase A	240632	138226	34.1	60	4000	7000	650	0	170	820
Phase B	77602	45500	11.6	20	0	3000	0	0	90	90
Phase C	204420	98906	22.7	50	1000	1000	310	0	155	465
Phase D	166295	79388	13.5	30	1000	1000	80	0	145	225
Phase E	68205	52517	44	60	0	0	160	0	140	300
Total	757154	414536	25.1	46	6000	12000	1200	0	700	1900

Total Development Area	757154
Gross Density	25.1

Table 2: Phase A: Land use and Zoning

Portion no	No of Erven	No of units (approx.)	Land Use	Zoning	Area (m^2)	%
1 – 27	27	27	Single Residential	Residential Zone I	10 974	4.7
28 – 169	142	142	Town houses	Residential Zone III	33 957	14.6
170 - 173	4	69	Flats (60 du/ha)	Residential Zone IV	11 433	4.9
174 - 178	5	139	Flats (75 du/ha)	Residential Zone IV	18 598	8.0
179 - 182	4	181	Flats (100 du/ha)	Residential Zone IV	18 355	7.9
183 - 184	2	190	Flats (120 du/ha)	Residential Zone IV	15 949	6.8
185 - 186	2	72	Retail, Community, Residential	Sub-divisional Area	9 091	3.9
187 - 199	13	n/a	Public Open Space	Open Space I	57 321	24.6
200	1	n/a	Road and Parking	Transport Zone II	57 499	24.7
Total	200	820			233 177	100.0

5. Motivation for proposed SDP amendments

The Klapmuts Hills Residential Estate has not been developed due to market conditions and the land remains largely fallow, with a small area under wheat cultivation. The DEA&DP RoD has had its validity period extended to March 2021.

The proposed development of the subject property now forms one component of a larger project known as the 'Stellenbosch Bridge Innovation Precinct'. This project responds to a Municipal initiative to establish catalytic projects which are directed at achieving broader municipal goals. The Adam Tas Corridor in Stellenbosch is one such project, the other being the development and expansion of Klapmuts.

In terms of the Stellenbosch Municipality 2019 SDF, "Stellenbosch town and Klapmuts should be the primary focus for significant settlement growth. It is here, by virtue of settlement location in relation to broader regional networks and existing opportunity within settlements, that the needs of most people can be met, in a compact settlement form while protecting the Municipality's nature and agricultural assets"[1].

"Significant progress has been made in planning for a "Innovation Precinct" or "Smart City" district west of but contiguous to Klapmuts south. This include a land agreement with the University of Stellenbosch to possibly establish university related activities in this area. The urban edge has been adjusted in recognition of the opportunity associated with this initiative."[2]

According, the developer of the precinct has initiated three separate but related NEMA processes all of which prepare for the Stellenbosch Bridge Innovation Precinct development:

i. A Basic Assessment for RE Portion 2, Paarl Farm 744, Klapmuts for the rezoning and subdivision of land that has been within the Urban Edge for many years. It is intended to develop the property for light industrial purposes. A NID was submitted for this property and in a Response from HWC dated .., HWC determined that there would be no further requirements in terms of the NHRA.

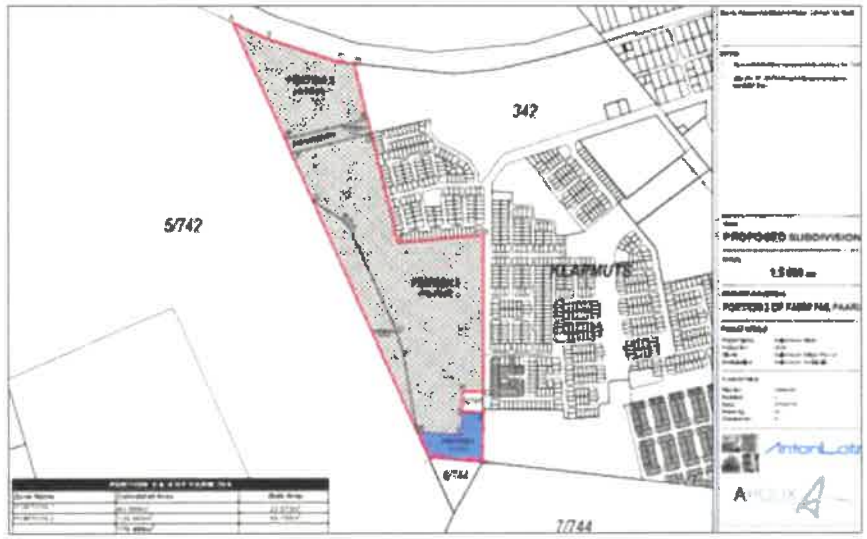

Figure 5: Site proposed for light industrial development

ii. An application for a Substantive Amendment to the 2011 NEMA approved SDF in respect of the adjoining portion of Farm 742/5, of which this Supplementary HIA forms part.

This Supplementary Report to the 2008 Heritage Impact Assessment will be submitted to HWC with the objective of undertaking a comparative assessment of impacts of the revised Stellenbosch Bridge Innovation Precinct proposal relative to those anticipated for the approved Klapmuts Hills Residential Estate.

[1] SMSDF (2019) p127

[2] Ibid p 124

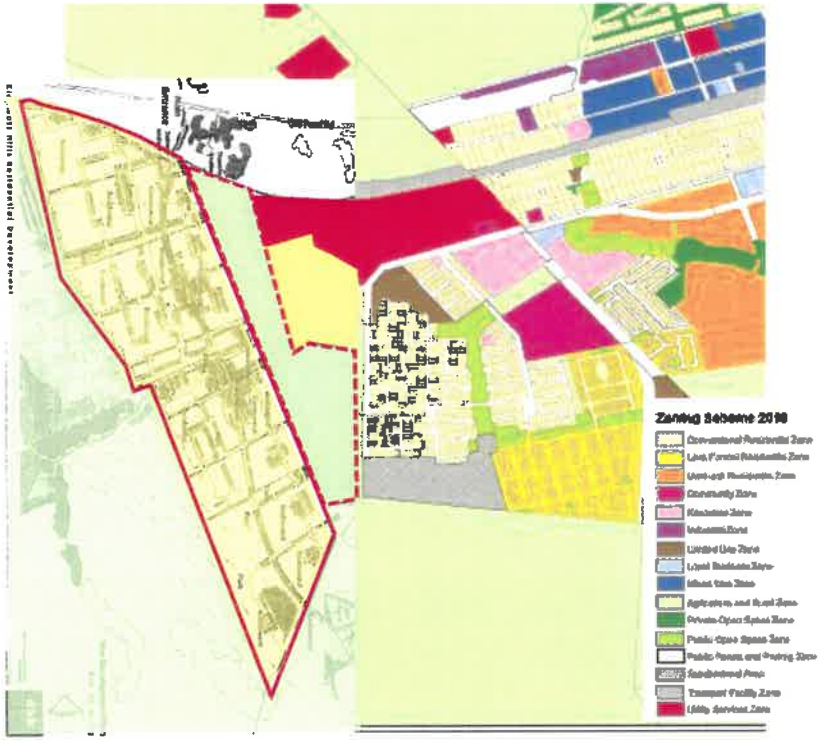

Figure 6: Substantive amendment proposed for the approved Klapmuts Hills Residential Estate, outlined red. The adjoining property outlined dash red being RE Portion 2, Paarl Farm 744 for which light industrial development is proposed.

iii. A Basic Assessment for the landholding that will be the subject of a Section 38(8) HIA for the adjoining portion of Farm 742/5; Remainder Farm 742; portion of Farm 1515 Klapmuts, which will comprise the remainder of the Stellenbosch Bridge Innovation Precinct and which are also now included in the Klapmuts Urban Edge.

Figure 7: Stellenbosch Bridge Master Plan, the portion of the property outlined in yellow being portion of Farm 742/5; Remainder Farm 742; portion of Farm 1515 Klapmuts. The subject property of this Supplementary HIA is outlined in red.

6. Methodology

The proposed revision of the DEA&DP approved SDP is regarded as substantive, and requires a comparative heritage impact assessment (with associated Visual Impact Assessment) between the approved plan and the new proposed plan. This includes updates to the original findings (if necessary) and assessing the impacts of the proposed amendments with proposed mitigation measures and recommendations against the original report and original findings. Comparative impact tables are to be provided.

This Supplementary Phase 2 HIA, read with all the annexures, is intended to fulfil the requirements of Section 38(3) of the NHRA. In an

email from HWC to this author on ..., it is noted: "Please be advised that the contents of your email was tabled at our Heritage Officers meeting on the .... HOMs has no objection to the submission of a Phase II HIA with the amended Site Development Plan."

This Supplementary Report is both to be read with the 2008 HIA report and updates it in respect of any new information, and will confirm and/or amend the identification of heritage resources, their significance and design indicators in order to fulfil sections 38(3)(a) and (b) of the NHRA. The Report will then address sections 38(3)(c) to (g) in respect of the proposed amendment. A Visual Impact Assessment of the revised proposals will be integrated into this report.

The project team includes, inter alia:

- HIA Practitioner: Cindy Postlethwayt
- Visual Impact Assessor: Megan Anderson of MALA Consulting
- Environmental Assessment Practitioner: Aubrey Withers of Legacy Environmental Management Consultancy (Legacy EMC)
- Stellenbosch Bridge Master Plan: Osmond Lange Architects and Town Planners
- Landscape Master Plan: Square One
- Town Planning: Anton Lotz
- Socio-economic Impact Assessment: Jonathan Bloom?

7. Assumptions & Limitations

HWC did not support the Klapmuts Hills Residential Development. However, it was subsequently approved by the Minister and is situated inside the Urban Edge. Despite HWC's concerns then, this approval must perforce be taken as the starting point from which assessments of alternatives must be taken.

The Stellenbosch Bridge Innovation Precinct, of which the subject site forms part, is a substantial extension to the town of Klapmuts and incorporates two other development sites which are the subject of separate NEMA applications. It is important that the cumulative impacts of all three applications are considered.

The Stellenbosch Bridge project has been developed in tandem with the 2019 Stellenbosch Municipal SDF. The process of design development had already been underway for some time before the appointment of the heritage impact assessment practitioner, which inevitably has an impact on the ability of the assessment process to properly raise heritage considerations timeously.

Access to the site and related information was available. The information and assessments supplied by others are assumed to be accurate and a fair representation of the proposed development. It is assumed all relevant information has been disclosed.

8. Update: Heritage Resources and significance

The criteria for assessing heritage significance are included in Annexure C.

Since the 2008 HIA for this site, the Stellenbosch Municipality has undertaken a heritage inventory which has been approved by HWC (2018). In terms of this, the following is noted in respect of the identification of heritage resources and grading:

The Heritage Inventory identifies a cluster of heritage resources in the original settlement area, described as the Klapmuts Core. The Mandela City area to the east of the overall Stellenbosch Bridge Innovation Precinct is explicitly identified as Not Conservation Worthy. The Scenic Route of the R44 stops short of Klapmuts.

The property concerned is situated in a landscape graded **IIIB**. The landscape to the west of the ridgeline is regarded as being more significant as a landscape than Farm 742/5. This relates to its direct association with the more intact agricultural landscape west of Klapmuts Kop.

No other tangible heritage resources have been identified on the property or in the vicinity. Landscape significance aside, the 2008 ACO HIA noted that no significant archaeological material was observed and no physical heritage resources of value were identified within the proposed development site. There is no reason to find otherwise under current circumstances.

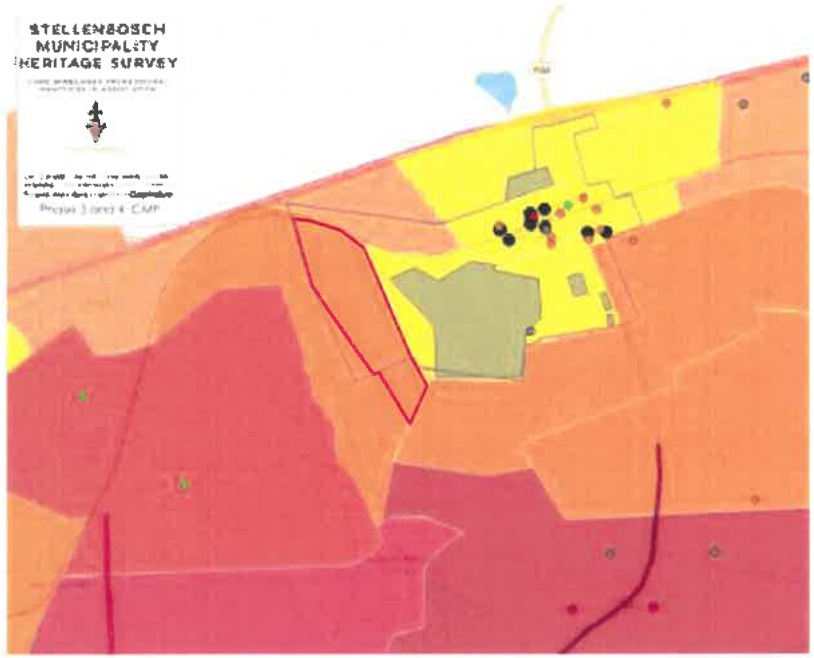

Figure 8: Heritage Inventory 2018 (it is to be noted that the Urban Edge has been subsequently amended - see Section 9 below). Approximate site boundaries outlined in red

Functional areas in Klapmuts are defined to include the Klapmuts Core, Belt (in which portion of Farm 742/5 and Remainder Farm 742 are situated), and Outskirts. The 'Belt' functions to hold Klapmuts within a larger natural structure. The gateway to the west forms part of this belt system. The outskirts are not a particular area with a specific character, rather a grouping of random and fragmented landscapes with different land uses caused by the number of roads that cut through this landscape (I06 -I12).

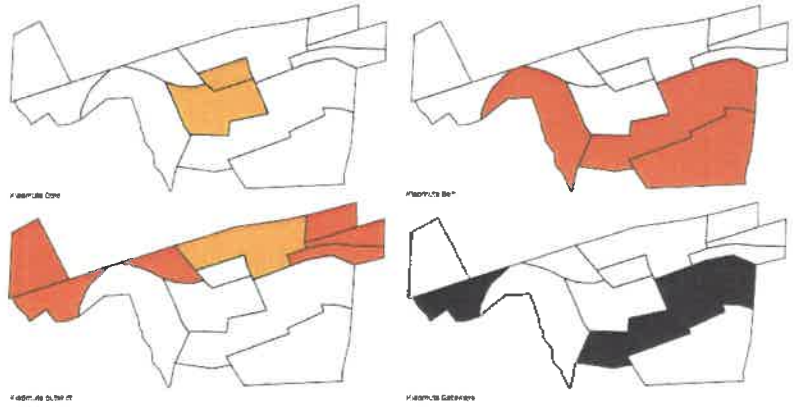

Figure 9: Klapmuts Functional Areas (Heritage Inventory 2018)

The western foot slopes of Klapmuts Kop form part of the Muldersvlei and Klapmuts Foot slope landscape unit, which comprises "vineyards and fallow fields, service roads and remnant plantations with pockets of fynbos and dams characterise the gentle slopes of Klapmutskop. The use of terracing in the landscape makes it an exceptional cultural landscape with a degree of rarity in the Stellenbosch Municipal area.

This landscape unit reads with land unit A09 (to the south) and has a rural character to it. It has largely been spared from development, except for an intrusive housing estate, but is now threatened by an expanding Klapmuts. The exceptional use of terracing on the higher slopes of Klapmuts Kop forms an important gradation between wilderness and cultivated landscape. The landscape has significance for its rarity, aesthetic and scenic beauty. This pocket should remain rural in character and accessible, and any form of development that

compromises the integrity of the cultural landscape should be prohibited." (Heritage Inventory).

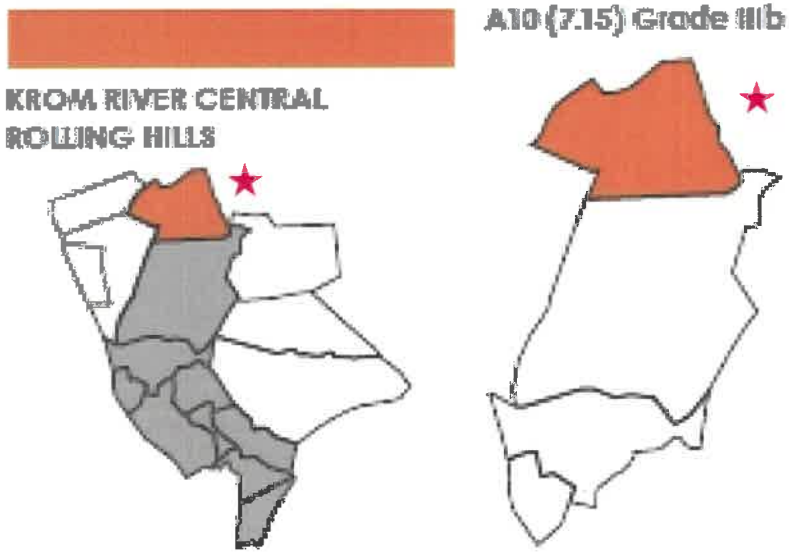

Figure 10: Muldersvlei and Klapmuts Foot slope landscape unit, approximate location of the property concerned identified with a star

Figure 11: View towards Klapmutskop eastern foot slopes showing terracing (Heritage Inventory)

9. Updates Planning Policy

The following extracts are taken from the 2019 Stellenbosch Municipal SDF: "The Greater Cape Metro Regional Spatial Implementation Framework (RSIF) contains very specific policy directives related to Klapmuts, aimed at addressing pressing sub-regional and local space economy issues. Key policy objectives include:

- Using infrastructure assets (e.g. key movement routes) as "drivers" of economic development and job creation.
- Recognition that existing infrastructure in the area (i.e. N1, R101, R44 and the Paarl-Bellville railway line and station) dictate the location of certain transport, modal change or break-of bulk land uses.
- Recognition of the Klapmuts area as a significant new regional economic node within metropolitan area and spatial target for developing a "consolidated platform for export of processed agri-food products (e.g. inland packaging and containerisation port)" and "an inter-municipal growth management priority".
- The consolidation of and support for existing and emerging regional economic nodes as they offer the best prospects to generate jobs and stimulate innovation.
- The clustering of economic infrastructure and facilities along public transport routes.
- Maintaining valuable agricultural and nature assets.
- Providing work opportunity in proximity to living areas.

There is no doubt that Klapmuts is a potentially significant centre for economic activity and residence within the metropolitan region and SM (Stellenbosch Municipality), located as it is on the N1 transport corridor which carries 93% of metropolitan freight traffic. To date, the settlement is characterized by residential use and limited commercial and work-related activity. Public sector resource constraints have prevented the infrastructure investment required to enable and unlock

the full potential of the area for private sector economic development as envisaged in the GCM RSIF.

The decision by Distell Limited to relocate to and consolidate its operations in Klapmuts is critical to commence more balanced development of the settlement. Distell Limited proposes to develop a beverage production, bottling, warehousing and distribution facility on Paarl Farm 736/RE, located north of the N1, consolidating certain existing cellars, processing plants, and distribution centres in the Greater Cape Town area. The farm measures some 200 ha in extent. The beverage production, bottling, warehousing and distribution facility will take up approximately 53 ha. The project proposal includes commercial and mixed-use development on the remainder of the site which is not environmentally sensitive to provide opportunities both for Distell's suppliers to co-locate, and for other business development in the Klapmuts North area."

"Significant progress has been made in planning for a "Innovation Precinct" or "Smart City" district west of but contiguous to Klapmuts south. This include a land agreement with the University of Stellenbosch to possibly establish university related activities in this area. The urban edge has been adjusted in recognition of the opportunity associated with this initiative."

Figure 12: Proposed Distell development Klapmuts North, approved by DEA&DP May 2019. It is noted that a Heritage Impact Assessment was undertaken for this site by ACO April 2018. The Klapmuts Hills Residential Estate site is identified with a star

Significant new mixed use development	• Support the development of Farm 736/RE in Klapmuts North to unlock the development potential of Klapmuts (with an emphasis on job creation). • Support the development of a "innovation precinct" or "smart city" in Klapmuts South.
Significant new residential development	• Ensure that housing in Klapmuts South provides for a range of income groups.
Agricultural land	• Retain and improve the relationship between Klapmuts and surrounding agricultural land.

Extract from Plan elements and Proposals for Klapmuts (SM SDF 2019)

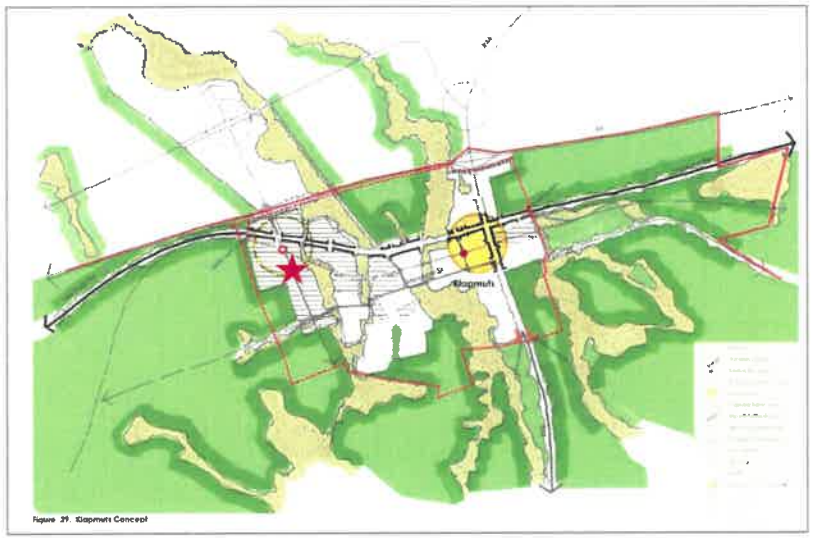

Figure 13: Klapmuts Concept (SM SDF 2019), property starred

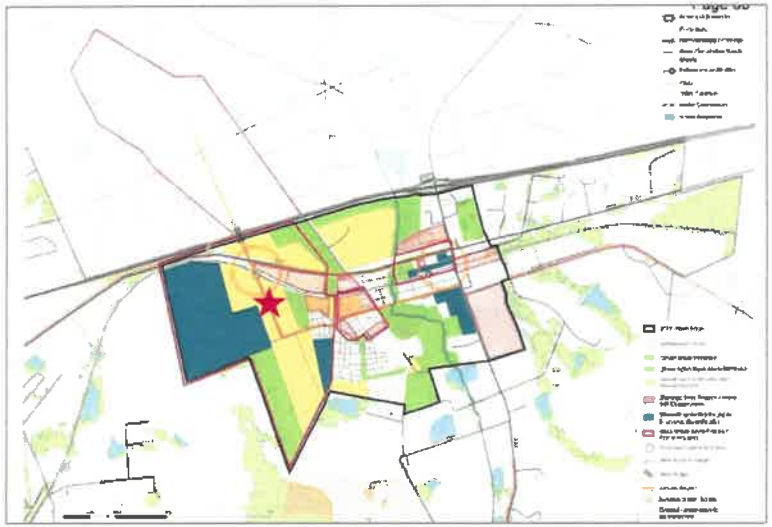

Figure 14: Klapmuts Plan and amended urban edge (SM SDF 2019)

10. Revised SDP proposal

(awaiting info from project team)

Annexure D

11. Comparative assessment of impacts

Table 3: Comparative summary of development 2011 and 2019

Development elements	2011	2019
Land use and max footprint		
Location of land uses		
Subdivisions		
Zoning		

11.1 Approved SDF 2011

The impact assessments contained within the Final Environmental Impact Assessment Report (Withers Environmental Consultants January 2009) are summarised as follows:

HIA

"No heritage resources of value were identified within the proposed development site. In terms of physical heritage resources, the immediately adjacent residential area does not hold any significant historical or heritage value. .... The only potential concern in terms of heritage would be the impact of the out of context scale inserted into an established settlement pattern and style of the surrounding area. The scale of the proposed development is also mentioned as a concern in the Visual Impact Assessment but it is maintained that the potential of the site's ability to conceal and absorb the proposed development has been rated moderate to high. .. The concern of bulk and elevation may in effect be mitigated by the predicted expansion and growth of the area into a substantial town of 25000 people...

There is the potential for impact on the landscape as a result of the scale and mass of the proposed development. The independent visual impact assessment supports the development proposal, and contends that the site has a high visual absorption capacity. Retention of windbreaks and tree alignments will soften the visual impact of the development. There will, therefore, be very little to no negative impact on heritage resources or on the historical landscape.

Mitigation

- To ensure the least disruption to the village and its rural setting it is strongly recommended that any recommendations made in the visual impact study be given strict consideration.
- Landscaping of gardens and streetscapes will be put in place to further reduce any significant visual impacts (when mature) on the surrounding rural landscape.
- Architectural guidelines will also be in place to guide the architectural style and bulk of the buildings to be built in a way that it is not visually intrusive.
- The density of the proposed development will reduce further upslope towards the farm boundary. In addition the size of the erven will also increase upslope.

Potential Impact	Prop. Dev. Option	Assessment of Impact: Extent		Magnitude		Duration		Probability		Significance		Confidence	
		No Mit.	With Mit.	No Mit.	With Mit.	No Mit.	With Mit.	No Mit.	With Mit.	No Mit.	With Mit.	No Mit.	With Mit.
Impact on the Historical and Cultural Significance of Klapmuts.	Prim. Appl.	Local		M (-)	L (-)	Long Term		Pr	Po	M (-)	L (-)	C	C
	Alt. 1			M-L (-)	L (-)			Pr	Po	M-L (-)	L (-)	C	C
	No Go			Z	Z			Im	Im	N	N	C	C

VIA

In terms of the findings of the VIA " The scale of the development has been determined as being unusual as the proposed development will consist of 3 and 4 storey buildings as opposed to the typical single storey buildings of Klapmuts. ... The rural scenic resources of the area are of value and the proposed site has an ability to absorb the proposed development and the proposed development has an opportunity to add

to the scenic resources of the area. The proposed siting and layout has made good use of the natural topography keeping taller buildings lower, lower buildings higher, all next to Klapmuts and below the ridgeline. Large open spaces and landscaping allow for visual mitigation. The local topography also reduces the zone of visual influence to an arc 3 – 4 km's to the north-east and south-east of the site. Within this zone, buildings and vegetation, windbreaks, orchards and other trees further reduce the visibility of the site and proposed development.
Along the scenic routes such as the N1 and R44, views of the site are interrupted by trees (windbreaks, orchards), buildings and railway berms. The visibility from the N1 is limited to a couple of hundred meters, while the proposed development will be visible from longer sections of the R44 but still within the Zone of Visual Influence which is 3kms.

The potential of the sites' landscape and topography to conceal the proposed development is however moderate to high. The gentle slopes on the site together with the proposed development layout, green treed spaces, higher buildings in lower spaces etc., and general
tree planting will result in the development being able to be absorbed into the landscape.

The western urban edge of Klapmuts has been restricted to the 200m contour line. This height delimitation will also assist in reducing the visual impact of the proposed development."

Mitigation:

- The proposed urban layout goes a long way in mitigating potential visual impacts through being adjacent to the existing village of Klapmuts, being sited on lower lying slopes (below 200m), having taller buildings sited on lower lying areas and lower buildings on higher lying areas, and providing large open spaces and street tree planting along major roads and paved squares.
- Architectural Guidelines should address:
  - building form and style, ensuring that it complements the rural landscape
  - colour, an agreed palette should be decided to avoid visually obtrusive colours
  - finishes such as roofing materials and reflective surfaces should be specified to prevent visual obtrusion (e.g. dark grey roofs to blend in with the backdrop of Klapmutskop).
  - The visual mitigation of the development is highly dependent on the planting and establishment of the landscape, in particular large trees along streets to visually absorb building
  - Lighting is a potential visual impact and appropriate technology is available and must be used to ensure light pollution is avoided. A specialist must be appointed to plan and design the lighting for the development, including all public and security lighting, such that light pollution is mitigated and spillage is nullified. Lighting must also be energy efficient.

Potential Impact	Prop. Dev. Option	Assessment of Impact											
		Extent		Magnitude		Duration		Probability		Significance		Confidence	
		No Mit.	With Mit.	No Mit.	With Mit.	No Mit.	With Mit.	No Mit.	With Mit.	No Mit.	With Mit.	No Mit.	With Mit.
Negative Visual Impact of the Proposed Development	Prim. Appl.	L		M-H (-)	M-L (-)	L	M	Pr	Pr	M-H (-)	M-L (-)	C	C
	Alt. 1			M (-)	L (-)			Pr	Pr	M-L (-)	L (-)	C	C
	No Go			Z	Z			D	D	N	N	C	C

11.2 Proposed revision to SDF

It is to be noted that the assessment of heritage significance has been updated and the basis for assessing impacts has been amended by DEA&DP since 2011. It is therefore not possible to provide a direct comparative assessment.

CONSTRUCTION PHASE: REVISED PROPOSAL

Potential impact and risk:	*Impact upon cultural landscape*
Nature of impact:	
Extent and duration of impact:	
Consequence of impact or risk:	
Probability of occurrence:	
Degree to which the impact may cause irreplaceable loss of resources:	
Degree to which the impact can be reversed:	
Indirect impacts:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation	
Degree to which the impact can be avoided:	
Degree to which the impact can be managed:	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Residual impacts:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation	

Add VIA tables

OPERATIONAL PHASE: REVISED PROPOSAL

Potential impact and risk:	
Nature of impact:	
Extent and duration of impact:	
Consequence of impact or risk:	
Probability of occurrence:	
Degree to which the impact may cause irreplaceable loss of resources:	
Degree to which the impact can be reversed:	
Indirect impacts:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation	
Degree to which the impact can be avoided:	
Degree to which the impact can be managed:	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Residual impacts:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation	

11.3 Sustainable Socio-economic benefits

Appendix E

11.4 Summary

12. Public Participation

Appendix F provides supporting information. The registered Conservation Bodies ... the ... Municipality were given the opportunity to comment on this application....

(to be completed once PPP is concluded)

13. Recommendations

References

Hart T (ACO) (April 2018) Heritage Impact Assessment: Farm Re/736 (Distell), Klapmuts North

Hart T (ACO) (May 2007)Heritage Impact Assessment: Klapmuts Hills, Portion Farm Klapmuts Rivier No. 742/3, Portion Farm 742, Remainder Farm 744/2, Paarl Division

Beal Africa (2017): Klapmuts Special Development Area - DRAFT Report

Cape Winelands Heritage Survey May 2018

Halkett D & Finnegan E (ACO) (2008): Heritage Impact Assessment Portion of Portion 3 of the Farm Klapmuts Rivier No. 742 and a portion of Farm 742 Klapmuts

Lotz A & DHK (October 2008): Klapmuts Hills Residential Development Urban Design Framework

MCA (Sept 2007): Klapmuts SDF

Postlethwayt C (2013): Klapmuts SEA: Heritage Constraints and Opportunities

Stellenbosch Municipality Spatial Development Framework (July 2019) Final Draft for Council Submission

ANNEXURE A: 2008 HIA (ACO)

(*Separate e-file*)

ANNEXURE B1: 2010 DEA&DP refusal

ANNEXURE B2: 2011 Ministerial approval

Annexure C: Criteria heritage significance

Cultural significance is defined as: aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. The national estate includes, inter alia, places, buildings, and structures of cultural significance; historical settlements and townscapes; and landscapes and natural features of cultural significance (NHRA)

Section 3(3) of the NHRA identifies criteria for assessing the significance of a place. In respect of those values relevant to this property, a place has heritage significance, inter alia, because of:

a) Historical value
- It is important in the community or pattern of history (including in the evolution of cultural landscapes and settlement patterns; association with events, developments or cultural phases) or illustrates an historical period
- It has a strong or special association with the life or work of a person, group or organisation of importance in history
- its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- It has significance relating to the history of slavery

b) Architectural value
- It is significant to architectural or design history or is the work of a major architect or builder
- It is an important example of a building type, style or period
- It possesses special features, fine details or workmanship

c) Aesthetic value
- It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group (including its contribution to the aesthetic values of the setting demonstrated by a landmark quality or having an impact on important vistas or otherwise contributing to the identified aesthetic qualities of the cultural environs or the natural landscape within which it is located)

d) Social value
- It is associated with economic, social or religious activity
- It is significant to public memory
- It is associated with living heritage (cultural traditions, public culture, oral history, performance or ritual)

e) Spiritual value
- It is associated with religious activity and/or phenomena
- It is significant to a particular group relating to spiritual events and/or activities

f) Linguistic value
- It is associated with the custodianship and/or sustainability of a particular language or events associated with that language
- It is significant to a particular group relating to the evolution and/or dissemination of a particular language

g) Technical/Scientific value
- Its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage
- Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- Its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- It is important to archaeology, palaeontology, geology or biology

The grading of heritage significance is based on the three tier grading system used in the NHRA and HWC's "Grading Implications & Management of HR HWC guidelines April 2016".

Table 1: Guide to Grading of Built Environment Resources

Grading	Description of Resource	Examples of Possible Management Strategies	Heritage Significance
I	Heritage resources with qualities so exceptional that they are of special national significance. Current examples: Robben Island	May be declared as a National Heritage Site managed by SAHRA.	Highest Significance
II	Heritage resources with special qualities which make them significant in the context of a province or region, but do not fulfil the criteria for Grade I status. Current examples: St George's Cathedral, Community House	May be declared as a Provincial Heritage Site managed by HWC.	Exceptionally High Significance
III	Such a resource contributes to the environmental quality or cultural significance of a larger area and fulfils one of the criteria set out in section 3(3) of the Act but that does not fulfill the criteria for Grade II status. Grade III sites may be formally protected by placement on the Heritage Register. These resources are currently managed by HWC *unless the local authority has been found competent and has been granted delegated authority.*		
IIIA	Such a resource must be an excellent example of its kind or must be sufficiently rare. These are heritage resources which are significant in the context of an **area.**	This grading is applied to buildings and sites that have sufficient intrinsic significance to be regarded as local heritage resources; and are significant enough to warrant that any alteration, both internal and external, is regulated. Such buildings and sites may be representative, being excellent examples of their kind, or may be rare. In either case, they should receive maximum protection at local level.	High Significance
IIIB	Such a resource might have similar significances to those of a Grade III A resource, but to a lesser degree. These are heritage resources which are significant in the context of a **townscape**, neighbourhood, settlement or community.	Like Grade IIIA buildings and sites, such buildings and sites may be representative, being excellent examples of their kind, or may be rare, but less so than Grade IIIA examples. They would receive less stringent protection than Grade IIIA buildings and sites at local level.	Medium Significance
IIIC	Such a resource is of contributing significance to the environs These are heritage resources which are significant in the context of a **streetscape or direct neighbourhood.**	This grading is applied to buildings and/or sites whose significance is contextual, i.e. in large part due to its contribution to the character or significance of the environs. These buildings and sites should, as a consequence, only be regulated if the significance of the environs is sufficient to warrant protective measures, regardless of whether the site falls within a Conservation or Heritage Area. Internal alterations should not necessarily be regulated.	Low Significance
NCW	A resource that, after appropriate investigation, has been determined to not have enough heritage significance to be retained as part of the National Estate.	No further actions under the NHRA are required. This must be motivated by the applicant and approved by the authority. Section 34 can even be lifted by HWC for structures in this category if they are older than 60 years.	No research potential or other cultural significance

To expand on the assessment of the heritage significance of a cultural landscape, the UNESCO Operational Guidelines for the World heritage Convention (1995) identified three main types of cultural landscapes derived from the following characteristics:

(i) The clearly defined landscape designed and created intentionally. This embraces garden and parkland landscapes constructed for aesthetic reasons which are often (but not always) associated with religious or other monumental buildings and ensembles.

(ii) The organically evolved landscape. This results from an initial social, economic, administrative, and/or religious imperative and has developed its present form by association with and in response to its natural environment. Such landscapes reflect that process of evolution in their form and component features. They fall into two sub-categories:

- a relict (or fossil) landscape is one in which an evolutionary process came to an end at some time in the past, either abruptly or over a period. Its significant distinguishing features are, however, still visible in material form.
- a continuing landscape is one which retains an active social role in contemporary society closely associated with the traditional

way of life, and in which the evolutionary process is still in progress. At the same time it exhibits significant material evidence of its evolution over time.

(iii) The associative cultural landscape included by virtue of the powerful religious, artistic or cultural associations of the natural element rather than material cultural evidence which may be insignificant or even absent[3]

A checklist for evaluating the significance of cultural landscapes[4] includes

Landscapes as a resource

The landscape should be a resources of national or regional importance in terms of rarity and representivity

Design quality

The landscape should represent a particular artistic or creative achievement or represent a particular approach to landscape design

Scenic quality

The landscape should be of high scenic quality, with pleasing, dramatic or vivid patterns and combinations of landscape features, and important aesthetic or intangible qualities (vividness, intactness, unity)

Unspoilt character/authenticity/integrity

The landscape should be unspoilt, without visually intrusive urban, agricultural or industrial development or infrastructure. It should thus reveal a degree of integrity and intactness

Sense of place

The landscape should have a distinctive and representative character, including topographic and visual unity and harmony

Harmony with nature

The landscape should demonstrate a good example of the harmonious interaction between people and nature, based on sustainable land use practices

Cultural tradition

The landscape should bear testimony to a cultural tradition which might have disappeared or which illustrates a significant stage in history or which is a good example of traditional human settlement or land use which is representative of a culture/s

Living traditions

The landscape should be directly and tangibly associated with events or living traditions with ideas or with beliefs, with artistic and literary works of high significance

Clearly different communities will attach different values to these criteria.

[3] Extract from paragraph 39 of the Landscape Operational Guidelines for the Implementation of the World Heritage Convention

[4] N. Baumann, S Winter, H Aikman (2005): "The horns of a dilemma; housing and heritage" in VASSA Proceedings from a Workshop Studies and debates in Vernacular Architecture in the Western Cape"

Annexure D: Development Proposal

APPENDIX E: Socio-economic Impact Assessment

(*separate e-file*)

APPENDIX F: Public Participation

(separate e-file)

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ANNEXURE P

multipurpose
business solutions

Socio-economic Impact Assessment for the proposed Stellenbosch Bridge development in Klapmuts, Stellenbosch

Draft Consultative Report
prepared by Dr Jonathan Bloom
for Stellenbosch Bridge Properties (Pty) Ltd

June 2020

This report consists of 116 pages

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Executive Summary

On 22 November 2011, the Stellenbosch Municipality approved the Klapmuts Hills development, which included the Development Framework, rezoning, subdivision and departures to permit urban development on this site within an approved Basket of Rights (1 577 residential units and a GLA of 23 200m² for retail and associated services and facilities). Due to unfavourable market conditions, the implementation of the project was never activated. The delays resulted in extensions for the Environmental Authorisation and land use rights being submitted and approved on 18 September 2017; the existing development rights will lapse on 22 November 2021. The time-lapse also allowed the re-imagination of the Klapmuts Hills development as an innovation precinct that will attract local and international innovation stakeholders to locate in a mixed-use live, work, play and innovate environment. The development was renamed as Stellenbosch Bridge and includes the original Klapmuts Hills site as well as several land units west of Klapmuts.

Four applications are planned:

- **Application 1**: Reallocation of the existing rights approved for Farm 742/5 for the redevelopment of the site as part of the innovation precinct and in terms of the service capacities already provided for. The application will involve amendment of the approved Development Framework Plan, Phasing Plan, Subdivision Plan and conditions of approval to accommodate the revised development layout plan. The revised development plan will tie in with the draft Stellenbosch Bridge Development Framework that will be submitted as part of Application 3;
- **Application 2**: Rezoning and Subdivision of Farm 744/2, which has been part of the Klapmuts urban edge since before 2001;
- **Application 3**: Densification on Farm 742/5 in terms of a Development Framework with supporting documentation and plans for the Stellenbosch Bridge Innovation Precinct;
- **Application 4**: Development Rights for land included in the urban edge in terms of the 2019 Stellenbosch MSDF.

Fit with spatial planning

In keeping with the *Guidelines for Economic and Social and Specialist input into EIA Processes* (CSIR, 2005 and Department of Environmental Affairs and Development Planning, 2007), the project should fit with planning frameworks and is desirable from a societal cost-benefit perspective. In order to provide some context, the provincial, regional and metro SDFs (together with related frameworks, interpretation reports and discussion documents) and Local Economic Development plans and strategies (together with other documents that offer guidance) were considered as a premise for this part of the assessment. In addition, other planning and development guidelines and policies are considered where appropriate.

The Stellenbosch Spatial Development Framework and IDP are the primary planning tools for the Stellenbosch area and therefore the proposed development, as it incorporates the provisions of all other broader level plans for the area and therefore forms the initial basis for the economic assessment of the proposed Stellenbosch Bridge development. Stellenbosch town and Klapmuts were identified as spatial areas for priority development over the MSDF planning period are (p. 74).

Our assessment of the spatial planning frameworks of the local, district and provincial authorities suggests that the proposed Stellenbosch Bridge development supports and fits with the spatial planning principles of the Stellenbosch Municipality as indicated in the IDP and SDF from a socio-economic perspective and specifically with the focus on Klapmuts. The Stellenbosch Bridge development is in the delineated urban edge of Klapmuts and the part not included, is earmarked for agriculture.

The proposed project is positioned as a development that is intended to contribute towards business, housing and infrastructure development in the Klapmuts area, but specifically in a node where the community needs private investment to uplift their socio-economic well-being and create more sustainable employment.

Summary of impacts

The question that needs to be addressed in the context of perceptions and concerns raised by Interested and Affected Parties is whether the proposed development is desirable from a societal cost-benefit perspective? Several issues of a social nature were raised and discussed in this report and the need thus exists to determine whether mitigation could be applied and to what extent the developer would be willing to introduce the recommended mitigation measures.

Development Applications

- **Application 1** entails the reallocation of the existing rights approved on Farm 742/5 for the redevelopment of the site as part of the innovation precinct and in terms of the services capacity already provided for the Klapmuts Hills development. The application will involve amendment of the approved Development Framework Plan, Phasing Plan, Subdivision Plan and conditions of approval to accommodate the revised development layout plan. The revised development plan will tie in with the draft Stellenbosch Bridge Development Framework that will be submitted as part of Application 3.
- **Application 2** refers to the Rezoning and Subdivision of Remainder Farm 744/2, which falls within the Klapmuts urban edge. The site is the portion of land situated between the western edge of the existing Klapmuts urban area and the Klapmuts Hills site to the west (Portion 5 of Farm 742, Paarl). Despite its agricultural zoning, the site has been included within the Klapmuts urban edge for many years and envisaged to form part of the town's expansion westwards
- **Application 3**: Densification on Portions 1 & 3 (73 ha), i.e. 2 500 residential units (apartments), 150 000 m² bulk (mixed-use);
- **Application 4**: Rezoning & Subdivision for remaining site area inside Urban Edge on Portion 4 (106 ha).

Development Alternatives

The **No-Go alternative** implies that the *status quo* is maintained, i.e. the land stays vacant. However, given the size of the property and its strategic location, there will most likely be future pressure for development if the current proposal is not approved.

Impact Ratings

To provide a perspective of the net societal benefits and costs associated with the proposed project, the following table summarises the different the socio-economic impacts associated with the proposed Stellenbosch Bridge development, and their respective significance before and after implementation of mitigation measures (i.e. the residual impact) as proposed by the relevant specialists.

Nature of the Impact	Rating before mitigation		Rating after mitigation (Residual impact)	
	Application 1	Application 2	Application 1	Application 2
Construction				
Traffic flows along access roads	80	80	60	60
Nuisance factors (dust and noise)	65	65	55	55
Influx of job-seekers	65	65	55	55
Increase in local crime	52	52	36	36
New employment opportunities	55	65		
Economic income	55	55		
Operations				
Sense of place	76	76	51	51
Provision of housing	85	85		
Surrounding property values Existing residential erven	51	51	39	39

Nature of the Impact	Rating before mitigation		Rating after mitigation (Residual impact)	
	Application 1	Application 2	Application 1	Application 2
Unimproved land	36	36		
Traffic flows along access roads	95	75	85	65
Increase in local crime	60	60	33	33
Bulk infrastructure requirements/contributions	52	52	33	33
New employment opportunities	60	80		
Local business development	80	90		
Revenue accruing to public authorities	70	80		

Significant Ratings:

	Positive	40 – 74	Medium Negative	100 – 124	High Negative
<40	Low Negative	75 – 99	Medium-High Negative	125 – 150	Very High Negative

Potential positive and prescribed impacts

A number of benefits are associated with the proposed Stellenbosch Bridge development:

1. **Job creation:** The findings of the employment analysis are considered in the context of Application 1 and Application 2, both of which are phased over 4 years and envisaged to run in parallel. Application 1 of the Stellenbosch Bridge development could sustain on average 1 090 to 1 199 jobs per annum over 4 years of the construction period. If employment is considered at the Stellenbosch Municipal level, 1 023 to 1 125 jobs will be created in the Stellenbosch Municipal area per annum over 4 years envisaged for the construction. For Application 2, an average of 1 439 to 1 583 jobs opportunities per annum could be sustained per annum over 4 years of the construction period. Alternatively, Application 2 could sustain 1 352 to 1 487 jobs per annum in the Stellenbosch Municipal Area over 4 years.

   During operations, an estimated total of 1 090 direct jobs opportunities will exist once the planned construction of components envisaged for Application 1 is complete. Most opportunities will exist for retail, commercial and to an extent the housing component of the project. Application 2 entails industrial activity. An estimated 1 900 job opportunities could arise from the development of and provision for 90 500 m^2 of Gross lettable Area. These figures do not include additional employment (indirect and induced employment) created by the needs of the operating components and outsourcing opportunities.

2. **Economic income:** A combined initial investment of R1 204 million (R963 million net of the initial import leakage) for Application 1 will give rise to a multiplied output increase in GVA of R4 192 million in the Western Cape Province over the four-year construction period. Approximately R628 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. For Application 2, a combined initial investment of R1 486 million (R1 188 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R4 101 million in the Western Cape Province over the construction period. In addition, approximately R 614 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project.

3. **Revenue accruing to public authorities:** The total cumulative rates over the first 10 years from the commencement of construction and occupation of the different components is estimated at R62.9 million. The total cumulative rates over the first 10 years from the commencement of construction of the industrial components is estimated at R128.9 million.

4. **New business development**: A mix of residential and various commercial activities are envisaged as part of Application 1, including offices, a restaurant, gym, laundromat and spa in Precinct 2, and Business, Institutional, Education, Medical, Residential, Sport & Recreation, Tourism, Utility Service, Research & Development in Precinct 1. Commercial activities are essential for serving the needs of a community and create demand for other businesses operating in the immediate and surrounding area. Application 2 entails light industrial activity and related uses that would include a mix of warehousing, light manufacturing and other related

business and service activities. These activities will require a range of goods and services that could be provided by existing and or new businesses operating in the Stellenbosch and/or Drakenstein Municipalities.

Potential negative impacts

The following **concerns** (medium or higher impact after mitigation) have been identified:

1. **Impact on traffic flows:** A significant increase in traffic along the access routes can be expected during construction and operations, which will negatively impact surrounding land-users in particular
2. **Sense of place**: The relatively high-density development will be visible to a large number of receptors and may negatively affect surrounding land users.
3. **Nuisance factors**, in particular dust and noise generated during the introduction of services and construction of top structures;
4. **An influx of job-seekers** during the construction phase could result in additional people settling in Klapmuts and a subsequent burden on local social services.

Cumulative impacts

Cumulative impacts refer to any other additional development(s) as well as existing activities within the immediate area that could compound any positive or negative impacts associated with the proposed development. This particularly relates to the ongoing/planned residential developments just north of Klapmuts and along the R44 south-east of Klapmuts.

The potential negative impacts would be compounded if additional developments were introduced in the immediate and surrounding areas. These impacts would typically relate to sense of place, traffic, infrastructure requirements, crime and nuisance factors. However, a number of developments in the Klapmuts area could also compound employment and economic income benefits.

Mitigation measures

Many of the negative socio-economic impacts that were identified (summarised below) could be mitigated by introducing the measures proposed by various specialists that must be considered as requirements for approval of the development. Monitoring of specifically the social impact and assessing the outcomes over time would further enhance the social and economic fabric within the development and the surrounding communities.

Summary of mitigation measures suggested for the different impacts:

Impact	Mitigation measures
	Construction phase
Large construction vehicular traffic	The TISs recommends several road improvements that are required to ensure acceptable traffic flows during operations. These improvements should also ease the traffic flows during the estimated 5-year construction phase.
Nuisance factors (dust and noise)	Dust and noise emissions during the construction period should be minimised by employing a Construction Environmental Management Plan (CEMP).
Influx of job-seekers	Contractors need to show a commitment to employ people from the Stellenbosch and Drakenstein Municipalities whenever possible.

Impact	Mitigation measures
Increase in local crime	Co-operation between the Developer and contractors and on-site security measures, such as perimeter fencing, controlled access and security guards and patrols will minimise the risk.
	Operational phase
Sense of place – surrounding land-users	Mitigation measures were proposed in the Visual Impact Assessments and Heritage Impact Assessment and should be implemented by the Developers
Surrounding property values: Existing residential erven	Implementation of the recommendations made by the various specialists to mitigate potential negative impacts (such as visual, traffic and nuisance factors) will be essential to minimise negative impacts for surrounding landowners.
Increased vehicular traffic	The TISs recommends several road improvements that are required to ensure acceptable traffic flows during operations.
Increase in local crime	Local residents must be employed to reduce the level of unemployment in the Klapmuts area. On-site security measures, such as perimeter fencing, controlled access and security guards and patrols could also discourage criminals from the area.
Bulk infrastructure capacity	Recommendations were made in the Civil Engineering Services Report to ensure the appropriate infrastructure for the various bulk services is provided by the Developer.

Recommendations

The following **recommendations with specific reference to the socio-economic context** are proposed to address various matters related to Application 1 and 2 of the Stellenbosch Bridge development. The mitigation measures proposed in the following table should be consolidated as part of an Implementation Plan for Application 1 and 2.

Phase	Mitigation measures
Pre-construction	**Procurement Strategy** that includes the following and applies to the Stellenbosch Bridge development: (a) Conduct a skills audit among the local Klapmuts residents, especially the unemployed to ascertain their ability and skills to accept employment during the construction phase ; (b) Initiate the activity for both Application 1 and 2; (c) Strategy is the responsibility of the contractor(s) collectively under the guidance of Stellenbosch Bridge; (d) Focus on opportunities for local labour in the surrounding areas and businesses as a priority. Contractors are required to provide an indication of the geographical location of sub-contractors (businesses) and local labour they intend to use or employ on the project throughout the construction phase; and (e) Local contractors in the Stellenbosch and Drakenstein areas be invited to tender for work in the context of the terms and conditions included in RFP documentation.
Pre-construction & Construction	**Communication Protocols** that address directly and indirectly affected residents and surrounding landowners, with specific reference to activities, timelines and intended impacts related to the

Phase	Mitigation measures
	construction phase and all related activities associated with the implementation of the project (i.e. during the operational phase). **Objectives** • To orientate, generate awareness and gain positive attitudes among stakeholders as far as possible; and • To engage and inform stakeholders of progress regarding all phases of construction. **Target audience** • Property owners and users of the land portions directly surrounding the proposed activity; and • Other stakeholders and property owners that may be affected. **Major types of messages** • Inform directly affected residents on the periphery of the site earmarked for the project others that would frequent the area; • Commencement date for construction activities related to the project; • Duration and extent of the construction activities and where applicable, with an emphasis on individual activities; • Progress updates, including any delays with a construction-related activity; and • Ensure appropriate signage is introduced to warn persons frequenting the area, those residing adjacent to the development area.
Operations	Develop a mechanism for business opportunities within the development that will assist to balance larger and smaller business interests in terms of service provision and creating a socially sustainable community.
Pre-construction and Construction	The **Protocol for Social Management (PSM)** is a working framework document that identifies key measurement indicators and sets out the procedures for tracking, monitoring, calculating and verifying the impacts associated with the project. This PSM must be used for the planning and establishment of Applications 1 and 2. Adherence to a PSM framework is necessary for the successful measurement and tracking of the impacts associated with the development during the construction phases of Applications 1 and 2. The PSM framework should be developed into an action plan that will be prepared in terms of the conventions indicated in Section 8 of the Report.

Impact statement

The Stellenbosch Bridge Development with specific reference to Applications 1 and 2 in the Klapmuts area of the Stellenbosch Municipality, is supported on condition that the recommendations/mitigation measures included in this report, are implemented. In addition, the recommended enhancement and mitigation measures contained in other specialist reports and those required to support mitigation of several impacts identified and assessed in the Socio-economic Impact Assessment report, should be implemented.

The Protocol for Social Management (PSM) must be used for the planning and establishment of the project before and during the construction phase. Adherence to a Social Management Protocol framework is necessary to establish a vibrant and sustainable Klapmuts community and for the successful implementation and management thereof during construction.

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1. BACKGROUND

1.1 Introduction

Klapmuts is a small rural village adjacent to the N1 Freeway, approximately 15 km from the City of Cape Town's western urban edge, 16 km from Stellenbosch and 14 km from Paarl. Klapmuts falls under the jurisdiction of the Stellenbosch Municipality, but bordering on the Drakenstein Municipality. Given the strategic location of Klapmuts, the farm portions surrounding the town have been under pressure for development for several years, despite challenges regarding engineering service capacity. In 2008, the approval of the amendment of the Structure Plan and the Klapmuts Spatial Development Framework (SDF) paved the way for a more development friendly-environment with surrounding farm portions.

In response to the requirement for new development, Stellenbosch Wine and Country (Pty) Ltd conceived the Klapmuts Hills project as a residential development with a commercial and community component. The proposed project on Erf 742/3 and 742, Paarl, covered 73 ha of which 10 ha outside the urban edge was earmarked for open space and a tourism facility of 1 000 m^2. The property is located within 1 500 m of the centre of Klapmuts town and off the Old Paarl Road in the direction of Muldersvlei. The components of the Klapmuts Hills development included the following core and auxiliary components:

- **Estate housing,** with 1 577 units sub-divided into four phases with single residential, group housing and flats;
- **Retail component,** comprising a large and small retail centre of 4 000 m^2 and 1 000 m^2 gross lettable floor area, respectively;
- **Other lettable area,** which includes three areas of 4 000 m^2, 2 900 m^2 and 10 600 m^2 earmarked for Phases A, B and C, respectively; and
- **Infrastructure,** which includes the required roads, services and landscaping.

On 22 November 2011, the Stellenbosch Municipality approved the Klapmuts Hills development, which included the Development Framework, rezoning, subdivision and departures to permit urban development on this site within an approved Basket of Rights (1 577 residential units and a GLA of 23 200m^2 for retail and associated services and facilities). Due to unfavourable market conditions, the implementation of the project was never activated. The delays resulted in extensions for the Environmental Authorisation and land use rights being submitted and approved on 18 September 2017; the existing development rights will lapse on 22 November 2021. The time-lapse also allowed the re-imagination of the Klapmuts Hills development as an innovation precinct that will attract local and international innovation stakeholders to locate in a mixed-use live, work, play and innovate environment. The development was renamed as Stellenbosch Bridge and includes the original Klapmuts Hills site as well as several land units west of Klapmuts.

A 'Package of Plans' approach was adopted for a tiered planning process that provides a mechanism to plan and manage the development by facilitating the phased roll-out of a basket of rights over an extended period (Anton Lotz Town Planning & ARoux Town Planning, 2019a). This approach provides greater flexibility to accommodate the different phases of the complex development proposal and allows for a phased process of negotiation, planning and approvals, whereby increasing detail is provided for each following step of development. The Development Framework for the entire Stellenbosch Bridge development site will be submitted in due course. Separate applications for the next phases of the Package of Plans, including approval of the Precinct, Subdivision and Site Development plans, will be submitted following approval of the Development Framework and land use applications. Once a Development Framework Plan is approved for the entire Stellenbosch Bridge site, it will replace the Development Framework approved for the Klapmuts Hills site.

Four applications are planned (also refer to **Figure 1**):

- **Application 1:** Reallocation of the existing rights approved for Farm 742/5 for the redevelopment of the site as part of the innovation precinct and in terms of the service capacities already provided for. The application will involve amendment of the approved Development Framework Plan, Phasing Plan, Subdivision Plan and

conditions of approval to accommodate the revised development layout plan. The revised development plan will tie in with the draft Stellenbosch Bridge Development Framework that will be submitted as part of Application 3;

- **Application 2**: Rezoning and Subdivision of Farm 744/2, which has been part of the Klapmuts urban edge since before 2001;
- **Application 3**: Densification on Farm 742/5 in terms of a Development Framework with supporting documentation and plans for the Stellenbosch Bridge Innovation Precinct;
- **Application 4**: Development Rights for land included in the urban edge in terms of the 2019 Stellenbosch MSDF.

A large portion of the development site has recently been included in the Klapmuts urban edge and will require additional environmental approvals and several specialist studies. However, the existing land-use approval for Portion 5 of Farm 742 (previously registered as Portion 3 and the Remainder of Farm 742, Paarl) presents an opportunity for these development rights to be utilised as a first phase of the Stellenbosch Bridge development project. To allow development to commence on the site and being aligned with the overall draft Development Framework for the Stellenbosch Bridge development, an amended Development Framework for this site has been prepared. **This SIA therefore only addresses the potential impacts related to Application 1 (Phase 1, approval of the amended Development Framework Plan for Portion 5 of Farm 742, Paarl) and Application 2 (Phase 2, rezoning and subdivision of Remainder Farm 744/2. Paarl.**

Dr Jonathan Bloom of Multi-Purpose Business Solutions was commissioned as an independent consultant to prepare a Socio-Economic Impact Assessment of the proposed Stellenbosch Bridge development. Jonathan Bloom (PhD, Corporate Finance) is the managing member of Multi-Purpose Business Solutions and until 2013, a professor of real estate at Stellenbosch University. He has conducted more than 75 socio-economic impact assessments as an independent consultant for real estate and other developments throughout South and Southern Africa. Jonathan has research skills in the design and implementation of research projects from both a qualitative and quantitative perspective. He majored in statistics and business economics and his background in statistical modelling of economic aspects related to projects and cost-benefit assessments has been used to assist clients with the assessment of socio-economic impacts associated with projects. Refer to Annexure E for a declaration that confirms the independence of Dr Bloom, as well as Annexure F for a copy of his CV.

1.2 Terms of Reference

The objectives of the socio-economic impact study are as follows:

- To offer a perspective of the Stellenbosch Municipal economy with a specific emphasis on the town of Stellenbosch;
- To comment on the viability and financial feasibility of the proposed project;
- To assess the fit (compatibility) of the proposed project with spatial planning from an economic perspective;
- To provide a socio-demographic and –economic profile of the population, based on specified concentric zones at distances of 3 km and 6 km from the centre of the site proposed for development;
- To include socio-economic comments received from interested and affected parties that participate in the EIA process and where applicable, with key persons in the Klapmuts area that represent key stakeholder groups and partook in the EIA process;
- To ascertain the overall direct and indirect/induced monetary benefits, i.e. direct GGP (Gross Geographic Product) and job creation potential on the economies of Stellenbosch Municipality, the Western Cape Province and South Africa;
- To state and discuss potential externalities and impacts relevant to the development project from a social perspective;
- To consider social investment initiatives to support the local community through the introduction of the project; and
- To propose a monitoring and evaluation framework to assess the socio-economic impacts.

1.3 Approach & Methodology

In keeping with the *Guideline for Involving Economic Assessment Specialists in EIA Processes* (CSIR, 2005) and the *Guideline for Involving Social Assessment Specialists in EIA Processes* (Department of Environmental Affairs and Development Planning, 2007), the project should fit with planning frameworks and be desirable from a societal cost-benefit perspective (concerning the assessment of social impacts). The *Need and Desirability Guidelines* (Republic of South Africa, 2014) are also applicable with specific reference to the economic and social justification for the development proposed in the specific location. In addition, adherence to Appendix 6 of the NEMA Regulations and alignment with existing guidelines are essential (Annexure D).

Our approach for assessing the socio-economic impacts of the proposed development is presented in **Figure 1**. The illustration shows that an assessment of the financial feasibility and long-term viability of a project is an essential point of departure as long-term positive economic impacts can only flow from a project that is financially sustainable or viable. It must also fit and demonstrate compatibility with economic and integrated planning for the area, which also covers spatial planning. These hurdles are a critical aspect of economic desirability, which ensures that the proposed development compliments economic planning as reflected in spatial development planning and the local economic development plans and strategies for the area.

Given the nature of the proposed activities and the importance of the project for direct investment in the Cape Winelands District Municipality (CWDM), monitoring and evaluation throughout construction and operations are essential. Both the envisaged positive and potential negative impacts need to be monitored through an inclusive and credible process, for which a broad framework is outlined in this report.

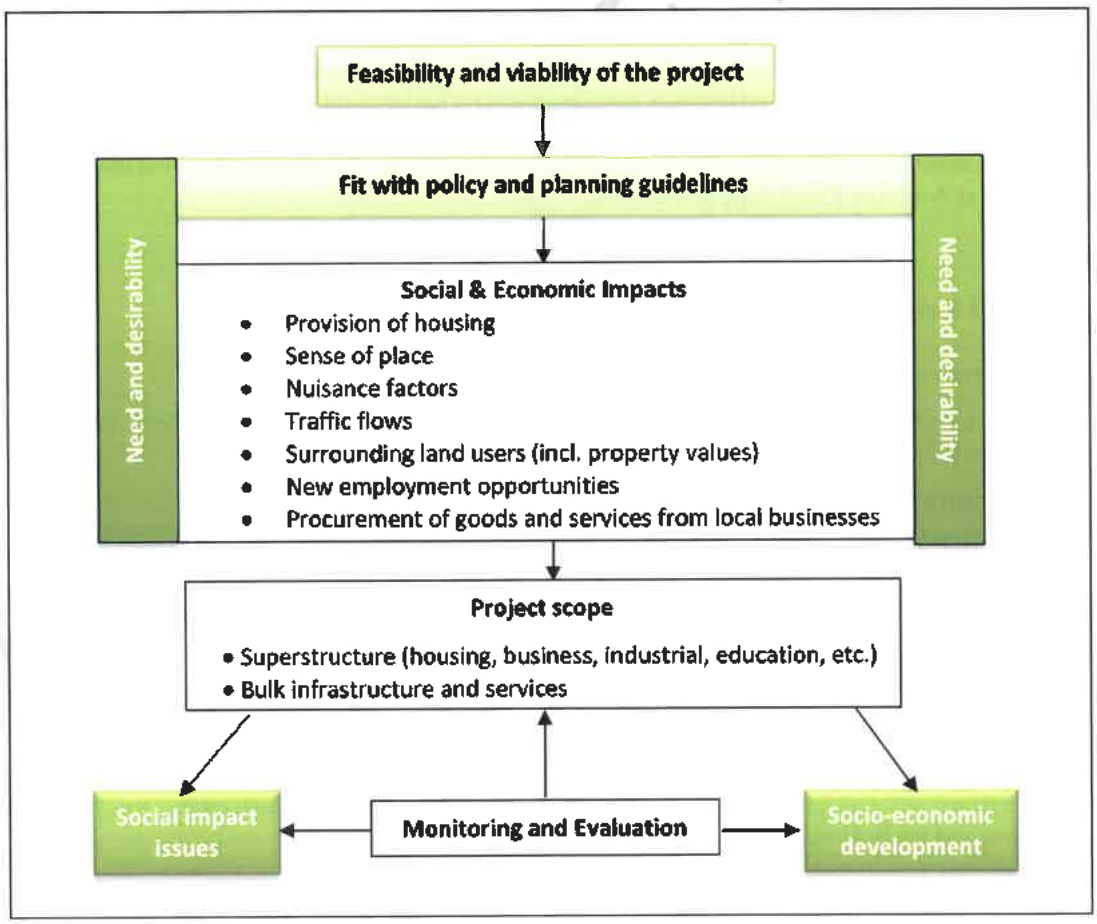


Figure 1: An illustration of the methodology used to provide specialist socio-economic input for the Environmental Impact Assessment process.

Source: Multi-Purpose Business Solutions

1.3.1 Data gathering and analysis

The analysis of primary inputs includes information collected from personal or telephonic interviews with representatives of stakeholder groups that are affected directly or indirectly by the proposed development (see Annexure A for a list of persons consulted during the primary research phase). This is supplemented by secondary sources (including reports and publications) that were consulted to inform the findings of the independent socio-economic assessment and to complement the primary research. Any comments from Interested and Affected Parties in response to our request for comments or from participants in the official EIA process will be included in an update of the Socio-economic Impact Assessment.

The study area for the socio-economic impact assessment is determined by the specification of concentric zones that are referenced as all sub-places (communities) within 3 km and 6 km from the site proposed for development. Also refer to the socio-demographic and -economic analysis in Section 5 for a detailed description of the communities.

1.3.2 Impact assessment

The proposed project would have both qualitative and quantitative impacts (benefits and costs) on the socio-economic fabric of the area. We have considered the quantitative economic impact, i.e. positive and negative consequences, for the core project and analysed the socio-economic impact. Where applicable, a qualitative assessment of both benefits and costs is also provided from a social perspective. The different impacts are assessed using the impact rating methodology indicated in Annexure B.

As per NEMA EIA Regulations (2014, as amended), the potential impacts of the preferred development plan (Alternative 1) are assessed and compared with the No-Go Alternative for each of the Applications:

- **Application 1:**
  - **Alternative 1** - Reallocation of existing rights on Portion 1 (73 ha), 1577 residential + 3 450 m² bulk and 24 550 m² bulk (Commercial, Education & Other)
  - **No-Go Alternative**, which implies that the *status quo* is maintained
- **Application 2:**
  - **Alternative 1** - Rezoning & Subdivision of Portion 2 (22 ha), Light Industrial (94 000 m² bulk)
  - **No-Go Alternative**, which implies that the *status quo* is maintained
- **Application 3:**
  - **Alternative 1** - Densification on Farm 742/5 (2 500 apartments, 150 000 m² bulk)
  - **No-Go Alternative**, which implies that the *status quo* is maintained
- **Application 4:**
  - **Alternative 1** - Rezoning & Subdivision for remaining site area inside Urban Edge on Portion 4 (106 ha)
  - **No-Go Alternative**, which implies that the *status quo* is maintained.

1.4 Assumptions

- To determine a realistic socio-demographic and economic profile of the population most likely to be affected by the proposed development, radii of 3 km and 6 km from the centre point of the proposed Stellenbosch Bridge development was used based on our observations of population distribution, economic activities and likely sources of procurement and labour in the areas surrounding the proposed development.
- The following assumptions were used for calculations related to employment and economic income:

- Productivity stays constant and the additional labour demand follows the long-term linear trend of employment per Rand Million of Gross Value Added considered from 1995;
- Labour productivity increases per annum and labour demand thus increases by 0.90 using the annual linear trend;
- Labour demand is forced to increase by 1.1 above the long-term trend, which is caused by external influences;
- Only total labour demand is considered; no race, gender or skill level is considered; and
- An assumed import leakage of 20% for construction.

1.5 Limitations

Several limitations were identified during the study:

- Changes in methodology complicate comparisons between the 2011 and previous census years, i.e. 2001, with specific reference to an analysis of employment by economic sector and occupation. No data is available to assess sector employment and occupation levels for 2011.
- A comparison between the population figures for 2001 (Census), 2007 (Community Survey) and the Census 2011 Survey is not possible due to the limitations of selecting a sample that is extrapolated to the population as was done for the Community Survey (2007). A significantly larger margin of error would be prevalent when adopting a sample approach vs. a census (which is intended to cover the entire population and not a selected sample). Different categories were considered for various demographic items in the Census 2011 survey, which hampers any form of comparative assessment.
- The economic analysis focuses up to the period including 2018; a lag exists in economic data and therefore the most recent data for 2019 is unavailable.
- The most recent employment data for 2011 was available, but due to the reclassification of employment categories in the 2011 Census, no comparative assessment is possible with the 2007 Community Survey 2007 and 2001 Census Survey. In addition, the data provided in terms of reports prepared by Statistics SA and the data extracted from a detailed assessment of enumeration areas and sub-places do not correspond or are missing. An example of such data is the unemployment numbers for the CWDM.
- Given the lack of detailed information on the commercial components of the proposed development, it is not possible to quantify the potential contribution towards the local economy once all the envisaged components of the development with specific reference to commercial activity are complete and operating.

1.6 Structure of the report

The report includes the following sections:

1. An introduction to the study, a description of the study area and the proposed project, and an outline of the approach to the study;
2. Perspective and overview of the Stellenbosch Municipal and CWDM economies;
3. Comment on the financial feasibility of the project and an assessment of the fit (compatibility) of the proposed project with planning from an economic perspective;
4. Socio-economic and -demographic profile of the population likely to be affected by the development using concentric zones of 3 km and 6 km from the centroid of the site;
5. Perceptions and concerns of key stakeholder groups towards the proposed development;
6. Assessment of the qualitative impact of the project on surrounding land users, externalities (social impacts), and infrastructure capacity, and ascertain the overall direct monetary benefits in terms of Gross Value Added

(GVA) and employment on the local CMA economy and the Western Cape Province economies during construction and operations; and

7. Derive key conclusions and recommendations, with the latter referring specifically to measures required to mitigate economic and social impacts.

2. STELLENBOSCH BRIDGE MASTERPLAN

2.1 Introduction

2.1.1 Location

The site proposed for the Stellenbosch Bridge development is strategically positioned alongside the N1, between Cape Town and Paarl, within the Stellenbosch Municipal area. The site is located to the west of the Klapmuts village at the foot of Klapmutskop. The location is predominantly rural, with surrounding farms such as Muldersvlei and Elsenburg south of the site containing mainly vineyards with limited cultivation of fruit and the keeping of livestock. The landscape offers views over the agricultural landscape and Klapmutskop, as well as the surrounding mountains. Tree lanes, windbreaks, and homesteads add to the aesthetic appeal of the setting.

The site is located within 20 min of the Cape Town International Airport, 20 min of the Northern Suburbs of Cape Town, 30 min of the Cape Town CBD, 10 min of Paarl and 15 min of Stellenbosch. Located on the N1 transport corridor – which carries 93% of metropolitan bound freight traffic – Klapmuts is a potentially significant centre for economic activity and residence within the metropolitan region and Stellenbosch Municipality (Stellenbosch Municipality, 2019b). Klapmuts consists primarily of low-income and state-assisted housing, with middle-income residential opportunities between the railway line and the N1 freeway. Several retail and light industrial/distribution opportunities exist along the Old Paarl Road and the R44, with the existing retail along the Old Paarl Road that is developing into a village centre. To date, the settlement is characterized by residential use and limited commercial and work-related activity. Public sector resource constraints have prevented the infrastructure investment required to enable and unlock the full potential of the area for private-sector economic development.

2.1.2 Surrounding land uses

According to the Klapmuts Special Development Area – Status Quo Report (BEAL Africa, 2017), the Klapmuts land use as per the draft Stellenbosch Zoning Scheme (2012) included 2 071 residential, 15 business and 21 industrial properties, as well as 122 farmland and related properties. Community-related land use included a police station, primary school, Safe House, Community service, Crèche and three churches. The results show that most of the land in the study area are categorised as "Agricultural", of which 71% (5 043 ha) is cultivated in some form or the other. Comparatively, residential uses have the highest number of land parcels with about 91% with single dwelling homes. There were an estimated 237 hectares of vacant land, mostly located in and around the Klapmuts urban area.

New urban development is concentrated in the town proper of Klapmuts; a local shopping centre has sprung up along Klapmuts Old Main Road and an upper medium-income gated housing development was established at **Rozenmeer** (BEAL Africa, 2017). Warehousing is being developed at a newly established industrial township south of the town along the R44 road (Simonsberg Business Park), while lower-**middle-income housing** was developed on Erf 2119 and Erf 2120, Klapmuts, west of the industrial township. Klapmuts has seen significant growth in subsidised public housing with more than 500 additional housing units developed along its southern edge. Furthermore, limited tourist uses, such as wine cellars offering wine-tasting and guest accommodation, and other uses associated with the wine industry operate in the surrounding rural-agricultural area.

An assessment of recently approved land use applications (BEAL Africa, 2017) indicated a push towards urban development on agricultural land outside Klapmuts' urban edge (**Figure 2**). These are primarily gated or lifestyle housing estates particularly to the east and southeast of Klapmuts on Portions 30, 33 and 41 of Farm Bronkhorst No. 748, Paarl. Three applications for township establishment by rezoning to subdivisional area, dating back to 2003 and 2014, were approved and allow for about 295 new housing units. The single most significant township development was approved on Portion 7 of the Farm **Groenfontein** Annex No. 716 Paarl, north of Klapmuts town, adjacent to Rozenmeer along the N1 highway. Around 518 new housing units were approved and includes a frail care centre, a retirement village, flats and townhouses. An application for township establishment was also approved on Portion 41 of the Farm Bronkhorst No. 748 Paarl (**Anura Lifestyle Estate**) for ±154 new housing units on 29 August 2013. A newly revised application has, however, been submitted and seeks to amend the urban edge to include the proposed development. The adjacent farm portion, also known as **Mount Vernon** (Portion 40 of Farm Bronkhorst No 748, Paarl)

is also the subject of an urban edge amendment application that would allow for the development of ±150 new housing units.
In the town of Klapmuts, the subdivision and rezoning of Erf 2181 is being considered (BEAL Africa, 2017). Its approval would allow the formalisation of the existing informal housing, which has an approximate yield of 298 informal subsidised housing land units. Current land use applications under consideration for approval amounts to a total of ±800 new housing units. The most significant is the Braemar Farm Development on Portion 2 of the Farm Klapmuts River No. 742, Paarl, which provides for 354 residential land units, 1 institutional land unit, 1 industrial land unit, and roads.

Distell Limited has decided to relocate to and consolidate many of its operations in Klapmuts, which include the development of a beverage production, bottling, warehousing and distribution facility on Paarl Farm 736/RE, located north of the N1, consolidating certain existing cellars, processing plants and distribution centres in the Greater Cape Town area (Stellenbosch Municipality, 2019b). The beverage production, bottling, warehousing and distribution facility will take up approximately 53 ha of the 200 ha farm. The project proposal includes commercial and mixed-use development on the remainder of the site (which is not environmentally sensitive) to provide opportunities both for Distell's suppliers to co-locate and for other business development in the Klapmuts North area.

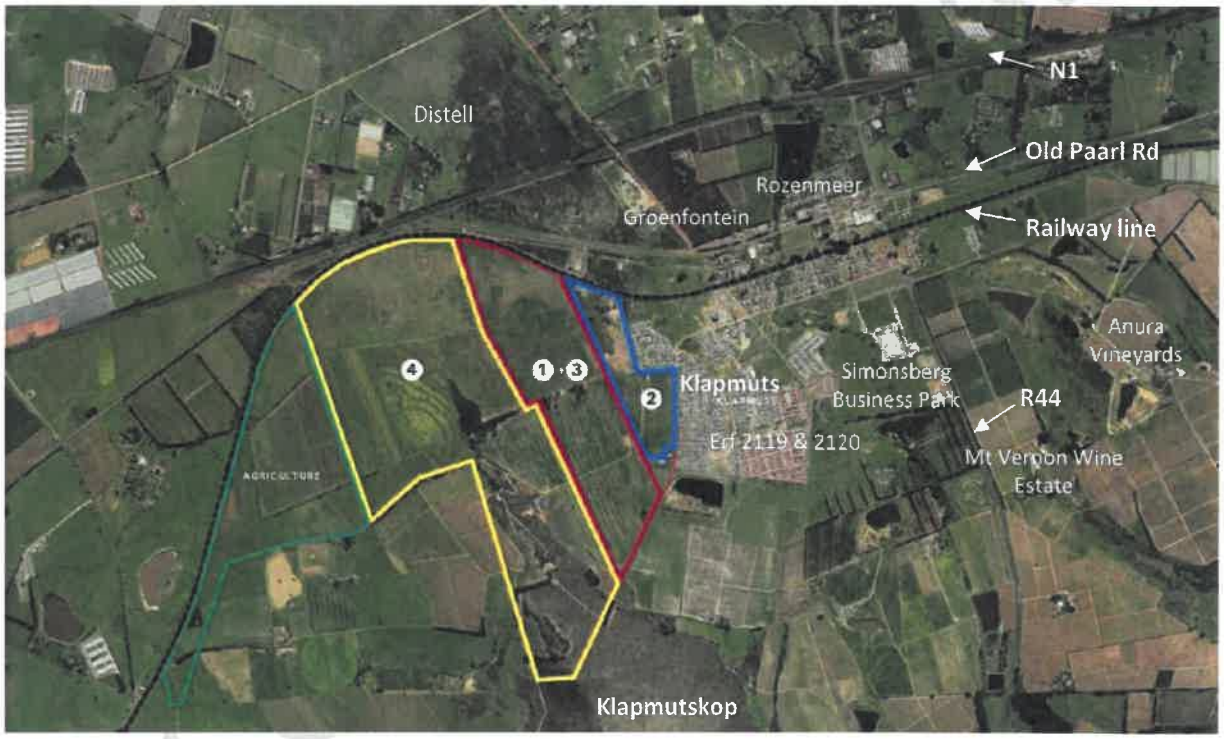


Figure 2: Stellenbosch Bridge Development Site, the different land portions included in the Development Plan and surrounding land users.
Source: Anton Lotz Town Planning & ARoux Town Planning, 2019a

2.1.3 Stellenbosch Bridge Package of Plans

The site entails 274 ha, of which 204 ha are included in the Klapmuts Urban Edge (Portions 1-4 in **Figure 2**). The proposed Master Development Plan for Stellenbosch bridge includes 2 500 residential units, Light Industrial (94 000 m² bulk) and Mixed-use (150 000 m² bulk). The owners intend to phase the development of this property, fully integrated into the larger Stellenbosch spatial vision and in partnership with various stakeholders, including Stellenbosch Municipality, Stellenbosch University, the Klapmuts community and the Western Cape Government. To this end, the owners recently donated 30 ha of the property to Stellenbosch University to provide space to (amongst others) Innovus, the commercialization arm of the University, which allowed the institution to become a key partner. The intention is that Stellenbosch Bridge will enhance business development and innovation through clustering and

co-location of fast-growing sectors and public and private research establishments from South Africa, Africa and the rest of the World.
The proposed development is made up of several precincts (**Figure 3 & 4**), with the innovation precinct at the heart of the development where entrepreneurs, researchers, academics and corporates will connect to develop and incubate new products and services for fast-growing and promising industry clusters. The precinct will have a mixed-use character providing for all aspects of a live-work-play environment designed around significant public spaces. Linked to the innovation precinct are business hubs, green and smart industry precincts, dedicated living spaces, a transportation node, as well as retail and logistic precincts all integrated by a network of green spaces to connect its citizens and communities (Anton Lotz Town Planning & ARoux Town Planning, 2019a).

The Development Framework Plan for Stellenbosch Bridge has largely been finalised, but a large portion of the development site has only recently been included inside the approved Klapmuts urban edge and is therefore subject to additional environmental approvals and specialist studies (including a traffic study, services report, visual impact study, etc. – all of which are currently in process). The Stellenbosch Bridge Development Framework Plan for the entire site can therefore not yet be approved. In the meantime, the existing land use approval for Portion 5 of Farm 742, Paarl, presents an opportunity for these development rights to be utilised as a first phase of the Stellenbosch Bridge development project (Anton Lotz Town Planning & ARoux Town Planning, 2019a).

Four different applications are foreseen for the development, summarised in **Table 1** with a breakdown provided in **Table 2.**

Table 1: Summary of units or bulk areas (m²) earmarked for the different applications

APPLICATION	SITE	RESIDENTIAL	NON-RESIDENTIAL USES (FLOOR AREA)				
		UNITS	BUSINESS	INDUSTRIAL	INSTITUTIONAL	OTHER	NON-RES TOTAL
Application 1 (Precincts A1, A3 & B1)	Farm 742/5	1 577	28 000				**28 000**
Application 2 (Precincts C & D)	Farm 744/2			90 500			**90 500**
Application 3 (Precincts A1, A3 & B1)	Farm 742/5	1 423	159 000	40 000	50 000	3 500	**252 500**
Application 4 (Precincts A2, A4, A5 & B2)	Farm 742/5 & 1515	3 000	108 000	63 000	118 000	20 000	**309 000**
SUB-TOTAL		**6 000**	**295 000**	**193 500**	**168 000**	**23 500**	**680 000**
TOTAL		**6 000**					**680 000**

Table 2: Breakdown of different land-use categories earmarked for the four Stellenbosch Bridge applications

LAND USE CATEGORY	CODE	APPLICATION 1	APPLICATION 2	APPLICATION 3	APPLICATION 4	TOTAL
RESIDENTIAL	200					
Single Dwelling Units	210					-
Apartments and Flats	220	1 377		1 423	2 300	5 100
Student Apartments and Flats	225					-
Group housing/Townhouses	231	200			200	400
Retirement Village	251				500	500
TOTAL UNITS		**1 577**	**-**	**1 423**	**3 000**	**6 000**
BUSINESS						
Office	710	22 000		110 000	80 000	212 000
Retail	800	5 500		20 000	15 500	41 000
Shopping Centre	820			12 000		12 000
Restaurant & Coffee Shop	932	500		14 500	10 000	25 000
Place of Entertainment - theatre, cinema				2 500	2 500	5 000
Sub-Total (Floor Area - m²)		**28 000**	**-**	159 000	**108 000**	**295 000**
INDUSTRIAL	100					
Service Industry (for public)	110		5 500	10 000	10 000	25 500
Manufacturing	140		25 000	10 000	15 000	50 000
Warehousing and Distribution	150		25 000	10 000	10 000	45 000
Mini-warehousing - storage	152		10 000	10 000	3 000	23 000
Data Centre			25 000		25 000	50 000
Sub-Total (Floor Area - m²)		**-**	**90 500**	**40 000**	**63 000**	**193 500**
INSTITUTIONAL	500					
Private school	536				28 000	28 000
University/College	550			12 800	44 200	57 000
Research and Development - labs, incubators				28 500	23 800	52 300
Training Centre				500		500
Place of Assembly/Community Facilities				4 000	4 000	8 000
Place of Worship	560			1 000	2 000	3 000
Pre-School/Daycare	565			500	1 000	1 500
Private Hospital	612				15 000	15 000
Medical Consulting Rooms	720			2 000		2 000
Medical Clinic	630			700		700
Sub-Total (Floor Area - m²)		**-**	**-**	**50 000**	**118 000**	**168 000**
OTHER						
Hotel	310				4 000	4 000
Guest House/Tourist Accommodation	350			500	1 000	1 500
Sport Stadium & Indoor Sport	488			3 000	2 000	5 000
Health and Fitness	492				3 000	3 000
Conference Centre	780				10 000	10 000
Sub-Total (Floor Area - m²)		**-**	**-**	**3 500**	**20 000**	**23 500**
TOTAL (Floor Area - m²)		**28 000**	**90 500**	**252 500**	**309 000**	**680 000**

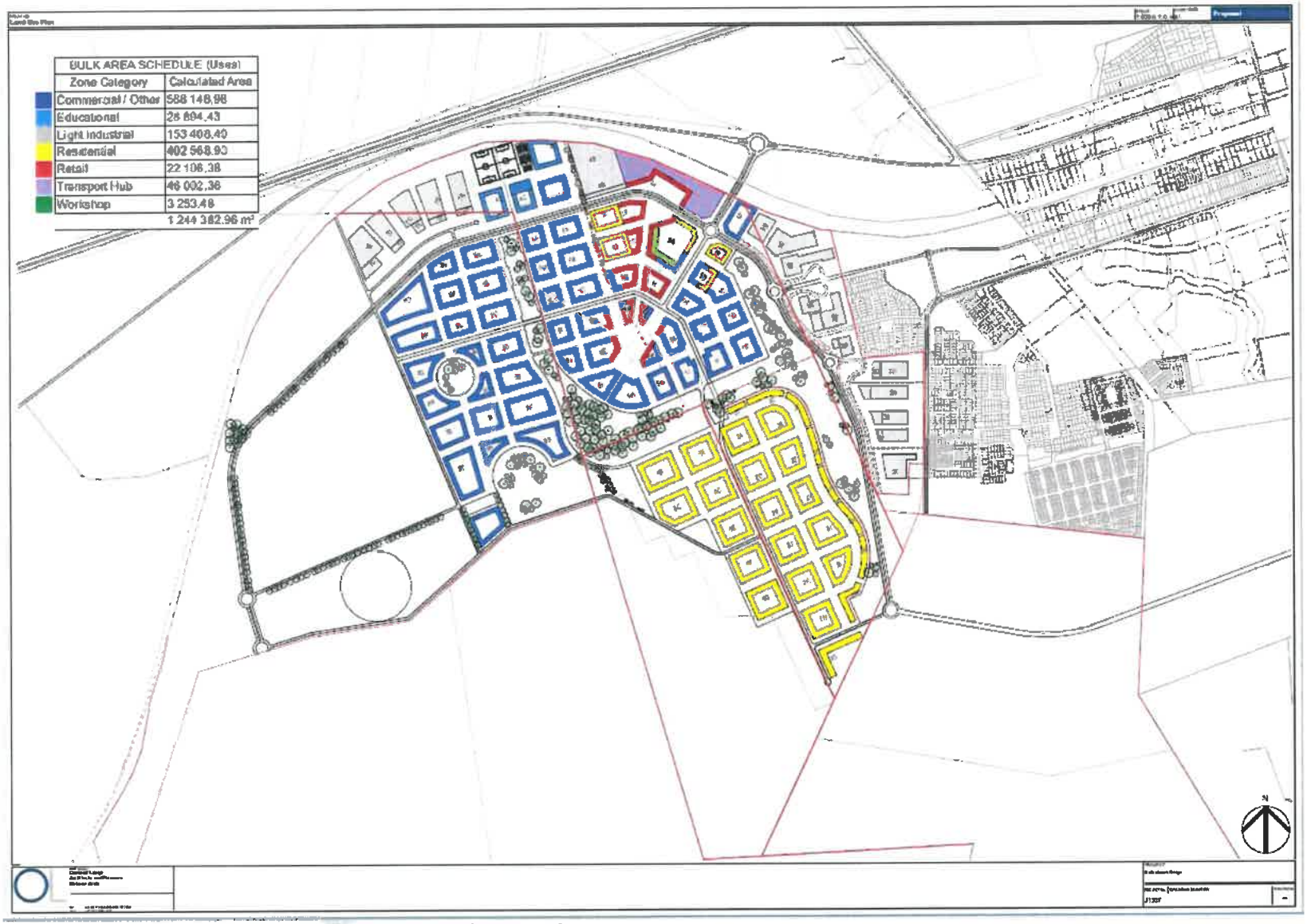


Figure 3: Proposed Stellenbosch Bridge Master Development Plan.

Source: Stellenbosch Bridge (Pty) Ltd., 2020

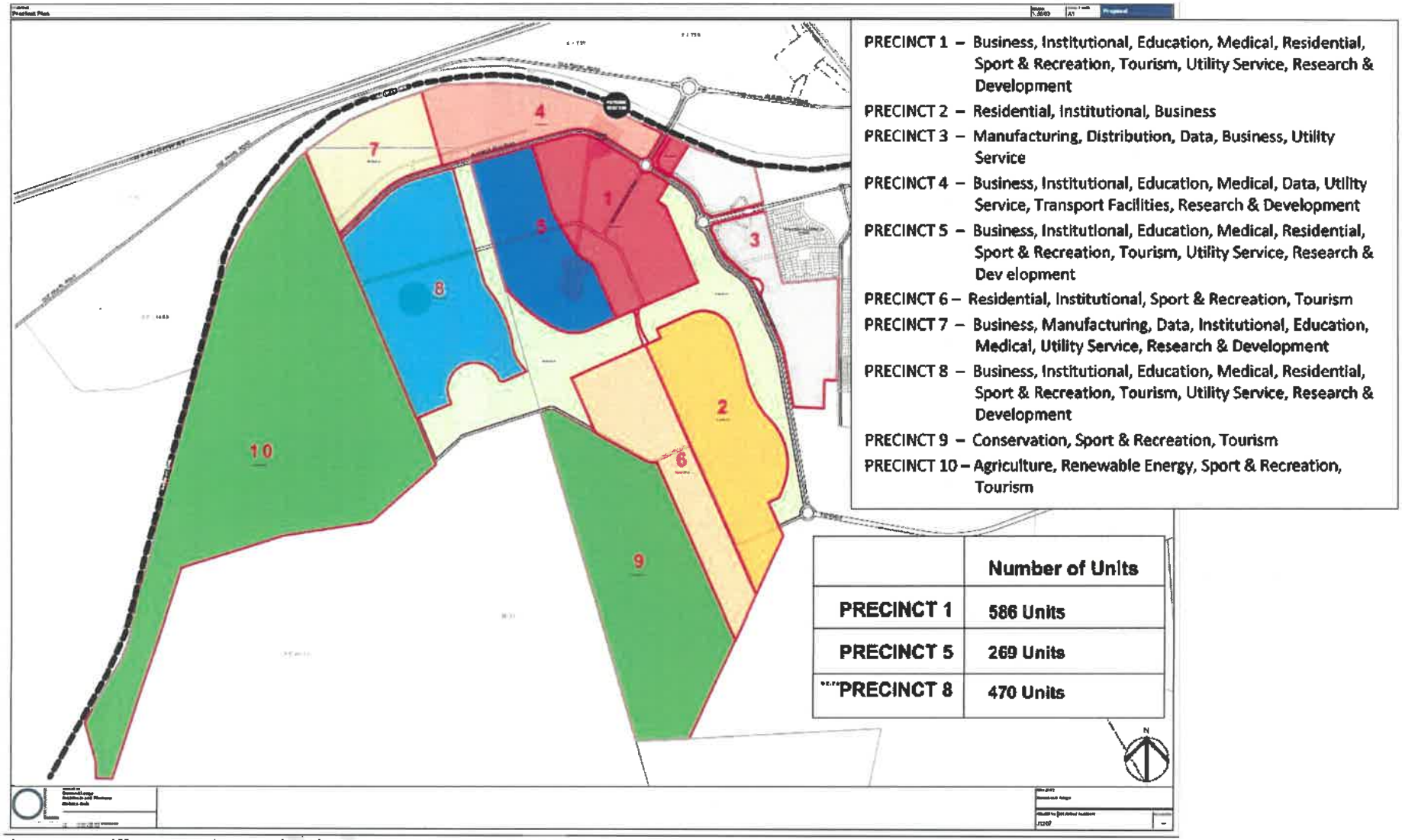


Figure 4: Different precincts within the Stellenbosch Bridge Master Development Plan.
Source: Stellenbosch Bridge (Pty) Ltd., 2020

2.2 Application 1: Reallocation of existing rights on Portion 1

The property earmarked for Application 1 (highlighted in **Figure 5**) is officially registered as Portion 5 of Farm 742, Paarl, owned by Stellenbosch Bridge Properties (Pty) Ltd. A land-use approval was granted by the Stellenbosch Municipality in 2011 to permit urban development for 1 577 residential units, together with a GLA of 28 000 m² for various business uses. The property contains a pipeline servitude that crosses the site in an east-west direction; the servitude will be accommodated within the future development layout.

Figure 5: The location of the Stellenbosch Bridge Application 1 site (indicated with a red border)
Source: Google Maps (2019)

To utilise the existing land-use rights for the site, a revised Development Framework Plan has been prepared that re-allocates the approved rights to align with the draft Development Framework for the larger Stellenbosch Bridge development (which include the adjacent land units). The latter will ultimately include more intensified development on the site that exceeds the current basket of rights approved for the site, but the proposed amended Development Framework (Application 1) constitutes the development of only the existing Basket of Rights, i.e. no additional rights are being applied for (Anton Lotz Town Planning & A Roux Town Planning, 2019a).

The proposed Subdivision Plan subdivides the property into three portions as indicated in **Figure 6**, namely:

- Portion 1 (34,8 ha) – provides for 1 577 residential units, i.e. 200 2-storey townhouses (3-beds) and 1 377 4-storey walk-ups (1, 2 & 3-beds)
- and 3 000 m² GLA for the retail square.
- Portion 2 (38,7 ha) – Innovation Precinct, with 20 200 m² GLA allocated for a data centre, education/ community facilities and business use.

- Portion 3 (34,4 ha) – the area outside the previous Klapmuts urban edge that was excluded from the initial Klapmuts Hills approval. Development on this portion will be included in future applications for the Stellenbosch Bridge development.
    - 1577 residential
    - 28 000 m² bulk
        - Office – 22 000 m²
        - Retail – 5 500 m²
        - Restaurant/Coffee Shop – 500 m²

Portions 1 and 2 will retain a Sub-divisional Area zoning and Portion 3 will remain Agriculture as part of Application 1. Following approval of this application, separate subdivision applications will be submitted for Portions 1 and 2 that will indicate the proposed zoning categories for the individual erven.

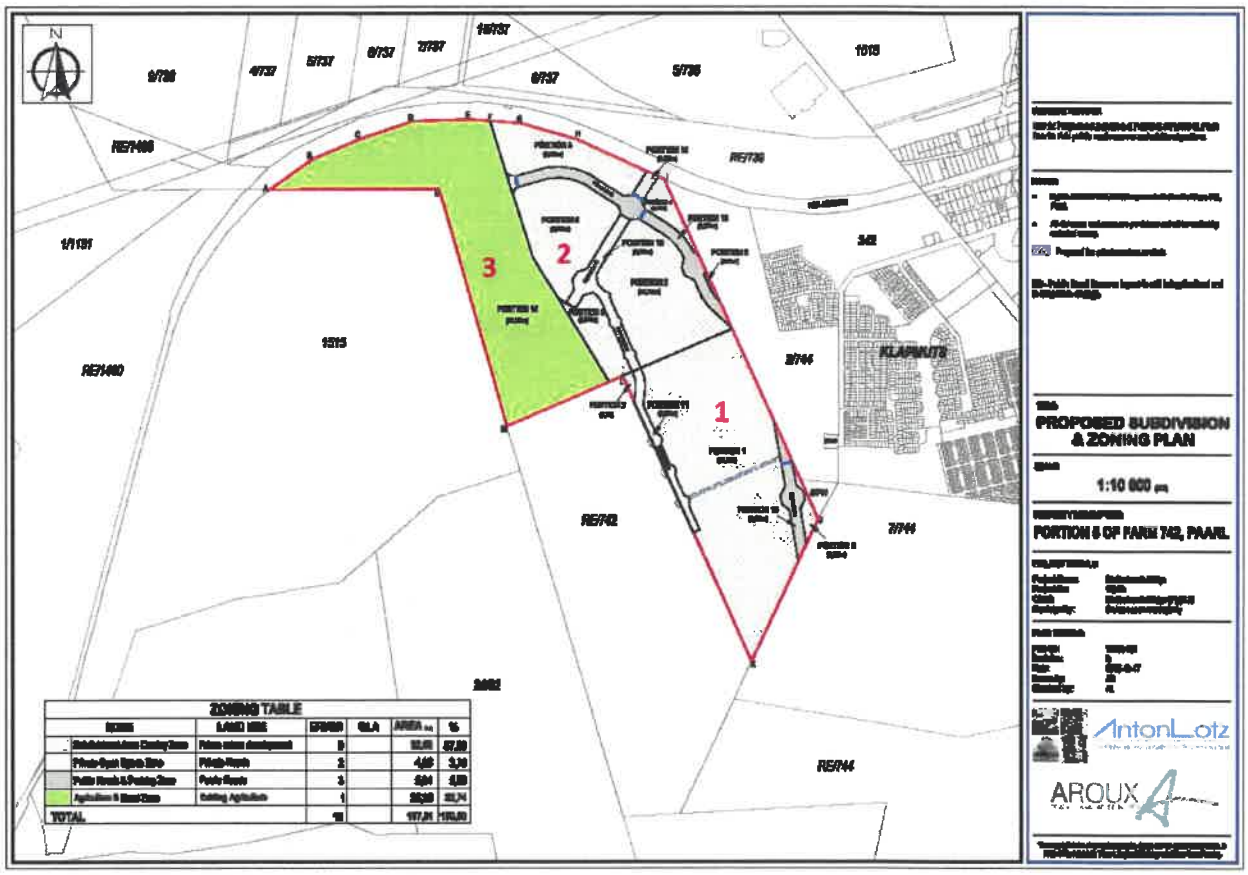


Figure 6: The proposed Subdivision Plan for Application 1.
Source: Stellenbosch Bridge (Pty) Ltd., 2020

The Application related to Portion 5 of Farm 742, Paarl, includes the approval of the amended Development Framework Plan, an amended phasing plan, subdivision plan and deletion of the set of conditions of approval (Anton Lotz Town Planning & ARoux Town Planning, 2019a).

As indicated in **Figure 7**, the proposed development on the site can be separated into two components (which will ultimately form two separate precincts), namely a predominantly residential component to the south and a mixed-use phase to the north. The two development areas are separated by a green open space system that accommodates stormwater systems and existing treelines and creates interest and variety in the development.

Figure 7: The proposed amended Development Framework for Application 1.
Source: Anton Lotz Town Planning & ARoux Town Planning, 2019a

The residential component on the southern portion will accommodate a total of 1 577 residential units, which is the total residential provision provided for in the approved Basket of Rights. The residential development will mostly be in the form of high- and medium-density sectional-title schemes. The allocation of these units will be done as part of the future Precinct Plan approval. Provision is also made for a retail square, which will utilise approximately 3 000 m^2 GLA. The northern portion will accommodate mixed-use development that will ultimately form the core of the Innovation Precinct. The remaining GLA of 20 200 m^2 will be used in this phase. This will include a data centre, education/community facilities and business use.

The main vehicular access to the development will remain via an underpass road from Old Paarl Road and supported by a road link into the Klapmuts town. Two north-south vehicular routes will accommodate traffic movement on-site and will connect with the future circular movement system on the adjacent properties that will form part of the proposed Stellenbosch Bridge development. The open space system will be designed in an integrated manner to facilitate pedestrian movement via a combination of hard and soft landscaped open spaces.

The development footprint areas for the northern commercial component are largely similar to the approved Development Framework, although the density and character of this area will be different. The development footprint of the southern residential portion is also similar, although the open space area now moves from the western side of the site to the eastern side allowing for a better alignment of movement and services systems. It is evident that the proposed amended Development Framework Plan, which retains the existing Basket of Rights, will not result in any additional impact on the surrounding environment and that the merits on which the previous land use approval was based, remain unchanged (Anton Lotz Town Planning & A Roux Town Planning, 2019a).

2.3 Application 2: Rezoning and Subdivision of Remainder Farm 744/2

Application 2 refers to the Rezoning and Subdivision of Remainder Farm 744/2, which is situated between the western edge of the existing Klapmuts urban area and the Klapmuts Hills site to the west (Portion 5 of Farm 742,

Paarl). Despite its agricultural zoning, the site has been included within the Klapmuts urban edge for many years and envisaged to form part of the town's expansion westwards (Anton Lotz Town Planning & A Roux Town Planning, 2019b).

The site is mostly vacant with the only structures on the site being the current owner's industrial and residential buildings close to the site's southern boundary (refer to **Figure 8**). A separate portion will be created as part of the proposed subdivision to allow the current owner to retain this portion and the current structures. The remainder of the site contains disturbed natural vegetation. The site was previously used for sand and gravel mining and are currently infested by alien vegetation. The biodiversity of the site is low due to the lack of natural vegetation. Small mammals, including Steenbok, game birds as well as reptiles and rodents frequent the site from time to time from the naturally vegetated Klapmutskop. The site is relatively low-lying and adjacent to existing residential areas and therefore has limited visibility from surrounding developed areas and major routes. The Klapmuts Village east of the site consists mostly of low-income and informal housing.

Figure 8: Proposed layout plan for of Portion 2 of Farm 744, Paarl (Application 2).
Source: Anton Lotz Town Planning & ARoux Town Planning, 2019b

The property is currently owned by Safamco Enterprises (Pty) Ltd, but an agreement of sale is in place between Stellenbosch Bridge (Pty) Ltd and Safamco (Pty) Ltd. The property is currently zoned Agriculture & Rural Zone in terms of the Stellenbosch Municipality Zoning Scheme By-Law (2019). The site contains a pipeline servitude along the southwestern and southern boundaries of the site.

The site forms the proposed light-industrial precinct along the eastern edge of the Stellenbosch Bridge development. The vision for this precinct is to function as a manufacturing, logistics and data centre area for the Innovation Precinct. Although the subject property forms part of the Stellenbosch Bridge development site, it was agreed with the Municipality during pre-submission consultation that a separate land-use application (including rezoning, subdivision

and consent) be submitted for this site due to its location within the existing Klapmuts urban edge and higher levels of accessibility to transport and services infrastructure.

The project components include the following:

- Application for **rezoning** of Remainder Portion 2 of Farm 744, Paarl, from Agriculture & Rural Zone to Subdivisional Area Overlay Zone in terms of Section 15(2)(a) of the Stellenbosch Municipality: Land Use Planning By-law, 2015, including a Basket of Rights of 90 500 m² floor area;
- Application for **subdivision** of Remainder Portion 2 of Farm 744, Paarl, into seven portions in terms of Section 15(2)(a) of the Stellenbosch Municipality: Land Use Planning By-law, 2015, to provide for:
  - 2 portions zoned Subdivisional Area Overlay Zone
  - 2 portions zoned Public Roads & Parking Zone
  - 1 portion zoned Industrial Zone
  - 2 portions zoned Private Open Space Zone

Application is also made for the Consent of Council to allow **Business Premises** on the two portions to retain Subdivisional Area zonings until further subdivision. The intention is to allow the opportunity for better integration of a range of appropriate commercial, professional and/or retail uses with the intended industrial uses as part of an integrated mixed-use innovation precinct. The development layout will ensure that a sufficient buffer area is created between the manufacturing, data centre and distribution uses and the existing residential uses to the east. The different industrial land-uses include the following:

Service Industry (for public)	5 500 m²
Manufacturing	25 000 m²
Warehousing and Distribution	25 000 m²
Mini-warehousing - storage	10 000 m²
Data Centre	25 000 m²
Sub-Total (Floor area)	**90 500 m²**

2.4 Application 3: Densification on Portions 1 & 3

Total area: 252 500 m²
The different industrial land-uses include the following (refer to Table 2 for further detail):

- Densification on Portions 1 & 3 (73 ha)
- 1 423 residential (apartments)
- Business - 159 000 m² (office, retail, shopping centre, restaurant/coffee shop and entertainment)
- Industrial - 40 000 m² (service industry, manufacturing, warehousing and distribution, storage)
- Institutional - 50 000 m² (University/College, Research and Development - labs, incubators, Training Centre, Place of Assembly/Community Facilities, Place of Worship, Pre-School/Daycare, Medical Consulting Rooms and Medical Clinic)
- Other – 3 500 m² (Accommodation and Sport Stadium & Indoor Sport)

2.5 Application 4: Rezoning & Subdivision for remaining site area inside Urban Edge on Portion 4

Total area: 309 000 m²

The different industrial land-uses include the following (refer to Table 2 for further detail):

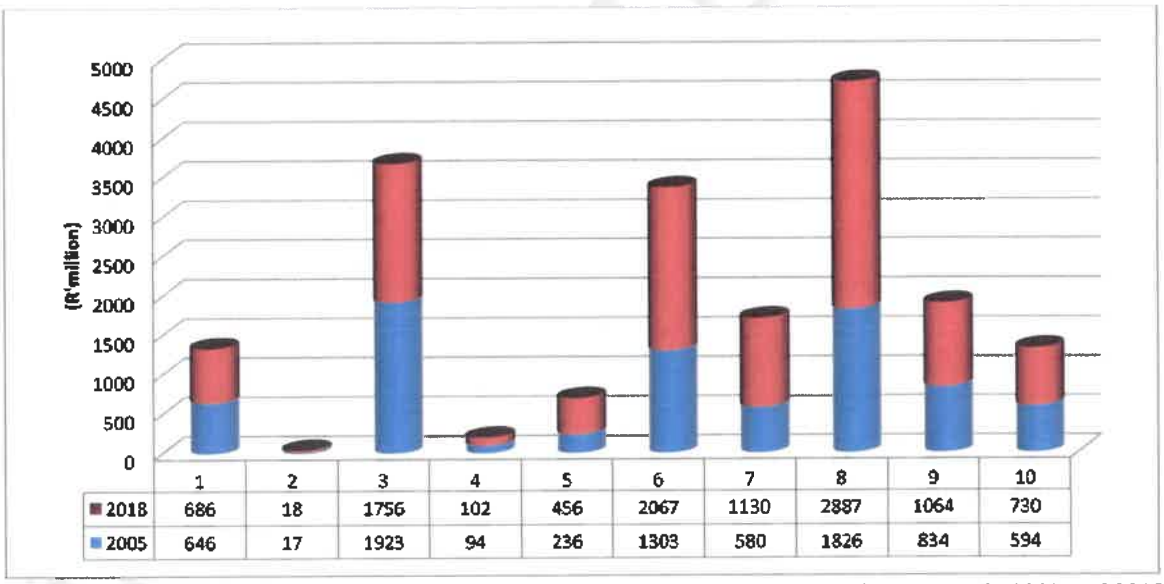
- Rezoning & Subdivision for remaining site area inside Urban Edge on Portion 4 (106 ha).
- 3 000 residential units (2 300 apartments, 200 Grouphousing, 500 Retirement village)
  - Business - 108 000 m² (office, retail, Restaurant/Coffee Shop and Entertainment)
  - Industrial - 63 000 m² bulk (Service Industry, Manufacturing, Warehousing and Distribution, Mini-warehousing - storage and Data Centre)
  - Institutional - 118 000 m² (Private school, University/College, Research and Development - labs, incubators, Place of Assembly/Community Facilities, Place of Worship, Pre-School/Daycare and Private Hospital)
  - Other – 20 000 m² (Hotel, Guest House/Tourist Accommodation, Sport Stadium & Indoor Sport, Health and Fitness and Conference Centre)

3. OVERVIEW OF THE STELLENBOSCH MUNICIPAL AND CAPE WINELANDS DISTRICT ECONOMIES

3.1 Overview

The Stellenbosch Municipal economy contributed approximately 24,20% to the economy of the Cape Winelands District in 2018. In terms of absolute numbers, the Stellenbosch economy generated R10 896 million in Gross Value Added (GVA) at constant prices[1], relative to R45 023 million recorded for the Cape Winelands District. The GVA contribution of the Stellenbosch economy to the Cape Winelands District decreased from 25,48% in 2005 to 24,20% in 2018. The Stellenbosch economy grew off a solid base by 2,35% per annum from 2005 to 2018, or 35,29% over the 13 years.

Figure 9 indicates the contributions of the different sectors to the GVA of the Stellenbosch economy for 2005 and 2018. The largest sector of the Stellenbosch economy in 2018 was Finance, Insurance, Real Estate and Business Services sector, followed by Wholesale and Retail and Manufacturing. Combined, these three sectors contributed almost 61,59% of the total GVA generated by the Stellenbosch economy in 2018, a decrease of 1,84% from 2005. The Finance, Insurance, Real Estate and Business Services has remained the largest contributor to the Stellenbosch GVA, whereas Wholesale and Retail overtook Manufacturing in 2018. The Manufacturing sector's contribution decreased from 23,88% in 2005 to 16,12% in 2018, whereas Finance, Insurance, Real Estate and Business Services increased its contribution to GVA from 22,67% in 2005 to 26,50%.



	1	2	3	4	5	6	7	8	9	10
2018	686	18	1756	102	456	2067	1130	2887	1064	730
2005	646	17	1923	94	236	1303	580	1826	834	594

Figure 9: An illustration of the GVA contribution per sector for the Stellenbosch economy in 2005 and 2018

Legend:

1	Agriculture, hunting, forestry and fishing	6	Wholesale and retail
2	Mining and quarrying	7	Transport, storage and communication
3	Manufacturing	8	Finance, insurance, real estate and business services
4	Electricity, gas and water supply	9	Community, social and personal services
5	Construction	10	Government Services

Source: Adapted from data provided by Quantec Research, 2019

[1] GVA and Gross Geographic Product (GGP) or Gross Regional Product (GRP) are very similarly related concepts. GVA excludes taxation and subsidies, whereas GDP includes the items. GVA is analysed using current prices

To understand whether sectors are contracting or growing, it is useful to consider the overall and annual growth rates and to compare those to the Cape Winelands District within which the Stellenbosch economy functions. **Figure 10** indicates the annual compounded growth rates per economic sector for the Stellenbosch Municipality and Cape Winelands District from 2005 to 2018.

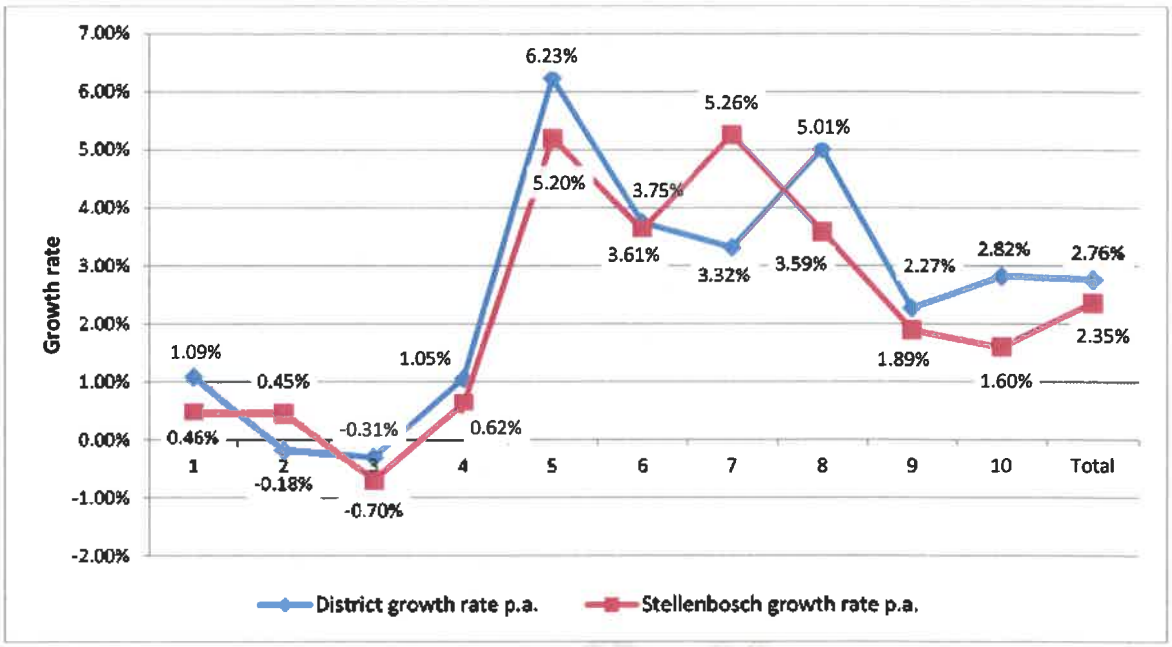


Figure 10: An illustration of the annual nominal growth rates per economic sector for Stellenbosch Municipality and the Cape Winelands District from 2005 to 2018

Legend:

1	Agriculture, hunting, forestry and fishing	6	Wholesale and retail
2	Mining and quarrying	7	Transport, storage and communication
3	Manufacturing	8	Finance, insurance, real estate and business services
4	Electricity, gas and water supply	9	Community, social and personal services
5	Construction	10	Government Services

Source: Adapted from data provided by Quantec Research, 2019 and own calculations

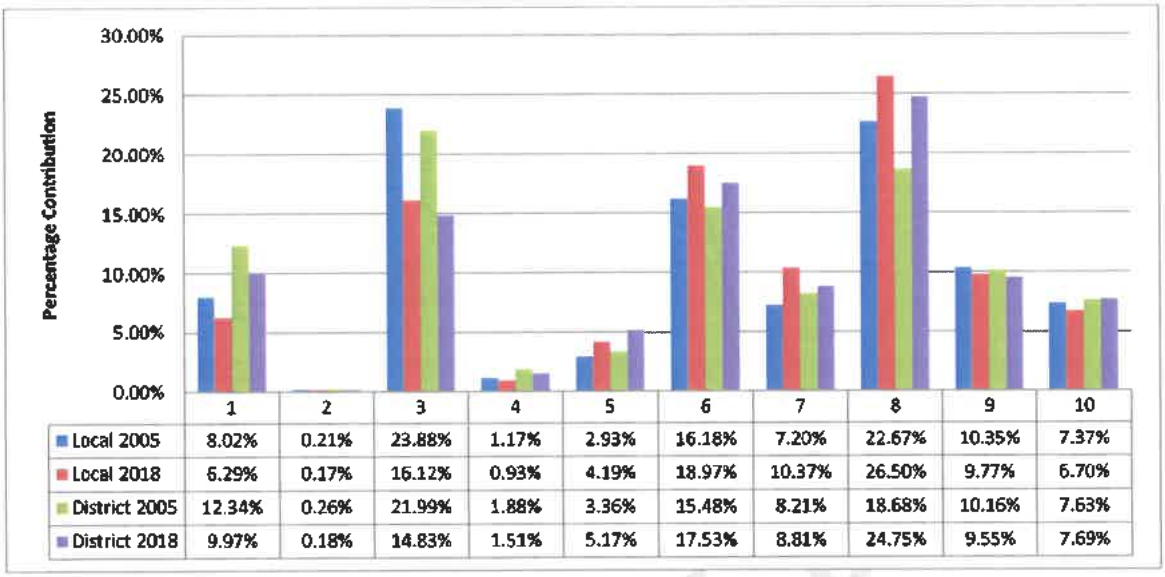
The Cape Winelands and Stellenbosch economies grew in nominal terms by 2,76% and 2,35% per annum, respectively, from 2005 to 2018 (refer to "Total" in **Figure 10**). Only the Transport, Storage and Communication sector in the Stellenbosch economy achieved a higher growth rate than the District over the period 2005 to 2018.

The Transport, Storage and Communication, Construction and Construction sectors demonstrated the highest annual growth rates for the Stellenbosch Municipality over the period 2005 to 2018. In contrast, the Manufacturing sector declined by 0,70% per annum between 2005 and 2018, while its contribution to GVA declined by 32,51% from 2005 to 2018.

3.2 Sector analysis of GVA contributions

Figure 11 indicates the contribution of each economic sector to the GVA of the Stellenbosch and the Cape Winelands District economy for 2005 and 2018. An assessment of the larger sectors in the Stellenbosch economy suggests that the contribution of the Wholesale and Retail and Finance, Insurance, Real Estate and Business Services sectors increased their contribution to the economy, while Manufacturing declined the most significantly. A similar pattern is found in the District economy from 2005 to 2018. Finance, Insurance, Real Estate and Business Services increased its contribution to GVA of the District economy by 32,49% over the period. The contribution of the manufacturing sector declined from 21,99% in 2005 to 14,83% in 2018. The contribution of the sectors to GVA in the Stellenbosch

area and the Cape Winelands District remained more or less in the same proportions whether the sector contribution increased or declined. The only exception was Government Services, which indicated a decline in its contribution to the local economy, but a slight increase for the District economy.



	1	2	3	4	5	6	7	8	9	10
Local 2005	8.02%	0.21%	23.88%	1.17%	2.93%	16.18%	7.20%	22.67%	10.35%	7.37%
Local 2018	6.29%	0.17%	16.12%	0.93%	4.19%	18.97%	10.37%	26.50%	9.77%	6.70%
District 2005	12.34%	0.26%	21.99%	1.88%	3.36%	15.48%	8.21%	18.68%	10.16%	7.63%
District 2018	9.97%	0.18%	14.83%	1.51%	5.17%	17.53%	8.81%	24.75%	9.55%	7.69%

Figure 11: Sector contributions to GVA for the Stellenbosch and District municipal areas in 2005 and 2018

Legend:

1	Agriculture, hunting, forestry and fishing	6	Wholesale and retail
2	Mining and quarrying	7	Transport, storage and communication
3	Manufacturing	8	Finance, insurance, real estate and business services
4	Electricity, gas and water supply	9	Community, social and personal services
5	Construction	10	Government Services

Source: Adapted from data provided by Quantec Research, 2019

A synopsis of the data presented in **Figure 11** suggests that four sectors indicated an increased contribution to GVA for the Stellenbosch economy, while six sectors indicated a declining contribution. The trend emerging across the District is similar with five on the 10 sectors increasing their GVA contribution to the District economy. The concern with this trend is the reduction in employment levels within the more labour-intensive sectors of the economy. A greater focus on sectors with a service orientation has emerged over the 13 years of the analysis, which are invariably low employment creators compared to construction and manufacturing.

The assessment of GVA sector contributions together with the annual and period growth rates for 2005 and 2018 are indicated in **Table 1**. Among the 10 classified sectors, nine sectors indicated an annual increase in economic activity with the Manufacturing sector indicating a year-on-year decline from 2005 to 2018. The declining trend in the contribution of the Manufacturing sector to GVA is concerning due to the labour-intensive nature of the industries that generally form part of this sector. The analysis also demonstrates that the Manufacturing sector is declining in favour of increases in Finance, Insurance, Real Estate and Business Services and Wholesale and Retail Trade, which alludes to a greater focus on service orientation.

Table 3: An assessment of sector contributions to GVA and annual growth rates in 2005 and 2018 for the Stellenbosch economy

Economic sector (R'million)	Gross Value Added				Growth for Period	Annual growth	Direction of growth
	2005	% of total	2018	% of total			
Agriculture, hunting, forestry and fishing	646	8,02%	686	6,29%	6,12%	0,46%	↑
Mining and Quarrying	17	0,21%	18	0,17%	6,07%	0,45%	↑
Manufacturing	1923	23,88%	1756	16,12%	-8,69%	-0,70%	↓
Electricity, gas and water supply	94	1,17%	102	0,93%	8,35%	0,62%	↑
Construction	236	2,93%	456	4,19%	93,21%	5,20%	↑
Wholesale and retail	1303	16,18%	2067	18,97%	58,59%	3,61%	↑
Transport, storage and communication	580	7,20%	1130	10,37%	94,72%	5,26%	↑
Finance, insurance, real estate and business services	1826	22,67%	2887	26,50%	58,09%	3,59%	↑
General government	834	10,35%	1064	9,77%	27,63%	1,89%	↑
Community, social and personal services	594	7,37%	730	6,70%	22,99%	1,60%	↑
Total	8054	100,00%	10896	100,00%	35,29%	2,35%	↑

Source: Adapted from data provided by Quantec Research, 2019 and own calculations

3.2.1 Primary sector

The primary sector of the Stellenbosch economy includes Agriculture, Hunting, Forestry and Fishing activity and Mining and Quarrying. The primary sector contributed 6,46% to the GVA of the Stellenbosch economy in 2018, which is slightly down from 8,24% in 2005. Agriculture is the largest contributor to the GVA of the primary sector with a sector contribution of 97,39% in 2005, which remained the same in 2018.

3.2.2 Secondary sector

The secondary sector of the Stellenbosch economy includes Manufacturing, Construction and Electricity, Gas and Water Supply. The secondary sector contributed 27,98% to the GVA of the Stellenbosch economy in 2005, while the contribution to GVA decreased to 21,24% in 2018. The contribution of the Manufacturing sector to secondary sector GVA decreased from 85,35% in 2005 to 75,88% in 2018, which is a particular concern.

3.2.3 Tertiary sector

The tertiary sector of the Stellenbosch economy includes Trade, Repairs and Hospitality, Financial Institutions, Real Estate and Business Services; Community, Social and Personal Services; and Government Services. The tertiary sector contributed 63,78% to the GVA of the Stellenbosch economy in 2005, which increased to 72,30% in 2018.

Government Services are included as part of the tertiary sector for the analysis. The analysis suggests that the contribution of Government Services to the GVA of the tertiary sector of the Stellenbosch economy decreased from 16,23% in 2005 to 13,50% in 2018.

3.3 General employment trends

A comparison of total employment in the Cape Winelands District and Stellenbosch Municipality indicates that Stellenbosch contributed 19,84% of the total employment of the Cape Winelands District in 2018 and 3,03% to the total employment in the Western Cape Province.

The primary, secondary and tertiary sectors of the Stellenbosch economy contributed 13,50%, 15,45% and 71,06% to total employment in the local economy in 2018, respectively. In comparison, the Cape Winelands District enjoyed total employment contributions of 20,97%, 14,09% and 64,94% from the primary, secondary and tertiary sectors, respectively.

Overall employment in the Stellenbosch economy increased by 34,69% over the period 2001 to 2018. The strong growth in the tertiary sector was offset by low growth in employment in the primary and secondary sectors of the local economy. Strong employment growth was recorded in the tertiary sector with an increase of 74,72% over the period 2001 to 2018, or an annual compounded growth of 3,34% per annum. The Cape Winelands District experienced similar trends, with a decline of 34,33% recorded for the primary sector, and increases of 32,32% and 94,62% for the secondary and tertiary sectors, respectively.

In terms of employment growth by sector in the Stellenbosch area and specified periods pre-2008, 2008 - 2011 and post-2011, it is clear that the tertiary sector grew marginally with growth of 1,27% from 2008 to 2011 (**Figure 12**). The secondary sector and primary sector of the economy shed jobs with declines of 7,17% and 25,58%, respectively, over the period 2008 to 2011. Post-2011, all primary, secondary and tertiary sectors started growing or clawing back jobs shed in the previous period, achieving an increase in employment of 10,62%, 9,10% and 18,15% over the period 2012 to 2018, respectively. However, the primary sector has not recovered in 2018 from the lost employment from 2001 to 2008, which is a concern with specific reference to labour-intensive industries.

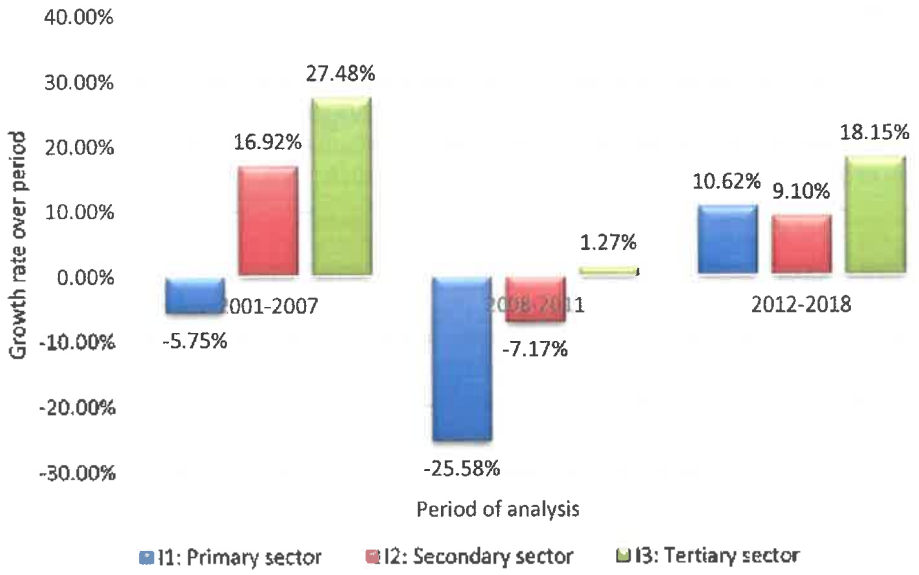


Figure 12: An illustration of the employment growth in the Stellenbosch Municipality for three specified periods (pre-recession, recession and post-recession) from 2001 to 2018

Source: Quantec, 2019 and own calculations

4. FEASIBILITY OF THE PROJECT AND FIT WITH SPATIAL PLANNING

4.1 Financial feasibility and sustainability

No financial feasibility study was conducted by Multi-Purpose Business Solutions and no assessment can be provided at this stage. Notwithstanding, any mixed-use development with residential, business and industrial components will be demand-driven. The business model, which is coupled to a development and phasing scenario, will determine the stages of development and the prioritisation of different components. It is likely that the properties will be released using a staged approach to ensure maximum market visibility and account for the market conditions at the time. It is unclear how long it will take to sell-out but the development of said components envisaged as part of Applications 1 and 2 is planned for construction over 4 years. Given the profile of Stellenbosch and the Klapmuts area as an identified development node, the location of the property and price stability in the area, the duration of the envisaged development timeframe for the said Applications. It is also apparent from the traditional business model that the developer would introduce services and it is possible that clustering will form an integral part of the development roll-out plan.

The status of the developer and the need for prudence when approaching the development of Stellenbosch Bridge suggest that undertaking a project of this nature and investing the required funding would not occur should the project not be considered feasible. Although we have not assessed the feasibility of the project, it is considered economically viable and financially feasible for the reasons mentioned above and risk mitigation that a prudent developer would implement.

4.2 Compatibility with National and spatial planning from an economic perspective

The individual benefits of a project overstate the true benefits if the project diminishes benefits elsewhere in the area. The economic desirability is therefore essential to determine whether the proposed development compliments economic planning as reflected in spatial development planning. It is not sufficient that the development results in some positive spin-offs if it is not compatible with planning guidance designed to maximize the overall economic potential of an area. Spatial Development Frameworks (SDFs) in particular are central to economic development planning and to guide overall development in a direction that local and provincial authorities see as desirable. Notwithstanding, the basic purpose of an SDF is to outline the spatial implications of Integrated Development Plans (IDPs). To provide some context, the provincial, regional and local SDFs (together with related frameworks, interpretation reports and discussion documents) and Local Economic Development plans and strategies (together with other documents that offer guidance) are considered as a premise for this part of the assessment. Where appropriate, other planning and development guidelines and policies were also considered.

4.2.1 National Development Plan 2030 (NDP 2012)

The National Development Plan (NDP, National Planning Commission, 2012) sets out six interlinked priorities (National Planning Commission, 2012 - p. 29):

- Uniting all South Africans around a common programme to achieve prosperity and equity;
- Promoting active citizenry to strengthen development, democracy and accountability;
- Bringing about faster economic growth, higher investment and greater labour absorption;
- Focusing on key capabilities of people and the state;
- Building a capable and developmental state; and
- Encouraging strong leadership throughout society to work together to solve problems.

While the achievement of the objectives of the National Development Plan requires progress on a broad front, one of the fundamental factors is raising employment through faster economic growth. A sustainable increase in

employment will require a faster-growing economy and the removal of structural impediments, such as poor-quality education or spatial settlement patterns that exclude the majority. These are essential to achieving higher rates of investment and competitiveness and expanding production and exports. Business, labour, communities and government will need to work together to achieve faster economic growth (p. 30).

Transforming the South African economy is a challenging, long-term project. In summary, the NDP proposes to enhance human capital, productive capacity and infrastructure to raise exports, which will increase resources for investment and reduce reliance on capital inflows. Higher investment, supported by better public infrastructure and skills, will enable the economy to grow faster and become more productive. Rising employment and productivity will lead to improved incomes and living standards and less inequality. Shifting the economy towards more investment and lower consumption is thus necessary for long-term economic prosperity (p. 42). In addition, more efficient and competitive infrastructure is required to facilitate economic activity that is conducive to growth and job creation (p. 42).

Relevance to Stellenbosch Bridge

The NPD 2030 sets out six interlinked priorities that include enabling faster economic growth, higher investment and greater labour absorption. The Stellenbosch Bridge development subscribes to the NDP principles by offering residential and employment opportunities in an area that requires development to assist employment creation. The Industrial component is intended to create employment for those residents already in Klapmuts and those that will migrate to the area.

4.2.2 Western Cape Provincial Spatial Development Framework (WCPSDF) 2014

The Western Cape Provincial Spatial Development Framework (Provincial Government of the Western Cape, 2014) refers to the importance of a coherent framework for the Province's urban and rural areas that gives spatial expression to the National and Provincial development agendas, among others. It's guiding principles include the following:

- **Spatial justice**: Past spatial and other development imbalances should be redressed through improved access to and use of land by disadvantaged communities.
- **Sustainability and resilience**: Land development should be spatially compact, resource-frugal, compatible with cultural and scenic landscapes, and should not involve the conversion of high-potential agricultural land or compromise ecosystems.
- **Spatial efficiency**: Efficiency relates to the form of settlements and use of resources - compaction as opposed to sprawl; mixed-use, as opposed to mono-functional land-uses; residential areas close to work opportunities as opposed to dormitory settlement, and prioritisation of public transport over private car use.

In terms hereof, the logical underpinning of the spatial strategy of the WCPSDF covers the following (p. 34):

- Capitalise and build on the Western Cape comparative strengths (e.g. gateway status, knowledge economy, lifestyle offering) and leverage the sustainable use of its unique spatial assets;
- Consolidate existing and emerging regional economic nodes as they offer the best prospects to generate jobs and stimulate innovation;
- Connect urban and rural markets and consumers, fragmented settlements and critical biodiversity areas (i.e. freight logistics, public transport, broadband, priority climate change ecological corridors, etc.); and
- Cluster economic infrastructure and facilities along public transport routes (to maximise the coverage of these public investments) and respond to unique regional identities within the Western Cape.

The Province's economic prospects lie in the urban space-economy (i.e. the metropolitan area), with public infrastructure investment forecasted to be the leading driver of growth. Several of the key concepts related to the space-economy policies refer to the following (as adapted) (p. 76):

- Reinforce the Cape Metro region as the Province's economic engine;
- Use new bulk economic infrastructure investment in the Cape Metro functional region to leverage private sector and community investments (i.e. energy, water, transport and freight logistics, ICT);
- Build 'land assembly' capacity in the urban space-economies and apply new land policy instruments (e.g. land banking, land value capture, etc.);
- Incentivise mixed land-use and economic diversification in urban land markets;
- Regenerate and revitalise existing economic nodes in the urban space-economy (i.e. CBDs, etc.);
- Prioritise public transport investment and higher-order facilities in district centres; and
- Prioritise rollout of the 'greener' economy.

Relevance to Stellenbosch Bridge

The proposed Stellenbosch Bridge Development will contribute towards the provision of housing opportunities, add revenue and additional employment in the construction sector, which will further strengthen growth in the local economy. The project addresses spatial efficiency to some extend, i.e. compaction within the urban edge, mixed-use development and residential areas close to work opportunities. Opportunities to prioritise public transport is also possible due to the location of the development adjacent to the existing town of Klapmuts, which is also on the main railway line between Cape Town and Paarl.

4.2.3 Cape Winelands Integrated Development Plan 2017/18 – 2021/22

The 2018/2019 review of the Cape Winelands IDP (Cape Winelands District Municipality, 2018b) confirmed the vision of "A unified Cape Winelands of excellence for sustainable development", which is demonstrated in the following strategic objectives:

1. Creating an environment and forging partnerships that ensure social and economic development of all communities, including the empowerment of the poor in the Cape Winelands District;
2. Promoting sustainable infrastructure services and a transport system that fosters social and economic opportunities; and
3. Providing effective and efficient financial and strategic support services to the CWDM.

Over the past decade(s), Stellenbosch has seen growth in several economic sectors, e.g. higher education and research, agriculture and agro-processing, tourism, corporate headquarters and business services. In this area, the challenge is to watch carefully how growth impacts on the environment, on transport capacity, on its "urban edge" and the competition between different land uses.

The majority, i.e. 77%, of building activities — a critical source of local government revenue — that occurred within the CWDM, was completed within the Stellenbosch and Drakenstein municipalities, accounting for 81% of the total area for residential space and almost 70% of industrial space. However, they are also home to 60% of all informal dwellings in the CWDM and 18 of the 27 informal settlements, with a high vulnerability index. The fact is that some of the higher-order towns, i.e. Stellenbosch and Paarl, have sizeable numbers of unemployed people.

The CWDSDF includes several strategies to facilitate integrated human settlements, with none more important than ensuring informed decision-making and investment through essential and tailor-made structures, systems and processes. Some strategies and actions were designed to address urban management challenges, e.g. urban restructuring, urban edge delineation, densification and land conversion.

The provincial hierarchical order of towns' classification and growth indicators is used to identify priority areas for the provision of housing, i.e. higher, first- and second-order towns and high-risk informal settlements. The District IDP proposes that the provision of housing should be demand-driven and supply-negotiated. Mass-scale developments are to be considered (only) in higher-order towns (such as Stellenbosch), whereas small-scale developments are appropriate in first- and second-order towns. Furthermore, decisions on housing delivery must also protect community heritage and values.

Relevance to Stellenbosch Bridge

The proposed Stellenbosch Bridge will contribute to the main growth nodes in the District, i.e. Stellenbosch and Drakenstein. It will support the creation of an environment and forging partnerships that ensure social and economic development of the Klapmuts community. Furthermore, the broader community will benefit from the introduction of infrastructure to support the development.

4.2.4 Cape Winelands Spatial Development Framework 2019/2024

As a sector plan of the Cape Winelands IDP, the Cape Winelands District Spatial Development Framework (Cape Winelands District Municipality, 2018a), adopts the CWDM IDP's vision of "A unified Cape Winelands of Excellence for sustainable development" and mission, "All structures of the Cape Winelands co-operate together towards effective, efficient and economically sustainable development".

The objectives of the CWD SDF are:

- To improve the quality of life for the people of the region by ensuring principle-led responses;
- To plan by considering future population growth, economic and climatic changes;
- To manage the impact and exposure of external and internal threats to growth and development;
- To restructure urban settlements through compaction and densification;
- To promote sustainable resource use and responsible rural development; and
- To improve and conserve the District's natural environment.

The annual population growth rate for the Stellenbosch Municipality has slowed down from 2.75% for 2001-2011 to 2.25% for 2011-2016. If the annual projected growth rate of 2.2% for 2016-2026 is realised, the population in the Stellenbosch Municipality will increase from 173 418 in 2016 to 215 040 in 2026. Municipal spatial development frameworks include estimates on the demand for housing units across different socio-economic categories and the planned location and density of future housing development. Proactive planning is essential to achieving good governance and efficient service delivery. However, the ability of municipalities and the government to provide housing and related services remains nearly an impossible challenge.

The Growth Potential Study (Van Niekerk, et al., 2014) determined the growth potential for municipalities and towns in the Western Cape based on assessing human capital, infrastructure availability, economy, physical attributes and institutional capacity (p. 24). The study indicated that Stellenbosch, Paarl and Wellington are located within the functional metro-economy of Cape Town. These towns function more like an extension of the metropolitan area; people live in the metro and work and make use of services in these towns and *vice versa*. The economic growth outlook will therefore always remain positive, although the long-term impact of a "drying" Cape Winelands region is not known. In particular, Stellenbosch was found to have a very high growth potential and very high social needs.

Relevance for Stellenbosch Bridge

The proposed Stellenbosch Bridge development will foster the objectives of the SDF by improving the quality of life for the people of the Klapmuts area that will support both the Drakenstein and Stellenbosch Municipalities. It will create urban settlements through compaction and densification while considering future population growth in the area and addressing limitations of development closer to Stellenbosch.

4.2.5 Stellenbosch Spatial Development Framework (SDF) (2019)

The 2019 Municipal Spatial Development Framework (Stellenbosch Municipality, 2019b) recognises that the spatial decisions and actions of many participants determine the nature of a settlement. Specifically, to the following seven principles should be considered:

- Maintain and grow the assets of Stellenbosch Municipality's natural environment and farming areas.
- Respect and grow the cultural heritage, the legacy of physical artefacts and intangible attributes of society inherited from past generations maintained in the present and preserved for the benefit of future generations.
- Within developable areas, allow future opportunity to build on existing infrastructure investment, on the opportunity inherent in these systems when reconfigured, augmented or expanded.
- Clarify and respect the different roles and potentials of existing settlements.
- Address human needs – for housing, infrastructure and facilities – clearly in terms of the constraints and opportunities related to natural assets, cultural assets, infrastructure and the role of settlements.
- Pursue balanced communities.
- Focus energy on a few catalytic areas that offer extensive opportunity and address present risk.

The 2019 MSDF specifically addresses the development of Klapmuts (p. 124-127) and refers to the Greater Cape Metro Regional Spatial Implementation Framework (RSIF) that contains very specific policy directives related to Klapmuts, aimed at addressing pressing sub-regional and local space economy issues. Key policy objectives include:

- Using infrastructure assets (e.g. key movement routes) as "drivers" of economic development and job creation.
- Recognition that existing infrastructure in the area (i.e. N1, R101, R44 and the Paarl-Bellville railway line and station) dictate the location of certain transport, modal change or break-of-bulk land uses.
- Recognition of the Klapmuts area as a significant new regional economic node within the metropolitan area and spatial target for developing a "consolidated platform for the export of processed agri-food products (e.g. inland packaging and containerisation port)" and "an inter-municipal growth management priority".
- The consolidation of and support for existing and emerging regional economic nodes as they offer the best prospects to generate jobs and stimulate innovation.
- The clustering of economic infrastructure and facilities along public transport routes.
- Maintaining valuable agricultural and natural assets.
- Providing work opportunity in proximity to living areas.

Being located on the N1 transport corridor that carries 93% of metropolitan freight traffic, Klapmuts is a potentially significant centre for economic activity and residence within the metropolitan region and Stellenbosch Municipality. Up till recently, the settlement was characterized by residential use and limited commercial and work-related activity. Public sector resource constraints have prevented the infrastructure investment required to enable and unlock the full potential of the area for private-sector economic development. In recent years, this has started to change with large new projects, such as the proposed Distell Limited facility on Paarl Farm 736/RE, located north of the N1, and the Stellenbosch Bridge development) directly west of Klapmuts South

Several issues require specific care in managing the development of Klapmuts over the short to medium term, including speculative applications for land-use change on the back of the proposed Distell development and speculative higher-income residential development in the Klapmuts area based on the area's regional vehicular accessibility. Another concern is the linkages between Klapmuts north and south, specifically along Groenfontein Road and a possible NMT crossing over the N1 linking residential areas south of the N1 directly with Farm 736/RE. Without these linkages, residents to the south of the N1 will not be able to benefit from the opportunity enabled north of the N1.

Higher-income development is not a problem in and of itself, but ideally, it should not be in the form of low-density gated communities. Given that management of Klapmuts is split between Drakenstein and Stellenbosch Municipalities (respectively responsible for the area north and south of the N1), special arrangements will be required to ensure that the settlement as a whole develops responsibly in a manner that ensures thoughtful prioritization, infrastructure investment and opportunity for a range of income groups.

The following spatial recommendations related to Klapmuts are made in the 2019 MSDF (p. 73):

- Maintain and improve the natural areas surrounding Klapmuts.
- Work to increasingly connect and integrate nature areas, also with the urban green areas, to form an integrated green web or framework across the municipal area.
- Improve public continuity, access and space along the stream corridors.
- Retain and improve the relationship between Klapmuts and surrounding agricultural land.
- As a general principle, contain the footprint of Klapmuts as far as possible within the existing urban edge.
- Retain the strong sense of transition between agriculture and human settlement at the entrances to the town.
- Maintain the integrity of historically and culturally significant precincts and places (as indicated in completed surveys).
- Prioritise informal settlements for upgrading and service provision.
- Pro-actively support higher density infill residential opportunity in Klapmuts South.
- Retain and actively support mixed-use redevelopment and building within the town centre and surrounding areas, comprising living space above active street fronts.
- Pro-actively improve conditions for walking and NMT within Klapmuts.
- Prioritise NMT connections between Klapmuts North and South (in parallel with the development of Farm 736/RE).
- Cluster community facilities together with commercial, transport, informal sector and other activities to maximise convenience, safety and socio-economic potential.
- As far as possible, focus investment in parks, open space and social facilities accessible by public and NMT, in this way also increases the surveillance of these facilities.
- Support the development of Farm 736/RE in Klapmuts North to unlock the development potential of Klapmuts (with an emphasis on job creation).
- Support the development of an "innovation precinct" in Klapmuts South (i.e. Stellenbosch Bridge).
- Ensure that housing in Klapmuts South provides for a range of income groups.
- Improve linkages between Klapmuts North and South, specifically along Groenfonten Road and a possible NMT crossing over the N1.

Relevance to Stellenbosch Bridge

The Stellenbosch SDF (2019) alludes to several spatial recommendations for Klapmuts. Stellenbosch Bridge embraces these recommendations and intends to underpin the SDF spatial guidelines. For instance, the project entails the development of an "innovation precinct" that will unlock the development potential of Klapmuts (with an emphasis on job creation) and provide work opportunities in proximity to living areas.

4.2.6 Stellenbosch Integrated Development Plan (IDP) (2017-2022), 2nd Review

The 5-year Integrated Development Plan (IDP) plan informs the municipal budget and guides all development within the Stellenbosch Municipal area (Stellenbosch Municipality, 2019a. The IDP is considered the Municipality's principal strategic plan that deals with the most critical development needs of the municipal area, as well as the most critical governance needs of the organisation. The focus of the Stellenbosch IDP is to improve the provision of basic municipal services and expand livelihood opportunities for the people of the Stellenbosch Municipality. The IDP also focusses on expanding and transforming municipal capacity, enterprise development and exploring new ways of working and living together.

The IDP Strategic Focus Areas include the following:

- Valley of possibility
- Green and sustainable valley
- Safe valley
- Dignified living
- Good governance and Compliance

Several improvements in Klapmuts have been done recently by the Stellenbosch Municipality. This included the upgrading of the La Rochelle and Mandela City informal settlements in Klapmuts that included the increase and installation of bulk basic services. A new satellite fire station was established in Klapmuts to provide more effective response times and improved services with regards to fire safety. A new multi-purpose centre has been in completed in Klapmuts and will provide the community access to a range of services, including municipal and social development services, reducing their need to travel to other towns to access these services (p. 8). In terms of needs and service requirements, it should be noted that 298 serviced sites were created in Klapmuts (p. 223) and a number of new projects have been identified, i.e. establishment of informal trading sites, a new cemetery (p. 225), new community hall (p. 229), upgrade of WWTW, bulk sewer upgrade, bulk water supply (p. 232) and a taxi rank (p. 235).

The proposed settlement hierarchy for the Stellenbosch Municipal area emphasises the need to utilise Klapmuts for economic development and associated residential opportunity:

- Support for development of RE/Farm 736 as a lever to economic development utilising a favourable location for manufacturing, logistics and warehousing enterprises.
- Balanced housing provision in Klapmuts South, focused on those who can benefit from employment provision through unlocking Klapmuts North.
- Stellenbosch town and Klapmuts were recognised as spatial areas for priority development over the MSDF planning period (p. 74).
- Support the relocation of land for extensive manufacturing, logistics and warehousing enterprises from Stellenbosch town to Klapmuts (p. 75).
- Reinforce the role of Klapmuts as a potential regional logistics/ warehousing/ manufacturing hub – with associated residential opportunity – based on its location at the intersection of the N1 and regional north/ south movement routes (p. 78).

Relevance to Stellenbosch Bridge

The focus of the IDP is on economic growth and development of the area with a specific emphasis on poor communities. The focus on using infrastructure, industrial development and commercial development as an enabler for job creation further purports the need for integration of infrastructure and superstructure development. Klapmuts and Stellenbosch Town are considered strategic priorities for the Municipality. The positioning of Stellenbosch Bridge as an economic development hub is key, the basis for which is grounded in the IDP as a strategic implementation document of the Stellenbosch Municipality.

4.2.7 Stellenbosch Local Economic Development Framework (2013)

A Strategic Framework for Local Economic Development was prepared for the Stellenbosch Municipality in 2013. The Framework summarises the key economic development challenges and opportunities within the municipal area as:

- The need to continuously grow the local economy through niche sectors such as services, tourism, agri-processing and the informal sector;
- New investment opportunities have to be promoted, focusing on foreign, up-country and local potential investors;
- The need to increase participation, in particular of the poor and other marginalised groups (women, youth, the disabled and those experiencing geographic exclusion) in mainstream economic activity;

- The critical need for human resource development, both in term of those with limited skills and education, as well as ensuring that high-level skills are developed, attracted and retained in the area to grow the local economy;
- Dramatically changing the largely racially-based land-use pattern and encouraging the location of new economic opportunities where the poor are located and also locating the poor where current economic opportunities exist;
- Mobilising private, public and community resources (institutions, funding and finance) towards growing the local economy;
- Ensuring that the economic benefits from transformation initiatives such as land reform, property development, etc., accrue to the broadest possible number of beneficiaries, in particular those that are poor.

The following focus areas and strategies for local economic development are proposed:

- Spatial areas where growth can best be achieved in areas of greatest need;
- Education and skills development in the niche sectors identified;
- Support for small businesses, the informal sector and emerging entrepreneurs; and
- Enabling sustainable livelihoods, addressing poverty reduction and social welfare support.

The Stellenbosch economy has a broad sector base, where tourism, agriculture and education are the three dominant sectors, but where several other sectors (like manufacturing, construction, financial services and the health sector) also play significant roles (p. 28). However, to achieve this, the dynamics related to sector development and support; infrastructure upgrading and gap-filling; small business and the informal sector; BEE and land reform; and social development support and initiatives related to job creation, poverty, education and health need attention.

Relevance to Stellenbosch Bridge

The proposed Stellenbosch Bridge development is aligned with several requirements and objectives stated in the LED strategy with specific reference to sustaining employment during the construction phase of the project, feed into the construction sector and maintain a semblance of stability and contribute indirectly to enabling sustainable livelihoods, addressing poverty reduction and social welfare support. Small businesses will benefit from the traditional requirements for products, services, security, general maintenance, etc.

4.3 Conclusions

The Stellenbosch Spatial Development Framework and IDP are the primary planning tools for the Stellenbosch area and therefore the proposed development, as it incorporates the provisions of all other broader level plans for the area and therefore forms the initial basis for the economic assessment of the proposed Stellenbosch Bridge development. Stellenbosch town and Klapmuts were identified as spatial areas for priority development over the MSDF planning period are (p. 74).

Our assessment of the spatial planning frameworks of the local, district and provincial authorities suggests that the proposed Stellenbosch Bridge development supports and fits with the spatial planning principles of the Stellenbosch Municipality as indicated in the IDP and SDF from a socio-economic perspective and specifically with the focus on Klapmuts. The Stellenbosch Bridge development is in the delineated urban edge of Klapmuts and the part not included, is earmarked for agriculture.

The proposed project is positioned as a development that is intended to contribute towards business, housing and infrastructure development in the Klapmuts area, but specifically in a node where the community needs private investment to uplift their socio-economic well-being and create more sustainable employment.

5. SOCIO-ECONOMIC AND DEMOGRAPHIC PROFILE OF THE POPULATION IN THE STUDY AREA

5.1 Aligning the study area and available statistics

The approach adopted for the preparation of the socio-economic and demographic profile of communities within the Klapmuts area that surround the proposed site entailed the specification of concentric circles representing areas within 3 km and 6 km from the centre point of the properties proposed for the Stellenbosch Bridge development. **Figure 13** is an accurate indication of the different concentric zones as applied to the municipal area with an exact indication of the proposed location for the development. This approach was used due to the need to ascertain the relative proximity of communities and settlements to the facility to understand the geographical impact of the location on residents in the study area.

The choice of radii for 3 km and 6 km is based on our observations of population distribution, economic activities and likely sources of procurement and labour in the areas surrounding the proposed location for the proposed Stellenbosch Bridge development. We believe that this approach will offer a more realistic socio-demographic and economic profile of the population most likely to be affected by the proposed development.

In the 2011 Population Census Survey (Statistics South Africa, 2013), the statistics for the different zones were based on a combination of the main places (which comprise various sub-places) as defined for the study area. To include the larger population of the study area, the assessment covers the communities with specific reference to "main places" (as defined by Statistics South Africa). The sub-places of 166002001 Drakenstein NU, 167001001 Bennetsville, 167001002 Klapmuts SP, 167001003 Weltevrede Park, 167001004 Mandela City and 167002001 Stellenbosch NU are located within a radius of 3 km from the site. The following additional sub-places are located within 6 km of the site: 167003001 Elsenburg SP and 199002002 Cape Metro NU3. It should be noted that the approach adopted for the assessment offers a relatively accurate indication of the socio-economic and demographic profile of the population residing in the specified zones. The latter statement should also be considered in the context of the nature and scope of the data used for the analysis.

Due to the large Drakenstein NU and Stellenbosch NU areas, it was necessary to allocate a proportion of those areas to the 3 km and 6 km radii. The following table indicates the percentage of the non-urban areas included within the 3 km and 6 km zones:

	Drakenstein Non-Urban		Stellenbosch Non-Urban	
	3 km	6 km	3 km	6 km
Area (non-urban) (ha)	141 439.00	141 439.00	79 355.30	79 355.30
Area included (ha)	636.22	4 085.95	1 534.23	5 013.14
Area Percentage	0.45	2.89	1.93	6.32

5.2 Limitation of the demographic analysis

Several limitations were identified during the study:

- Changes in methodology complicate comparisons between the 2011 and 2001 census years, with specific reference to the analysis of employment by economic sector and occupation. No data is available to assess sector employment and occupation levels for 2011.
- A comparison between the population figures for 2001 (Census), 2007 (Community Survey) and the Census 2011 is not possible due to the limitations of selecting a sample that was extrapolated to the population as was done for the 2007 Community Survey. A significantly larger margin of error would be prevalent when adopting a sample approach vs. a census (which is intended to cover the entire population and not only a selected sample). Different categories were considered for various demographic items in the Census 2011 survey, which hampers any form of comparative assessment.

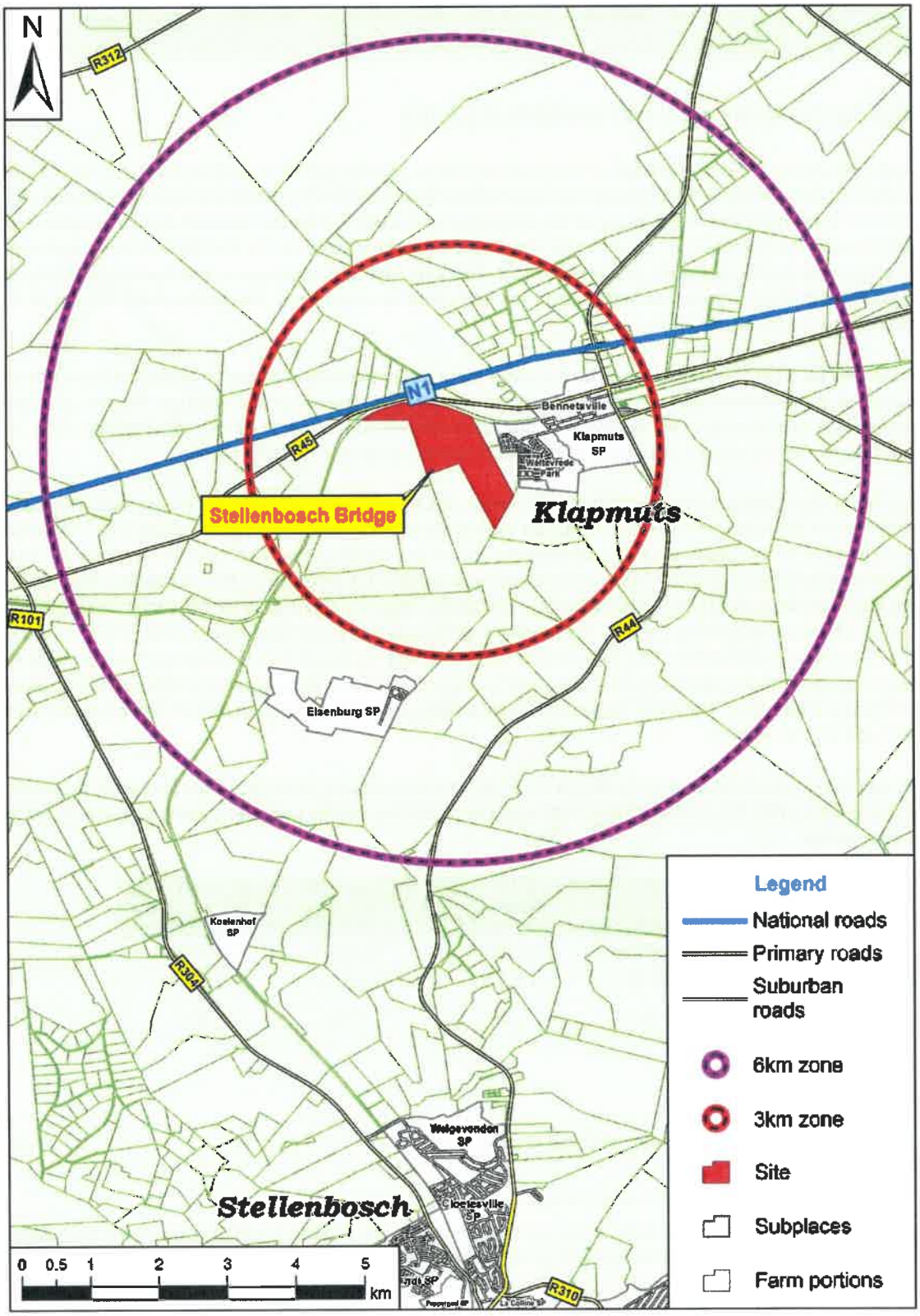


Figure 13: Different concentric zones as applied in the municipal area relative to the location for the proposed Stellenbosch Bridge development.

Source: Prepared from GIS data (Statistics South Africa, 2019)

5.3 Socio-demographic profile of the study area population

The following socio-demographic profile of the study area is based on data from the 2011 National Population Census Survey (Statistics South Africa, 2013). A summarised socio-demographic profile is presented in **Table 3** for the 2011 census year. Note that the population residing within the 3 km zone is very small, therefore the discussion will focus on the 6 km zone, with reference to the population within 3 km where applicable.

An analysis based on the specified concentric zones suggests that 43.19% of the population residing in the area (i.e. within 6 km of the proposed site) live within 3 km the site proposed for development. An assessment based on the population groups suggests that 64.91% of the population that reside within 3 km of the site are Coloured and 31.28% are Black African. Within the 6 km zone, 62.74% of the total population are Coloured, 23.29% are Black African and 12.49% represent White residents.

Table 4: A socio-demographic profile of the study area based on the 2011 Census Survey

		Stellenbosch (Klapmuts)			
		Within 3 km		Within 6 km	
Population:	Black African	2676	31.28%	4 535	23.29%
	Coloured	5553	64.91%	12 215	62.74%
	Asian	25	0.29%	131	0.67%
	White	218	2.54%	2 431	12.49%
	Other	84	0.98%	156	0.80%
	Total	**8556**	**100.00%**	**19 468**	**100.00%**
Gender:	Male	4 282	50.05%	9 834	50.51%
	Female	4 273	49.95%	9 635	49.49%
	Total	**8 556**	**100.00%**	**19 469**	**100.00%**
Age classification:	0-18	2 450	28.64%	5 341	27.43%
	19-30	1 713	20.02%	3 878	19.92%
	31-40	1 543	18.03%	3 687	18.94%
	41-50	1 214	14.19%	2 718	13.96%
	51-65	902	10.54%	2 123	10.90%
	Over 65	472	5.51%	1 119	5.75%
	Total	**260**	**3.04%**	**602**	**3.09%**

Note: Also refer to Section 1.5 with specific reference to the concern related to data validity
Source: Adapted from Statistics South Africa (2013)

5.3.1 Analysis of the study area population

The population of the Stellenbosch Municipal area was estimated at 118 709 in 2001 and 155 733 in 2011, representing an average annual growth of 3.11% (Statistics South Africa, 2003; 2013). **Table 4** indicates the population distribution of residents within 6 km of the site relative to the combined Stellenbosch town and Drakenstein Municipality population for 2011.

The findings suggest that 4.79% of the Stellenbosch/Drakenstein population live within 6 km of the proposed Development. An analysis of the breakdown per population group suggests that Coloured and Black African residents living within 6 km of the site comprise 5.12% and 4.50% of the total Stellenbosch/Drakenstein population, respectively.

Table 5: Breakdown of the population-by-population group for the study area (within 3 km and 6 km) as a percentage of the Stellenbosch town population in 2011

	Black African	Coloured	Asian	White	Total
Within 3 km	2 676	5 553	25	218	8 472
Within 6 km	4 535	12 215	131	2 431	19 312
Stellenbosch/Drakenstein Population	100 679	238 390	1 621	62 701	403 391
Percentage within 3 km	2.66%	2.33%	1.53%	0.35%	2.10%
Percentage within 6 km	4.50%	5.12%	8.09%	3.88%	4.79%

Source: Statistics South Africa (2013)

A discussion of key socio-demographic profile characteristics (population, education and age levels) is provided in the following sections, based on data from the 2011 South African Census (Statistics South Africa, 2013).

5.3.2 Analysis of education levels

An analysis of education levels in the study area for 2011 is provided in **Table 5**. The results indicate that 5.50% of persons living within 3 km of the site had no schooling (including those under the school-age), whereas 5.72% of the population within 6 km of the site had no schooling in 2011. The assessment further suggests that 86.31% of persons living within 6 km of the site received Grade 1 to Grade 12 schooling, whereas 7.97% obtained Matric with a higher diploma or degree qualification.

Table 6: An analysis of education levels for the population per specified zone in 2011

Education category	Within 3 km	Within 6 km
No schooling	419	977
Some primary	2 238	5 006
Completed primary	664	1 447
Some secondary	3 043	5 822
Grade 12/Std 10	1 052	2 459
Higher	197	1 361
Other	0	0
Total	**7 612**	**17 072**

Notes: N/A are excluded together with unspecified
Source: Statistics South Africa (2013)

5.3.3 Analysis of age levels

An analysis of the age levels among the population within 3 km and 6 km is intended to indicate the population that could be considered economically active, i.e. persons between the ages of 19 and 65. The analysis that follows provides a broad indication of age categories for 2011. The findings are provided in **Figure 14** and are based on the zones specified for the analysis.

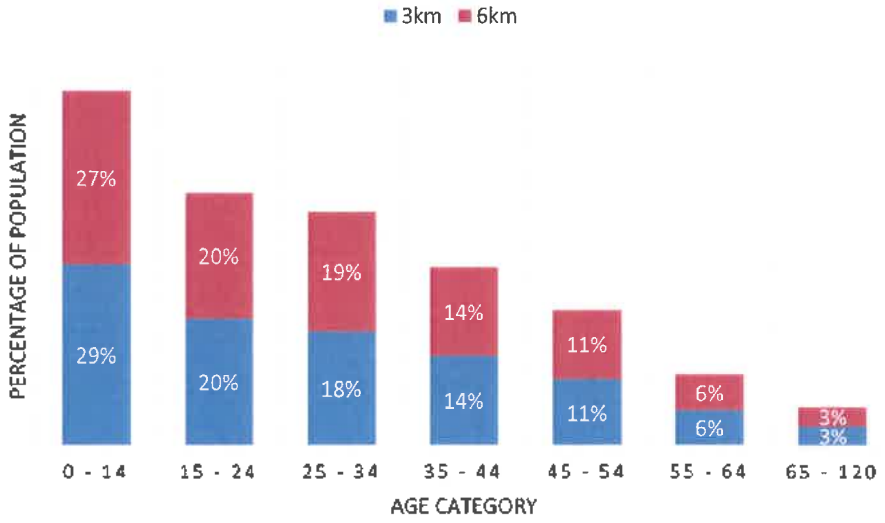


Figure 14: An assessment of percentage contributions to age levels of per identified zone for 2011
Source: Compiled from data provided by Statistics South Africa (2013)

The illustration provided in **Figure 14** indicates that 29% of the population within 3 km of the development site is below 19 years of age, which represents 45.86% of all persons under 19 years of age within 6 km of the site. Our analysis also suggests that 68.35% of the population within 3 km from the site are in the working-age category are between 19 and 65 years of age, while the working group within 6 km of the site represents 69.49% of the total population. The assessment indicates that every 2.16 persons who would normally be considered economically active (i.e. between 19 and 65 years of age), could support another person that is not economically active within 3 km of the site. The latter is slightly lower than the dependency ratio of 2.28 for the population residing within 6 km of the site.

A more detailed assessment of the population presented in **Table 6** suggests that the Coloured and Black African population groups younger than 15 years represent 30.02%and 25.53% of the respective population groups living within 6 km of the site proposed for development.

An analysis of dependency factors suggests that among the Coloured population residing within 6 km of the site, 2.01 persons that have the potential to be economically active, could support another person not considered to be in an age category that represents an economically active person, i.e. younger than 15 years and older than 65 years of age. The dependency figures for the other population groups are 2.63 for Black African and 3.22 for White residents.

Table 7: An assessment of age levels among residents in the different zones in 2011 by population group

Age category	0 - 14	15 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 120	Total
Within 3 km								
Black African	738	588	622	367	210	91	57	**2 673**
Coloured	1 655	1 056	862	789	653	357	185	**5 556**
Indian or Asian	7	6	4	5	2	0	0	**25**
White	43	31	32	35	34	26	16	**217**
Other	7	33	26	17	3	0	0	**86**
Total	**2 449**	**1 714**	**1 546**	**1 213**	**901**	**475**	**259**	**8 556**

Age category	0 - 14	15 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 120	Total
Within 6 km								
Black African	1 157	1 121	1 013	631	363	155	93	4 532
Coloured	3 667	2 293	1 949	1 697	1 430	793	387	12 217
Indian or Asian	29	31	43	14	11	1	3	131
White	461	389	637	349	310	168	115	2 429
Other	26	43	47	29	10	1	3	159
Total	5 340	3 878	3 690	2 720	2 124	1 118	600	19 469

Note: A category referring to other is excluded
Source: Statistics South Africa (2013)

5.3.4 Analysis of household income levels

Table 7 provides the income ranges for households as defined by the specified 3 km and 6 km radii from the centre of the proposed development. Note that not all the respondents disclosed their income. Of those that did disclose their income, 19.65% of the households residing within 3 km of the proposed development had no income, and 85.69% earned less than R76 801 per annum (excluding households with no income). Within 6 km of the development, 11.91% of the households did not have an income, 55.75% of the households had an annual income of less than R76 801, whereas 3.86% of households declared an income of more than R614 400 per annum.

Table 8: Distribution of annual household income for each specified zone in 2011

Income category	Within 3 km		Within 6 km	
No income	423	19.65%	612	11.91%
R1 - R4 800	67	3.10%	97	1.89%
R4 801 - R 9 600	99	4.62%	162	3.16%
R9 601 - R 19 200	305	14.17%	548	10.67%
R19 201 – R 38 400	519	24.11%	1 084	21.11%
R38 401 – R 76 800	431	20.02%	971	18.91%
R76 801 – R153 600	190	8.83%	598	11.65%
R153 601 - R307 200	74	3.44%	486	9.46%
R307 201 - R614 400	28	1.30%	379	7.39%
R614 401 - R1 228 800	10	0.46%	141	2.75%
R1 228 801 - R2 457 600	4	0.20%	31	0.61%
R2 457 601 and more	3	0.12%	26	0.50%
Grand Total	2 152	100.00%	5 134	100.00%

Source: Adapted from Statistics South Africa (2013)

5.3.5 Employment and skills level analysis

A perspective of employment for the different zones in the Municipal area is provided in **Table 8** with specific reference to the number of employed, unemployed and not-economically active persons per population group.

Table 8 indicates that 54.67% of the total population residing within 3 km of the site is employed, while 61.45% within 6 km are employed. The proportion of employed for the Coloured and Black African groups are 60.29% and 54.25% of the total population group within 6 km, respectively.

Table 9: An assessment of employment by population group for 2011 based on specified radii from the site proposed for development

Category of employment	Black African	Coloured	Indian/ Asian	White	Other	Grand Total
Klapmuts: Within 3 km						
Employed	966	1 988	13	106	63	3 137
Unemployed	272	309	1	5	5	593
Not economically active	640	1 415	3	46	10	2115
Total	**1 879**	**3 713**	**17**	**158**	**79**	**5 845**
Dependency ratio per population group	*1.06*	*1.15*	*3.01*	*2.06*	*4.16*	*1.16*
Klapmuts: Within 6 km						
Employed	1 781	4 921	67	1 444	101	8 313
Unemployed	367	611	8	58	8	1 052
Not economically active	1 136	2 629	24	351	22	4 162
Total	**3 283**	**8 162**	**99**	**1 853**	**131**	**13 527**
Dependency ratio per population group	*1.19*	*1.52*	*2.07*	*3.53*	*3.41*	*1.59*

Note: Not applicable excluded
Also refer to Section 4.2 with specific reference to the concern related to data validity
Source: Statistics South Africa (2013)

An assessment of the dependency ratios for the zones is based on the premise that for each person who is employed, a factor of people is unemployed or economically inactive. The findings of the research for each of the zones suggest a dependency ratio of 1.16 and 1.59 for the total population within 3 km and 6 km, respectively. This implies that every employed resident has to support more than one unemployed or economically inactive person. The ratio for the Coloured and Black African population groups within 6 km of the site is 1.52 and 1.19, respectively.

5.3.6 Formal and informal sector employment

A further assessment of employment levels is provided by the economic sector and by population group for the population residing within 3 km and 6 km from the designated site. The findings presented in **Table 9** indicate the percentage employed per population group for the specified zones. Indications are that 37.31% of employed people within 6 km, reside within 3 km of the site.

The findings applicable to the zone within 3 km of the site suggest that the formal sector employs 76.32% of the economically active population, followed by the informal sector with 12.71%. Our assessment also suggests that 74.58% of the people within 6 km of the site are employed in the formal sector, whereas 15.56% within 6 km of the site are employed in the informal sector.

Table 10: Classification of employment per economic sector, industry and population group in 2011 for 3 km and 6 km from the sites proposed for the development

Sector	Within 3 km	Percentage Within 3 km	Within 6 km	Percentage within 6 km
Formal sector employment				
Black African	720	23.58%	1 312	16.03%
Coloured	1 470	48.15%	3 504	42.82%
Indian or Asian	12	0.39%	61	0.75%
White	80	2.62%	1 151	14.07%
Other	48	1.57%	75	0.92%

Sector	Within 3 km	Percentage Within 3 km	Within 6 km	Percentage within 6 km
Informal sector employment				
Black African	117	3.83%	285	3.48%
Coloured	247	8.09%	829	10.13%
Indian or Asian	1	0.03%	1	0.01%
White	15	0.49%	147	1.80%
Other	8	0.26%	11	0.13%
Private households				
Black African	68	2.23%	113	1.38%
Coloured	247	8.09%	531	6.49%
Indian or Asian	0	0.00%	4	0.05%
White	15	0.49%	149	1.82%
Other	5	0.16%	10	0.12%
Total	**3 053**	**100.00%**	**8 183**	**100.00%**

Note: Excluded from the figures above are categories for Do not know, Unspecified, Not applicable
Source: Adapted from Statistics South Africa (2013)

6. PERCEPTIONS AND CONCERNS OF KEY STAKEHOLDER GROUPS

6.1 Introduction

The perceptions and concerns of interested and affected parties represent an important contribution to the formal EIA process. The informal inputs obtained for the socio-economic study are also essential to understand perceptions and concerns from a more qualitative perspective. Primary interviews with stakeholders or their representatives are therefore essential to understand the concerns of the interested and affected parties, as well as the perceived benefits of the proposed project. Stakeholders were identified that could offer perspectives on the potential impacts associated with the proposed Stellenbosch Bridge development. These included adjacent or nearby land-users, the local ward councillor, as well as representatives of community organisations or nearby developments. Due to the 21-day lockdown caused by the COVID-19 pandemic (now extended to 35 days), face-to-face interviews were not possible and electronic communication had to be used to elicit input from Interested and Affected Parties and other stakeholders.

6.2 Neighbouring landowners and interest groups

We used a list of Interested and Affected Parties provided by the EAP specifically for the proposed Light Industrial Development component, as they would also be relevant for other components of the Stellenbosch Bridge project. Representatives that provided email addresses, were contacted by email on Monday, 30 March 2020, with the following request for input to be received by Friday, 17 April 2020:

Socio-economic input for proposed Stellenbosch Bridge development

Multi-Purpose Business Solutions are independent consultants appointed to prepare a Socio-economic Impact Assessment for the proposed Stellenbosch Bridge development on the western side of Klapmuts. As an Interested and Affected Party, we invite you to provide written inputs/comments on the proposed development with specific reference to socio-economic matters. These may include positive and negative impacts related to the construction phase (the introduction of bulk services and subsequent construction of dwellings) and the operational phase (i.e. once the dwellings are complete and occupied). Examples of socio-economic impacts are job creation, benefits to the local economy, vehicular traffic, sense of place, visual impacts, nuisance factors (such as dust and noise), crime and surrounding land values.

Your inputs are invaluable in our preparation of this assessment and I therefore encourage you to provide any input of relevance by Friday, 17 April 2020 by return e-mail (marinda@mpbs.co.za). If you would prefer to discuss this in person, we can schedule a phone call or Skype discussion during the period of the lockdown (kindly propose a convenient date and time).

Please note this is an informal process of obtaining primary inputs from persons, stakeholders and organisations and does not form part of the EIA process that is statutory in terms of the EIA regulations. Your comments are included in our report, which will be made available to Interested and Affected Parties registered through the EIA process. We do not require any registration and the process is not a requirement in terms of regulations, but it is important in the context of the nature and scope of the study that we prepare and demonstrate the socio-economic impacts to decisions makers and other stakeholders.

Emails were sent to the following Interested and Affected parties:

- Muldersvlei Estates (Pty) Ltd (Farm Re/1460)
- Delheim Wines (Pty) Ltd (Farm 1/1063)
- Le Bonheur Wine Estate (Pty) Ltd (Farm Re/744)
- Stellenbosch Wine and Country Estate (Farm 5/742)
- Babylonstoren (Pty) Ltd (Farm 7/774)

- Culture Fresh (Pty) Ltd (Farm 5/737)
- Stellenbosch Interest Group
- Stellenbosch Ratepayers
- Stellenbosch Heritage Foundation
- Ward Councillor: Stellenbosch Municipality (Ward 18)

No feedback was received by 9 April 2020. A courtesy email reminder will be sent to non-responders on 14 April 2020. If no response is obtained by 17 April 2020 and where possible, telephonic interviews will be conducted with representatives that also provided telephone contact details. The inputs obtained through this process and comments received through the EIA process will be included in an update of the Socio-economic Impact Assessment.

6.3 Other stakeholders

6.3.1 Ward councillor – Ward 18

Stellenbosch Bridge representatives Mr Daniël Kriel and Mr Lorne Dawson held an information session with Mrs Emily Fredericks, the Ward Councillor for Klapmuts (Ward 18) on 20 January 2020. Following a presentation on the proposed development, Mrs Fredericks provided some background on the Klapmuts community and mentioned the establishment of the Klapmuts Community Forum among a group of community leaders. The Stellenbosch Bridge representatives Daniël Kriel and Lorne Dawson highlighted the potential impact of the development on the community in terms of the general upliftment of the area and potential job opportunities. The Stellenbosch Bridge representatives indicated that the proposed development would increase the local labour uptake from 2% to 3-4% and will make funding available to upskill the workers.

The Stellenbosch Bridge representatives indicated that a community liaison officer (CLO) will be appointed to assist with these initiatives. Mrs Fredericks stated a notice in this regard should be published and that her office would provide input in the review of applicants. Although there is a database of job seekers in Klapmuts, Mrs Fredericks advised that a basic form should be compiled and distributed within the community to gather information for an updated list. Mr Dawson indicated that the Stellenbosch Bridge developers will employ Ranyaka (currently working in Klapmuts) to consolidate and help set out a strategy on how to engage and assist the community. One of the priorities for Stellenbosch Bridge would be to clean up the streets and parks in Klapmuts, and install a security fence/wall along the boundary of the property where it meets the existing community. Mrs Fredericks stated that this would be important, but liaison with the homeowners and the Klapmuts Community Forum would be essential. She undertook to organise a meeting to inform the community about the project.

6.3.2 Klapmuts Community Forum

Stellenbosch Bridge representatives Mr Daniël Kriel and Mr Lorne Dawson met with the Ward Councillor, five representatives of the Klapmuts Community Forum (KCF) and a Klapmuts community leader, Mr John Baker, on 5 February 2020. The KCF supported the proposed increase in local labour uptake and upskilling of workers. Mr Daniël Kriel emphasised that Stellenbosch Bridge is a long-term project for the whole community to benefit from and grow with. Stellenbosch Bridge would therefore like to get involved in the community, which require the developers to identify the major areas of concern for the community and ways in which they could get involved. The KCF noted that security was a major issue; since it is a small community, everyone knows each other and trusted community members should therefore be included in the security strategy. A number of local residents have worked in this construction industry and a list of potential candidates should be compiled.

Initial security risks for the development were highlighted to be along the community boundary with the Stellenbosch Bridge site. The KCF advised that a solid wall should be build where the houses were located directly against the boundary, and confirmed that they could act as a liaison with the homeowners in this area. A number of community initiatives were discussed and it was agreed that any future initiative from Stellenbosch Bridge should be aligned with a larger strategy to uplift the community effectively.

7. ASSESSMENT OF IMPACTS

7.1 Introduction

Various qualitative and quantitative impacts are attributed to a property-related development project; these impacts can be divided between those applicable to the pre-construction, construction or post-construction (operational) phases. Indications are that construction (including the introduction of the requisite infrastructure) for Applications 1 and 2 of the proposed Stellenbosch Bridge development will be phased over 4 years with other phases of the development to be implemented thereafter.

Potential negative socio-economic impacts during construction and/or operations associated with the proposed development are as follows:-

- Impact on vehicular traffic (construction and operations);
- Nuisance factors, such as dust and noise (construction);
- Influx of job seekers (construction);
- Increase in local crime (construction and operations);
- Sense of place (operations);
- Impact on surrounding land values (operations); and
- Infrastructure capacity (operations)

Potential positive socio-economic impacts include the following:-

- Addressing a growing demand for housing (operations);
- Creating new employment opportunities (construction and operations);
- Creating new business opportunities (operations);
- Local economic income (construction); and
- Revenue accruing to local authorities (operations).

Following NEMA EIA Regulations (2014, as amended), the potential impacts of the preferred development plan (Alternative 1) are assessed and compared with the No-Go Alternative for each of the Applications:

- **Application 1:**
  - **Alternative 1** - Reallocation of existing rights on Portion 1 (73 ha), 1577 residential + 3 450 m² bulk and 24 550 m² bulk (Retail & Commercial)
  - **No-Go Alternative**, which implies that the *status quo* is maintained.
- **Application 2:**
  - **Alternative 1** - Rezoning & Subdivision of Portion 2 (22 ha), Light Industrial (94 000 m² bulk)
  - **No-Go Alternative**, which implies that the *status quo* is maintained.
- **Application 3:**
  - **Alternative 1** - Densification on Farm 742/5 (2 500 apartments, 150 000 m² bulk)
  - **No-Go Alternative**, which implies that the *status quo* is maintained
- **Application 4:**
  - **Alternative 1** - Rezoning & Subdivision for remaining site area inside Urban Edge on Portion 4 (106 ha)
  - **No-Go Alternative**, which implies that the *status quo* is maintained.

Cumulative impacts refer to any other additional development(s) as well as existing activities within the immediate area that could compound any positive or negative impacts associated with the proposed development. This particularly relates to the ongoing/planned residential developments just north of Klapmuts and along the R44 south-east of Klapmuts.

Where applicable, appropriate **mitigation measures** are proposed to reduce the significance of the specific impacts. The different impacts are assessed using the impact rating methodology indicated in Annexure B. Annexure C provides a summary of the different impacts and their significance before and after the implementation of the proposed mitigation measures and in the context thereof, highlights the residual impact.

The following are included in the Impact Ratings:

- **Degree to which impact can be avoided:** Impacts can either be **fully** avoided (impact is completely avoidable), **partly** avoided (impact is avoidable with moderate mitigation and/or management) or the impact is **unavoidable** (the impact is cannot be avoided even with significant mitigation measures and/or management).
- **Degree to which impact can be managed:** Impacts can either be **fully** managed (impact is completely manageable), **partly** managed (impact is manageable with moderate mitigation and/or management) or the impact is **unmanageable** (the impact cannot be managed even with significant mitigation measures).
- **Degree to which an impact can be mitigated:** The degree of mitigation can either be **high** (the impact can be **fully** mitigated), **moderate** (the impact can be **partly mitigated**) or **not mitigated at all.**
- **Residual impacts:** Residual impacts are those impacts that remain following the implementation of mitigation measures.

7.2 Construction Phase

The negative qualitative impacts during the construction phase mostly relate to large construction vehicles on access roads, noise and dust, the potential influx of job seekers, as well as criminal activities linked to the presence of construction workers and related activities at the development site. Potential positive impacts include temporary employment opportunities and a contribution towards local economic development, with specific reference to the construction, retail and services sectors and industries within the local economy. Note that the duration of the impacts is based on a medium-term construction period of 5 years.

7.2.1 Vehicular traffic due to construction activities

Nature of impact

The movement of large construction vehicles will affect traffic flows and residents along the access routes.

Scope and consequence of impact

The proposed development is relatively large and several large construction vehicles will have to access the site daily during the construction phase. This will impact the access routes, in particular the R44 and Old Paarl Road that already carry a high vehicular load.

Application 1

A Traffic Impact Statement (TIS) was prepared by the project traffic engineer (iCE Group, 2019a), but no reference to the traffic impact during the construction phase was made. The TIS noted that the conditions of 2011 approval for the Klapmuts Hills development included several external road upgrades for the different phases (iCE Group, 2011). Of these conditions, signalisation of R101/R44 intersection and turning lanes at R44 / Elsenburg Road intersection have since been implemented. Based on a trip generation calculation, it is expected that the road improvements as

per the 2011 conditions of approval will remain applicable as the extent of the newly proposed development is less than previously approved. However, the conditions should be realigned with the revised development roll-out.

Application 2

The Traffic Impact Statement for Application 2 (iCE Group, 2019b) also did not refer to the traffic impact during the construction phase. The TIS concluded that only minor road improvements are required to accommodate the background traffic during the operational phase.

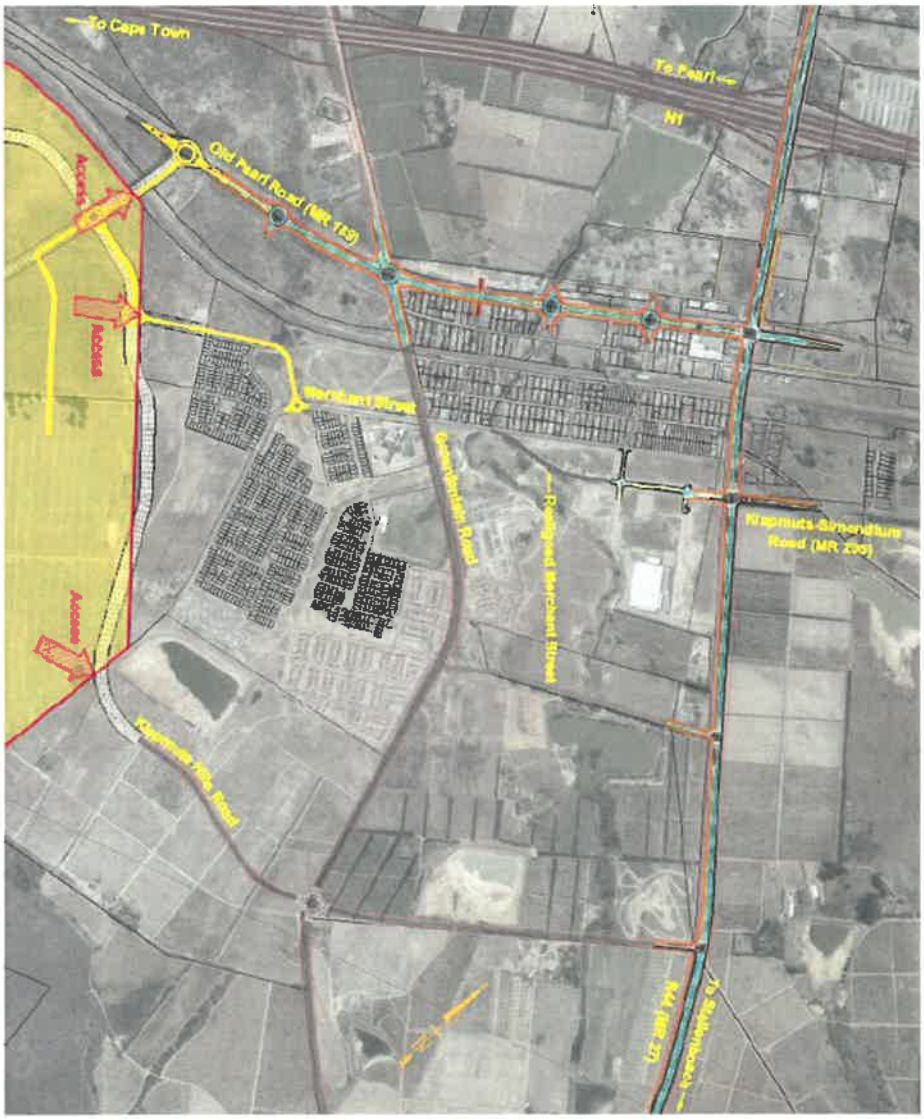


Figure 15: Existing and proposed access routes to Stellenbosch Bridge
Source: iCE Group, 2019a

Applications 3 & 4

No Traffic Impact Assessment was done for Applications 3 and 4.

No-Go Alternative

Without the proposed development, there will be no impact on traffic flows related to the site.

Cumulative Impact

Overlapping or parallel construction projects in the area (e.g. Application 1 and 2) would increase the number of construction vehicles along the access routes, although the phasing of the development should spread the impact with less intensity over 5 years. However, other ongoing or proposed developments in the Klapmuts area will also utilise either the R44 or Old Paarl Road for the movement of construction vehicles and delivery of building materials.

Mitigation measures

The TISs recommends several road improvements that are required to ensure acceptable traffic flows during operations. These improvements should also ease the traffic flows during the estimated 5-year construction phase. However, it is not clear whether these upgrades will be done prior to or during the construction phase.

Impact Rating

The 2011 TIA and 2019 TISs neither referred to the construction phase nor provided an impact rating for the proposed Applications. However, based on our interpretation of these reports, the impact is **unavoidable**, but can be **partly managed**, i.e. the impact can be **partly mitigated** through the implementation of the proposed upgrades. Our assessment is thus that the residual impact will be **medium negative** following the implementation of the proposed upgrades prior to the construction phase.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE								
	BEFORE MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	10	2	3	0	1	5	80	M-H (-)	H (-)
Application 2	10	2	3	0	1	5	80	M-H (-)	H (-)
Application 3									
Application 4									
No-Go	-	-	-	-	-	-	-	-	-

PROJECT DESCRIPTION	AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	6	2	3	0	1	5	60	M (-)	M-H (-)
Application 2	6	2	3	0	1	5	60	M (-)	M-H (-)
Application 3									
Application 4									
No-Go									

7.2.2 Nuisance factors (dust and noise)

Nature of impact

Construction activities create dust and noise at the development site that would affect nearby receptors.

Scope and consequence of impact

During the introduction of bulk services and the construction of top structures, large earth-moving equipment and concrete mixers will generate noise and dust. Although this will be limited to the construction site, the prevailing winds will carry dust and noise towards the surrounding properties and thus affect the residents, their living conditions and the ecological environment.

Most of the dust will be generated during the earth-moving phase when the site is cleared from vegetation and the services are introduced. The receptors likely to be affected are mainly the residents of Klapmuts to the east and farm residents towards the south and west. Given the size of the development and the phased approach, it is likely that dust (and noise to a lesser extent) will be a nuisance to surrounding landowners throughout the construction phase.

Application 1

The footprint for Application 1 is significant in size and located quite close to an existing residential area, with the north-westerly wind that would carry the dust to nearby residents.

Application 2

The footprint for Application 2 is smaller than for Application 1, but the site is adjacent to an existing residential area whose residents will be significantly affected by dust and noise.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

There will be no dust and noise related to construction at the development sites, but other construction activities in the area would affect nearby receptors. However, if sand or gravel mining activities would resume on the site, it may also result in noise and dust.

Cumulative Impact

Additional construction activities in the immediate area will compound the nuisance factors if they would coincide or overlap with the construction phases of Stellenbosch Bridge.

Mitigation measures

Dust and noise emissions during the construction period should be minimised through a Construction Environmental Management Plan (CEMP) for the development that would include measures and trigger mechanisms to mitigate any potential impacts to nearby receptors. For example, site construction roads and excavated materials should be sprayed with an eco-friendly dust suppression liquid during dry periods to mitigate against the formation of dry dust particles.

Impact Rating

The impact **is unavoidable, but can be partly managed**; i.e. the impact can be **partly mitigated**. The residual impact will be **medium negative** for both Applications 1 and 2 following the implementation of mitigation measures.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	8	2	2	0	1	5	65	**M (-)**	**M-H (-)**	6	2	2	0	1	5	55	**M (-)**	**M (-)**
Application 2	8	2	2	0	1	5	65	**M (-)**	**M-H (-)**	6	2	2	0	1	5	55	**M (-)**	**M (-)**
Application 3																		
Application 4																		
No-Go	-	-	-	-	-	-	-	-	-									

7.2.3 Influx of job seekers

Nature of impact

An influx of job seekers will lead to competition with local residents for employment opportunities.

Scope and consequence of impact

Local people skilled in earth-moving and construction activities can be employed during the construction phase, with additional opportunities associated with security, transport and related services. Given the nature and scope of the development, contractors with an established workforce will be appointed on the project. Combined with very strict security rules, this would discourage casual labourers looking for employment.

While the influx of people in search of employment is not in itself a social impact, the consequence of such movement can result in social impacts. These impacts include the disruption of local community networks and the cohesive social fabric that exists within communities, an increase in crime levels and disruptions to social services. Construction work on the proposed project is limited to a specified period and non-local construction labourers may find themselves stranded in the area after the construction phase, resulting in more competition for employment. This could also increase the demand for housing and social services over the long term.

An influx of casual workers residing in the Winelands District and Drakenstein Municipality is most likely, but an influx from Kraaifontein and Joostenbergvlakte area in the Cape Town Metropolitan area is also possible. The Winelands experiences a high level of unemployment, with a low-income community within walking distance of the Stellenbosch Bridge site. Our socio-demographic analysis (refer to Section 5) indicates that 7.78% of the working-age population residing within 6 km of the site were unemployed in 2011. However, the Stellenbosch IDP (2016/17) estimated the unemployment rate in Ward 18 (which includes Klapmuts) at 16.9%, which could be ascribed to lower levels of employment among residents of the low-income and informal settlements that developed since 2011.

Application 1

As discussed in Section 7.2.5, the proposed development will require between 1 023 and 1 125 temporary workers per annum with low, medium or highly specialised skills during the construction phase related to Application 1. Its location close to an informal settlement may attract job seekers from the immediate area rather than further away.

Application 2

The proposed development will require between 1 352 and 1 487 temporary workers per annum. Similar to Application 1, its proximity to the informal settlement may attract more local job seekers.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed Stellenbosch Bridge development, there will be no influx of job seekers linked to the site. However, other construction activities in the area (e.g. at the Distell site) may attract job seekers that will settle in Klapmuts.

Cumulative Impact

Given the high unemployment levels in the Stellenbosch and Drakenstein areas, construction projects in the area would continue to attract job seekers.

Mitigation measures

Contractors need to show a commitment to employ people from the Stellenbosch and Drakenstein Municipalities whenever possible. The Developer should consider this as one of the pre-qualification requirements for tendering.

Impact Rating

The impact is **unavoidable**, but can **be fully managed**; i.e. the impact can be **fully mitigated**. The residual impact will be **medium negative** for both Applications 1 and 2 following the implementation of mitigation measures.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	8	2	2	0	1	5	65	**M (-)**	**M-H (-)**	6	2	2	0	1	5	55	**M (-)**	**M (-)**
Application 2	8	2	2	0	1	5	65	**M (-)**	**M-H (-)**	6	2	2	0	1	5	55	**M (-)**	**M (-)**
Application 3																		
Application 4																		
No-Go	-	-	-	-	-	-	-	-	-									

7.2.4 Increase in local crime

Nature of impact

The presence of construction activities may contribute to an increase in local crime.

Scope and consequence of impact

There is a general perception that local crime increases in areas where construction activities occur. This may include, but is not limited to on-site petty theft, theft of building material, on-selling of security information, or burglary and theft at nearby properties. The presence of construction workers and vehicles generally increases the risk of criminals entering the construction site undetected.

According to the SAPS Crime Statistics (SAPS, 2019), various types of burglary and theft dominated in the Klapmuts area (65% of all incidents), followed by contact crimes (murder, sexual offences, attempted murder, common assault, common robbery and robbery with aggravated circumstances). There is also a high incidence of drug-related crime, although there was a significant decline in the number of cases, i.e. 216 cases in 2018/2019 versus 342 for 2017/2018. However, there has been a relatively high level of malicious damage to property, with 97 incidences reported in 2918/2019.

The Klapmuts Community Forum (refer to Section 6.3.2) indicated that trusted community members should be included in the security strategy as everyone in Klapmuts know each and a number of local residents have worked in this construction industry. Furthermore, the Klapmuts Community Forum advised that a solid security wall should be built where houses were located directly against the Stellenbosch Bridge boundary.

Application 1 & 2

Both applications entail significant construction activities that could attract criminals in search of easy targets. The proximity of the informal settlement could represent a particular concern to the developers, but there could also be an influx of criminals from outside the area.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed development, there would be no criminal activities linked to the sites. However, any existing security problems in the area may continue or may be influenced by activities unrelated to the proposed development.

Cumulative Impact

Given the high unemployment rate in the Stellenbosch and Drakenstein Municipalities, it is likely that a high level of construction activities will attract criminals from and to the area.

Mitigation measures

Co-operation between the Developer and contractors is essential to ensure that the area around the proposed development remains secured during construction. On-site security measures, such as perimeter fencing, controlled access and security guards and patrols will minimise the risk.

Impact Rating

The impact is **unavoidable**, but can **be fully managed**; i.e. the impact can be **fully mitigated.** The residual impact will be **low negative** for both Applications 1 and 2 following the implementation of mitigation measures.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	8	2	1	1	1	4	52	**M (-)**	**M (-)**	4	2	1	1	1	4	36	**L (-)**	**L (-)**
Application 2	8	2	1	1	1	4	52	**M (-)**	**M (-)**	4	2	1	1	1	4	36	**L (-)**	**L (-)**
Application 3																		
Application 4																		
No-Go	-	-	-	-	-	-	-	-	-									

7.2.5 Temporary employment opportunities

Nature of impact

Temporary employment opportunities for people with different types and levels of skills will be created during the construction phase.

Scope and consequence of impact

Various employment opportunities would accrue due to the construction of the top structures with some employment being associated with the introduction of bulk and internal services. Direct employment associated with the construction will vary depending on the structure. For the construction of a dwelling, typically 8 to 12 workers per unit are required, but they could work on two units at a given time. The following analysis only accounts for direct employment opportunities, although some indirect and induced opportunities will also be realised for the duration of the construction period due to multiplier effects and local businesses will benefit as a consequence.

The assessment of the contribution to employment is at best very risky as the results are driven largely by its assumptions. For an employment analysis for the Stellenbosch Bridge development, the following assumptions were applied:

- The structure and composition of the Western Cape economy will remain unchanged. This is necessary to enable the use of multiplier analyses.
- No significant political and other administrative changes will take place on a national or provincial level.
- A period of 4 years is assumed for the assessment of employment (Source: Stellenbosch Bridge).
- The supply of skilled labour will be a limiting factor in the construction process.

Demand for labour (employment) in economic terms is considered as a derived demand; a forecast for labour demand can thus be derived from the planned increase in spending. The basic assumption focuses on the relationship between growth in nominal spending and growth in labour demand. If growth in labour demand equals the growth in nominal spending, labour productivity will stay constant. If labour productivity increases, the demand for labour will grow at a slower rate than nominal spending.

Three scenarios are evaluated:

1. It is assumed that productivity stays constant and the additional labour demand follows the long-term trend of employment per Rand Million of Gross Value Added considered from 1995 (**Figure 16**) for the Construction Sector of the Western Cape and Stellenbosch Municipal area.
2. Labour productivity increases per annum and labour demand thus increases by 0.90 using an adjusted power function trend.
3. Labour demand is forced to increase by 1.1 above the long-term trend, which is caused by external influences. Only total labour demand will be considered; no race, gender or skill level is considered. It is also assumed that the majority of new job opportunities are created only for the year in which the capital expenditure occurs.
4. It is assumed that some job opportunities are more permanent. The ratio of capital expenditure in a specific year to total capital expenditure over 16 years is used to determine the "carry forward" number of jobs created in a specific year. In short, it means that if capital expenditure is lower than the previous year, there will be a reduction in temporary jobs or losses.

The additional employment from Year 1 to Year 2, etc., depends on two factors, namely the capital expenditure of that year as well as the trend value as derived from **Figure 16**. It is imperative to understand that the phasing of the projects results in an incremental increase in the number of jobs created. Some overlap between the phases may occur, resulting in less total employment than the sum over the construction period.

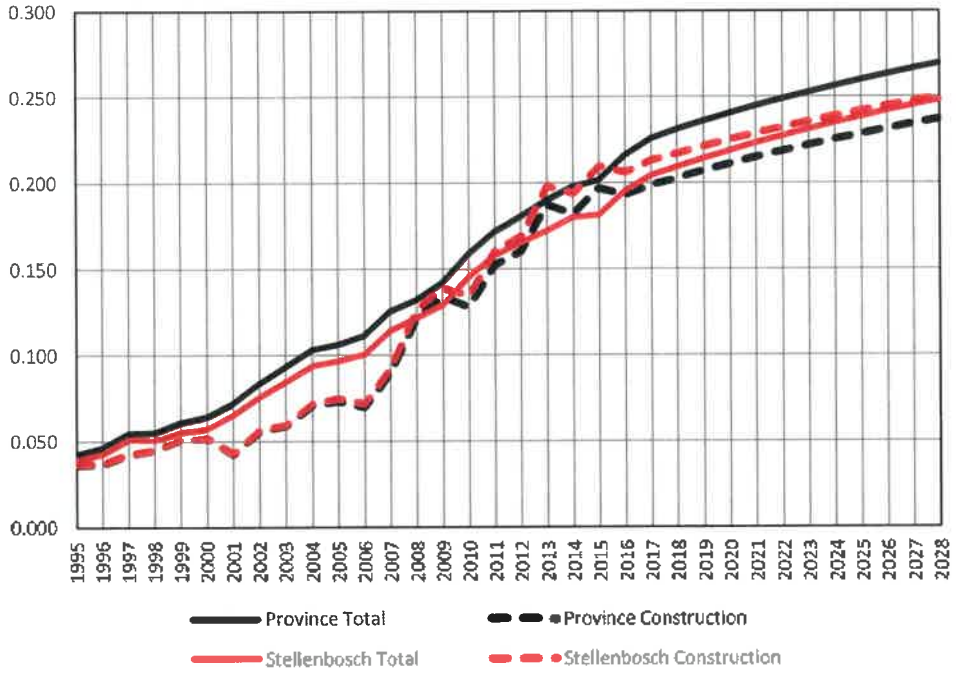


Figure 16: R million of GVA at current prices per employee trend for the Construction Sector of the Western Cape and Stellenbosch Municipal Area with forecasts from 2019 to 2028 estimated by fitting an adjusted linear function trend

Source: Derived from Quantec data (2019), own calculations

Note: Provice or Stellenbosch Total refers to the GVA per employee trend for the entire economy.

APPLICATION 1

Figure 17 indicates the number of jobs that could be sustained per annum by the development and aligned with the estimated capital expenditure within the Stellenbosch Municipal economy for Scenario 1: Constant Productivity for Application 1.

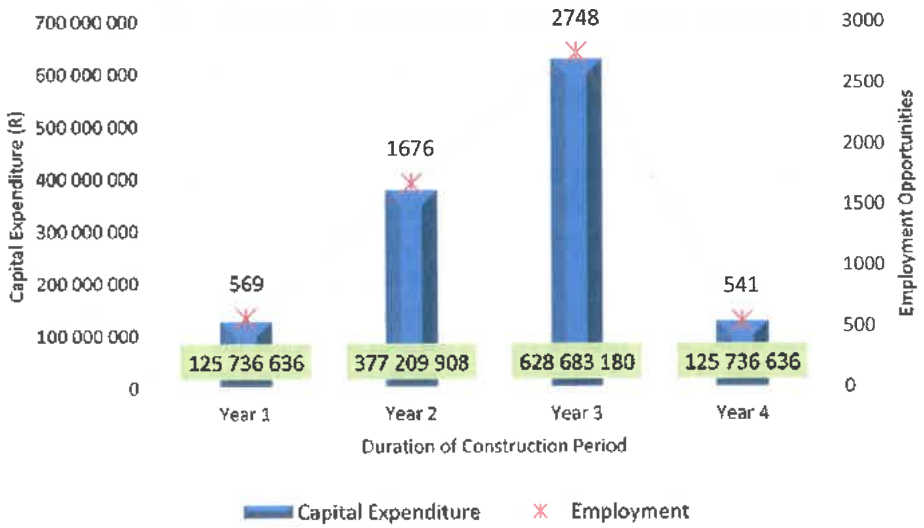


Figure 17: Nett job opportunities aligned with capital expenditure for the Stellenbosch Municipal area for Scenario 1: Constant Productivity related to Application 1

Source: Derived from Quantec data (2019), own calculations

Employment opportunities for the Stellenbosch Municipal area

Table 11 indicates that in terms of Application 1 of the Stellenbosch Bridge project, 1 384 jobs per annum in the Stellenbosch Municipal area if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 1 522 jobs could be sustained per annum over 4 years envisaged for the construction. The additional employment from Year 1 to Year 2, etc., depends on two factors, namely the capital expenditure of that year as well as the trend value as derived from **Figure 16**.

Table 11: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices for the Stellenbosch Municipal area for Application 1

		Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
	CAPEX Year 1	**125.74**	**125.74**	**125.74**			
	Employment in 2018	4036	4036	4036	**Employment contribution per year**		
Year	**Trend value Stellenbosch: Construction**						
1	0.22116	4605	4548	4661	569	512	625
	CAPEX Year 2	**377.21**	**377.21**	**377.21**			
2	0.22508	6280	6056	6505	1676	1508	1844
	CAPEX Year 3	**628.68**	**628.68**	**628.68**			
3	0.22877	9029	8529	9528	2748	2473	3023
	CAPEX Year 4	**125.74**	**125.74**	**125.74**			
4	0.23226	9570	9017	10123	541	487	595
	Total				5534	4981	6087

Source: Quantec data (2019), own calculations

Employment opportunities for the Western Cape Province

The results summarised in **Table 12** indicate total employment for the Western Cape Province given the assumptions listed above. The realistic outcome is probably the first scenario given the assumptions applied in the analysis. Based on sound business practices, the second scenario with increased productivity and thus lower labour demand, is preferable. The findings of the employment analysis are considered in the context of Application 1 with capital expenditure phased in over 4 years. Application 1 of the Stellenbosch Bridge development could sustain on average 1 474 jobs per annum if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 1 621 jobs could be sustained per annum over 4 years of the construction period.

Table 12: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices: Western Cape Province for Application 1

		Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
	CAPEX Year 1	**125.74**	**125.74**	**125.74**			
	Employment in 2018	159715	159715	159715	**Employment contribution per year**		
Year	**Trend value Western Cape: Construction**						
1	0.20702	160322	160262	160383	607	547	668
	CAPEX Year 2	**377.21**	**377.21**	**377.21**			
2	0.21108	162109	161870	162349	1787	1608	1966
	CAPEX Year 3	**628.68**	**628.68**	**628.68**			
3	0.21492	165035	164503	165567	2925	2633	3218
	CAPEX Year 4	**125.74**	**125.74**	**125.74**			
4	0.21855	165610	165020	166199	575	518	633
	Total				5895	5305	6484

Source: Quantec data (2019), own calculations

APPLICATION 2

Figure 18 indicates the total number of jobs that could be sustained per annum by the development and aligned with the estimated capital expenditure within the Stellenbosch Municipal economy for Scenario 1: Constant Productivity for Application 2.

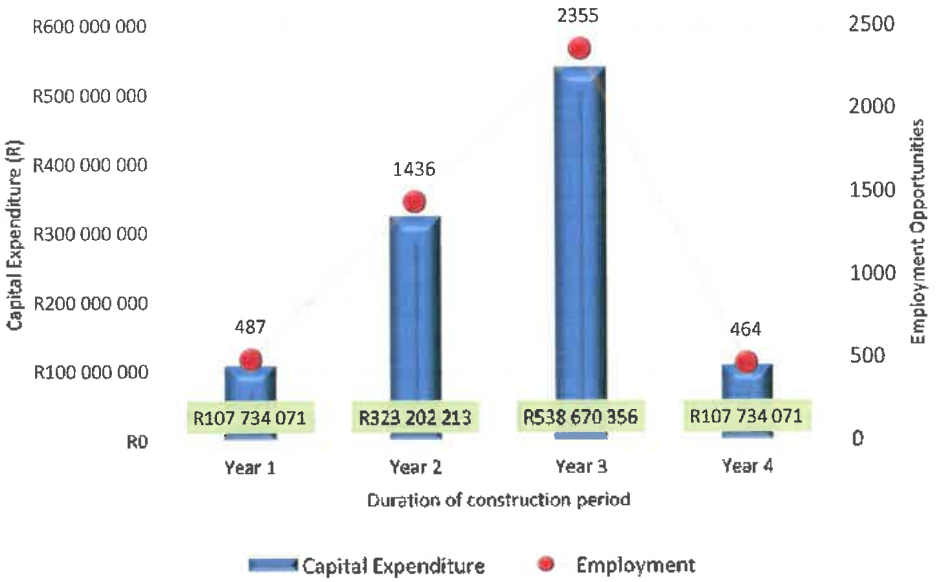


Figure 18: Nett job opportunities aligned with capital expenditure for the Stellenbosch Municipal Area for Scenario 1: Constant Productivity for Application 2

Source: Derived from Quantec data (2019), own calculations

Employment opportunities for the Stellenbosch Municipal Area

Table 13 indicates that Application 2 could sustain on average 1 186 jobs per annum in the Stellenbosch Municipal Area if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 1 304 jobs could be sustained per annum over 4 years.

Table 13: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices for the Stellenbosch Municipal Area for Application 2

		Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
	CAPEX Year 1	**107.73**	**107.73**	**107.73**			
	Employment in 2018	4036	4036	4036	**Employment contribution per year**		
Year	**Trend value Stellenbosch: Construction**						
1	0.22116	4523	4474	4572	487	438	536
	CAPEX Year 2	**323.20**	**323.20**	**323.20**			
2	0.22508	5959	5767	6151	1436	1292	1580
	CAPEX Year 3	**538.67**	**538.67**	**538.67**			
3	0.22877	8314	7886	8742	2355	2119	2590
	CAPEX Year 4	**107.73**	**107.73**	**107.73**			
4	0.23226	8778	8303	9252	464	417	510
	Total				4742	4267	5216

Source: Quantec data (2019), own calculations

Employment opportunities for the Western Cape Province

The results summarised in **Table 14** indicate total employment for the Western Cape Province given the assumptions listed above. The realistic outcome is probably the first scenario given the assumptions applied in the analysis. Based on sound business practices, the second scenario with increased productivity and thus lower labour demand is preferable. The findings of the employment analysis are considered in the context of the entire development with capital expenditure phased in over 4 years. For Application 2 of the Stellenbosch Bridge development, an average of 1 263 jobs opportunities per annum could arise if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 1 389 jobs could be sustained per annum over 4 years of the construction period.

Table 14: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices: Western Cape Province for Application 2

		Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
	CAPEX Year 1	107.73	107.73	107.73			
	Employment in 2018	159715	159715	159715	Employment contribution per year		
Year	Trend value Western Cape: Construction						
1	0.20702	160235	160183	160287	520	468	572
	CAPEX Year 2	323.20	323.20	323.20			
2	0.21108	161767	161561	161972	1531	1378	1684
	CAPEX Year 3	538.67	538.67	538.67			
3	0.21492	164273	163817	164729	2506	2256	2757
	CAPEX Year 4	107.73	107.73	107.73			
4	0.21855	164766	164261	165271	493	444	542
	Total				5051	4546	5556

Source: Quantec data (2019), own calculations

APPLICATION 3

Figure 19 indicates the total number of jobs associated with Application 3 that could be sustained per annum is aligned with the estimated capital expenditure within Stellenbosch Municipal economy regarding Scenario 1: Constant Productivity for Application 3.

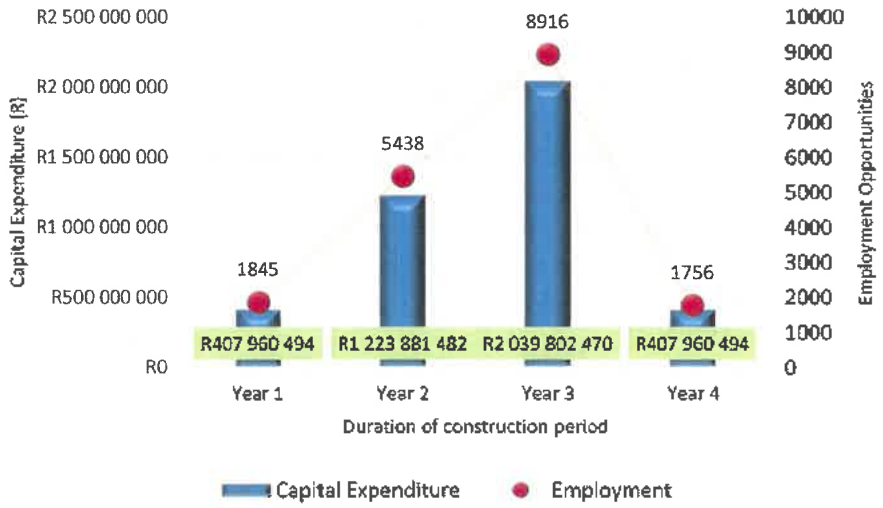


Figure 19: Nett job opportunities aligned with capital expenditure for the Stellenbosch Municipal Area for Scenario 1: Constant Productivity for Application 3

Source: Derived from Quantec data (2019), own calculations

Employment opportunities for the Stellenbosch Municipal Area

Table 15 indicates that Application 3 could sustain on average 4 489 jobs per annum in the Stellenbosch Municipal Area if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 4 938 jobs could be sustained per annum over 4 years.

Table 15: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices for the Stellenbosch Municipal Area for Application 3

	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
CAPEX Year 1	**407.96**	**407.96**	**407.96**			
Employment in 2018	4036	4036	4036	**Employment contribution per year**		
Trend value Stellenbosch: Construction						
0.22116	5881	5696	6065	1845	1660	2029
CAPEX Year 2	**1223.88**	**1223.88**	**1223.88**			
0.22508	11318	10590	12046	5438	4894	5981
CAPEX Year 3	**2039.80**	**2039.80**	**2039.80**			
0.22877	20235	18615	21855	8916	8025	9808
CAPEX Year 4	**407.96**	**407.96**	**407.96**			
0.23226	21991	20196	23787	1756	1581	1932
Total				17955	16160	19751

Source: Quantec data (2019), own calculations

Employment opportunities for the Western Cape Province

The results summarised in **Table 16** indicate total employment for the Western Cape Province given the assumptions listed above. The realistic outcome is probably the first scenario given the assumptions applied in the analysis. Based on sound business practices, the second scenario with increased productivity and thus lower labour demand, is preferable. The findings of the employment analysis are considered in the context of the entire development with capital expenditure phased in over 4 years. For Application 3 of the Stellenbosch Bridge development, an average of 4 782 jobs opportunities per annum could arise if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 5 260 jobs could be sustained per annum over 4 years of the construction period.

Table 16: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices: Western Cape Province for Application 3

		Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
	CAPEX Year 1	**407.96**	**407.96**	**407.96**			
	Employment in 2018	159715	159715	159715	**Employment contribution per year**		
Year	**Trend value Western Cape: Construction**						
1	0.20702	161686	161489	161883	1971	1774	2168
	CAPEX Year 2	**1223.88**	**1223.88**	**1223.88**			
2	0.21108	167484	166707	168261	5798	5218	6378
	CAPEX Year 3	**2039.80**	**2039.80**	**2039.80**			
3	0.21492	176975	175249	178701	9491	8542	10440
	CAPEX Year 4	**407.96**	**407.96**	**407.96**			
4	0.21855	178841	176929	180754	1867	1680	2053
	Total				19126	17214	21039

Source: Quantec data (2019), own calculations

APPLICATION 4

Figure 20 indicates the total number of jobs that could be sustained per annum by the development and aligned with the estimated capital expenditure within the Stellenbosch Municipal economy for Scenario 1: Constant Productivity for Application 4.

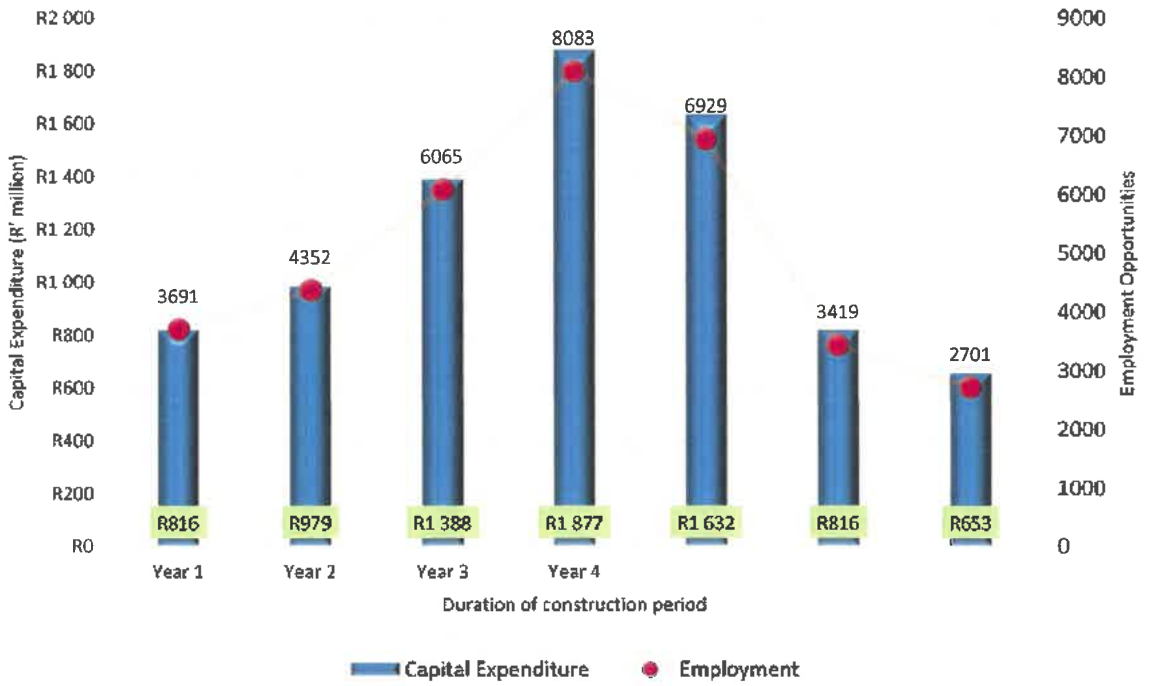


Figure 20: Nett job opportunities aligned to capital expenditure for the Stellenbosch Municipal Area for Scenario 1: Constant Productivity for Application 4

Source: Derived from Quantec data (2019), own calculations

Employment opportunities for the Stellenbosch Municipal Area

If employment is considered at the Stellenbosch Municipal Area, the situation changes (**Table 17**). Application 4 of Stellenbosch Bridge project could sustain on average 5 034 jobs per annum in the Stellenbosch Municipal Area if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 5 538 jobs could be sustained per annum over 7 years.

Table 17: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices for the Stellenbosch Municipal Area for Application 4

		Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
	CAPEX Year 1	**816.23**	**816.23**	**816.23**			
	Employment in 2018	4036	4036	4036	**Employment contribution per year**		
Year	**Trend value Stellenbosch: Construction**						
1	0.22116	7727	7358	8096	3691	3322	4060
	CAPEX Year 2	**979.48**	**979.48**	**979.48**			
2	0.22508	12078	11274	12883	4352	3917	4787
	CAPEX Year 3	**1387.59**	**1387.59**	**1387.59**			
3	0.22877	18144	16733	19555	6065	5459	6672
	CAPEX Year 4	**1877.33**	**1877.33**	**1877.33**			
4	0.23226	26227	24008	28446	8083	7274	8891
	CAPEX Year 5	**1632.46**	**1632.46**	**1632.46**			
5	0.23559	33156	30244	36068	6929	6236	7622
	CAPEX Year 6	**816.23**	**816.23**	**816.23**			
6	0.23875	36575	33321	39829	3419	3077	3761
	CAPEX Year 7	**652.99**	**652.99**	**652.99**			
7	0.24178	39276	35752	42800	2701	2431	2971
	Total				35240	31716	38764

Source: Quantec data (2019), own calculations

Employment opportunities for the Western Cape Province

The results summarised in **Table 18** indicate total employment for the Western Cape Province given the assumptions listed above. The realistic outcome is probably the first scenario given the assumptions applied in the analysis. Based on sound business practices, the second scenario with increased productivity and thus lower labour demand is preferable. The findings of the employment analysis are considered in the context of the entire development with capital expenditure phased in over 7 years. For Application 4 of the Stellenbosch Bridge development, an average of 5 352 jobs opportunities per annum could arise if constant productivity is assumed. Should external influences be assumed that drives demand higher, it is estimated that 5 887 jobs could be sustained per annum over 7 years of the construction period.

Table 18: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices: Western Cape Province for Application 4

		Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
	CAPEX Year 1	**816.23**	**816.23**	**816.23**			
	Employment in 2018	159715	159715	159715	**Employment contribution per year**		
Year	**Trend value Western Cape: Construction**						
1	0.20702	163658	163264	164052	3943	3549	4337
	CAPEX Year 2	**979.48**	**979.48**	**979.48**			
2	0.21108	168298	167440	169156	4640	4176	5104
	CAPEX Year 3	**1387.59**	**1387.59**	**1387.59**			
3	0.21492	174754	173250	176258	6456	5811	7102
	CAPEX Year 4	**1877.33**	**1877.33**	**1877.33**			
4	0.21855	183344	180981	185707	8590	7731	9449
	CAPEX Year 5	**1632.46**	**1632.46**	**1632.46**			
5	0.22201	190698	187599	193796	7353	6618	8089
	CAPEX Year 6	**816.23**	**816.23**	**816.23**			
6	0.22530	194320	190860	197781	3623	3261	3985
	CAPEX Year 7	**652.99**	**652.99**	**652.99**			
7	0.22845	197179	193432	200925	2858	2572	3144
	Total				37464	33717	41210

Source: Quantec data (2019), own calculations

No-Go Alternative

Applications 1, 2, 3 & 4

Without the proposed Stellenbosch Bridge development, the potential contribution to temporary employment opportunities will remain unrealised.

Cumulative Impact

The construction phases for each of Applications 1, 2 and 3 are anticipated to be completed over 4 years, whilst Application 4 should be completed within 7 years. However, these phases will overlap and the total development is envisaged to take 16 years to complete, after which artisans and labourers could find themselves without work. More construction work in the local area could provide a more sustainable work environment where construction workers could 'move on' to another project. Several projects in the area could also generate critical mass or economies of scale for new goods and services companies that could also provide a wider range of employment opportunities for local residents.

Mitigation measures

No mitigation applies as it represents a positive impact. However, the Developer should insist that the contractors demonstrate the use of local labour as far as possible.

Impact Rating

Our assessment suggests that the impact will be .....

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.

Application 1																		
Application 2																		
Application 3																		
Application 3																		
No-Go	-	-	-	-	-	-	-	-	-									

7.2.6 Contribution towards local economic income

Nature of impact

The Stellenbosch Municipal and Western Cape province economies will benefit from the project due to the procurement of goods and services and the spending on wages and salaries.

Scope and consequence of impact

The construction costs for the proposed Stellenbosch Bridge project are based on quantity surveyor (QS) estimates provided in the Rode Report (2019: 4). Bulk services infrastructure for the assessment equates to the development contributions that would under normal circumstances be payable to the Stellenbosch Municipality. Estimates of Development Charges for Applications 1 and 2 are used to estimate the Development Charges for Applications 3 and 4. A proportional allocation for internal service costs is used to estimate the costs for Applications 3 and 4. Estimates of capital costs in current terms also include an estimate of preliminaries and general and professional fees, but excludes VAT, contingencies and escalations. It is assumed that construction would commence once all environmental and planning processes have been completed and an Environmental Authorisation is issued by the relevant authorities and planning Applications 1 through 4 are approved.

As far as the construction phase is concerned, we have assumed that part of the initial investment is partly sub-contracted to construction enterprises operating within the Stellenbosch and Drakenstein municipal areas. These industries spend part of the initial investment on imported materials and the rest on paying wages and salaries to workers and owners in the local construction sector (and related industries). The initial increase in income that sets in motion a multiplier process also accounts for forward and backward linkages between sectors operating in the Provincial and local economies, with specific reference to the Construction Sector.

Theoretically, two approaches can be used:
The first, and most simplified, is to analyse the percentage contribution of each subsector of the regional economy to Regional Gross Value Added (RGVA) as well as the annual growth rates. The simplest manner of forecasting will then be to extrapolate the growth trend by fitting a mathematical function to the historical data. In the same manner, employment and other economic variables can be considered. The most important limitation of this method is that the relevant data is only available in an annual format and is preliminary for the latest three years – similar to other national economic data. The reason for this is nestled in the manner that the statistics are generated (i.e. derived from national statistics).

A second way of analysing the performance, is to depict the economy in the circular flow diagram shown in **Figure 21**, which captures all transfers and real transactions between sectors and institutions. Productive activities purchase land, labour and capital inputs from the factor markets, and intermediate inputs from commodity markets, and use these to produce goods and services. These are supplemented by imports (M) and then sold through commodity markets to households (C), the government (G), investors (I), and foreigners (exports - E). In the flow diagram, each institution's expenditure becomes another institution's income. For example, purchases of commodities by households and governments provide the incomes that producers need to continue the production process. Additional inter-institutional transfers, such as taxes and savings, ensure that the circular flow of incomes is closed. In other words, all income and expenditure flows are accounted for, and there are no leakages from the system.

These indicators are based on GDP at factor cost, the fiscal balance, the current account balance, the level of private savings, and total imports and exports. GDP at factor cost is total capital and labour value-added. GDP at market prices is the sum of all final demands: GDP = C + I + G + E – M. In summary, this information reveals a great deal about a country's economic structure.

When we talk of "exogenous demand-side shocks" to an economy, we are referring to changes in export demand, government spending or investment demand. The impacts of these shocks have both direct and indirect effects. Direct effects are those related to the sector that is directly affected by the shock. For example, an exogenous increase in demand for Western Cape agricultural exports has a direct impact on the agricultural sector. However, it may also have indirect effects stemming from agriculture's linkages to other sectors and parts of the economy. These indirect linkages can, in turn, be separated into production and consumption linkages. When we add all direct and indirect linkages, we arrive at a measure of the shock's multiplier effect, or how much a direct effect is amplified or multiplied by indirect linkage effects.

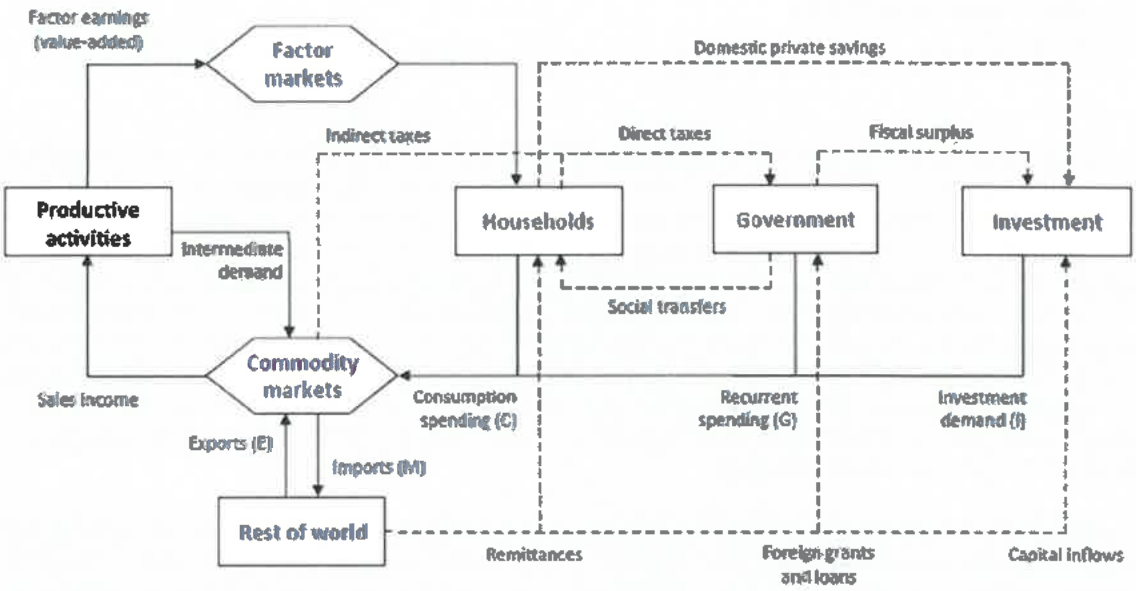


Figure 21: Circular flow of the economy
Source: Breisinger et al., 2009

Production linkages are determined by the sectors' production technologies and they are differentiated into backward and forward linkages (**Figure 22**). Backward production linkages are the demand for additional inputs used by producers to supply additional goods or services. For example, when agricultural production expands, it demands intermediate goods like fertilisers, machinery and transport services. This demand then stimulates production in other sectors to supply these intermediate goods. The more input-intensive a sector's production technology is, the stronger its backward linkages are. Forward production linkages account for the increased supply of inputs to upstream industries. For example, when agricultural production expands, it can supply more goods to the food-processing sector, which stimulates manufacturing production. So the more important a sector is for upstream industries, the stronger its forward linkages will be.

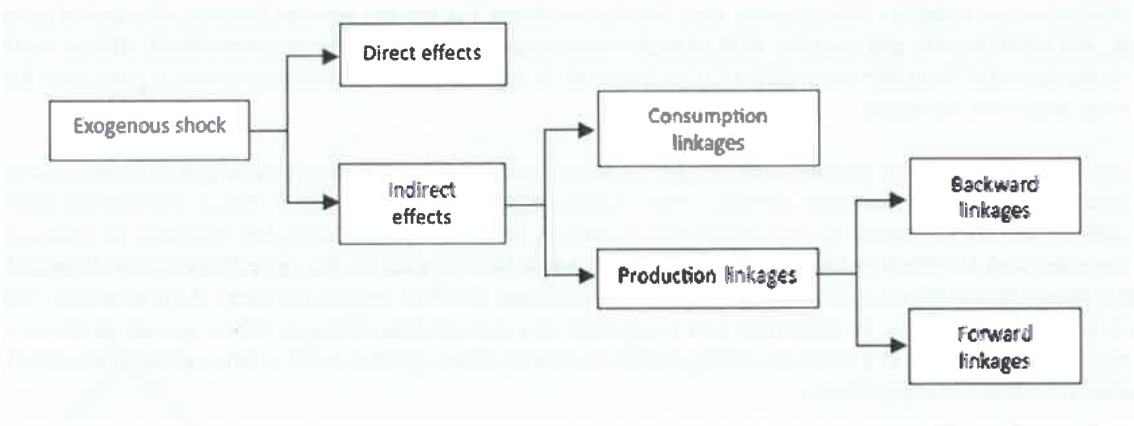


Figure 22: Direct and indirect linkages
Source: Breisinger et al., 2009

Stronger forward and backward production linkages lead to larger multipliers. Traditional input-output multipliers measure only the effects of production linkages. They do not consider consumption linkages, which arise when an expansion of production generates additional incomes for factors and households, which are then used to purchase goods and services. For example, when agricultural production expands, it raises farmers' incomes, which are used to buy consumer goods. Depending on the share of tradable and non-tradable goods in households' consumption baskets, domestic producers benefit from a greater demand for their products. The size of consumption linkages depends on various factors, including the share of factor income distributed to households, the composition of the consumption basket and the share of domestically supplied goods in consumer demand. Evidence from developing countries suggests that consumption linkage effects are much larger than production linkage effects. Social Accounting Matrix (SAM) multipliers tend to be larger than input-output multipliers because they capture both production and consumption/income linkages.

Economic linkages are fairly static and are determined by the structural characteristics of an economy (that is, sectors' production technologies and the composition of households' consumption baskets). Multiplier effects, on the other hand, capture the combined effects of economic linkages over time. For example, forward production linkages tell us that increasing fishing production will stimulate the production of processed foods by increasing the supply of inputs to this sector. This is the first-round linkage effect between the fishing industry and food processing. However, in the second round, the increase in processed food production will have additional forward production linkage effects to other sectors, such as to the restaurant sector, which uses processed foods as an intermediate input. Similarly, in the third round, the expansion of the restaurant sector will generate even more demand for other sectors. This process continues over many rounds as the effects of increasing fishing production ripple throughout the economy, eventually becoming small enough that they effectively cease.

SAM multipliers measure the value of all production and consumption linkage effects. They capture direct and indirect effects in the first and all subsequent rounds of the circular income flow. More specifically, multipliers translate initial changes in exogenous demand (for example, increased agricultural export demand) into total production and income changes of endogenous accounts. **Figure 23** illustrates this process.

Three types of multipliers can be distinguished from the figure. First, an output multiplier combines all direct and indirect (consumption and production) effects across multiple rounds and reports the final increase in gross output of all production activities. In **Figure 23**, this is the combined increase in agricultural and non-agricultural production (the two boxes marked "A"). Second, a Gross Domestic Product (GDP) multiplier measures the total change value-added or factor incomes caused by direct and indirect effects (the box marked "B"). Finally, the income multiplier measures the total change in household incomes (the box marked "C").

The size of a multiplier depends on the structural characteristics of an economy. For example, a key determinant is the share of imported goods and services in households' consumption demand. If households consume domestically produced goods, then increasing household incomes will benefit domestic producers and the circular flow of income

will lead to further rounds of indirect linkage effects. However, if households demand imported goods, foreign producers will benefit and the indirect linkage effects will be smaller. Import demand is thus a leakage from the circular flow of income. Similarly, when government taxes factor incomes, it limits how much of the returns to production are earned to households, and so reduces consumption linkages. Ultimately, these kinds of leakages cause the round-by-round effects to slow down more quickly and reduce the total multiplier effect.

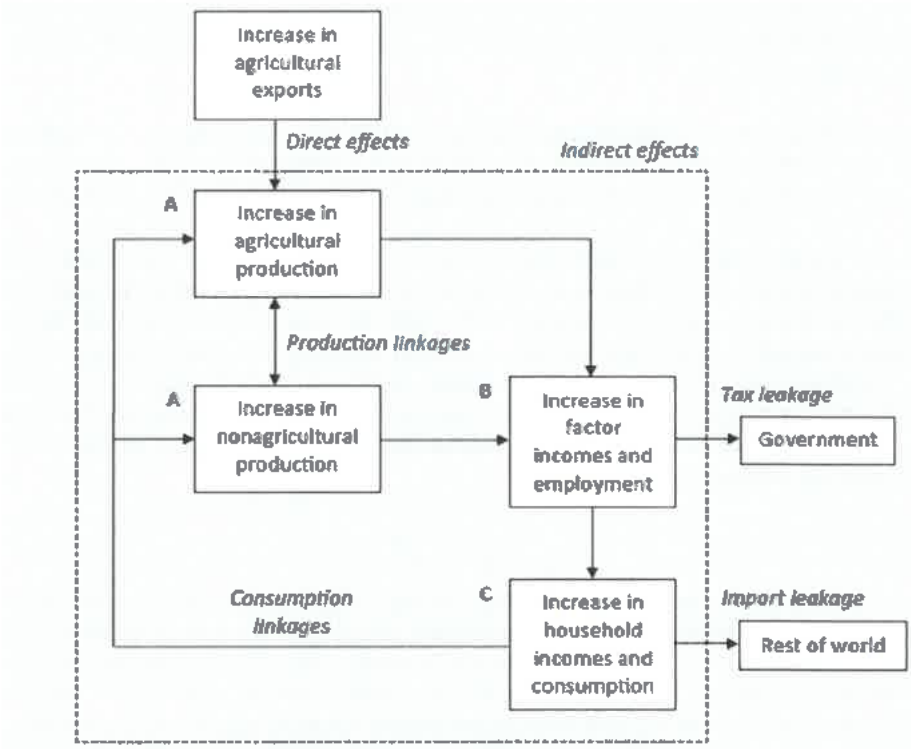


Figure 23: Circular flow of income in the multiplier process
Source: Breisinger et al., 2009

Social Accounting Matrix (SAM) multipliers are an extension of the classic Leontief input-output model. While the Leontief model concentrates on inter-industry production linkages, SAM-based models also include consumption linkages by making institutions like households and the government "endogenous". The SAM multiplier approach thus makes use of information on household factor endowments and income distribution.

Unconstrained multiplier models are the simplest kinds of multiplier models, because they make some limiting assumptions. They assume that prices are fixed and that any changes in demand will lead to changes in physical output rather than prices. This, in turn, requires an additional assumption that the economy's factor resources are unlimited or unconstrained, so that any increase in demand can be matched by an increase in supply. Finally, the multiplier model assumes that all structural relationships between sectors and households in the economy are unaffected by exogenous changes in demand. In other words, the input coefficients of producers and the consumption patterns of households remain unchanged (that is, linkage effects are linear and there is no behavioural change).

Even dropping the assumption that supply in all sectors is unconstrained, the above assumptions remain serious limitations for SAM multiplier analysis. In some cases, these limitations provide sufficient justification to use more complex SAM-based methods, such as Computable General Equilibrium (CGE) models that drop the assumption of fixed prices and unconstrained factor resources. However, SAM multipliers are an important step toward understanding these more complicated methods.

In the unconstrained multiplier model, we made some assumptions. One limitation was the assumption that supply can respond to changes in demand or that supply capacity is infinite given existing resources. In reality, this is rarely the case, especially because some sectors use specialised resources. For example, increasing demand for gold exports from South Africa may not lead to increased mining production if additional gold deposits do not exist or if the necessary investments in mining equipment have not been made. Moreover, increasing production in some sectors may lead to falling production in others if some resources are scarce. For example, increasing production of export crops, such as sugarcane, may require a reallocation of land away from other food production, which may not be possible. In these cases, the supply response may not be unconstrained, and the suitability of the simple multiplier model becomes questionable. By ignoring supply constraints, unconstrained SAM-multiplier models typically overstate the impacts of linkage effects.

If we drop the assumption that sectors' supply responses are unconstrained by fixing the level of output in certain sectors, some adjustments to the multiplier formula is required to derive a constrained multiplier model. Although this class of model is often referred to as a "semi-input-output model", we still derive a SAM-based multiplier formula.

Estimated values for the initial capital investments include material costs, contractors' fees, wages and salaries, allowance for an escalation factor and contingencies. Initial import leakages are assumed to equal 20% of total construction expenditure (including wages and salaries). In this manner, we can capture the inter-regional effects caused by the extended outreach for goods and services from other provinces in South Africa and the rest of the World. The income multiplier is based partly on estimated consumption and import propensities and direct and indirect tax propensities for the region. Our assessment for the construction phase is based on the Western Cape economy and an attributable portion of the GVA is allocated to the Klapmuts area based on the contribution of Stellenbosch to the Western Cape economy.

APPLICATION 1

Table 194 provides an estimate of the economic impact based on the methodological principles discussed as part of the approach used for determining the impact of the Stellenbosch Bridge project. An assessment of the construction cost estimates for **Application 1** suggests that an initial estimated amount of R 1 503 million would be introduced with varying expenditure over the period envisaged for the construction period of 4 years. The total capital expenditure includes an estimate of external bulk services and internal services together with a Preliminaries and General (P&Gs) of 13% and professional fees of 11% applicable to the construction and infrastructure capital expenditure. No contingency, escalations and VAT have been applied and no other fees are considered. The figures are stated in current terms (i.e. without escalation).

Table 19: An indication of the assumptions and preliminary impact of initial construction costs on the Western Cape and Stellenbosch Municipal economy due to the proposed Stellenbosch Bridge Application 1

Construction costs	
Construction cost (excl. infrastructure & Fees) (R' million)	R1 257
Infrastructure (internal and external)	R246
Total construction cost (excluding VAT) (R 'million)	R 1 503
Initial import leakage (Western Cape)	20%
Net total capital expenditure (R' million)	R 1006
Western Cape Province	
Multiplied increase in net capital expenditure (R' million) which assumes an open economy with no significant constraints	R 4 208
Stellenbosch Municipal contribution to Western Cape GVA	14,98%
Attributable GVA increase for Stellenbosch due to the initial capital expenditure stated above (R' million)	R 630

Note: The multiplier adopted for the assessment is an income multiplier
Source: Multi-Purpose Business Solutions

A combined initial investment of R1 503 million (R1 006 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R4 208 million in the Western Cape Province over the four-year construction period. Approximately R630 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. Note the latter figure represents a snapshot of a completed development, but does not consider the commencement date for the project.

APPLICATION 2

For Application 2 (Table 20), an initial amount of R1 288 million will be introduced with varying expenditure over the 4 years envisaged for the construction (the same assumptions apply as for Application 1; no contingency and no escalations have been applied). A combined initial investment of R1 288 million (R862 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R3 605 million in the Western Cape Province over the construction period. In addition, approximately R 540 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. Note the latter figure represents a snapshot of a completed development but does not consider the commencement date for the project.

Table 20: An indication of the assumptions and preliminary impact of initial construction costs on the Western Cape Province and the Stellenbosch Municipal economy due to the proposed Stellenbosch Bridge Application 2

Construction costs	
Construction cost (excl. infrastructure & Fees) (R' million)	R 1 077
Infrastructure (internal and external)	R211
Total construction cost (excluding VAT) (R 'million)	R 1 288
Initial import leakage (Western Cape)	20%
Net total capital expenditure (R' million)	R 862
Western Cape Province	
Multiplied increase in net capital expenditure (R' million) which assumes an open economy with no significant constraints	R 3 605
Stellenbosch Municipal contribution to Western Cape Province GVA	14,98%
Attributable GVA increase for Stellenbosch due to the initial capital expenditure stated above (R' million)	R 540

Note: The multiplier adopted for the assessment is an income multiplier
Source: Multi-Purpose Business Solutions

APPLICATION 3

For Application 3 (Table 21), an initial amount of R3 250 million will be introduced with varying expenditure over the 4 years envisaged for the construction (the same assumptions apply as for Application 1 and 2; no contingency and no escalations have been applied). A combined initial investment of R3 250 million (R2 847 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R11 907 million in the Western Cape Province over the construction period. In addition, approximately R1 784 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. Note the latter figure represents a snapshot of a completed development but does not consider the commencement date for the project.

Table 21: An indication of the assumptions and preliminary impact of initial construction costs on the Western Cape Province and the Stellenbosch Municipal economy due to the proposed Stellenbosch Bridge Application 3

Construction costs	
Construction cost (excl. infrastructure & Fees) (R' million)	R2 870
Infrastructure (Internal and external)	R380
Total construction cost (excluding VAT) (R 'million)	R3 250
Initial import leakage (Western Cape)	20%
Net total capital expenditure (R' million)	R2 847
Western Cape Province	
Multiplied increase in net capital expenditure (R' million) which assumes an open economy with no significant constraints	R11 907
Stellenbosch Municipal contribution to Western Cape Province GVA	**14,98%**
Attributable GVA increase for Stellenbosch due to the initial capital expenditure stated above (R' million)	R 1 784

Note: The multiplier adopted for the assessment is an Income multiplier
Source: Multi-Purpose Business Solutions

APPLICATION 4

For Application 4 (Table 22), an initial amount of R5 572 million will be introduced with varying expenditure over the 7 years envisaged for the construction (the same assumptions apply as for previous applications; no contingency and no escalations have been applied). A combined initial investment of R5 572 million (R4 457 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R39 213 million in the Western Cape Province over the construction period. In addition, approximately R5 874 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. This represents an annual contribution to economic income of R839 million over 7 years. Note the latter figure represents a snapshot of a completed development, but does not consider the commencement date for the project.

Table 22: An indication of the assumptions and preliminary impact of initial construction costs on the Western Cape Province and the Stellenbosch Municipal economy due to the proposed Stellenbosch Bridge Application 4

Construction costs	
Construction cost (excl. infrastructure & Fees) (R' million)	R4 983
Infrastructure (internal and external)	R589
Total construction cost (excluding VAT) (R 'million)	R 5 572
Initial import leakage (Western Cape)	20%
Net total capital expenditure (R' million)	R 4 457
Western Cape Province	
Multiplied increase in net capital expenditure (R' million) which assumes an open economy with no significant constraints	R 39 213
Stellenbosch Municipal contribution to Western Cape Province GVA	**14,98%**
Attributable GVA increase for Stellenbosch due to the initial capital expenditure stated above (R' million)	R5 874

Note: The multiplier adopted for the assessment is an Income multiplier
Source: Multi-Purpose Business Solutions

No-Go Alternative

Applications 1, 2, 3 & 4

Without the proposed Stellenbosch Bridge development, the potential contribution to local economic income will not be realised.

Cumulative Impact

Other development projects in the Klapmuts area could act synergistically to create more demand for supplies and services and thus act as a catalyst for creating further economic growth in the area due to the multiplier effect.

Mitigation measures

No mitigation applies as it represents a positive impact.

Impact Rating

Our assessment suggests that the impact will be.....

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL
Application 1																		
Application 2																		
No-Go	-	-	-	-	-	-	-	-	-									

7.3 Operational Phase

The most significant concerns for the operational phase relate to the sense of place, traffic, infrastructure capacity and surrounding land values. On the positive side, the proposed development will provide in a growing need for housing, create new business opportunities, sustain additional employment opportunities and contribute towards economic income.

7.3.1 Sense of place

Nature of impact

The proposed development will impact the sense of place for surrounding land users.

Scope and consequence of impact

A sense of place generally refers to the way people perceive places, whether they are streets, communities, cities or regions. This may influence their well-being, how they describe and interact with a place, what value they place on something, etc. A sustainable community resembles a living system in which human, natural and economic elements

are interdependent and draw strength from each other (Roseland, 1998). Community members generally recognise and support people's sense of well-being, which includes a sense of belonging, a sense of place, a sense of self-worth, a sense of safety and a sense of connection with nature.

Application 1

The proposed site is located to the west of the Klapmuts village, which consists primarily of low-income and state-assisted housing. The surrounding area is predominantly rural, with farms growing mainly grapes.

In the Visual Impact Assessment for the approved Klapmuts Hills residential development, Megan Anderson Landscape Architects (2008) concluded that the proposed development has the potential to have either a negative or a positive visual impact on the landscape and scenic resources of the area. The proposed Klapmuts Hills could provide scenic interest and enhance the development, even though open space is being lost to built space. However, the intent needs to be carried through to the design development stage, the implementation stage as well as the operation stage to ensure that this is realised. The Preferred Alternative 1, with mitigation measures, was the Preferred Alternative from a visual impact point of view as residential development in the south is restricted below the 200 m contour that is considered less intrusive into the rural area. Additional development is allowed in the North West, which is closer to major roads and railway lines and thus has a more man-made scenario than in the south.

A Heritage Impact Assessment conducted by Halkett and Finnegan (2008) for the Klapmuts Hills development concluded that no significant archaeological material was observed and no physical heritage resources of value were identified within the proposed development site. The preferred development proposal for Klapmuts Hills included 1 577 residential units, some of which were 3 and 4 storey walk-ups (maximum height of 15 m). While it may be felt that the overall density, scale and height of development are at odds with the prevailing character of the area, predictions for future local growth must be taken into consideration. The proposed development falls within the urban edge and it is envisioned that Klapmuts will eventually become a town of approximately 25,000 inhabitants. This future town will include schools and clinics, commercial and industrial sectors that will inevitably have a significant impact on the rural character of the village.

The Heritage Impact Assessment (2008) also mentioned that the majority of the site is of a low lying nature and not visible from the surrounding areas. As one moves up the hill, the site becomes more visible, specifically from the existing Klapmuts Village and the R44. However, existing tree lines along the N1 largely screen views of the proposed development. The high-lying areas of the proposed development could thus be considered to have a limited potential visual impact and have required mitigating measures in the design.

Application 2

Megan Anderson Landscape Architects (2020) concluded that the proposed Urban Planning, Architectural and Landscape Architectural principles, guidelines, controls and concepts for the light industrial development generally comply with the municipalities 'Visual, Scenic Resource and Sense of Place' requirements.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed development, there will be no change in the sense of place linked to the site. However, the site is currently vacant and invaded with alien vegetation and there is a risk that the informal settlement may start spreading eastwards onto the site if it is not developed.

Cumulative Impact

Given the approved and proposed development in the larger Klapmuts area, the sense of place of the area will continue to change to a more urban character.

Mitigation measures

Application 1

Megan Anderson Landscape Architects (2008) indicated that any negative visual impact related to the Klapmuts Hills residential development should be mitigated by following architectural, lighting and landscaping guidelines and controls. An updated Visual Impact Assessment has not been submitted for Stellenbosch Bridge.

The Heritage Impact Assessment (2008) indicated that the design of the Klapmuts Hills development sought to maintain key view lines and visual links from Klapmuts village by associating green spaces as well as tree lines with the key views of the site from Klapmuts. The maximum height of the development is the 200 m contour where the crest of the hill is approximately 250 m above mean sea level. The high-lying development areas are of a lower density, allowing for greater landscaping density and height, acting as screening and therefore softening the visual effect of the proposed development. There are also some key visual breaks in the development, allowing for substantial landscape elements to break the extent of the development seen from any perspective.

Application 2

Mitigation measures proposed by Megan Anderson Landscape Architects (2020) include the following:

- Enforcing the proposed Architectural and Landscape Architectural Principles, Codes, Guidelines and Concepts provided by OL Architects and Square One Landscape Architects;
- Comprehensive planning regarding lighting to minimise light pollution on the cultural and rural landscape;
- Construction mitigation measures to be included in the EMP; and
- Production of an Operational Management Plan to guide and control the Stellenbosch Bridge Light Industrial Development including buildings, infrastructure and landscaping in the future.

Impact Rating

Megan Anderson Landscape Architects (2008) indicated that if the recommendations and mitigation measures are enforced, the proposed development will have a moderate visual impact and, in time, with the maturing of trees that should be planted, the development will not detract negatively from the highly-rated Cape Winelands scene.

Given the nature and scope of the proposed development, the impact **is unavoidable**, but can **be partially managed**; i.e. the impact can be **partly mitigated**. **The residual impact for both Applications 1 and 2 will be medium negative for surrounding land users**, especially for residents living on the eastern side of Klapmuts.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	6	5	2	1	5	4	76	**M-H (-)**	**M-H (-)**	4	5	2	1	5	3	51	**M (-)**	**M (-)**
Application 2	6	5	2	1	5	4	76	**M-H (-)**	**M-H (-)**	4	5	2	1	5	3	51	**M (-)**	**M (-)**
No-Go	-	-	-	-	-	-	-	-	-									

7.3.2 Provision of housing

Nature of impact

The residential component will address a growing demand for housing in the Stellenbosch Municipal area.

Scope and consequence of impact

According to the Stellenbosch SDF (2019), there will be an estimated unfulfilled need of 17 847 indigent houses by 2036, assuming that no houses for the indigent will be built between 2016 and 2036. If the current rate of delivery persists, only 7 805 units would have been added by 2036, thus resulting in a significant backlog. In terms of housing for the non-indigent (<80 m²), the estimated municipality-wide need was 15 042 in 2016 (includes a variety of unit types aimed at various markets, such as GAP housing, flats and townhouses and stand-alone units). If no supply is added, the need will be 23 106 by 2036. According to BEAL Africa (2017), there was a waiting list for 2 457 housing units in Klapmuts in 2016, represented by 2 351 BNG and 106 GAP housing units. There were 2 381 existing residential units in 2017, with the Growth Model forecasting a total of 8 407 residential units by 2027, i.e. a need for 6 026 new units was forecasted. The Stellenbosch IDP indicates that there were 505 service sites and 183 housing units under construction in 2018/2019 as part of the Phase 1 upgrading of Mandela City in Klapmuts.

Application 1

A total of 1 577 residential units are proposed for Phase 1 of the Stellenbosch Bridge development, which include 200 2-storey townhouses (3-bedrooms) and 1 377 4-storey walk-ups (1, 2 & 3-bedrooms).

Application 2

No residential units are proposed for Phase 2 as it only entails light industrial land-use.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed development, there will be no new housing provision linked to the site. However, there will be increased pressure to develop the land for residential purposes since it is included in the Klapmuts Urban Edge, with a high risk of encroaching from the adjacent informal settlement.

Cumulative impact

A total of 1 577 residential units are included in the current Application 1, with another 2 500 apartment units foreseen in Phase 3 of the Stellenbosch Bridge Development Plan. Given an estimated 2 381 residential units in 2017, the Stellenbosch Bridge development will add about 68% of the shortfall of the demand foreseen for the Klapmuts area by 2027.

Mitigation measures

No mitigation applies as it represents a positive impact.

Impact rating

Our assessment suggests that the residual impact for both Applications 1 and 2 will be **medium-high positive**.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	10	5	2	0	0	5	85	**M-H (-)**	**H (+)**									
Application 2	10	5	2	0	0	5	85	**M-H (-)**	**H (+)**									
No-Go	-	-	-	-	-	-	-	-	-									

7.3.3 Impact on surrounding property values

Nature of impact

A new development may affect the current and future perceived value of other properties in the Klapmuts area.

Scope and consequence of impact

The value of property is driven by various factors, among others supply and demand, interest rates, the contraction or expansion of the local economy, population growth rates and changes in disposable income to debt ratios. In addition, relative property values are based on the abundance of sites that are either valued or avoided by the market. As these underlying characteristics and resulting relative advantages change, so do the relative prices as these advantages are capitalised into land values. The future value of land in the area is also dependant on spatial planning policies and the bulk supply of land within the area permitted for various uses.

Projects such as Stellenbosch Bridge are long-term projects that could take more than 10 years or longer to complete. From a demand and supply perspective, the perceived supply in the market may not have a significant impact on property prices in the near term. However, as a new equilibrium point is achieved through the adjustment of supply and demand, the market value of surrounding land could start increasing in a few years depending on market forces expressed in terms of balancing supply and demand. Demand forces will impact property prices of unimproved land pockets included in the urban edge as supply becomes more constrained and pressure for future development increases.

Application 1

.Any perceived shortage of land for housing in Klapmuts will increase prices in the short-term until new supply will either ensure price stabilisation or a reduction in prices especially if properties are listed for sale. A large residential component is envisaged for Application 1 and these units will be either sold or rented out, which will ensure that properties in the Klapmuts area remain at more affordable price points. Large tracks of land on the periphery within the urban edge are unlikely to increase in value in the medium term as the shortage of residential accommodation is addressed in Application 1. Over time, the scarcity of land will increase and drive property prices higher for those land portions within the urban edge.

Application 2

The factors listed for Application 1 also apply to Application 2. The light industrial precinct proposed in Application 2 is located on a strip of land adjacent to a lower-income residential area (Bennetsville), with the informal settlement on its south-eastern border. Once completed, the industrial development on this piece of land will create a buffer zone that could curtail further spreading of the informal settlement – and thus reduce potential impacts for neighbouring landowners.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed Stellenbosch Bridge development, the site could deteriorate due to the overgrowth of invasive species and/or encroachment of the property by informal settlers. The value of undeveloped land within the urban edge will be strongly influenced by demand, which may be temporarily addressed by other residential developments in the area. However, continuous population growth will add to the demand for housing in the Stellenbosch Municipality and there will be future pressure for development of the site. The site related to Application 2 is particularly sensitive to encroachment from the adjacent informal settlement, which could negatively impact the property prices of adjacent land parcels.

Cumulative Impact

A number of additional residential and/or industrial development in the immediate area (e.g. Groenfontein and Distell) could compound any negative impacts on surrounding land users (e.g. sense of place and traffic flows). It is unclear at this stage to what extent this may impact property values in the area. Growth of development in the area may have a positive impact and cause prices to move higher, however, this is a long-term impact and will be driven by the dynamism that exists between demand and supply.

Mitigation measures

Implementation of the recommendations made by the various specialists to mitigate potential negative impacts (such as visual, traffic and nuisance factors) will be essential to minimise negative impacts for surrounding landowners.

Impact Rating

Given the nature and scope of the proposed development, the impact **is unavoidable**, but can **be partially managed**; i.e. the impact can be **partly mitigated**. The residual impact for both Applications 1 and 2 following the implementation of mitigation measures is anticipated to be **low negative for owners of nearby residential erven** and **low positive for owners of unimproved land**.

PROJECT DESCRIPTION		ENVIRONMENTAL SIGNIFICANCE																	
		BEFORE MITIGATION									AFTER MITIGATION								
		M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Residential erven	**Application 1**	6	5	2	1	3	3	51	**M (-)**	**M (-)**	2	5	2	1	3	3	39	**L (-)**	**M (-)**
	Application 2	6	5	2	1	3	3	51	**M (-)**	**M (-)**	2	5	2	1	3	3	39	**L (-)**	**M (-)**
	No-Go	-	-	-	-	-	-	-	-	-									
Unimproved land	**Application 1**	4	5	3	1	5	2	36	**L (+)**	**L (+)**									
	Application 2	4	5	3	1	5	2	36	**L (+)**	**L (+)**									
	No-Go	-	-	-	-	-	-	-	-	-									

7.3.4 Increased vehicular traffic

Nature of impact

The large residential and industrial components will increase vehicular movement along the access routes.

Scope and consequence of impact

Application 1

A Traffic Impact Statement (TIS) prepared by iCE Group (2019a) noted that the conditions of approval of the 2011 land-use application for the Klapmuts Hills development included a number of external road upgrades for the different phases (iCE Group, 2011). Of these conditions, Phase A-3 (signalisation of R101/R44 intersection) and Phase D-6 (turning lanes at R44 / Elsenburg Road intersection) have since been implemented. Based on a trip generation calculation, it is expected that the road improvements as per the 2011 conditions of approval will remain applicable as the newly proposed development extent is less than previously approved. The conditions should, however, be realigned with the revised development roll-out.

The TIS concluded that the approved Klapmuts Hills development had the potential to generate 2 260 AM peak hour trips and 2 862 PM peak hour trips. In contrast, Phase 1 of the proposed Stellenbosch Bridge development has the potential to generate 2 214 AM peak hour trips and 1 794 PM peak hour trips, i.e. 46 AM peak hour trips fewer and 1 068 PM peak hour trips fewer than the previously expected peak hour traffic.

It is highly likely that many Stellenbosch Bridge residents will be dependent on public transport, which could also support improved public transport services to the area.

Application 2

The Traffic Impact Statement for Application 2 (iCE Group, 2019b) concluded that the proposed development has the potential to generate 461 peak hour trips (369 in, 92 out during the AM peak hour and *vice versa* during the PM peak hour). To accommodate the background traffic, the R44 should be dualled north of its intersection with the Klapmuts-Simondium Road intersection, and dedicated left-turn lanes are provided along the two R44-approaches to its

intersection with the Klapmuts-Simondium Road intersection. To accommodate the proposed development traffic, a dedicated left-turn lane should be provided along the Stellengate Boulevard approach to its intersection with the R44/Klapmuts-Simondium Road; a roundabout should be provided at the Groenfontein Road/Merchant Street intersection and a roundabout provided at the access road intersection to Merchant Street.

Applications 3 & 4

No Traffic Impact Assessment was done for Applications 3 and 4.

No-Go Alternative

Application 1 & 2

Without the proposed Stellenbosch Bridge development, there will be no additional traffic originating from the proposed development site. Nevertheless, there will be an increase in traffic along the access routes due to other developments in the Klapmuts area.

Cumulative Impact

Further development along the R44 and Old Paarl Road are already in progress and will generate additional traffic along these roads. Together with Stellenbosch Bridge, this could have a significant impact on existing and future road users. The intention is also to implement Application 1 and 2 in parallel, which will add a significant number of vehicles on the road at more or less the same time.

Mitigation measures

To accommodate the expected developments proposed for the region, a number of road network improvements are proposed in the Traffic Impact Statements.

Impact Rating

The 2011 TIA and 2019 TISs did not provide an impact rating for the scenarios before and after mitigation. However, based on our interpretation of these reports, the impact is **unavoidable**, but can be **partly managed**, i.e. the impact can be **partly mitigated** through the implementation of the proposed upgrades. Our assessment is that, following the implementation of the proposed upgrades, the residual impact will be **medium-high negative** and **medium negative** for Applications 1 and 2, respectively.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	10	5	3	0	1	5	95	**M-H (-)**	**H (-)**	8	5	3	0	1	5	85	**M-H (-)**	**H (-)**
Application 2	6	5	3	0	1	5	75	**M-H (-)**	**M-H (-)**	4	5	3	0	1	5	65	**M (-)**	**M-H (-)**
No-Go	-	-	-	-	-	-	-	-	-									

7.3.5 Increase in local crime

Nature of impact

Effective security at the proposed development is essential to safeguard against criminal elements.

Scope and consequence of impact

The establishment of new residential neighbourhoods, industrial and business activities will also attract criminal elements, which could originate from inside and/or outside of the Klapmuts area. As indicated earlier, the SAPS Crime Statistics (SAPS, 2019) indicate relatively high incidences of theft and robbery in the Klapmuts area, which can be further aggravated by high unemployment in the immediate area.

The Klapmuts Community Forum (refer to Section 6.3.2) indicated that trusted community members should be included in the security strategy as everyone in Klapmuts know each and a number of local residents have worked in this construction industry. Furthermore, the Klapmuts Community Forum advised that a solid security wall should be built where houses were located directly against the Stellenbosch Bridge boundary.

Application 1 & 2

The two respective applications entail significant residential and commercial activities that could attract criminals in search of easy targets. The proximity of the informal settlement could represent a particular concern, but there could also be an influx of criminals from outside the area. Given the large scope of the total development, it would be difficult to monitor the movement and activities of people entering the development.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed development, no criminal activities would be linked to the site.

Cumulative Impact

Given the high unemployment rate in the Klapmuts area, it is likely that any new residential, commercial and business activities will attract criminals in search of easy targets.

Mitigation measures

Local residents must be employed at the various businesses and industries offered by Stellenbosch Bridge to reduce the level of unemployment in the Klapmuts area. On-site security measures, such as perimeter fencing, controlled access and security guards and patrols could also discourage criminals from the area.

Impact Rating

The impact can be **is unavoidable**, but can **be fully managed**; i.e. the impact can be **fully mitigated**. The residual impact for both Applications 1 and 2 will therefore be **low negative** following the implementation of mitigation measures.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE	
	BEFORE MITIGATION	AFTER MITIGATION

	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	6	5	2	1	1	4	60	**M (-)**	**M-H (-)**	2	5	2	1	1	3	33	**L (-)**	**M (-)**
Application 2	6	5	2	1	1	4	60	**M (-)**	**M-H (-)**	2	5	2	1	1	3	33	**L (-)**	**M (-)**
No-Go	-	-	-	-	-	-	-	-	-									

7.3.6 Bulk infrastructure capacity

Nature of impact

Infrastructure requirements relate to the provision of bulk infrastructure for sewerage, water and electrical supply, solid waste disposal and stormwater management.

Scope and consequence of impact

Application 1

A preliminary Civil Engineering Services Report prepared by WEC Consult (2019) concluded that - as the amended development plans retain the approved Basket of Rights - sufficient service capacity is available to accommodate the proposed development. The service infrastructure will be upgraded where required.

Water Supply: The site would require two new bulk connector/link pipelines to connect to the bulk reticulation network. The Municipality has allowed in their 2019/2020 budget to have these upgrades designed and constructed. It is expected that these bulk network upgrades will be completed before the completion of the construction stage of the proposed development.

Sewerage: Additional bulk connector/link pipelines are required to connect to the bulk reticulation network. No other upgrades to the bulk sewer distribution network is required to accommodate the proposed development. Sufficient sewer treatment capacity is available in the Klapmuts WWTW to accommodate the proposed development.

Stormwater: A detailed stormwater management plan will be compiled and submitted to the local authority, where more detailed information regarding the flood calculations and position and size of detention ponds will be provided. There will be no upgrades required for the downstream watercourses and piped stormwater systems. Stormwater detention ponds will be designed and constructed to ensure that the post-development stormwater runoff does not increase from the pre-development scenario. No provision needs to be made for any future connection. The design of bulk stormwater infrastructure will make allowance for all future phases of this development that fall within the same catchment area.

Electricity: Matters related to electrical requirements and/or capacity are in the process of being finalised.

Application 2

Sufficient service capacity is available to accommodate the proposed development, which in part is linked to the installation of bulk service infrastructure undertaken by the developer (Anton Lotz Town Planning & A Roux Town Planning, 2019b).

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed development, there will be no additional demand for infrastructure linked to the site.

Cumulative Impact

The bulk service requirements for the proposed development will add to the existing demand for resources and services in the area, which will be compounded given other ongoing and planned developments for the area.

Mitigation measures

Recommendations were made in the Civil Engineering Services Report to ensure the appropriate infrastructure for the various bulk services is provided by the Developer.

Impact Rating

The impact **is unavoidable,** but can **be fully managed**; i.e. the impact can be **fully mitigated**. The residual impact for both Applications 1 and 2 is expected to be **low negative** following the implementation of mitigation measures.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	4	5	3	0	1	4	52	**M (-)**	**M (-)**	2	5	3	0	1	3	33	**L (-)**	**M (-)**
Application 2	4	5	3	0	1	4	52	**M (-)**	**M (-)**	2	5	3	0	1	3	33	**L (-)**	**M (-)**
No-Go	-	-	-	-	-	-	-	-	-									

7.3.7 New business opportunities

Nature of impact

A new development will create opportunities for small businesses in the goods and services sectors.

Scope and consequence of impact

Application 1

A mix of residential and various commercial activities are envisaged as part of Application 1, including offices, a restaurant, gym, laundromat and spa in Precinct 2, and Business, Institutional, Education, Medical, Residential, Sport & Recreation, Tourism, Utility Service, Research & Development in Precinct 1. Commercial activities are essential for serving the needs of a community and create demand for other businesses operating in the immediate and surrounding area.

Application 2

Application 2 entails light industrial activity and related uses that include a mix of warehousing, light manufacturing and other related business and service activities. These activities will require a range of goods and services that could be provided by existing and or new businesses operating in the Stellenbosch and/or Drakenstein Municipalities.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed Stellenbosch Bridge development, the site will not be linked to new business opportunities, unless other activities are initiated (e.g. the sand mining).

Cumulative Impact

The proposed Stellenbosch Bridge node and proposed Distell development, together with a number of housing developments proposed for the area, would create multiple opportunities for business development and/or the expansion of current businesses to support and establish these developments.

Mitigation measures

No mitigation applies as it represents a positive impact.

Impact Rating

Our assessment suggests that the impact for Applications 1 and 2 will be **medium and medium-high positive**, respectively.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	4	5	3	0	0	5	60	**M (+)**	**M-H (+)**									
Application 2	8	5	3	0	0	5	80	**M-H (+)**	**H (+)**									
No-Go	-	-	-	-	-	-	-	-	-									

7.3.8 New employment opportunities

Nature of impact

The project will create new employment opportunities for people with different types and levels of skill.

Scope and consequence of impact

A new development will create direct and indirect employment opportunities for people with different types and levels of skills if commercial components are included in the project. There are high unemployment rates in the Klapmuts area and job creation and opportunities during operations will have a significant positive impact. Recruitment is likely to be a sensitive issue and must be considered with caution, as it could lead to social unrest if the processes were deemed unfair or exclusive.

Due to the absence of information related to spending during the operational phase of the development once completed, we have attempted through research and analysis of each Application to estimate the number of potential job opportunities that may accrue once the development as envisaged is complete. Business and commercial opportunities offer the most potential for direct employment, while other opportunities from social facilities and amenities would also provide jobs for locals. It also estimated that jobs will be created by households living within the development.

In a meeting with the local Ward Councillor (refer to Section 6.3.1), Stellenbosch Bridge representatives highlighted the potential impact of the development on the community in terms of the general upliftment of the area and potential job opportunities. In particular, the proposed development would increase the local labour uptake from 2% to 3-4% and make funding available to upskill the workers.

Application 1

The total number of direct jobs are estimated using employment densities for different types of economic activity. In the absence of South African data, the Homes & Communities Agency Employment Density Guide 3rd edition (2015) employment estimates are used as a proxy. As indicated in **Figure 22**, we estimate that approximately 1 859 direct jobs opportunities will exist once the planned construction of components envisaged for Application 1 is complete. Most opportunities will exist for retail and commercial activities with an estimated Gross Lettable Area (GLA) of 23 800m^2. However, the housing component with 1577 units will also provide a number of direct employment opportunities.

Application 2

The same premise adopted for the calculation of job opportunities linked to Application 1 is applied in Application 2, which only entails industrial activity. An estimated 1087 job opportunities could arise from the development of and the provision for an estimated 76 925 m^2 of Gross Lettable Area.

Application 3

The same premise adopted for the calculation of job opportunities linked to Application 1 and 2 is applied in Application 3, which includes commercial, retail, industrial, institutional and other uses such as a sports stadium and guest house accommodation. An estimated 10 980 direct job opportunities could arise from the various non-residential and residential uses. The non-residential components entail an estimated GLA of 214 625m^2 and the housing component 1 423 apartments/flats.

Application 4

Using the same premise as above, an estimated 9 800 direct job opportunities could arise from the development of commercial, retail, industrial, institutional and other uses such a conference centre and hotel. The GLA associatd with the said components entails 262 650 m^2, with a mix of 3 000 resisential options that include aprtments/flats, town houses and a retirement village.

No-Go Alternative

Applications 1, 2, 3 & 4

Without the proposed Stellenbosch Bride development, there will be no new employment linked to the development site.

Cumulative Impact

A number of new projects could generate critical mass or economies of scale for new goods and services companies that could also provide a wider range of employment opportunities for local residents.

Mitigation measures

No mitigation applies as it represents a positive impact. To ensure employment is created for local residents, it will be essential to implementing a local procurement policy to support local business and service providers.

Impact Rating

Our assessment suggests that the impact will be **medium-high positive** for both Applications 1 and 2.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	8	5	3	0	0	5	80	**M-H (+)**	**H (+)**									
Application 2	10	5	3	0	0	5	90	**M-H (+)**	**H (+)**									
No-Go	-	-	-	-	-	-	-	-	-									

7.3.9 Revenue accruing to public authorities

Nature of impact

Monetary benefits accrue to the Stellenbosch Municipality in the form of property rates and other utility charges such as water and electricity.

Scope and consequence of impact

The Stellenbosch Municipality will levy property rates once a parcel or erf is sold and subsequently on the improved value. For this assessment, we have therefore assumed that property rates will apply to the completed dwellings and other commercial and industrial structures.

Rates accruing to the Municipality were assessed based on the development concept associated with each application. The rates accululate over the envisaged period for completion of the construction and stabilises thereafter once all the components have been constructed, are occupied or become operational. We applied an escalation of 5.5% and used the Stellenbosch Municipality Tariff Tables for the 2019/2020 financial year (Appendix 3).

Rates are based on the value of the property determined by the Stellenbosch Municipality in terms of the Municipal Rates Act. For this assessment, the construction cost is deemed to be the value of the property at the time when property rates are levied.

Application 1

The estimated annual rates income accruing to the Municipality associated with Application 1 is illustrated in **Figure 23**. The total cumulative rates over the period 2021 to 2036 from the commencement of construction to the occupation of the different components are estimated at R58.7 million for the residential component and R78.9 million for the non-resisential components.

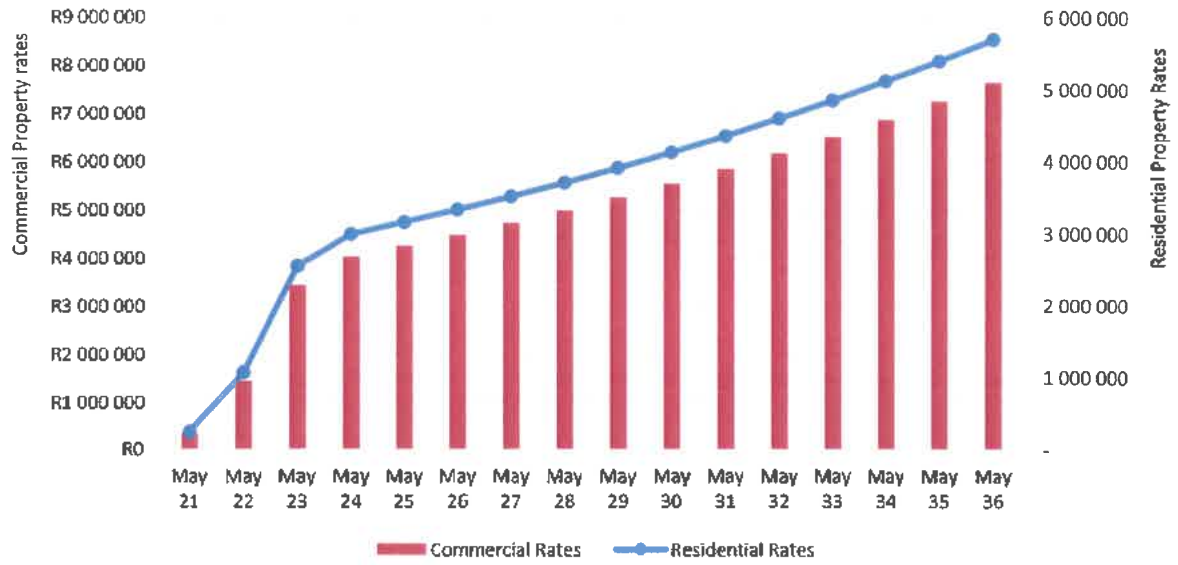


Figure 24: An assessment of the envisaged property rates income accruing the Stellenbosch Municipality from May 2021 to May 2036 (Application 1)

Source: Stellenbosch Municipality (Rates tariffs – 2019-2020) and own calculation

Application 2

The estimated annual rates income accruing to the Stellenbosch Municipality associated with Application 2 is illustrated in **Figure 24.** It is envisaged that the construction and occupation of the industrial components will be completed in four years. The total cumulative rates from May 2024 to May 2036 from the commencement of construction and occupation of the industrial components is estimated at R151.5 million. No residential component is envisaged as part of the second application.

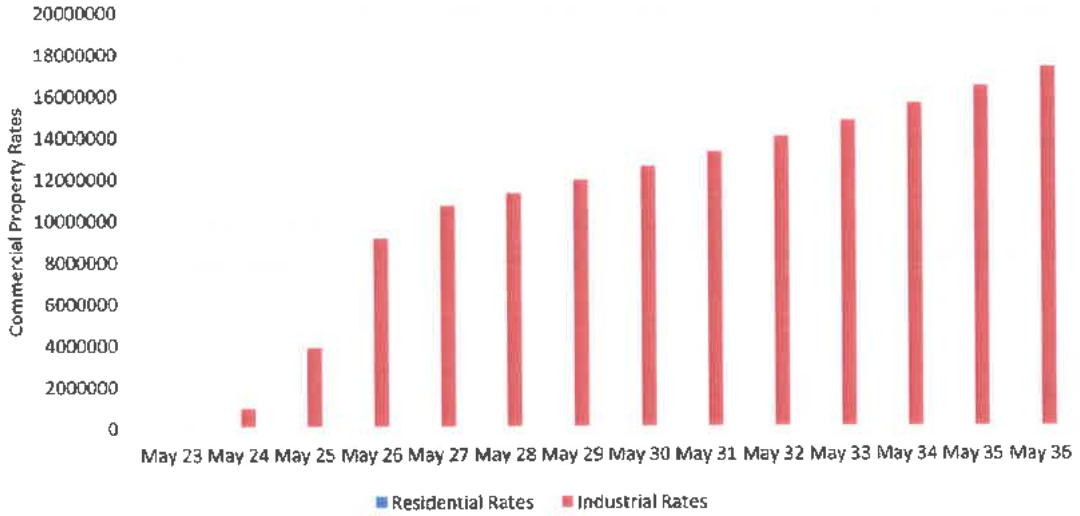


Figure 25: An assessment of the envisaged property rates income accruing the Stellenbosch Municipality from May 2024 to May 2036 (Application 2)

Source: Stellenbosch Municipality (Rates tariffs – 2019-2020) and own calculations

Application 3

The estimated annual rates income accruing to the Municipality associated with Application 3 is illustrated in **Figure 23.** A four-year construction and occupation term is applied. The total cumulative rates from May 2027 to May 2041 from the commencement of construction to the occupation of the different components for residential is R51.0 million and for non-residential R728.5 million.

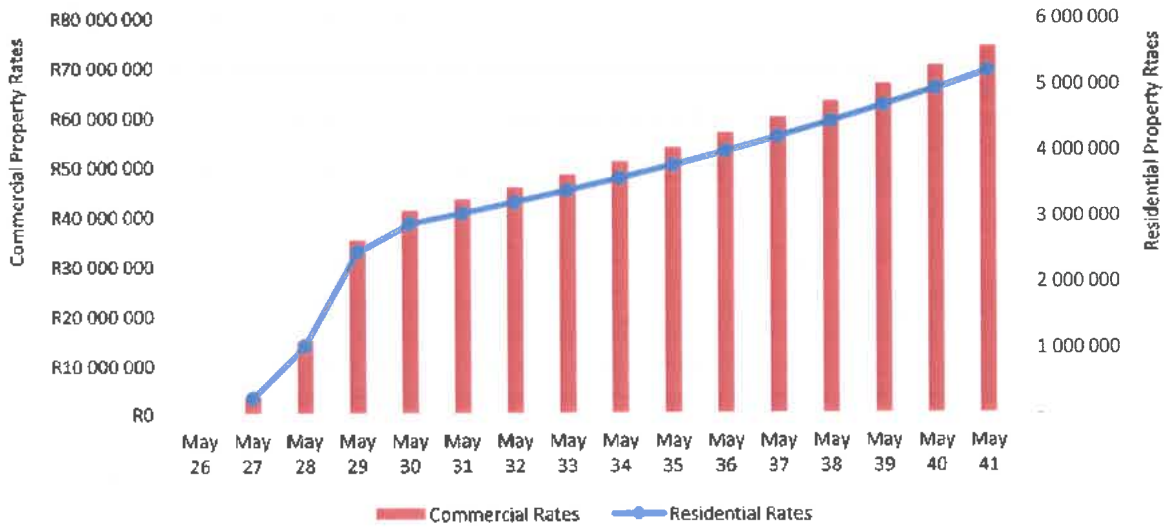


Figure 26: An assessment of the envisaged property rates income accruing the Stellenbosch Municipality from May 2027 to May 2041 (Application 3)

Source: Stellenbosch Municipality (Rates tariffs – 2019-2020) and own calculation

Application 4

The estimated annual rates income accruing to the Municipality associated with Application 4 is illustrated in **Figure 23.** A seven-year construction and occupation term is applied. The total cumulative rates from May 2030 to

May 2041 includes the commencement of construction to the occupation of the different components could resulted in an estimated R133.9 million of rates associated with resisential uses and R961.8 million for non-residential uses.

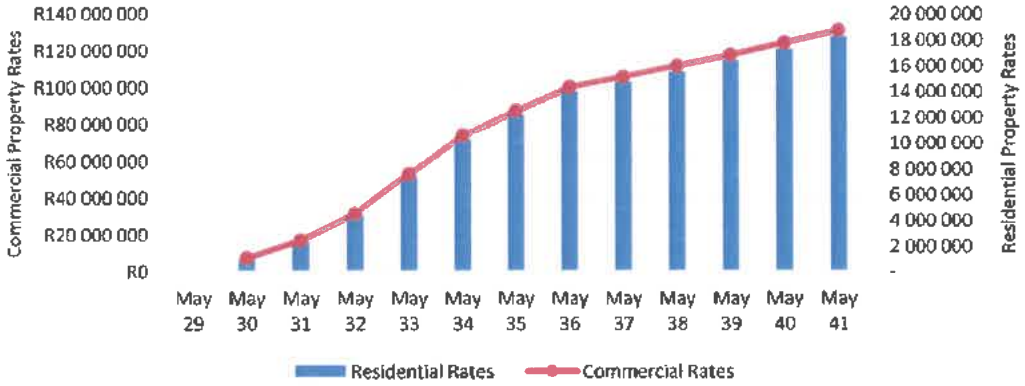


Figure 27: An assessment of the envisaged property rates income accruing the Stellenbosch Municipality from May 2030 to May 2041 (Application 4)

Source: Stellenbosch Municipality (Rates tariffs – 2019-2020) and own calculation

No-Go Alternative

Applications 1, 2, 3 & 4

Without the proposed Stellenbosch Bridge development, the envisaged monetary benefit would not accrue to the Stellenbosch Municipality.

Cumulative Impact

Other development projects in the area would further enhance the rates base of the Stellenbosch Municipality.

Mitigation measures

No mitigation applies as it represents a positive impact.

Impact Rating

Our assessment suggests that the impact will be **medium and medium-high positive** for Applications 1 and 2, respectively.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	6	5	3	0	0	5	70	**M (+)**	**M-H (+)**									
Application 2	8	5	3	0	0	5	80	**M-H (+)**	**H (+)**									
Application 3																		
Application 4																		
No-Go	-	-	-	-	-	-	-	-	-									

8. SOCIAL INVESTMENT AND MONITORING INITIATIVES

8.1 Social investment and community engagement

Social investment initiatives have become a standard inclusion in the submission of development proposals to relevant government departments at a local, provincial and national level. Social capital investment may be defined as an investment into local communities by a developer beyond potential benefits intrinsically linked to the project itself. Developers are required and expected to indicate to what extent a development project would contribute to the welfare of surrounding communities through social investment initiatives that promote integration, community support and skills development, something that the developers of Stellenbosch Bridge have communicated to local structures such as the Klapmuts Community Forum.

Social investment may not serve as a determining factor for the approval of a proposed application or an amendment thereof. However, the development priorities of communities should be aligned with the social investment objectives related to the outcome of the planned development initiatives. In terms of Applications 1 and 2, the approach adopted is intended to achieve the following:

- Ensure downstream benefits from the project accrue to the local population;
- Identify community social projects that would benefit from the funds received from sales and operations of a project;
- Commit to a local procurement initiative that would achieve the following outcomes:
  - A "local first" employment policy;
  - Develop a database of skills among residents in the area; and
  - Promote the involvement of SMMEs with the required skills and capacity to obtain contracts and development opportunities.

These and other initiatives could be considered in the context of a framework developed by Multi-Purpose Business Solutions to provide developers with a sense of direction when assessing initiatives to be considered as part of a social investment programme. **Figure 25** illustrates a matrix consisting of four quadrants that are based on the nature of the intended investment and the "capital" introduced by the developer as part of the social investment.

	Abstract capital	Physical capital
Active Investment	- Bursaries - In-house training - Education - Development of small, medium and micro businesses - Youth training initiatives - Environmental initiatives (e.g. nursery and training initiatives) - SMME development opportunities - Beneficiary distributions - Person financial management assistance	- Upgrading of community health facilities (e.g. clinics) - Upgrading and maintenance of sports fields - Construction of new facilities - Low-cost housing - Provision of or upgrading of infrastructure - Development or conversion of existing buildings to multi-purpose centres - Community gardening project and farming projects
Passive Investment	- Establishment of community trust fund for beneficiaries, the environment and development - Transfer land to a community entity for Agriculture or other purposes	- Build facility and transfer ownership to a community trust for use by a community

Figure 28: An illustrative matrix of social investment options for developers

Source: Multi-Purpose Business Solutions
Active and passive investment of abstract capital: These investments refer specifically to time and funds invested in initiatives such as bursaries and in-house training. Passive investment refers specifically to the allocation of funds to a community trust or some other vehicle that assumes responsibility for the disbursement of the funds to community third parties and projects.

Active and passive investment in physical capital: Active participation implies direct investment in the needs of communities by the provision of new or the upgrading of existing community facilities such as healthcare centres, schools and recreation and sports facilities. Passive investment in this context refers specifically to the establishment of a facility for the community, which is then transferred to a trust or other type of entity (vehicle) with the sole purpose of administrating and maintaining the facility on behalf of the community.

8.2 SOCIO-ECONOMIC IMPACT KEY PERFORMANCE INDICATORS

Essential components of a Protocol for Social Management (PSM) for the development (Applications 1 and 2 in this case) includes monitoring, reviewing and evaluation processes to assess socio-economic contributions. Continuous and periodic monitoring and evaluation are required to ensure the achievement of milestones and the overall success of achieving the socio-economic objectives envisaged for the Stellenbosch Bridge project.

The successful implementation and development of the project would ultimately be assessed on the contribution the development makes during construction and operations to the social development and economic goals of employment creation, skills development and training, small business development and capacity building in the area. The Key Performance Areas (KPAs) offer strategic direction as measurable outputs for the socio-economic development contributions of contractors, especially for large capital-intensive projects.

The following KPAs are outcomes based on the scope of social engagement activities:

- Procurement from, or sub-contracting to local enterprises;
- Procurement of local materials/resources;
- Employment of local people (persons residing in the Stellenbosch Municipal area, with specific reference to the Klapmuts area, for a period exceeding 3 years);
- Training (onsite/offsite) of employees from the local area; and
- Procurement from local black empowerment entities and/or black persons;
- Sub-contracting to local black empowerment entities and/or black persons;
- Procurement from, or sub-contracting to new local black empowerment entities;

A clear distinction as highlighted above must be made between Local Content and Non-local content. In the context of the proposed development, Local Content refers to the Cape Winelands District with a specific emphasis on the Stellenbosch and Drakenstein Municipal areas.

9. CONCLUSIONS & RECOMMENDATIONS

9.1 Fit with spatial planning

To provide some context, the provincial, regional and metro SDFs (together with related frameworks, interpretation reports and discussion documents) and Local Economic Development plans and strategies (together with other documents that offer guidance) are considered as a premise for this part of the assessment. In addition, other planning and development guidelines and policies are considered where appropriate.

In keeping with the *Guidelines for Economic and Social and Specialist Input into EIA Processes* (CSIR, 2005 and Department of Environmental Affairs and Development Planning, 2007), the project should fit with planning frameworks and is desirable from a societal cost-benefit perspective. To provide some context, the provincial, regional and metro SDFs (together with related frameworks, interpretation reports and discussion documents) and Local Economic Development plans and strategies (together with other documents that offer guidance) were considered as a premise for this part of the assessment. Other planning and development guidelines and policies were also considered where appropriate.

The Stellenbosch Spatial Development Framework and IDP are the primary planning tools for the Stellenbosch area and therefore the proposed development, as it incorporates the provisions of all other broader level plans for the area and therefore forms the initial basis for the economic assessment of the proposed Stellenbosch Bridge development. Stellenbosch town and Klapmuts were identified as spatial areas for priority development over the MSDF planning period are (p. 74).

Our assessment of the spatial planning frameworks of the local, district and provincial authorities suggests that the proposed Stellenbosch Bridge development supports and fits with the spatial planning principles of the Stellenbosch Municipality as indicated in the IDP and SDF from a socio-economic perspective and specifically with the focus on Klapmuts. The Stellenbosch Bridge development is in the delineated urban edge of Klapmuts and the part not included, is earmarked for agriculture.

The proposed project is positioned as a development that is intended to contribute towards business, housing and infrastructure development in the Klapmuts area, but specifically in a node where the community needs private investment to uplift their socio-economic well-being and create more sustainable employment.

9.2 Summary of impacts

The question that needs to be addressed in the context of perceptions and concerns raised by Interested and Affected Parties is whether the proposed development is desirable from a societal cost-benefit perspective? Several issues of a social nature were raised and discussed in this report and the need thus exists to determine whether mitigation could be applied and to what extent the developer would be willing to introduce the recommended mitigation measures.

Development Applications

- **Application 1** entails the reallocation of the existing rights approved on Farm 742/5 for the redevelopment of the site as part of the innovation precinct and in terms of the services capacity already provided for the Klapmuts Hills development. The application will involve amendment of the approved Development Framework Plan, Phasing Plan, Subdivision Plan and conditions of approval to accommodate the revised development layout plan. The revised development plan will tie in with the draft Stellenbosch Bridge Development Framework that will be submitted as part of Application 3.
- **Application 2** refers to the Rezoning and Subdivision of Remainder Farm 744/2, which falls within the Klapmuts urban edge. The site is the portion of land situated between the western edge of the existing Klapmuts urban area and the Klapmuts Hills site to the west (Portion 5 of Farm 742, Paarl). Despite its agricultural zoning, the

site has been included within the Klapmuts urban edge for many years and envisaged to form part of the town's expansion westwards

Development Alternatives

The **No-Go alternative** implies that the *status quo* is maintained, i.e. the land stays vacant. However, given the size of the property and its strategic location, there will most likely be future pressure for development if the current proposal is not approved.

Impact Ratings

To provide a perspective of the net societal benefits and costs associated with the proposed project, the following table summarises the different the socio-economic impacts associated with the proposed Stellenbosch Bridge development, and their respective significance before and after implementation of mitigation measures (i.e. the residual impact) as proposed by the relevant specialists.

Nature of the Impact	Rating before mitigation		Rating after mitigation (Residual impact)	
	Application 1	Application 2	Application 1	Application 2
Construction				
Traffic flows along access roads	80	80	60	60
Nuisance factors (dust and noise)	65	65	55	55
Influx of job-seekers	65	65	55	55
Increase in local crime	52	52	36	36
New employment opportunities	55	65		
Economic income	55	55		
Operations				
Sense of place	76	76	51	51
Provision of housing	85	85		
Surrounding property values Existing residential erven	51	51	39	39
Unimproved land	36	36		
Traffic flows along access roads	95	75	85	65
Increase in local crime	60	60	33	33
Bulk infrastructure requirements/contributions	52	52	33	33
New employment opportunities	60	80		
Local business development	80	90		
Revenue accruing to public authorities	70	80		

Significant Ratings:

	Positive	40 – 74	Medium Negative	100 – 124	High Negative
<40	Low Negative	75 – 99	Medium-High Negative	125 – 150	Very High Negative

Potential negative impacts

The following **concerns** (medium or higher impact after mitigation) have been identified:

1. **Impact on traffic flows:** A significant increase in traffic along the access routes can be expected during construction and operations, which will negatively impact surrounding land-users in particular

2. **Sense of place:** The relatively high-density development will be visible to a large number of receptors and may negatively affect surrounding land users.
3. **Nuisance factors**, in particular dust and noise generated during the introduction of services and construction of top structures;
4. **An influx of job-seekers** during the construction phase could result in additional people settling in Klapmuts and a subsequent burden on local social services.

Potential positive and prescribed impacts

A number of benefits are associated with the proposed Stellenbosch Bridge development:

5. **Job creation:** The findings of the employment analysis are considered in the context of Application 1 and Application 2, both of which are phased over 4 years and envisaged to run in parallel. Application 1 of the Stellenbosch Bridge development could sustain on average 1 090 to 1 199 jobs per annum over 4 years of the construction period. If employment is considered at the Stellenbosch Municipal level, 1 023 to 1 125 jobs will be created in the Stellenbosch Municipal area per annum over 4 years envisaged for the construction. For Application 2, an average of 1 439 to 1 583 jobs opportunities per annum could be sustained per annum over 4 years of the construction period. Alternatively, Application 2 could sustain 1 352 to 1 487 jobs per annum in the Stellenbosch Municipal Area over 4 years.

   During operations, an estimated total of 1 090 direct jobs opportunities will exist once the planned construction of components envisaged for Application 1 is complete. Most opportunities will exist for retail, commercial and to an extent the housing component of the project. Application 2 entails industrial activity. An estimated 1 900 job opportunities could arise from the development of and provision for 90 500 m^2 of Gross lettable Area. These figures do not include additional employment (indirect and induced employment) created by the needs of the operating components and outsourcing opportunities.
6. **Economic income:** A combined initial investment of R1 204 million (R963 million net of the initial import leakage) for Application 1 will give rise to a multiplied output increase in GVA of R4 192 million in the Western Cape Province over the four-year construction period. Approximately R628 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. For Application 2, a combined initial investment of R1 486 million (R1 188 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R4 101 million in the Western Cape Province over the construction period. In addition, approximately R 614 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project.
7. **Revenue accruing to public authorities:** The total cumulative rates over the first 10 years from the commencement of construction and occupation of the different components is estimated at R62.9 million. The total cumulative rates over the first 10 years from the commencement of construction of the industrial components is estimated at R128.9 million.
8. **New business development**: A mix of residential and various commercial activities are envisaged as part of Application 1, including offices, a restaurant, gym, laundromat and spa in Precinct 2, and Business, Institutional, Education, Medical, Residential, Sport & Recreation, Tourism, Utility Service, Research & Development in Precinct 1. Commercial activities are essential for serving the needs of a community and create demand for other businesses operating in the immediate and surrounding area. Application 2 entails light industrial activity and related uses that would include a mix of warehousing, light manufacturing and other related business and service activities. These activities will require a range of goods and services that could be provided by existing and or new businesses operating in the Stellenbosch and/or Drakenstein Municipalities.

Cumulative impacts

Cumulative impacts refer to any other developments as well as existing activities within the immediate area that could compound any positive or negative impacts associated with the proposed development. This particularly relates to the ongoing/planned residential developments just north and along the R44 further south-east of Klapmuts.

The potential **negative impacts** would be compounded if additional developments were introduced in the immediate and surrounding areas. These impacts would typically relate to sense of place, traffic, infrastructure requirements, crime and nuisance factors. However, a number of developments in the Klapmuts area could also be compound employment and economic income **benefits.**

Mitigation measures

Many of the negative socio-economic impacts that were identified (summarised below) could be mitigated by introducing the measures proposed by various specialists that must be considered as requirements for approval of the development. Monitoring of specifically the social impact and assessing the outcomes over time would further enhance the social and economic fabric within the development and the surrounding communities.

Summary of mitigation measures suggested for the different impacts:

Impact	Mitigation measures
	Construction phase
Large construction vehicular traffic	The TISs recommends several road improvements that are required to ensure acceptable traffic flows during operations. These improvements should also ease the traffic flows during the estimated 5-year construction phase.
Nuisance factors (dust and noise)	Dust and noise emissions during the construction period should be minimised by means of a Construction Environmental Management Plan (CEMP).
Influx of job-seekers	Contractors need to show a commitment to employ people from the Stellenbosch and Drakenstein Municipalities whenever possible.
Increase in local crime	Co-operation between the Developer and contractors and on-site security measures, such as perimeter fencing, controlled access and security guards and patrols will minimise the risk.
	Operational phase
Sense of place – surrounding land-users	Mitigation measures were proposed in the Visual Impact Assessments and Heritage Impact Assessment and should be implemented by the Developers
Surrounding property values: Existing residential erven	Implementation of the recommendations made by the various specialists to mitigate potential negative impacts (such as visual, traffic and nuisance factors) will be essential to minimise negative impacts for surrounding landowners.
Increased vehicular traffic	The TISs recommends several road improvements that are required to ensure acceptable traffic flows during operations.
Increase in local crime	Local residents must be employed to reduce the level of unemployment in the Klapmuts area. On-site security measures, such as perimeter fencing, controlled access and security guards and patrols could also discourage criminals from the area.
Bulk infrastructure capacity	Recommendations were made in the Civil Engineering Services Report to ensure the appropriate infrastructure for the various bulk services is provided by the Developer.

9.3 Recommendations

The following **recommendations with specific reference to the socio-economic context** are proposed to address various matters related to Application 1 and 2 of the Stellenbosch Bridge development. The mitigation measures proposed in the following table should be consolidated into an Implementation Plan.

Phase	Mitigation measures
Pre-construction	**Procurement Strategy** that includes the following and applies to the Stellenbosch Bridge development: (f) Conduct a skills audit among the local Klapmuts residents, especially the unemployed to ascertain their ability and skills to accept employment during the construction phase ; (g) Initiate the activity for both Application 1 and 2; (h) Strategy is the responsibility of the contractor(s) collectively under the guidance of Stellenbosch Bridge; (i) Focus on opportunities for local labour in the surrounding areas and businesses as a priority. Contractors are required to provide an indication of the geographical location of sub-contractors (businesses) and local labour they intend to use or employ on the project over the duration of the construction phase; and (j) Local contractors in the Stellenbosch and Drakenstein areas be invited to tender for work in the context of the terms and conditions included in RFP documentation.
Pre-construction & Construction	**Communication Protocols** that address directly and indirectly affected residents and surrounding land owners, with specific reference to activities, timelines and intended impacts related to the construction phase and all related activities associated with the implementation of the project (i.e. during the operational phase). **Objectives** • To orientate, generate awareness and gain positive attitudes among stakeholders as far as possible; and • To engage and inform stakeholders of progress regarding all phases of construction. **Target audience** • Property owners and users of the land portions directly surrounding the proposed activity; and • Other stakeholders and property owners that may be affected. **Major types of messages** • Inform directly affected residents on the periphery of the site earmarked for the project others that would frequent the area; • Commencement date for construction activities related to the project; • Duration and extent of the construction activities and where applicable, with an emphasis on individual activities; • Progress updates, including any delays with a construction-related activity; and • Ensure appropriate signage is introduced to warn persons frequenting the area, those residing adjacent to the development area.
Operations	Develop a mechanism for business opportunities within the development that will assist to balance larger and smaller business interests in terms of service provision and creating a socially sustainable community.
Pre-construction and Construction	The **Protocol for Social Management (PSM)** is a working framework document that identifies key measurement indicators and sets out the procedures for tracking, monitoring, calculating and verifying the impacts associated with the project. This PSM must be used for the planning and establishment of Applications 1 and 2. Adherence to a PSM framework is necessary for the successful measurement and tracking of the impacts associated with the development during the construction phases of Applications 1 and 2.

Phase	Mitigation measures
	The PSM framework should be developed into an action plan that will be prepared in terms of the conventions indicated in Section 8 of the Report.

9.4 Impact statement

The Stellenbosch Bridge Development with specific reference to Applications 1 and 2 in the Klapmuts area of the Stellenbosch Municipality, is supported on condition that the recommendations/mitigation measures included in this report, are implemented. In addition, the recommended enhancement and mitigation measures contained in other specialist reports and those required to support mitigation of several impacts identified and assessed in the Socio-economic Impact Assessment report, should be implemented.

The Protocol for Social Management (PSM) must be used for the planning and establishment of the project before and during the construction phase. Adherence to a Social Management Protocol framework is necessary to establish a vibrant and sustainable Klapmuts community and for the successful implementation and management thereof during construction.

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ANNEXURE A: REGISTER OF STAKEHOLDER RESPONSES

A register of stakeholders or representatives that were contacted for their comments are provided below.

Respondent	Affiliation	Contact number	Email-address	Date of interaction
Emily Fredericks	Ward Councillor: Stellenbosch Municipality (Ward 18)		Emily.Fredericks@ stellenbosch.gov.za	Email 30/03/2020
Patricia Botha	Stellenbosch Interest Group Chairperson	021 886 4741 021 887 6727	info@stellenboschinterestgroup.org bothapatricia@gmail.com	Email 30/03/2020
Andre Pelser	Stellenbosch Ratepayers		secretary@stellenboschratepayers.org andre_p@mweb.co.za	Email 30/03/2020
Hannes van Zyl	Stellenbosch Heritage Foundation: Chairman		hannesvanzyl@mweb.co.za hannesvzee@gmail.com	Email 30/03/2020
	Farm Re/1460 MULDERSVLEI ESTATES PTY LTD	0218844433	info@muldersvlei.co.za	Email 30/03/2020
	Farm 1/1063 DELHEIM WINES PTY LTD	021-8884600	accounts@delheim.com	Email 30/03/2020
	Farm Re/744 LE BONHEUR WINE ESTATE PTY LTD	021-8895001	Rebekka.swiegers@lavenir.co.za	Email 30/03/2020
	Farm 5/742 STELLENBOSCH WINE AND COUNTRY ESTATE	021-9134938 021-9134921 0824648700	kgg@diamant.za.com	Email 30/03/2020
	Farm 7/774 BABYLONS TOREN PTY LTD	0218085600 0767394949	Carmen@babylonstoren.com	Email 30/03/2020
	Farm 5/737 CULTURA FRESH PTY LTD	0834547236	marianne@culturafresh.co.za	Email 30/03/2020

ANNEXURE B: IMPACT RATING METHODOLOGY

The significance of each potential impact, with and without the implementation of the proposed mitigation measures, is assessed based on the following variables (evaluation components):

- **Extent** (spatial scale);
- **Magnitude**;
- **Duration** (time scale);
- **Probability** of occurrence;
- **Irreplaceable** loss of resources; and
- **Reversibility** of the impact.

The evaluation components, ranking scales and descriptions for assessing these impacts are provided below.

Evaluation components, ranking scales and descriptions (criteria)

Evaluation Component	Ranking Scale and Description (Criteria)
MAGNITUDE of NEGATIVE IMPACT (at the indicated spatial scale)	**10 - Very high (negative)**: Biophysical and/or social functions and/or processes might be *severely* altered. **8 - High (negative)**: Biophysical and/or social functions and/or processes might be *considerably* altered. **6 - Medium (negative)**: Biophysical and/or social functions and/or processes might be *notably* altered. **4 - Low (negative)**: Biophysical and/or social functions and/or processes might be *slightly* altered. **2 - Very Low (negative)**: Biophysical and/or social functions and/or processes might be *negligibly* altered. **0 - Zero**: Biophysical and/or social functions and/or processes will remain *unaltered.*
MAGNITUDE of POSITIVE IMPACT (at the indicated spatial scale)	**10 - Very high (positive)**: Biophysical and/or social functions and/or processes might be *substantially* enhanced. **8 - High (positive)**: Biophysical and/or social functions and/or processes might be *considerably* enhanced. **6 - Medium (positive)**: Biophysical and/or social functions and/or processes might be *notably* enhanced. **4 - Low (positive)**: Biophysical and/or social functions and/or processes might be *slightly* enhanced. **2 - Very Low (positive)**: Biophysical and/or social functions and/or processes might be *negligibly* enhanced. **0 - Zero**: Biophysical and/or social functions and/or processes will remain *unaltered.*
DURATION	**5 - Permanent** **4 - Long term**: Impact ceases after Operational Phase/life of the activity (~ 20 years). **3 - Medium term**: Impact might occur during the Operational Phase/life of the activity (0 to 20 years). **2 - Short term**: Impact might occur during the Construction Phase (~ 1 year). **1 - Immediate**
EXTENT (or spatial scale/influence of impact)	**5 - International**: Beyond National boundaries. **4 - National**: Beyond Provincial boundaries and within National boundaries. **3 - Regional**: Beyond 5 km of the proposed development and within Provincial boundaries. **2 - Local**: Within 5 km of the proposed development. **1 - Site-specific**: On site or within 100 m of the site boundary. **0 - None**
IRREPLACEABLE (loss of resources)	**5 - Definite** loss of irreplaceable resources. **4 - High** potential for loss of irreplaceable resources. **3 - Moderate** potential for loss of irreplaceable resources. **2 - Low** potential for loss of irreplaceable resources. **1 - Very low** potential for loss of irreplaceable resources. **0 - None**
REVERSIBILITY (of impact)	**5 - Impact cannot** be reversed. **4 - Low** potential that impact might be reversed. **3 - Moderate** potential that impact might be reversed. **2 - High** potential that impact might be reversed. **1 - Impact will be** reversible. **0 - No** impact.

Evaluation Component	Ranking Scale and Description (Criteria)
PROBABILITY (of occurrence)	**5 - Definite:** >95% chance of the potential impact occurring. **4 - High probability:** 75% - 95% chance of the potential impact occurring. **3 - Medium probability:** 25% - 75% chance of the potential impact occurring. **2 - Low probability:** 5% - 25% chance of the potential impact occurring. **1 - Improbable:** <5% chance of the potential impact occurring.

Definition of significance ratings (positive and negative)

Significance Points	Environmental Significance	Description
125 – 150	Very high (VH)	An impact of very high significance will mean that the project cannot proceed, and that impacts are irreversible, regardless of available mitigation options.
100 – 124	High (H)	An impact of high significance which could influence a decision about whether or not to proceed with the proposed project, regardless of available mitigation options. **Cumulative impacts:** The activity is one of several similar past, present or future activities in the same geographical area, and might contribute to a very significant combined impact on the natural, cultural, and/or socio-economic resources of local, regional or national concern.
75 – 99	Medium-high (MH)	If left unmanaged, an impact of medium-high significance could influence a decision about whether or not to proceed with a proposed project. Mitigation options should be re-evaluated at.
40 – 74	Medium (M)	If left unmanaged, an impact of medium significance could influence a decision about whether or not to proceed with a proposed project. **Cumulative impacts:** The activity is one of a few similar past, present or future activities in the same geographical area, and might have a combined impact of moderate significance on the natural, cultural, and/or socio-economic resources of local, regional or national concern.
<40	Low (L)	An impact of low is likely to contribute to positive decisions about whether or not to proceed with the project. It will have little real effect and is unlikely to have an influence on project design or alternative motivation. **Cumulative impacts:** The activity is localised and might have a negligible cumulative impact.
+	Positive impact (+)	A positive impact is likely to result in a positive consequence/effect, and is likely to contribute to positive decisions about whether or not to proceed with the project.

Once the evaluation components have been ranked for each impact, the significance of the potential impact should be calculated using the following formula:

SP (Significance Points) = (Magnitude + Duration + Extent + Irreplaceable + Reversibility) X Probability

The maximum value is 150 SP (Significance Points).

ANNEXURE C: SUMMARY OF IMPACTS

Summary of impacts during Construction

PROJECT ALTERNATIVE	POTENTIAL ENVIRONMENTAL IMPACT/ NATURE OF IMPACT	ENVIRONMENTAL SIGNIFICANCE																		PROPOSED MITIGATION
		BEFORE MITIGATION									AFTER MITIGATION									
		M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	
Potential social impacts on local communities during construction																				
Traffic flows along access routes																				
Application 1	The movement of large construction and related vehicles will affect traffic flows along access routes	10	2	3	0	1	5	80	M-H (-)	II	6	2	3	0	1	5	60	M (-)	M-H (-)	The TISs recommends several road improvements required for acceptable traffic flows during operations. These improvements should also ease the traffic flows during the estimated 5-year construction phase.
Application 2		10	2	3	0	1	5	80	M-H (-)	II	6	2	3	0	1	5	60	M (-)	M-H (-)	
"No-Go"	No additional impact linked to proposed site	-	-	-	-	-	-	-	-	-										
Nuisance factors (dust and noise)																				
Application 1	Construction activities create dust and noise at the development site that would affect nearby receptors	8	2	2	0	1	5	65	M (-)	M-H (-)	6	2	2	0	1	5	55	M (-)	M (-)	Dust and noise emissions during the construction period should be minimised by means of a Construction Environmental Management Plan (CEMP).
Application 2		8	2	2	0	1	5	65	M (-)	M-H (-)	6	2	2	0	1	5	55	M (-)	M (-)	
"No-Go"	No additional impact linked to proposed site	-	-	-	-	-	-	-	-	-										
Influx of job-seekers																				
Application 1	An influx of job seekers will lead to competition with local residants for employment opportunities	8	2	2	0	1	5	65	M (-)	M-H (-)	6	2	2	0	1	5	55	M (-)	M (-)	Contractors need to show a commitment to employ people from the Stellenbosch and Drakenstein Municipalities whenever possible.
Application 2		8	2	2	0	1	5	65	M (-)	M-H (-)	6	2	2	0	1	5	55	M (-)	M (-)	
"No-Go"	No additional impact linked to proposed site	-	-	-	-	-	-	-	-	-										
Local crime																				
Application 1	The presence of construction workers may increase the risk of criminal activities in the surrounding area	8	2	1	1	1	4	52	M (-)	M (-)	4	2	1	1	1	4	36	L (-)	L (-)	Co-operation between the Developer and contractors and on-site security measures, such as perimeter fencing, controlled access and security guards and patrols will minimise the risk.
Application 2		8	2	1	1	1	4	52	M (-)	M (-)	4	2	1	1	1	4	36	L (-)	L (-)	
"No-Go"	No additional impact linked to proposed site, but vacated buildings could attract squatters or criminals.	-	-	-	-	-	-	-	-	-										

Summary of Impacts during Operations

PROJECT ALTERNATIVE	POTENTIAL ENVIRONMENTAL IMPACT/ NATURE OF IMPACT	ENVIRONMENTAL SIGNIFICANCE																		PROPOSED MITIGATION
		BEFORE MITIGATION									AFTER MITIGATION									
		M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	
Potential social impacts on local communities during operations																				
Sense of Place: Adjacent landusers																				
Application 1	The proposed development will affect the sense of place for the surrounding land users	6	5	2	1	5	4	76	M-H (-)	M-H (-)	4	5	2	1	5	3	51	M (-)	M (-)	Mitigation measures were proposed in the Visual Impact Assessments and Heritage Impact Assessment and should be implemented by the Developers.
Application 2		6	5	2	1	5	4	76	M-H (-)	M-H (-)	4	5	2	1	5	3	51	M (-)	M (-)	
"No-Go"	The site would most likely deteriorate further	-	-	-	-	-	-	-	-	-										
Provision of housing																				
Application 1	The residential component will address a growing demand for housing in the Stellenbosch Municipal area	10	5	2	0	0	5	85	M-H (-)	H (+)										No mitigation applies as it represents a positive impact.
Application 2		10	5	2	0	0	5	85	M-H (-)	H (+)										
"No-Go"	No contribution towards housing	-	-	-	-	-	-	-	-	-										
Surrounding property values: Existing residential erven																				
Application 1	A new development may affect the current and future perceived value of other properties in the surrounding area	6	5	2	1	3	3	51	M (-)	M (-)	2	5	2	1	3	3	39	L (-)	M (-)	Implementation of the recommendations made by the various specialists to mitigate potential negative impacts (such as visual, traffic and nuisance factors) will be essential to minimise negative impacts for surrounding landowners.
Application 2		6	5	2	1	3	3	51	M (-)	M (-)	2	5	2	1	3	3	39	L (-)	M (-)	
"No-Go"	No additional impact linked to proposed site	-	-	-	-	-	-	-	-	-										
Surrounding property values: Unimproved land																				
Application 1	A new development may affect the current and future perceived value of other properties in the surrounding area	4	5	3	1	5	2	36	L (+)	L (+)										No mitigation applies as it represents a positive impact.
Application 2		4	5	3	1	5	2	36	L (+)	L (+)										
"No-Go"	No additional impact linked to proposed site	-	-	-	-	-	-	-	-	-										
Traffic flows along access routes																				
Application 1	The large residential and industrial components will increase vehicular movement along the access routes.	10	5	3	0	1	5	95	M-H (-)	H (-)	8	5	3	0	1	5	85	M-H (-)	H (-)	The TISs recommends several road improvements that are required to ensure acceptable traffic flows during operations.
Application 2		6	5	3	0	1	5	75	M-H (-)	M-H (-)	4	5	3	0	1	5	65	M (-)	M-H (-)	
"No-Go"	No additional impact linked to proposed site	-	-	-	-	-	-	-	-	-										

Summary of impacts during Operations

PROJECT ALTERNATIVE	POTENTIAL ENVIRONMENTAL IMPACT/ NATURE OF IMPACT	ENVIRONMENTAL SIGNIFICANCE																		PROPOSED MITIGATION
		BEFORE MITIGATION									AFTER MITIGATION									
		M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	
Potential economic impacts on local communities during operations																				
Local crime																				
Application 1	Effective security at the proposed development is essential to safeguard against criminal elements	6	5	2	1	1	4	60	M (-)	M-H (-)	2	5	2	1	1	3	33	L (-)	M (-)	Local residents must be employed to reduce the level of unemployment in the Klapmuts area. On-site security measures, such as perimeter fencing, controlled access and security guards and patrols could also discourage criminals from the area.
Application 2		6	5	2	1	1	4	60	M (-)	M-H (-)	2	5	2	1	1	3	33	L (-)	M (-)	
"No-Go"	No additional impact linked to proposed site, but vacated buildings could attract squatters or criminals.	-	-	-	-	-	-	-	-	-										
Bulk infrastructure requirements/contributions																				
Application 1	Infrastructure requirements relate to the provision of bulk infrastructure for sewerage, water and electrical supply, solid waste disposal and stormwater management	4	5	3	0	1	4	52	M (-)	M (-)	2	5	3	0	1	3	33	L (-)	M (-)	Recommendations were made in the Civil Engineering Services Report to ensure the appropriate infrastructure for the various bulk services is provided by the Developer.
Application 2		4	5	3	0	1	4	52	M (-)	M (-)	2	5	3	0	1	3	33	L (-)	M (-)	
"No-Go"	No additional infrastructure demand linked to proposed site	-	-	-	-	-	-	-	-	-										
Local business development																				
Application 1	A new development will create opportunities for small businesses in the goods and services sectors	4	5	3	0	0	5	60	M (+)	M-H (+)										No mitigation applies as it represents a positive impact.
Application 2		8	5	3	0	0	5	80	M-H (+)	H (+)										
"No-Go"	No additional impact linked to proposed site	-	-	-	-	-	-	-	-	-										
New employment opportunities																				
Application 1	The project will create new employment opportunities for people with different types and levels of skills	8	5	3	0	0	5	80	M-H (+)	H (+)										No mitigation applies as it represents a positive impact.
Application 2		10	5	3	0	0	5	90	M-H (+)	H (+)										
"No-Go"	No additional impact linked to proposed site.	-	-	-	-	-	-	-	-	-										
Revenue accruing to public authorities																				
Application 1	Monetary benefits accrue to the Stellenbosch Municipality in the form of property rates and other utility charges such as water and electricity	6	5	3	0	0	5	70	M (+)	M-H (+)										No mitigation applies as it represents a positive impact.
Application 2		8	5	3	0	0	5	80	M-H (+)	H (+)										
"No-Go"	No additional impact linked to proposed site	-	-	-	-	-	-	-	-	-										

ANNEXURE D: APPENDIX 6 CHECKLIST

Compliance with Appendix 6 of the National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations, 2014

Requirements of Appendix 6 of the 2014 EIA Regulations	Included in the report in:
(1) A specialist report prepared in terms of these Regulations must contain-(a) details of- (i) the specialist who prepared the report; and (ii) the expertise of that specialist to compile a specialist report including a *curriculum vitae*;	Section 1.1, Annexure F
(b) a declaration that the specialist is independent in a form as may be specified by the competent authority;	Annexure E
(c) an indication of the scope of, and the purpose for which the report was prepared;	Section 1: Introduction & Terms of Reference
(cA) an indication of the quality and age of base data used for the specialist report;	Section 1.5: Limitations
(cB) a description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change;	Section 2: Project description and Section 7: Assessment of Impacts
(d) the duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment;	No site visit has been conducted due to the lock down
(e) a description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	Section 1.3: Approach & Methodology
(f) details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternatives;	Section 2: Project description
(g) an identification of any areas to be avoided, including buffers;	N/A
(h) a map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;	Section 2: Project description
(i) a description of any assumptions made and any uncertainties or gaps in knowledge;	Section 1.4 & 1.5: Assumptions and Limitations
(j) a description of the findings and potential implications of such findings on the impact of the proposed activity or activities;	Section 7: Assessment of Impacts
(k) any mitigation measures for inclusion in the EMPr;	Section 9.3: Recommendations
(l) any conditions for inclusion in the environmental authorisation;	Section 9.3: Recommendations
(m) any monitoring requirements for inclusion in the EMPr or environmental authorisation;	Section 8.2
n) a reasoned opinion- (i) whether the proposed activity or portions thereof should be authorised; and (iA) regarding the acceptability of the proposed activity or activities; and (ii) if the opinion is that the proposed activity, activities or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan;	Section 9.4: Impact Statement
(o) a description of any consultation process that was undertaken during the course of preparing the specialist report;	Section 1.3 and Annexure A
(p) a summary and copies of any comments received during any consultation process and where applicable all responses thereto; and	Section 6: Perceptions and Concerns of key stakeholder groups. Reponses to comments are provided as part of the EIA process and are included in a Comments and Response table prepared by the EAP.
(q) any other information requested by the competent authority.	Not applicable
(2) Where a government notice gazetted by the Minister provides for any proposal or minimum information requirement to be applied to a specialist reports, the requirements as indicated in such notice will apply.	Report prepared in accordance with Economic and Social Specialist input Guidelines issued by Department of Environmental Affairs and Development Planning.

ANNEXURE E: DECLARATION OF INDEPENDENCE

environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

33 Cynaroides Street
Paradyskloof, Stellenbosch
7600

DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

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

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

PROJECT TITLE

Socio-Economic Impact Assessment for Applications 1 and 2 of the proposed Stellenbosch Bridge development in Klapmuts, Stellenbosch

Specialist:

Contact person:	Multi-Purpose Business Solutions		
Postal address:	Dr. Jonathan Bloom		
Postal code:	33 Cynaroides Street, Paradyskloof, Stellenbosch		
Telephone:	7600	Cell:	083 299 8523
E-mail:	021-880 0774	Fax:	086 500 2546
Professional affiliation(s) (if any)	jzbloom@mweb.co.za		

Project Consultant:

Contact person:	Aubrey Withers		
Postal address:	PO Box 12410, Die Boord		
Postal code:	7613		
Telephone:	021-887 4000	Cell:	083 658 8744
E-mail:	aubrey@legacyemc.co.za	Fax:	021-205 1966

4.2 The specialist appointed in terms of the Regulations_

I, **Jonathan Bloom**, declare that –

General declaration:

I act as the independent specialist in this application;

I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;

I declare that there are no circumstances that may compromise my objectivity in performing such work;

I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;

I will comply with the Act, Regulations and all other applicable legislation;

I have no, and will not engage in, conflicting interests in the undertaking of the activity;

I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;

All the particulars furnished by me in this form are true and correct; and

I realise that a false declaration is an offense in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Signature of the specialist:

Multi-Purpose Business Solutions cc
Name of company (if applicable):

April 2020
Date:

ANNEXURE F: ABBREVIATED *CURRICULUM VITAE* OF SPECIALIST

DR. JONATHAN BLOOM

NAME:	Jonathan Zorah Bloom
ID NUMBER:	670626 5061 081
CURRENT STATUS:	Managing Member, Multi-Purpose Business Solutions cc
NATIONALITY:	South African Citizen
DATE OF BIRTH:	26 June 1967
HEALTH:	Excellent
MARITAL STATUS:	Married, with two children
LINGUISTIC ABILITIES:	Proficient in English and Afrikaans
ADDRESS (Office):	33 Cynaroides Street, Paradyskloof, Stellenbosch, 7600 P.O. Box 12814, Die Boord, Stellenbosch, 7613 Telephone: +27-21-880 0774 Mobile: +27-83-299 8523 Fax: +27-21-880 1721 E-mail: jbloom@mpbs.co.za

EDUCATION AND QUALIFICATIONS

1985: Matriculation at Paarl Boys' High School, Paarl
1989: BComm, Stellenbosch University
1990: HonsBComm (*cum laude*), Stellenbosch University
1992: MComm (*cum laude*), Stellenbosch University
2001: PhD (Corporate Finance), Stellenbosch University

EMPLOYMENT AND ACADEMIC EXPERIENCE

1 January 2008 to 31 July 2013: Part-time Professor of Corporate Finance, specialising in Real Estate Investment and Financing, Stellenbosch University.

1 July 2001 to 31 December 2007: Professor of Corporate Financial Management, specialising in Real Estate Investment and Financing, Stellenbosch University, with a special interest in business development.

2003 to April 2019: Director of Blue Cube Systems (Pty) Ltd and Blue Cube Intellectual Property Company (Pty) Ltd, private sector companies in the ICT industry.

1995 to present: Managing Member of Multi-Purpose Business Solutions, a niche business advisory and economic development consulting firm with a specific focus on the public and government sector.

1 July 2000 to 30 June 2001: Executive Manager of Chartered Alliance (Pty) Ltd, with assigned responsibility for the Business Services Unit within the Lateral Corporate Finance division of Chartered Alliance.

1 July 1999 to 30 June 2000: Executive Director of Crusader Systems (Pty) Ltd, charged with establishing a presence for the Business Solutions Group in the financial services industry.

1 January 1991 to 30 June 1999: Lecturer in the Department of Business Management, Stellenbosch University.

BUSINESS AND ADVISORY EXPERTISE

- Public transport (IPTN) business development and implementation
- Project Management
- Public-Private-Partnership facilitation and procurement
- Commercialisation Initiatives
- Real Estate Development Services
- Financial Appraisals and Feasibility Studies
- Social and Economic Impact Assessments
- Customer Surveys
- Local Economic Development Planning with project development focus
- Member of the Technical Assistance Unit (TAU) of the National Treasury as a professional service provider (Number - 1295 TAU)
- Member of the Public Private Partnership (PPP) Unit of the National Treasury as a professional service provider (Number - 1137 PPP UNIT)

ACHIEVEMENTS

- Y-rating from the National Research Foundation (NRF), which recognises the research and development potential of young researchers (2003).
- Member of the National Research Foundation (NRF) assessment panel for Masters and PhD prestige scholarships.
- Rector's award for Excellence in Research (2003), Stellenbosch University.

SELECTION OF PROJECT INVOLVEMENTS RELATED TO SOCIO-ECONOMIC IMPACT ANALYSES

- Socio-Economic Impact Assessment for the Lucullus Gardens mixed-use development, Joostenberg (Northern District of the CMA) for Joostenberg Developments (Pty) Ltd.
- Socio-Economic Impact Assessment for the Darwin Road housing development, Joostenbergvlakte, for Lukhozi Consulting Engineers.
- Socio-Economic Impact Assessment for the Longlands Manor development in Vlottenburg, Stellenbosch for Legacy Environmental Consulting.
- Socio-Economic Impact Assessment for the proposed expansion of the Afro Fishing facility in the Port of Mossel Bay for Afro Fishing (Pty) Ltd.
- Economic impact assessment and financial modelling for the development of Waterfront in the Port of Mossel Bay for Transnet National Ports Authority (TNPA)
- Socio-Economic Impact Assessment for Substantive Amendment Application for the Levendal Development in Southern Paarl for Val de Vie Investments (Pty) Ltd.
- Socio-Economic Impact Assessment for the River Farm development in Paarl for Val de Vie Developments (Pty) Ltd.
- Socio-Economic Impact Statement for the proposed Paarl Valleij Estate in Northern Paarl for Paarl Valleij Developments (Pty) Ltd.
- Socio-Economic Impact Assessment for the proposed Gourits Abalone Farm, in association with PHS Consulting.
- Socio-economic Impact Assessment for the proposed Vlottenburg Village development on Vredenheim Farm, Stellenbosch, in association with Withers Environmental Consultants.
- Financial Economic analysis and preparation of an Investment Decision-making Platform as an input for the George Settlement Restructuring Strategy. RoyalHaskoning DHV commissioned the assignment.

- Economic impact assessment of the construction phase for the redevelopment of the Somerset Precinct in the Cape Town area for Department of Public Works, Western Cape in association with Rode and Associates.
- Socio-economic impact assessment for the development of two mariculture sites off the coast of the Eastern Cape for the Department of Environmental Affairs and Development Planning in association with Cape Environmental Practitioners, George.
- Economic Impact Assessment and Social Impact Assessment for the Parklands development in Saldanha Bay on the West Coast for Parklands Township Developers (Pty) Ltd.
- Socio-Economic Impact Assessment for development on a portion of the farm Constantia Uitsig and expansion of the tourism and hospitality facilities on the Farm.
- Socio-Economic Impact Assessment for the development of a residential estate in Melkbosstrand, Cape Town, for Nuplan Africa.
- Economic Impact Assessment and Social Impact Assessment with a social development focus for the Bella Riva development in the Durbanville region of the Cape Town Metropolitan Area of the Western Cape.
- Socio-Economic Impact Assessment for the development of two Wind Energy Facilities (Goereesoe and Kluitjieskraal) near Swellendam for Inca Energy (Pty) Ltd.
- Socio-Economic Impact Assessment for the proposed development of the Clover Wind and Solar Energy facility near Darling, Swartland Municipal area.
- Socio-Economic Impact Assessment for the proposed development of the Storm Photovoltaic Plant, Saldanha Bay, for Midnight Storm Investments 184 (Pty) Ltd.
- Socio-Economic Impact Assessment for the proposed development of Organic Recycling Processing Facility on Portion 2 of the Farm Olyphantsfontein No. 935, Malmesbury, for Soil and More Reliance.
- Socio-Economic Impact Assessment for the proposed development of the Dysselsdorp RE-Power PV Plant, near Oudtshoorn, Western Cape, for Dysselsdorp RE-Power (Pty) Ltd.
- Socio-Economic Baseline Assessment for the proposed Schaap Kraal Philippi Horticultural Area (PHA), Cape Town, for MSP Developments (Pty) Ltd.
- Socio-Economic Impact Assessment for the development of the Boy's High Sports Facility in Paarl for the Paarl Boy's High School.
- Social Impact Assessment with a social development focus for the Bosbokkamp Residential development in Stilbaai, Western Cape for Asla Devco (Pty) Ltd.
- Economic Impact Assessment and Social Impact Assessment for an upmarket residential estate in Paarl for Rhebokskloof Properties (Pty) Ltd.
- Socio-Economic Assessment for the proposed development of a sports facility for the Paarl Boys' High School. The School commissioned the assignment.
- Socio-economic Impact Assessment for the proposed Hoek van de Berg Marine and Coastal Reserve, Overstrand, for Saddle Path Properties 79 (Pty) Ltd.
- Socio-Economic Impact Assessment for the establishment of a Regional landfill site in the Worcester area, Western Cape Province, for Jan Palm Consulting Engineers.
- Socio-Economic Impact Assessment for a mixed-use development on the Vredenheim Farm in Stellenbosch for Withers Environmental Consultants (ongoing).
- Socio-Economic Impact Assessment for the establishment of an Organic Recycling Facility on Farm Corona No. 480, Paarl, Western Cape, for Resource Management Services (ongoing).
- Socio-Economic Impact Assessment for the establishment of the Frakendale Industrial Park north of Cape Town for Kohler Bricks (Pty) Ltd.
- Socio-Economic Impact Assessment for the development of a mixed-use development around the Brandwag Dam in Worcester, Western Cape for Tresso Trading 915 (Pty) Ltd (ongoing).
- Economic impact assessment for the development of a Sun International Resort on Sentosa Island, Singapore. The assignment was commissioned jointly by International Real Estate Appraisals and Sun International South Africa.
- Economic impact assessment for the development of a themed attraction in the Ezulwini Valley, Swaziland, for KPMG (S.A).
- Socio-economic impact analysis of hotel developments on the local and regional communities in the Helderberg Basin, Western Cape, for Quaypower Properties Plc, United Kingdom.

- Socio-economic impact assessment for the development of an Africa Theme Park and Resort in Gauteng for Stewart Scott International in association with KPMG (S.A.).
- Economic impact assessment for the development of the Salama Waterfront in Dar es Salaam, Tanzania, for Atos-KPMG and International Real Estate Appraisals.
- Economic Impact Assessment and Social Impact Assessment for the establishment of Waverenskroon Country Estate in Tulbagh for L'eritage Nouveau Development Company (Pty) Ltd.
- Economic Impact Assessment and Social Impact Assessment for the establishment of Dalskroon Retirement Village in Tulbagh for Midnight Masquerade 267 (Pty) Ltd.
- Economic Impact Assessment for the establishment of residential development at Doringbaai for Doringbaai Hoogtes Eiendomsbelegging (Edms) Bpk.
- Economic Impact Statement for the establishment of an Apartment Complex at Hawston near Hermanus in the Overstrand region of the Western Cape for Portland Eiendoms Ontwikkeling (Edms) Bpk.
- Economic Impact Assessment and Social Impact Assessment for the establishment of the Salmonsvlei-Wes Residential estate in Paarl for Keynote Trading and Investments 50 (Pty) Ltd.
- Economic Impact Assessment and Social Impact Assessment for the development of the proposed Middelberg Eco- and Country Estate in Stanford, Overstrand for the Wright Approach Consultancy of Hermanus.
- Economic Impact Assessment and Social Impact Assessment for the development of the Compagnes Drift Residential Estate in Botrivier, Theewaterskloof, for the Wright Approach Consultancy.
- Economic Impact Assessment and Social Impact Assessment for the development of a hotel and apartment complex at Gansbaai (Danger Point) in the Overstrand region of the Western Cape for Great White Limited, a UK-based development firm.
- Economic Impact Assessment and Social Impact Assessment for the multi-million Rand Destiny Africa development in George, Southern Cape, for Kuriakos Design & Management Consultancy.
- Economic Impact Assessment and Social Impact Assessment for the Groenfontein mixed-use Development in Klapmuts, Stellenbosch, for Frantius Property Investments (Pty) Ltd.
- An economic impact assessment with a social development focus for a mix of components comprising agriculture estate units, a lodge with conference facility, a farm stall, wine cellar and restaurant known as the Stellenbosch Wine and Country Estate in the Stellenbosch area. Stellenbosch Wine and Country (Pty) Ltd commissioned the study.
- Economic impact assessment for a residential development, boutique lodge and retail village in the Sundays River area of the Eastern Cape for Premier Residential Development (Pty) Ltd.
- Economic impact assessment for the Statue of Freedom multi-purpose development in Nelson Mandela Bay Metropolitan Municipality for the Nelson Mandela Metropolitan Municipality in association with Atos-KPMG.
- Socio-Economic Impact Assessment for a lifestyle resort in the Somerset East area of the Eastern Cape Midlands for the Blue Crane Development Agency.
- Socio-Economic Impact Assessment for the development of a golf estate and hotel (primary application) at Stellenbosch for Paradyskloof Golf Estates (Pty) Ltd. The assignment entails the evaluation of a primary application and two alternatives, one being agriculture (vineyards and olive orchards).
- Socio-Economic Impact Assessment for the development of a golf links and residential estate at L'Agulhas for Prop Access (Pty) Ltd (a Gauteng-based empowerment group).
- Socio-Economic Impact Assessment for a commercial shopping centre development in Hout Bay, Western Cape, for the Alliance Property Group.
- Economic Impact Assessment and Social Impact Assessment with a social development focus for a Shopping centre development in the Gordon's Bay region of the Cape Town Metropolitan Area of the Western Cape.
- Socio-Economic Impact Assessment for the development of a residential development in Vleesbaai, on the Southern Cape Coast, for Amanzi Moya Developments (Pty) Ltd.

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ANNEXURE Q

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DEVELOPMENT MANUAL

2020

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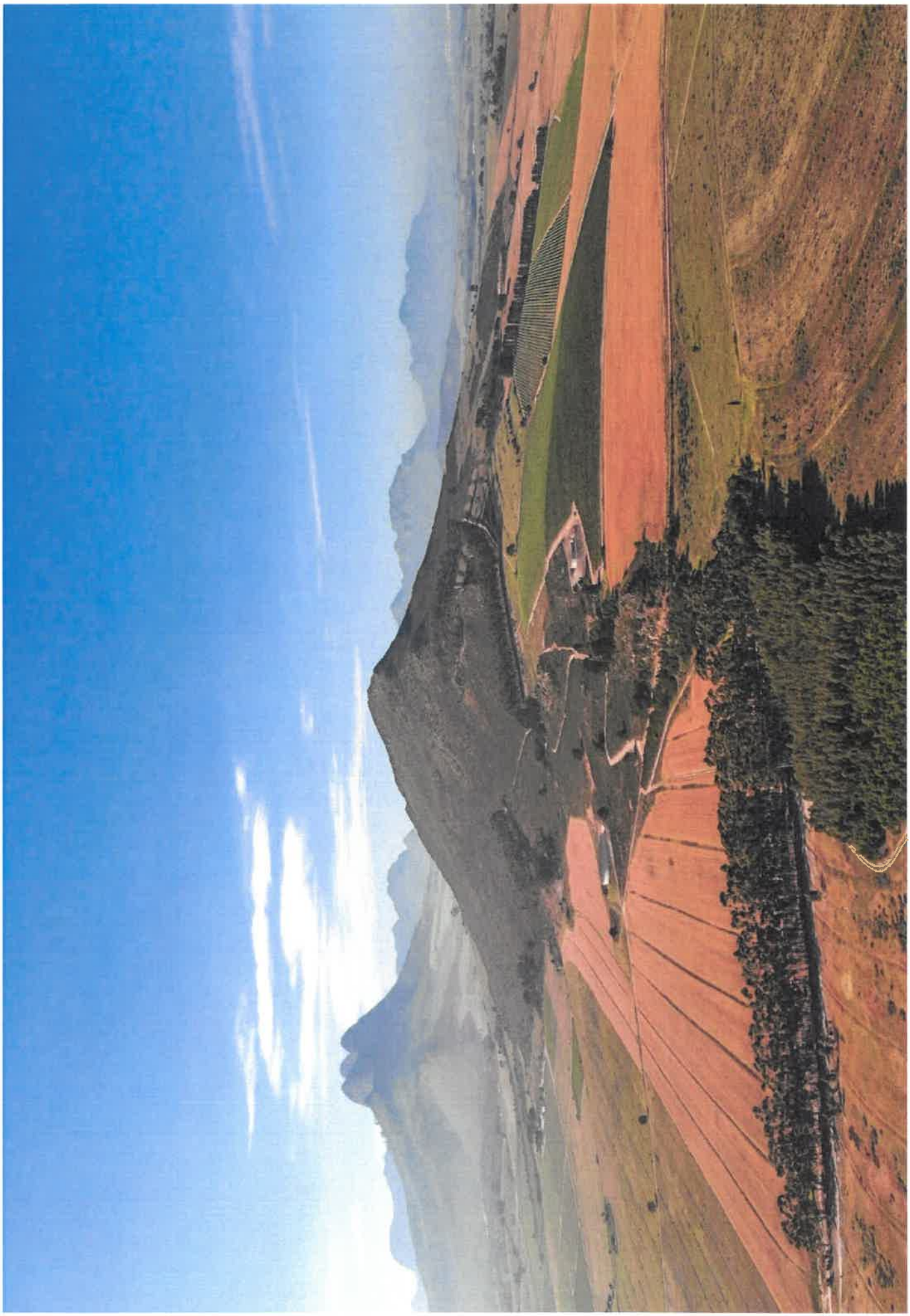


CONTENTS

SECTION 1:

1.1. INTRODUCTION

This design manual manages the development of the architectural and environmental identity of the Stellenbosch Bridge Precinct. It has been prepared by the developers and their professional team and aims to establish, maintain and control the architectural character and unique architectural identity of Stellenbosch Bridge, without inhibiting the individual's creativity and style.

The elements that form the essence of the Stellenbosch Bridge architectural character and the control of these elements are explained in this document. These control elements are, amongst other things; the covering, overhangs, pitch, colour and articulation of the roofs; all exterior paint colours; the street and environmental interfaces; the appearances and proportions of the window and door openings penetrating wall surfaces and the relationships between buildings. Pictures within this document are suggestive and for clarity, to avoid misinterpretations and to ensure consistency of Architectural elements within the precinct.

By controlling these elements, the full potential of Stellenbosch Bridge will be realized, thus growing the investment that developers will make in their individual properties.

The continued updating of the Architectural Design Manual is necessary to ensure that new properties at Stellenbosch Bridge are developed to maintain the overall Stellenbosch Bridge aesthetic and architectural character. Any amendments within this document supersede previous issues.

NOTE: No decision or waiver which the Developers Assessment Panel or Controlling Architect may approve shall be construed as creating a precedent for future decisions. Strict adherence to the guidelines will be observed. The Developer's Assessment Panel reserves the right to strictly enforce adherence to the guidelines.

The Stellenbosch Bridge Developer's Assessment Panel and the Aesthetic Committee will ensure that the guidelines are complied with during, both design and construction phases of each building project.

Stellenbosch Bridge is aiming for a 5* Greenstar precinct rating, and all buildings are to achieve a minimum 4* Greenstar rating as per the Green Building Council of South Africa (GBCSA) requirements. All buildings in the Stellenbosch Bridge Development need to conform to the Green Star Guidelines. Refer to the Green Building Council of South Africa (GBCSA) Green Star Guidelines in Annexure H. For further information refer to the Green Building Council of South Africa (GBCSA) website: www.gbcsa.org.za.

1.2. CONTROL

The control is through the Stellenbosch Bridge Developer's Assessment Panel and its appointed consultants. The control will be effected by: applying the general restrictions; following a mechanism for plan approvals; applying a code of conduct and rules for construction activities and monitoring construction work on site.

CONTACT DETAILS

Stellenbosch Bridge:
Lorne Dawson : lorne@stb-bridge.co.za

Controlling Architect:
Osmond Lange Architects
Graham Wilson : grahamw@o-l.co.za
Francois Nortje : francoisn@o-l.co.za
Trisha Naik: trishan@o-l.co.za

Building Control Officer:

Controlling Landscape Architects:
Square One Landscape Architects
Julia McLachlan : julia@sq1.co.za

1.3 THE PURPOSE OF THE DEVELOPMENT MANUAL

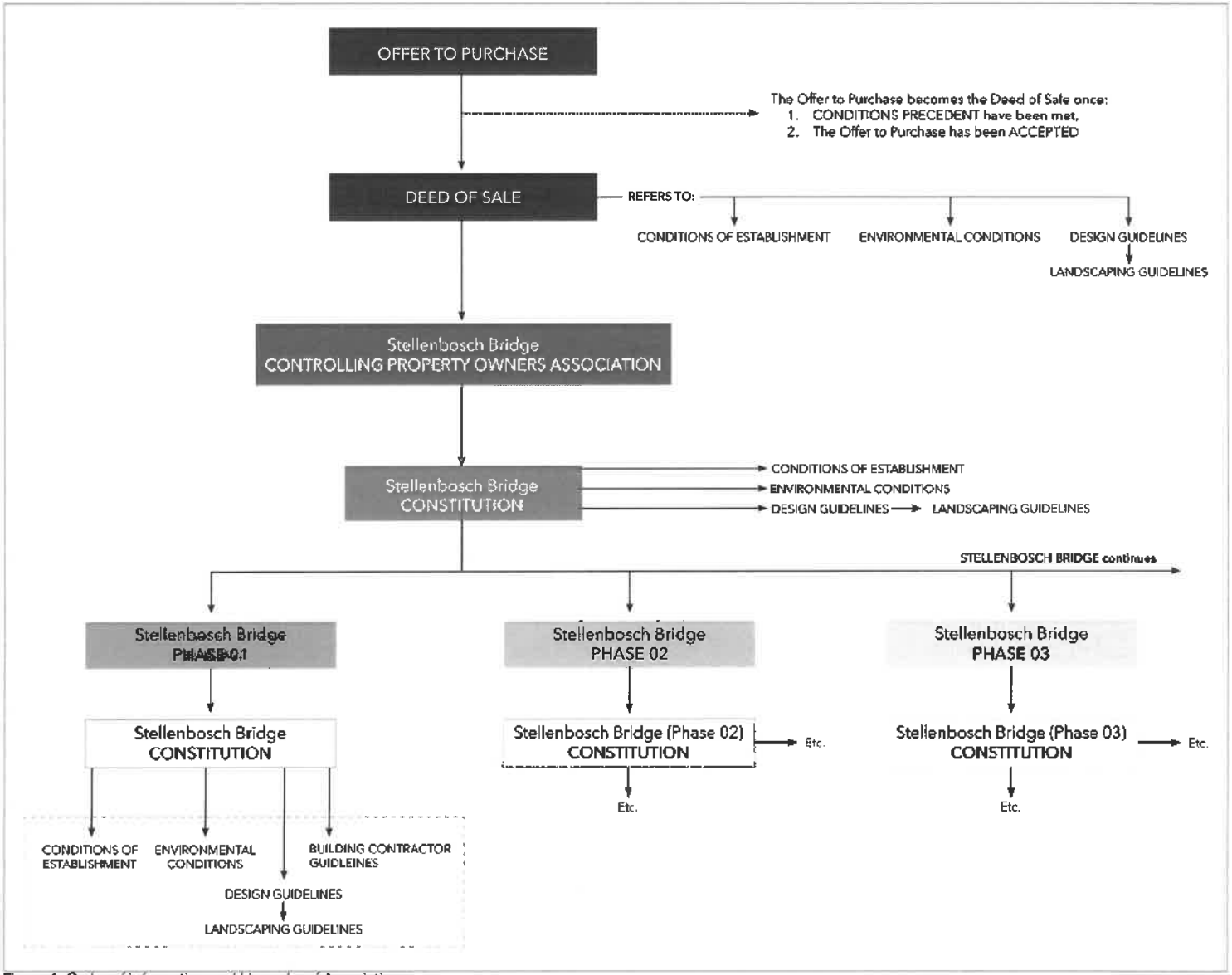


Figure 1. Order of information and hierarchy of Associations

1.4 THE STRUCTURE OF THE DEVELOPMENT MANUAL

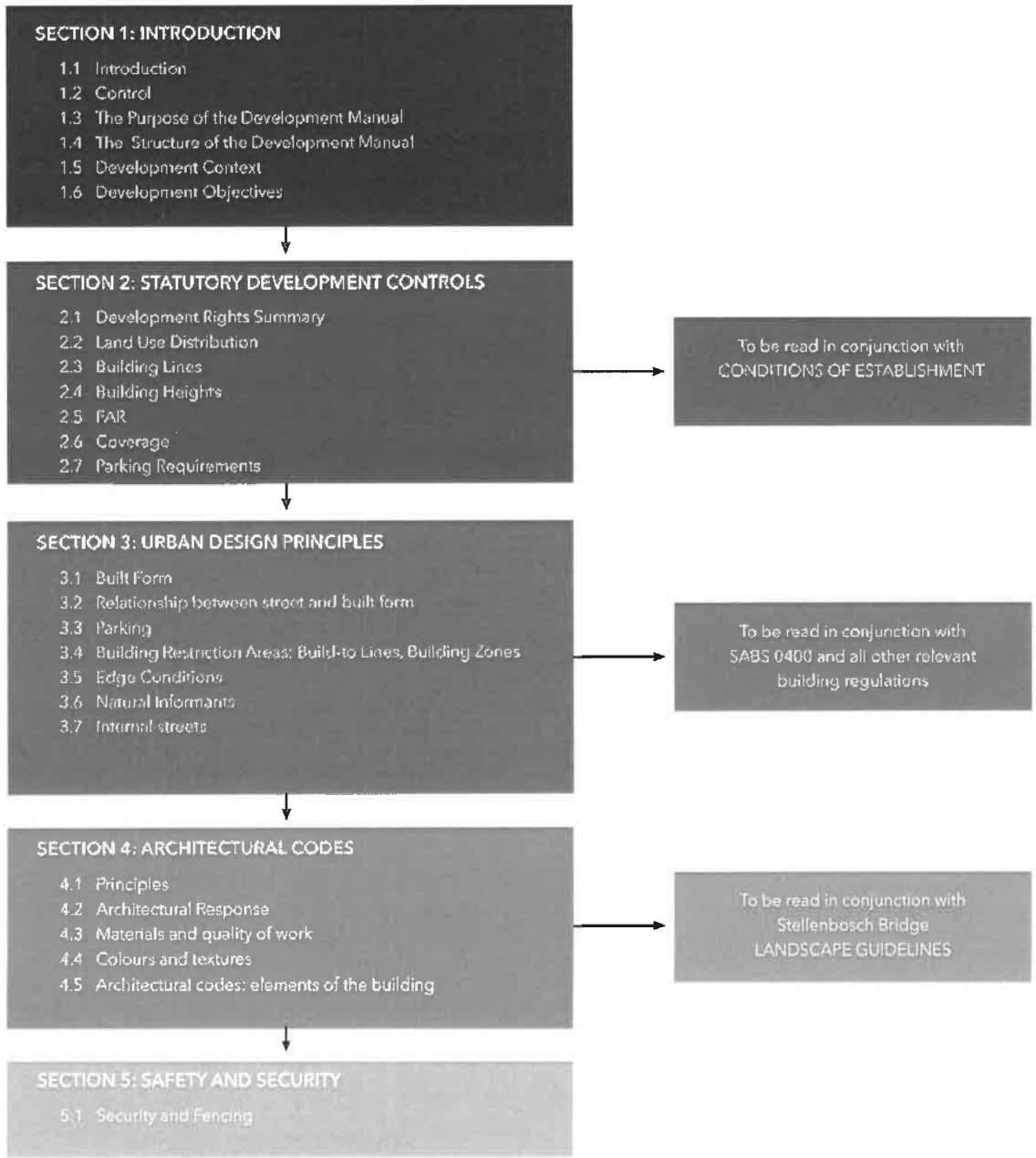


Figure 2. Diagram showing structure of Design Guidelines Development Manual

1.5 DEVELOPMENT CONTEXT

The new Stellenbosch Bridge Development is situated within the Stellenbosch region in the Western Cape Province of South Africa.

The Western Cape Province is South Africa's most popular tourist destination. The area has been named by CNN in 2018 as the world's most beautiful city and is home to the world's longest wine route (Route 62). The region has 13 International Air Connections and the 2nd largest economy in South Africa. The region also has 2 World Heritage sites including Robben Island & Cape Floral Region.

The Stellenbosch Bridge development is located adjacent to the existing Klapmuts settlement.

Klapmuts is currently defined as an important municipal node and is primed to play a much larger role in the region. One of the key characteristics of Klapmuts, is its regional locality and function.

In the future, Stellenbosch Bridge and Klapmuts can develop into a vibrant regional node that forms part of a regional development zone along the N1 freeway.

It is therefore important to acknowledge that Klapmuts cannot be viewed and assessed as part of the Stellenbosch region only. Its location and relationship to two major nodes (Cape Town and Paarl) requires a much wider view of the role it can fulfill in Stellenbosch and the wider region. Klapmuts is also identified as a future growth point in terms of the draft Greater Cape Metro Regional Spatial Implementation Framework (GCMRSIF).

The possibility to grow into a vibrant regional node is premised on the following:

- Stellenbosch Bridge abuts the N1 freeway and has good regional accessibility to the Cape Town metropolitan node and two regional nodes i.e. it is 65 km from the Cape Town CBD, 8,5km from Paarl and 19 km from Stellenbosch;
- The existence of transport infrastructure i.e. the N1 freeway, provincial arterials and rail;
- Employment proximity;
- Developable land;
- An existing community and
- Gateway to the Stellenbosch and Franschhoek Winelands.

Finally, Klapmuts as a regional node, must be developed and managed in a manner that spans the existing municipal boundaries of Stellenbosch and Drakenstein.

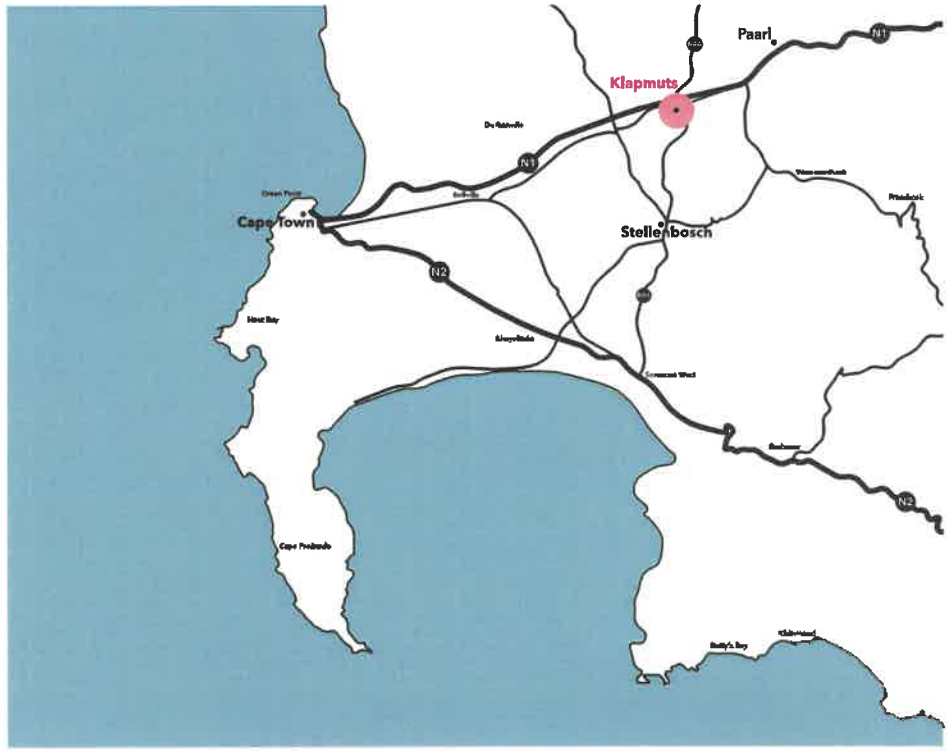
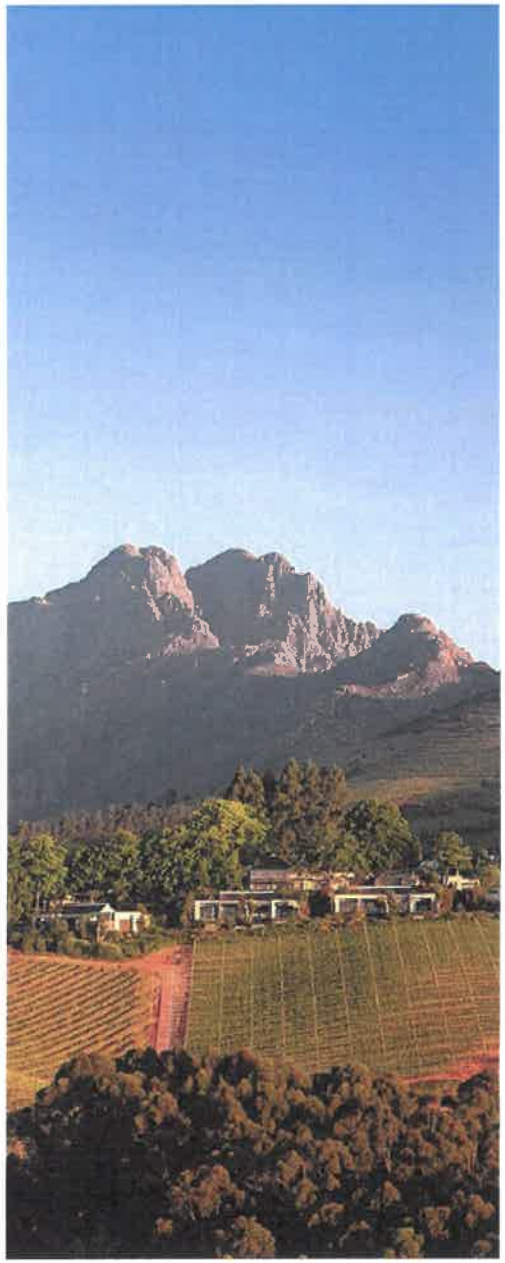


Figure 3. Regional Context

Figure 4. Local Context

Figure 5. Stellenbosch Bridge Site



1.6 DEVELOPMENT OBJECTIVES

The Urban Design Concept for the New Stellenbosch Bridge Smart City Development is based on traditional urban design principles which provides living, working and recreational spaces for a diverse community of people in combination with creating a catalytic environment that provides opportunities for technological and social enhancements which define a smart city.

The Urban Design Vision is based on the following urban design principles:

- Daily needs within walking distance (mixed use)
- Interconnected system of streets
- A central focus: main streets and square
- Perimeter buildings orientated to the public realm
- Clear distinction between private and public space
- Supportive of public transport
- Sharing of infrastructure over a 24 hour period

In addition to the principles listed above, the Innovation Hub is envisaged as an integrated mixed use precinct that is concerned with place making, urban fit and proper spatial integration. Whilst it is a private development it contains the critical elements necessary to contribute significantly to the transformation of Klapmuts, to a spatial continuum designed to be experienced and enjoyed at pedestrian scale across boundaries.

This aim becomes possible because of the critical mass of built form, mix of uses and the relation of mass to a designed external and internal open space system. A place where many different building types, allowing for a variety of experiences and functions such as retail, commerce, education, residential, entertainment, etc are all able to exist side by side within an overall unified whole.

The individual buildings will have strong features, differ in detail, but will be part of the "same family". A North/ South pedestrian street is proposed, linking two main squares acting as a spine, around which all the parts of the development are collected and grouped. The vision proposed is a primarily safe pedestrian environment, in which open walls, streets, squares, plaza's, parks, and sports fields have been articulated as positive spaces, accommodating a wide variety of experiences and functions.

Parking will be accommodated on streets and within courtyards, semi-basements & basements concealed within the development. The vision is underpinned by environmental strategies. From inception the intention with Stellenbosch Bridge is to include all of the best materials and technology required for it to achieve a GBCSA rating. Landscaping and a green environment are integral to the architecture.

Vertical and horizontal planes will be planted, and planting will be integral with the planning and design of the outdoor spaces and courts, which will be wind sheltered and contain features such as arbours, structured planting, fountains, pergolas, street furniture and sculptures.

Stellenbosch Bridge is seen as a "Town within a town". It is envisaged as a 'hub' – a central transport node, including rail; vehicular and pedestrian and as such integrates seamlessly with the surrounding built fabric and its network of routes and connections.

Stellenbosch Bridge maximizes the given site conditions. Advantage has been taken of the magnificent views from the development, whilst the views towards the development have been carefully considered.

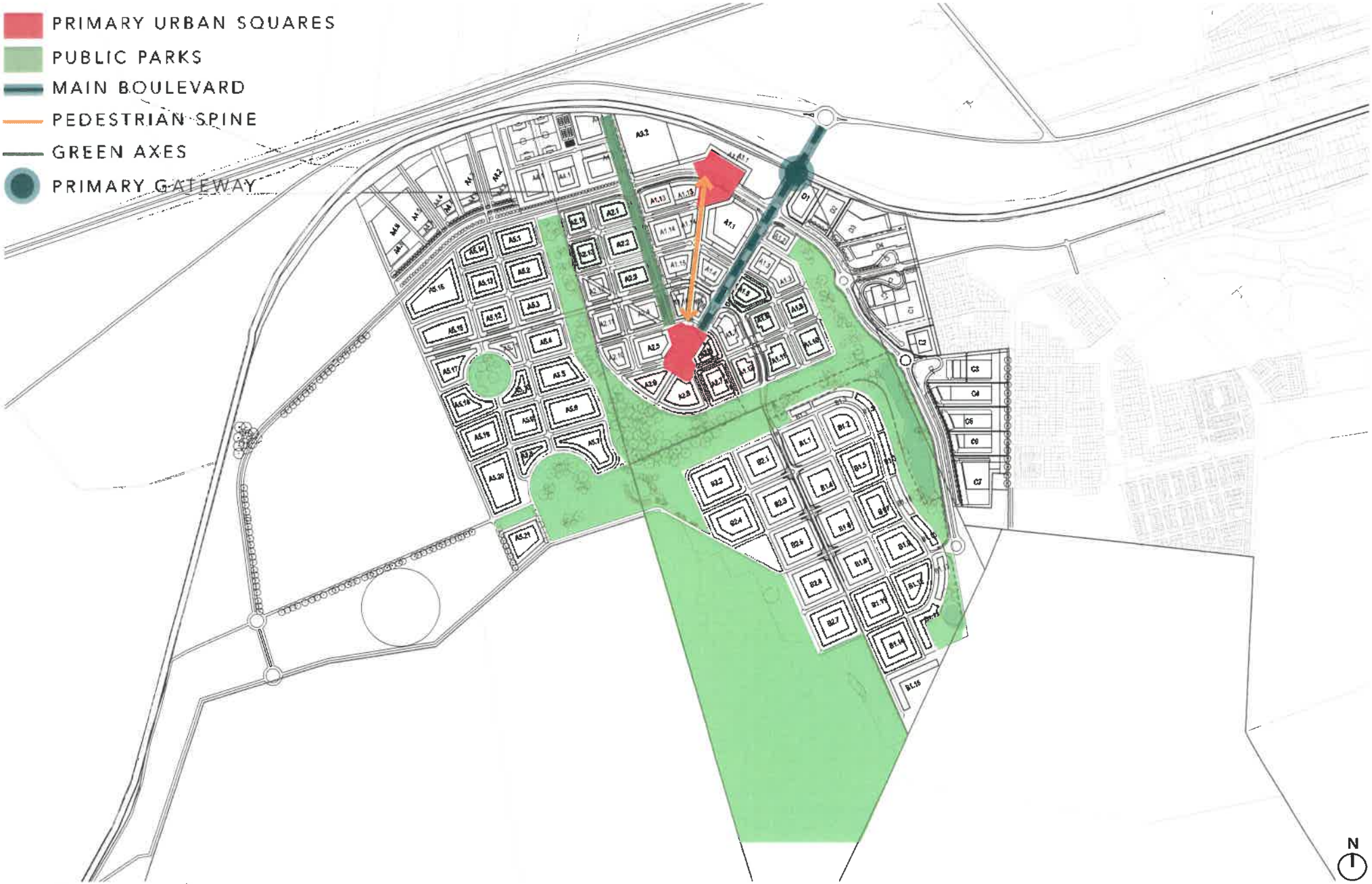


Figure 7. Masterplan – Design Informants

Figure 8. Masterplan

Figure 9.

SECTION 2: DEVELOPMENT RIGHTS

2.1 DEVELOPMENT RIGHTS SUMMARY

Planning Rights Existing:

- 204 Ha included in the Urban Edge (Portions 1-4)
- Approved Planning Rights on 73 Ha (Portion 1) (1 577 Residential Units & 28 000m2 Bulk Commercial & Other)

Planning Rights Future:

Phase 01 - July 2020
Reallocation of existing rights on Portion 1 (73ha) – [1577 residential + 3 450m2 Bulk and 24 550m2 Bulk (Commercial, Education & Other)]

Phase 02 - November 2020
Rezoning & Subdivision of Portion 2 (22ha) [Light Industrial - 94 000m2 Bulk]

Phase 03 - May 2021
Densification on Portions 1 & 3 (73ha) – [2500 residential units & 150 000m² bulk (Mixed-use)]

Phase 04 - September 2021
Rezoning & Subdivision for remaining site area inside Urban Edge on Portion 4 (106ha) – [Bulk to be confirmed (Mixed use)]

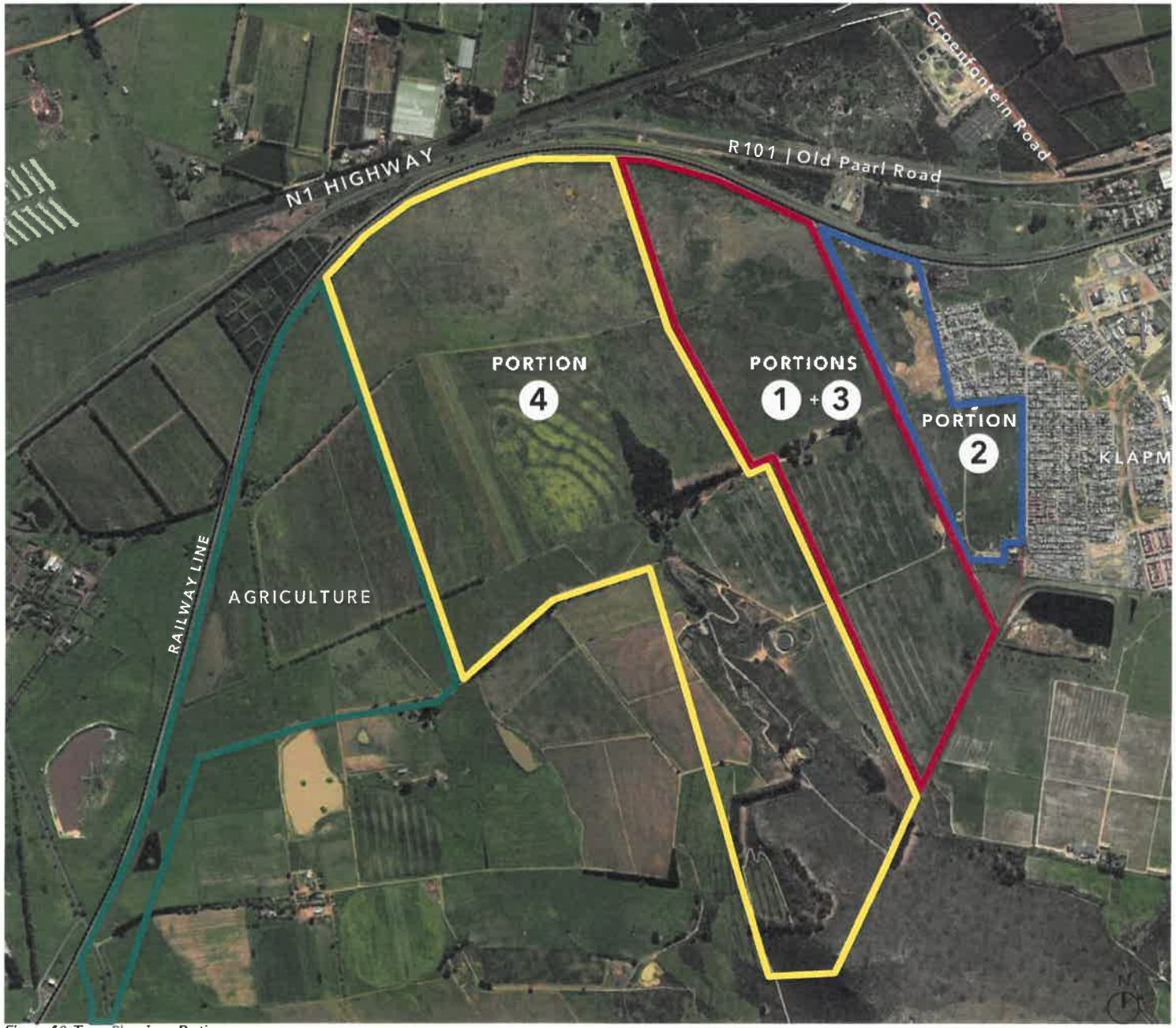


Figure 10. Town Planning - Portions

2.2 LAND USE - DISTRIBUTION

The Innovation Precinct is a mixed use precinct comprising of office,commercial, residential, retail, hotels, entertainment, educational and transport.

There is a low and high density Residential Precinct to the South and an industrial precinct to the west and north of the future Innovation Precinct.

The Education/ School Precinct is located between the transport interchange and Industrial Precinct.

The future Innovation Precinct is envisaged as a mixed use precinct.

This proposed land use mix is indicative and is subject to change based on the bulk application and basket of rights.

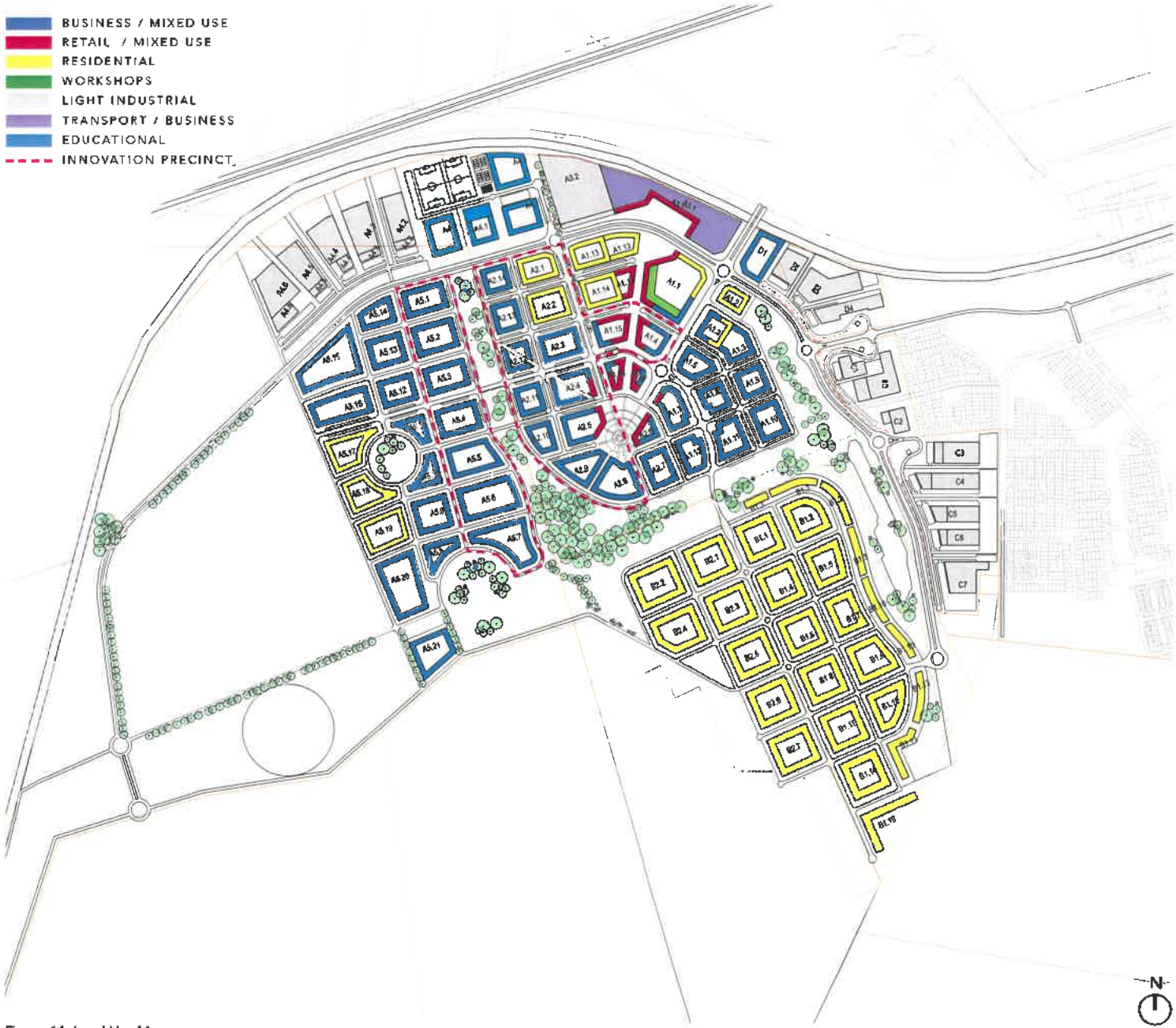


Figure 11. Land Use Map

2.3 BUILDING LINES

2.3.1. STREET BOUNDARY BUILDING LINES (m)

MIXED USE ZONE:

Business Premises	0m
Guest House, hostel, tourist accommodation	4,5m
All other buildings	4,5m

RESIDENTIAL ZONE:

Group housing; Retirement village:	
External	3m
Internal	0m
Flats	4,5m
All other buildings	4,5m

INDUSTRIAL ZONE:

All buildings	3m

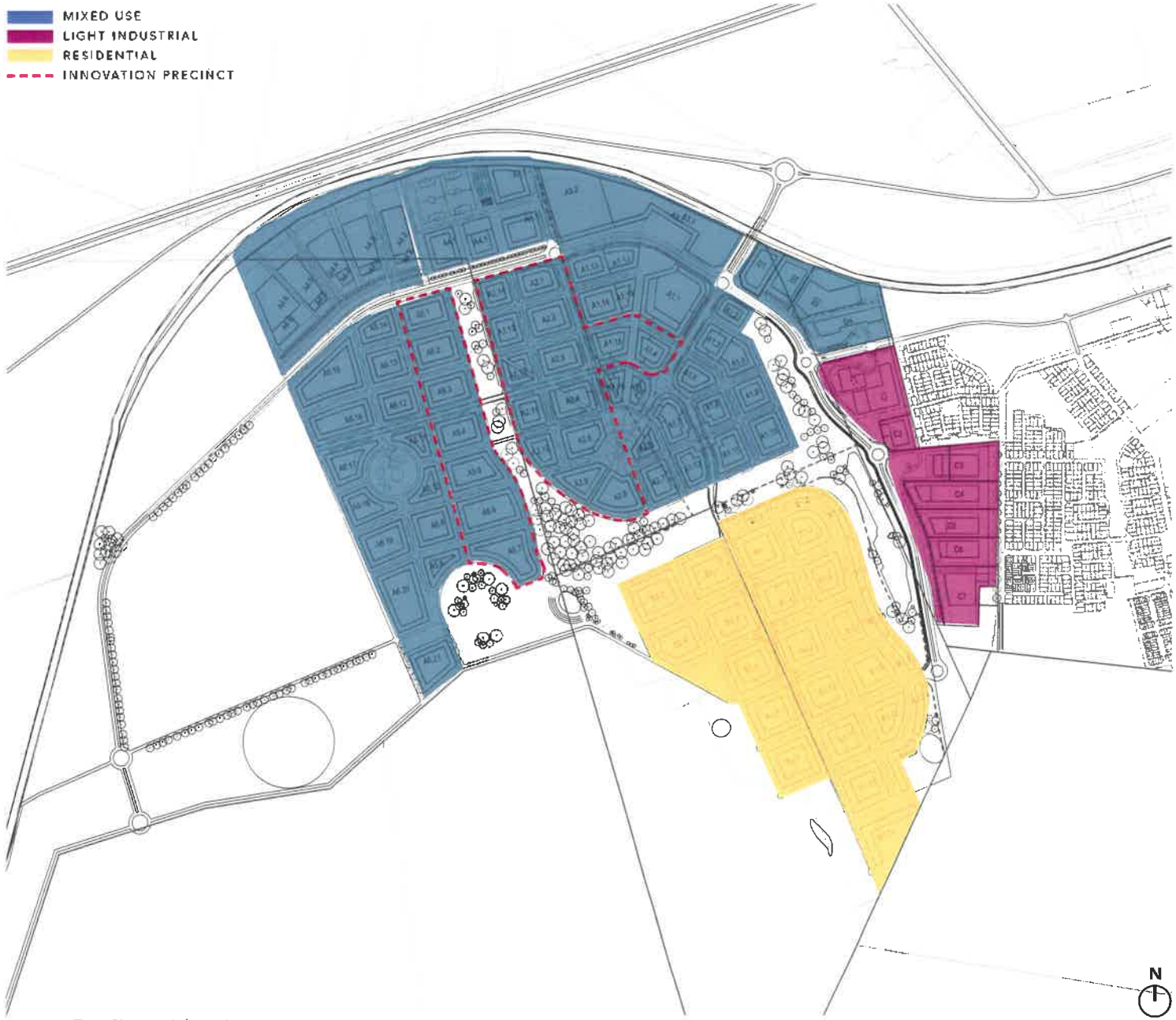


Figure 12. Town Planning Information

2.3.2. COMMON BOUNDARY BUILDING LINES (m)

MIXED USE ZONE:

Business Premises	0m
Guest House, hostel, tourist accommodation:	
Ground Floor	4,5m
First Floor	4,5m
Second Floor	6m
All other buildings	4,5m

RESIDENTIAL ZONE:

Group housing; Retirement village:	
External	3m
Internal	0m
Flats:	
Ground Floor	4,5m
First Floor	4,5m
Second Floor	6m
All other buildings:	
Ground Floor	4,5m
First Floor	4,5m
Second Floor	6m

INDUSTRIAL ZONE:

All buildings	0m
If abutting another zone	3m

Refer to the detail guidelines per land parcel for more detailed information regarding the building lines.

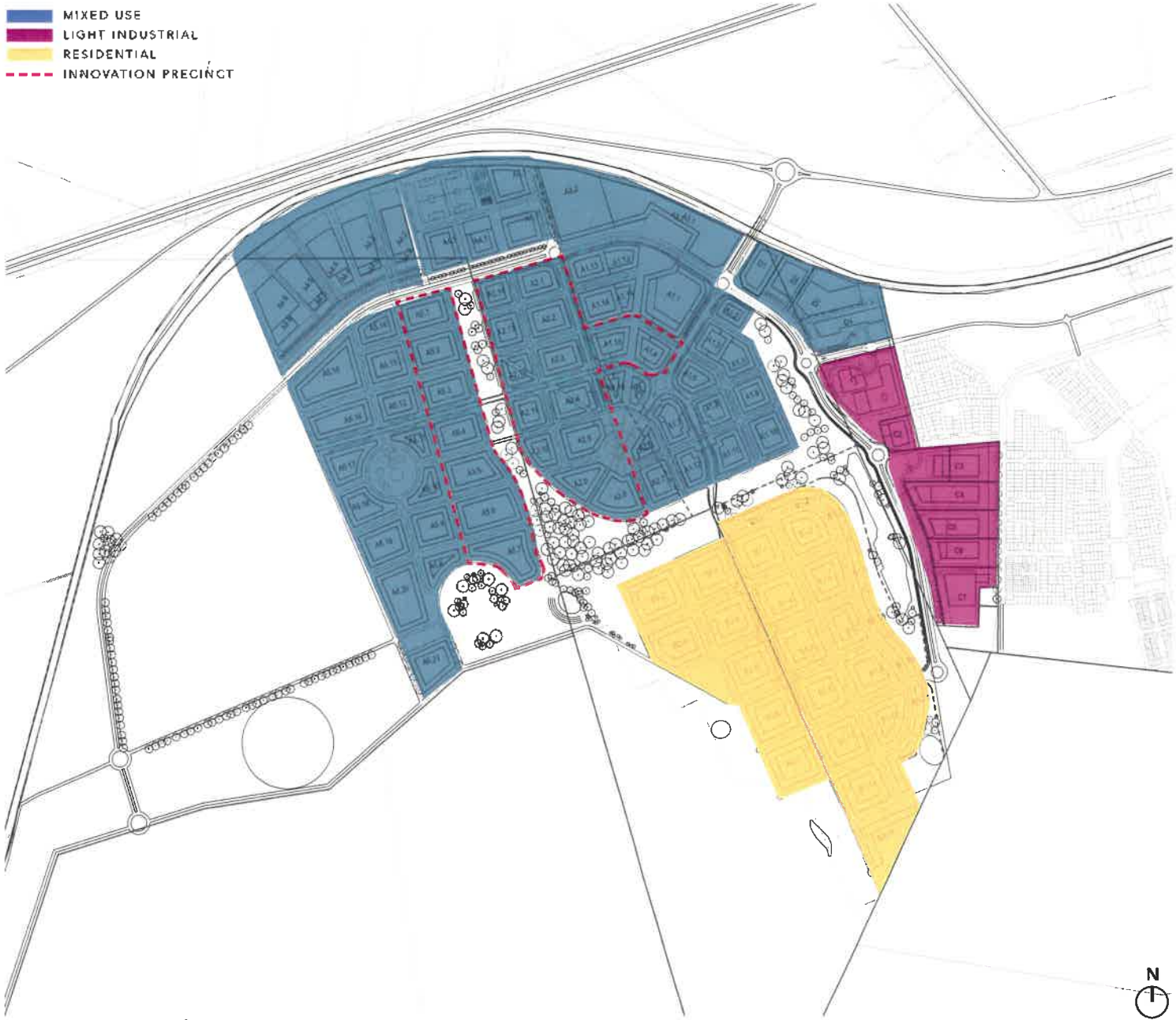


Figure 13. Town Planning Information

2.4 HEIGHT OF BUILDINGS

2.4.1.Heights of buildings are regulated by the controls assigned to each land parcel.

2.4.2 The height restrictions may be relaxed and amended at the discretion of the Local Authorities.

2.4.3 The **height of each storey** is defined as follows:

OFFICE / COMMERCIAL:
- Ground Floor - maximum 6,5m from floor to ceiling (within which a mezzanine floor can be situated, and not count towards a floor).
- Other Floors - maximum 4,5m from floor to ceiling.

RETAIL:
- Ground Floor - maximum 6,5m from floor to ceiling (within which a mezzanine floor can be situated, and not count towards a floor).
- Other Floors - maximum 4,5m from floor to ceiling.

INDUSTRIAL:
Office Component:
- Floor - maximum 6,5m from floor to ceiling (can also include a mezzanine, which does not count as a floor)
- Other Floors - maximum 4,5m from floor to ceiling

RESIDENTIAL:
- Ground Floor - maximum 3,5m from floor to ceiling
- Other Floors - maximum 3,5m from floor to ceiling.

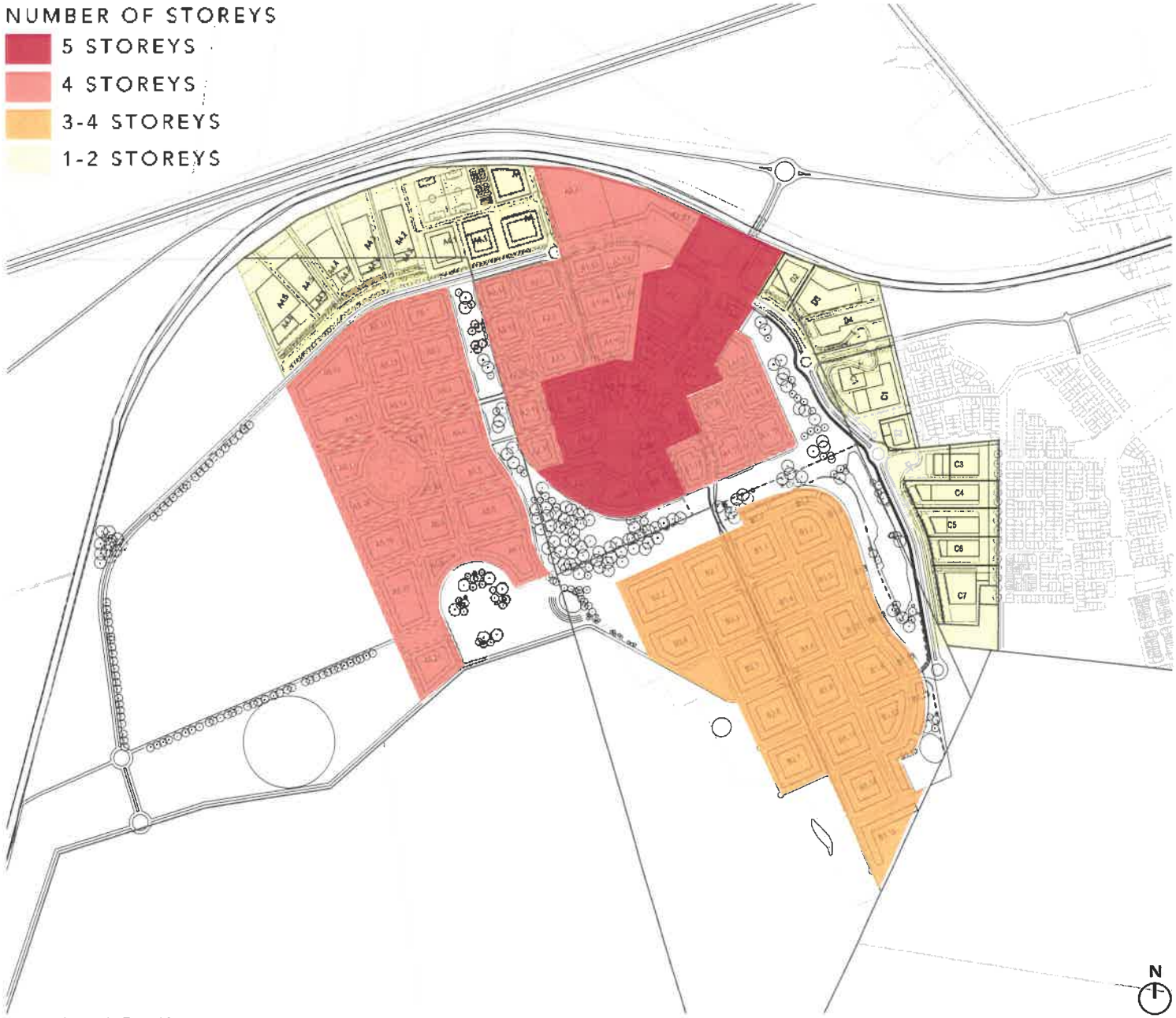


Figure 14. Height Zone Map

2.4 HEIGHT OF BUILDINGS (CONTINUED)

2.3.4. Heights as per Land Use Scheme:

MIXED USE ZONE	STOREYS
Business Premises	6
Guest House, hostel, tourist accommodation:	6
All other buildings	6

RESIDENTIAL ZONE (max height)	STOREYS
Group housing; Retirement village	2
Flats	4
All other buildings	3

INDUSTRIAL ZONE	STOREYS
All buildings	4

2.5 FLOOR AREA

RESIDENTIAL ZONE	
Group housing; Retirement village	n/a
Flats	75%
All other buildings	75%

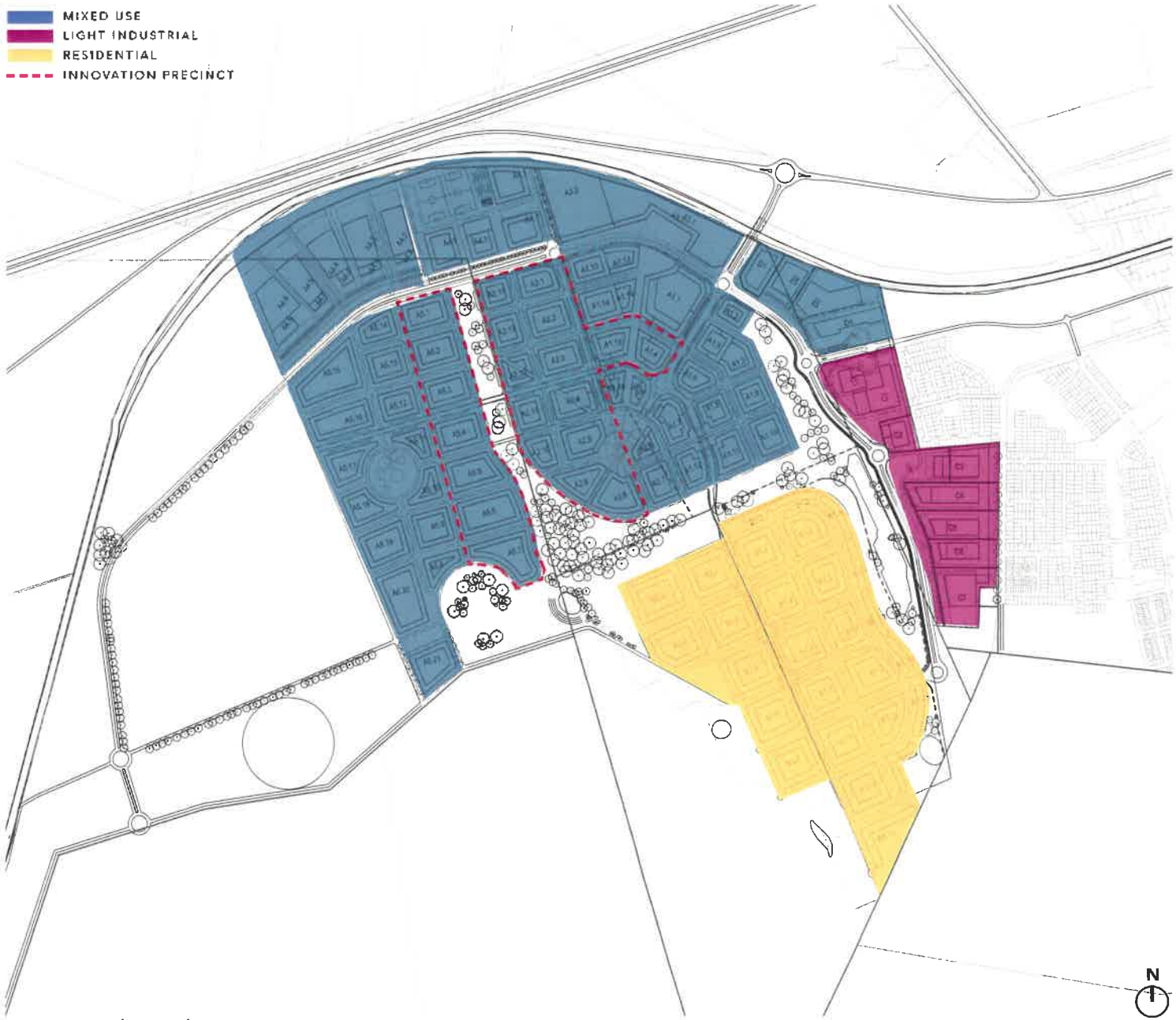


Figure 15. Town Planning Information

2.6 COVERAGE

MIXED USE ZONE:	
Business Premises	85%
Guest House, hostel, tourist accommodation:	50%
All other buildings	85%
RESIDENTIAL ZONE: (max coverage)	
Group housing; Retirement village	50%
Flats	50%
All other buildings	50%
INDUSTRIAL ZONE:	
All buildings	75%

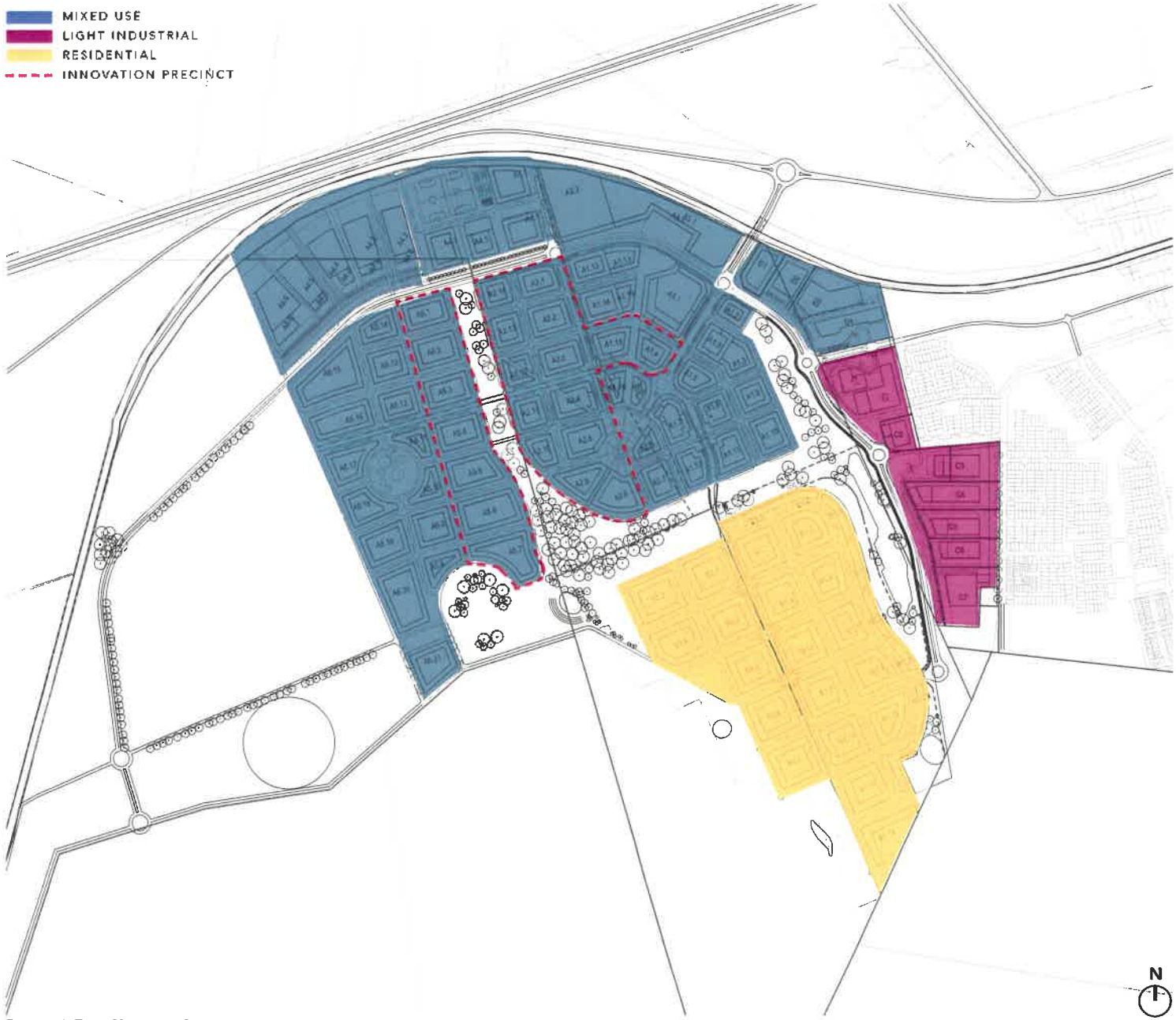


Figure 16. Town Planning Information

2.7 PARKING

TABLE A: OFF-STREET PARKING REQUIREMENTS

Land Use Category	Normal parking	Additional parking reserved for visitors
Residential		
Bed- and breakfast (additional to dwelling)	1 bay/guest bedroom	
Commune	1 bay/bedroom	
Community Residential building: orphanage and old age home	0,3 bay/bedroom	
Dwelling house in all zones except LFR:		
1 bedroom	1 bay/dwelling house	
2 or more bedrooms	2 bays/dwelling house	
Dwelling house in LFR Zone	1 bay/dwelling house	
Flats in all zones except LFR:		
1- & 2-bedroom units	1 bay/dwelling unit	0,5 bay/dwelling unit
3-bedroom units	1,25 bays/dwelling unit	0,5 bay/dwelling unit
4 or more bedroom units	1,5 bays/dwelling unit	0,5 bay/dwelling unit
Flats in LFR Zone:	1 bay/dwelling unit	0,25 bay/unit
Group house:	1 bay/group house	1 bay/unit
Guest house	1 bay/bedroom or suite	
Home lodging (additional to dwelling unit)	1 bay/boarder bedroom	
Hostel	1 bay/bedroom for private hostels; 0,6 bay per bedroom for tertiary institution; nil for schools	
Hotel	0,7 bay/bedroom or suite plus, additional parking for additional facilities accessed by non-guests at the corresponding ratio for the particular land use as set out in this table.	
Backpackers	To be determined by Council based on occupancy and location	
Second dwelling house: all zones except LFR	1 bay/second dwelling	
Second dwelling house in LFR zone	nil	
Tourist accommodation establishment	To Municipality's satisfaction - between 0,7 bays per bedroom and 1 bay per self-catering unit	
Community facilities and medical		
Medical consulting rooms	6 bays/100m² gross leasable area	
Clinics and Hospitals	1 bay/bed plus 3 bays/consulting room	
Day care centre	1 bay/classroom or office	
Extramural facility	1 bay/4 students	
Place of Education	1 bay/classroom	
Business and office		
Business premises: including liquor store, funeral parlour, adult entertainment and similar	4 bays/100m² gross leasable area	
Commercial gymnasium	6 bays/100m² gross leasable area	
Conference facility	0,25 bay/seat	
Filling Station	4 bays/100m² gross leasable area	
Motor showroom: Light Vehicles	3 bays/100m² gross leasable area	
Motor showroom: Medium and Heavy Vehicles	1 bay/100m² gross leasable area with a min of 6 bays plus 1/bay/800m² gross leasable area for heavy vehicles (min 1 bay)	
Motor vehicle fitment centre, repair centre	4 bays per service bay plus 4 bays/100m² gross leasable area: Min 8 bays	
Offices	4 bays/100m² gross leasable area	
Place of entertainment -general	4 bays/100m² gross leasable area	
Cinemas and theatres -in shopping centre	0,1 bay/seat	
-stand-alone	0,25 bay/seat	
Plant nursery	1 bay/100m² gross leasable area (total indoor and outdoor sales area)	
Restaurant	4 bays/100m² gross leasable area	
Service station	4 bays /service bay plus 2 bays/100m² gross leasable area	
Shops (including supermarkets and centres):		
up to and including 1000m²	4 bays/100m² gross leasable area	
>1000m²	6 bays/100m² gross leasable area	
Industrial		
Industry	1,5 bays/100m² gross leasable area	
Warehouse, abattoir, brickworks, builders' yard	1 bay/100m² gross leasable area	
Scrap yard	1 bay/100m² gross leasable area	

Land Use Category	Normal parking	Additional parking reserved for visitors
Tertiary educational institution		
colleges	1 bay/lecture room	0,25 bay/student
university	1 bay/lecture room	0,4 bay /student
Place of worship		
Church	0,4 bay/seat or 40 bays/100m² of seating and aisle area	
Mosque	25 bays/100m2 of net prayer area	
Place of assembly; indoor sport	0,25 bay/seat or 20 bays/100m² gross leasable area	
Outdoor sport	0,25 bay/seat, player or occupant	
Public institution (e.g. library, museum)	2 bays/100m² gross leasable area	
Welfare institution, libraries and museums	2 bays/100m² gross leasable area	

Table 1

SECTION 3: URBAN DESIGN

3.1 BUILT FORM

3.1.1. Stellenbosch Bridge (SB) is currently made up of six distinct precincts:

- **Mixed Use Precinct:** (business / residential / educational / medical / institutional / research & development / data / sport & recreation / tourism / utility service / parking / transport facilities / warehousing & distribution / manufacturing)
- **Light Industrial:** data centers/ commercial/ manufacturing/ warehousing & distribution/ utility service / parking.
- **High Density Residential** (residential /institutional/business/sport & recreation/tourism)
- **Medium Density Residential** (residential /institutional/business/ sport & recreation/tourism)
- **Educational / School Precinct**
- **Future Mixed Precinct Extension** (business / residential / educational / medical / institutional / research & development / data / sport & recreation / tourism / utility service / parking / transport facilities / warehousing & distribution / manufacturing)

3.1.2. The aim is to achieve a built environment and architecture that has commercial value and is adaptable to accommodate tenants' requirements and associated technological changes.

This Section deals with the Mixed Use Precinct.

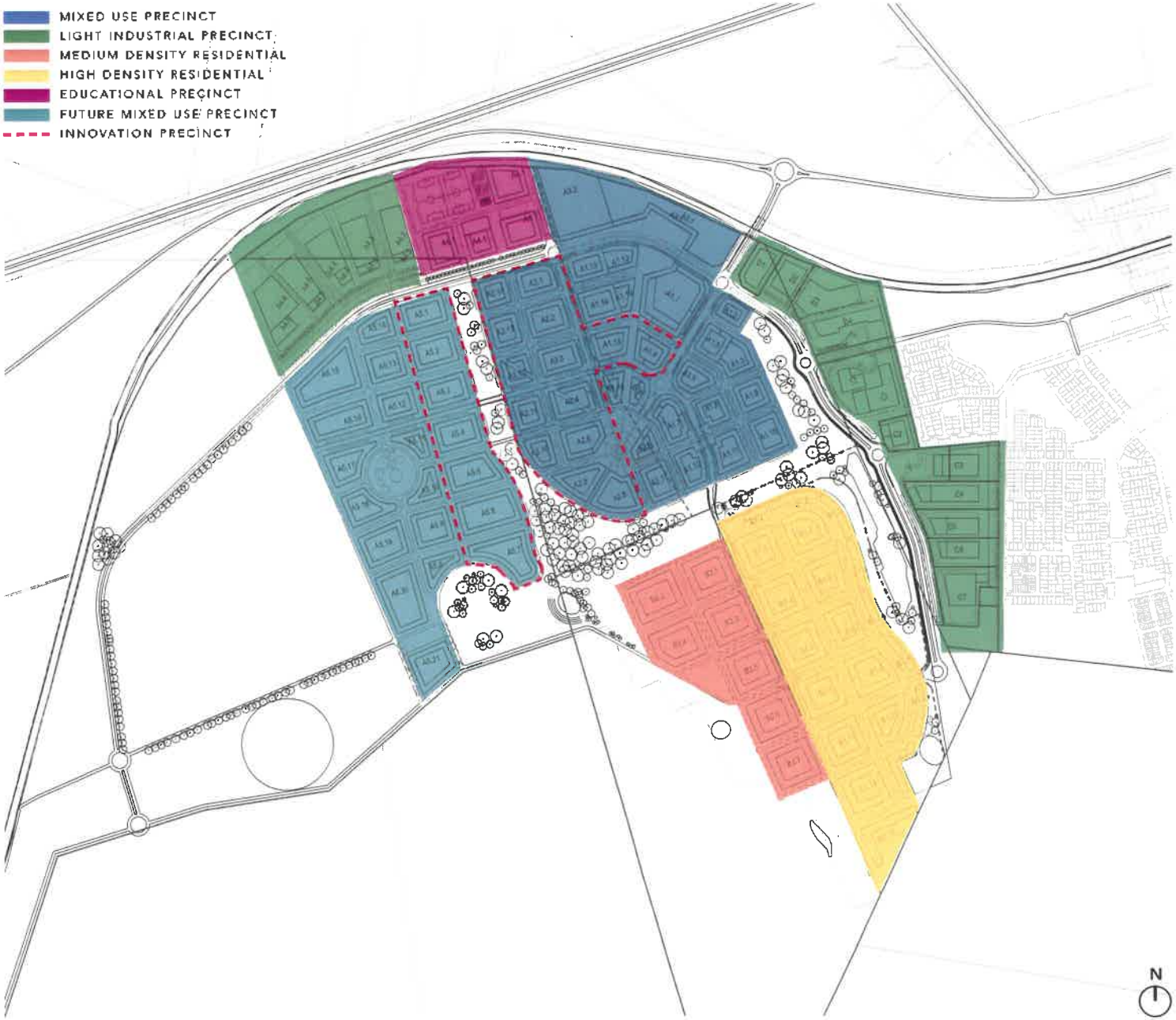


Figure 17. Stellenbosch Bridge Precincts

Figure 18. Public Space Hierarchy

STELLENBOSCH BRIDGE | MOVEMENT ROUTES

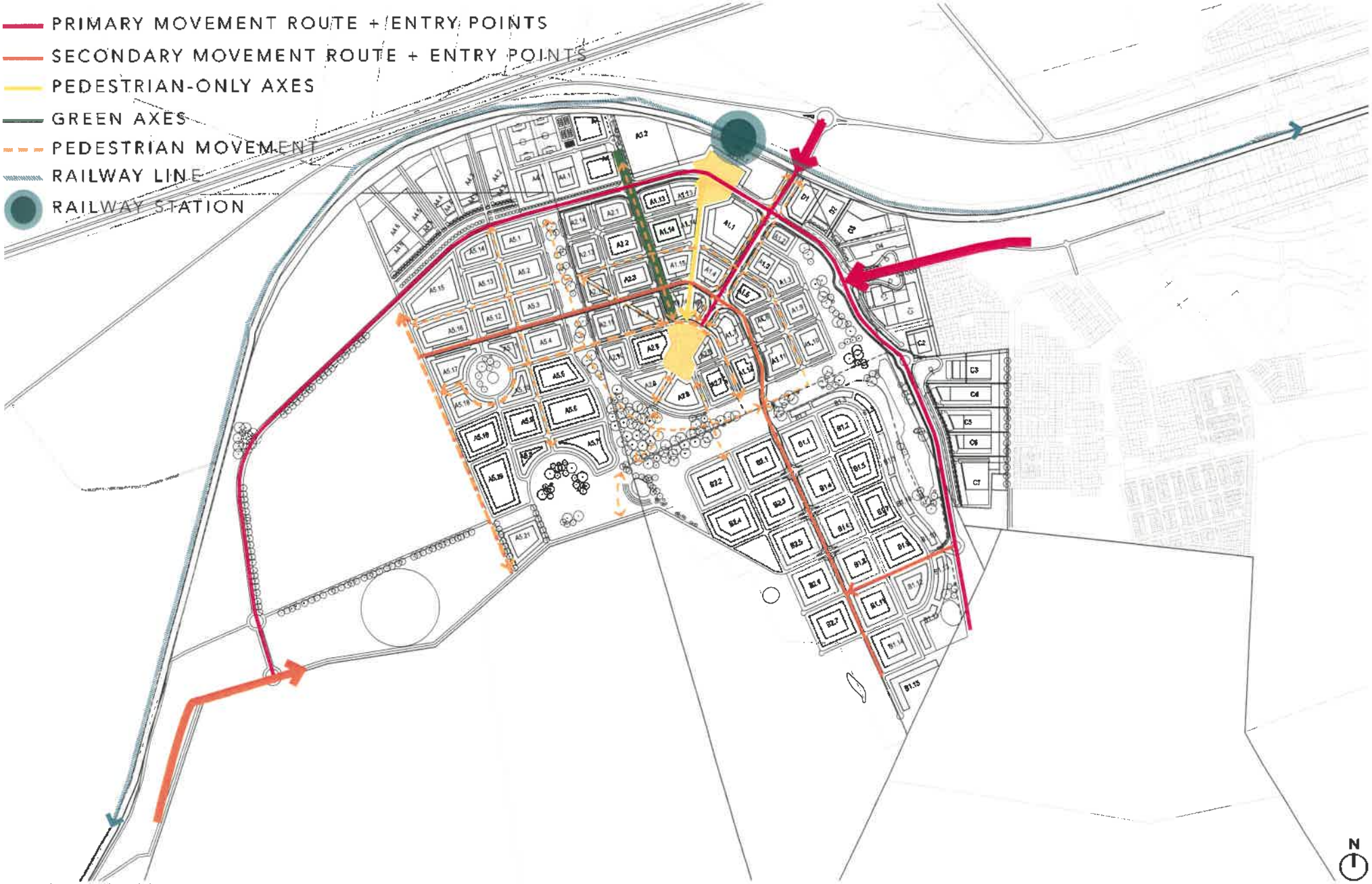


Figure 19. Axes and Legibility

STELLENBOSCH BRIDGE | VEHICULAR MOVEMENT ROUTES

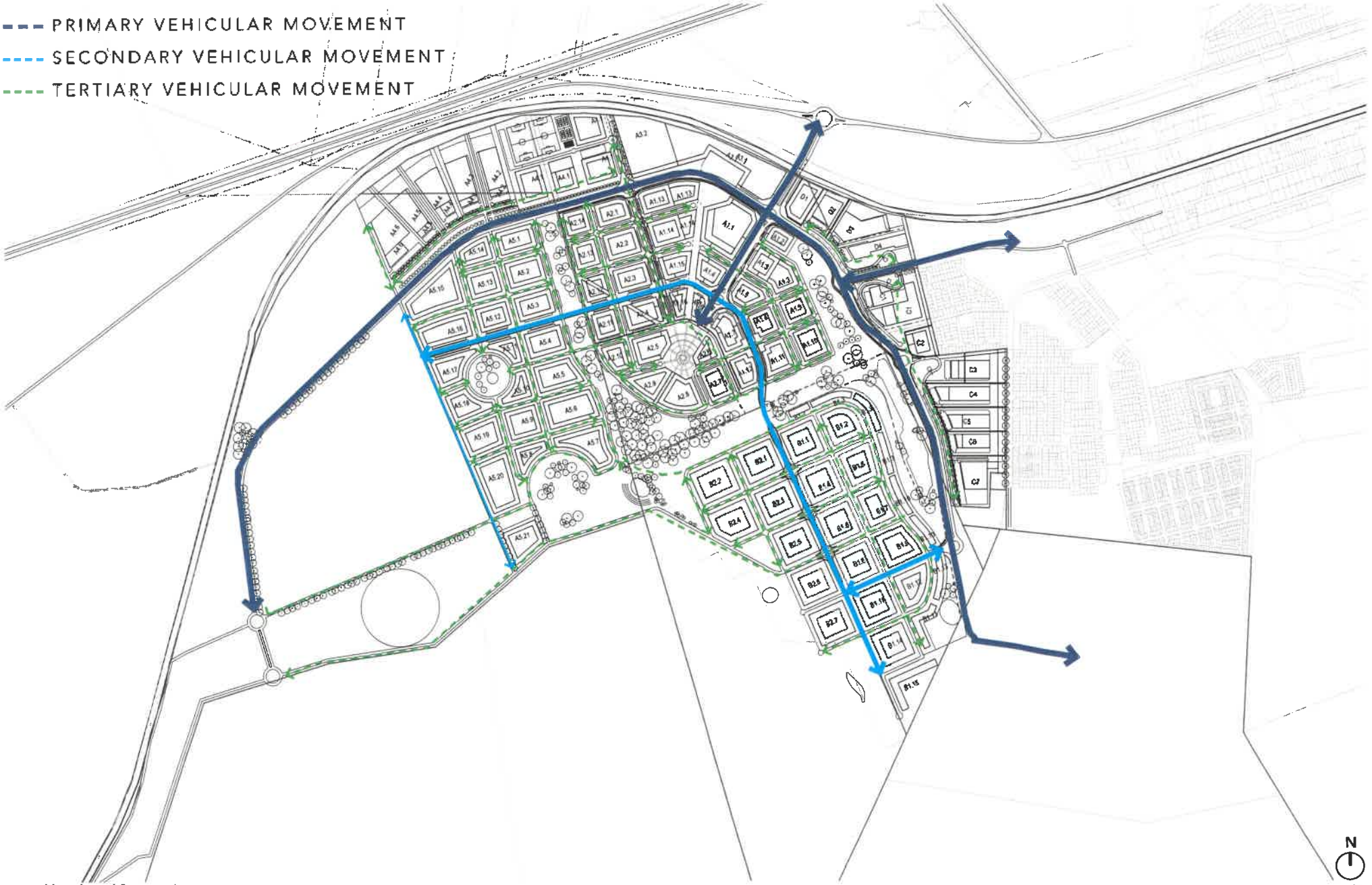


Figure 20. Links and Connectivity

STELLENBOSCH BRIDGE | PEDESTRIAN MOVEMENT ROUTES

Figure 21. Pedestrian Movement Map

STELLENBOSCH BRIDGE | NMT MOVEMENT ROUTE

NMT CYCLE ROUTE

N

Figure 22. NMT Map

3.2 RELATIONSHIP BETWEEN STREET AND BUILDINGS

3.2.1 ACTIVE FACADES/ANIMATED STREETSCAPES

3.2.1.1 The primary developer will establish the Street network, public environment and access roads and be responsible for the installation of infrastructure.

3.2.1.2 Buildings are to be designed to facilitate surveillance of the streets as well as take maximum advantage of exposure to them. The ground floor of the buildings in particular are to have an active interface with the street. This may be achieved by the careful consideration of position of windows, entrances and/or common areas facing the street, promoting the required surveillance of the public realm.

3.2.1.3 Blank or largely inactive façades are expressly discouraged in the mixed-use zone. Generally an active building frontage must contain:

- Frequent doors and windows, with virtually no blank façades.
- Narrow frontages giving vertical rhythm to the street scene.
- Articulation of façades, with projections such as bays, canopies and balconies.

3.2.1.4 Service functions (e.g. air con units) must be suitably screened, and preferably positioned on the roof; in the basement; or to the back of the site.

Figure 25. Blank Facades Discouraged

Figure 26. Buildings designed to facilitate surveillance of the streets and have an active interface with the street

Figure 27. Active Building Frontages containing frequent doors and windows, vertical rhythm through narrow frontages and articulation of facades with bays, balconies and canopies.

3.2.2 ACCESS

3.2.2.1 Clear distinctions must be made between building entrances for vehicles and service access; and entrances for pedestrians to improve space definition and the articulation of the built form

3.2.2.3 Clarity of pedestrian entry: All buildings should be fully accessible to the disabled. Ramped access to buildings should both comply with regulations and be an integral part of the entrance façade design. Where the slope of the land does not allow for multiple entry points at different levels, lifts should be incorporated to ensure accessibility to all floors.

Figure 28. Clarity of entrance way for pedestrian entry

Figure 30. Clarity of entrance way for vehicular entry

Figure 29. Clarity of entrance way for vehicular and pedestrian entry for a typical site

Figure 31. Clarity of entrance way for vehicular entry

3.3 PARKING

3.3.1 All the developments will be expected to include sufficient on-site parking to support the use of the building and the minimum as required by the town planning controls, summarised in Table 2.

3.3.2 The parking for each site shall be provided on site, either as surface or underground parking. Aside from the parking provided on-street, the majority of surface parking is to be provided in the courtyards inside the city blocks.

3.3.3 Limited visitors parking is allowed in the on-street frontage of the property.

3.3.4 Parking basements: Where a basement parking structure projects above ground level at any point on a public façade, it should be limited to 2,5m, as illustrated in Figure 30.

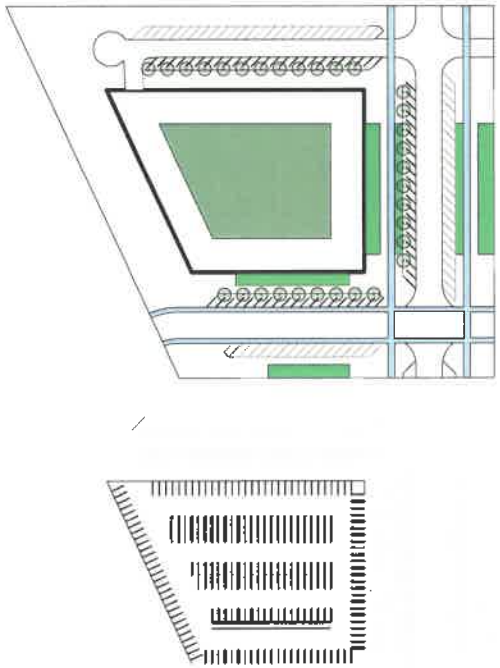


Figure 34. Plans showing basement and parking on the street front for a typical site

LAND USE	GUIDELINES SUGGESTED PROVISION
Office/ Commercial	4 BAYS / 100M² LETTABLE
Retail	6 BAYS / 100M² LETTABLE
Residential	1 BAY / STUDIO + 1 BEDROOM UNITS 1,5 BAYS / 2 BEDROOM UNITS 2 BAYS / 3 BEDROOM UNITS 0 25 BAYS / UNIT FOR VISITORS
Industrial	2 BAYS / 100M² LETTABLE

Table 2: Suggested Parking Provisions

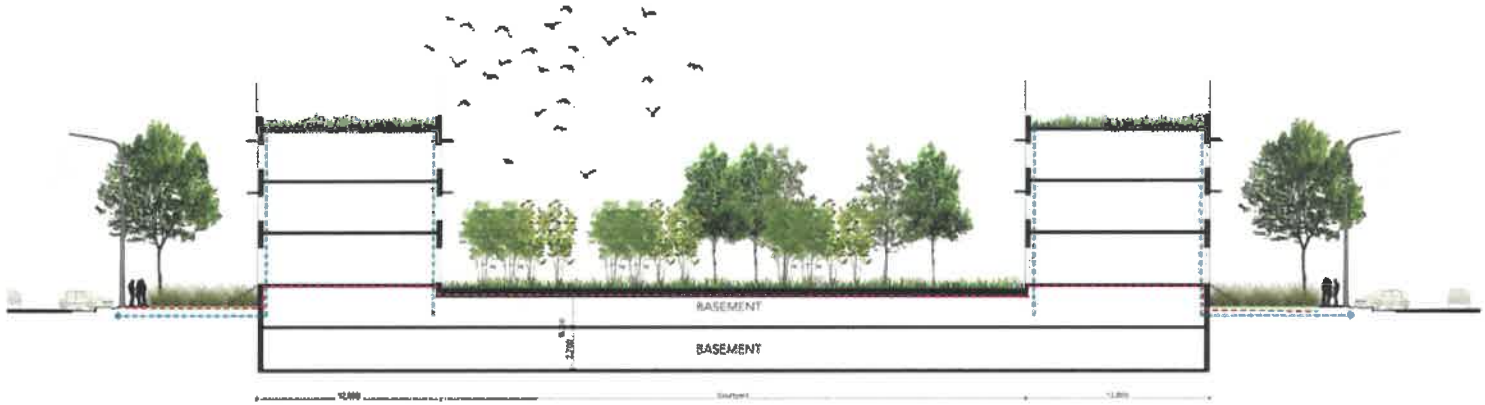


Figure 33. Diagram showing basement parking lot disengaged (max 1,5 m on street frontage) from the natural ground level, to create a raised ground floor of the building.

3.4 BUILD-TO LINES AND BUILDING ZONES

3.4.1 The intent is to achieve visual continuity of the street façades through building placement. A minimum of 70% of a building's street façade must adhere to the build-to line.

3.4.2 Setbacks and projections should form an integral part of the façade design and should not detract from the overall expression. Setbacks and projections are limited as per the building lines, building zones and height stipulations, as shown in below.

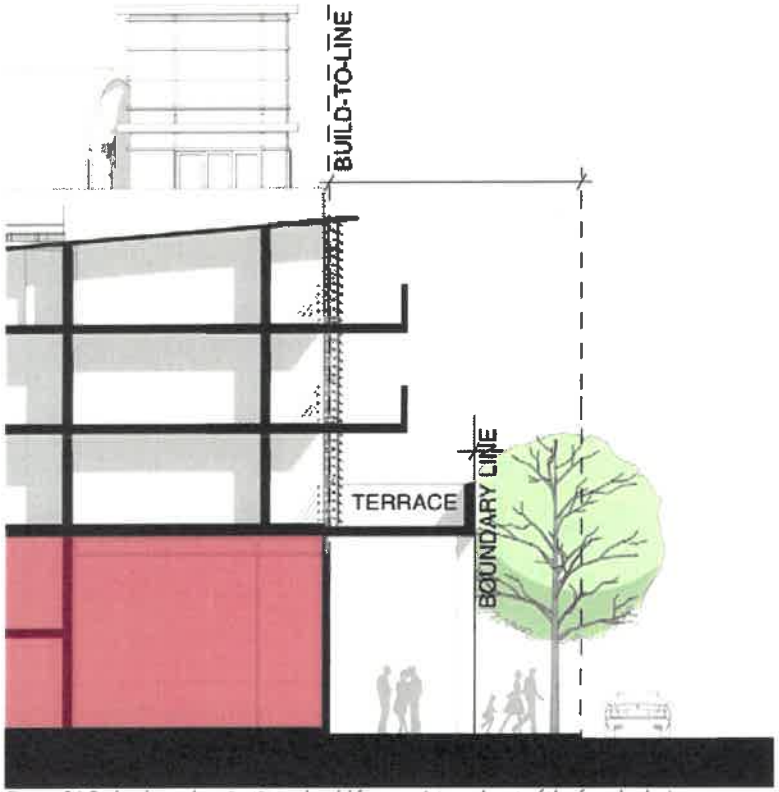


Figure 36.Setbacks and projections should form an integral part of the façade design

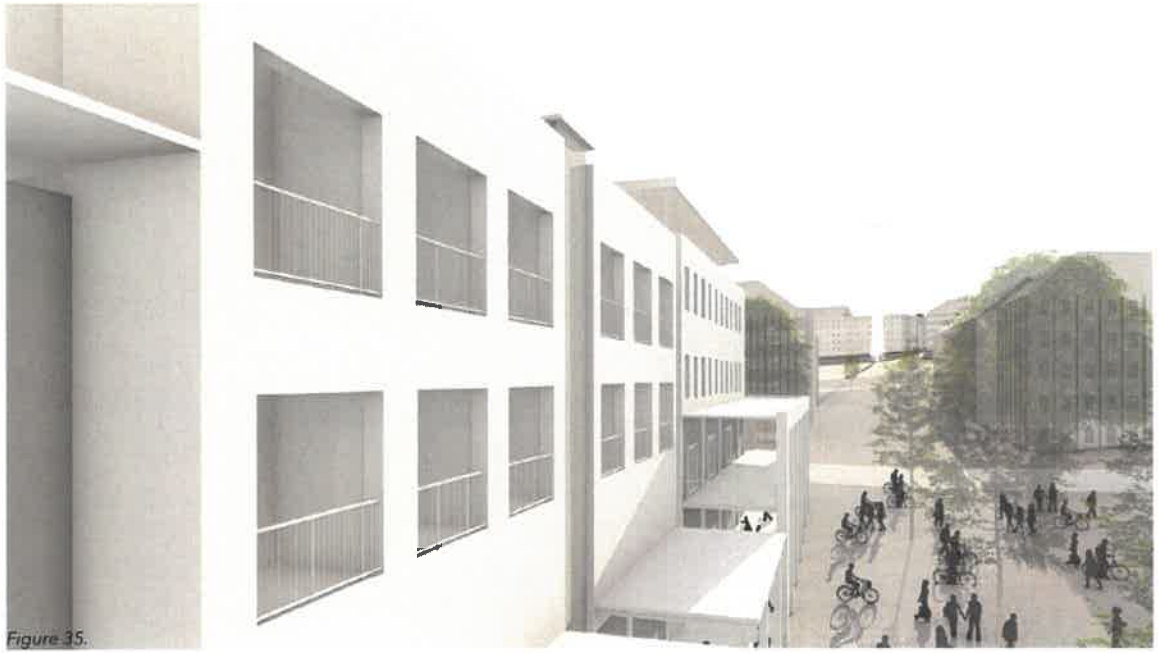


Figure 35.

Figure 37. Perspective showing the visual continuity of the street facades.

3.5 EDGE CONDITIONS

3.7.1 A series of distinct edge conditions have been established to define the public-private interface in specific areas. The physical design of the edges and the activities that can be accommodated along them support both the legibility and place making for the entire development.

These edges are:
- Edge 1: Interface of Industrial buildings across the Stellenbosch Bridge Boulevard.
- Edge 2: Interface of Offices/ Commercial/Residential with Stellenbosch Bridge Boulevard.
- Edge 3: Interface of Offices/ Commercial with Innovation Boulevard.
- Edge 4: Interface of Offices/ Commercial Buildings.
- Edge 5: Interface of Residential Buildings.
- Edge 6: Interface of Retail/ Commercial/Offices/Hotel/Residential with Pedestrian Retail Street
- Edge 7: Interface of Offices/ Commercial/ Residential with Green Street.
- Edge 8: Interface of Retail/ Commercial/Offices/Hotel/Residential with Innovation Square and Station Square
- Edge 9: Interface of Typical Streets.

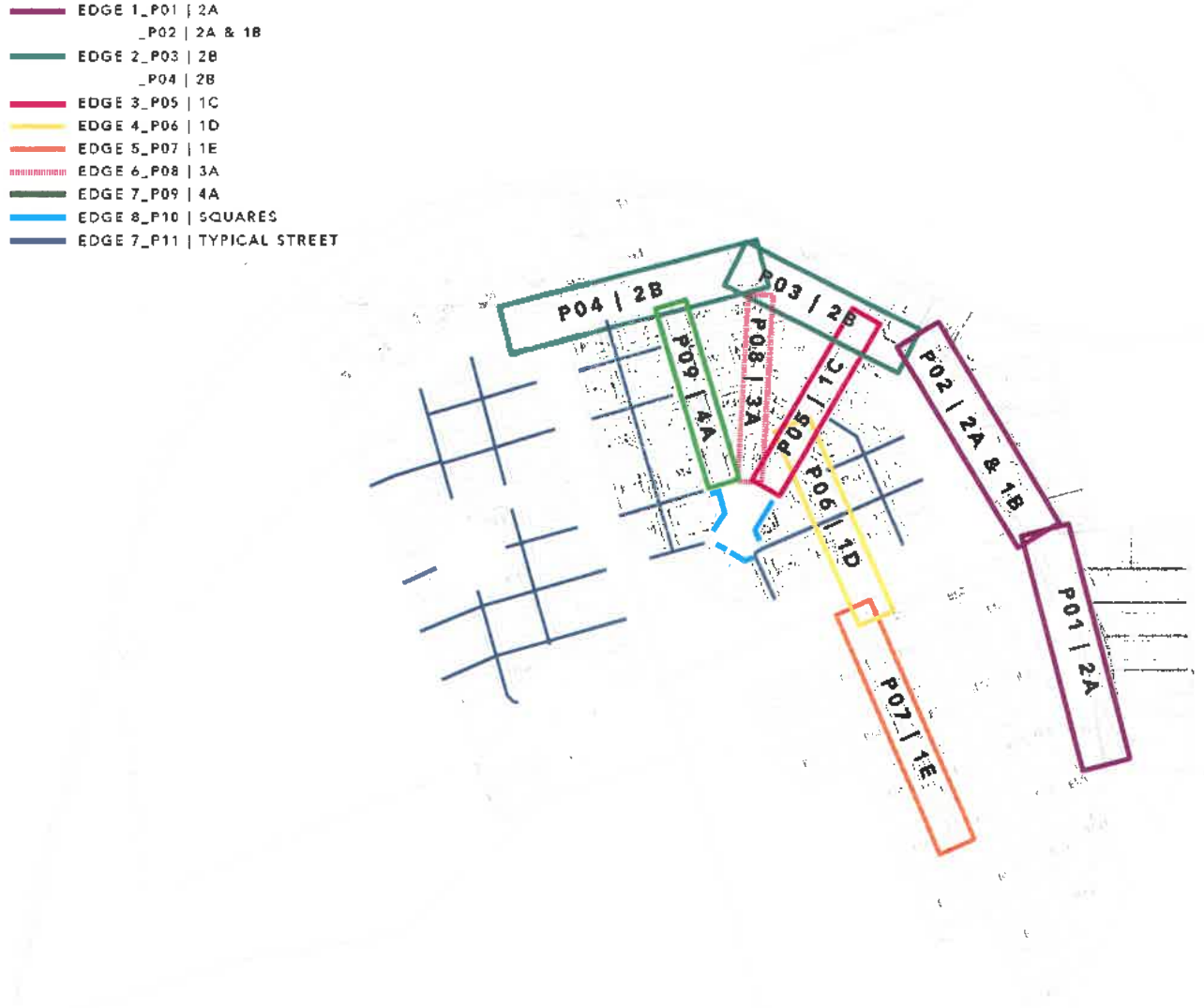
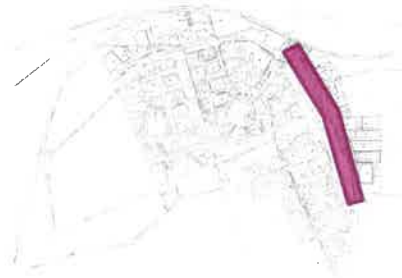


Figure 38. Edge Conditions Map



EDGE 1: P01 | 2A & P02 | 2A & 1B

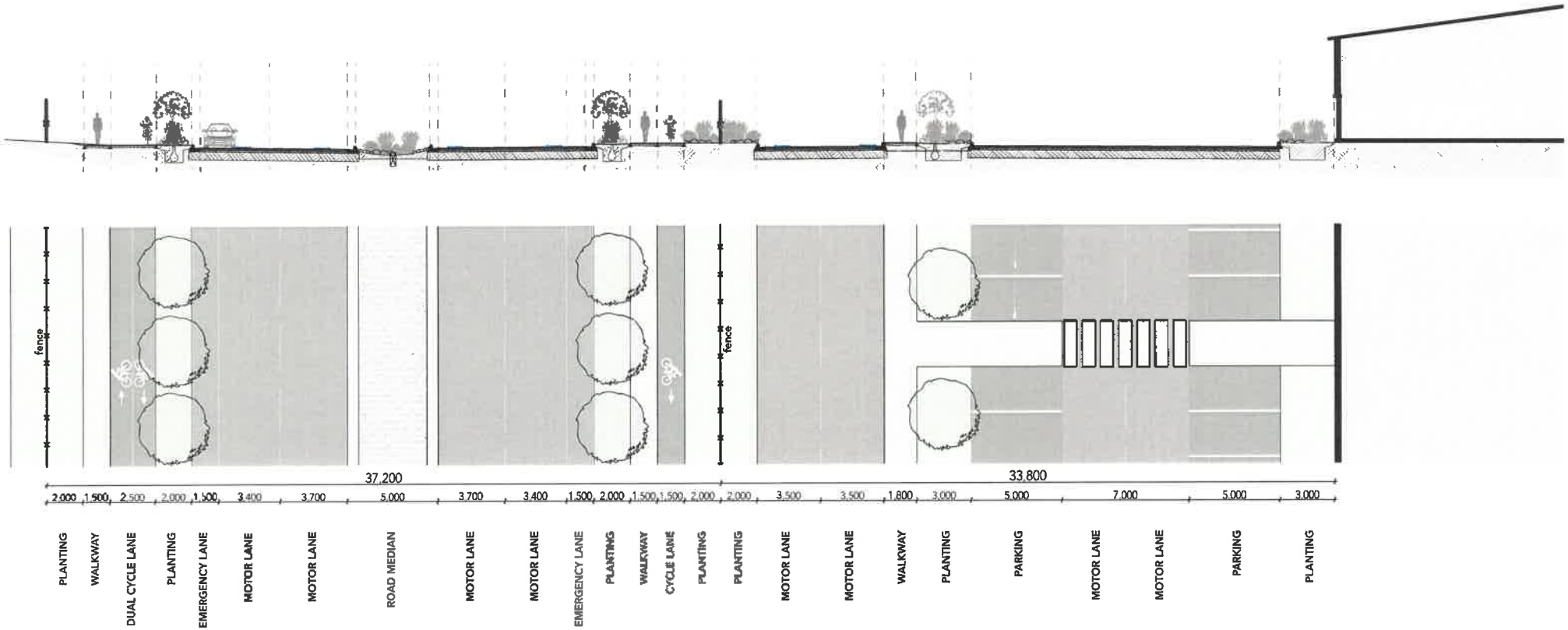
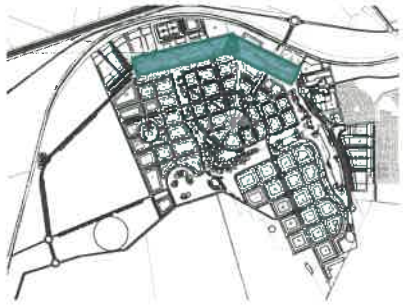
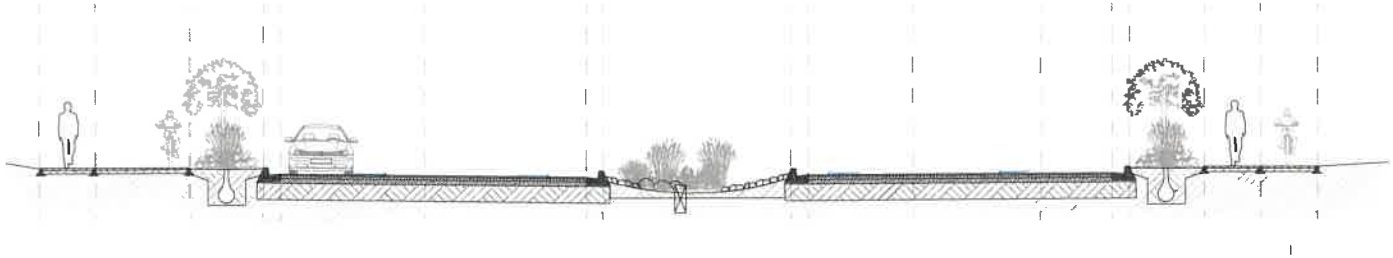


Figure 39.



EDGE 2: P03 | 2B & P04 | 2B



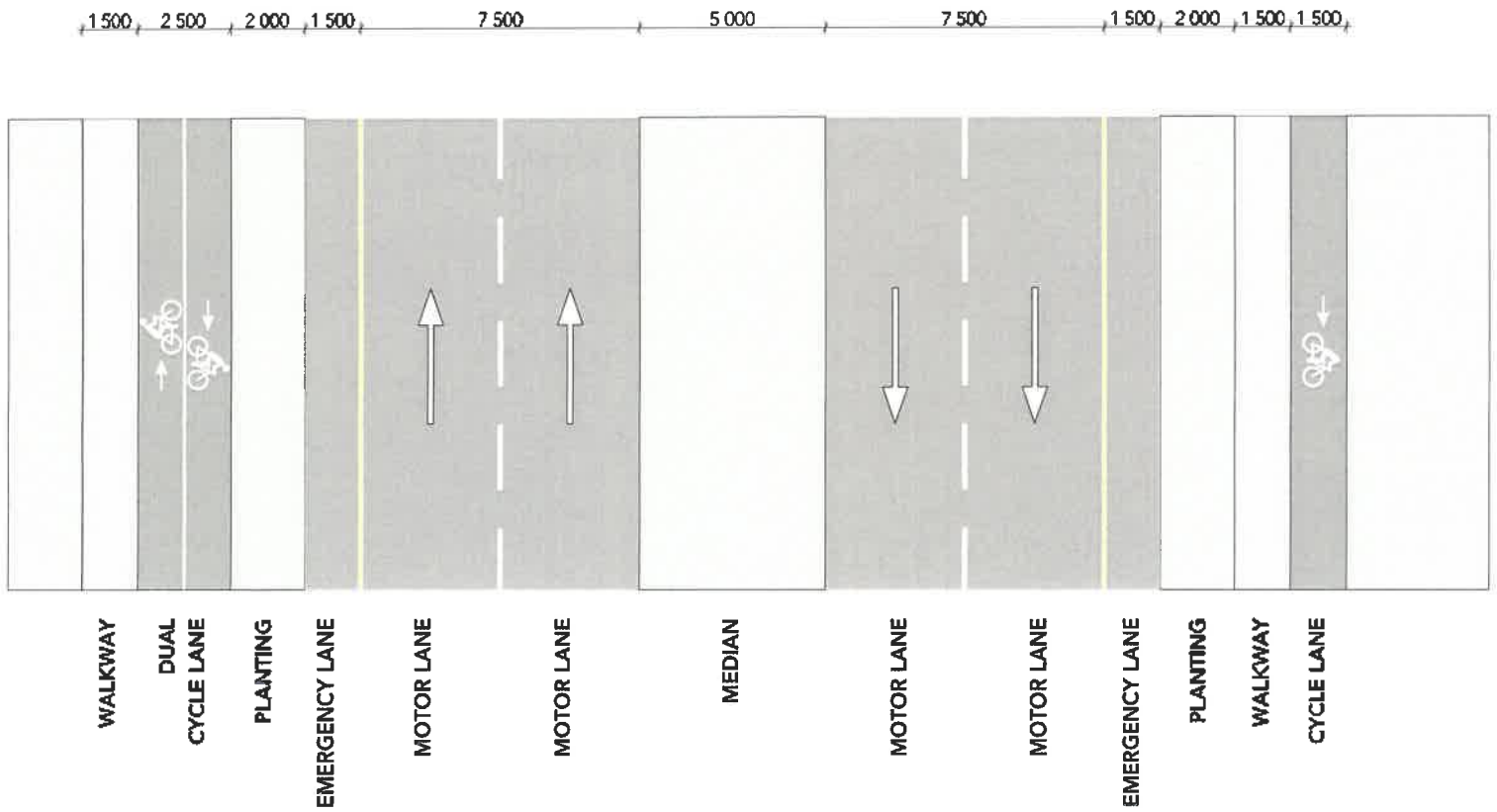


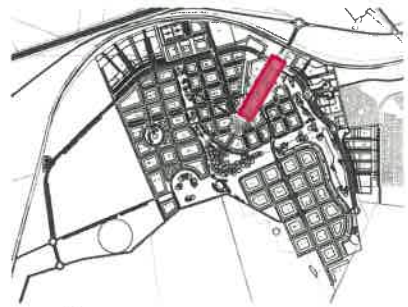
Figure 40.

EDGE 2: P03 | 2B & P04 | 2B

Figure 43.

Figure 44.

EDGE 3: P05 | 1C SECTION A



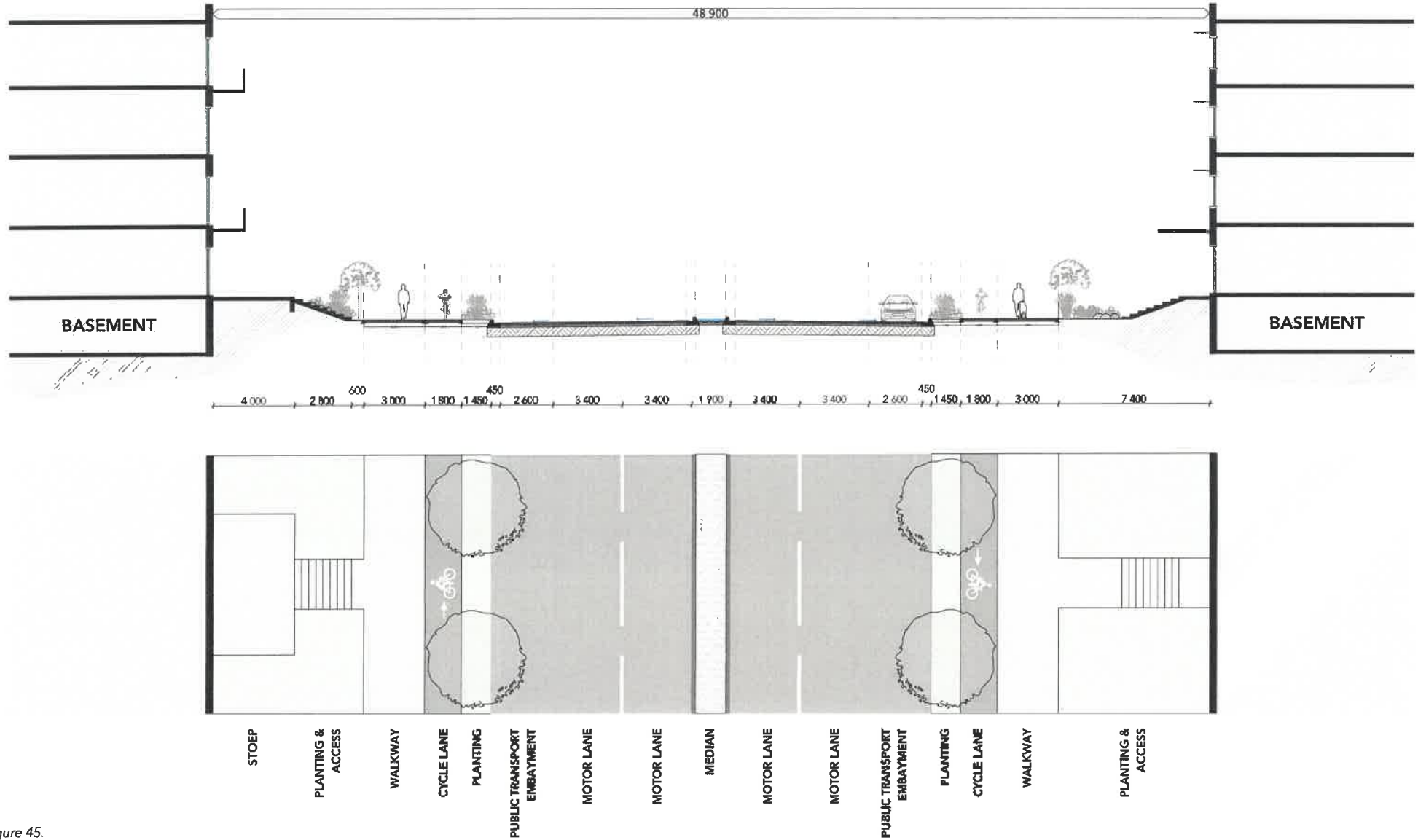
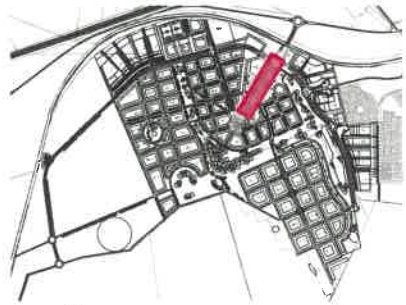


Figure 45.

EDGE 3: P05 | 1C SECTION B



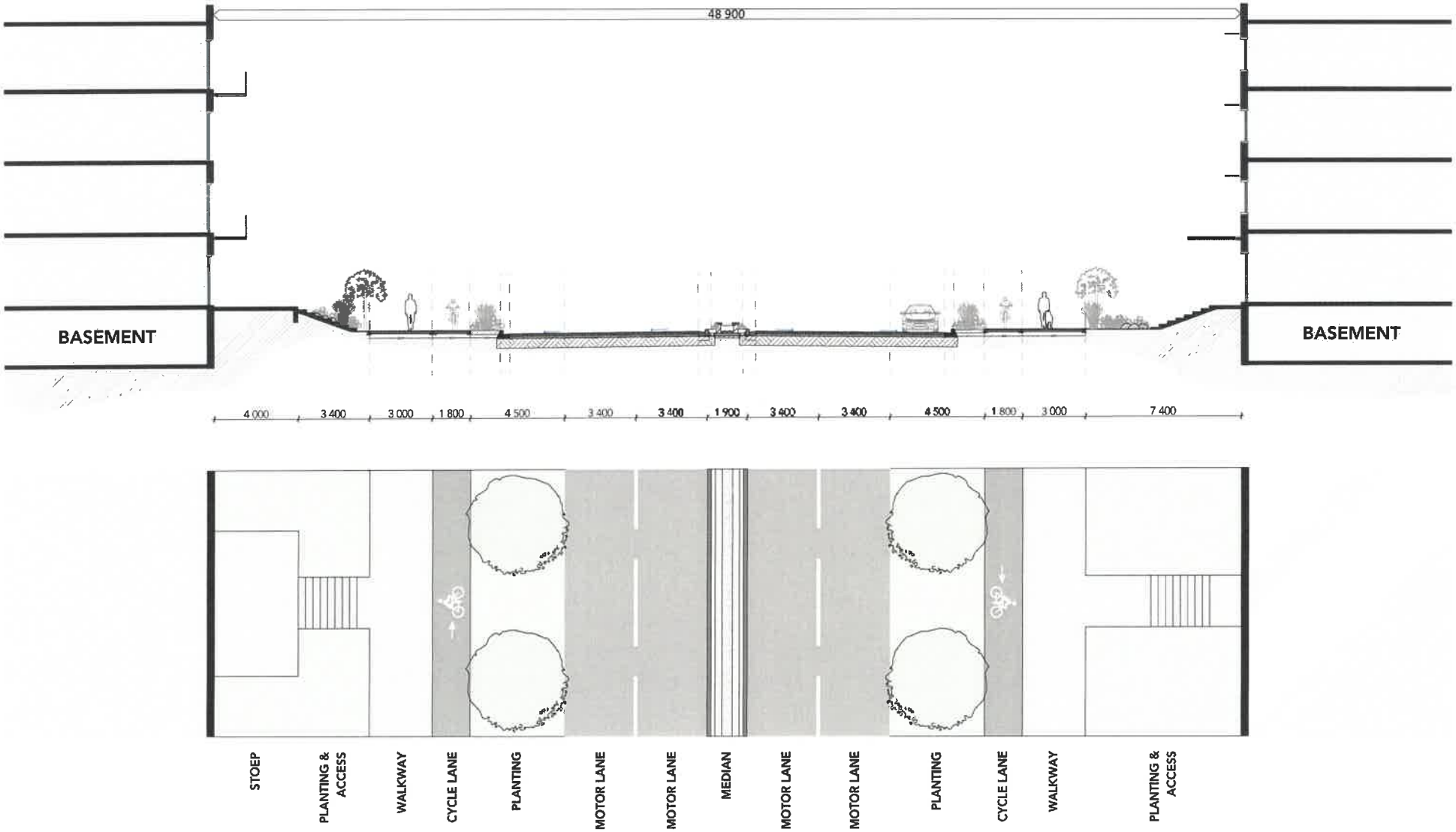
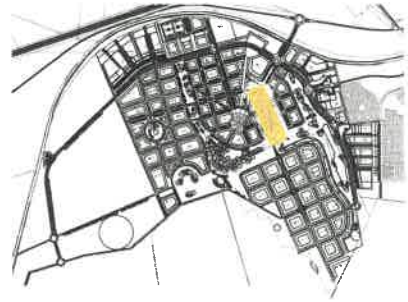


Figure 46.

EDGE 3: P05 | 1C
MAIN BOULEVARD

Figure 48.

EDGE 4: P06 | 1D SECTION A



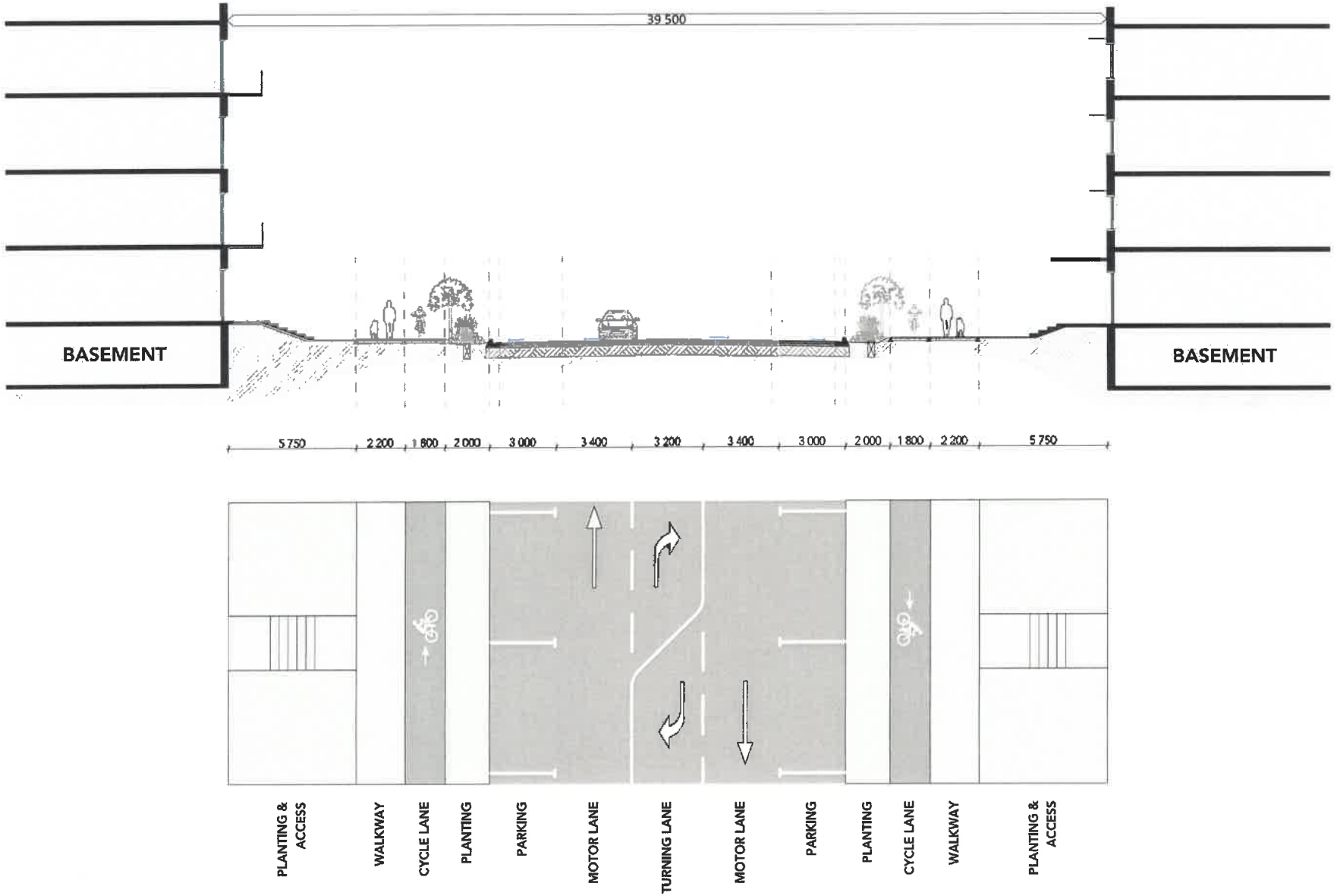
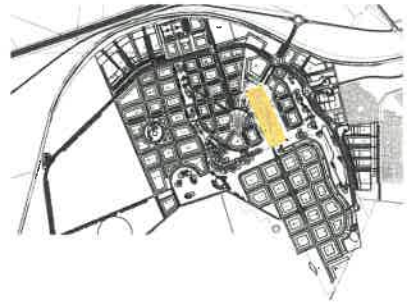


Figure 49.



EDGE 4: P06 | 1D SECTION B

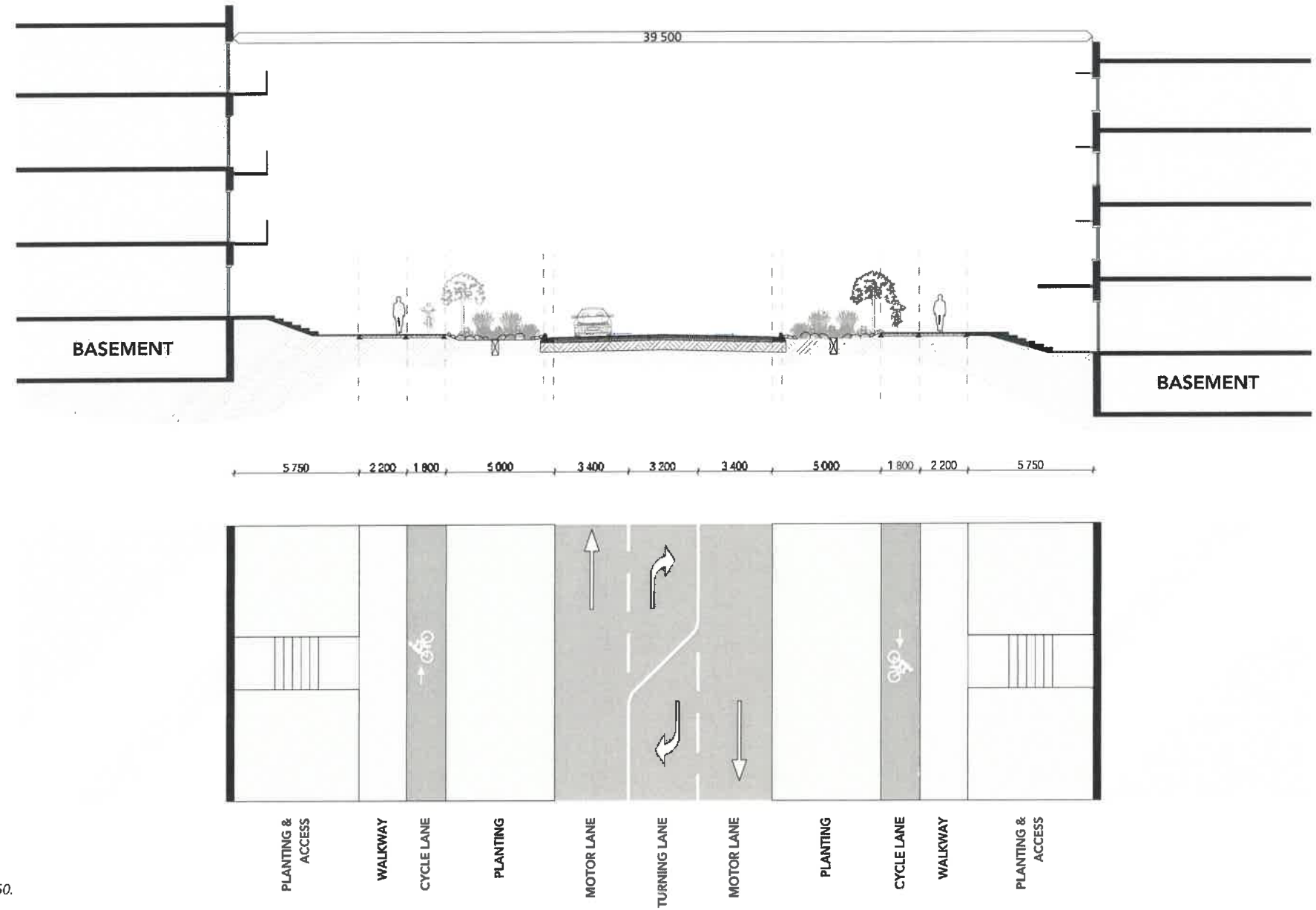


Figure 50.

EDGE 4: P06 | 1D
(INDICATIVE IMAGES)

Figure 51.

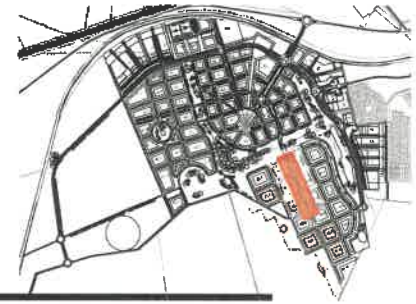
Figure 52.

Figure 53.

Figure 54.

Figure 55.

EDGE 5: P07 | 1E



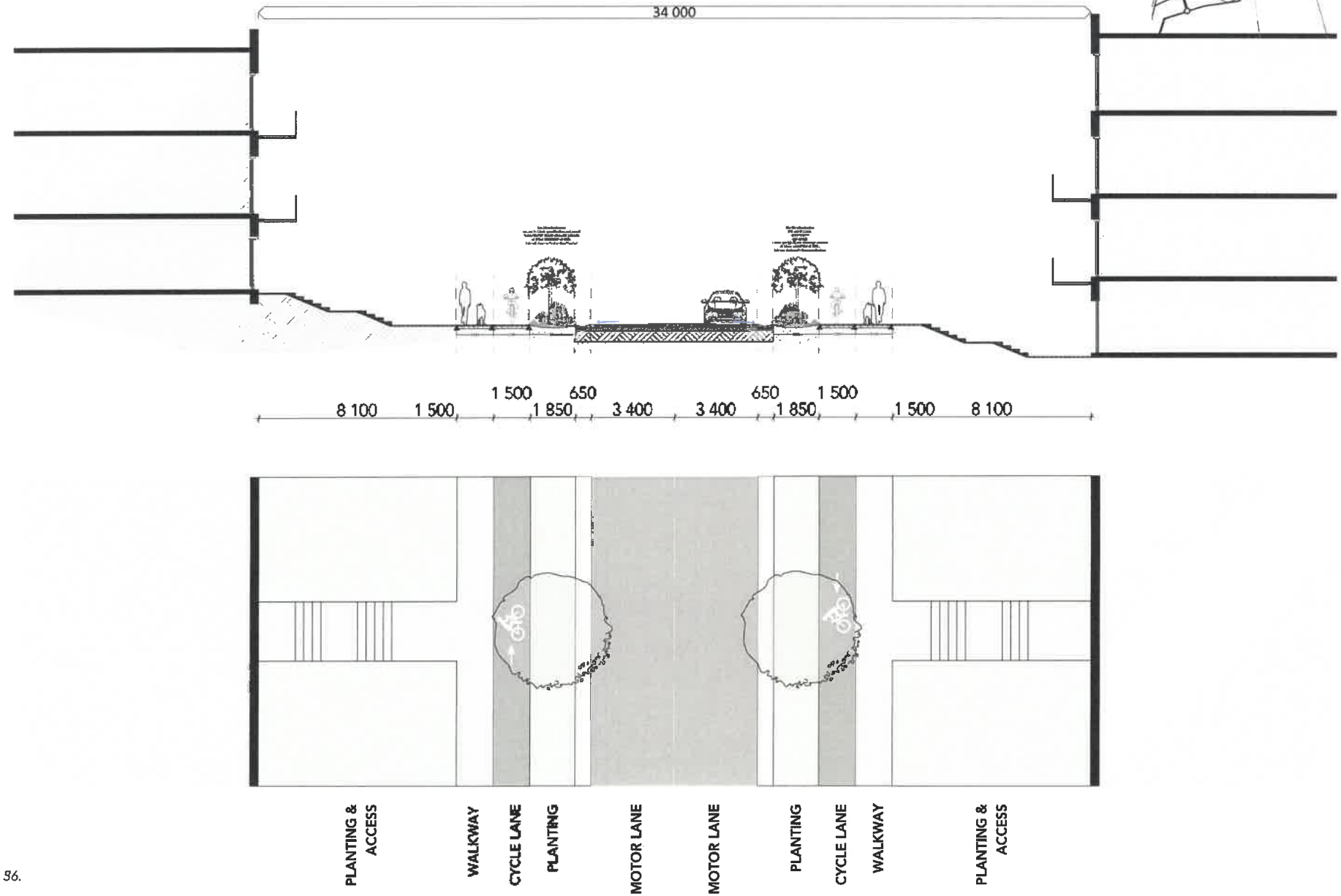
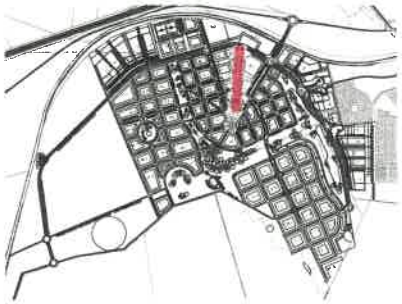


Figure 36.

EDGE 6: P08 | 3A



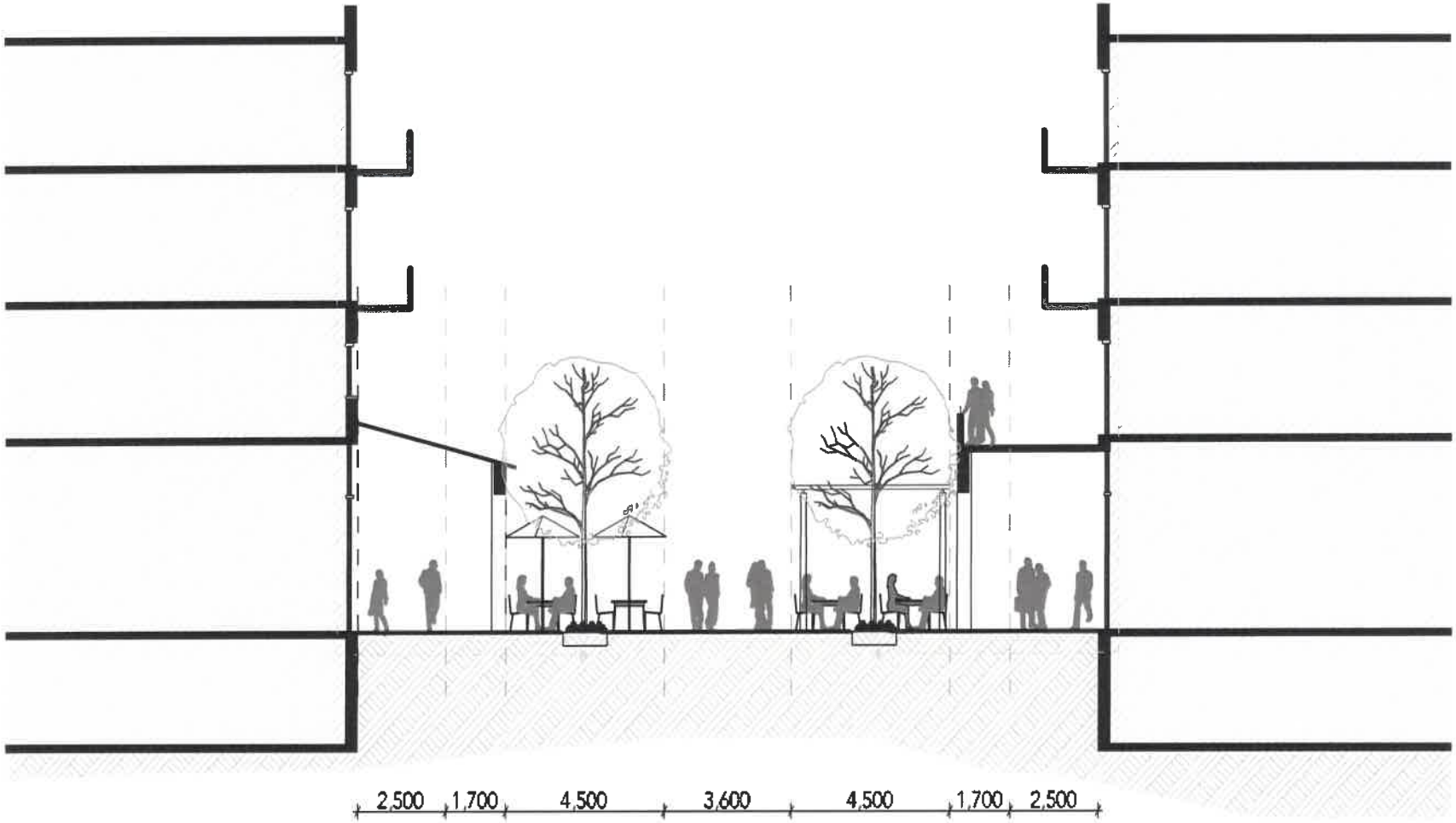
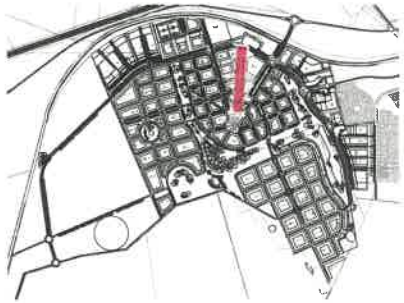


Figure 57.



EDGE 6: P08 | 3A

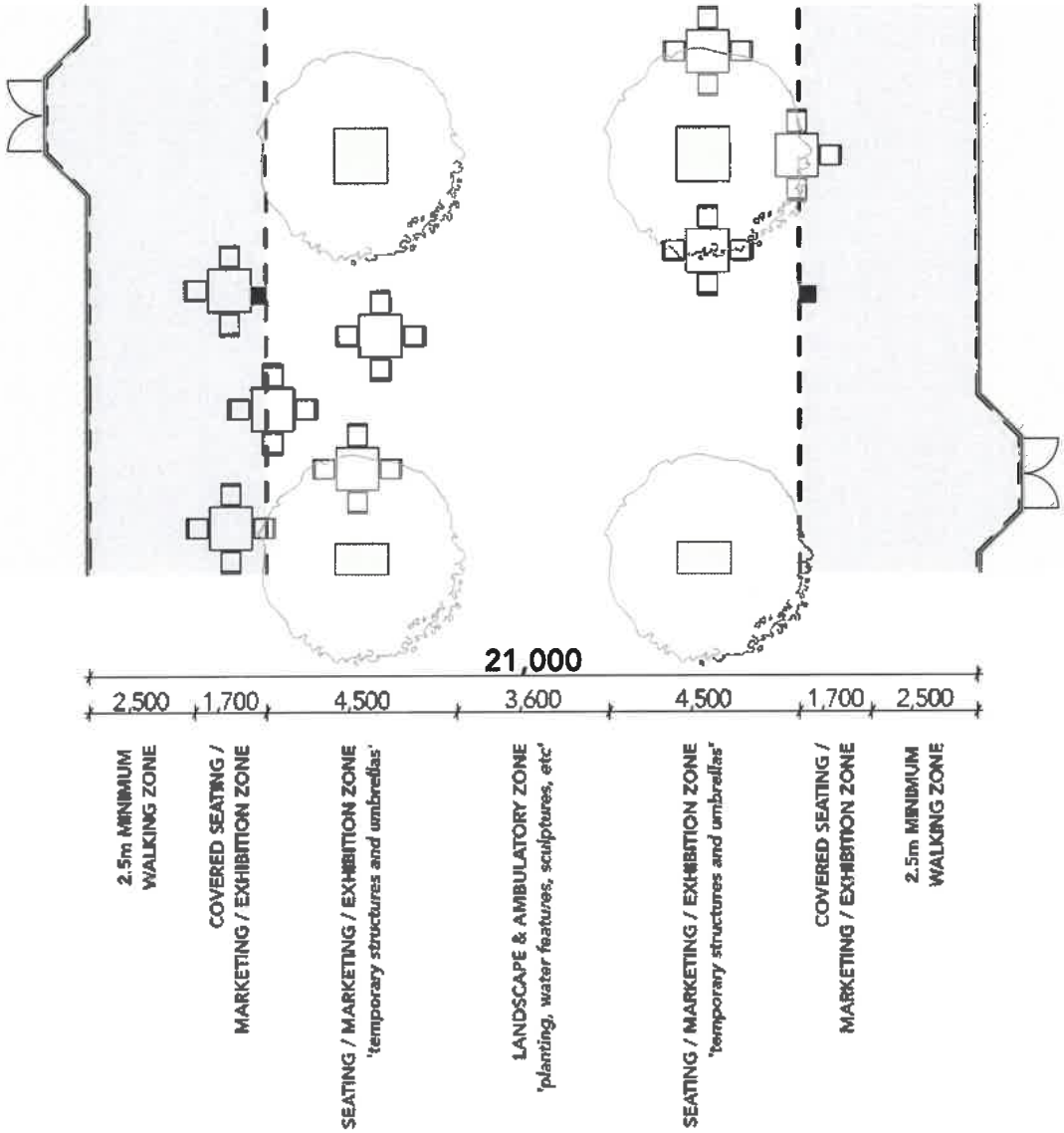


Figure 58.

EDGE 6: P08 | 3A
PEDESTRIAN RETAIL STREET

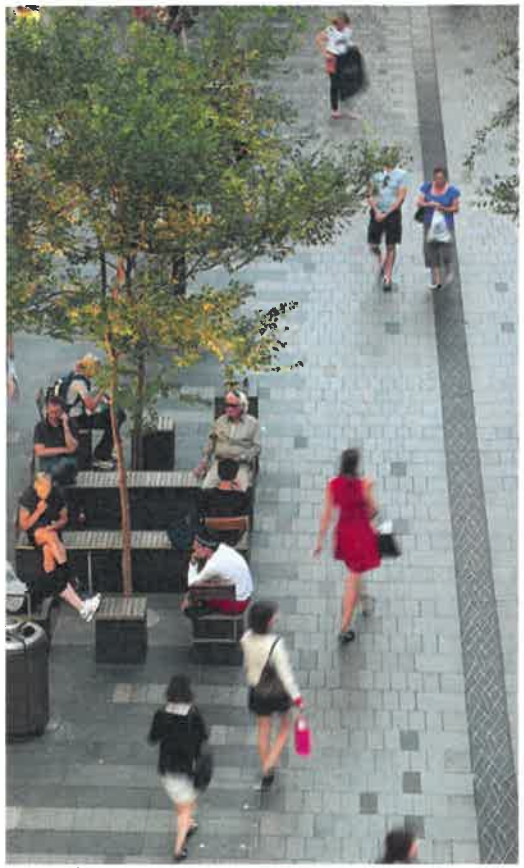
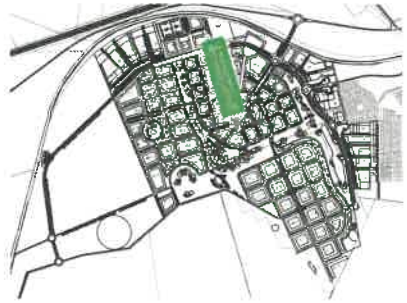


Figure 60.

Figure 62.

EDGE 7: P09 | 4A



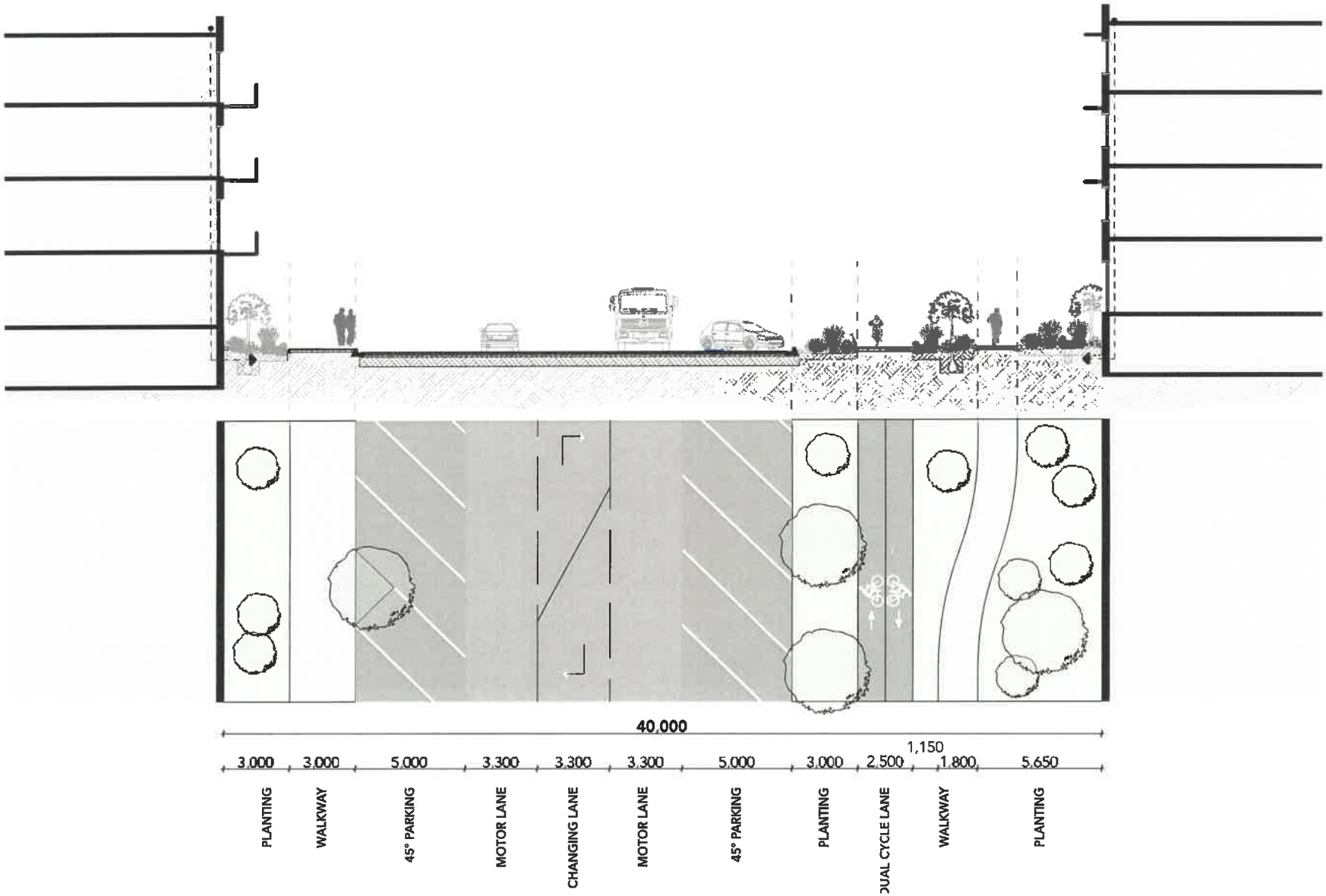


Figure 63.

EDGE 7: P09 | 4A:
GREEN STREET

Figure 64.

Figure 65.

Figure 66.

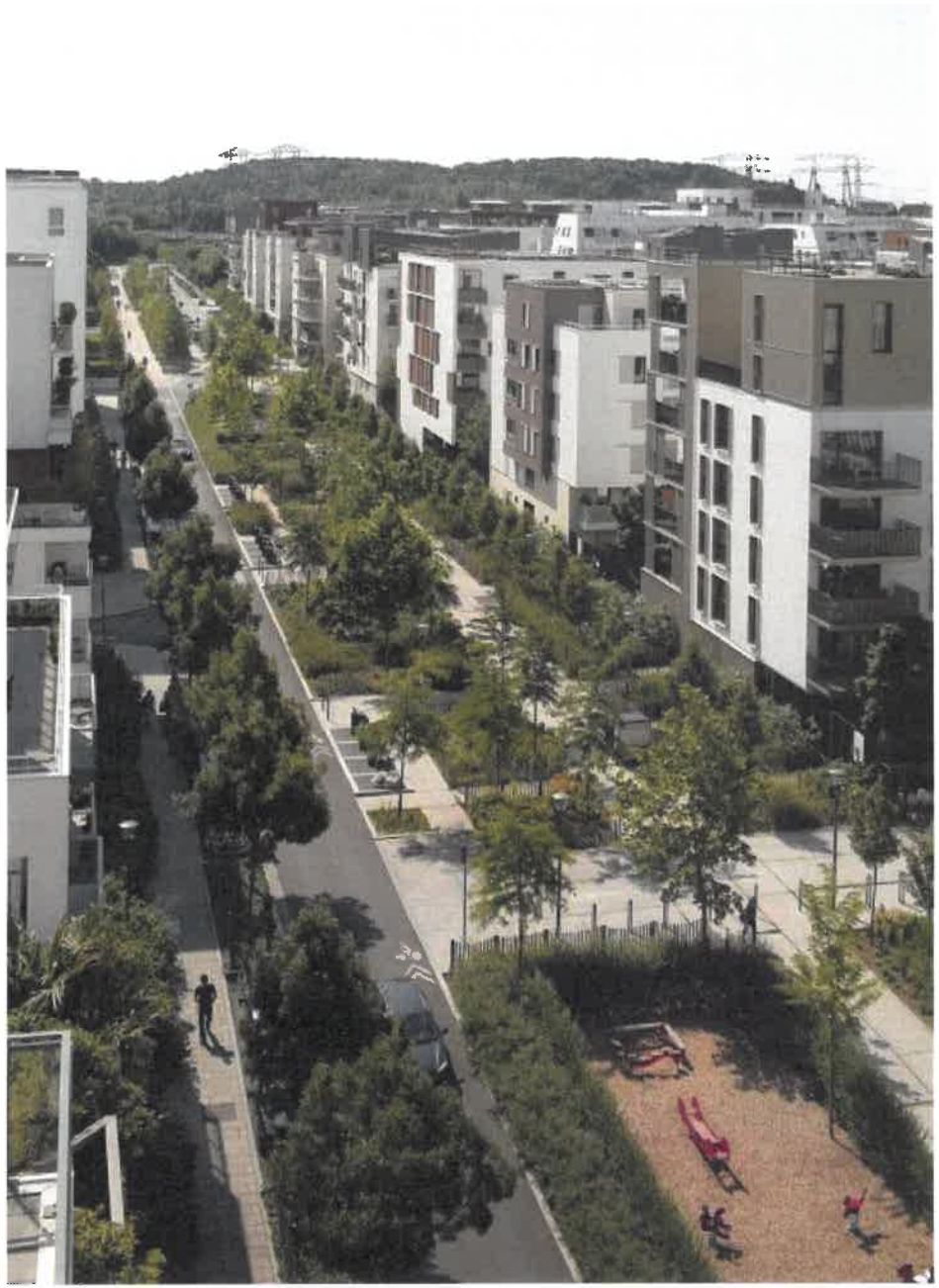
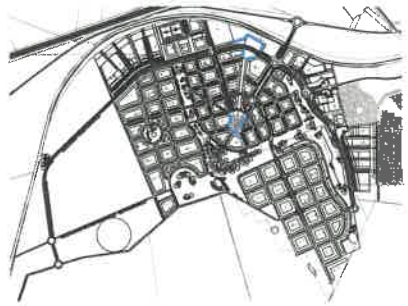


Figure 67.

EDGE 8: P10 | SQUARES



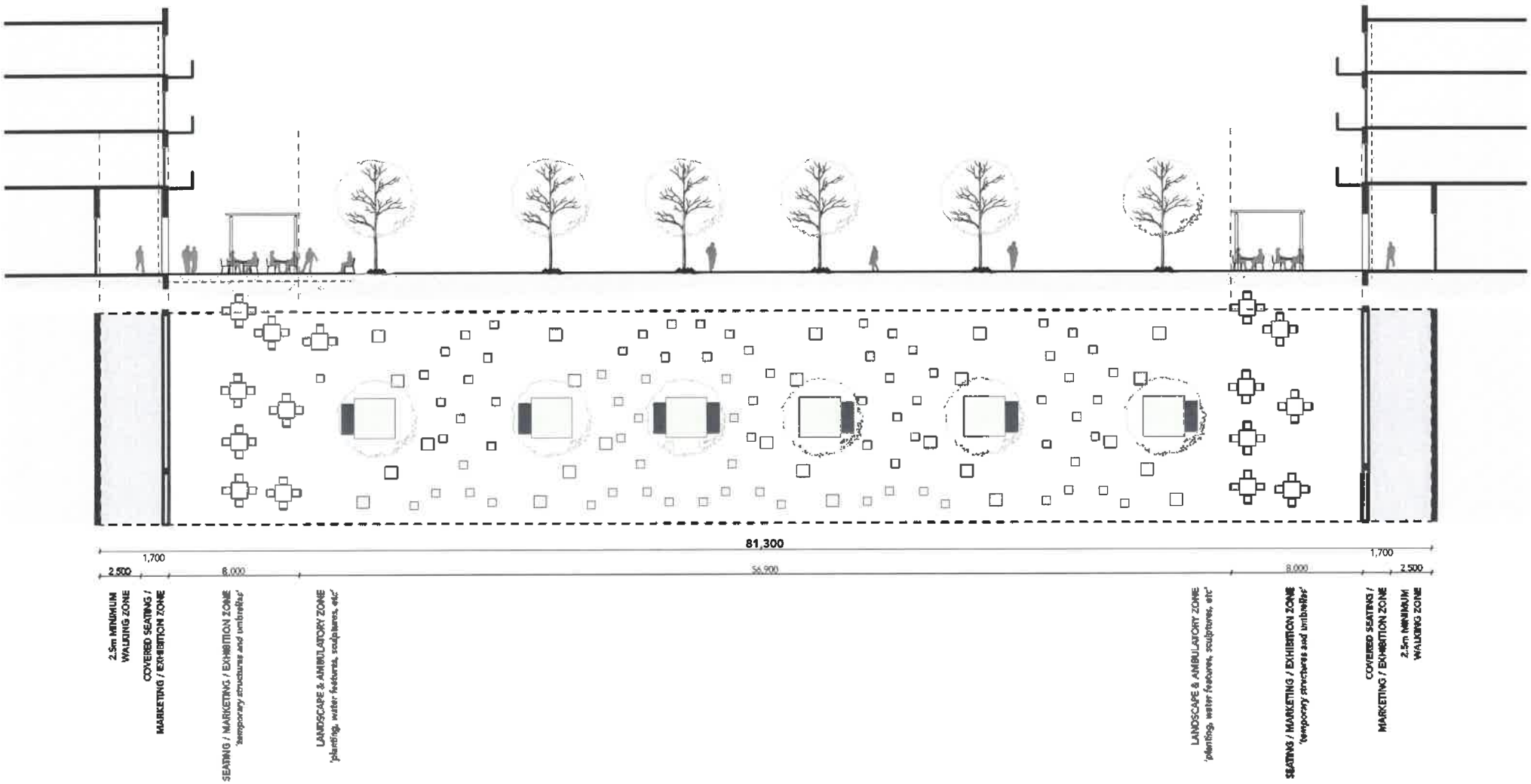


Figure 68.

EDGE 8: P10 | SQUARE

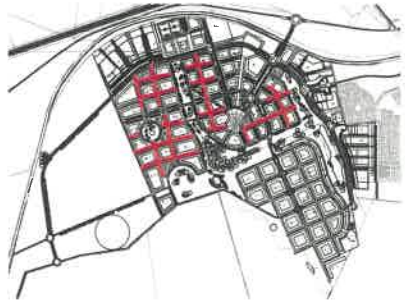
Figure 69.

Figure 70.

Figure 71.

Figure 72.

Figure 73.



EDGE 7: P11 | TYPICAL STREET

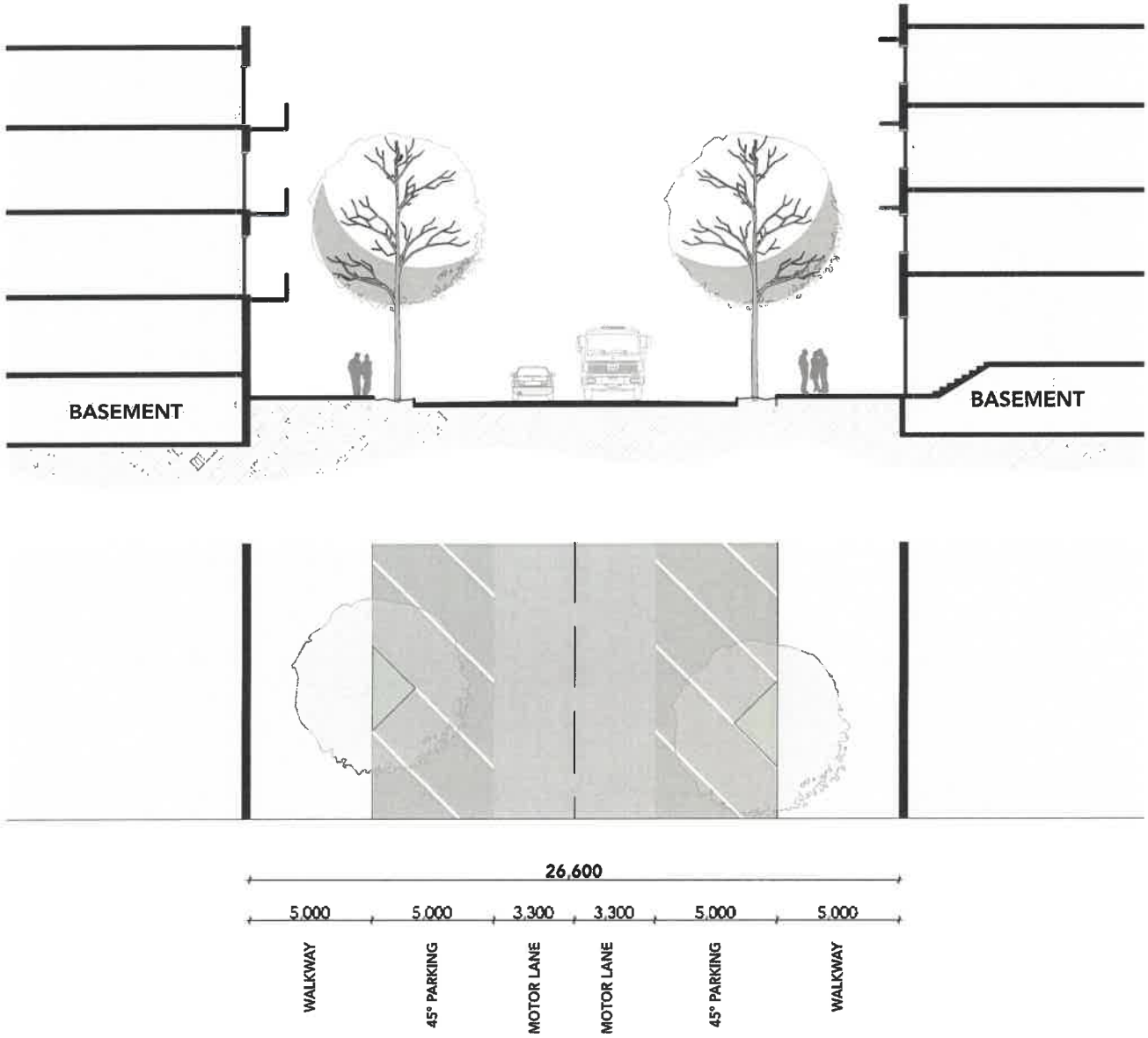


Figure 74.

EDGE 7: P11 | TYPICAL STREET

Figure 75.

Figure 76.

Figure 77.

Figure 78.

3.5 EDGE CONDITIONS

3.7.1 A series of distinct edge conditions have been established to define the public-private interface in specific areas. The physical design of the edges and the activities that can be accommodated along them support both the legibility and place making for the entire development.

These edges are:
- Edge 1: Interface of Offices/ Commercial with Innovation Boulevard
- Edge 2: Interface of Offices/ Commercial/Residential with Stellenbosch Bridge Boulevard
- Edge 3: Interface of Industrial buildings across the Stellenbosch Bridge Boulevard
- Edge 4: Interface of Offices/ Commercial/Residential with Connecting Streets
- Edge 5: Interface of Retail/ Commercial/Offices/Hotel/Residential with Innovation Square and Station Square
- Edge 6: Interface of Retail/ Commercial/Offices/Hotel/Residential with Pedestrian Retail Street
- Edge 7: Interface of Residential buildings
- Edge 8: Interface of Offices/ Commercial with Main Spine.
- Edge 9: Interface of Offices/ Commercial/ Residential with Green Street.

Figure 79. Critical Biodiversity Areas and landscape informants

Figure 80. Existing Natural Features

Figure 83. Existing Natural Features

3.7 INTERNAL STREETS

3.7.1 Landscaping on the internal roads will be provided by the Primary Developer, and will be maintained and managed by the Property Owners Association.

3.7.2 Landscaping in internal courtyards will be the responsibility of the particular secondary developer to maintain and manage.

3.7.3 The interface between the buildings and the public street must comply with the relevant landscaping guidelines.

Figure 86. Landscaping of Internal Courtyards will be the responsibility of the secondary developer

Figure 89.

Figure 88. Landscaping on the internal roads will be provided by the Primary Developer

Figure 87. Landscaping on the internal roads will be provided by the Primary Developer

SECTION 4: ARCHITECTURAL CODES AND GUIDELINES

4.1 PRINCIPLES

THE ARCHITECTURE SHOULD GROW FROM LOCAL CLIMATE, TOPOGRAPHY, HISTORY, AND BUILDING PRACTICE.

The architectural codes are intended to guide development over time and achieve the following:

- Encourage an architecture that is innovative in design, while recognizing its locality; environmentally sustainable and uncompromising in establishing a town of excellence and distinction.
- Provide a range of typologies to allow a diversity and flexibility of applications.
- Create a unique corporate address by ensuring that the new buildings and the open space are seamlessly interlaced, integrating the site's natural features.
- Provide clarity of pedestrian and vehicular access.
- Orientate buildings towards the public realm to animate the streetscape.
- Encourage passive climate control elements, which may be accentuated as building design elements.
- Adhere to design directives dealing with mass, materials, footprint, form and heights of buildings.
- Adhere to design directives of building envelopes and external elements, including signage.
- Accommodate the required parking bays above and/or below ground.
- Continuity of materials of high quality and enduring appearance, appropriate to the specific use and position.
- Consistency of colours and textures.
- Promote the use of local materials which are robust, low maintenance and provide suitable technological solutions.

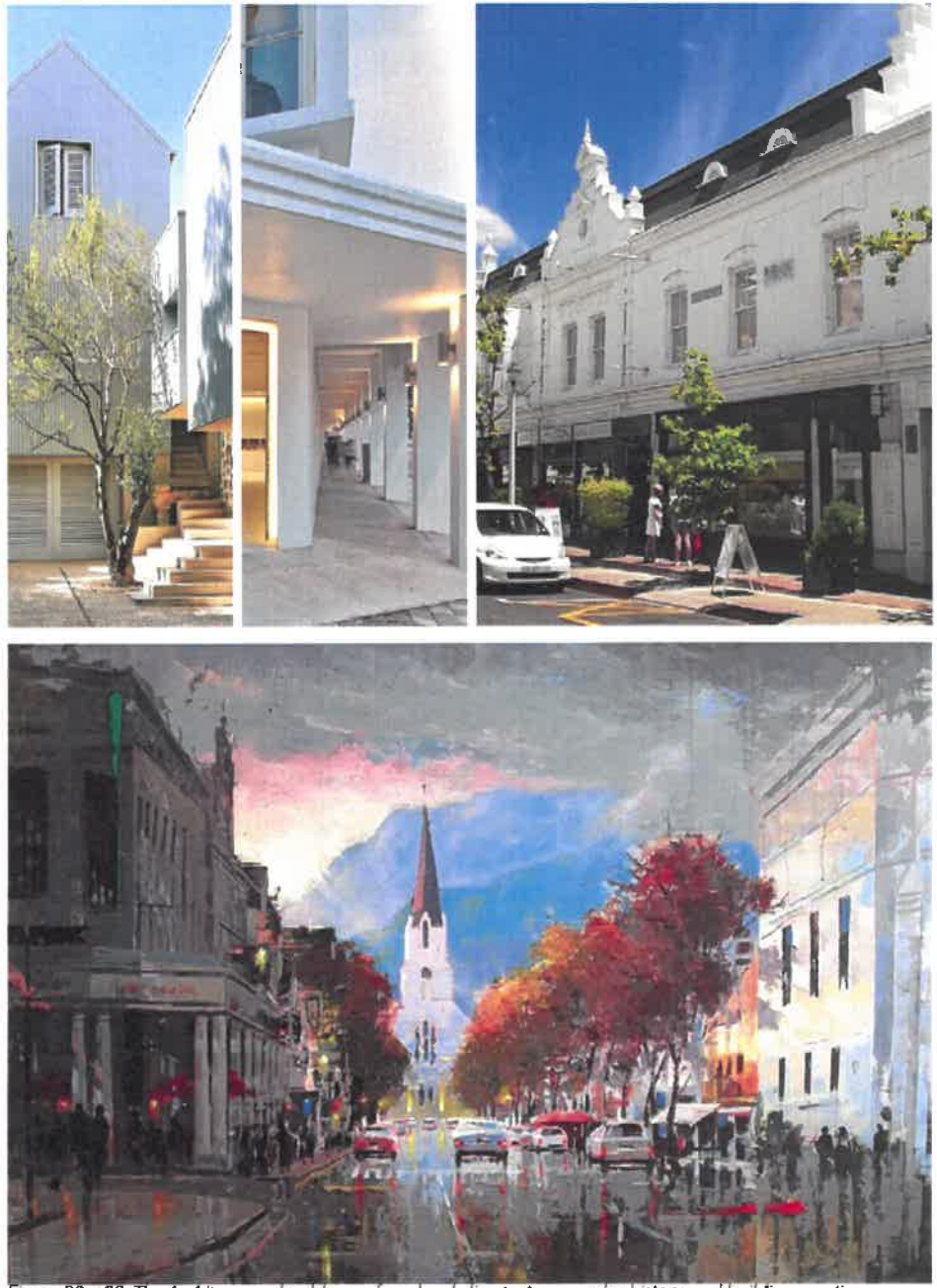


Figure 90. - 93: The Architecture should grow from local climate, topography, history, and building practice

Figure 94.

Figure 95.

4.2. MATERIALS AND QUALITY OF WORK

4.2.1 Building materials of a high quality are to be used in order to ensure the structural integrity of the buildings over time, and to maintain their appearance.

4.2.2 Within the constraints of the colour code a wide range of materials is possible. (Figures 63-66)

4.2.3 In general, materials which are high quality and low maintenance and which assist in the expression of the architecture should be used.

4.2.4 All materials and their application are to be to the satisfaction of the Developer's Assessment Panel whose judgement will be directed by, but not limited to, the extent to which any material is integral to achieving a high quality, architectural design.

4.2.5 All materials should have an adequate record of application in the local climatic conditions.

4.2.6 High quality materials such as suitably treated glass, anodised or coated aluminium, stainless steel, and natural stone are acceptable and encouraged. Other high quality products will be considered but only at the discretion of the Developer's Assessment Panel.

4.2.7 All surface coatings are to be long lasting, enduring in quality and appearance with low to moderate maintenance needs.

4.2.8 Wall materials may vary from high quality masonry block to sealed or painted textured plaster surface, suitable stone and offshutter concrete.

4.2.9 The choice of materials should reflect energy conservation consciousness, appropriate to the building's use.

4.2.10 All buildings should have articulated façades with the use of shading devices, and generous overhangs strongly encouraged.

4.2.11 The latest issues of specifications, regulations and codes of practice (e.g. SABS/SANS specifications) shall be applicable. Wherever the SABS/SANS has prepared specifications for materials or products, such materials or products, are to be made and supplied to the Bureau's specification, and further, where materials and products are manufactured by Permit Holders of the SABS, such materials and products must be supplied with the SABS/SANS Codes of Practice.

Figure 96. - 99 Images showing the preferred materials and their application.

Figure 100. Image showing appropriate mix of lightweight and solid construction

4.3 COLOURS AND TEXTURES

4.3.1 A range of white; dark greys, natural stone; and timber should be used as a unifying theme of all architecture throughout the town.

4.3.2 LIST OF SUGGESTED / PREFERRED COLOURS & TEXTURES:

- General - white to grey, sand to taupe, monochromatic as shown in Figure 68.

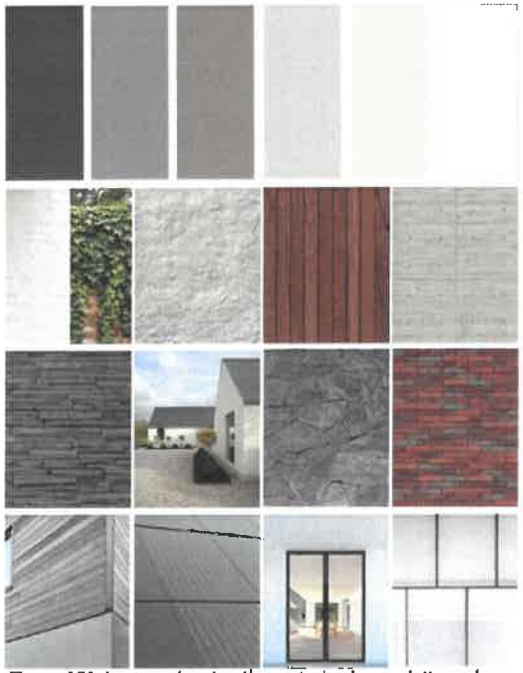


Figure 101. Images showing the muted colour palette and range of textures for SBP.

Figure 102 -105. Images showing the preferred palette of colours and textures to be used throughout the SBP

4.4 ARCHITECTURAL CODES: ELEMENTS OF THE BUILDING

4.4.1 FAÇADE TREATMENT: HORIZONTAL TREATMENT & VERTICAL MODULATION

4.4.1.1 The design of the façade must add to the continuity of the street edge and the cohesiveness of the entire precinct.

4.4.1.2 The manner in which the building meets the ground must be addressed positively: a plinth or base is suggested. Underground parking lots may be treated in such a way as to serve as a plinth

4.4.1.3 To create a well-defined street front architecture the following should be incorporated: (Figures 70 & 71),
- Canopies and awnings
- Balconies and terraces to animate the street façade

4.4.1.4 As with other elements of the composition, the onus is on the architect to demonstrate to the Developer how any of the above elements are to relate to adjacent buildings, existing or not, and promote continuity of streetscape.

4.4.1.5 The scale and placement of the buildings is important in providing a unity of structure. Extensive, unrelieved façades are discouraged, as are isolated and standalone ones.

The proportioning system and façade composition used is a vital element in the overall design of the building and the manner in which it is to be used. The architect will be expected to demonstrate to the Developer how the module relates to the overall design of the building.

4.4.1.6 All apertures and fenestration should be carefully considered in a proportional system that brings all windows, doors, balconies and recesses into a relationship with the façade's specific modulation.

4.4.1.7 FAÇADE MATERIALS AND COLOURS

The facade treatment should follow the general guidelines for materials and colours, as specified for Stellenbosch bridge.

Figures 106-107: Images showing articulated facades, with balconies and sunshades.

FACADE TREATMENT

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4.4.2 SHADING DEVICES

4.4.2.1 Buildings are required to be energy efficient and must include passive solutions to climate control to reduce reliance on mechanical solutions. Such approaches include facade layering, shading of glass, suitable shading of north, east and west facades.

4.4.2.2 Most sun-screening devices such as balconies, colonnades, canopies, awnings, eaves, overhangs and multi-planar façades are encouraged.

4.4.2.3 Where heat-retardant glass is to be used, and subject to the materials specification in Annexure E, reflective mirror-faced glazing is not permitted.

Figure 111. Buildings must include passive solutions to climate control

Figures 112- 118. Image showing facade shading** through planting and louvres, deep recesses, colonnades, balconies, **eaves and overhangs

4.4.3 CORNER TREATMENT

4.4.3.1 There are a number of corner buildings in the town. Some of these are shown to require 'iconic status'.

4.4.3.2 The architectural treatment of corner buildings is to be accentuated through height, stature, elaboration and detailing.

Special consideration is to be given to signage on buildings that are iconic or form focal points.

Figures 119-123: Images showing sites earmarked for iconic corner treatment

4.4.4 ROOFING

4.4.4.1 A varying roofscape made up of pitched and 'flat' roofs is envisaged. Permitted materials include: (figure 55).

- High quality seamless fix, factory colour coated roof sheeting
- Concrete trafficable roof with appropriate finish, drainage, insulation and waterproofing
- 'Green Roof' – consisting of appropriate planting on fill on a Concrete roof with appropriate drainage, insulation and waterproofing

4.4.4.2 The roof should be considered as an integral aesthetic component of the building. The architecture must consider the relationship of the building to the skyline and to adjacent developments when viewed from various perspectives.

Figures 124 -129.: Images showing separate, low pitch roof forms that create a complex,use-appropriate roofscape

4.4.5 SIGNAGE: EXTENT, TYPE AND POSITION

4.4.5.1 In general, only the name of the company having naming rights to the building shall be displayed on the building's façade.

4.4.5.2 The architect must demonstrate to the Developer how any signage placed on a building's façade will form an integral part of the building's architecture. In addition, the building owner and architect will be expected to provide the Developer with a 'signage code' relevant to the building which designates a zone, or zones where signage is allowed and the restrictions placed on tenants with regards to such signage. This code is to form part of any standard tenant lease agreement and is to be the sole basis of any signage on the building's exterior.

Signage Zones:
A - Entrance Portal Zone
B - Alongside Entrance
C - Horizontal Corner Signage
D - Pedestrian Entry / Doorway signage
E - Vertical Corner Signage.

4.4.5.3 Each building is to have its street address displayed prominently at the main street entrance of the building. Such signage is to be in keeping with the character of the building and should be consistent with a signage "language" developed for the building as a whole in terms of typography, scale, material, fixing and lighting.

4.4.5.4 No sign shall be displayed on any exterior façade of a building without prior approval of the Developer. Similarly, the naming of buildings will be at the discretion of the Developer. Not more than one sign may be displayed on any one façade of a building provided that the Developer may waive this restriction where the length, proportions and form of the façade merit such waiver, or subject to the provisions of 4.5.6.5 below.

4.4.5.5 Where a development has been designed as a series of discrete units of a building, more than one company name may be displayed provided that only one name appears on each unit and that the sign is suitably reduced in scale to relate to the unit to which it applies. This multiple signage may be displayed on the façade of the building within a zone not exceeding 6m from the sidewalk to which the building relates. Products may not be advertised on the façade in this zone.

4.4.5.6 No product may be displayed or advertised except in the case of buildings designed with a retail component where product names and goods may be displayed and the name of the enterprise authorized to trade in and display particular products, may be displayed once per street frontage of the site. These signs must not exceed an overall area of 5m².

4.4.5.7 Signs relating to security services contracted on a particular site are to be limited in their numbers and displayed discreetly.

Figure 129. The architect must demonstrate to the Developer how any signage placed on a building's façade will form an integral part of the building's architecture.

4.4.6 SIGNAGE: AESTHETICS
(Type, Lighting, Materials)

4.4.6.1 Neither characters nor items of a sign shall exceed 1200mm in height and the sign as a whole shall not exceed 10m in length. Should the sign envisaged not suit these proportions, the guide will be followed that the overall area of the entire sign shall not exceed 12m2 provided that the Developer may, in the individual circumstances of a development, decide that such size may be inappropriate and reduce or increase it.

4.4.6.2 All elements of such a sign are to be affixed by means of concealed fixings and disengaged from the plane of the façade itself. The favoured fixing method encourages each character of a sign to be pin mounted individually at least 20mm from the surface of the façade.

4.4.6.3 Pylon signage, teardrop freestanding banners, free standing temporary signboards, banners, rotating (whirligig) signs, sandwich boards, bunting, sails, posters, balloons, blimps or other inflatable devices are all prohibited, unless temporary permission has been given by the Developer for promotions or exhibitions. The erection of flags is prohibited unless specifically approved by the Developer.

4.4.6.4 Signs are to be manufactured of high quality, durable and colourfast materials, preferably of natural or coated aluminium, brass,copper or stainless steel, and preferably with a matt finish. As far as possible the signage on buildings will be confined to monochromatic colours in the range from silver to white to grey to black. Only in instances of corporate livery or branding will accent colours be permitted in a sign.

4.4.6.5 Plastic or perspex signs and signs painted directly onto the façade will not be allowed.

4.4.6.6 Lighting of signage is to be predominantly in the form of concealed lighting. Signs should be backlit or lit from a remote, hidden source unless such lighting is designed as an integral part of the sign and, hence, of the building's facade.

4.4.6.7 Use of neon lighting is strongly discouraged, except for lighting iconic elements, for which use of neon lighting is encouraged. Moving, flickering or flashing signage is expressly prohibited.

Figures 131 -136: Signage Aesthetics

SECTION 5: SECURITY AND FENCING

5.1 With the emphasis on street-related architecture, the building itself must form the secure edge of the site.

5.2 The security of the building and lot must be designed as an integral part of the building's architecture and public façade.

This can be achieved in the following ways:

- Where applicable, mixed use activities such as retail and restaurants at ground floor level should be open to the street to enhance passive surveillance
- Basement ventilation grilles are to form an integral part of the building's architecture
- Any roller shutter grilles or gates securing access to driveways and parking areas should be visually permeable and aesthetically pleasing.
- Additional means of security such as CCTV and electronic beams are to be integrated into the overall architectural design.
- Lower level windows to public streets may be designed as non-opening elements. Toughened glass may also be a means of securing these apertures. Burglar bars are allowed, at the discretion of the Developer.
- Fencing may be required to strengthen perimeter security where a city block remains incomplete. Only visually permeable, high quality fencing will be allowed, and is to be applied at the discretion of the Developer. (Figure 91)

5.3 Additional security measures proposed by secondary developers will be assessed by the Developer and the POA in terms of the overall security strategy established for Stellenbosch Bridge

Figure 138. security of the building and lot must be designed as an integral part of the building's architecture

Figure 137. Only visually permeable, high quality fencing will be allowed

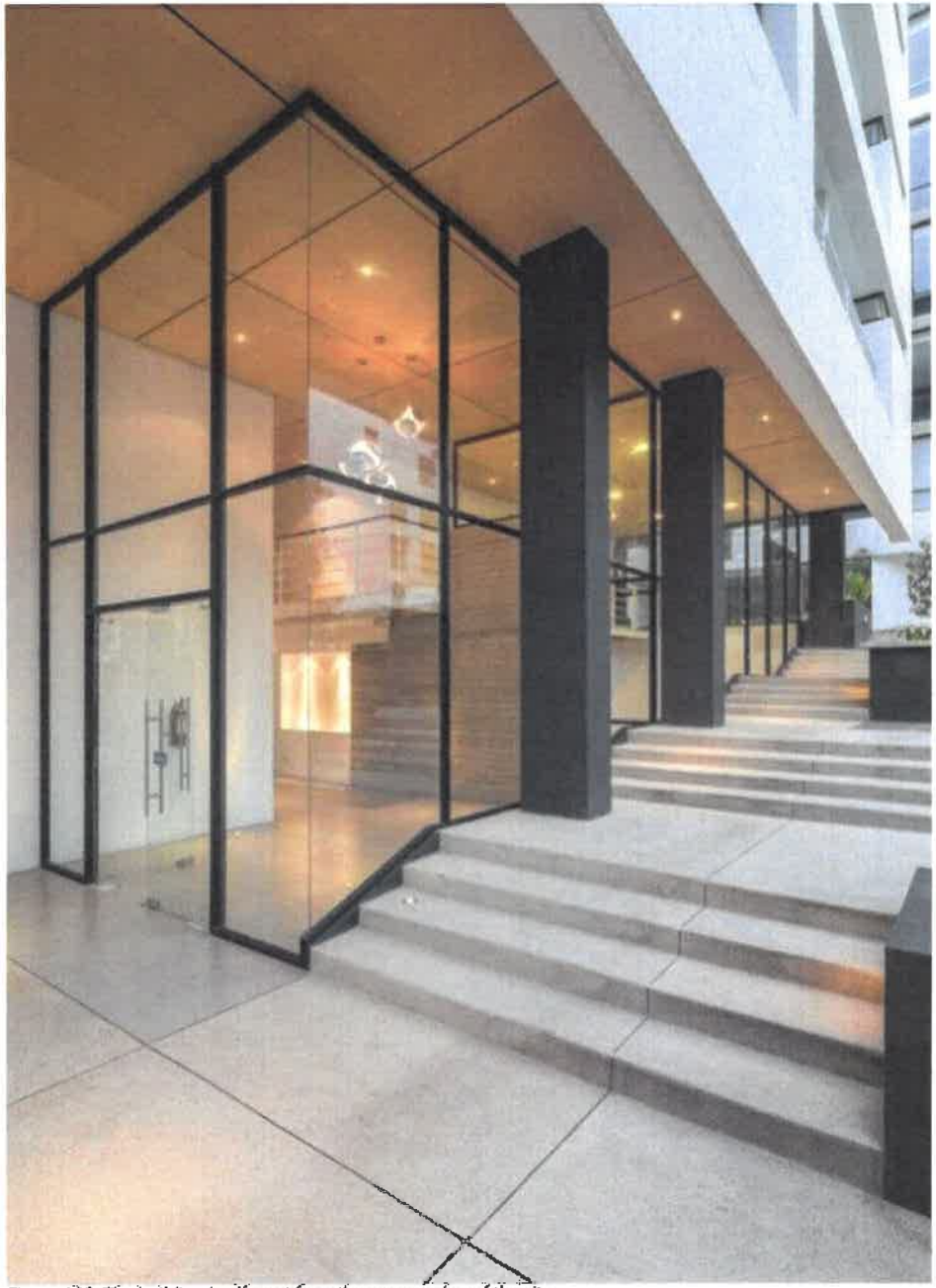


Figure 139. The building itself must form the secure edge of the site.

SECTION 6: BUILDING INNOVATION AND TECHNOLOGY

6.1. OVERVIEW

SUSTAINABILITY & ENERGY EFFICIENT DESIGN

The design of buildings in an innovation district has to create communities, facilitate collaboration and create serendipitous encounters in addition to housing innovation orientated activities.

The architecture has to facilitate and promote sustainability and innovation through design, planning processes, use of materials, construction processes and facility management.

The focus of the building has to be on the people occupying it for comfort, ease of use and diversity of options to perform functions in the provided spaces. At the same time speaking to human senses. Promotion of face to face communication and continuous visibility of occupants by each other is paramount.

The Stellenbosch Bridge Development encourages developers and architects to take reduced energy consumption and sustainability into consideration in their designs and to exceed the mandatory South African National Standard (SANS) 10400-XA Regulations. For more detailed information about the key directives of building innovation and technology processes refer to Annexure F.

All buildings in the Stellenbosch Bridge Development need to conform to the Green Star Guidelines. Refer to the Green Building Council of South Africa (GBCSA) Green Star Guidelines in Annexure H.

Figure 141.

Figure 142.

Figure 143.

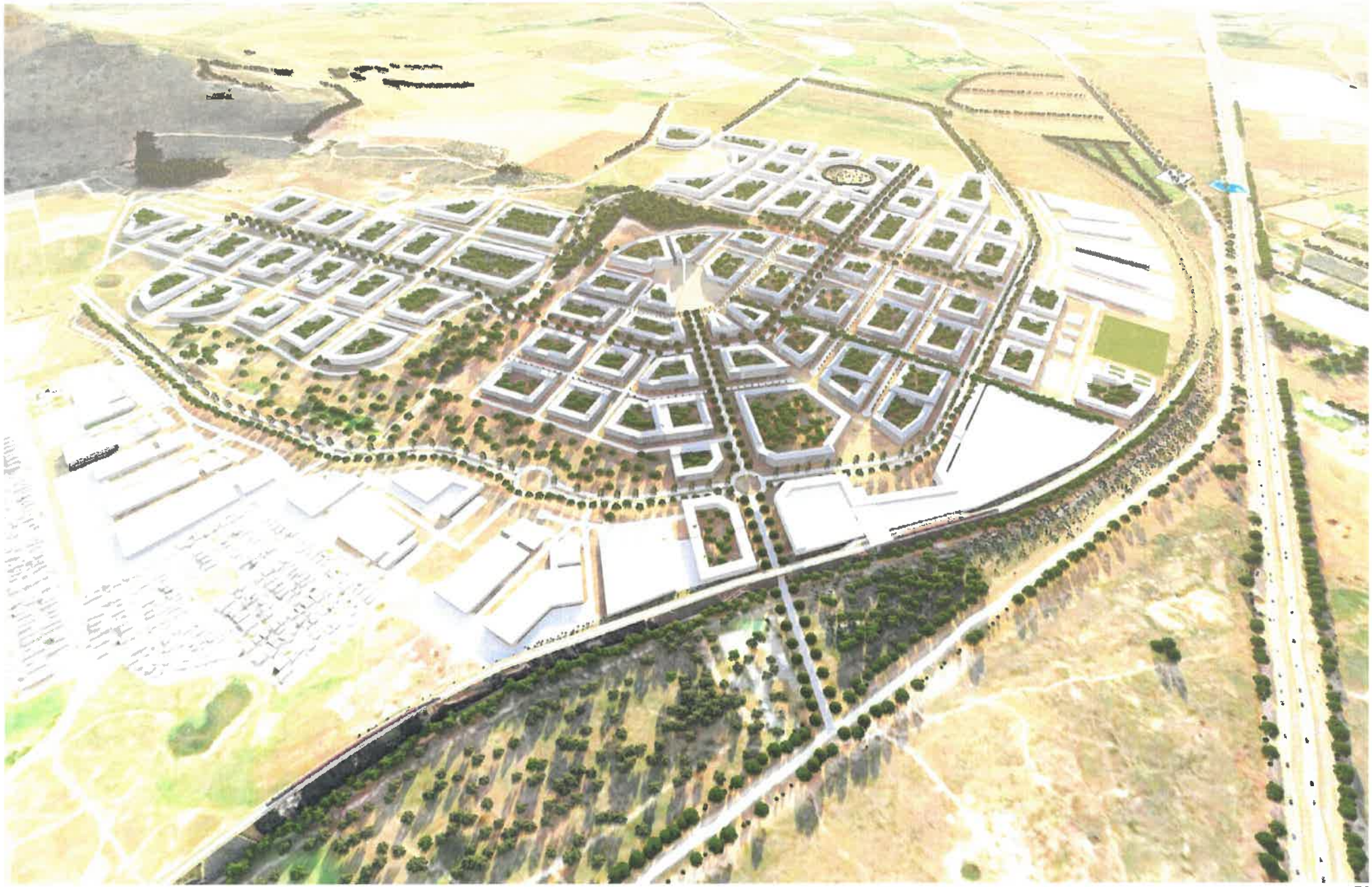


Figure 144.

Figure 145.

Figure 146.

Figure 147.

ANNEXURES

ANNEXURE A: STELLENBOSCH BRIDGE - DESIGN REVIEW PROCESS

Design Review Procedures

Step 1: **Pre- Design Briefing**

Step 2: **Statement of Intent** (submitted by Secondary developer)

Step 3: **Acceptance of Statement of Intent** by Primary Developer

Step 4: Submission of **Site Development Plan Documentation.**

- Detail Plan at scale of 1:200 (including elevations, sections; services; parking; site development controls etc.
- Consideration of context: adjacent buildings, activities, the street, neighbours, public & semi-public space, indication of treatment & materials.
- Comprehensive list & contact details of the professional team.

Step 5: **Consideration & recommendation for approval of the Site Development Plan** by Primary Developer

Step A: Submission of the **Site Development Plan** to Local Council for Consideration & Approval.

Step 6: Submission of **Building Plan Documentation**

- Detail Plan at scale of 1:100 (for more detail sections at scale of 1:20).
- Refinement of all details of the site development plan, plus dimensioned plans, sections, elevation, earthworks and retaining structures, and storm water management.
- Detailed Landscaping plan and land forming, including plant types.
- Signage policy.
- Schedule of materials, colours & other finishes.

Step 7: **Consideration & Approval of the Building Plan** by Primary Developer

Step B: Submission of the **Building Plans** to Local Council for Consideration & Approval.

Step 8: **Construction Review and Review of Detailed Items**

Step 9: Assessment of **As Built Drawings** and issuing of **Compliance Certificate** by Primary Developer

	TYPICAL OFFICE / COMMERCIAL	TYPICAL INDUSTRIAL	RESIDENTIAL	RETAIL	OTHER
Roof	A: Flat concrete roof or flat concrete roof with landscaping (green roof); B: Visible pitched roof- metal profiled sheeting, colour treated (dark grey); C: Low pitched metal roof to be concealed behind parapet; No concrete/ clay tiles. Flat roofs to have trafficable surface. Sculptural roof elements permitted to enhance entrances or at landmark situations (as identified on land parcel sheets), subject to assessment panel approval.	A: Flat concrete roof or flat concrete roof with landscaping (green roof); B: Visible pitched roof- metal profiled sheeting, colour treated (dark grey); C: Low pitched metal roof to be concealed behind parapet; No concrete/ clay tiles. Flat roofs to have trafficable surface. Sculptural roof elements permitted to enhance entrances or at landmark situations (as identified on land parcel sheets), subject to assessment panel approval.	A: Flat concrete roof or flat concrete roof with landscaping (green roof); B: Visible pitched roof- metal profiled sheeting, colour treated (dark grey); C: Low pitched metal roof to be concealed behind parapet; No concrete/ clay tiles. Flat roofs to have trafficable surface. Sculptural roof elements permitted to enhance entrances or at landmark situations (as identified on land parcel sheets), subject to assessment panel approval.	A: Flat concrete roof or flat concrete roof with landscaping (green roof); B: Visible pitched roof- metal profiled sheeting, colour treated (dark grey); C: Low pitched metal roof to be concealed behind parapet; No concrete/ clay tiles. Flat roofs to have trafficable surface. Sculptural roof elements permitted to enhance entrances or at landmark situations (as identified on land parcel sheets), subject to assessment panel approval.	Green Roofs Encouraged.
External / Vertical Surface Treatment / Walls	Majority of facade to be white rendering/ plaster. Natural stone; facebrick; off shutter concrete; timber and metal sheeting accents.	External White Plaster. Metal sheeting accents.	Majority of facade to be white rendering/ plaster. Natural stone; facebrick; off shutter concrete; timber and metal sheeting accents.	Majority of facade to be white rendering/ plaster. Natural stone; facebrick; off shutter concrete; timber and metal sheeting accents.	
Windows / Fenestration	Vertical proportioned aluminum or timber (painted or natural) frames/ mullions. ; openable; curtain wall type/ glazing as accent; deep recesses are encouraged; no mirror glass. No continuous strip windows - at lower and intermediate levels, individually identifiable elements required. Curtain walling permitted only at entrances or for specific effect, and subject to assessment panel approval.	Vertical proportioned aluminum or timber (painted or natural) frames/ mullions. ; openable; curtain wall type/ glazing as accent; deep recesses are encouraged; no mirror glass. No continuous strip windows - at lower and intermediate levels, individually identifiable elements required. Curtain walling permitted only at entrances or for specific effect, and subject to assessment panel approval.	Vertical proportioned aluminum or timber (painted or natural) frames/ mullions. ; openable; curtain wall type/ glazing as accent; deep recesses are encouraged; no mirror glass. No continuous strip windows - at lower and intermediate levels, individually identifiable elements required. Curtain walling permitted only at entrances or for specific effect, and subject to assessment panel approval.	Vertical proportioned aluminum or timber (painted or natural) frames/ mullions. ; openable; curtain wall type/ glazing as accent; deep recesses are encouraged; no mirror glass. No continuous strip windows - at lower and intermediate levels, individually identifiable elements required. Curtain walling permitted only at entrances or for specific effect, and subject to assessment panel approval.	Heat-retardant glass: no 'mirror' / highly reflective glazing.
Building base / Plinth	Natural stone/ Facebrick/ White plaster/ concrete or timber accents on plinths, lintels, plinths, feature walls.	Natural stone/ Facebrick/ White plaster/ concrete or timber accents on plinths, lintels, plinths, feature walls.	Natural stone/ Facebrick/ White plaster/ concrete or timber accents on plinths, lintels, plinths, feature walls.	Natural stone/ Facebrick/ White plaster/ concrete or timber accents on plinths, lintels, plinths, feature walls.	
Canopies / Sun shades	Metal frame with grating, etc; timber/ steel, colour to suite SB pallette. As appropriate to location and facade design. Retractable canopy system permitted. Encouraged for ground floor retail frontages. Max canopy projection to full width of pavement. Canopies may be cantilevered or supported by a lightweight structure - subject to assessment panel approval.	Metal frame with grating, etc; timber/ steel, colour to suite SB pallette. As appropriate to location and facade design. Retractable canopy system permitted. Encouraged for ground floor retail frontages. Max canopy projection to full width of pavement. Canopies may be cantilevered or supported by a lightweight structure - subject to assessment panel approval.	Metal frame with grating, etc; timber/ steel, colour to suite SB pallette. As appropriate to location and facade design. Retractable canopy system permitted. Encouraged for ground floor retail frontages. Max canopy projection to full width of pavement. Canopies may be cantilevered or supported by a lightweight structure - subject to assessment panel approval.	Metal frame with grating, etc; timber/ steel, colour to suite SB pallette. As appropriate to location and facade design. Retractable canopy system permitted. Encouraged for ground floor retail frontages. Max canopy projection to full width of pavement. Canopies may be cantilevered or supported by a lightweight structure - subject to assessment panel approval.	
Collonades	Collonades must wrap around building where applicable. Encouraged for ground floor retail frontages. Max canopy projection to full width of pavement.			Collonades must wrap around building where applicable. Encouraged for ground floor retail frontages. Max canopy projection to full width of pavement.	
Landscaping	As per Section 5.	As per Section 5.	As per Section 5.	As per Section 5.	
Entrance Portal	Double Volume, shaded from sun.	Double Volume, shaded from sun.	Double Volume, shaded from sun.	Double Volume, shaded from sun.	
Colours	As per SB pallette.	As per SB pallette.	As per SB pallette.	As per SB pallette.	
Textures	As per SB pallette.	As per SB pallette.	As per SB pallette.	As per SB pallette.	
Signage	As per Section 6.	As per Section 6.	As per Section 6.	As per Section 6.	

ANNEXURE F: BUILDING INNOVATION AND TECHNOLOGY

1. OVERVIEW

The design of buildings in an innovation district has to create communities, facilitate collaboration and create serendipitous encounters in addition to housing innovation orientated activities.

The focus of the building has to be on the people occupying it from a comfort, ease of use and diversity of options to perform functions in the provided spaces. At the same time speaking to human senses. Face to face communication and continuous visibility is paramount.

Work space typically involves co-working spaces, meeting spaces and individual "start-up" and scale-up offices / tenant units also known as incubators and accelerators. Sometimes innovation spaces can also be makerspaces where the making does not involve noisy or noxious processes. These types of processes will require space in the light industrial component of the development.

The spaces to be versatile and adaptable so that it does not dictate or restrict process and creativity and promote new ways of communicating and sharing that leads to new and exciting ideas. Purpose and function outweigh aesthetics, however aesthetics is as important in creating a suitable mood / ambiance for the work and communication to proceed. Warm and natural environments are favored with little regimentation – a place or space " in the making" atmosphere, open and inviting.

Figures 1-3

2. DESIGN INTERVENTIONS

2. Design interventions to promote interaction and for people from different floors / zones in the building to meet includes inter alia.

2.1. ATRIUM:
Wide enough to see and recognize people on other levels. Daylight contributor. View down to floor eg. collaboration / co-working desks

2.2. INTERNAL STAIRCASE:
Wide open and inviting to use. Centrally located. Lifts positioned out of sight.

2.3. CORRIDORS:
Designed to move people through each other's zones with glass walls to look in, promote meet-ups by arranging corridors to lead to a central hub before radiating in a different direction. Corridors as controller of noise ie. quiet vs more noisy areas arranged via corridors leading foot traffic to or away from certain areas. Corridors as unstructured meeting spaces. Corridors to lead to informal break away spaces where people are to be seen working / meeting in circumstances that invites others to join eg: indoor or outdoor amphitheatre seating area. Easy link to refreshments and ablutions via these spaces.

These spaces start to blur the traditional divide between "home" and "work" and "public" places.

This is achieved by "domestic style" kitchens and living rooms in these zones with the next step up being coffee bars and café's that includes work / spaces. To add to the blur of specific ways to act in specific spaces "play" spaces are to be added to allow the mind to temporarily focus / concentrate on a totally different activity eg. table tennis etc.

Buildings to be demystified by being open and transparent from the outside in and inside. People who do not necessarily "belong" in the building to be invited to enter and experience and ultimately meet persons and join the community. Anybody to feel they can "own" the space especially on ground floor. Security arrangements to not be visible nor a deterrent. Inside activities to be placed so as to be easily seen and experienced from outside the building.

Spaces to be provided to host the progrmme of events envisaged in the building including visitors from outside eg. foyers, tiered seating, presentation screens, exhibition space, co-working space etc. All aspects of technology to be seamlessly incorporated.

Figures 4-5

3. INNOVATION DISTRICT OVERLAY TO DESIGN GUIDELINES:

The constitution of the village to be co – ordinated with the design guidelines to collectively achieve the goal of an innovation district. Landlords to commit to the following tenanting and general contribution to innovation village goals.

3.1.Innovation sectors shall be clustered and represented by business and research institutions. Bespoke tenanting shall apply. The tenanting / user profiles shall be submitted to the Stellenbosch Bridge management committee to evaluate / comment / approve to fit the bigger picture of concentrating regional economic strengths. Building's design shall allow for multiple tenanting of diverse industries and be easily convertible.

3.2.Building developers shall acknowledge a convergence of different sectors in their building and the precinct. Dissimilar industries to be housed to promote collaborative research / conversation / cross cutting technologies to evolve. Tenants shall subscribe to participation in some collective research and development activities in open forums / presentations / events etc. in their spaces and / or communal spaces provided in the building.

Space planning shall therefore include visitors areas, presentation areas, co-working and display areas. Residential opportunities shall be promoted on or next to work spaces.

3.3.Tenanting shall have a diversity of sizes in the addition to diversity of industry / research sectors.

Collaboration between larger corporate tenants / research institutions and smaller start-up firms. private / academic and civic institutions shall be welcomed and promoted in the configuration.

3.4. Landlords shall acknowledge the need to locate diverse industry sectors in close proximity and to be easily accessible and visible in the building. Visual permeability into work zones / reception zones etc. from the street / foyer areas will apply to ensure awareness and promote connection. Each building shall house some open public amenities at street level such as restaurants, shops, service providers / agents. Where the façade is not taken up by these functions, work spaces tenants shall have visibly active activities inside in addition to displays of research / products.

3.5. Landlords and tenants shall partake in the village community life initiatives and design their buildings to offer itself to initiatives such as festivals, decorations, banners, lighting, hook points, extended public realm and other physical infrastructure possibilities. Landlords and tenants shall partake in initiatives to create innovation momentum and awareness and offer their buildings / spaces to contribute in this way indoors and outdoors. The innovation district management committee will run programming initiatives with input /collaboration of all inhabitants to make use of these offerings.

3.6. Each building shall offer an "exceptional" space that is identifiably contrasting with the general aesthetic so as to be a visible landmark, pod or place with a name and identity as a meeting spot / work area.

Figure 6

3.7. Public area displays of innovations and innovation progress:

The innovation district will feature public outdoor and indoor display areas / pavilions / display boxes on sidewalks and the public square. Landlords / tenants shall display and explain their inventions in these areas including audio or text explanations. Tenants will occasionally host their design discussion sessions in such public space and invite participation by other industries in the village or outside. These events will be hosted in suitably designed foyer / common spaces in the buildings until the communal facilities are complete and on ongoing basis. The public square will feature spaces / places where experimental structures can / will be erected and at times run as a visitor / information centre. eg: Green Building interventions.

3. 8. Each Landlord / Building owner shall offer a section / portion of the building for localized handcraft and manufacturing industry with the aim of uplifting local Klapmuts communities. These spaces would be offered t discounted rates until these industries start to thrive.

Examples include jewelry making, leather goods, specialized foods manufacture eg, spices, printing shop, school level assistance such as homework studio / extra classes etc.

3.9.Due to success of the village, rental values will exceed expectation and make spaces unaffordable to start-up companies. Landlords shall offer a suitable % of their space at discounted rates to start-ups and a different but also discounted rate for scale ups. Landlords shall assist tenants with avenues to finance.

3.10. Landlords shall acknowledge that for an innovation district to function properly a horizontal bottom up governance model will apply. Governance will include business, academic and civic institutions, workers, researchers and residents. All parties to partake and contribute time and effort to the collective success. An open source approach and part contribution is expected. This will apply mutatis mutandis to their buildings and spaces and the management thereof.

3.11.Landlords shall design their buildings in accordance with the guidelines provided and overlay design principles that contribute to a mindset and promotes a subconscious state of mind that works for innovation. These include the following on interior and exterior:

3.11.1. Application of the principles of Biophilia. These include plant and animal forms, water, fractal patterns, coherence and legibility and mathematical complexity.

The health of individuals in the environment are to be acknowledged as a result of the complex interaction of the viewer and the environment and has significant impacts on the occupant's health and well-being physically and mentally. These aspects in design to be placed above artistic or "modernist" architectural expressions. The Biophilic concepts are not to be "applied" as a pastiche list of tricks. The principles of Biophilic design to inform a unique sense of place over and above the form giving architectural guidelines and focus on the tactile experience of the building user, this to be achieved. Along the path of progression up to and into the building with a view to calming

Figures 7-8

and visually stimulating the occupant to the level of sparked curosity. This mood changing event contributes to the spirit of uninhibited thought required for innovation.

3.11.2 DIRECT EXPERIENCE OF NATURE IN BUILDINGS

LIGHT: Allowing natural light into spaces from sides and from above. Interplay of lightand shadows and colour of light. Daylight changes experienced inside the building.

AIR: Buildings to have openable sections to allow fresh air and night time flushing.Air humidity, flow, temperature to vary in different areas.

Options include:
- Water bodies
- Minor ponds, fountains, aquaria, wetlands. Clean water faintly heard in motion is most satisfying inside or outside the building. A reference to historic Stellenbosch " leivore" is also to be considered.

WATER: Design to incorporate water, images of water, sound and smell of water.

PLANTS: Vertical green walls, plants at seating areas at eye level within reach, outside plant beds, mini forest for relaxation/path through. Planting to be abundantly applied not as single items except as focal points eg: large tree in a quad.

ANIMALS: Promotion of animal life through provision of trees, bird feeders, insect habitats, aquaria and displays of animals on large indoor video screens eg: at lift entrances.

WEATHER: Allowing inhabitants space and opportunity to experience the weather e.g. sun on skin, rain in a courtyard and mimicking weather conditions inside.

Views to outside, porches, decks, balconies, colonnades, pavilions, gardens etc.

NATURAL LANDSCAPES AND ECOSYSTEMS: Recreation of some indigenous plant life on the site or on accessible roofs. A Savannah like environment, moist and fragrant.

FIRE: For winter time – firepiaces or flame boxes for heating. Fire pit gathering spaces. Indoors and outdoors at seating areas, in gardens etc.

3.11.3 Indirect / "manufactured" experience of nature

- Images of mature: murals/art works
- Natural materials: using wood in structures and finishes, stone etc.
- Natural colours: Colour palette from the local plant life, soils and rocks on the site in addition to the culturally appropriate colour of Stellenbosch white. Stemming from burnt lime wash used as finish for historic dwellings.
- Simulating natural light and air: Where natural light and air cannot penetrate the building, these conditions to be simulated by technology.
- Naturalistic shapes and forms: Inspired by shapes and forms in nature and applied in decorations , double volumes, columns, fenestration and other elements where possible.
- Evoking nature: Acknowledgement of human observation of nature and evolution to want to recognize animalistic forms and faces in surrounds and facades.
- Information richness: level of detailing, order vs. disorder, allowing

Figures 9-10

and purposefully planning surprising breaks in order and utilizing it as incidental gathering spot or view point into the building.
• Age and change: visible in the building, patina change over time to become richer experience.
• Natural geometries: e.g. floor patterning/motifs.

3.11.4 SPACE AND PLACE

PROSPECT AND REFUGE:

Creating spaces that visibly offer the occupant a place linger and experience and take refuge:
• a corner
• a seating spot
• a view line from there
• a back against a wall
• a double volume space to experience
• Sufficient detail to make it worthwhile to look at and admire

ORGANISED COMPLEXITY:

• A grid pattern
• Orchestrated breaks in the pattern on plan, façade and volume providing reason and place to stop and stare/ experience/linger/gather/ create a landmrk.

PARTS LEADS TO WHOLES:

• Pattern of elements contributing to larger collective systems e.g. leaf to tree trunk. Principles applied to facades and progression/assembly of spaces.

MOBILITY:
• Not only in regimented straight lines – visual clues to subconsciously lead the occupant. Landmarks/systems to find the way back/recognize the neighbourhood provided in the facades of buildings or free standing elements eg: walking through mini forest on approach etc.

CULTURAL AND ECOLOGICAL ATTACHMENT TO PLACE:

• Recognizable unique character elements consistent to all built elements in the neighbourhood with reference to History, Biophilic aspects and Green Building Design.

Figures 11-12

STELLENBOSCH BRIDGE

LANDSCAPE FRAMEWORK & DESIGN GUIDELINES

JAN 2020

SQUARE ONE

CONTENTS

1 ANALYSIS & INFORMANTS

THIS DOCUMENT

This document provides the overall landscape intent and vision for the Stellenbosch Bridge development. It describes, in broad measure, what can as well as what cannot be done on the site. It outlines a clear landscape vision, supported by landscape principles, objectives and design guidelines for the area of development.

It illustrates these with the aid of a Landscape Framework Plan that describes, at a strategic level, where appropriate key landscape elements could be developed over time. The landscape framework will ensure a unified landscape and built form that responds to place, community, character and function. It is intended to provide a long-term vision, enabling the creation of a planned and deliverable network of high-quality green spaces as the setting of the future development.

The vision of the landscape framework is to create a resilient receiving environment that is able to provide a host of ecosystem services to all users of the site and to the valley as a whole.
This must be structured in a way that facilitates ease of management through design and by engendering a clear and valued sense of identity and place.

SQUARE ONE

LANDSCAPE INFORMANTS

Contours 5m

AB - Red-yellow well drained soils lacking a strong texture contrast

CA - Soils with a strong texture contrast

- Swartland Alluvium Fynbos (pink)
- Swartland Shale Renosterveld (light blue)
- Swartland Granite Renosterveld (dark blue)
- Boland Granite Fynbos (dark pink)

INFORMANTS

Contours

- The slope varies. Upper slopes are steeper. East facing upper slopes can be 1 in 8 in parts.

Soil

- Soil types affect infiltration of surface water run-off as well as planting strategies.

Characteristic Vegetation Types of Area

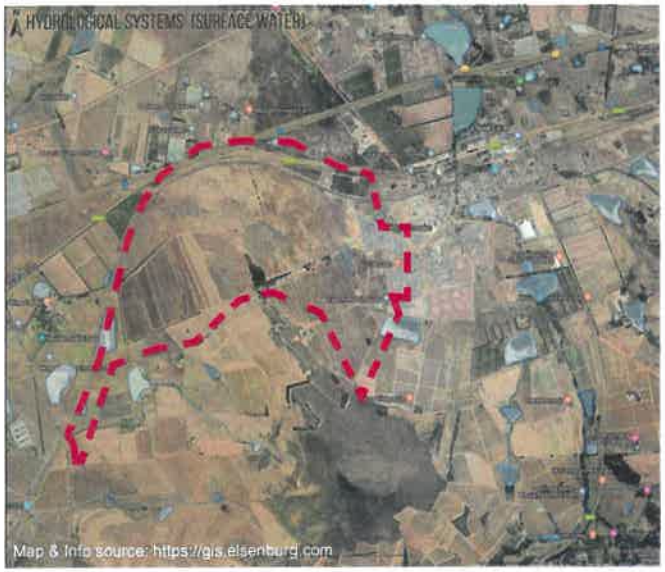
- This refers to planting that would exist naturally in this area. It informs the potential planting for the new development and any areas that might be of concern.

Conservation Areas

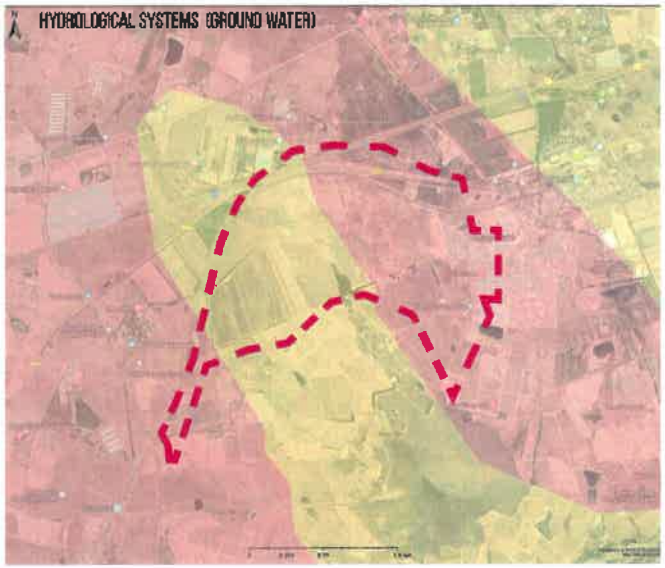
- Area falls within the Cape Wine-lands Biosphere Reserve for effective ecosystem implications
- Area part of the Greater Simonsberg Conservancy (GSC) initially established by private landowners (under Cape Nature's Stewardship Programme) as the Klapmutskop Conservancy farms around the Klapmutskop.
- Opportunity to use natural ecosystem services to benefit development. Continuity required for effective functioning of ecosystems and their services. Provide corridors to link Critical Biodiversity Areas and Ecological Support Areas throughout the development.

SQUARE ONE

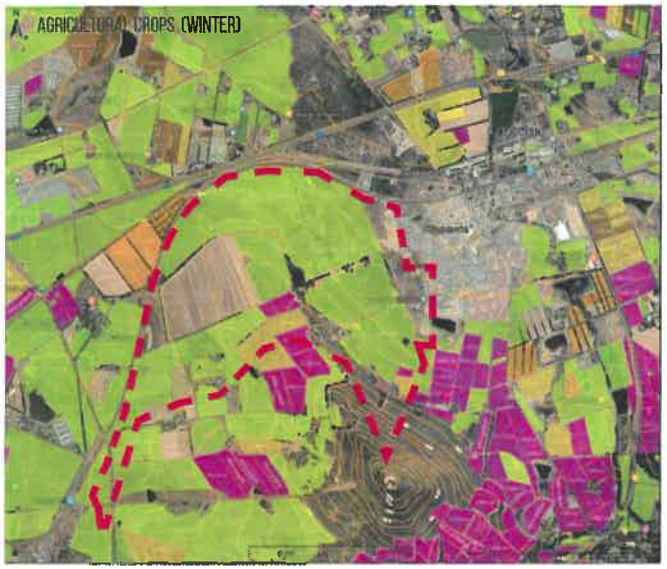
LANDSCAPE INFORMANTS



Surface Water bodies



Aquifer Classification



Crops (Winter 2017/18 census) Planted pastures Grapes

INFORMANTS

Hydrological Systems (surface water)

- Existing Surface flow direction needs to be acknowledged
- Development of impermeable surfaces increases surface water run-off. Needs to design elements to slow and filter run-off to avoid affecting lower lying areas adjacent to new development
- Surface water - infiltration - limited - clays
- Ground water infiltration to east portion of site -
- Build up of surface water along railway embankment

Hydrological Systems (groundwater)

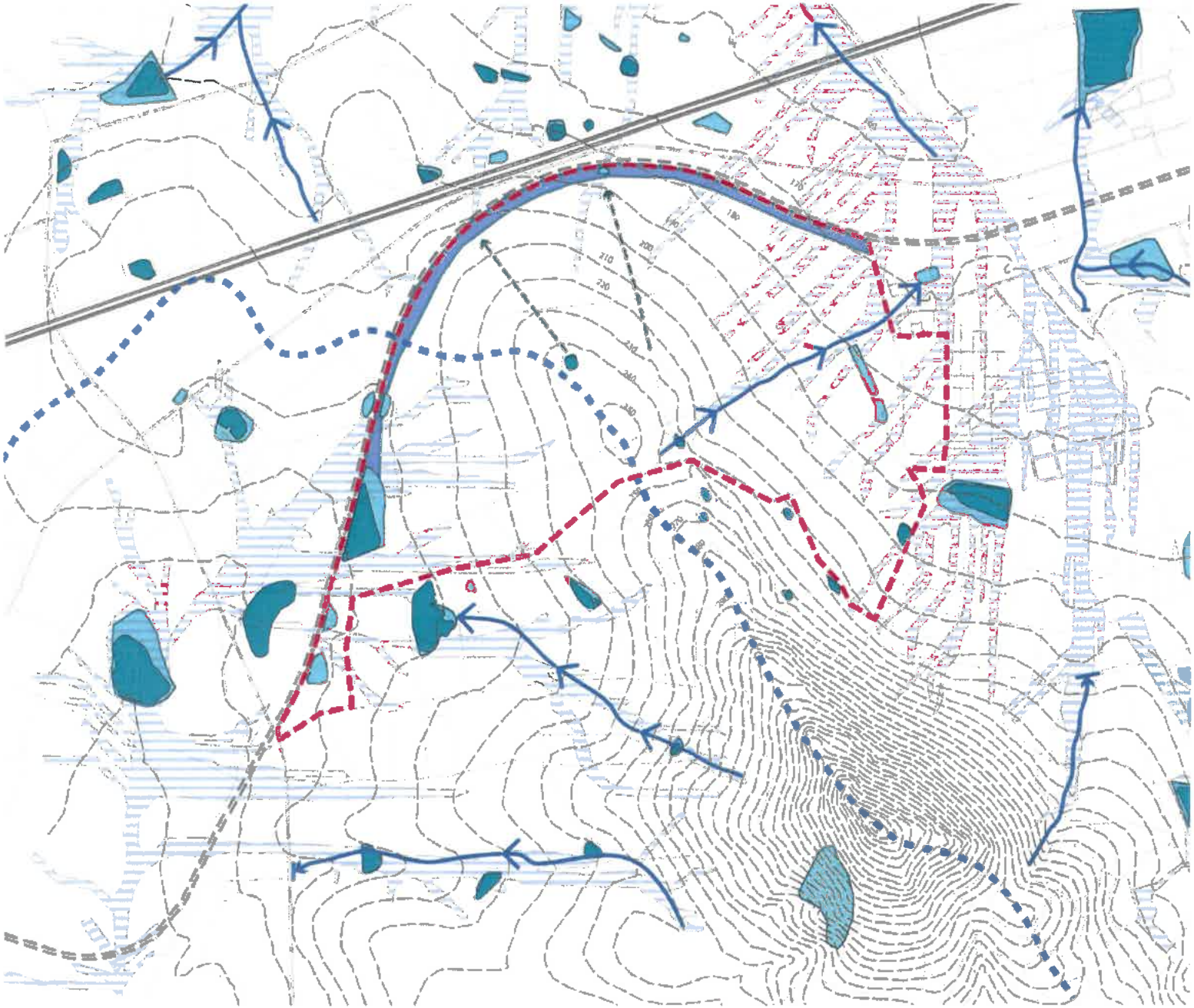
- Allow infiltration of surface water by providing bioswales, biofiltration basins etc.

Agriculture

- Cultural landscape of agriculture indicators suggest fruiting trees, orchards, vineyards.
- Dams and windbreaks in landscape recognized as part of this cultural landscape. Opportunity for integrating the characteristics of this landscape into the development to complement the cultural context.

SQUARE ONE

HYDROLOGY

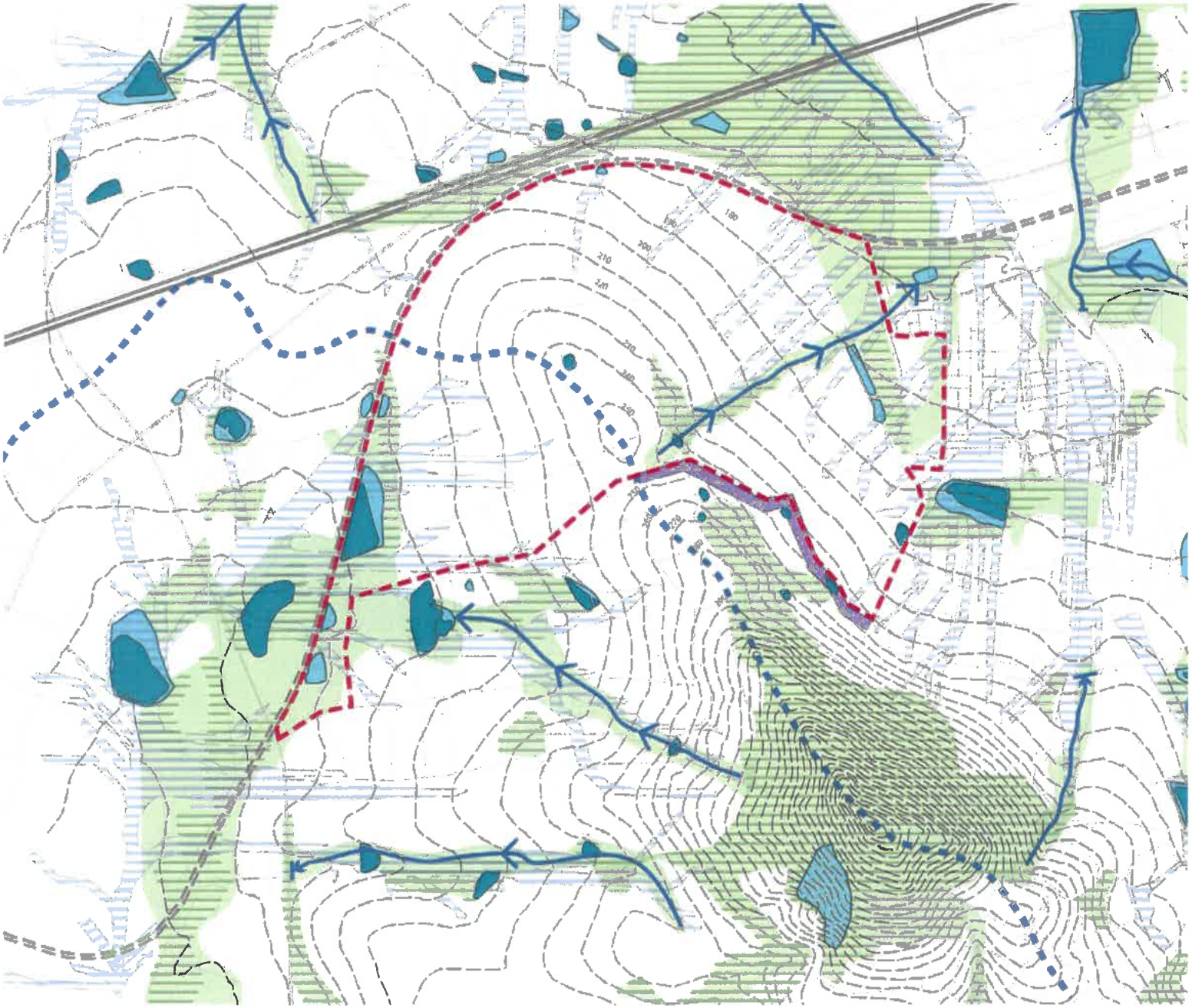


LEGEND

- Site Boundary
- Water bodies
- Wetland areas
- Flow accumulation zones
- Locally wet areas
- Highway (N1)
- Railway
- Arterial routes
- Perennial rivers
- Watershed line
- Drainage ditch

SQUARE ONE

ECOLOGICAL NETWORKS

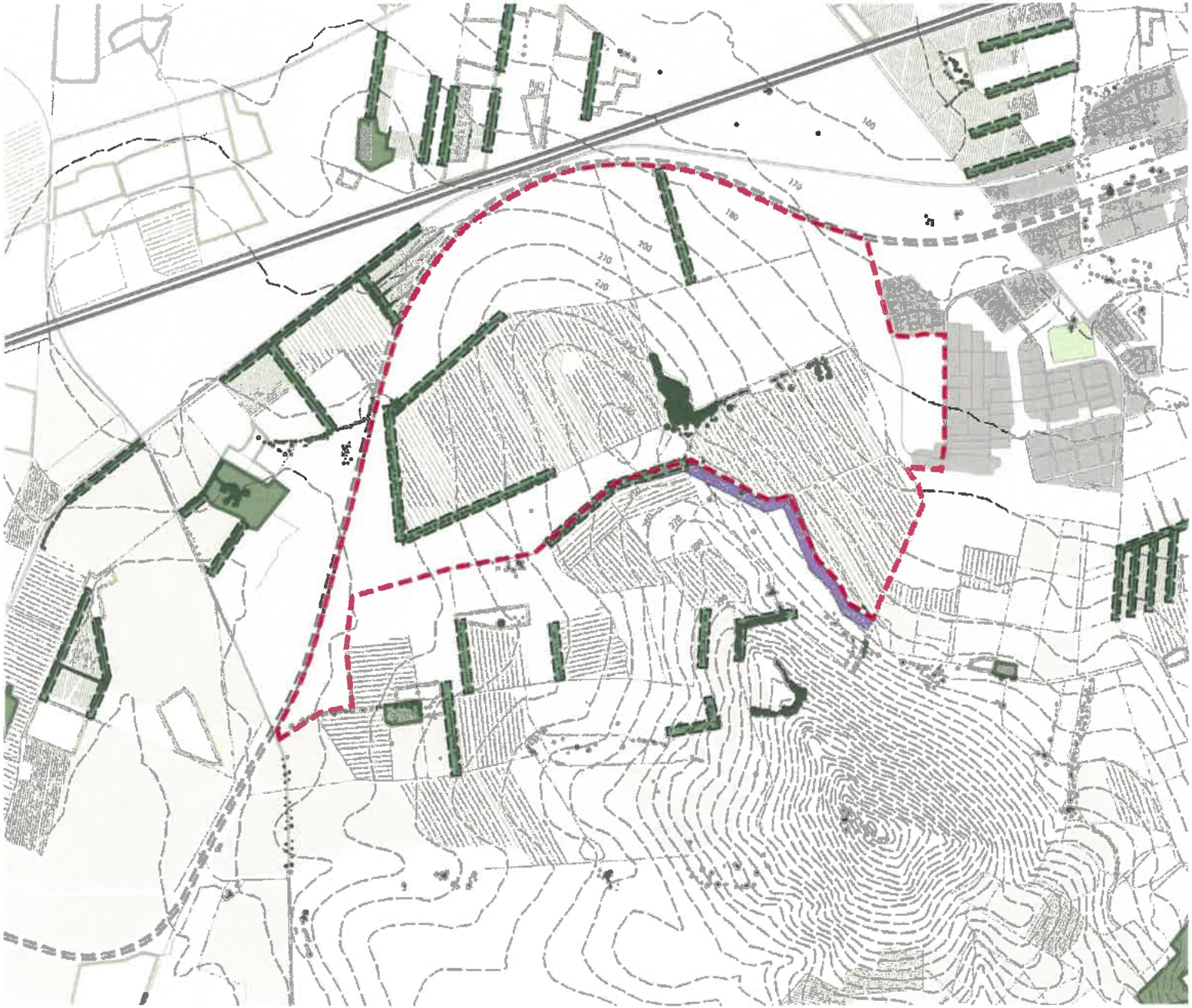


LEGEND

- Site Boundary
- Ecological Support Areas (ESA)
- Critical Biodiversity Areas (CBA)
- Fault line
- Highway (N1)
- Railway
- Arterial routes
- Water bodies
- Wetland areas
- Flow accumulation zones
- Perennial rivers

SQUARE ONE

LANDSCAPE CHARACTER ELEMENTS

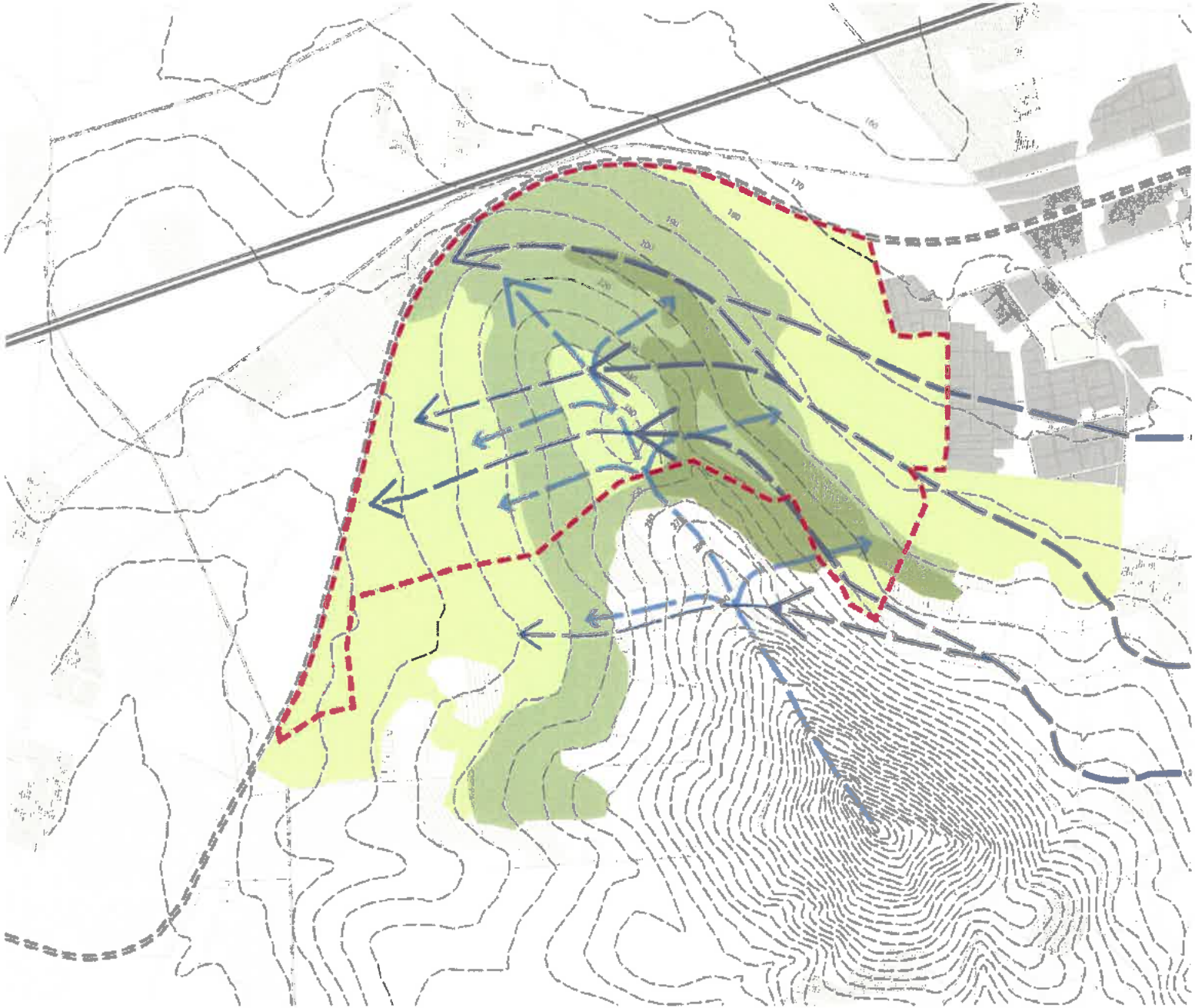


LEGEND

- Site Boundary
- Windbreaks
- Fault line
- Farm werfs
- Modern farmsteads
- Settlement
- Highway (N1)
- Railway
- Arterial routes

SQUARE ONE

SLOPE & WIND

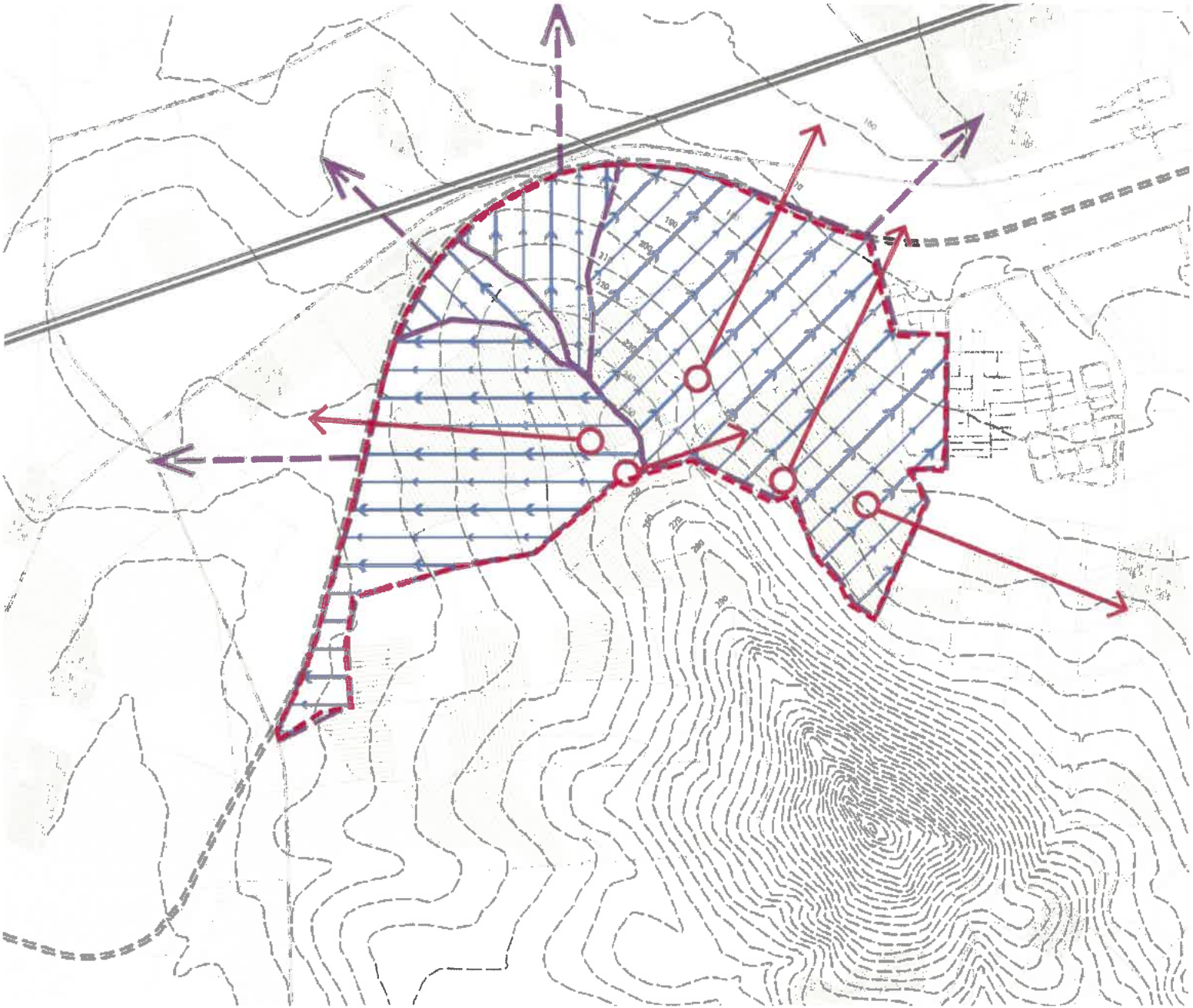


LEGEND

- Site Boundary
- 2-6% slope (- 1:9
- 6-11% slope (1:15 - 1:9)
- 11-16% slope (1:9 - 1:7)
- Highway (N1)
- Railway
- Arterial routes
- Prevailing wind
- Katabatic wind

SQUARE ONE

ASPECT & VIEWS

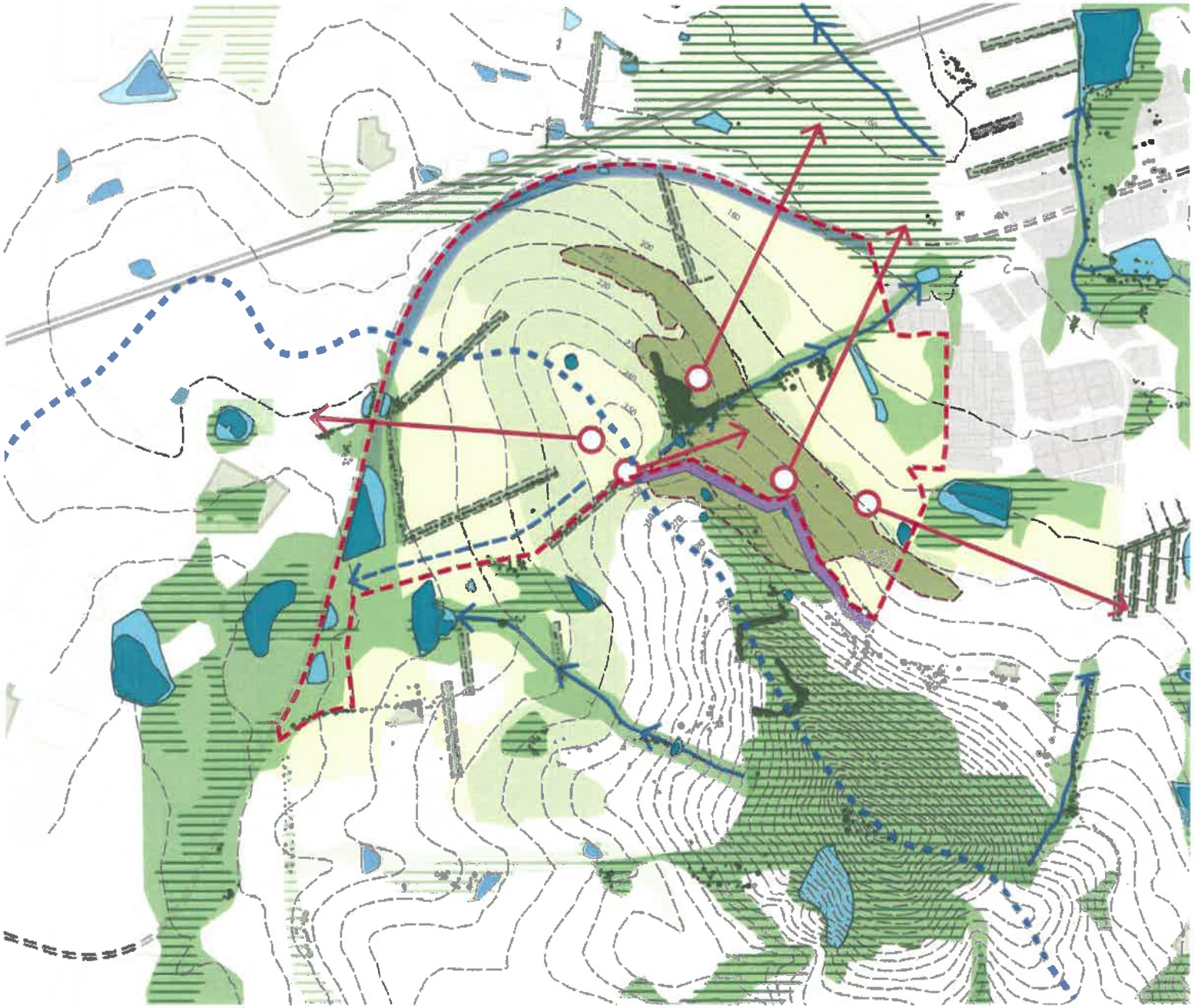


LEGEND

- Site Boundary
- Aspect/ Orientation area
- Highway (N1)
- Railway
- Arterial routes
- Direction of orientation
- View lines

SQUARE ONE

SYNTHESISED INFORMANTS

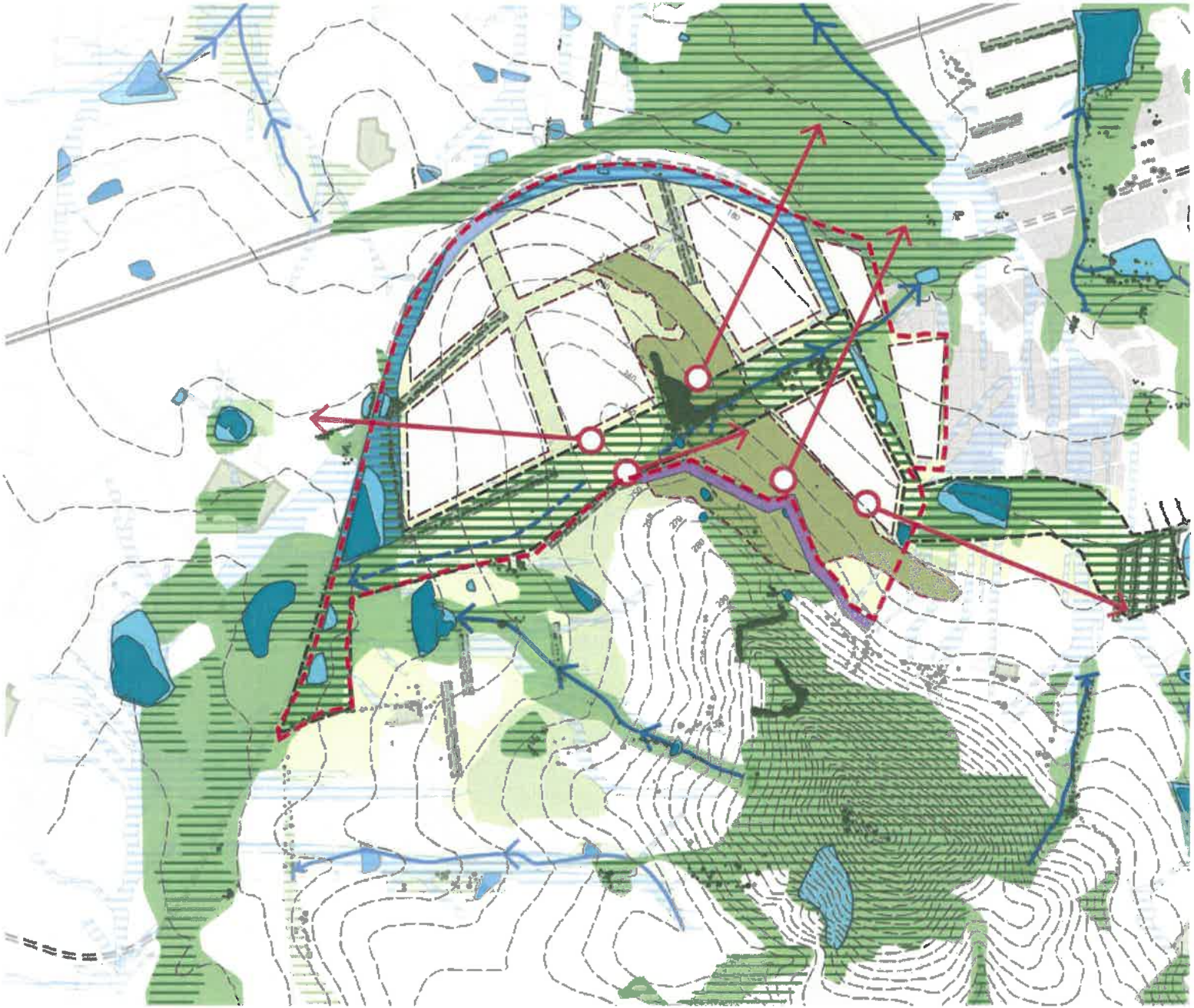


LEGEND

- Site Boundary
- Ecological Support Areas (ESA)
- Critical Biodiversity Areas (CBA)
- 11-16% slope (1:9 - 1:7)
- Windbreaks
- Fault line
- Locally wet areas
- Water bodies
- Wetland areas
- Highway (N1)
- Railway
- Arterial routes
- Perennial rivers
- Potential riparian corridor
- View lines

SQUARE ONE

LANDSCAPE CONSTRAINTS & OPPORTUNITIES



LEGEND

- Site Boundary
- Ecological Support Areas (ESA)
- Critical Biodiversity Areas (CBA)
- Potential ecological corridor
- Potentially difficult development gradient
- Potential character zones
- Windbreak
- Fault line
- Water bodies
- Wetland areas
- Potential wetland SUDS edge
- Highway (N1)
- Railway
- Arterial routes
- Perennial rivers
- Potential riparian corridor
- View lines

SQUARE ONE

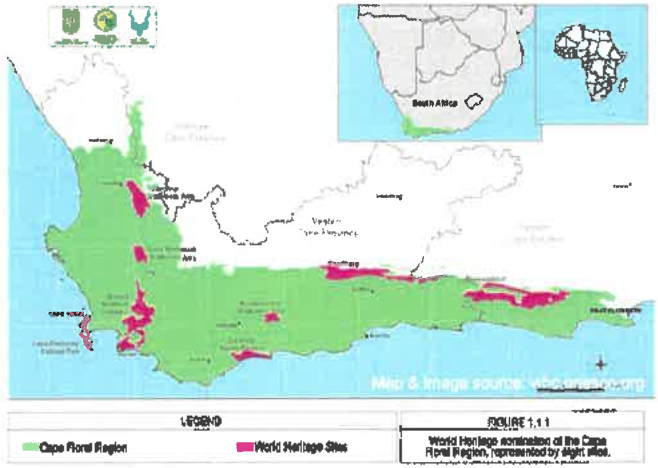
2 VISION & PRINCIPLES

LANDSCAPE VISION

The proposed Stellenbosch Bridge Development is located within the Cape Floristic Region, a distinctive fynbos biome. The Cape Floristic Region (CFR) itself, was declared a World Heritage Site in 2004, the world valuing this region as a site of outstanding universal significance. Swartland Alluvium Fynbos, Granite and shale Renosterveld are the original vegetation types of the area though little of it remains intact except in the less accessible upper reaches of the surrounding hills. The area is characterized by undulating plains and hills, most distinctively Klapmuts Kop, an isolated hill above the settlement that is a mix of shale, sandstone, granite and conglomerate. The value of the natural environment of this area was identified with the establishment of the Klapmuts Conservancy in 2004, later becoming known as the Greater Simonsberg Conservancy as the area under stewardship expanded.

The existing landscape is also the setting for numerous wine and fruit farms on the lower slopes. A distinctive landscape of vineyards, orchards, protective windbreaks and farm dams, forms part of the distinctive cultural landscape of the Cape Wine lands. Both landscapes are highly valuable.

The ecology of the Cape Floristic Region is not only aesthetically valuable but it provides supporting ecosystem services specifically adapted to the region. The agricultural landscape is valuable in terms of production and as concerns of resilience grow, is dependent on the ecology of the area to function effectively by means of working ecology into the cultural landscape. It is for this reason that the landscape within which Stellenbosch Bridge is embedded, will be one that acknowledges both agriculture and ecology in a landscape designed to be a reflection of Agro-ecology.



SQUARE ONE

LANDSCAPE DESIGN PRINCIPLES

The principles provide a set of objectives intended to guide the landscape design. They are adapted in part from Guidelines for the Provision of Open Space in South Africa (Prepared for the National Department of Rural Development and Land Reform, Republic of South Africa Prepared by: Isikhungusethu Environmental Services In Association with Louw and Dewar) and are as follows:

Put Nature First

Protecting ecological processes should be of the highest order in determining and designing for open space (protection and provision).

Promote Water Sensitive Design

This approach acknowledges storm-water as a valuable asset and resource for the development. It uses natural systems to slow, and filter surface water run-off, mimicking natural processes whilst providing social, ecological and amenity value for the development. WSD is applicable at all levels (erf, street, precinct) and includes a range of treatment options such as rain gardens, bioswales, biofiltration basins, wetlands, amongst others. WSD and open space therefore serves as a fundamental part of the development's blue-green infrastructure.

Provide Continuities of Blue-Green Open Space

Provide for continuities of green space (e.g. a blue-green lattice of park and the bioswale corridor along street edges). This is necessary to provide biologically diverse natural habitats that can respond and adapt to ecological change (resulting from changing environments, etc.) And provide resilient landscapes.

Promote locally-sourced Hard and Softscape Materials

Materials provided for the development should be locally sourced. This is not only closely tied to the cultural identity of the area but is also intended to minimize the impact of the development on the environment. Softscape planting should be similarly considered as a part of the development's identity.

Design for Low Maintenance

In terms of these spaces, on-going maintenance is essential as spaces that are not maintained have the potential to become liabilities rather than assets.

View all open space as positive social space

There should be no residual or leftover space. All space has the potential to serve as positive social space and contribute to a positively performing settlement. Open spaces (parks, streets, squares, etc) often have different roles but they need to be considered as a single spatial system that together forms a primary element of the public open space structure of the development. Open space has an important influence on our physical and mental health and wellbeing. It provides opportunities for healthy lifestyles and community interaction.

Provide Multi-functional Open spaces

All open space should be designed to be multi-functional, generously accommodating a variety of formal and informal recreational activities.

Design for Human Comfort

Open space elements should be designed for human comfort. They can provide protection from the wind, provide shading in summer and sun in winter. Low planter walls can serve as informal seating as well as spatial demarcation.

Consider Safety and Security

Though safety and security cannot be solved through design, they can be mitigated through design by providing passive surveillance opportunities, etc.

Provide for Sense of Arrival

As part of the landscape, provide clear identity that creates a sense of arrival that is integrated with the surrounding landscape.

Views, Vistas and Viewing Corridors

The development is located on a hill. It is therefore beneficial to maximize the views from the development, providing viewing corridors along recognizable View lines.

3 LANDSCAPE FRAMEWORK

SKETCH FRAMEWORK CONCEPT

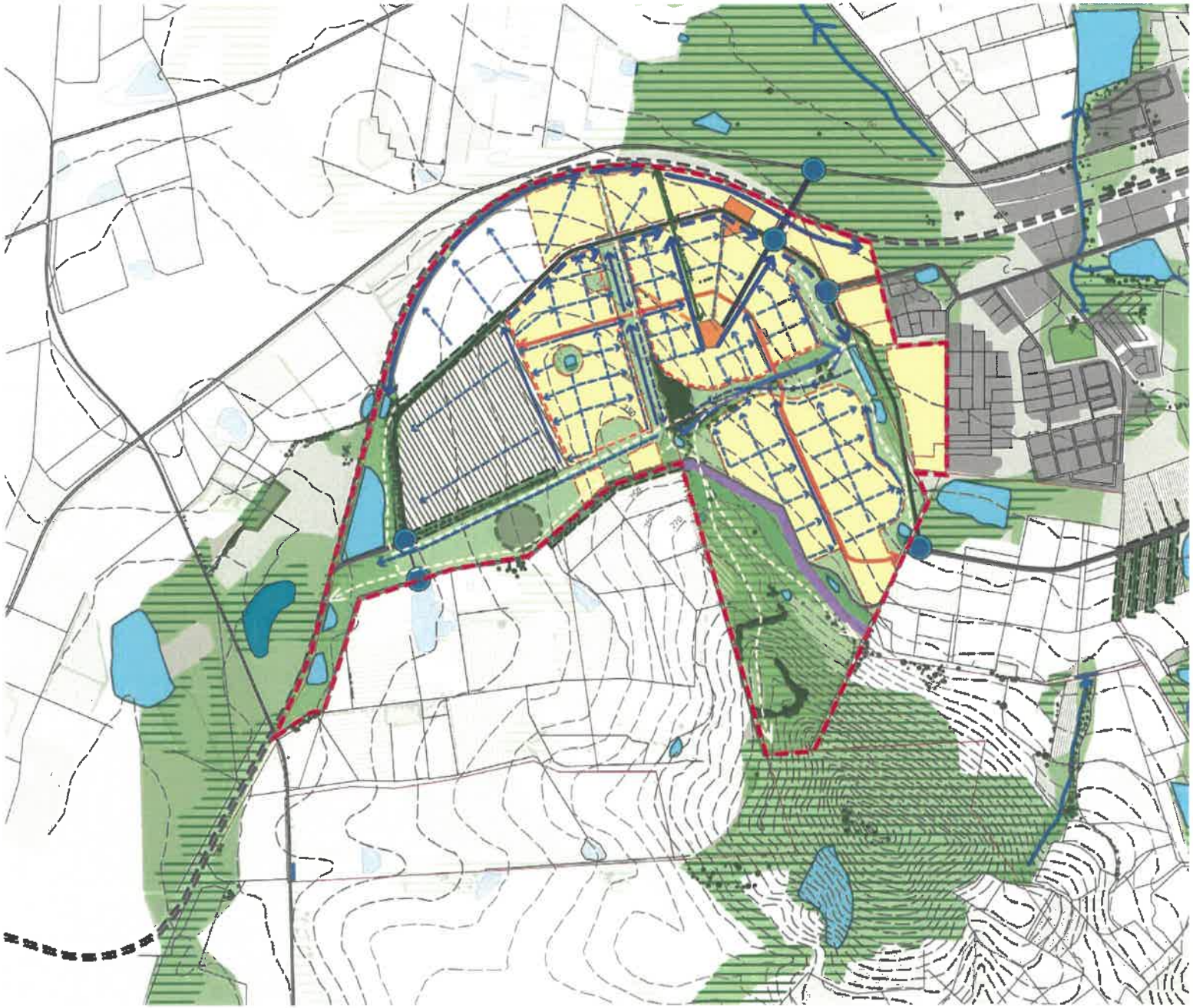
The Concept for the landscape framework draws from the existing landscape informants of the site & the surrounding area & uses them as a conceptual basis to structure the streets & distinct precincts of the scheme.

A blue green lattice of stormwater elements & indigenous & agricultural character planting will form a differnetiation in character of the different streets in the scheme & serve to create distinct identities in each individual precinct.

This network of landscaped spaces will also serve to convey stormwater throughout the scheme to key wetland & open space areas which will enhance the amenity value within the development as well as serve to link the scheme to ecological corridors outside of the scheme in adjoing areas.

Existing shelter belts and wind breaks are incorporated & expanded on within the planting of the scheme to tie the scheme to its local context, while more indigenous planting will serve to create ecological value within the established ecological corridors of the development.

LANDSCAPE FRAMEWORK



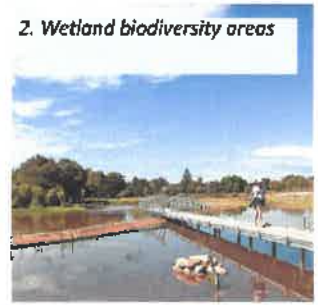
LEGEND

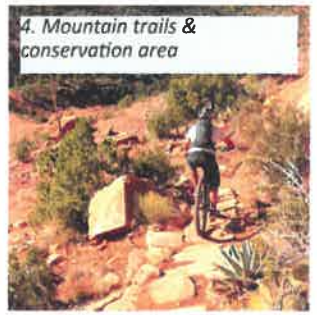
- Site Boundary
- Ecological Support Areas (ESA)
- Critical Biodiversity Areas (CBA)
- Development precincts
- Agriculture
- Squares & plazas
- Fault line
- Main spine
- Stellenbosch boulevard
- Innovation boulevard
- Green street
- Pedestrian street
- Highway (N1)
- Railway
- Arterial routes
- Dams
- Wetlands
- Existing waterway
- flow 1
- flow 2
- flow 3
- flow 4
- Weir feature

SQUARE ONE

KEY OPEN SPACE FIXES

SPACES





SQUARE ONE

4 LANDSCAPE DESIGN GUIDELINES

LANDSCAPE GUIDELINES

Conceptually, the name of the development, 'Stellenbosch Bridge' lends itself well to the notion of linking and connecting people, connecting people to natural habitats, connecting people to water, to agriculture and so on. The landscape design guidelines are informed by the landscape principles and provide a guide as to what can, as well as what cannot be done within the development. They also take into account the unique characteristics of the development's location. The landscape design guidelines are as follows:

1.0 Enhance Biodiversity

Enhance biodiversity potential wherever possible, throughout the site, to support ecological processes and serve as part of the ecological infrastructure. (Note: The upper slopes of Klapmutskop are part of the Greater Simonsberg Conservancy) To do this:

1.1 Create ecological corridors:

A. Vehicular movement routes should be designed to bridge the Eco-corridor wherever possible.

B. Create corridor link to mountain (Note: firebreak requirement/ urban edge)

1.2 Provide a biodiverse planting palette:

A. Planting proposed should be suited to its natural context (soil, climate, solar aspect, etc.)

B. Provide clear identity founded on agricultural-ecological landscape Recognition (Fynbos Fynmense) of the immense value that natural ecosystems provide supporting services for agricultural production in the area

1.3 Create identity & character through materials selection

A. Materiality should speak to the materials found on site & be sourced from the local region

1.4 Incorporate Spatial amenity. e.g.
Amphitheater space at upper dam for gatherings, viewing area
Lawns at lower wetland for picnicking, etc.
Boardwalks
Jetties

1. Eco corridor

2. Wetland biodiversity areas

3. Terraced swale landscape (green lung)

4. Mountain trails & conservation area

SQUARE ONE

ECO CORRIDOR & WETLANDS

The Eco corridor and its associated wetlands form the primary open space network of the scheme. Here water from the residential & other inflowing areas of the scheme should be brought & harnessed to create spatial amenity & to enhance biodiversity & connections to existing ecological networks.

Water

2.1 Design overflow from upper water body as naturally as possible.

2.2 Incorporate weirs to slow and filter water to avoid erosion.

2.3 Wetlands (existing water body) can serve as storm-water detention area/storm-water re-use park

2.4 Provide biofiltration basins for parks

A. Smaller parks within the more built-up areas need to also be considered as part of the storm-water detention system integrating depressed biofiltration basins into these areas. In the dry summer months, these can form part of the recreational spaces.

Softscape

2.5 Incorporate indigenous wetland planting wherever possible to provide suitable ecological habitat

Hard-scape

2.6 Hard-scape Elements and Materials

B. Stone terrace walls

C. Local stone

D. Laterite

E. Worcester gravel

F. Raised timber boardwalks

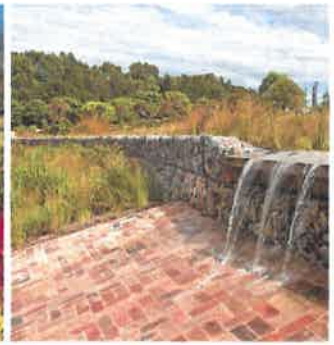
Spaces

2.7 Amphitheater space & wedding venue at upper dam for gatherings,
Viewing area
Lawns at lower wetland for picnicking
Boardwalks
Jetties

1. weirs in Eco corridor

2. boardwalks & jetties in wetland areas

Naturalistic indigenous planting in Eco corridor & wetalnds



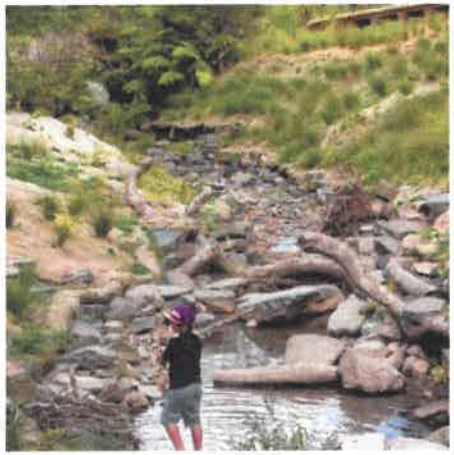
Natural local stone detailing in Eco corridor & wetland areas

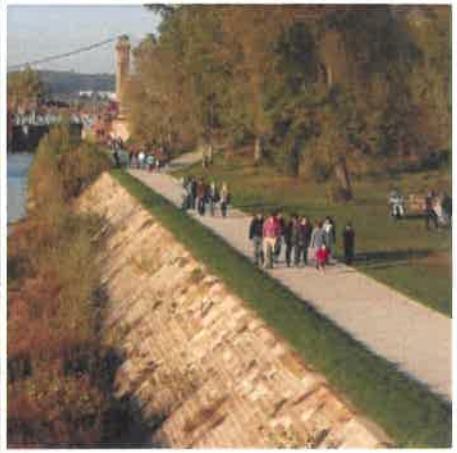
SQUARE ONE

ECO CORRIDOR







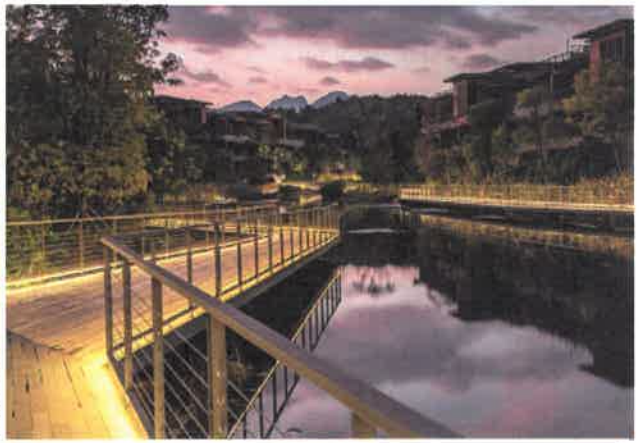




SQUARE ONE

WETLAND PARK






SQUARE ONE

BRIDGE







SQUARE ONE

MOUNTAIN RESERVE

The sites South Eastern most edge is bounded by the Klapmutskop conservation area which is of outstanding natural beauty & is designated as a critical biodiversity & conservation area. Part of the scheme falls within This reserve and the design and programming of this area will be crucial in the schemes success overall. Careful consideration must be made not to detract from the value that the agricultural landscape and indigenous vegetation bring here. The design of the Softscape & hardscaping must be carefully considered here and draw from the existing site condition as far as possible.

Outline guidelines

3.1 Incorporate and articulate View lines in landscape (don't obstruct)

3.2 Connect to existing regional trail system & create opportunities for varied outdoor leisure pursuits

Water

2.1 Terraces used to channel water to planting

2.2 Overall water-flow channeled to central Eco corridor

Softscape

3.3 Protect & conserve existing indigenous vegetation

3.4 Reinforce mountain agricultural character in planting arrangement & selection

3.4 Use Seasonal planting. Plants such as flowering shrubs, ground-covers, trees

3.5 Utilize existing planting arrangements & species, e.g. shelter belts, olives, vines & orchard grids

3.6 Design the landscape for human comfort. Provide trees as windbreaks as well as providing spatial definition; Deciduous trees to provide shade in summer and sun in winter

Hard-scape

3.7 b. Stone terrace walls

C. Local stone

D. Laterite

E. Worcester gravel

1. Laterite & stone paths on trails

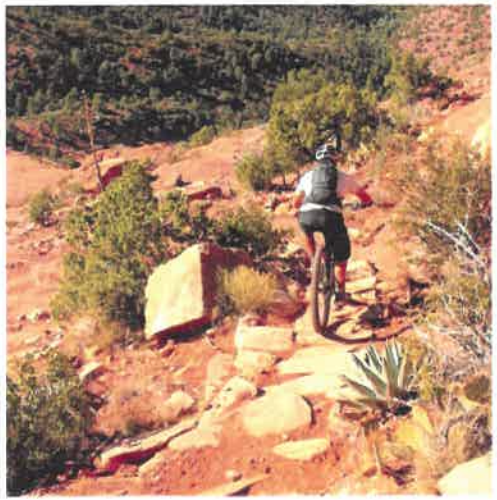
Linear arrangements of trees reflect agricultural character

Linearity within border planting

Look out points

SQUARE ONE

MOUNTAIN RESERVE








SQUARE ONE

GREEN LUNG

The sites central ridge-line extends Northward & forms a natural visual & topographic boundary between the distinct precincts of the scheme. This ridge-line is used as a green lung & a key open space for recreation and storm-water attenuation which will naturally flow northward from the sites highest point. Here water can be used as a key feature in a terraced system & recirculated to create a continuous feature year round.

Water

4.1 Incorporate weirs to slow and filter water to avoid erosion.

4.2 Incorporate Spatial amenity. E.g.
Crossing points & play areas in weir

Softscape

4.3 Protect & conserve existing indigenous vegetation

4.4 Reinforce mountain agricultural character in planting arrangement & selection

4.5 Incorporate indigenous wetland planting wherever possible to provide suitable ecological habitat

4.6 utilize a robust & low maintenance planting palette

Hard-scape

4.7 use natural stone/ gabions & dry packed walls for weirs & features

4.8 pathways to be constructed from natural stone/ Worcester gravel

4.9 utilize natural stone terraced features in areas of level change for spatial definition & universal access

1. concrete weirs with gabion walls & stepping stone features

Naturalistic indigenous planting

Natural local stone terracing & ramping in areas of level change for universal access & to delineate spaces

SQUARE ONE

GREEN LUNG

SQUARE ONE

URBAN SQUARES & PLAZAS

The scheme makes provision for a number of Urban Plaza typologies which each serve a different function in terms of creating social space & destination areas within the scheme. These typologies comprise a station transit square for arrival into the scheme from public transport modes, a central piazza & provision for smaller neighborhood block squares which serve to create smaller more private spaces.

Water

5.1 *Squares and Plazas*

A. Integrate sustainable storm-water systems into plazas and squares in order to allow interception and infiltration of storm-water

5.2 *Pedestrianized routes*
A. Provide Lei-water channels as part of pedestrianized urban area as part of the articulation of surface water. This refers to and reinforces the cultural identity of the Stellenbosch area.

Softscape

5.3 use indigenous planting palette in biofiltration zones

5.4 Use Formal grids of trees to provide shade & shelter from sun & wind

5.5 Seasonal planting – flowering. Plants such as flowering shrubs, ground-covers, trees

5.6 Deciduous trees used to provide shade in summer & sun in winter with evergreen trees to provide continuos structure & colour.

5.7 Softscape in areas with less traffic to provide definition & enclosure to spaces where needed

Hard-scape

5.8 provide permeable paving in areas which don't fall to biofiltration zones

5.9 Use locally sourced stone to articulate planter edges & raised elements

5.10 Use natural stone & gravel in biofiltration zones

5.11 Incorporate detail feature elements in paving to articulate different zones within space

1. Example of biofiltartion zone & water feature at transit square. Darling harbour

2. Water used as linear feature element in piazza square.

3. Steps used as seating to create social space in areas of level change in smaller squares

SQUARE ONE

STORM-WATER GUIDELINES

To counter the increase in impermeable surfaces, it is important to design for additional surface water run-off. Wherever possible, underground storm-water piping should be avoided except to deal with overflow. Landscape is part of the storm-water infrastructure. The storm-water strategy overall should take into consideration how water is treated throughout numerous areas of the scheme & the necessary approaches for each.

Water design on individual erven

6.1 Provide green roofs where viable, to slow and filter water. These also mitigate against heat build up in the summer months

6.2 Rain gardens/biofiltration basins within the erven can slow the water on each erf whilst providing amenity and ecological value

6.3 Provide permeable paving where hard-scape is required, with the option of underground tanks/cisterns to store water

6.4 Use Artful Rainwater Design strategies where possible, that articulate the storm-water flow

Vehicular movement routes

6.5 Along streets, boulevards, provide bioswales and bioplanters that intercept, slow and infiltrate storm-water run-off from the impermeable surfaces

6.6 Street configurations that incorporate parking are possible using bump outs. These can also lend themselves to the creation Of a visually attractive pedestrian walkway and allow for storm water attenuation

Parking areas

6.7 Provide permeable surfaces for off street parking of permeable paving (approved by LA)

6.8 provide more natural reinforced Gravel surfaces for park-land areas

Green roofs with indigenous planting to slow storm-water runoff & provide visual & ecological amenity

Squares designed to naturally infiltrate water

Provide bioswales along streets, boulevards

Provide permeable paving for off street parking

SQUARE ONE

STREETS & STORM-WATER

The storm-water strategy & design of streets should be developed in tandem in order for water to be treated sequentially and with different engineering techniques & specifications. These specifications will be based on the volumes that need to be accommodated & the desired character & hierarchy of each street.

Low order pedestrian

7.1 ensure Grading a flow to secondary order streets

7.2 Build up of water will be minimal so less focus is placed on retention

Second order main spine

7.3 Attenuation from flow from uphill developments, accommodated in kerbside planted swales

7.4 Streets graded to deposit flow into downhill tertiary order streets & Open space bio-retention areas

Tertiary order. Innovation boulevard & *Green street*

7.5 swales designed as stepped weir type construction in response to slope.

7.6 weirs treated differently in response to pedestrian & vehicular environment

Quaternary order. Stellenbosch Bridge boulevard

7.7 median used for planted bioswale

7.8 Median swale flow to link to wetland areas in Eco corridor at sites eastern edge

LEGEND

- Main spine
- Stellenbosch boulevard
- Innovation boulevard
- Green street
- Pedestrian street
- Dams
- Wetlands
- Existing waterway
- flow 1
- flow 2
- flow 3
- flow 4
- Weir feature

1. Low order pedestrian streets channel water to higher order streets.

2. Main spine/ secondary order utilize swales between parking & pedestrian cyclist zone

3. Provide terraced swale features on tertiary sloped streets with seating elements placed strategically

4. Median planted as swale (Stellenbisch boulevard)

SQUARE ONE

5 HEALTH & LIFESTYE

ACTIVE LANDSCAPE

The main green open space network should be designed to provide a variety of easily accessible opportunities for active recreation throughout the scheme. By providing a variety of such opportunities the Stellenbosch bridge development will contribute to an active and healthy lifestyle for its residents and users.

The site itself already holds potential for a number of recreational activities ranging from high intesity technical pursuits to more passive social recreational uses. The overall strategy & approach to landscape design must utilize these existing landscape assets & adapt them where necessary to make the best use towards achieving the goal of a wide variety of leisure pursuits which are interconnected throughout the scheme & which are best suited to their location. Provision throughout the scheme must be made for, but not limited to the following

- Hiking & running trails throughout the main open space network connecting to regional trails at the sites southern edge.
- Mountain bike trails within selected areas
- Dammed & focus designed areas within the ecological corridor for swimming outdoor learning & play
- Designed edge conditions along water bodies to allow access for swimming, kayaking & other water based leisure activities.
- cycle routes throughout the main open spaces of the scheme.

SQUARE ONE

PASSIVE RECREATION

Aside from providing opportunities for active recreation the open space network within the scheme must provide flexibility for passive recreational uses. Such uses must be developed appropriately to place & align with the character of the existing landscape & the desired use with regards to proximity to associated features. Such uses must include but not be limited to the following.

- Multi functional lawn areas, for picnicing, holding events etc
- programmed temporary use spaces, eg, banquetting within vineyards or orchard spaces
- small scale interventions within specific areas, e.g picnicing spots on Koppie, lookout areas,
- Boardwalk & decking areas for walking, performances & access to water bodies.

SQUARE ONE

WILD PLAY

In as far as possible, open space areas should be designed to encourage safe & active play for a variety of ages. Features which should be considered include. Wild play opportunities should be provided for children to engage with their surroundings creatively & to learn about nature first hand.

- Play opportunities incorporating water, eg dry river beds with boulder & stepping stone features, floating elements , shallow wet elements for paddling
- Timber elements for climnimg, crawling & stepping across
- play structures integrated with the surrounding landscape, eg, flying foxes, netting structures, tree houses & dens








SQUARE ONE

6 PLANTING CONCEPT

AGRO-ECOLOGY

The existing landscape is the setting for numerous wine and fruit farms on the lower slopes. A distinctive landscape of vineyards, orchards, protective windbreaks and farm dams, forms part of the distinctive cultural landscape of the Cape Wine lands. Both landscapes are highly valuable. The following plant selection is chosen with the previously described vision of agro ecology in mind.

Certain Features which reflect the cultural/ agricultural landscape should be incorporated into the planting design to lend the development a sense of identity & character which doesn't conflict with the character of the local area and yet is distinct enough to lend the development an identity of its own.

Such features include

Shelter belts & hedgerows

Drainage channels & weirs echoing the cape Dutch aesthetic

Water bodies & wetlands which utilize indigenous planting

Arrangements of trees for shade & shelter which mimic the character of the local orchards & fruit farms

The following palette described in this section is a preliminary indicative listing to illustrate an overall asethetic which can be further elaborated on and added to in later stages of detail precinct design.







STREETS & SQUARES

Trees

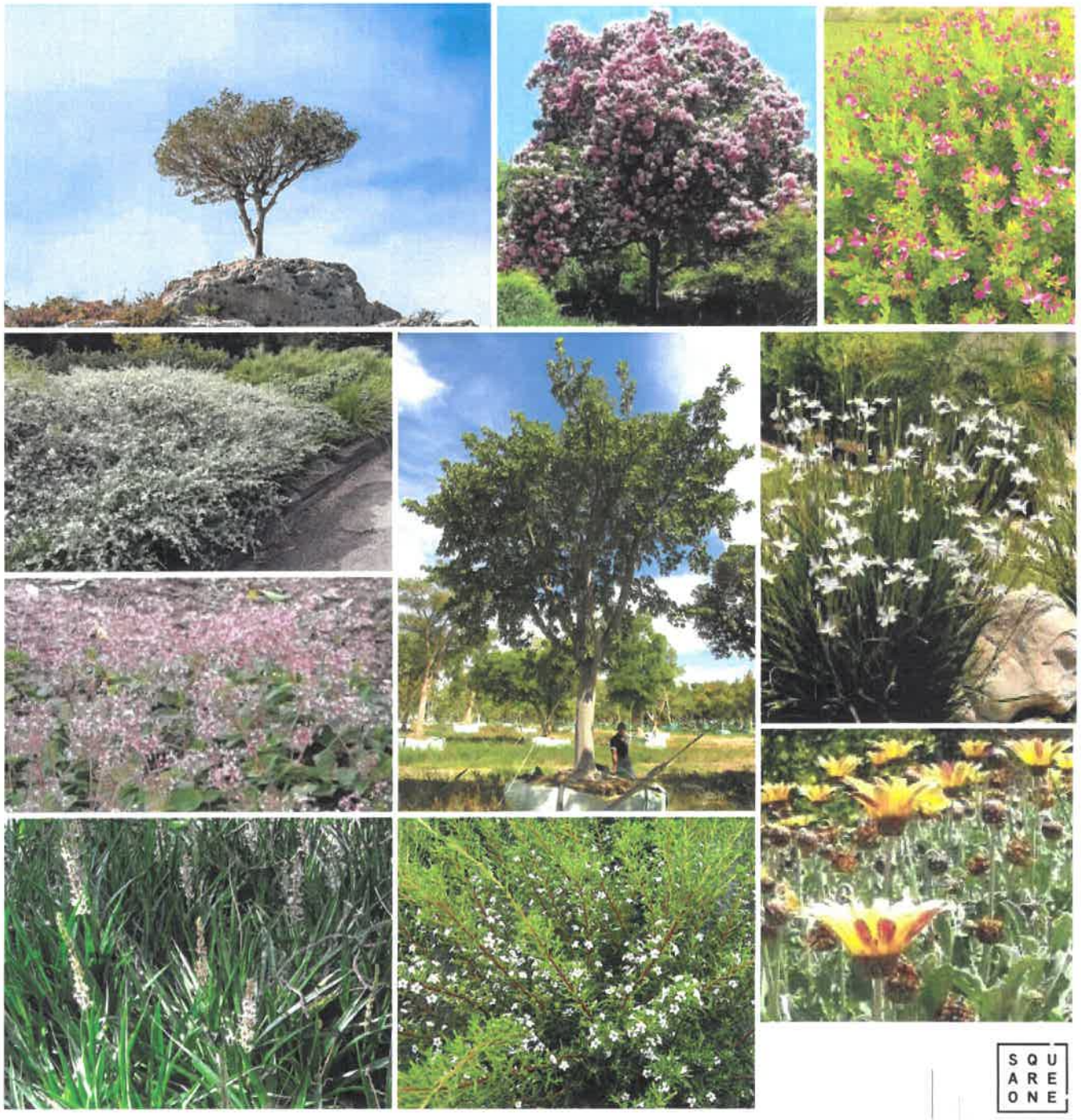
Celtis africana
Syzigium guinense
Olea europea subs. africana
Ficus natalensis
Trichilia emetica
Calodendrum capense

Ground cover

Plectranthus ciliatus
Crasulla multicava
Chlorophytum cymosum
Helichrysum petiolare
Asystasia gangetica
Pelargonium tomentosum
Dietes grandiflora
Sanseveria aethiopica
Arctotis spp.

Shrubs

Carissa macrocarpa
Coleonoma album
Diospyros whyteana
Hermania pinnata
Searsia crenata
Barleria repens
Polygala myrtifolia



SQUARE ONE

PARKS, SHELTER & SHADE

Trees

Casuarina cunninghamiana
Populus simonii

Olea europea subs. africana
Ficus natalensis
Calodendrum capense
Erythrina lysistemon
Brachyleana discolor
Loxostylis alata
Dombeya rotundifolia
Vachellia xanthophloea

Ground cover & bulbs

Plectranthus ciliatus
Crasulla multicava
Chlorophytum cymosum
Helichrysum petiolare
Asystasia gangetica
Pelargonium tomentosum
Dietes grandiflora
Sanseveria aethiopica
Clivia spp.
Chasmanthe aethiopica
Agapanthus preacox
Arctotis spp.

Shrubs

Carissa macrocarpa
Coleonoma album
Diospyros whyteana
Hermania pinnata
Searsia crenata
Barleria repens
Polygala myrtifolia
Tecoma capensis
Asparagus spp.
Felicia echinata
Phylica ericoides
Metalasia muricata

Grasses
Thamnochortus spicigerus
Elegia tectorum









SQUARE ONE

WETLANDS & STORM-WATER

Trees

Indigofera jucunda
Salix mucronata
Vachellia xanthophloea

Ground cover & bulbs

Kniphofia praecox
Bulbine abyssinica
Gomphostigma virgatum
Wurmbea stricta
Kniphofia uvaria
Wachendorfia thyrsiflora
Spiloxene aquatica
Mentha longifolia
Monopsis unidentata
Zantedeschai aethiopica

Shrubs

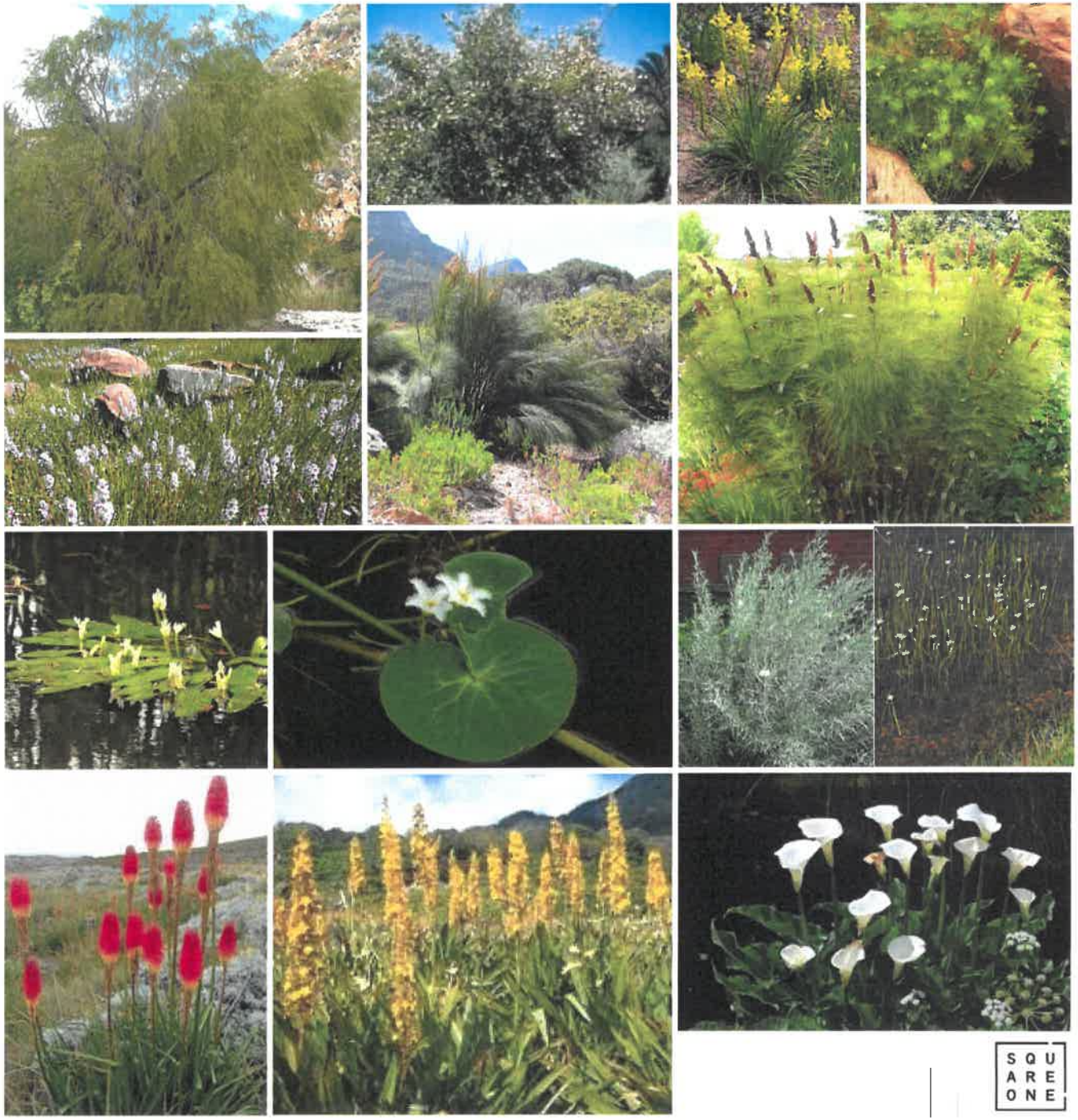
Orphium frutescens

Grasses & restios

Thamnochortus spicigerus
Elegia tectorum
Restio similis
Juncus krausii
Bolboschoenus maritimus
Cyperus prolifer
Cyperus textilis
Isolepsis prolifer
Schoenoplectus spp.
Ficinia nodosa
Elegia capensis
Restio paniculata
Restio subverticillatus

Aquatic plants

Aponogeton distachyos(Water blommetjie)
Nymphoides indica



SQUARE ONE

7 MATERIALS & DETAILS PALETTE

STORM-WATER ELEMENTS

The accompanying images illustrate a number of approaches to detailing & materilaity of stormwater managament which may be implemented throughout the scheme. The design of each element must be approached pragmatically from a perspective of the desired character of the area where it is located as well as the functional requirements it must adhere to in terms of accommodating stormwater volumes & the management of flow in each area. In addition to this these details must respond appropriately to the proper functioning of vehicular & pedestrian systems as well as creating amenity & value where they are located.

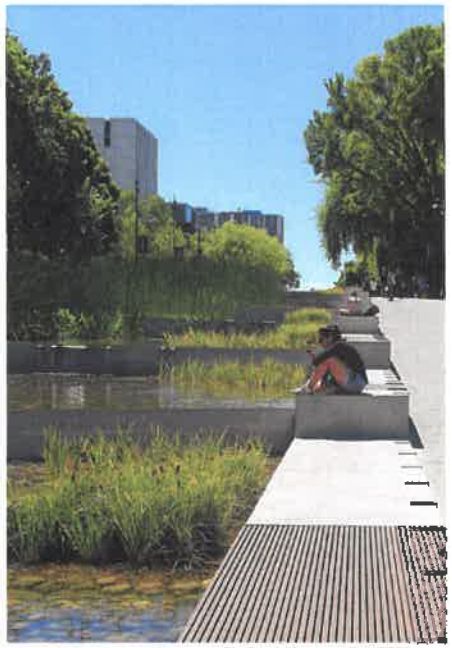
The accompanying images illustrate examples of the following details & their uses.

Surface channels to divert water away from areas in an aesthetic way. e.g surface channels & lei-waters.

Roadside biofiltration planters to create planting zones seperating traffic from pedestrians & filter water.

Sunken & raised biofiltration basins used to create visual amenity & atmosphere in specific areas.

Stepped weirs on sloped areas to slow water, create amentiy value & add opportunities for articulation of edges e.g seating & play areas for children.



SQUARE ONE

PEDESTRIAN AREAS

The accompanying images illustrate a number of approaches to detailing of pedestrian areas in terms of materiality & desired spatial & material relationships. Appropriate detailing of hard surfaces & pedestrian areas must take a number of factors into consideration.

Materiality must be well though out and respond to the desired character and use of each area within the scheme and should ideally be informed by a response to existing materials on site & the character of the local area.

The selection on this page describes an attitude to materiality which focuses on a small number of materials applied in combination in a simple & considered way to delineate transitions between distinct areas & level changes, reflecting the natural tones and local traditions of the area.

SQUARE ONE

8 STREET FURNITURE CONCEPT

LIGHTING & SEATING

The street furniture scheme should be informed by both the local character & heritage of the Cape wine lands area, and the aesthetics & simplicity of a modern technopole.

Materiality & aesthetics should incorporate rustic colours & hard wearing materiality of agricultural materials e.g. cast concrete , wood, exposed steel & steel with black external paintwork. The aesthetic of items should be Simple & clean with lines that create an atmosphere of modernity and innovation while avoiding visual clutter. The choice of elements must also take into consideration the rural setting & the impacts of a development of this scale on surrounding areas. Lighting for example must be designed or chosen to reduce light pollution at night & not impact negatively on the rural character of the area.

Seating

1. Seat edges & seat walls at boundaries of spaces & along planted zones and movement routes
2. In situ cast larger pieces in higher order squares
3. Multi use installation pieces in performance areas in key locations
4. Free standing units of lightweight materials placed throughout scheme as necessary
5. Stepped elements along terraced areas & stepped areas with level changes

Lighting

6. High level bi directional lighting along streets &
7. Sculptural light pieces in key open space areas
8. Light bollards along pedestrian routes & cycle lanes

   under-lighting included along edges & under feature seating

TRANSPORT

For public transport & NMT to function within the development, the provision of appropriate furniture elements must be designed & planned for. Street furniture associated with the above should include but not be limited to the following.

Transport

1. Bus shelters designed with the previously described aesthetic & materiality for the scheme.
2. Seating/ lighting elements dividing & demarcating pedestrian only zones from vehicular zones
3. Bike racks in a number of locations

PLAY & FITNESS

The development should include furniture & items which facilitate recreation & healthy lifestyles for a number of age groups and users. Recreational furniture and equipment should be designed for the following uses.

children's play

1. Wild naturalistic play environments. E.g., dry river beds, water features , climbing elements e,g, rock embankments, logs
2. Play structures (netting structures, climbing poles, balance beams, jungle gyms, slides
3. Outdoor gym equipment for adults

Outdoor pursuits courses

Climbing walls

Outdoor gym equipment

Outdoor games (e.g. table tennis, multi use court spaces)

SQUARE ONE

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK
MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

ANNEXURE R

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK
MUNISIPALITEIT • UMASIPALA • MUNICIPALITY

INNOVATION CAPITAL • ISIXEKO ESIZA NENGUQU • INNOVASIESTAD

Application Number: LU/6069
Our File Reference Number: Farm 742/5, Paarl
Your Reference Number:
Enquiries: C Charles/ U von Molendorff
Contact No: 021 8088699/ 8682
Date: 18 September 2017

REGISTERED MAIL

Anton Lotz Town and Regional Planning
P O Box 51799
Waterfront
8002

Sir / Madam

APPLICATION FOR AN EXTENSION OF THE VALIDITY PERIOD OF AN APPROVAL: PORTION 5 OF FARM NO. 742, PAARL DIVISION

1. This Municipality's letter dated 04 May 2017 refers.

2. The Authorised Employee ,on 14 September 2017, **approved, in whole** in terms of section 60 of the Stellenbosch Municipal Land Use Planning By-law, promulgated by Notice no 354/2015 dated 20 October 2015, your application for :

   (i) an extension of the validity period of an approval on Farm 742/5, Paarl Division

   subject to the following conditions:

   (a) That the approval applies only to the application in question and shall not be construed as authority to depart from any other legal prescriptions or requirements from Council;
   (b) That the extension of the validity period of approval will only be valid for a further five (5) years;
   (c) That should the extension of approval lapse, a new land use application must be submitted to Council for consideration;
   (d) That all previous conditions of approval as contained in Council's letter dated 03 April 2012, must be complied with;
   (e) That the Municipality reserves the right to impose further conditions if deemed necessary.
   (f) References to LUPO in the conditions of approval shall be deemed to be references to the relevant clauses in the Stellenbosch Land Use Planning By-Law,2015

3. Reasons for the above decision are as follows:

(a) Approval of the application will have no negative impact on the surrounding built or natural environment;
(b) No amendments have been made or proposed to the original approval.

4. You are hereby informed of your right to appeal to the Appeal Authority in terms of section 79(2) of the said legislation.

5. If you intend to appeal, the appeal form, which can be obtained from our Advice Centre; Land Use Management, Ground floor, Plein Street, Stellenbosch or the municipal website at www.stellenbosch.gov.za/planning_portal, must be completed and should be directed to the Appeal Authority and received by the Municipal Manager at P O Box 17, Stellenbosch, 7599 or faxed to 021 886 6899, or hand delivered to the Office of the Municipal Manager, third floor, Plein Street, Stellenbosch within 21 days of notification of this decision together with proof of payment of the appeal fee. (See the approved tariff structure on the municipal website: *http://www.stellenbosch.gov.za/documents/idp-budget/2017-2/4873-appendix-3-tariff-book-2017-2018/file*)

6. You are requested to simultaneously serve notice of the appeal on any person who commented on the application and any other persons as the Municipality may determine (see attached list). Proof of serving the notification must be submitted to the Municipality, within 14 days of serving the notification.

7. The notice must be served in accordance with section 35 of the said legislation and in accordance with the additional requirements as may be determined by the Municipality. The notice must invite persons to comment on the appeal within 21 days from date of notification of the appeal.

8. Kindly note that no appeal right exists in terms of Section 62 of the Local Government Municipal Systems Act, No 32 of 2000.

9. Kindly note the above decision is suspended until such time as the period for lodging appeals has lapsed, any appeal has been finalised and you've been advised accordingly.

Yours faithfully

FOR DIRECTOR PLANNING AND ECONOMIC DEVELOPMENT

STELLENBOSCH

STELLENBOSCH • PNIEL • FRANSCHHOEK

MUNISIPALITEIT • UMASIPALA • MUNICIPALITY

Navrae / Enquiries	C Alexander / U Von Molendorff
U verwysing / Your ref.	-
Ons verwysing / Our Ref	Farm 742, Paarl
Datum / Date	2011-11-22
Telefoon / Telephone	021-808 8645 / 8682
Faks / Fax	021-808 8651

REGISTERED MAIL

Anton Lotz Town & Regional Planning
PO Box 51799
Waterfront
8002

Sir / Madam

APPLICATION FOR THE AMENDMENT OF THE KLAPMUTS STRUCTURE PLAN, APPROVAL OF THE DEVELOPMENT FRAMEWORK PLAN, REZONING, SUBDIVISION & DEPARTURES ON FARM NO 742/3 & THE REMAINDER OF FARM NO. 742, PAARL DIVISION

Your application in the above regard refers.

The Planning, IHS and Property Management at a meeting held on 1 November 2011 resolved as follows:

1. That **approval be granted** for the Development Framework Plan for the proposed development, as per Site Development Plan dated September 2007, drawn by dhk urban concepts, attached as **APPENDIX 3;**

2. That **approval be granted** in terms of Section 16 of the Land Use Planning Ordinance, 1985 (Ordinance No. 15 of 1985) for the **rezoning** of Farm No. 742/3 & the Remainder of Farm No. 742, Paarl Division from Agricultural Zone I to Subdivisional Area to accommodate the zoning categories of Residential Zone I, Residential Zone III, Residential Zone IV, Open Space Zone II & Transport Zone II in order to permit the development of 1577 residential units together with associated services and facilities, as per Site Development Plan dated September 2007, drawn by dhk urban concepts, attached as **APPENDIX 3;**

3. That **approval be granted** in terms of Section 25 of the Land Use Planning Ordinance, 1985 (Ordinance No. 15 of 1985) for the **subdivision** of the subject properties to establish a phased development consisting of five (5) phases, namely Phases A, B, C, D & E, as per Figure 16: Indicative Phasing, compiled by Anton Lotz Town and Regional Planning dated October 2008, attached as **APPENDIX 4;**

4. That **approval be granted** in terms of Section 25 of the Land Use Planning Ordinance, 1985 (Ordinance No. 15 of 1985) for the **subdivision** of Phase A of the proposed development into 186 portions, as per Site Development Plan Phase A dated October 2008, drawn by dhk urban concepts, attached as **APPENDIX 5;** and

5. That **approval be granted** in terms of Section 15(1)(b) of the Land Use Planning Ordinance, 1985 (Ordinance No. 15 of 1985) for departures to use alternative land use parameters as stipulated within the Section 8 Zoning Scheme Regulations.

In terms of Section 62 of the Local Government Municipal Systems Act, No 32 of 2000, you may appeal to the Municipal Manager against the above Council decision (including any conditions imposed in case of approval) by giving written notice of such appeal, in which case you may upon request be given the opportunity to appear in person before the Appeal authority to state your case. A detailed motivated appeal with reasons therefore (and not only the intention to appeal), clearly stating in terms of which legislation it is made, as well as payment of the appeal fee to the amount of R620,00, should be directed to and received by the Municipal Manager, Stellenbosch Municipality, P O Box 17, Stellenbosch, 7599, or if hand delivered, to Town Planning, ground floor, municipal building, Plein Street, Stellenbosch, within 21 days of the date of registration at the Post office of this notification letter (with such registration day not included in the appeal period), provided where the last day for lodging an appeal falls either on a Sunday or public holiday, it shall be deemed to be the next working day thereafter.

Please note, appellants are not permitted to canvass the Municipal Manager or members of Council's Appeals Committee before or after the matter is heard. Should no appeal be received within such appeal period, or upon conclusion of this appeal process, you will be advised of your right to act on this decision.

Kindly note the above Council decision is suspended and may therefore not be acted on until such time as the period for lodging appeals has lapsed, any appeal has been finalised and you've been advised accordingly.

Yours faithfully

for DIRECTOR: PLANNING AND DEVELOPMENT SERVICES

MINUTES PLANNING, IHS AND PROPERTY MANAGEMENT COMMITTEE MEETING 2011-11-01

[Portfolio Chairperson: Planning and Property Management]
[Councillor M Smuts]

APPENDIX 1

FILE NO(s): F742P & F742/3P

In this approval document:

"Council" means the Stellenbosch Municipality

"the owner" means the registered owner of the property.

"the site" means **FARM NOS. 742 & 742/3, PAARL DIVISION**

"scheme regulation" has the meaning assigned thereto by Ordinance 15 of 1985.

EXTENT OF APPROVAL:

Development Framework Plan for the proposed development, as per Site Development Plan dated September 2007, drawn by dhk urban concepts, attached as **APPENDIX 3.**

Rezoning of Farm No. 742/3 & the Remainder of Farm No. 742, Paarl Division from Agricultural Zone I to Subdivisional Area to accommodate the zoning categories of Residential Zone I, Residential Zone III, Residential Zone IV, Open Space Zone II & Transport Zone II in order to permit the development of 1577 residential units together with associated services and facilities, as per Site Development Plan dated September 2007, drawn by dhk urban concepts, attached as **APPENDIX 3.**

Subdivision of the subject properties to establish a phased development consisting of five (5) phases, namely Phases A, B, C, D & E, as per Figure 16: Indicative Phasing, compiled by Anton Lotz Town and Regional Planning dated October 2008, attached as **APPENDIX 4.**

Subdivision of Phase A of the proposed development into 186 portions, as per Site Development Plan Phase A dated October 2008, drawn by dhk urban concepts, attached as **APPENDIX 5.**

Departures to use alternative land use parameters as stipulated within the Section 8 Zoning Scheme Regulations.

VALIDITY OF APPROVAL: That this approval will lapse if not exercised within five (5) from the date of final notification.

CONDITIONS IMPOSED: Rezoning, Subdivision & Departure Conditions

CONDITIONS IMPOSED IN TERMS OF SECTION 42(1) OF THE LAND USE PLANNING ORDINANCE NO 15 OF 1985:

(a) The approval applies only to the application in question and shall not be construed as authority to depart from any other legal prescriptions or requirements;

(b) That the conditions imposed by the **Department of Environmental Affairs & Development Planning** in the Environmental Authorization attached as **APPENDIX 9**, be adhered to;

(c) That the conditions imposed by the **Directorate: Engineering Services (Stellenbosch Municipality)**, attached as **APPENDIX 8** must be adhered to;

(d) That the conditions imposed by the **Department: Water Affairs & Forestry** attached as **APPENDIX 10** must be adhered to;

(e) That should it be necessary to move or support any of Eskom's services, at least three (3) months notice in writing is required and cost will be entirely for the account of the developer / applicant.

(f) That a Home Owner's Association be established for the various residential components of the proposed development;

(g) That the Architectural Guidelines and the Constitution of the Home Owners Association be formally submitted to Council for consideration;

(h) That the developer shall contribute to the establishment and ongoing operation and maintenance of the Klapmuts community trust fund, being established by agreement with Koelpark Development (Pty) Ltd as the developer of Erf 2124, Klapmuts. The trust shall be funded through contributions from the sales received from the Klapmuts Hills Development. A contribution of 2% (two percent) on all sales from the developer to the initial buyers (first transfers) shall be paid to the trust fund and thereafter 0,5% (zero comma five percent) will derive from further and ongoing property sales in the development. The purpose of the trust fund is to provide the Klapmuts community, the relocated Koelpark settlement and the community in general with financial means to improve their living environment, their skills and their

education. The trustees shall consist of representatives of the community, the Stellenbosch Municipality and others elected by the contributing developers. Specific provision shall be made in all legal documents, e.g. deeds of sale, property owners association constitutions, for the contributions towards the trust fund and the ongoing operation thereof, so that the developer can exit the operational aspects and the property owners can continue therewith.

(i) That detailed site development plans for every residential component must be submitted to Council for consideration prior to the submission of any building plans;

(j) That the conditions imposed by the **Manager: Property Management**, attached as **APPENDIX 11** must be adhered to;

(k) That the applicant submits an electronic copy (shp,dwg,dxf) of the General Plan which was preliminary approved by the SG. The following information must be indicated:

- Newly allocated Erf Numbers
- Co-ordinates
- Survey Dimensions
- Street names (if approved by Council)

(l) That building plans will only be approved when all conditions of subdivision have been complied with;

(m) That all the public places and public streets to be vested in terms of Section 28 of LUPO in the Local Authority, be clearly defined and indicated on the approved SG plan/s and erf diagram/s whichever is applicable;

(n) That all the newly created public places and public streets to be vested in terms of Section 28 of LUPO in the Local Authority, be provided with erf numbers (and not indicated as remainders) on the approved SG plan/s or erf diagram whichever is applicable;

(o) That all public places and public streets be transferred to the Local Authority upon transfer of the first unit/erf in that subdivision. All cost for the surveying and transfer of public land in terms of Section 28 of LUPO will be for the account of the applicant/developer;

(p) That all open spaces and roads which vest in the Council be transferred to the Council by the developer at his cost, transfer to take place simultaneously with transfer of the first portion of the subdivision or as per the approved phases;

(q) That all public open spaces be cleared and levelled to the satisfaction of the Director: Community Services;

(c) That the developer submits a landscape plan (including the open spaces, sidewalks, usage and equipment) for approval and that the landscaping be undertaken in accordance with the approved plan to the satisfaction of the Director: Community Services;

(s) That the developer undertakes sidewalk planting, ie levelling and planting of sidewalk trees and maintains the sidewalks for a period of 1 year from the date of completion to the satisfaction of the Director: Community Services. Such landscaping shall be satisfactorily completed prior to the transfer of the first portion of the subdivision or the first phase of the subdivision;

(t) That rates clearances in terms of Section 31(1) of Ordinance 15 of 1985 only be granted once the conditions of approval of the entire development or individual phases have been complied with. All subdivided portions to be transferred to the HOA, the Council or any other party as determined in terms of the approval, should be done prior to or simultaneously with the transfer of the first erf in the subdivision; and

(u) Council reserves the right to impose any further conditions if deemed necessary.

PLANNING, IHS AND PROPERTY MANAGEMENT COMMITTEE MEETING: 2011-11-01: ITEM 6.2.2

RESOLVED (nem con)

(a) that **approval be granted** for the Development Framework Plan for the proposed development, as per Site Development Plan dated September 2007, drawn by dhk urban concepts, attached as **APPENDIX 3**;

(b) that **approval be granted** in terms of Section 16 of the Land Use Planning Ordinance, 1985 (Ordinance No. 15 of 1985) for the **rezoning** of Farm No. 742/3 & the Remainder of Farm No. 742, Paarl Division from Agricultural Zone I to Subdivisional Area to accommodate the zoning categories of Residential Zone I,

Residential Zone III, Residential Zone IV, Open Space Zone II & Transport Zone II in order to permit the development of 1577 residential units together with associated services and facilities, as per Site Development Plan dated September 2007, drawn by dhk urban concepts, attached as **APPENDIX 3**;

(c) that **approval be granted** in terms of Section 25 of the Land Use Planning Ordinance, 1985 (Ordinance No. 15 of 1985) for the **subdivision** of the subject properties to establish a phased development consisting of five (5) phases, namely Phases A, B, C, D & E, as per Figure 16: Indicative Phasing, compiled by Anton Lotz Town and Regional Planning dated October 2008, attached as **APPENDIX 4**;

(d) that **approval be granted** in terms of Section 25 of the Land Use Planning Ordinance, 1985 (Ordinance No. 15 of 1985) for the **subdivision** of Phase A of the proposed development into 186 portions, as per Site Development Plan Phase A dated October 2008, drawn by dhk urban concepts, attached as **APPENDIX 5**; and

(e) that **approval be granted** in terms of Section 15(1)(b) of the Land Use Planning Ordinance, 1985 (Ordinance No. 15 of 1985) for departures to use alternative land use parameters as stipulated within the Section 8 Zoning Scheme Regulations.

(DPIPM)

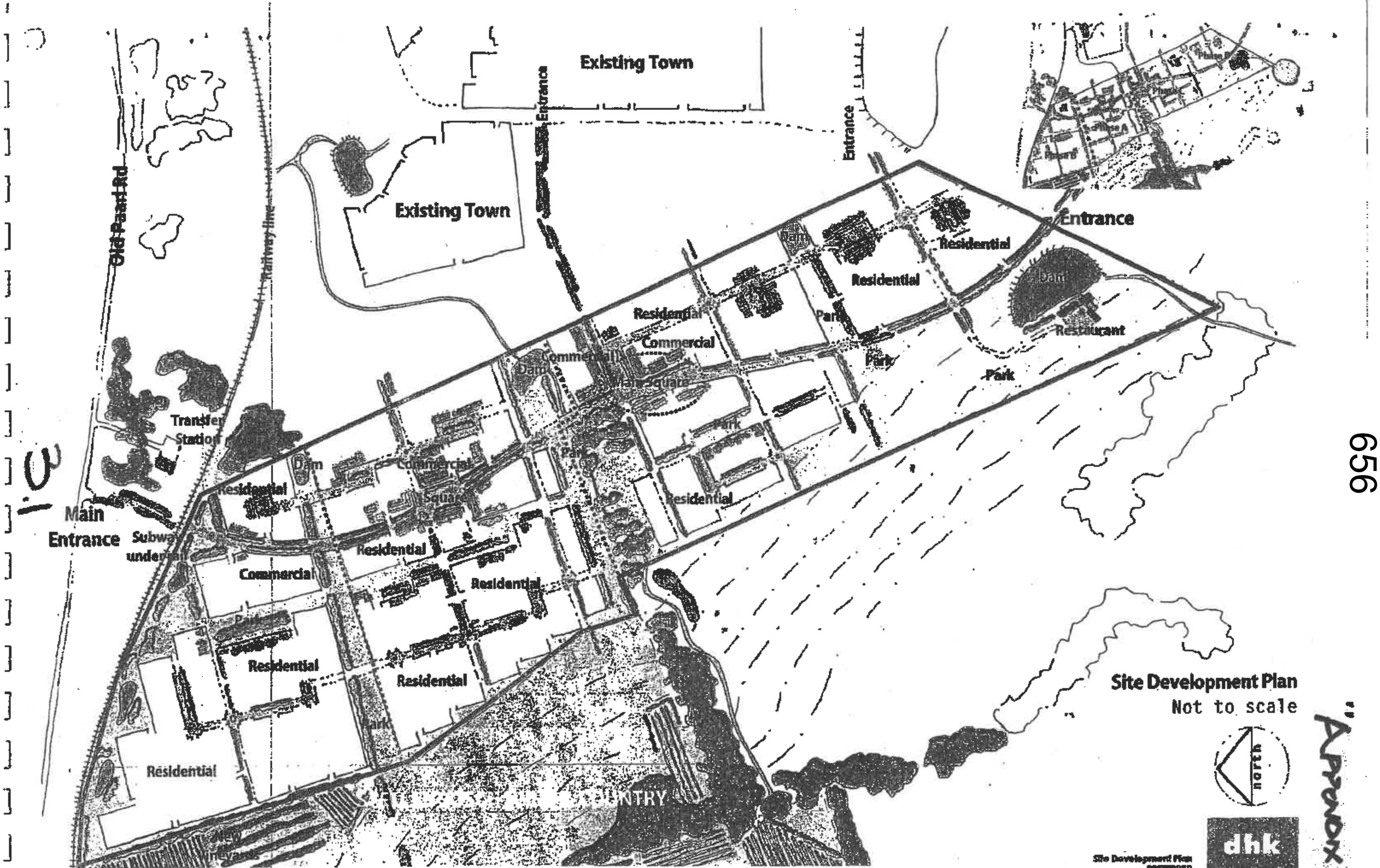
ITEM 6.2.2

APPENDIX 3

PROPOSED DEVELOPMENT FRAMEWORK PLAN

PLANNING, IHS AND PROPERTY MANAGEMENT COMMITTEE MEETING: 2011-11-01

"APPENDIX C"


Existing Town
Existing Town
Entrance
Entrance
Entrance
Old Paarl Rd
Railway line
Transfer Station
Main Entrance
Subway underpass
Residential
Commercial
Dam
Commercial
Square
Residential
Residential
Commercial
Park
Residential
Residential
Residential
Park
Dam
Commercial
Main Square
Residential
Commercial
Park
Residential
Residential
Park
Park
Residential
Dam
Residential
Dam
Restaurant
Park
New Vineyards
Site Development Plan
Not to scale
north
dhk

Klapmuts Hills Residential Development

Klapmuts, Stellenbosch

Site Development Plan PREFERRED

September 2007

ITEM 6.2.2

APPENDIX 4

PHASING PLAN FOR FIVE (5) PHASES

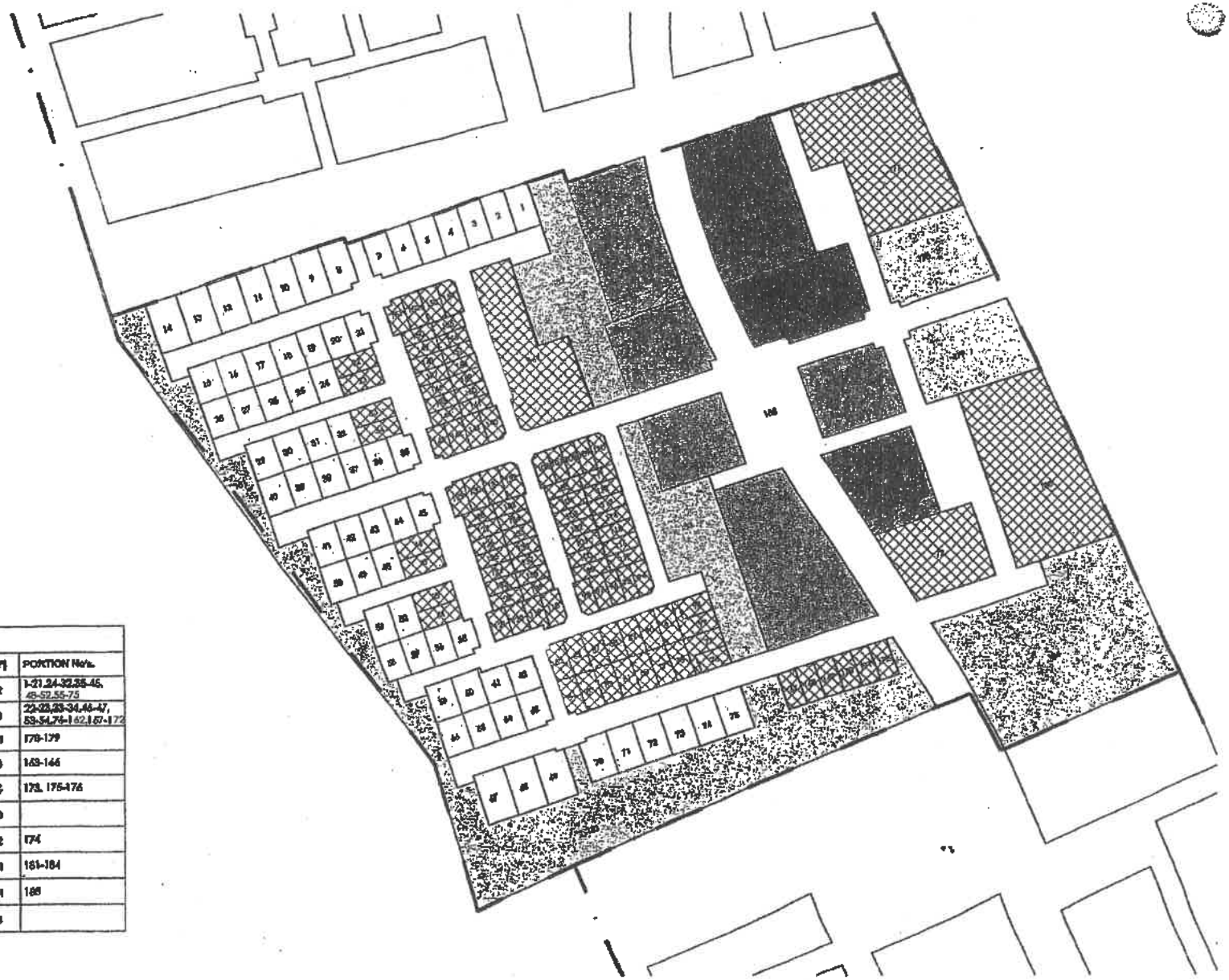
PLANNING, IHS AND PROPERTY MANAGEMENT COMMITTEE MEETING: 2011-11-01

ITEM 6.2.2

APPENDIX 5

SITE DEVELOPMENT PLAN FOR PHASE A

PLANNING, IHS AND PROPERTY MANAGEMENT COMMITTEE MEETING: 2011-11-01



LAND BUDGET				
HATCH	ZONING	No. UNITS	AREA (m²)	PORTION No's.
	Residential Zone I	57	30092	1-21,24-32,35-45, 48-52,55-75
	Residential Zone III	104	43250	22-23,33-34,46-47, 53-54,76-162,167-172
	Residential Zone IV (60du/ha)	2	4221	176-177
	Residential Zone IV (70du/ha)	4	13155	163-166
	Residential Zone IV (90du/ha)	5	12466	173, 175-176
	Residential Zone IV (120du/ha)	0	0	
	Sub-divisional area	1	2572	174
	Open Space Zone II	4	39991	181-184
	Transport Zone II	1	48011	185
	TOTAL	186	198564	

Phase boundary

Access Servitude

Site Development Plan rev G
Phase A : Zoning
1:2500@A3

05023
October 2008

dhk

Klapmuts Hills Residential Development

Klapmuts, Stellenbosch

659

"Annexure E"

ITEM 6.2.2

APPENDIX 8

COMMENTS & CONDITIONS FROM THE DIRECTORATE: ENGINEERING SERVICES (STELLENBOSCH MUNICIPALITY)

PLANNING, IHS AND PROPERTY MANAGEMENT COMMITTEE MEETING: 2011-11-01

"APPENDIX H"

MEMO

DIRECTORATE: ENGINEERING SERVICES
DIREKTORAAT: INGENIEURSDIENSTE

TO	:	**The Director: Planning and Development**
FOR ATTENTION	:	**C Alexander**
FROM	:	**Vincent Harris**
DATE	:	**2011-09-22**
RE.	:	**PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS HILL RESIDENTIAL DEVELOPMENT, KLAPMUTS**
Reference	:	**742**

Details, specifications and information reflected in the abovementioned application by Anton Lotz Town & Regional Planning, dated 19 October 2008, as well as the Addendum to the TIA by ICE Group, dated 15 September 2011, refer.

Comments from the Directorate: Engineering Services i.e. Transport Roads & Stormwater, Water Services, Solid Waste Services and Development Services will be reflected in this memo and is to be regarded as development conditions to be reflected in the land-use approval

The above-mentioned land-use application is supported, subject to the following conditions:

General:

1. that the following words and expressions referred to in the development conditions, shall have the meanings hereby assigned to except where the context otherwise requires:

   (a) "Municipality" means the STELLENBOSCH MUNICIPALITY a metropolitan municipality, Local authority, duly established in terms of section 9 of the Local Government Municipal Structures act, Act 117 of 1998 and provincial notice (489/200) establishment of the Stellenbosch Municipality (WC024) promulgated in provincial gazette no. 5590 of 22 September 2000, as amended by provincial notice 675/2000 promulgated in provincial gazette;

   (b) "Developer" means the developer and or applicant who applies for certain development rights by means of the above-mentioned land-use application and or his successor-in-title who wish to obtain development rights at any stage of the proposed development;

   (c) "Engineer" means an engineer employed by the "Municipality" or any person appointed by the "Municipality" from time to time, representing the Directorate:

PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS

Internal- and Link Services

10. that it be noted that as per the Site Development Plan Rev 0, dated October 2008, the roads are reflected as public roads. Therefor all internal services on the said erf will be regarded as public services and will be maintained by the 'Municipality";

11. that no accesss control will be allowed in public roads;

12. that the "Developer", at his/her cost, construct the internal (on-site) municipal civil services for the development, as well as any link (service between internal and available bulk municipal service) municipal services that need to be provided;

13. that the Directorate: Engineering Services may require the "Developer" to construct internal municipal services and/or link services to a higher capacity than warranted by the project, for purposes of allowing other existing or future developments to also utilise such services. The costs of providing services to a higher capacity could be offset against the Development Contributions payable in respect of bulk civil engineering services if approved by the Directorate: Engineering Services;

14. that the detailed design and location of access points, circulation, parking, loading and pedestrian facilities, etc., shall be generally in accordance with the approved Site Development Plan and / or Subdivision Plan applicable to this application;

15. that plans of all the internal civil services and such municipal link services as required by the Directorate: Engineering Services be prepared and signed by a Registered Engineering Professional before being submitted to the aforementioned Directorate for approval;

16. that the design and construction / alteration of all civil engineering infrastructure shall be generally in accordance with the Standard Conditions imposed by the Directorate: Engineering Services in this respect or as otherwise agreed. The Standard Conditions is available in electronic format and available on request;

17. that the "Developer" ensures that his/her design engineer is aware of the Standard Conditions and that his/her design engineer will comply to the Standard Conditions or as otherwise agreed in writing with the Directorate: Engineering Services;

18. that all the internal civil services (water, sewer and stormwater) in reepect of Res Zone IV as well as subdivisional area 174, be indicated on the necessary building plans, for approval by the Directorate: Engineering Services;

19. that all internal - and link services be inspected by the "Engineer" on request by the "Developer" or his Consulting Engineer;

20. that a practical completion certificate be issued by the Developer's consulting engineer prior to transfer of individual units or utilization of buildings;

21. that the "Developer" shall adhere to the specifications of Telkom (SA) and or any other telecommunications service provider. Copies of all correspondence with Telkom shall be handed over to the "Engineer";

PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS

32. that overland stormwater escape routes be provided in the cadastral layout at all low points in the road layout, or that the vertical alignment of the road design be adjusted in order for the roads to function as overland stormwater escape routes. If this necessitates an amendment of the cadastral layout, it must be done by the "Developer", at his/her cost, to the standards of the Directorate: Engineering Services;

33. that in the case of a sectional title development, the internal stormwater layout be indicated on the necessary building plans to be submitted for approval;

34. that for catchment areas of more than 1500m², no overland discharge of stormwater will be allowed into a public road and the "Developer" needs to connect to the nearest piped municipal stormwater system. The stormwater erf connection may not exceed a diameter of 300mm. The excess stormwater runoff for the minor flood event is to be collected and detained on site;

Roads

35. that provision be made for acceptable stacking distances in front of access control gates;

36. than any amendments to cadastral erven to accommodate access control gates will be for the cost of the "Developer" as these configurations were not available at rezoning and subdivision stage;

37. that, where access control is being provided, a minimum of 2 visitor's parking bays be provided on site, but outside the entrance gate, for vehicles not granted access to the development;

38. that provision be made for refuse lay-byes to accommodate a refuse removal truck;

39. that the layout be amended to accommodate continuous forward movement by service trucks and all cul-de-sacs have a minimum of 10 m radius turning circle, to ensure continuous forward movement;

40. that any amendments to cadastral erven to accommodate the turning circle or refuse removal lay-byes will be for the cost of the "Developer";

41. The design and lay-out of the development must be such that emergency vehicles can easily drive through and turn around where necessary;

42. that the "Developer" will be responsible for the design, construction, supervision and implementation of the following infrastructure as reflected in the Addendum to the Traffic Impact Assessment by ICE GROUP Consulting Engineers, dated 15 September 2011, in lieu of development contributions:

42.1 PHASE A

The following infrastructure needs to be in place before any clearance will be given on erven within Phase A:

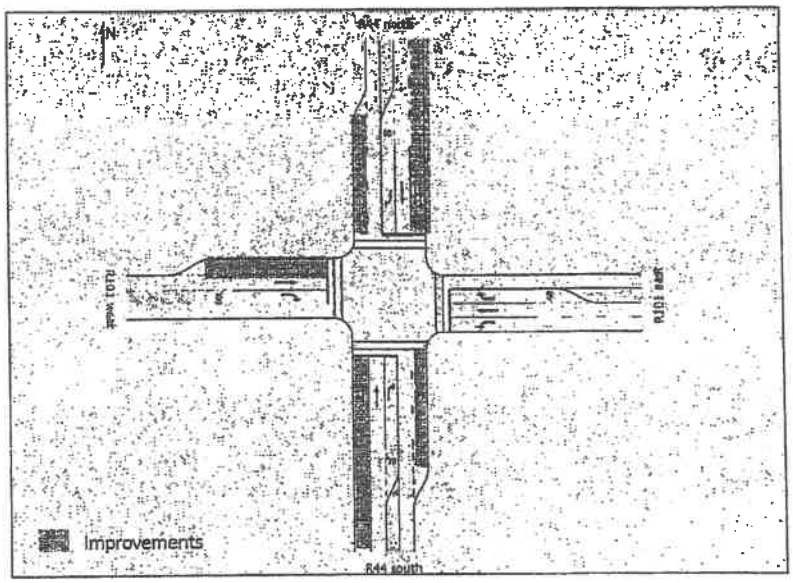
PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS

The balance of the number of residential units and the balance of the GLA in Phase C will be cleared once the construction of the following infrastructure is completed to the satisfaction of the Engineer.

C1) R101 / R44 Intersection:

Additional lanes need to be added to the BKS/UWP Engineers' design, as shown in **Diagram 2.**

Diagram 2: R44 / R101 intersection layout



C2) R44: This road should be a four-lane road from the R101 to beyond the Simondium Road / Merchant Street intersection;

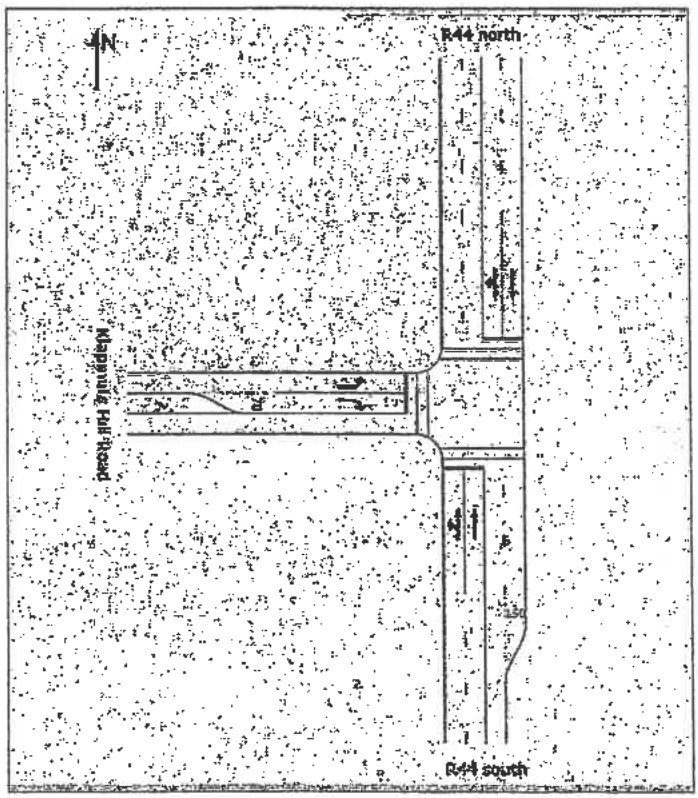
C3) Merchant Street: Construct Merchant Street extension as a two-lane road from the existing residential area to the Klapmuts Hills development;

C4) R44 / Merchant Street / Simondium Road intersection: Additional through lanes will have to be added on both the northern and southern R44 approaches, as shown in **Diagram 3.**

approach should be changed to two through lanes and a dedicated right turn lane.

D6) R44 / Elsenburg Road intersection: Provide a dedicated right turn lane on Elsenburg Road in addition to turning lanes already required (for existing 2011 traffic) on the R44.

Diagram 4: R44 / Klapmuts Hills Road intersection layout



43. that it be noted that the recommended road improvements as per **condition 42** are over and above the improvements that will be done by the developer of Groenfontein Development (improvement of the R44 / Simondium Road intersection) and the Provincial Roads Engineer (improvement of the R44 / R101 intersection);

44. that **condition 42** above be met by the "Developer" before a Certificate in terms of Section 31 will be given or on discretion of the Directorate: Engineering Services, the "Developer" furnish the Council with a bank guarantee equal to the value of the required construction work in Condition 58 above as certified by an independent engineering professional, prior to a Certificate in terms of Section 31 will be given;

45. that during the construction stage, access to the site be strictly via an agreed upon access route to minimize the nuisance factor in respect of dust and noise to the environment and community;

PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS

57. that stormwater in the culvert be addressed without utilizing mechanical pumps to the satisfaction if the Engineer;

Wayleaves

58. that way-leaves / work permits be obtained from the Directorate: Engineering Services prior to any excavation / construction work on municipal land or within 3,0m from municipal services located on private property;

59. that wayleaves will only be issued after approval of relevant engineering design drawings;

Development Contributions

60. that the "Developer" hereby acknowledges that development contributions are payable towards the following civil services: water, sewerage, roads, stormwater and solid waste as per Council's Policy;

61. that the "Developer" hereby acknowledges that the development contribution levy as determined by the "Municipality" and or the applicable scheme tariffs will be paid by the "Developer" towards the provision of bulk municipal civil services in accordance with the relevant legislation and as determined by Council's Policy, should this land-use application be approved;

62. that the "Developer" immediately familiarise himself with the latest development contributions applicable to his/her development;

63. that the "Developer" accepts that the development contributions will be subject to annual escalation up to date of payment. The amount payable will therefore be the amount as calculated at the time that payment is made;

64. that the "Developer" may enter into a development agreement with Stellenbosch Municipality to install or upgrade bulk municipal services at an agreed cost, to be off-set against Development Contributions payable in respect of bulk civil engineering services;

65. that the "Developer" is aware that a contribution is required for municipal services to permit the development at this stage;

66. that the "Developer" is aware that the calculations for the amount which the "Municipality" is entitled to impose on the "Developer" in terms of section 42 of the Land Use Planning Ordinance no 15 of 1985, are not available and that the "Developer" accepts the average amount, as reflected in this document and calculated in 2008 during the Klapmuts Greenfield process, as the amount required for the provision of municipal services in the event that the development is approved;

67. that, if not otherwise agreed, the Development Contribution levy be paid by the Developer – -prior to the approval of any building- and/or services plans in the case of a Sectional title erf and or;

the public road reserve.

78. that based on the preliminary design of bulk municipal engineering services in May 2010 by KCWC Engineers, a reservoir of minimum 2.0 Mℓ will have to be constructed to accommodate this development;

79. that the proposed reservoir of minimum 2,0 Mℓ and relevant pipework will have to be constructed in lieu of development contributions as per the approved Services Agreement between Stellenbosch Municipality and Simonsberg Employees' Development Company (Pty) Ltd or by means of bridging finance by the municipality, whichever comes first.

80. that no clearance in terms of Section 31 can be given until the proposed reservoir of minimum 2,0 ML is constructed;

81. that in terms of the signed agreement between Stellenbosch Municipality and three developers, including the applicant, the capacity of the existing Klapmuts Waste Water Treatment Works is to be upgraded to a total of 1,5 Mℓ/day which will be sufficient to accommodate the total sewerage flow of 235,7 kl/day for Klapmuts Hill. This will equate to the development of your 67 Residential Zone 1 units and 106 Residential Zone 3 units in your Phase A1, 76 Residential Zone 3 units and 254 Residential Zone 4 units and 26 Mixed Residential units in your Phase A2. In total 527 development units is allowed for;

82. that it should be noted that Section 31 clearances for will not be issued until the upgrade of the existing treatment works has been completed;

Solid Waste

83. that it be noted that the Solid Waste Branch will not enter private property, private roads or any access controlled properties for the removal of solid waste;

84. that the "Developer" will enter into a service agreement with the "Municipality" for the removal of refuse;

85. that should it not be an option for the "Municipality" to enter into an agreement with the "Developer" due to capacity constraints, the "Developer" will have to enter into a service agreement with a service provider approved by the "Municipality";

86. Access to all properties via public roads shall be provided in such a way that collection vehicles can complete the beats with a continuous forward movement;

87. Access shall be provided with a minimum travelable surface of 5 meters width and a minimum corner radii of 5 meters;

88. Maximum depth of cul-de-sac shall be 20 metres or 3 erven, whichever is the lesser. Where this requirement is exceeded, it will be necessary to construct a turning circle with a minimum turning circle radius of 11m or, alternatively – a turning shunt as per the Directorate: Engineering Services' specifications. With respect to the latter, on street parking are to be

Ventilation and Lighting
The refuse storage area shall be adequately lit and ventilated. The room shall be provided with a lockable door which shall be fitted with an efficient self-closing devise. The door and ventilated area shall be at least 3 metres from any door or window of a habitable room. Adequate artificial lighting is required in the storage area.

Water Supply and Drainage
A tap shall be provided in the refuse storage area for washing containers and cleaning spillage. The floor should be drained towards a 100 mm floor trap linked to a drainage pipe which discharges to a sewer gully outside the building. In some cases a grease gully may be required.

101. Council vehicles will not enter onto private property. Refuse storage areas should be provided at the street entrance to the premises and have access to the street. In exceptional cases where this is not possible, the refuse storage area may be located elsewhere, but not exceeding 10 metres from the street entrance to the premises, used by the Council's refuse collection employees.

102. Should the refuse storage area be located at a level different from the level of the street entrance to the property, access ramps are to be provided as stairs are not allowed. The maximum permissible gradient of these ramps is 1:7.

103. A refuse bay with minimum dimensions of 15 meters in length x 2, 5 meters in width plus 45 degrees splay entrance, on a public street, must be provided where either traffic flows or traffic sight lines are affected. The refuse bays must be positioned such that the rear of the parked refuse vehicle is closest to the refuse collection area.

104. Any containers or compaction equipment acquired by the building owner must be approved by the Directorate: Engineering Services, to ensure their compatibility with the servicing equipment and lifting attachments.

105. Refuse should not be visible from a street or public place. Suitable screen walls may be required in certain instances.

106. Access must be denied to unauthorised persons, and refuse storage areas should be designed to incorporate adequate security for this purpose.

107. All refuse storage areas shall be approved by the Directorate: Engineering Services, to ensure that the Council is able to service all installations, irrespective of whether these are currently serviced by Council or other companies.

AS-BUILTs

108. The "Developer" shall provide the "Municipality' with as-built paper plans and electronic DXF-files to the satisfaction of the "Engineer";

109. All relevant as-built detail of civil engineering services, as constructed for the development, must be submitted to the "Engineer" and approved by the "Engineer" before any Certificate of Clearance will be issued and or supported by the "Engineer";

PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS

119. The final design of the complete internal street lighting network of the development must be submitted by the developer's Consulting Electrical Engineer to the municipality's Electrotechnical Engineer for approval before any construction work commences;

120. Any defect with the street lighting services constructed by the developer which may occur during the defects liability period of 12 (TWELVE) months and which occurs as a result of defective workmanship and/or materials must be rectified immediately / on the same day the defect was brought to the attention of the developer's Consulting Electrical Engineer. Should the necessary repair work not be done within the said time the municipality reserves the right to carry out the repair work at the cost of the developer;

121. The maintenance and servicing of all private internal street lighting shall be the responsibility and to the cost of the developer and or Home Owners Association;

122. That the "Developer" takes cognizance of the fact that the electricity provider for this area is Eskom and that it is the responsibility of the "Developer" to determine the electricity infrastructure, costs and capacity needed for his development.

V.R. HARRIS
MANAGER: DEVELOPMENT SERVICES

8.17

ITEM 6.2.2

APPENDIX 9

ENVIRONMENTAL AUTHORIZATION FROM THE MINISTRY OF LOCAL GOVERNMENT, ENVIRONMENTAL AFFAIRS & DEVELOPMENT PLANNING

PLANNING, IHS AND PROPERTY MANAGEMENT COMMITTEE MEETING: 2011-11-01

APPENDIX I

MINISTRY OF LOCAL GOVERNMENT,
ENVIRONMENTAL AFFAIRS and
DEVELOPMENT PLANNING

Provincial Government of the Western Cape

Tel : +27 21 483-3721 – Fax : +27 21 483-4174
1 Dorp Street, Cape Town
Private Bag x 9186, Cape Town, 8000
www.capegateway.gov.za

M 3/6/5

DATE OF ISSUE 15 APR 2011

Mr. Herman Steyn
The Board of Directors
Stellenbosch Wine and Country Estate (Pty) Ltd
P.O. Box 6442
WELGEMOED
7538

Tel : (021) 913 4938
Fax (021) 913 4921

Dear Mr Steyn

APPEAL: RESIDENTIAL DEVELOPMENT ON A PORTION OF PORTION 3 OF THE FARM KLAPMUTS RIVER NO. 742 AND A PORTION OF REMAINDER OF THE FARM KLAPMUTS RIVER NO. 742, PAARL.

Having considered the information at my disposal I, the Minister for Local Government, Environmental Affairs and Development Planning have decided in terms of Section 35(4) of the Environment Conservation Act, 1989 (Act No. 73 of 1989) to set aside the decision of the Director: Integrated Environmental Management (Region A) issued on 30 July 2010 and to authorise the activity as set out herein below:

APPEAL RECORD OF DECISION

A. DESCRIPTION OF ACTIVITY:
The activity entails development of the Klapmuts Hills Residential Estate on a Portion of Portion 3 of the Farm Klapmuts River No. 742 and a Portion of the Remainder of the Farm Klapmuts River No. 742, Paarl. The development (see Appendix 1) will comprise of:

- 1577 mixed residential units,
- Open spaces,
- Commercial areas,
- Roads, and
- A reservoir

These are activities identified in:
Schedule 1 of Government Notice No. R1182 of 5 September 1997, as amended, being:
Item 1 (c): The construction, erection or upgrading of, with regard to any substance which is dangerous or hazardous and is controlled by national legislation –
(ii) storage, handling, treatment or processing facilities for any such substance (i.e. for the potential temporary storage of fuel for construction purposes),

19. Departmental officials shall be given access to the property referred to in B above for the purpose of assessing and/or monitoring compliance with the conditions contained in this Record of Decision, at all reasonable times.

H. RECOMMENDATIONS:

The following recommendation should be considered and implemented:

- The use of energy saving devices within all components of the development, e.g. energy saving lamps, etc.
- The use of local labour and the promotion of skills development during the construction phase of the development.

I. KEY FACTORS AFFECTING THE DECISION:

The following was taken into account in the decision-making process resulting in this Appeal RoD:

Need and Desirability

The village of Klapmuts comprises primarily of low income and state assisted housing with very little employment opportunities in the immediate vicinity. The scale and typology of the Klapmuts Hills Residential Estate will be mostly medium income single residential housing and group housing. This addresses the shortage of residential opportunities which exist in the middle income bracket.

Furthermore, it is envisaged to have a long term significant positive socio-economic impact on the village of Klapmuts, not only in the form of job opportunities, but also, as commercial support to existing and new retail opportunities.

Planning Context

The September 2007 Klapmuts SDF was approved by the Stellenbosch Council on 06 May 2010 which includes the Klapmuts Hills Residential Estate on a Portion of Portion 3 of the Farm Klapmuts River No. 742 and a Portion of the Remainder of the Farm Klapmuts River No. 742, Paarl, within the urban edge. Thus, the development of approximately 35 ha of the 54 ha of the development is located within the urban edge. The remaining 19ha portion which is located above the 200m contour line will be used to accommodate a 1000m² tourist facility. The average gross density for the development is 25.5 dwelling units per hectare which is in line with the Provincial Spatial Development Framework's recommendation of 25 du/ha.

The September 2007 Klapmuts SDF defines the urban edge along the western portion of the land (see Appendix 2 – Plan 19) which begins at the railway line in the north and ends at the boundary of Farm 744/1. The north eastern-most portion of the of the edge reflects the need to protect valuable agricultural soil, as identified in an agricultural potential study undertaken for the property, and as defined by a prominent tree line in this area.

Immediately south of this, the edge follows the 200m contour line, which is the height at which the visual impact of the development will not impact significantly on Klapmuts Hill. This was determined through a detailed visual impact study.

The eastern portions of Farm 742/3 and 742/RE, as well as the remainder of Farms 744/2 and 744/3 have been included in the Urban Edge and have been identified as suitable for infill development. The infill of Klapmuts has, however, been identified as a phased development with the above-mentioned erven earmarked for Phase 3, with a realistic timeframe for development in the medium to long term (6 – 10 years). This document was compiled in 2007 and it is now 2011 (~4 years later) so that this application can be deemed to be in line with the development timeframe of the KSDF.

No-go alternative

This alternative means that the land would remain undeveloped. Thus, the land will continue to be used only for agricultural purposes as one consolidated farm together with the adjacent Stellenbosch Wine and Country Estate.

Public Participation

Public Participation Process ("PPP") comprised of the following:

- Release of the Background Information Document ("BID") to the public.
- The availability of the BID was advertised in the regional newspapers, i.e. the Cape Times and "Die Burger", as well as the local "Elkestadnuus" newspapers respectively, on 3 June 2005.
- A Public Open Day was held in the Klapmuts Primary School Hall on 14 June 2005.
- The availability of the Draft Scoping Report was advertised in the "Paarl Post" newspaper on 6 October 2005, as well as in "Die Burger" and the "Elkestadnuus" newspapers, respectively on 7 October 2005.
- The availability of the Draft Environmental Impact Report ("EIR") was advertised in the "Paarl Post" newspaper on 6 November 2008, as well as the "Elkestadnuus" newspaper, and "Die Burger" and the Cape Times newspapers respectively, on 7 November 2008.
- A public meeting and open day was held in the Klapmuts Primary School Hall on 19 November 2008.

During the PPP comments were received and adequately addressed by the applicant, EAP and the project team.

Authorities Consulted

The following authorities commented on the development:

- Heritage Western Cape,
- CapeNature,
- Department of Agriculture,
- The Department of Water Affairs and Forestry,
- Stellenbosch Municipality.

Consideration of the Appeal:

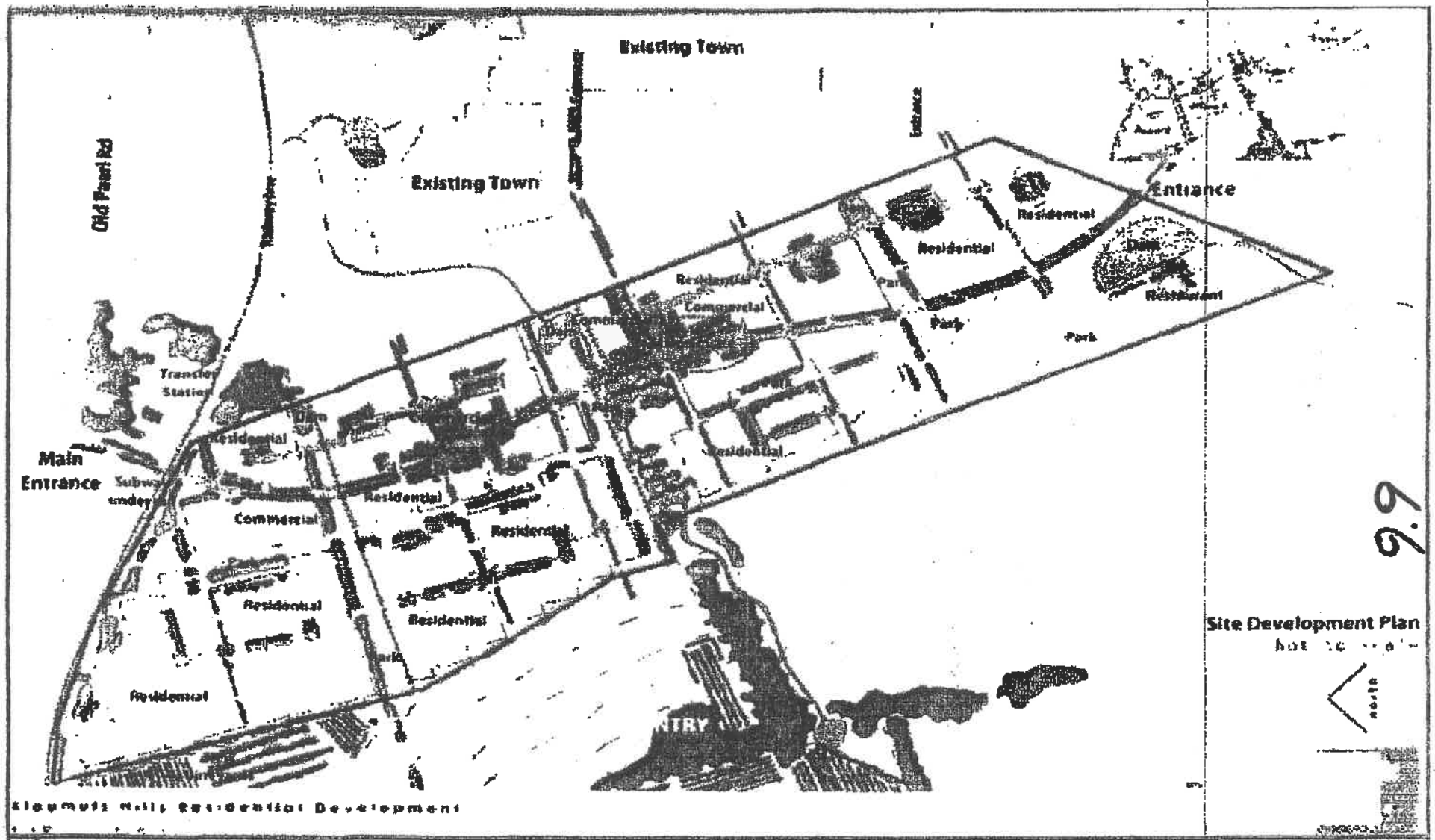
I have considered the issues raised in the appeal and have addressed these issues in the Key Factors of this appeal RoD as it relates to the KSDF and the edge issues.

Furthermore, I have considered the responding statement, which was submitted by the Stellenbosch Interest Group ("SIG"), supporting the Department's decision dated 30 July 2010. The issues raised have been reported on in the Key Factors of the Record of Decision.

In addition, the confirmation dated 13 August 2010 from the Stellenbosch Municipality approving the September 2007 Klapmuts SDF included the bulk of this application within the urban edge.

I am satisfied that no new issues have been raised and that the issues raised have been adequately addressed and considered. It has been assessed that the construction of the Klapmuts Hills Residential Estate will not result in a substantial detrimental effect on the environment.

In view of the above, I am satisfied that, subject to compliance with the conditions contained in this appeal RoD, the proposed activity will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental impacts resulting from the activity can be mitigated to acceptable levels. The application is accordingly authorised.



ALTERNATIVE 1 (PREFERRED ALTERNATIVE) OF THE PROPOSED KLAPMUTS HILLS RESIDENTIAL DEVELOPMENT, KLAPMUTS

FIGURE 3

ITEM 6.2.2

APPENDIX 10

COMMENTS FROM THE DEPARTMENT WATER AFFAIRS & FORESTRY

PLANNING, IHS AND PROPERTY MANAGEMENT COMMITTEE MEETING: 2011-11-01

APPENDIX 10

Water & forestry

Department: Water Affairs and Forestry
REPUBLIC OF SOUTH AFRICA

WESTERN CAPE REGION: WES-KAAPSTREEK
Private Bag / Privaatsak X16, Sanlamhof, 7532
17 Strand Street / Strandweg 17, Bellville, 7530
Tel: (021) 950 7100 Fax: (021) 946 3666

F (021) 950 7224
E mahlatjim@dwaf.gov.za
Cell 082 808 5825

Mr. Malegodi Mahlatji
(021) 950 7146
16/2/7/G100/A/9

PLANNING AND ENVIRONMENT 31 MAR 2009 BEPLANNING EN OMGEWING STELLENBOSCH MUNICIPALITY

MUNICIPALITY - 31 MAR STELLENBOSCH

Attention: Mr Owen Peters
Stellenbosch Municipality
P.O BOX 17
Stellenbosch
7599
Tel : 021 808 8111
Fax : 021 808 8200

Dear Sir /Madam

REZONING APPLICATION FOR KLAPMUTS HILL RESIDENTAIL DEVELOPMENT ON PORTION 3 OF FARM NO 742 AND REMAINDER OF FARM NO 742, PAARL DIVISION.

This Department has the following recommendations:

- The requirements for waste water treatment capacity demands as a result of this rezoning /development should be considered and infrastructure plans should be put in place to cater for such demand.
- The requirements for domestic water of this development and the source should be considered.
- Waste management service responsibilities and obligations should be considered.

It is important for the Municipality as a Water Service Authority to assess its capacity to provide the inherent water, waste and sanitation needs of the development.

It is the requirement of the National Water Act, 1998 (Act 36 of 1998) that water use (i.e. water abstraction, Waste-water disposal and waste disposal) be authorised by this Department before being exercised unless , they are provided for by any other authorised or delegated entity in terms of relevant legislation.

Should you have any further questions please do not hesitate to contact this office.

Yours faithfully

2009/03/25

CHIEF DIRECTOR: WESTERN CAPE REGION

10.1

FILE NR: P1 742/3 & Date 742P
SCAN NR: 583
COLLABORATOR NR: 149408

ITEM 6.2.2

APPENDIX 11

COMMENTS FROM MANAGER: PROPERTY MANAGEMENT

PLANNING, IHS AND PROPERTY MANAGEMENT COMMITTEE MEETING: 2011-11-01

APPENDIX K

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK
MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

Your ref:
Ref nr: 7/2/1/1/Farm739_Klapmuts

6 July 2011

Anton Lotz Town and Regional Planning
PO Box 51799
WATERFRONT
8002

Dear Mr Lotz

PUBLIC ROAD OVER FARM 739, KLAPMUTS

Your letter dated 1 June 2011, refers.

This letter serves to confirm that, from a Property Management perspective, my department supports the proposed construction of a public road over Farm 739, Klapmuts, as indicated on the site development plan that accompanied your application, on condition that the detail design and positioning of the road shall provide the most practical and cost effective solution for the various parties, i.e. ensure access to the Transfer Station site as well as the Remainder of Farm 739 to the west.

Should you required any further information, please contact me.

Yours faithfully

.....
Manager: Property Management
Piet Smit

Cc: Craig Alexander (Senior Town Planner)

11.1

"APPENDIX H"

MEMO

DIRECTORATE: ENGINEERING SERVICES
DIREKTORAAT: INGENIEURSDIENSTE

TO	:	**The Director: Planning and Development**
FOR ATTENTION	:	**C Alexander**
FROM	:	**Vincent Harris**
DATE	:	**2011-09-22**
RE.	:	**PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS HILL RESIDENTIAL DEVELOPMENT, KLAPMUTS**
Reference	:	**742**

Details, specifications and information reflected in the abovementioned application by Anton Lotz Town & Regional Planning, dated 19 October 2008, as well as the Addendum to the TIA by ICE Group, dated 15 September 2011, refer.

Comments from the Directorate: Engineering Services i.e. Transport Roads & Stormwater, Water Services, Solid Waste Services and Development Services will be reflected in this memo and is to be regarded as development conditions to be reflected in the land-use approval

The above-mentioned land-use application is supported, subject to the following conditions:

General:

1. that the following words and expressions referred to in the development conditions, shall have the meanings hereby assigned to except where the context otherwise requires:

   (a) "Municipality" means the STELLENBOSCH MUNICIPALITY a metropolitan municipality, Local authority, duly established in terms of section 9 of the Local Government Municipal Structures act, Act 117 of 1998 and provincial notice (489/200) establishment of the Stellenbosch Municipality (WC024) promulgated in provincial gazette no. 5590 of 22 September 2000, as amended by provincial notice 675/2000 promulgated in provincial gazette;

   (b) "Developer" means the developer and or applicant who applies for certain development rights by means of the above-mentioned land-use application and or his successor-in-title who wish to obtain development rights at any stage of the proposed development;

   (c) "Engineer" means an engineer employed by the "Municipality" or any person appointed by the "Municipality" from time to time, representing the Directorate:

Engineering Services, to perform the duties envisaged in terms of this land-use approval;

2. that all previous relevant conditions of approval to this development application remain valid and be complied with in full unless specifically replaced or removed by the "Engineer";

3. that should the developer not take up his rights for whatever reason within two years from the date of this memo, a revised Engineering report describing services capacities and reflecting infrastructure amendments during the two year period, must be submitted to the Directorate: Engineering Services by the "Developer" for further comment and conditions;

4. that the "Developer" indemnifies and keep the "Municipality" indemnified against all actions, proceedings, costs, damages, expenses, claims and demands (including claims pertaining to consequential damages by third parties and whether as a result of the damage to or interruption of or interference with the municipalities' services or apparatus or otherwise) arising out of the establishment of the development, the provision of services to the development or the use of servitude areas or municipal property, for a period that shall commence on the date that the installation of services to the development are commenced with and shall expire after completion of the maintenance period;

5. that the "Developer" must ensure that he / she has an acceptable public liability insurance policy in place;

6. that a fully detailed Site Development Plan be submitted for approval prior to the approval of building- and/or services plans to allow for the setting of requirements, specifications and conditions related to civil engineering services. Such Plan is to be substantially in accordance with the approved application and or subdivision plan and or precinct plan and or site plan, etc. and is to include a layout plan showing the position of all roads, road reserve widths, sidewalks, parking areas, loading areas, access points, refuse removal arrangements, allocation of uses, position and orientation of all buildings, the allocation of public and private open spaces, building development parameters, the required number of parking bays, etc.;

7. that the "Developer" approach the Provincial Administration: Western Cape for their input and that the conditions as set by the Provincial Administration: Western Cape be adhered to;

8. that the "Developer" inform the project team for the proposed development (i.e. engineers, architects, etc.) of all the relevant conditions contained in this approval;

9. that the "Developer" takes cognizance of the fact that:

   a.) no construction of any civil engineering services may commence before approval of internal – and external civil engineering services drawings;
   b.) no approval of internal – and external civil engineering services drawings will given before land-use and or SDP approval is obtained;
   c.) no approval of internal – and external civil engineering services drawings will given before the "Developer" obtains the written approval of all affected owners where the route of a proposed service crosses the property of a third party;
   d.) no building plans will be recommended for approval by the Directorate: Engineering Services before land-use and or SDP approval is obtained and the relevant erf is serviced;
   e.) no building plans will be recommended for approval by the Directorate: Engineering Services before the approval of internal – and external civil engineering services drawings.

PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS

Internal- and Link Services

10. that it be noted that as per the Site Development Plan Rev 0, dated October 2008, the roads are reflected as public roads. Therefor all internal services on the said erf will be regarded as public services and will be maintained by the 'Municipality";

11. that no accesss control will be allowed in public roads;

12. that the "Developer", at his/her cost, construct the internal (on-site) municipal civil services for the development, as well as any link (service between internal and available bulk municipal service) municipal services that need to be provided;

13. that the Directorate: Engineering Services may require the "Developer" to construct internal municipal services and/or link services to a higher capacity than warranted by the project, for purposes of allowing other existing or future developments to also utilise such services. The costs of providing services to a higher capacity could be offset against the Development Contributions payable in respect of bulk civil engineering services if approved by the Directorate: Engineering Services;

14. that the detailed design and location of access points, circulation, parking, loading and pedestrian facilities, etc., shall be generally in accordance with the approved Site Development Plan and / or Subdivision Plan applicable to this application;

15. that plans of all the internal civil services and such municipal link services as required by the Directorate: Engineering Services be prepared and signed by a Registered Engineering Professional before being submitted to the aforementioned Directorate for approval;

16. that the design and construction / alteration of all civil engineering infrastructure shall be generally in accordance with the Standard Conditions imposed by the Directorate: Engineering Services in this respect or as otherwise agreed. The Standard Conditions is available in electronic format and available on request;

17. that the "Developer" ensures that his/her design engineer is aware of the Standard Conditions and that his/her design engineer will comply to the Standard Conditions or as otherwise agreed in writing with the Directorate: Engineering Services;

18. that all the internal civil services (water, sewer and stormwater) in respect of Res Zone IV as well as subdivisional area 174, be indicated on the necessary building plans, for approval by the Directorate: Engineering Services;

19. that all internal - and link services be inspected by the "Engineer" on request by the "Developer" or his Consulting Engineer;

20. that a practical completion certificate be issued by the Developer's consulting engineer prior to transfer of individual units or utilization of buildings;

21. that the "Developer" shall adhere to the specifications of Telkom (SA) and or any other telecommunications service provider. Copies of all correspondence with Telkom shall be handed over to the "Engineer";

22. that the "Developer" shall be responsible for the cost for any surveying and registration of servitudes regarding services on the property;

23. that the "Developer" be liable for all damages caused to existing civil - and electrical services of the "Municipality" relevant to this development. It is the responsibility of the contractor and/or sub-contractor of the "Developer" to determine the location of existing civil - and electrical services;

24. that all connections to the existing services be made by the "Developer" under direct supervision of the "Engineer" or as otherwise agreed and all cost will be for the account of the "Developer".

25. that the "Developer" shall install a bulk water meter conforming to the specifications of the Directorate: Engineering Services at his cost at the entrance gate of all private developments as to be indicated by the design engineer;

Servitudes

26. that the "Developer" ensures that all main services to be taken over by the Directorate: Engineering Services, all existing municipal – and or private services crossing private - and or other institutional property and any other services crossing future private land/erven are protected by a registered servitude before final Section 31 Clearance will be given.

27. The width of the registered servitude must be a minimum of 3 m or twice the depth of the pipe (measured to invert of pipe), whichever is the highest value. The "Developer" will be responsible for the registration of the required servitude(s), as well as the cost thereof;

28. that the "Developer" obtains the written approval of all affected owners where the route of a proposed service crosses the property of a third party before final approval of engineering drawings be obtained;

Stormwater Management

29. that the geometric design of the roads and/or parking areas ensure that no trapped low-points are created with regard to stormwater management. All stormwater to be routed to the nearest formalized municipal system;

30. that the design engineer needs to apply his/her mind to ensure a design that will promote a sustainable urban drainage system which will reduce the quality and quantity impacts of stormwater on receiving aquatic environments;

31. that the Developer's consulting engineer analyses the existing stormwater systems and determine the expected stormwater run-off for the proposed development, for both the minor and the major storm event. Should the existing municipal stormwater system not be able to accommodate the expected stormwater run-off, the difference between the pre- and post development stormwater run-off must be accommodated on site, or the existing system must be upgraded to the required capacity at the Developer's cost, to the standards and satisfaction of the Directorate: Engineering Services. The aforementioned stormwater analysis is to be submitted concurrent with the detail services plans;

32. that overland stormwater escape routes be provided in the cadastral layout at all low points in the road layout, or that the vertical alignment of the road design be adjusted in order for the roads to function as overland stormwater escape routes. If this necessitates an amendment of the cadastral layout, it must be done by the "Developer", at his/her cost, to the standards of the Directorate: Engineering Services;

33. that in the case of a sectional title development, the internal stormwater layout be indicated on the necessary building plans to be submitted for approval;

34. that for catchment areas of more than 1500m², no overland discharge of stormwater will be allowed into a public road and the "Developer" needs to connect to the nearest piped municipal stormwater system. The stormwater erf connection may not exceed a diameter of 300mm. The excess stormwater runoff for the minor flood event is to be collected and detained on site;

Roads

35. that provision be made for acceptable stacking distances in front of access control gates;

36. than any amendments to cadastral erven to accommodate access control gates will be for the cost of the "Developer" as these configurations were not available at rezoning and subdivision stage;

37. that, where access control is being provided, a minimum of 2 visitor's parking bays be provided on site, but outside the entrance gate, for vehicles not granted access to the development;

38. that provision be made for refuse lay-byes to accommodate a refuse removal truck;

39. that the layout be amended to accommodate continuous forward movement by service trucks and all cul-de-sacs have a minimum of 10 m radius turning circle, to ensure continuous forward movement;

40. that any amendments to cadastral erven to accommodate the turning circle or refuse removal lay-byes will be for the cost of the "Developer";

41. The design and lay-out of the development must be such that emergency vehicles can easily drive through and turn around where necessary;

42. that the "Developer" will be responsible for the design, construction, supervision and implementation of the following infrastructure as reflected in the Addendum to the Traffic Impact Assessment by ICE GROUP Consulting Engineers, dated 15 September 2011, in lieu of development contributions:

42.1 PHASE A

The following infrastructure needs to be in place before any clearance will be given on erven within Phase A:

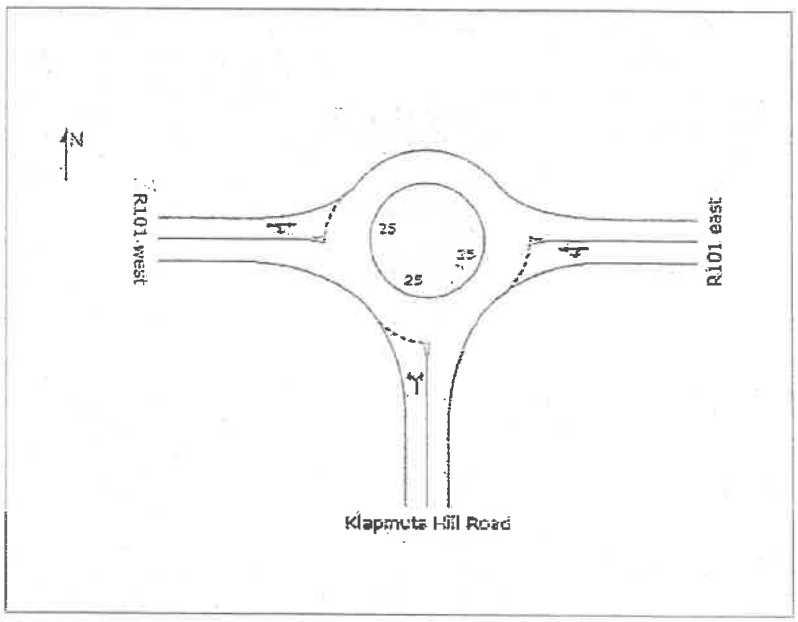
PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS

A1) Klapmuts Hills Road: Construct Klapmuts Hills Road as a two-lane road from the Klapmuts Hills development northwards up to the R101, including an underpass underneath the railway line;

A2) R101 / Klapmuts Hills Road intersection: Stop control, with short dedicated left- and right turn lanes on the R101 approaches and on the Klapmuts Hills Road exit. Should a roundabout, however, be implemented only one circulating lane (4,5 metres wide) is required. The roundabout diameter should be 25 metres. See Diagram 1 below.

A3) R101 / R44 intersection: The layout proposed by BKS / UWP Engineers will be sufficient to accommodate Phase A traffic.

Diagram 1: R101 / Klapmuts Hills Road intersection layout



42.2 PHASE B

No improvements over and above the improvements proposed for Phase A will be required to accommodate Phase B.

42.3 PHASE C

Up to 15% of the number of residential units and up to 15% of the GLA in Phase C will be cleared once the design of the following infrastructure is completed.

Up to 25% of the number of residential units and up to 25% of the GLA in Phase C will be cleared once the construction of the following infrastructure commenced.

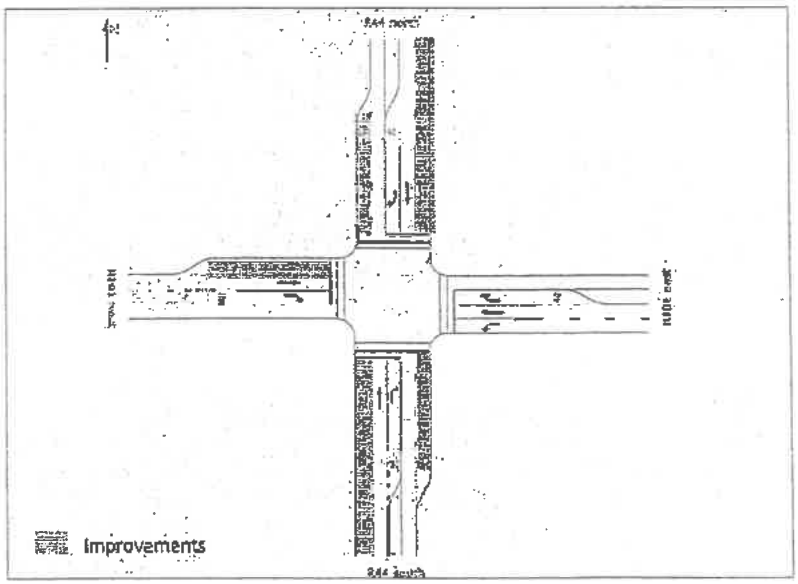
PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS

The balance of the number of residential units and the balance of the GLA in Phase C will be cleared once the construction of the following infrastructure is completed to the satisfaction of the Engineer.

C1) R101 / R44 intersection:

Additional lanes need to be added to the BKS/UWP Engineers' design, as shown in **Diagram 2.**

Diagram 2: R44 / R101 intersection layout



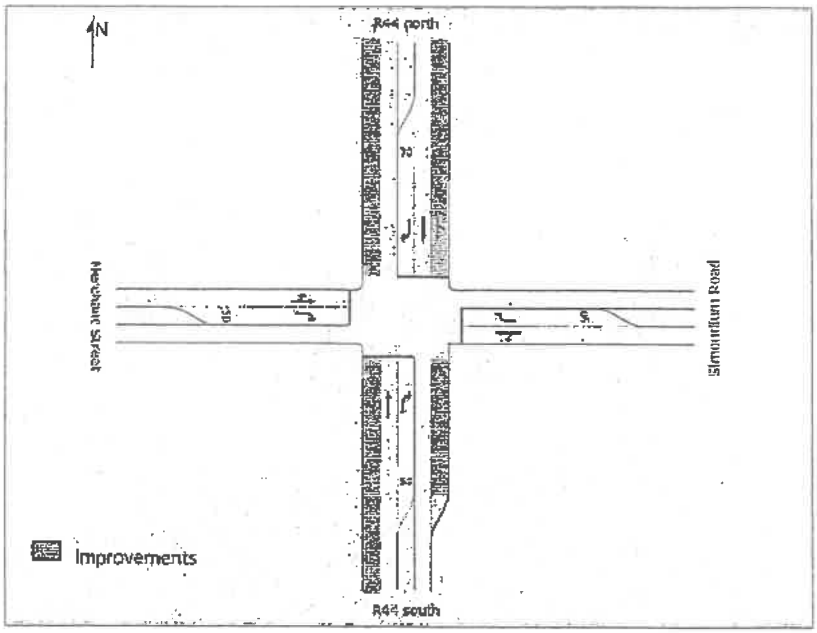
C2) R44: This road should be a four-lane road from the R101 to beyond the Simondium Road / Merchant Street intersection;

C3) Merchant Street: Construct Merchant Street extension as a two-lane road from the existing residential area to the Klapmuts Hills development;

C4) R44 / Merchant Street / Simondium Road intersection: Additional through lanes will have to be added on both the northern and southern R44 approaches, as shown in **Diagram 3.**

PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS

Diagram 3: R44 / Merchant Street / Simondium Road intersection



42.4 PHASE D

Up to 15% of the number of residential units and up to 15% of the GLA in Phase D will be cleared once the design of the following infrastructure is completed.

Up to 25% of the number of residential units and up to 25% of the GLA in Phase D will be cleared once the construction of the following infrastructure commenced.

The balance of the number of residential units and the balance of the GLA in Phase D will be cleared once the construction of the following infrastructure is completed to the satisfaction of the Engineer.

D1) R101: The R101 should be doubled from Klapmuts Hills Road eastwards up to the R44;

D2) R101 / Klipheuwel Road intersection: The intersection should be signalised;

D3) R44: The section between Simondium Road and Klapmuts Hills Road should be doubled;

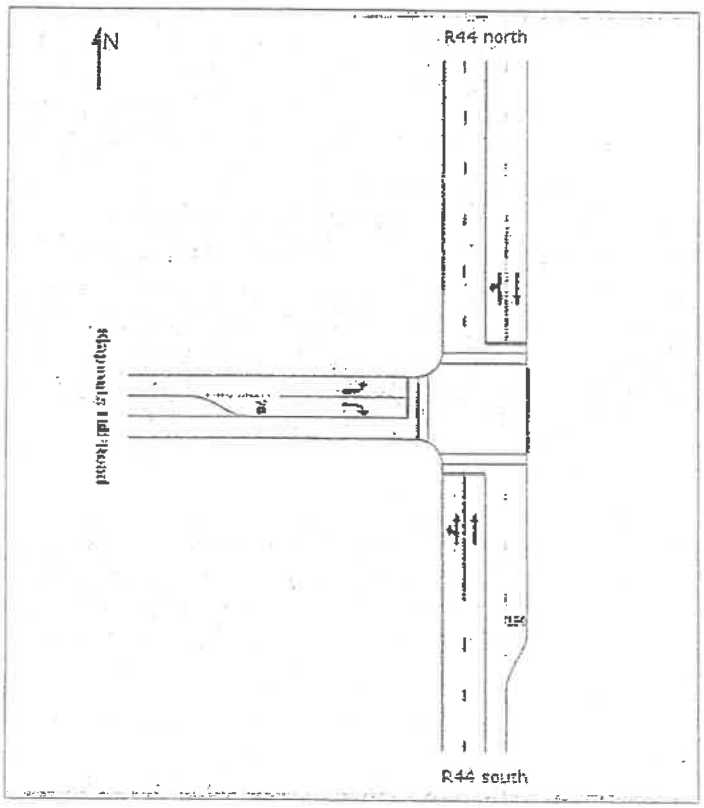
D4) Klapmuts Hills Road: The Klapmuts Hills Road should be extended from the Klapmuts Hills development southwards up to the R44;

D5) R44 / Klapmuts Hills Road intersection: This intersection needs to be signalised in keeping with other intersections on the R44, with a layout as shown in **Diagram 4**. With a median island the through/right turn lane on the northern

approach should be changed to two through lanes and a dedicated right turn lane.

D6) R44 / Elsenburg Road intersection: Provide a dedicated right turn lane on Elsenburg Road in addition to turning lanes already required (for existing 2011 traffic) on the R44.

Diagram 4: R44 / Klapmuts Hills Road intersection layout



43. that it be noted that the recommended road improvements as per **condition 42** are over and above the improvements that will be done by the developer of Groenfontein Development (improvement of the R44 / Simondium Road intersection) and the Provincial Roads Engineer (improvement of the R44 / R101 intersection);

44. that **condition 42** above be met by the "Developer" before a Certificate in terms of Section 31 will be given or on discretion of the Directorate: Engineering Services, the "Developer" furnish the Council with a bank guarantee equal to the value of the required construction work in Condition 58 above as certified by an independent engineering professional, prior to a Certificate in terms of Section 31 will be given;

45. that during the construction stage, access to the site be strictly via an agreed upon access route to minimize the nuisance factor in respect of dust and noise to the environment and community;

PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS

46. that the "Developer"/Owner will be held liable for any damage to municipal infrastructure within the road reserves of the roads mentioned in **condition 42** above, caused as a direct result of the development of the subject property. The "Developer"/Owner will therefore be required to carry out the necessary rehabilitation work, at his/her cost, to the standards of the Directorate: Engineering Services;

47. that each erf has its own access (drive-way), constructed to standards as set out by the the Directorate: Engineering Services and in line with the Road Access Guideline;

48. that the proposed access road (Klapmuts Hill Road) be registered by the Developer at his cost as a public road. Plans of the road layout, pavement layerworks and stormwater drainage to be approved by the Directorate: Engineering Services before commencement of construction;

49. that the area of land required for road reserve be surrendered by the "Developer" to the "Municipality", at his/her cost, prior to any approval of rate clearances;

50. that, if applicable, any compensation from the "Municipality" for land required for road reserves, be based on the value of the land in terms of its current zoning, i.e, agriculture;

51. that provision be made for a 3-point turning head in front of the entrance gate to any private development, to the satisfaction of the Directorate: Engineering Services in order to enable a vehicle to turn around;

52. that provision is to be made to the satisfaction of the "Engineer" for non-motorized transport facilities and public transport during the design stage;

53. that the implementation of non-motorized transport facilities and public transport will be in lieu of development contributions on all road identified by BKS during the 2008 Conceptual Planning stage;

Culvert Requirement:

54. that the proposed culvert under rail in the proposed road lay-out be designed and constructed by a professional engineer and to the satisfaction of all affected institutions i.e. Provincial Government, Stellenbosch Municipality, Metrorail, PRASA, etc;

55. that the culvert be constructed by the "Developer", to the standards of the Directorate: Engineering Services. An adequate level of supervision by a suitably qualified Registered Engineering Professional must be provided for the full duration of the works. The Registered Engineering Professional shall arrange for any tests that may be necessary to determine whether the workmanship and materials conform to the required standards;

56. that a certificate stating that all work has been carried out in accordance with the Directorate: Engineering Services's specifications and requirements, signed by the Registered Engineering Professional, must be submitted with the "As Built" drawings on completion of the culvert. The certificate must make reference to all material testing, and confirm that the test results meet or exceed the requirements of the specifications;

8.10

57. that stormwater in the culvert be addressed without utilizing mechanical pumps to the satisfaction if the Engineer;

Wayleaves

58. that way-leaves / work permits be obtained from the Directorate: Engineering Services prior to any excavation / construction work on municipal land or within 3,0m from municipal services located on private property;

59. that wayleaves will only be issued after approval of relevant engineering design drawings;

Development Contributions

60. that the "Developer" hereby acknowledges that development contributions are payable towards the following civil services: water, sewerage, roads, stormwater and solid waste as per Council's Policy;

61. that the "Developer" hereby acknowledges that the development contribution levy as determined by the "Municipality" and or the applicable scheme tariffs will be paid by the "Developer" towards the provision of bulk municipal civil services in accordance with the relevant legislation and as determined by Council's Policy, should this land-use application be approved;

62. that the "Developer" immediately familiarise himself with the latest development contributions applicable to his/her development;

63. that the "Developer" accepts that the development contributions will be subject to annual escalation up to date of payment. The amount payable will therefore be the amount as calculated at the time that payment is made;

64. that the "Developer" may enter into a development agreement with Stellenbosch Municipality to install or upgrade bulk municipal services at an agreed cost, to be off-set against Development Contributions payable in respect of bulk civil engineering services;

65. that the "Developer" is aware that a contribution is required for municipal services to permit the development at this stage;

66. that the "Developer" is aware that the calculations for the amount which the "Municipality" is entitled to impose on the "Developer" in terms of section 42 of the Land Use Planning Ordinance no 15 of 1985, are not available and that the "Developer" accepts the average amount, as reflected in this document and calculated in 2008 during the Klapmuts Greenfield process, as the amount required for the provision of municipal services in the event that the development is approved;

67. that, if not otherwise agreed, the Development Contribution levy be paid by the Developer – -prior to the approval of any building- and/or services plans in the case of a Sectional title erf and or;

-prior to the approval of a Certificate in terms of Section 31 in all cases and or;
-prior to the erf or portion thereof being put to the approved use;

68. that the Development Contribution levy to the amount of R16 515 101 (Sixteen-million-five-hundred-and-fifteen-thousand-one-hundred-and-one-rand) (Excluding VAT) as reflected on the BICLS Contribution calculation sheet, dated 01 September 2011 and attached herewith as Annexure BICLS, be paid by the Developer towards the provision of bulk municipal civil services in accordance with the relevant legislation and as determined by Council's Policy;

69. that it be noted that the Development Contribution levy to the amount of R16 515 101 (Excluding VAT) as reflected on the BICLS Contribution calculation sheet, dated 01 September 2011, and attached herewith as Annexure BICLS, is only in respect of Phase A of Portion 3 of Farm 742 and excludes sub-divisional area portion 174 (Phase A), Phase B, Phase C, Phase D and Phase E for which development contributions will be calculated once a sub-divisional plan and or Site Development Plan for the said portions is approved;

70. that it be noted that the Development Contributions as reflected on the BICLS Contribution calculation sheet (attached herewith as Annexure BICLS) will be subject to annual escalation on 01 July every year up to date of payment. The final amount payable will therefore be the amount as calculated at the time that payment is made;

71. that the development shall be substantially in conformance with the Site Development Plan submitted in terms of this application. Any amendments and/or additions to the Site Development Plan, once approved, which might lead to an increase in the number of units or which might lead to an increase in the Gross Leasable Area will result in the recalculation of the Development Contributions according to the latest approved tariffs;

Home Owners Association

72. that a Home Owners Association (HOA) be established in accordance with the provisions of section 29 of the Land Use Planning Ordinance no 15 of 1985 and shall come into being upon the separate registration or transfer of the first deducted land unit arising from this subdivision;

73. that the HOA take transfer of the private roads simultaneously with the transfer or separate registration of the first deducted land portion in such phase;

74. that in addition to the responsibilities set out in section 29, the HOA also be responsible for the maintenance of the private roads, street lighting, open spaces, retention facilities and all internal civil services;

75. that the Constitution of the HOA specifically empower the Association to deal with the maintenance of the roads, street lighting, open spaces, retention facilities and all internal civil services;

Water and Sewerage

76. that all engineering services for private developments comply with the same standards and procedures as for public services and the Home Owners Association be responsible for the maintenance of internal private services;

77. that bulk connection points for services (water, sewer, stormwater and access) be provided in

the public road reserve.

78. that based on the preliminary design of bulk municipal engineering services in May 2010 by KCWC Engineers, a reservoir of minimum 2.0 Mℓ will have to be constructed to accommodate this development;

79. that the proposed reservoir of minimum 2,0 Mℓ and relevant pipework will have to be constructed in lieu of development contributions as per the approved Services Agreement between Stellenbosch Municipality and Simonsberg Employees' Development Company (Pty) Ltd or by means of bridging finance by the municipality, whichever comes first.

80. that no clearance in terms of Section 31 can be given until the proposed reservoir of minimum 2,0 ML is constructed;

81. that in terms of the signed agreement between Stellenbosch Municipality and three developers, including the applicant, the capacity of the existing Klapmuts Waste Water Treatment Works is to be upgraded to a total of 1,5 Mℓ/day which will be sufficient to accommodate the total sewerage flow of 235,7 kl/day for Klapmuts Hill. This will equate to the development of your 67 Residential Zone 1 units and 106 Residential Zone 3 units in your Phase A1, 76 Residential Zone 3 units and 254 Residential Zone 4 units and 26 Mixed Residential units in your Phase A2. In total 527 development units is allowed for;

82. that it should be noted that Section 31 clearances for will not be issued until the upgrade of the existing treatment works has been completed;

Solid Waste

83. that it be noted that the Solid Waste Branch will not enter private property, private roads or any access controlled properties for the removal of solid waste;

84. that the "Developer" will enter into a service agreement with the "Municipality" for the removal of refuse;

85. that should it not be an option for the "Municipality" to enter into an agreement with the "Developer" due to capacity constraints, the "Developer" will have to enter into a service agreement with a service provider approved by the "Municipality";

86. Access to all properties via public roads shall be provided in such a way that collection vehicles can complete the beats with a continuous forward movement;

87. Access shall be provided with a minimum travelable surface of 5 meters width and a minimum corner radii of 5 meters;

88. Maximum depth of cul-de-sac shall be 20 metres or 3 erven, whichever is the lesser. Where this requirement is exceeded, it will be necessary to construct a turning circle with a minimum turning circle radius of 11m or, alternatively – a turning shunt as per the Directorate: Engineering Services' specifications. With respect to the latter, on street parking are to be

prohibited by way of "red lines" painted on the road surface as well as "no parking" signboards as a single parked vehicle can render these latter circles and shunts useless;

89. Minimum turning circle radius shall be 11 metres to the centre line of the vehicle;

90. Road foundation shall be designed to carry a single axle load of 8.2 tonnes;

91. Refuse storage areas are to be provided for all premises other than single residential erven and for all erven in private roads;

92. Refuse storage areas shall be designed in accordance with the requirements as specified by the Solid Waste Branch. Minimum size and building specifications is available from the Solid Waste Branch – contact Thys Serfontein 021 – 808 8235;

93. A single, centralised, refuse storage area which is accessible for collection from a public road is required for each complete development. The only exception is the case of a single residential dwelling, where a refuse storage area is not required;

94. The refuse storage area shall be large enough to store all receptacles needed for refuse disposal on the premises, including all material intended to recycling. No waste is allowed to be disposed / stored without a proper 240 ℓ Municipal wheelie bin;

95. The size of the refuse storage area depends on the rate of refuse generation and the frequency of the collection service. For design purposes, sufficient space should be available to store two weeks' refuse.

96. Where the premises might be utilised by tenants for purposes other than those originally foreseen by the building owner, the area shall be sufficiently large to store all refuse generated, no matter what the tenant's business may be. Room for future expansion is also desirable;

97. All black 85 ℓ refuse bins or black refuse bags have been replaced with 240 ℓ black municipal wheeled containers engraved with WC024 in front, and consequently refuse storage areas should be designed to cater for these containers. The dimensions of these containers are:

    Commercial and Domestic : 585 wide x 730 mm deep x 1100 mm high

98. With regard to flats and townhouses, a minimum of 50 litres of storage capacity per person, working or living in the premises, is to be provided at a "once a week" collection frequency;

99. Should designers be in any doubt regarding a suitable size for the refuse storage area, advice should be sought from the Solid Waste Department : Tel 021 808-8224

100. Building specifications for refuse storage area:

Floor

The floor shall be concrete, screened to a smooth surface and rounded to a height of 75mm around the perimeter. The floor shall be graded and drained to a floor trap (See: Water Supply and Drainage).

Walls and Roof

The Refuse Storage Area shall be roofed to prevent any rainwater from entering. The walls shall be constructed of brick, concrete or similar and painted with light colour high gloss enamel. The height of the room to the ceiling shall be not less than 2.21 metres.

Ventilation and Lighting
The refuse storage area shall be adequately lit and ventilated. The room shall be provided with a lockable door which shall be fitted with an efficient self-closing devise. The door and ventilated area shall be at least 3 metres from any door or window of a habitable room. Adequate artificial lighting is required in the storage area.

Water Supply and Drainage
A tap shall be provided in the refuse storage area for washing containers and cleaning spillage. The floor should be drained towards a 100 mm floor trap linked to a drainage pipe which discharges to a sewer gully outside the building. In some cases a grease gully may be required.

101. Council vehicles will not enter onto private property. Refuse storage areas should be provided at the street entrance to the premises and have access to the street. In exceptional cases where this is not possible, the refuse storage area may be located elsewhere, but not exceeding 10 metres from the street entrance to the premises, used by the Council's refuse collection employees.

102. Should the refuse storage area be located at a level different from the level of the street entrance to the property, access ramps are to be provided as stairs are not allowed. The maximum permissible gradient of these ramps is 1:7.

103. A refuse bay with minimum dimensions of 15 meters in length x 2, 5 meters in width plus 45 degrees splay entrance, on a public street, must be provided where either traffic flows or traffic sight lines are affected. The refuse bays must be positioned such that the rear of the parked refuse vehicle is closest to the refuse collection area.

104. Any containers or compaction equipment acquired by the building owner must be approved by the Directorate: Engineering Services, to ensure their compatibility with the servicing equipment and lifting attachments.

105. Refuse should not be visible from a street or public place. Suitable screen walls may be required in certain instances.

106. Access must be denied to unauthorised persons, and refuse storage areas should be designed to incorporate adequate security for this purpose.

107. All refuse storage areas shall be approved by the Directorate: Engineering Services, to ensure that the Council is able to service all installations, irrespective of whether these are currently serviced by Council or other companies.

AS-BUILTs

108. The "Developer" shall provide the "Municipality' with as-built paper plans and electronic DXF-files to the satisfaction of the "Engineer";

109. All relevant as-built detail of civil engineering services, as constructed for the development, must be submitted to the "Engineer" and approved by the "Engineer" before any Certificate of Clearance will be issued and or supported by the "Engineer";

PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS

110. The Consulting Civil Engineer of the "Developer" shall certify that the location and position of the installed services are in accordance with the plans submitted for each of the services detailed below;

111. All As-built drawings are to be signed by a professional engineer who represents the consulting engineering company responsible for the design and or site supervision of civil engineering services;

112. Clearance certificates shall not be issued unless said services have been inspected by the "Engineer" and written clearance given, by the "Engineer";

Section 31 Clearance Certificate

113. It is specifically agreed that the "Developer" undertakes to comply with all conditions of subdivision and rezoning as laid down by the "Municipality" before occupation certificates shall be issued, unless otherwise agreed herein;

114. that the "Municipality" reserves the right to withhold any clearance certificate until such time as the "Developer" has complied with conditions set out in this contract with which he is in default. Any failure to pay monies payable in terms of this contract within 30 (thirty) days after an account has been rendered shall be regarded as a breach of this agreement and the "Municipality" reserves the right to withhold any clearance certificate until such time as the amount owing has been paid;

115. that clearance will only be given per completed phase and the onus is on the "developer" to phase his development accordingly;

Avoidance of waste, nuisance and risk

116. Where in the opinion of the "Municipality" a lack of maintenance of any service constitutes a nuisance, health or other risk to the public the "Municipality" may give the "Developer" and or HOA written notice to remedy the defect failing which the "Municipality" may carry out the work itself or have it carried out, at the cost of the "Developer" and or HOA.

Streetlighting

117. The "Developer" will be responsible for the design and construction at his own expense of all internal street lighting services and street lighting on link roads leading to his development (excluding Class 1, 2, 3 and Klapmuts Hill Road) according to specifications determined by the municipality's Electrotechnical Engineer and under the supervision of the developer's consulting engineer;

118. Prior to commencing with the design of street lighting services, the developer's Consulting Electrical Engineer must acquaint himself with, and clarify with the municipality's Electrotechnical Engineer, the standards of materials and design requirements to be complied with and possible cost of connections to existing services;

PROPOSED REZONING AND SUBDIVISION ON PORTIONS OF FARM 742/3 AND FARM 742, KLAPMUTS

119. The final design of the complete internal street lighting network of the development must be submitted by the developer's Consulting Electrical Engineer to the municipality's Electrotechnical Engineer for approval before any construction work commences;

120. Any defect with the street lighting services constructed by the developer which may occur during the defects liability period of 12 (TWELVE) months and which occurs as a result of defective workmanship and/or materials must be rectified immediately / on the same day the defect was brought to the attention of the developer's Consulting Electrical Engineer. Should the necessary repair work not be done within the said time the municipality reserves the right to carry out the repair work at the cost of the developer;

121. The maintenance and servicing of all private internal street lighting shall be the responsibility and to the cost of the developer and or Home Owners Association;

122. That the "Developer" takes cognizance of the fact that the electricity provider for this area is Eskom and that it is the responsibility of the "Developer" to determine the electricity infrastructure, costs and capacity needed for his development.

V.R. HARRIS
MANAGER: DEVELOPMENT SERVICES

8.17

DEVELOPMENT CONTRIBUTIONS (DC'S) CALCULATOR FOR KLAPMUTS

ANNEXURE: BICLS

Only complete grey shaded areas

Calculation in respect:	Portion 3 of Farm 742 (ONLY PHASE A & EXCL PTN NO 174 - SUBDIVISIONAL AREA)
Calculation done by:	Vincent Harris
Calculation Type: Estimate or Final	Final
Date of calculation:	01-Sep-11

Residential Land-use	# of units	Cost per	Roads DC's Tariff / unit	Roads DC's i.r.o. develop.	Stormwater DC's Tariff / unit	Stormwater DC's i.r.o. develop.	Water DC's Tariff / unit	Water DC's i.r.o. develop.	Sewer DC's Tariff / unit	Sewer DC's i.r.o. develop.	WWTW DC's Tariff / unit	WWTW DC's i.r.o. develop.	Total Contribution per unit	Total DC's for this development
Residential: Low Density (1-9 units/ha)	0	Unit	R 20 300	R 0	R 1 120	R 0	R 4 900	R 0	R 1 190	R 0	R 24 627	R 0	R 60 137	R 0
Residential: Medium-Low Density (10-24 units/ha)	67	Unit	R 20 756	R 1 390 652	R 1 040	R 69 680	R 4 550	R 304 850	R 1 105	R 74 035	R 14 776	R 989 992	R 42 227	R 2 829 209
Residential: Medium (25-49 units/ha)	215	Unit	R 20 770	R 4 444 780	R 800	R 171 200	R 3 500	R 749 000	R 850	R 181 900	R 7 388	R 1 581 032	R 33 308	R 7 127 912
Residential: High (50-150 units/ha)	220	Unit	R 20 764	R 4 568 080	R 640	R 140 800	R 2 800	R 616 000	R 680	R 149 600	R 4 925	R 1 083 500	R 29 809	R 6 557 980
Subsidized & Social Housing (50 units/ha)	0	Unit	R 9 433	R 0	R 680	R 0	R 2 975	R 0	R 723	R 0	R 6 157	R 0	R 19 968	R 0

Commercial and Industrial Land-use:	# GLA	Cost per	Roads DC's Tariff / unit	Roads DC's i.r.o. develop.	Stormwater DC's Tariff / unit	Stormwater DC's i.r.o. develop.	Water DC's Tariff / unit	Water DC's i.r.o. develop.	Sewer DC's Tariff / unit	Sewer DC's i.r.o. develop.	WWTW DC's Tariff / unit	WWTW DC's i.r.o. develop.	Total Contribution per unit	Total DC's for this development
Commercial	0	m² GLA	R 434.00	R 0	R 14.00	R 0	R 57.00	R 0	R 13.70	R 0	R 49.25	R 0	R 568	R 0
Industrial (See note below)	0	m² GLA	R 113.00	R 0	R 14.00	R 0	R 10.00	R 0	R 2.80	R 0	R 49.25	R 0	R 189	R 0

Note: The industrial GLA calculation assumes a single storey structure with a site coverage of 75% which effectively also equates to a GLA ratio of 0.75.

ALL FIGURES ARE VAT EXCLUSIVE	Roads DC's	Stormwater DC's	Water DC's	Sewer DC's	WWTW DC's	Total
TOTAL DC'S FOR THIS DEVELOPMENT PER SERVICE	R 10 403 512	R 381 680	R 1 669 850	R 405 535	R 3 654 524	R 16 515 101

Version 1 Dated: 01 Sept 11

Notes:
1. DC's only calculated for Phase A
2. Subdivisional area Phase A Ptn 174 as per Table 4 of the LUPO application will be calculated as and when SDP for the said portion is submitted.
3. DC's for Phases B, C, D and E will be calculated as and when subdivisional plan and or SDP's are submitted for these phases.

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ANNEXURE T

Western Cape Government
Environmental Affairs and Development Planning

DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 2)

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Tel: +27 21 483 3544 Fax: +27 21 483 3633
1 Dorp Street, Cape Town, 8000
www.westerncape.gov.za/eadp

REFERENCE: 15/3/2/12/BS2

A Roux Town Planning
Office B1
La Concorde Building
57 Main Road
PAARL
7646

FOR ATTENTION: ANDRE ROUX

REQUEST FOR COMMENT – FARM 742/5, PAARL (LU/10577)

1. Your request for comment, received by the Directorate Development Management (Region 2) on 29 January 2021, has reference.

2. In 2011 the Stellenbosch Municipality granted approval for the Klapmuts Hills development, which included approval of the Development Framework, rezoning, subdivision and departures to permit urban development on this site within an approved Basket of Rights, allowing for 1 577 residential units and associated services and facilities.

3. A LUPO extension application was approved on 18 September 2017 and the existing development rights will lapse on 22 November 2021. It is stated that property is zoned Subdivisional Area in terms of the LUPO Section 8 zoning regulations as the rights for permitting a total of 1 577 residential units and associated services and facilities remain valid.

4. In short, the current application as submitted for comment, relates to the following:

   - Amendment of conditions of approval to amend approved subdivision plan;

- Amendment of conditions to relocate approved land use rights with additional non-residential floor area;
- Council's consent to permit additional land uses (x3);
- Council's permission to permit flats on ground storey on Portion 2;
- Approval of Stellenbosch Bridge Development Framework.

5. Although Phase 1 of the Stellenbosch Bridge Development Framework will ultimately include more intensified development on the site that exceeds the current approved basket of rights for the site, the proposed spatial structure as a first approval constitutes the development of the residential units provided for in the existing "Basket of Rights" only. The only additional rights applied for is the 28 000m² non-residential floor space that allegedly did form part of the previous development proposal and service calculations (as part of associated services and facilities), but which was not included in the wording of the final approval. The validity of this claim should be confirmed by the municipality and specifically whether the original rezoning to sub divisional area included these land use rights.

6. Klapmuts is currently defined as an important municipal node and is primed to play a much larger role as a regional economic node focussing on a host region rather than just the designated zone of Klapmuts (as advocated in the Department of Trade & Industry's 2012 Policy on the Development of Special Economic Zones). It is, however, important to recognise that the current and future development of Klapmuts South is intrinsically connected to Klapmuts North and should be viewed as one functional area that, over time, develops as an important regional node.

7. The development of Klapmuts has been identified in the approved Stellenbosch Municipal Spatial Development Framework (2019) as a Catalytic Initiative that offers extensive inclusive opportunity. The proposed Phase 1 of the Stellenbosch Bridge development is aligned with the SDF and is located inside the urban edge, which was specifically adjusted in recognition of the proposed "innovation precinct' or "smart city" district. The SDF further earmarks the subject property for Local Economic Development, with the area to the south being earmarked for Mixed Use Community and Residential Infill.

8. Whilst this Directorate has no in-principle objection to the proposed development of the property as part of the development of the Klapmuts node, it is essential that

the proposed development sets the tone and contributes progressively toward the specific directives set out in the Stellenbosch SDF and the the Greater Cape Metro Regional Spatial Implementation Framework (RSIF) with regards the development of Klapmuts as a whole.

9. A number of issues, however, require specific further attention, namely the integration of the proposed development with the current town of Klapmuts and the linkages between Klapmuts north and south. Secondly, the SDF is clear that Klapmuts South should provide for a range of income groups. Higher income development is not a problem in and of itself, but it should not be in the form of low density gated communities. At the very least an effort to integrate existing poorer communities with the proposed new higher income residential areas should be facilitated through linking up any new roads with the existing road network of Klapmuts.

10. Although Stellenbosch Municipality does not have an Inclusionary Housing Policy and there are no prescribed mechanisms for the implementation of inclusionary housing in South Africa, SPLUMA does introduce the concept and provides that all spheres of government must address the inclusion of persons and areas that were previously excluded. One form of inclusionary development is to require large, new developments to make some contribution to affordable housing.

11. Further to the provision of inclusionary housing, the SDF further provides for the adequate provision of public facilities (SDF Table 32). Whilst Phase 1 may not trigger the need for additional facilities/infrastructure, cumulatively developments will give rise to this need. Stellenbosch Municipality should, therefore, plan ahead for this eventuality and identify well located land for future facility provision. If not, Klapmuts will end up with a number of uncoordinated developments and insufficient land to accommodate much needed facilities.

12. Although not part of Phase 1 per se, comment on the provision of industrial land within the Stellenbosch Bridge Development is warranted. Given the decision by Distell Limited to relocate to Klapmuts North and the approval by Drakenstein Municipality of the rezoning of the Remainder of Farm 736, Paarl Division to Special Zone, in order to permit industrial, mixed-use, open space and utility land uses with a gross leasable floor area of ±545 000m^2, the necessity for further isolated pockets

of industrial land south of the N1 national road is questioned. Further to the above, the proposed industrial pockets in the Stellenbosch Bridge development serve as a physical buffer between the Bridge development and the old town.

13. The Stellenbosch Bridge development aims to follow the Package of Plans approach, with Precinct Pans, Subdivision Plans and SDPs following the approval of the Development Framework Plan. Given that the information as provided in this initial application is contextual in nature, setting out the basic physical structure, it is essential that sufficient details be provided in the SDP phase, reflecting thinking that responds positively to the principles and proposals contained in the MSDF and represents an environment that offers appropriate opportunities and choices (specifically in terms of unit types, size, progressive completion, price and tenure) and improved quality of life for the residents of the greater Klapmuts node.

14. We trust that the above is in order. Should you wish to engage further on any of these aspects. please liaise with Helene Janser (contact details on the cover of this communication).

Kobus Munro

Digitally signed by Kobus Munro
Date: 2021.02.19 14:41:04 +02'00'

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 2)

Copy to: Robert Fooy, Stellenbosch Municipality

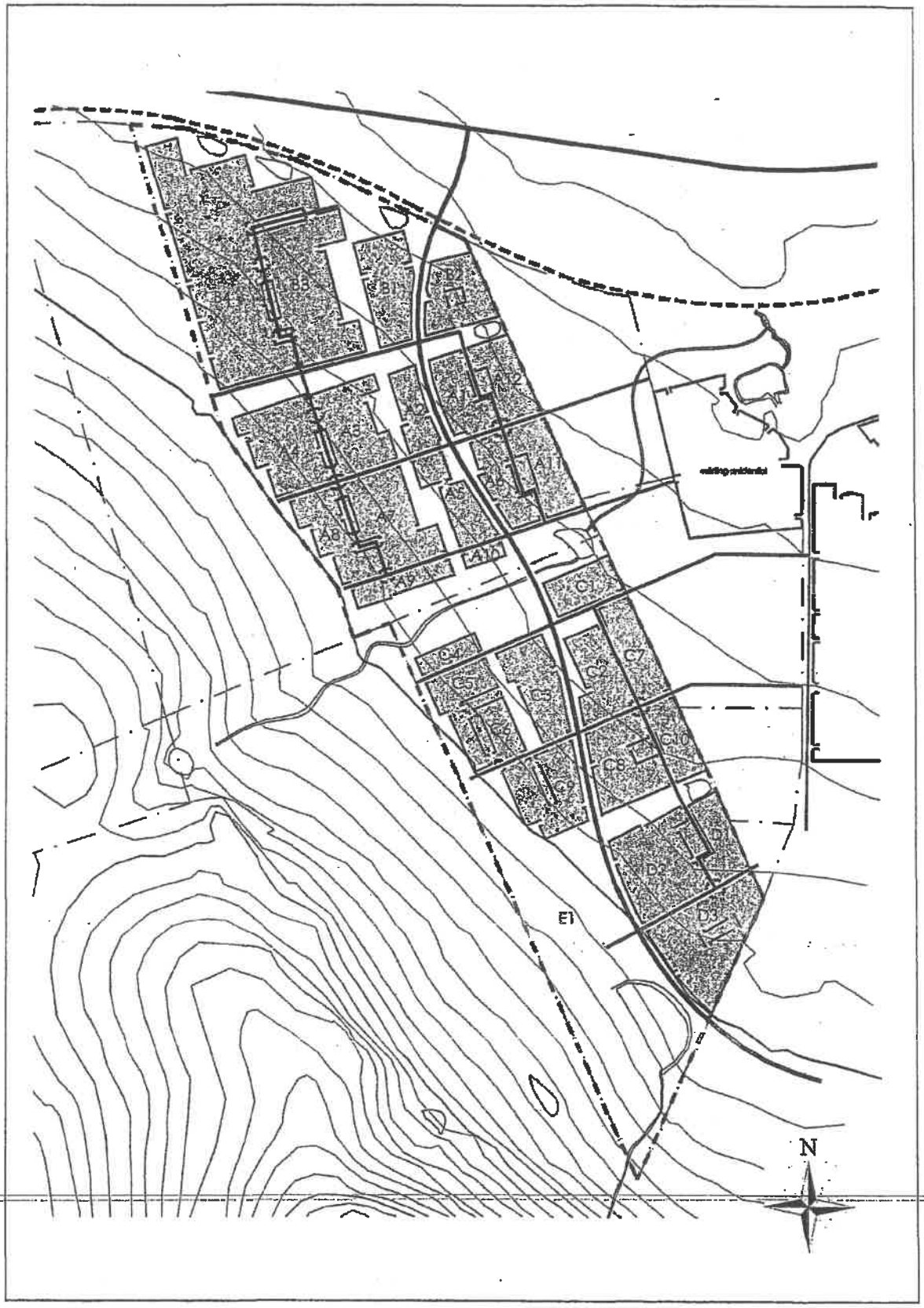

Figure 16: Indicative Phasing

4.1

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ANNEXURE S

Western Cape Government
Environmental Affairs and Development Planning

DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 2)

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Copy to: Robert Fooy, Stellenbosch Municipality

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ANNEXURE T

AntonLotz
TOWN & REGIONAL PLANNING

P O Box 51799 Waterfront 8002
Cellphone + 27 (0)83 487 7869
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21 January 2021

Our Ref: 2015 908

INTEGRATION OF STELLENBOSCH BRIDGE WITH KLAPMUTS TOWN

The socio-economic and physical integration of the Stellenbosch Bridge project with the Klapmuts town have been central to the planning of the development and will guide decision-making throughout the construction and operations of the mixed-use innovation development in order to maximise the socio-economic benefits of the project:

- The Stellenbosch Bridge project will combine a range of residential, business, industrial and institutional uses in an integrated innovation and smart city development. It is anticipated that this project will have a significant **catalytic impact** on Klapmuts, the Winelands region, the Western Cape and the innovation industry in South Africa. The commercial and economic success of this development will in part be dependent on how conveniently and efficiently the local Klapmuts community, residents and other users can access the facilities and opportunities created and how many of the local Klapmuts community can benefit from the employment, economic income, skills development and local business development opportunities created.

Physical Integration

- The development land is contiguous to the town thereby enabling its physical integration. The transportation strategy and project layout has focused on creating **physical linkages** with the existing town whilst limiting the negative impacts that increased vehicular traffic will have on existing roads and land uses. The primary movement system consists of a number of public roads including a north-south route that will ultimately link the R101 and R44, a western link to Elsenburg Road as well as a lower-order eastern link via Merchant Street which facilitates the movement integration of the development to the broader area. The road system will provide direct access from the N1 Freeway via a new interchange at Groenfontein Road which will assist in reducing the demand on the R44 interchange and the impact on the Klapmuts Road system.
- The new eastern link via Merchant Street will facilitate **movement integration** with the existing town. It has been designed as a lower order public road link to limit external traffic use which will negatively impact the town. The routing of this link has been changed from the original proposal (2011 approval) to further reduce its impact on the residential areas and primary school. In addition, a pedestrian/NMT system has be catered for along the primary and secondary routes to and within the development as well as the open space system to ensure a walkable environment and further links the development to the town and broader area. Security will be incorporated in the form of active and passive mechanisms and site-specific solutions to allow convenient public access to the innovation precinct and publicly accessible systems without compromising the safety of residents and users. The V&A Waterfront and Century City are examples of how this can successfully be achieved.

Socio-economic Integration

- Stellenbosch Bridge Properties recognise that by becoming a world-renowned innovation and smart city development this development will stimulate growth and job-creation in an array of economic sectors and that it can stimulate the economic prosperity and social well-being of the Klapmuts community. To facilitate a targeted response, the developers appointed Johan Olivier of Ranyaka (2019) to facilitate a **collaborative relationship** between the developer and the Klapmuts community in identifying the socio-economic challenges that affect community well-being in the town. Ranyaka's community engagement and research informed the project team's work in finalising the development strategy and they will continue to work hand-in-hand with local residents, businesses, other stakeholders and the developer to help implement various initiatives as part of an over-arching strategy to facilitate the socio-economic upliftment in Klapmuts.

- Multi-purpose Business Solutions (Dr Jonathan Bloom) were appointed to undertake the socio-economic impact assessment (2020) required for the project. The SEI concluded that up till recently, Klapmuts was characterized by residential use and limited commercial and work-related activity and that a number of **significant socio-economic benefits** will result from the construction and operational phases of this development:.
  - 6 000 **new housing opportunities** are planned which will introduce a range of housing products and housing markets into Klapmuts which have not or have only to a limited extend been catered for in the town. This will allow existing community households the opportunity to upscale within Klapmuts where previously they would have had to buy or rent outside of the town.
  - The rights applied for in Applications 1, 2 and 3 are estimated to take 4 years each to implement, and the rights in Application 4 a further 7 years. The number of new annual **employment opportunities** during construction are estimated to be between 1532 and 10 454 opportunities for the Stellenbosch Municipality. During operations new direct job opportunities will start at 1 850 jobs and increase up to 23 700 on implementation of the full project. The development would increase the local labour uptake from 2% to 3-4% and make funding available to upskill the workers. These numbers exclude the indirect and induced opportunities created by the needs of the operating components and outsourcing opportunities.
  - **Economic Income**: A combined initial investment of R1 200 million for implementation of the previously approved rights (Application 1) will give rise to a multiplied output increase in Gross Value Added (GVA) of R2 billion in the Western Cape Province over the 4-year construction period. Approximately R302 million of this total will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. The construction related to the implementation of the rights applied for as part of Applications 2,3 and 4 will accrue a further R4,5 billion to the Stellenbosch Municipal area. Of this the town of Klapmuts will enjoy a significant share.
  - **New business development**: A mix of residential and various commercial, industrial and institutional land uses are envisaged as part of Applications 1, 3 and 4. Commercial activities are essential for serving the needs of a community and create demand for other businesses operating in the immediate and surrounding area. Application 2 entails light industrial activity and related uses that include a mix of warehousing, light manufacturing and other related business and service activities. These activities will require a range of goods and services that could be provided by existing and or new businesses operating in the Stellenbosch and/or Drakenstein Municipalities.
  - **Revenue accruing to public authorities**: The total cumulative rates over the first 15 years of operation (i.e. 2021 to 2036 once construction is completed and the different components are operational) are estimated at R182.8 million for Application 1. The total cumulative rates over the first 15 years of operations for the entire project is estimated at R2,21 billion. Of this income, a significant share will be ploughed back into the upgrading of Klapmuts services and facilities.
- Stellenbosch Bridge development **supports** and fits with the spatial planning principles of the Stellenbosch Municipality as indicated in the IDP and SDF and with the growth and socio-economic objectives stated in the IDP and LED, specifically with the focus on Klapmuts. The focus of the **Stellenbosch IDP** (2017 – 2022) is on economic growth and development of the area with a specific emphasis on poor communities. The focus on using infrastructure, industrial development and commercial development as an enabler for job creation further purports the need for integration of infrastructure and superstructure development. Klapmuts and Stellenbosch Town are considered strategic priorities for the Municipality. The positioning of Stellenbosch Bridge as an economic development hub is key, the basis for which is grounded in the IDP as a strategic implementation document of the Stellenbosch Municipality. The project will be a major catalyst in achieving the Stellenbosch Municipality's vision to "be a valley of opportunity and innovation" and to attract investment, stimulate economic growth and create employment.
- The proposed Stellenbosch Bridge development is **aligned with** several requirements and objectives stated in the **Stellenbosch LED** (2013) strategy with specific reference to sustaining employment during the construction phase of the project, feed into the construction sector and maintain a semblance of stability and contribute indirectly to enabling sustainable livelihoods, addressing poverty reduction and social welfare support. Small businesses will benefit from the traditional requirements for products, services, security, general maintenance, etc.
- The Socio-economic Assessment (MPBS, 2020) has made recommendations to ensure a **targeted socio-economic benefit** during the construction of the Stellenbosch Bridge development. These measures recommended are to be consolidated as part of an Implementation Plan for the project and include:
  - A **Procurement Strategy** that is the responsibility of the contractor(s) collectively under the guidance of Stellenbosch Bridge. The Strategy should include (a) a skills audit among the local Klapmuts residents, especially the unemployed to ascertain their ability and skills to accept employment during the construction phase; (b) Focus on opportunities for local labour in the surrounding areas and businesses as a priority. Contractors are required to provide an indication of the geographical location of sub-contractors (businesses) and local labour they intend to use or employ on the project throughout the construction phase; and (c) Local contractors in the Stellenbosch and Drakenstein areas be invited to tender for work in the context of the terms and conditions included in RFP documentation. Sub-contracting and outsourcing opportunities from businesses that have the necessary skills are essential to enhance socio-economic development and offer greater business sustainability.

- **Social Investment** may be defined as an investment into local communities by a developer beyond potential benefits intrinsically linked to the project itself. Developers are required and expected to indicate to what extent a development project would contribute to the welfare of surrounding communities through social investment initiatives that promote integration, community support and skills development, something that the developers of Stellenbosch Bridge have communicated to local structures such as the Klapmuts Community Forum. The development priorities of the Klapmuts communities should be aligned with the social investment objectives related to the outcome of the planned development initiatives. The approach adopted is intended to achieve the following:
  - Ensure downstream benefits from the project accrue to the local population;
    Identify community social projects that would benefit from the funds received from sales and operations of a project;
  - Commit to a local procurement initiative that would achieve the following outcomes:
    - A "local first" employment policy;
    - Develop a database of skills among residents in the area; and
    - Promote the involvement of SMMEs with the required skills and capacity to obtain contracts and development opportunities.
- The following table (MPBS, 2020) provides a list of options to be introduced by the developer as part of the social investment strategy. The options cannot be committed to upfront as the phasing of the project, the timing of the development components and the needs of the community will determine different social investment outcomes.

	Abstract capital	Physical capital
Active investment	- Bursaries - In-house training - Education - Development of small, medium and micro businesses - Youth training initiatives - Environmental initiatives (e.g. nursery and training initiatives) - SMME development opportunities - Beneficiary distributions - Person financial management assistance	- Upgrading of community health facilities (e.g. clinics) - Upgrading and maintenance of sports fields - Construction of new facilities - Low-cost housing - Provision of or upgrading of infrastructure - Development or conversion of existing buildings to multi-purpose centres - Community gardening project and farming projects
Passive investment	- Establishment of community trust fund for beneficiaries, the environment and development - Transfer land to a community entity for Agriculture or other purposes	- Build facility and transfer ownership to a community trust for use by a community

Source: MPBS, 2020

  - *Active and passive investment of abstract capital: These investments refer specifically to time and funds invested in initiatives such as bursaries and in-house training. Passive investment refers specifically to the allocation of funds to a community trust or some other vehicle that assumes responsibility for the disbursement of the funds to community third parties and projects.*
  - *Active and passive investment in physical capital: Active participation implies direct investment in the needs of communities by the provision of new or the upgrading of existing community facilities such as healthcare centres, schools and recreation and sports facilities. Passive investment in this context refers specifically to the establishment of a facility for the community, which is then transferred to a trust or other type of entity (vehicle) with the sole purpose of administrating and maintaining the facility on behalf of the community.*

- A collaborative relationship between the developer, the Klapmuts community and the Stellenbosch Municipality is therefore critical in ensuring the targeted implementation of social investment. This relationship needs to be guided by an agreement called a **Protocol for Social Management** (PSM). Essential components of a PSM includes monitoring, reviewing and evaluation processes to assess socio-economic contributions. Continuous and periodic monitoring and evaluation are required to ensure the achievement of milestones and the overall success of achieving the socio-economic objectives envisaged for the Stellenbosch Bridge project
- The successful implementation and development of the project would ultimately be assessed on the contribution the development makes during construction and operations to the social development and economic goals of employment creation, skills development and training, small business development and capacity building in the area. **Key Performance Areas** (KPAs) offer strategic direction as measurable outputs for the socio-economic development contributions of contractors, especially for large capital-intensive projects. The following KPAs are outcomes based on the scope of social engagement activities:
  - Procurement from, or sub-contracting to local enterprises;
  - Procurement of local materials/resources;

- Employment of local people (persons residing in the Stellenbosch Municipal area, with specific reference to the Klapmuts area, for a period exceeding 3 years);
- Training (onsite/offsite) of employees from the local area;
- Procurement from local black empowerment entities and/or black persons;
- Sub-contracting to local black empowerment entities and/or black persons;
- Procurement from, or sub-contracting to new local black empowerment entities;

- The developers, Stellenbosch Properties (Pty) Ltd are committed to implementing a social investment strategy and facilitating the socio-economic integration of the Klapmuts communities with the Stellenbosch Bridge development. The Stellenbosch Bridge project will by catalytic in nature and have a significant positive impact in terms of the general upliftment of Klapmuts, potential job and economic opportunities and the social improvement of the Klapmuts community.

Yours sincerely

Anton Lotz