ANNEXURE E

URBAN DESIGN FRAMEWORK
November 2015
Prepared by Philip Briel and Wilko Le Roux

BOSCHENDAL VILLAGE DEVELOPMENT PROPOSAL

Erf no. 1674 portions 7 & 10, DWARS RIVER VALLEY, STELLENBOSCH

BOSCHENDAL VILLAGE PROJECT: URBAN DESIGN FRAMEWORK, WITH PRECINCT PLANS AND CONTROLS AND GUIDELINES

FIRST DRAFT







BOSCHENDAL VILLAGE PROJECT PREAMBLE:

Overview of Boschendal Strategy:

Over the past 15 years several development proposals have been generated for the Boschendal landholding, in various planning processes. This comprised extensive development proposals which saw significant portions of the farm being proposed for various extensive residential developments, a retirement village, equestrian estate and other residential estate "villages". In 2012 new shareholders invested in the farm and reviewed these previous development approach. The proposals which were at that stage being advertised for comment were withdrawn from the statutory processes.

The new owners adopted a different approach to the landholding, which can be summarised shortly as follows:

The **first leg** of the investment strategy is placing the primary emphasis on the agricultural activities as the key driver of activity and income. Significant investment has been and is currently being made into diversifying and expanding the agricultural activities on the estate including new orchards and vegetables, and establishing livestock, chicken and game farming.

The second leg of the strategy is to focus on the tourism and hospitality industry which is inextricably linked with the preservation of the heritage resources on the property. This includes providing increased and improved tourism opportunities, tourism accommodation, a wider offering pof tourist and leisure activities which taps into, and builds on, the unique natural beauty and heritage assets of the farm.

The **third leg** of the investment strategy is to establish key development opportunities which will add long term value to the agricultural and tourism components identified above and which will transform degraded and derelict portions on the estate. To this end the consultant team was briefed to explore development opportunities within the ambit of the Municipality of Stellenbosch's Spatial Development Framework (SDF) and various policies.

For the new Boschendal shareholders it is important to promote sustainability, ethical practices, social upliftment and empowerment with long term preservation of major heritage assets to ensure a business which contributes to the Dwarsriver Valley and the Western Cape economy. These principles are woven through the entire business approach.

The third leg of the investment strategy resulted in a team being briefed to prepare a new development proposal for a village which originates from the Municipality's Spatial Development Framework. The Stellenbosch Municipal Spatial Development Framework promotes a series of interconnected nodes which are located at points of highest accessibility. The SDF identifies the Groot Drakenstein node as a future development node which is located at the R45/R310 intersection. This is an important cross-roads and a highly accessible point located equidistant between Stellenbosch, Franschhoek and Paarl. It is a typical location for a village and it is the aim of Boschendal to develop a rural 'Cape village' with a distinct and authentic urban qualities.

Vision

"In essence, the character of the proposed development will be that of rural village, characterised by certain urban qualities, discreetly knitted into an agrarian landscape, whilst responding to the historical context of the area."

Philip Briel (project architect)

Due to the location of the proposal it is important that such a village is rooted in the Cape tradition of village-building. Traditionally Cape villages use a distinct grid layout and are varied as a result of topography and building typology. Importantly, in this setting, the heritage indicators play an important role in ensuring the development of an authentic Cape village and defining the extent and form of development, with emphasis being placed on urban edge-making, scenic route, density, public access, vistas and views, and authentic walled architecture.

The team developed a methodology which is informed by heritage, environmental sustainability, planning, engineering services, traffic and socio-economic informants which guide and shape the proposals.

Principles which inform the design:

- This should not be a 'gated community', although security features are to be embedded and designed into the layout.
- There is a gradient of open accessible public places to private spaces where access is controlled.
- Buildings have an active interface with the street environment and reciprocally, the development will enhance and improve the immediate environment, which is a degraded site with an industrial activity which does not contribute to the area or the heritage character of the surrounding area. Human scale will be reinforced at the edges of public spaces and streets by the use of colonnades, verandas and pergolas where needed. Overlooking features like balconies, roof terraces and windows will be used as safe city mechanisms to ensure security through surveillance.
- Publically accessible areas are created which gives this village its unique character.
- · Public activity will be located on a pedestrian orientated, walkable "high street".
- Community facilities (for example a crèche or other similar education facility) can develop over time and should be located along the "high street" clustered with the police station to form a civic hub.
- Public transport drop off points will be located along the R310 at the civic hub.
- The village should be well-contained and as small and compact as possible.
- A variety of residential densities are provided which can serve a diverse community. To this end dwellings will vary form single dwelling free standing houses, row houses to entry level apartments which will be made available to key workers.
- The "high street" contains a variety of publicly orientated activities including shops, restaurants, offices, educational facilities, entry level housing, public parking and open space. A farmers' market which is located centrally on the "high street" will be the main activity space. The area closer to the R45 will display a civic character as the existing police station forms part of that precinct already.
- The buildings in the development will be predominately of a horizontal character, unless specified differently in the urban design framework. Urban design framework, controls and guidelines will inform development proposals to ensure an appropriate architectural response and language in the village. It is however strongly resisted that houses all "look the same" and therefore various architects will be invited to design individual buildings within the village.
- New agricultural areas should be brought right up to the settlement edges. The town should respond to the predominant agricultural patterns, but must have strong spatial edge-definition in order to eliminate the possibility of future expansion or sprawl. The use of structural landscaping is paramount in achieving this principle, and edges of the village will be clearly defined through critical strategic structural planting.

Specialist reports:

This report is one of a suite of specialist reports which contain the development proposals for and assesses the development impact of the proposed Boschendal Village development. These reports are:

Base line reports:

- Heritage Indicators and Directives -prepared by Nicolas Baumann, Sarah Winter, Dave Dewar and Piet Louw -dated April 2014;
 This report sets out the heritage indicators which informed the design process and which will serve as input for the Heritage Impact Assessment.
- 2) Archaeological assessment of portions of Boschendal Estate -prepared by ACO Associates cc -dated March 2015
- 3) Botanical Survey -undertaken by Nick Helm dated March 2015
- 4) Planning Status Quo report -Prepared by @Planning dated May 2015
- 5) Bulk engineering services report -prepared by ICE Group -dated January 2016
- 6) Stormwater Management Plan -prepared by ICE Group -dated January 2016
- 7) <u>Electrical Services report</u>-prepared by ICE Group -dated January 2016
- 8) Freshwater ecosystems baseline report Prepared by The Freshwater Consulting Group dated April 2015
- 9) Grondverslag vir die plaas Boschendal Grondklassifikasie Prepared by VinPro dated May 2015
- 10) Visual Impact Assessment Baseline Study -prepared by Quinton Lawson and Bernard Oberholzer dated April 2015

Reports outlining Proposals for various applications:

- 11) <u>Urban Design Framework, Controls and Architectural Guidelines -prepared by Philip Briel Architects -dated January 2016</u>
 This report contains a series of plans which depict the development framework, controls and architectural guidelines. It illustrated the development intent and will guide all future site development plans and building plans.
- 12) <u>Land Use Planning report for NEMA purposes</u>_prepared by @Planning dated January 2016 This report provides and outline of the municipality's land use planning policies and spatial development framework, describes the proposal, analyses all indicators and provides motivation for the development at the hand of the Western Cape Land Use Planning Act criteria.

Impact assessment reports: [these reports still have to be completed]

- 13) Water Use License application report -prepared by Total Impact -
- 14) Transport Impact assessment for the development of Boschendal estate -Prepared by Gibb dated January 2016
- 15) Assessment of Freshwater Ecosystems
- 16) Heritage Impact assessment report prepared by Baumann, Winter, Dewar & Louw dated February 2016
- 17) Visual Impact Assessment report included in Heritage Impact Assessment report of February 2016.
- 18) Socio-economic impact assessment report prepared by Tony Barbour dated February 2016.
- 19) Environmental Basic Assessment report -prepared by Doug Jeffery Environmental Consultants dated March 2016.

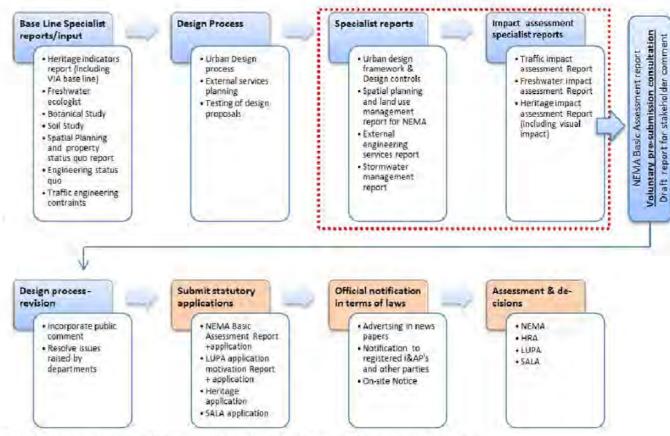


Figure: Illustration of process and specialist reports, red dotted block indicating where we are in the process



Urban Design and Content Authored by:

PHILIP BRIEL ARCHITECTS

6 Hildalan lane Bischops Court Cape Town 7708

Authors: Philip Briel (B.Arch. M.Sc. Pr.Arch) and Wilko le Roux (M.Arch. Pr.Arch. MIA)



Contributor: Anine Trümpelmann and Elizna Louw

Prepared for:

Boschendal (Pty) Ltd P O Box 25 Groot Drakenstein 7680 Tel no: 021 870 4274

Client Representatives Officials involved: Rob Lundie

Project Consultants

Architects and Urban Designers: Philip Briel Architects Philip Briel Wilko le Roux

Town Planning: @ Planning Anine Trumpelmann. Elizna Louw

Environmental: Dough Jeffery Environmental Doug Jeffery, Lindsay Spiers

Heritage: Nicolas Baumann Urban Conservation and Planning; Louw and Dewar Nicolas Baumann. Sarah Winter. Piet Louw. Dave Dewar

Civil & Electrical Engineers: Ice Group Malcolm Cerfonteyn, Dave Edwards, Mahdie Kriel

Traffic and Transport Engineers: Gibb (Pty) Ltd Andrew Bulman. Adrian Johnson

 Socio-Economic Specialist
 TB Consulting and Research
 Tony Barbour

 Freshwater Ecologist
 Freshwater Consulting Group
 Kate Snaddon

 Land Surveyors:
 Friedlaender, Burger & Volkmann
 Damien Burger

Water use license: Total Impact Jeremy Keyser. Dale Morris

Quantity Surveyor Heinrich Beer QS Rory Williams

Page List of Contents

Cover Page

Cover artwork by Philip Briel

Document Authors and list of Consultants

List of Document Contents and Figures

Chapter 1: Introduction to the Project

- 1.1 Purpose of this Report
- 1.2 Location and outline of the project
- 1.3 Site definition
- 1.4 Method Employed
- 1.5 Structure of the Document

Chapter 2: Site Analysis 6.]

- 2.1 Structural significance of the location
- 2.2 Natural Systems
- 2.3 Heritage Indicators 101
- 2.4 Current built form
- 2.5 Historic investment in bulk infrastructure
- 2.6 Interpretation of composite constraints and information in terms of development potential
- 2.7 Design factors to consider 12.]
- 2.7.1 Generic structural indicators 12.]
- 2.7.2 Generic street organizational indicators 12.]

Chapter 3: Design 13.]

- 3.1 development and design ethos
- 3.2 Concept and overall urban design principles 15.1
- 3.3 Urban design dicourse and intent
- 3.3.1 Urban design geometry
- 3.3.2 Access and route integration 3.3.2.a. street heirarchy
- 3.3.2.b. the high street
- 3.3.2.c. the central avenue
- 3.3.2.d. neighbourhood streets
- 3.3.2.e. pedestrian lanes and footpaths
- 3.3.2.f. street design
- 3.3.2.g. design factors that influence target speed 19.1
- 3.2.3.h. parking 19.1
- 3.3.2.i. ramp entrance dimensions and articulation 19.
- 3.4. gateways and thresholds 20.]
- 3.4.a) along public routes 20.1
- 3.4.b) along private internal streets 20.]
- 3.5. Accessibility 21.1
- 3.6. Public vs Private space 22.
- 3.7. Open spaces
- 3.7.1 Heirarchy and location of public open spaces 23.]
- 3.7.2 Structural planting and green open space
- 3.7.3 Surface water structure 27.]
- 3.8 Height and density
- 3.8.a. Gradation of heights
- 3.9 Land use
- 3.9.1 Amenities contributing to public good 30.
- 3.10 Perimeter fencing
- 3.11 Overall village concept
- 3.12 Indicative Subdivision and building footprint drawing
- 3.13 Proposed land use concept
- 3.14 Proposed open space network
- 37.1 3.15 Road and movement network
- 3.16 Parking plan
- 3.17 Height controls 39.1
- 3.18 Coverage density 41.1
 - 3.19 Site development plan

Chapter 4: Precinct Plans 43.1

- 4.1 Identification of precincts for urban design attention
- 4.2 Precinct A 46.1
- 4.3 Precinct B 49.1 4.4 Precinct C
- 50 1 4.5 Precinct D1
- 51.] 4.6 Precinct D2
- 4.7 Precinct D3 53.]
- 4.8 Precinct E1 4.9 Precinct E2
- 55.] 4.10 Precinct F1
- 4.11 Precinct F2 57.]
- 4.12 Precinct F3
- **Chapter 5: Architectural Directives and Controls** 59.1
- 5.1 Broad Architectural design principles
- 5.2 Generic indicators
- 5.3 Manditory Controls
- 5.4 Architectural guidelines

- 5.4.1Primary building forms
- 62.] 5.4.2 Design of architecttural forms and related built elements
- 62.1 5.4.3 Public interface and street frontage
- 5 4 4 Roofs 62.1
- 621 5.4.5 Ground plane and surface treatment
- 62.1 5.4.6 Walls
- 5.4.7 Fenestration and openings 62.1
- 62.1 5.4.8 Material and colour
- 62.1 5.4.9 Side and rear boundary treatment
- 621 5.4.10 Parking
- 62.] 5.4.11 landscaping
 - 5.4.12 External lighting
- 62.] 5.4.13 Signage

63.] **Chapter 6: Implementatoin**

- 6.3 Action areas and action projects
- 67.] 6.4 Architectural design review process

64.1 References

List of Figures

Chapter 1:

- Fig. 1 Site location: Metropolitain Context
- Fig. 2 Local context of development area
- Fig. 3 Aerial Photo

Chapter 2:

- Fig. 4 Maintain the dominance of Wilderness and working agricultural landscape
- Fig. 5 Maintain and enhance Agricultural continuity
- Fig. 6 No development on Ridge lines and steep slopes
- Fig. 7 Respect the Architectural superblock
- Fig. 8 In principle approaches to settlement formation: the negative
- Fig. 9 In principle approaches to settlement formation: the concept of the Architectural superblock
- Fig. 10 The Groot Drakenstein -Simondium Valley
- Fig. 11 Landscape Character
- Fig. 12 Composite site and design informants
- Fig. 13 interpreting the site and design informants
- Fig. 14 Open to public access
- Fig. 15 Use both organic and straight line geometries
- Fig. 16 Organize around a social heart
- Fig. 17 Frame views
- Fig. 18 Public orientated buildings to devine space
- Fig. 19 Scenic vistas brings nature into the village
- Fig. 20 Achieve qualities of street
- Fig. 21 Surface run stormwater
- Fig. 22 Use low walls and structural planting to define space
- Fig. 23 Tradition of Werfs
- Fig. 24 Surface run stormwater

Chapter 3:

- Fig. 25-30 Key design diagrams
- Fig. 30.1 Axial Focal point Stellenbosch
- Fig. 30.2 Example of small town grid layout
- Fig. 31 Grid, Axial allignment, focal points
- Fig. 32 Indicative gateways Fig. 33 Gateway at Pniel
- Fig. 34 Culvert crossing and footbridge
- Fig. 35 Access
- Fig. 36 Dorp Street Stellenbosch
- Fig. 37 The high street
- Fig. 38 Neighbourhood streets
- Fig. 39 Example of pedestrian zones amongst townhouses
- Fig. 40 typical indicative neighbourhood street
- Fig. 41 Mews parking Groot Constantia
- Fig. 42 Example of road surface with local stone
- Fig. 43 Example of exposed aggregate, brick and local stone as road surfae at Boschendal
- Fig. 44 Werf parking High Constantia Fig. 45 Werf Parking Groot Constantia
- Fig. 46 Werf parking Constantia civic centre
- Fig. 47 Parking behind wall werfs Fig. 48 Parking location by type
- Fig. 49 indicative gateway elements
- Fig. 50 various indicative pinch points Fig. 51 Gateway at alphen
- Fig. 52 Gateway spaces and elements

- Fig. 62 a Family of Werfs
- Fig. 63 Village Green Stanford Overberg
- Fig. 64 Structural planting and green open space
- Fig. 65 Braak at Stellenbosch
- Fig. 66 Composite of open spaces
- Fig. 67 Surface water channel at Groot Constantia
- Fig. 68 Lei-voor. Stellenbosch
- Fig. 53 various indicative gateways
- Fig. 54 Accessibility
- Fig. 55 Indicative gateway structures
- Fig. 56 Public Vs private zones
- Fig. 57 Indicative corner square as public space
- Fig. 58 Pavillion market building
- Fig. 59 Location of urban open spaces
- Fig. 60 Werf at Boschendal
- Fig. 61 Biscuit Mill Market
- Fig. 69 Duck pond and bridge Groot Constantia
- Fig. 70 Lei-water system
- Fig. 71 lei-voor Prins Albert
- Fig. 72 Storm water reticulation
- Fig. 73 Example of small town grid layout
- Fig. 74 Gradation and height variations
- Fig. 75 Amenities contributing to public good
- Fig. 76 Example of intergrated fence and hedge
- Fig. 77 Proposed fences Fig. 78 Overall village development concept
- Fig. 79 Subdivision diagram
- Fig. 80 Subdivision with indicative building footprint intent Fig. 81 Proposed land use
- Fig. 82 Proposed open space network
- Fig. 83 Proposed road and movement network
- Fig. 84 Proposed parking layout
- Fig. 85 Maximum permissible building heights
- Fig. 86 urban design framework and controls Fig. 87 figure Ground diagram illustrating grain and density

Fig. 88 Site development plan

- Chapter 4:
- Fig. 89 Identification of precincts for urban design attention Fig. 90 Urban design precincts
- Fig. 91 Precinct A (portion 1): plans and sections
- Fig. 92 Precinct A (portion 2): plans and sections Fig. 93 Precinct A (portion 3): plans and sections
- Fig. 94 Precinct B: plans and sections Fig. 95 Precinct C: plans and sections
- Fig. 96 Precinct D1: plans and sections Fig. 97 Precinct D2: plans and sections
- Fig. 98 Precinct D3: plans and sections
- Fig. 99 Precinct E1: plans and sections Fig. 100 Precinct E2: plans and sections
- Fig. 101 Precinct F1: plans and sections
- Fig. 102 Precinct F2: plans and sections Fig. 103 Precinct F3: plans and sections

Chapter 5:

- Fig. 104 Indicative gateway building
- Fig. 105 Perimeter block with articulated street corner Fig. 106 Indicative corner buildings
- Fig. 107 Indicative, recessive street liners
- Fig. 108 Indicative colonnaded buildings Fig. 109 Indicative landmark building
- Fig. 110 Indicative landmark structures
- Fig. 111 Example of rural free standing cottage Fig. 112 Market building example. Martin Kruger Architects
- Fig. 113 Alternative market building example. Philip Briel Architects Fig. 114 Triple storey town house example
- Fig. 115 Recessive and light third floor. Refel Fox and partners

Fig. 117 Section: Proposed low density residential on agricultural plots

- Fig. 116 Section: Proposed medium density residential
- Fig. 118 Section: Proposed low density residential Fig. 119 Section: Proposed high density residential

Chapter 6:

Fig. 120 Action areas and action projects

© Prepared by Philip Briel and Wilko le Roux dated September 2015. Copyright protected, All rights reserved

CHAPTER 1. INTRODUCTION TO THE PROJECT

1.1 PURPOSE OF THIS REPORT

The intent of the document is to establish a clear framework as a guide to the intended design and implementation of a village within the natural and cultural landscape at Boschendal and the surrounding context. The purpose of this report is to clearly communicate the design intent to those that will assess the design, those who will co-ordinate the procurement and detail development thereof, and those who will live in the village.

The Urban Design Framework report is to document the following:

- To set out the urban design and development intent for the village project;
- To provide sufficient development controls and parameters to ensure that future phased development will adhere to the heritage indicators and development intent approved by the authorities
- To ensure a quality development environment is created in years to come.

This report has been compiled with consideration of various specialist input as listed in the Project consultant section (Pg.01), the report has been informed on preceding reports from these specialists:

The Urban Design Framework report will inform the Environmental, Heritage and Planning applications and is in essence the formulation of the 'development proposal' at a conceptual and 'controls' level.

Please note that this report will remain a Draft report until such time as the final BAR is completed.

1.2 LOCATION AND OUTLINE OF THE PROJECT

The Boschendal Estate occupies a substantial ±1900 ha in the Dwarsriver Valley, located approximately 14 km form Stellenbosch, 20 km from Franschhoek and 20 km from Paarl.

The Municipality of Stellenbosch, in their Spatial Development Framework (SDF approved May 2013) identified a series of development nodes. The "Boschendal Village" builds upon the concept provided for in the Stellenbosch Spatial Development Framework of a village node at the intersection of the R45 and the R310. It is proposed that the village be located on a ±28 ha portion of land owned by Boschendal Pty Ltd.

The core of the village will be a publicly orientated, walkable village, where scale, mix of land uses and design contribute to the quality of "street". The development will aim at providing the residents and visitors with an exceptional experience where the visual, historical and agricultural assets of the estate and surrounding areas are combined into a sustainable lifestyle experience.

1.3 SITE DEFINITION

The development area is defined as an approximately 28ha portion of land located inside the Groot Drakenstein Urban Edge as defined in the Stellenbosch SDF (refer to Figure 2 for outline of development site boundary). The land straddles the R310 and is in close proximity to the R45/R310 intersection. The development area is surrounded by a local police station, industrial zoned land, an office building, a disused railway line and agricultural activities.

1.4 METHOD EMPLOYED

A Development within a culturally sensitive landscape such as the Dwars River Valley, requires attendance to procedural guidelines and process for interaction with Local Autorities and Provincial Government bodies for the approval of plans and projects. To address the need for a participatory planning process a progressive approach is followed for the identification, design, planning and construction of the proposed village development.

This approach will take the development through a logical series of design phases and would include:

- The overall village design concept plans
- Precinct plans for each superblock within the village
- Project plans for each superblock within the village
- Detailed building plans for the construction phase of each project.

This approach establish a flexible system whereby the planning and implementation of projects can be managed. It structures the application process to move through a hierarchy from the general to more detailed as the various stages of planning progress.

1.5 STRUCTURE OF THE DOCUMENT

The document lays out the argument for the development of the Boschendal Village and is structured as follows:

- 1. An introduction to the project, site, purpose of the report and approach.
- 2. Site analysis of natural systems and investigation into the historical cultural context of the site in order to formulate applicable informants that may guide a design approach that is relevant to the context.
- The Design process that outlines key concepts and their realization into an applicable urban design discourse and intent. The design discourse also refers back to informants established during the site analysis stage.
- Precinct plans interpret the design discourse on a more detail level to establish fixed controls as a guide for detail development stages of the project.
- Architectural Controls are established in support of urban design concepts and to ensure the aplication is carried through to detail building design level.
- 6. A strategy for implementation of the project.

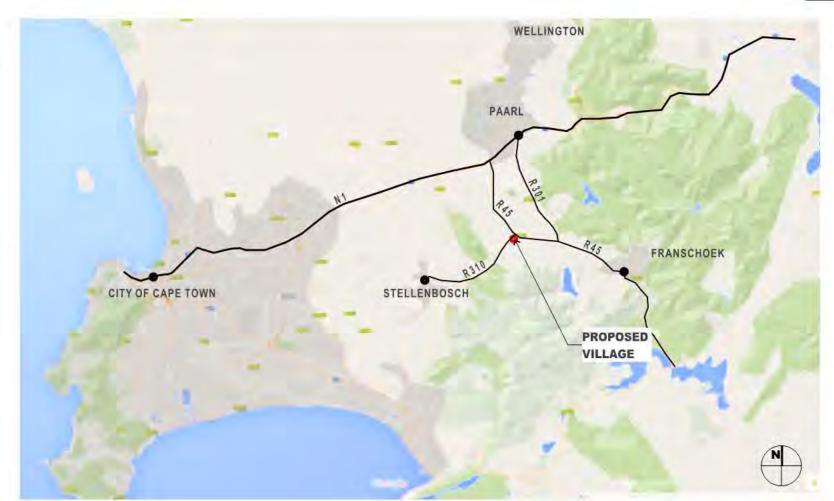


Fig 1. Site Location: Metropolitain Context | Not to Scale

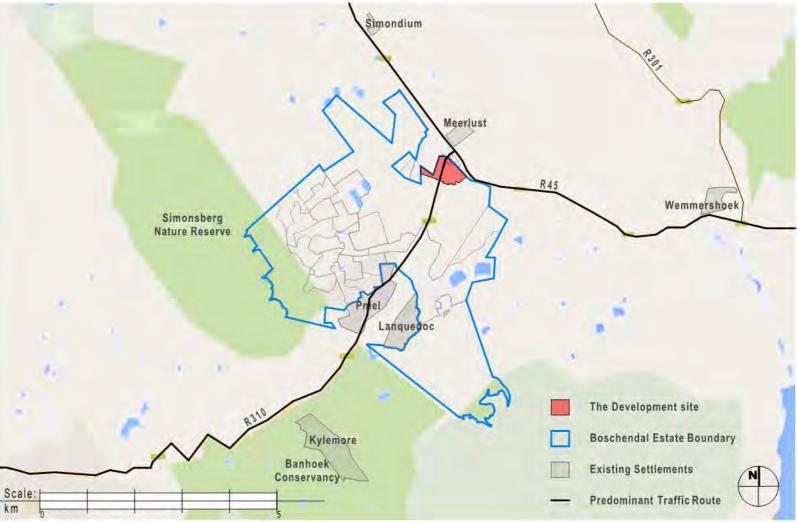


Fig. 2 Local Context of development area

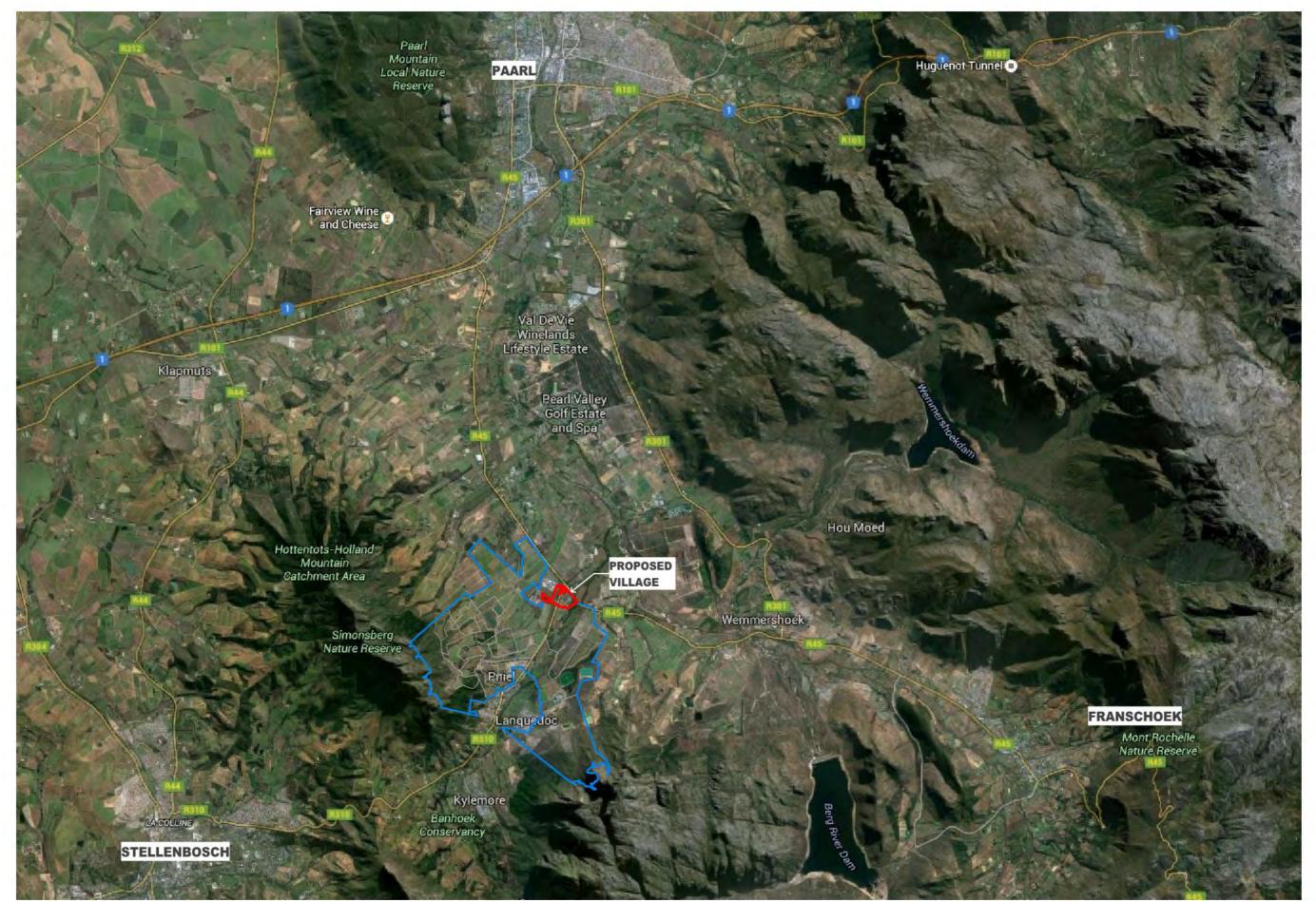


Fig 3. Locality Plan: Location of proposed new village node within the Berg River Valley | Not to Scale



CHAPTER 2. SITE ANALYSIS

2.1 STRUCTURAL SIGNIFICANCE OF THE LOCATION

The site is located in the heart of the Dwars River Valley which includes Franschoek Valley, Groot Drakenstein, Simonduim and the area northwards toward Paarl. This area form a part of the Cape Winelands, an area that has been identified as a grade 1 heritage resource by the South African Heritage resources Agency (SAHRA). In addition it has also been proposed that this landscape be designated as a UNESCO World Heritage site. (2012; Baumann et al.)

The overall analysis of the landscape and the conceptual design of the village was guided by, The proposed Boschendal Village: Heritage Indicators and directives (2015; Baumann et al. pg.4)

The proposed Boschendal Village: Heritage Indicators and directives (2015; Baumann et al. pg 2) highlights two issues central to considerations pertaining to the proposed Boschendal village. The first revolves around the protection of Boschendal as a significant heritage resource. This point refers to all aspects contributing to the Genius Loci "spirit of place" and includes retaining the balance of the three landscapes of society, namely; Wilderness, Rural and Urban. In essence it necessitates a respect for the historic cultural landscape which includes preserving the dominance of the rural landscape. The following further considerations and contributing factors are listed and needs to be taken into account:

- Conserve elements of cultural significance;
- Patterns of planting should be used to reinforce spatial and design structure;
- There must be a pattern of planting to implement the high order landscape mitigation measures;
- A generic syntax of planting should be developed (e.g. wind breaks, higher order avenues, placedefining clusters, gateway planting). The clustering of species should be used in a place-making way;
- Formal planting should be used in a structurally significant way to define important structural elements (planting should not be used ubiquitously).
- Keep the village footprint small and compact;
- Respect the principle of horizontality found in the rural landscape;
- Frame inside-out views to the greatest degree possible;
- Respect the orthogonal geometries of the landscape in settlement layout;
- The circulation system should not be open-ended, inviting sprawl but cul-de-sacs should be minimized - there should always be the possibility of pedestrian access into the landscape;
- Minimize artificial gardens.

The second theme seeks to ensure that authenticity and the dominance of agriculture is retained in the existing historic cultural landscape, and appropriately reflected in a new settlement. A Village is distinguished from typical examples of suburbia and security estates through its integration and interactions with the communities surrounding it. This integration results in a symbiotic relationship with its surroundings where the village draws civic and community activity that's essential to its sustained wellbeing, while also contributing to public good and building community trust. It is therefore essential to articulate the connection of the village into the surrounding community in order for it to grow authentically.

The report highlight the following themes running through the legislation and policies applicable to the consideration of development in the area. These include:

- The importance of the area as a heritage resource;
- The need to retain the dominance of agriculture and wilderness.
- That sprawl must be controlled;
- That the area lies outside of the current urban edge, as defined in the WCSDF
- The need to achieve spatial and social integration

The report also notes important aspects of public good benefits that need to be considered and tie into the above noted themes, these include:

- Securing undeveloped agricultural land and wilderness as a way of protecting the character of the landscape and preventing urban sprawl.
- Building on community trust and developing agricultural activities to the benefit of the surrounding communities. This would benefit community development that currently has no economic base, while also securing local food security in the future.

In order to draft a design concept for the development, the above noted aspects was interpreted within the existing cultural landscape. These were interpreted in terms of the existing natural landscape, The historic landscape as outlined by the heritage indicators, and applicable design factors that supports an approach to design in support of an authentic development.

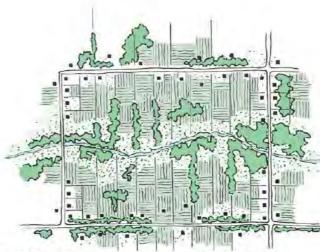


Fig 4. Maintain the Dominance of Wilderness and working Agricultural Landscape

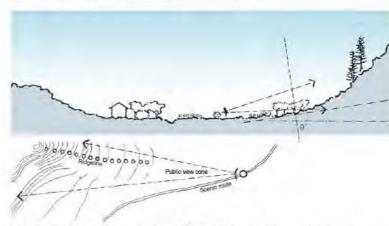
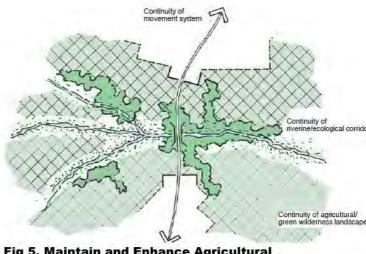
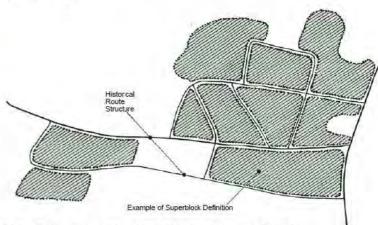


Fig 6. No development on Ridge-Lines, Steep Slopes



Trig 5. Maintain and Enhance Agricultural
Continuity



7/Fig 7. Respect the Architectural superblock

Fig 4-7. Central Considerations and principles Relating to Rural Authenticity (Baumann, et al. 2015)

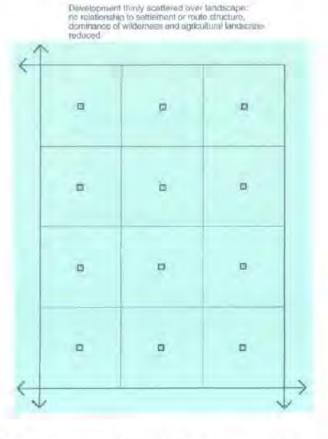


Fig 8. In-Principle Approaches to Settlement Formation. The Negative (Baumann, et al. 2015)

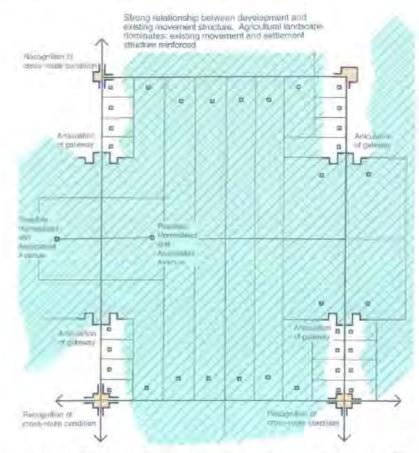


Fig 9. In-Principle Approaches to Settlement Formation. The Concept of the Agricultural Superblock (Baumann, et al. 2015)

2.2 NATURAL SYSTEMS (geology, topography, soils, climate, hydrology, flora, fauna, landscape character)

The proposed Boschendal Village: Heritage Indicators and directives (2015; Baumann et al. pg 5) notes the following indicators with regard to the natural landscape.

- No development on ridge-lines
- No development on land steeper than 9 degrees
- No development on elevated exposed slopes, i.e. above the 320m contour line
- No building on soil classified as good agricultural soils or embedded moderate soils
- No development in areas prone to flooding, wetlands, or within 100 year floodplain
- No development within riverine corridors
- No development in areas of high biodiversity value of fauna and flora
- Protect and promote rare or endangered indigenous species or habitats of fauna and flora and maintain established migration patterns.
- Clear invasive vegetation

As illustrated in the included figure, very few of the broader natural landscape indicators impact the chosen site.

- The majority of the site falls on a area identified with having medium potential soils.
- The eastern edge of the site borders an area identified with having high potential soils.
- A portion of the site on the East boundary encroach within the 100 year flood line.

FRESHWATER ECOSYSTEMS

The freshwater ecosystems affected by the proposed Boschendal Village development include three hill slope seep wetlands and one depression (on site) and the Dwars River(adjacent to site, but affected by services). The wetlands were found to be fairly heavily impacted by the surrounding agricultural activities, roads and the railway line. The wetlands are all of moderate ecological importance and sensitivity and could provide functional (both in terms of biodiversity and ecological processes, primarily related to infiltration of water) value to the development, if conserved in an ecological corridor. (Snaddon, K. 2015)

In order to reduce the impacts associated with the development layout:

- To provide some protection from the impacts of the development it is recommended that a 10m setback buffer be allowed around wetlands 2, 3 and 4, and a 30 m buffer around wetland 1.
- Allow for an ecological corridor to connect all of the wetlands, and then preferably with a connection to the Dwars River and its floodplain.
- Roads and services should preferably not cross over the wetlands.

The main impacts associated with the operational phase relate to increased water use in the area, and the reduced water quality and increased water quantity that comes with the generation of on-site storm water. In order to reduce these impacts, the following actions are recommended (Snaddon, K. 2015):

- Water demand management must be implemented within the development.
- Water supply infrastructure should be located to avoid sensitive areas.
- Effort should be made to minimise the hardening of surfaces.
- Storm water should be allowed to flow along unlined channels before discharge into either natural or created wetland areas.
- The wetland running along the railway line can be used for storm water detention. This will allow some infiltration of water into the ground, so reducing the quantity of runoff and improving the quality.
- Parking areas should be constructed of permeable materials to allow for infiltration of water.
- As a principle, hardened areas should be associated (where possible) with vegetated filter strips, bioswales, and / or bio-retention systems, all of which are designed to reduce the quantity of runoff leaving a hardened surface and entering the storm water system.

BOTANICAL CONSTRAINTS

A Botanical survey found no botanical constraints to the development. It was also found that the wetlands did not support any plant species of any conservation significance.(Helme, N.2015)

SOIL CONDITIONS

The soil report prepared for Boschendal confirmed the composition of most soils on the site as not being conducive to Agricultural planting. Areas identified where "Tukula" soil shows better potential for planting was identified along the East edge of the site, On the South West corner, and straddling the R 310 road. (Schrooms, H. 2015)

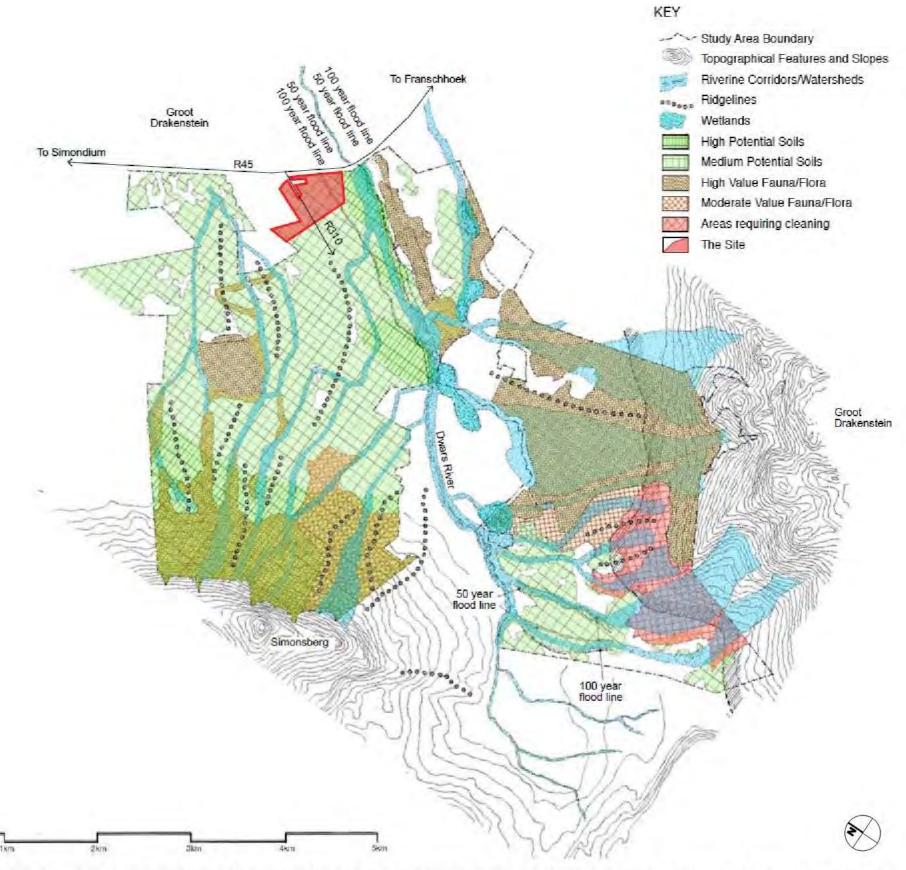


Fig 10. The Groot Drakenstein-Simondium Valley: Composite Constraints and Informants Relating to the Natural Environment. (Baumann, et al. 2015)

© Prepared by Philip Brief and Wilko le Roux dated September 2015. Copyright protected. All rights reserved.

NATURAL SYSTEMS cont.

The site straddles the R310 in close proximity to the intersection between the R45 and R 310. On the West edge the site borders Industrial land and Rhodes Food Group factories. On the North edge the site borders a disused railway line which run parallel to the R45. The Dwars River edge the site on the East. The remainder of Boschendal Farm borders the site on the South. The site has a very strong relationship with the R310 scenic route and together with the South and East edges is considered to be the most sensitive areas of the site when viewed in terms of historic cultural preservation of the Boschendal farm and Scenic route views.

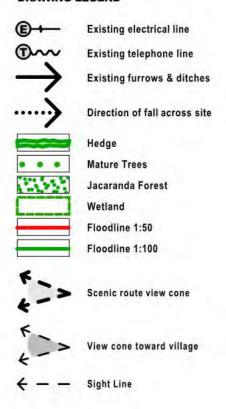
The site has a gentle slope with its highest point on the south-west slope, and its lowest point on the North East corner of the site. Within these contours some existing water furrows and ditches carry water across the site. These accumulate in wetland areas scattered along the East edge of the site.

The edge of the R310 is planted with an established avenue of trees. The North East corner of the site abutting Rhodes food group has some established Jacaranda trees. The east edge of the site is home to an existing pear orchard and established row of Blue gum Trees.

The site offer some spectacular views of the surrounding Hottentot-Holland and Simonsberg Mountain ranges toward the South East and South West. From the village these views also form the backdrop to the existing Boschendal werf. The views from Boschendal Werf is however more sacrosanct and the village design needs to have minimal impact on view cones from the Boschendal manor house and werf.

The area of site has been identified as most appropriate due to the potential its location offer in terms of access and service to the greater community, as well as its limited agricultural potential.

DRAWING LEGEND





2.3. HERITAGE INDICATORS

The specialist baseline study: *Proposed Boschendal Village: HERITAGE INDICATORS & DIRECTIVES:* (Baumann, Winter, Dewar, Louw, 2015) provides a detailed analysis of the proposed site with regards to constraints, informants, directives and heritage indicators. As this document is regarded as the most important guide in terms of delivering best practise urban-design, in a highly sensitive environment, it is included in summarised format and referred to extensively. This document was fundamental in shaping and informing the final design outcomes. The influence will be evident as the urban design geometry unfolds in the ensuing chapters.

All indicators, as are outlined below, must be adhered to in respect of the location and design of the new village at Boschendal.

As a method of informing the planning and design of the proposed village to preserve the historic cultural landscape, the heritage indicators and directives (Baumann et al, 2015. pg 15) include the following points in reference to significant visual indicators to be considered:

- 1. The broader cultural landscape context should be respected.
- Within this context, the concept and dimensions of the rural corridors along the R45 and R310 should be respected.
- The scenic route parameters, in conjunction with the view cones associated with the Boschendal homestead and setting as well as the broader cultural landscape informants, must be respected.
- The northern edge of the village should be set back from the R45, to acknowledge the scenic nature of the R45.
- The southern-most edge of the village should be no closer than 300 meters from the Boschendal homestead werf wall, in order to celebrate its setting and its agricultural context.
- Agricultural activity associated with the Boschendal setting should be brought hard against the edges of the village, to reinforce the agricultural context of the werf and homestead.
- Planting mitigation measures (e.g. avenues, windbreaks) should be used to 'edge' the village, clarify its domain and contribute to the cultural landscape expression.
- 8. The settlement pockets should be announced by strategically located elements creating a gateway, a sense of arrival, the effect of pause way and traffic calming. These should be consistent with the measures implemented at Pniel, extending the design language as a 'family of elements' in the broader valley. The preference is for small traffic circles responding to the hierarchy of routes, the design of which should acknowledge the rural context and character. The speed limit within this zone should not exceed 60km per hour.
- 9. The intersection between the R45 and the R310 should be marked by a traffic circle.
- The southern entrance of the R310 into the village should also be announced. The preference is for a small traffic circle.
- Access into the village should respect the transportation requirements of the Provincial Roads Engineer.
- The southern and eastern edges of the village should be buffered by 'tread-lightly' zones in order to protect long views from the homestead and from the scenic routes.

Other general urban design, landscaping and architectural guidelines include the following: (Baumann et al. 2015. pg 32)

Building Heights:

- Generally restrict buildings to 2 storeys to minimise visual intrusion above tree canopies. 3storey buildings could be strategically used in commercial areas to emphasize focal points.
- 1-storey buildings should be used in visually sensitive areas (such as those immediately visible from the Boschendal homestead or R310 Route).

Open Space and Landscaping:

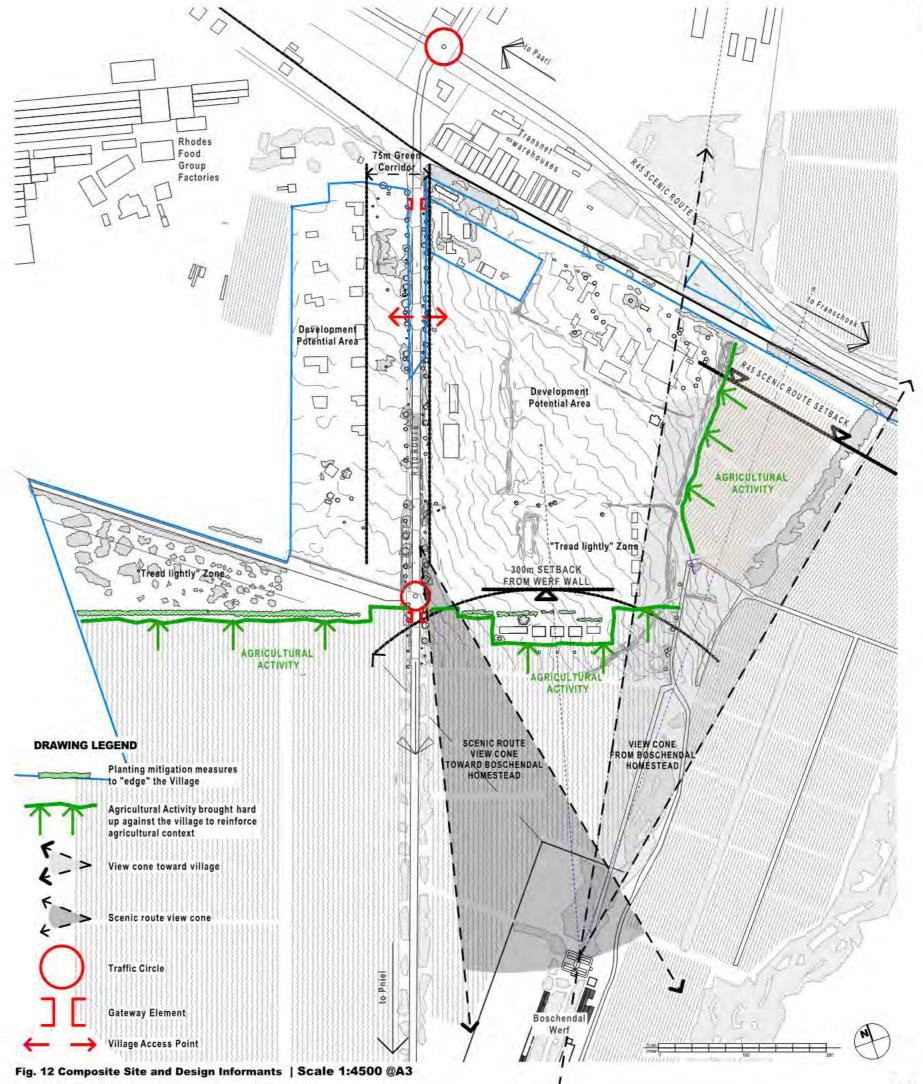
- The village open spaces should ideally be laid out as a continuous system of both hard and soft spaces to ensure functional continuity and visual legibility, as opposed to a patchwork of fragmented spaces.
- The community open spaces and general landscaping should be designed in sympathy with the strongly orthogonal cultural / agricultural landscape and werf-type layout typical in the Winelands. Excessively gardenesque-type landscaping should be avoided.
- The services of a professional landscape architect should be employed at an early stage of the project to ensure appropriate external design.

Roads and Parking:

- Roads should also be laid out in sympathy with the orthogonal pattern of the farmlands, tree belts and irrigation canals.
- Curvilinear or diagonal road layouts should be avoided.
- Parking areas fronting onto the scenic routes should be avoided, and parking preferably screened with buildings, walls, berms and/or trees. Parking should ideally be organised into small parking courts of about 20 cars to avoid visually bland and climatically exposed parking lots.
- Excessive use of asphalt and barrier kerbs should be avoided to retain the rural character of the
 area. Roads and parking should ideally have dish channels or grassed swales. Parking areas could
 have gravel to minimise runoff and the need for storm water structures. Landscaped detention ponds
 with litter and silt traps could be used.

Lighting and Signage:

- Outdoor lighting should generally be discrete to maintain the rural ambience of the area. Low level bollard type lights and reflectors could be used to minimise light spillage.
- Advertising signage, banners and flags should be avoided, particularly along the scenic routes.
 The use of low-level signs, or fixing signs to walls, helps to minimise visual clutter.



Environmental management:

An environmental management plan (EMP) should be prepared to ensure that visual
mitigation measures are implemented and damage to environmental and heritage resources
minimised, particularly during the construction period.

2.4. CURRENT BUILT FORM

Existing structures should be reinforced and integrated into the proposed village where it is appropriate to do so. The heritage indicators and directives (Baumann et al, 2015) list the following points that need to be taken into consideration:

- Integrate new development with existing settlement and route structure
- Do not repeat or reinforce interventions of the past which are at variance with the historical settlement structure.
- Wherever possible, make use of existing bulk infrastructure
- Ensure that new building development is of a high quality design, craftsmanship and landscaping, appropriate to the significance of the site and its setting
- Continue the tradition of commissioning pre-eminent architects, urban designers and landscape architects to reflect the significance of the site
- Where possible, reinforce existing facilities
- Protect and enhance planting patterns and trees of stature

Existing agricultural buildings are scattered around the edges of the site. These include an existing, Saw-mill, canning factory, manager's houses and farm workers cottages. Existing buildings on site were found to hold no significant conservation value.

Two existing civic amenities form part of the development potential to benefit of the community and wider population. These include a police station and clinic. The latter is run by Boschendal farms.

2.5. HISTORIC INVESTMENT IN BULK INFRASTRUCTURE

The heritage indicators and directives (Baumann et al, 2015, pg4) conceptualise an approach to regional settlement formation. It argued that authenticity of the settlement is reinforced when each new development land parcel contribute to an emerging and strengthening system. The result is holistic integrated settlements that lean synergistically on one another to form a community.

The Heritage indicators and directives lists the following context specific village and Sub-regional indicators:

(Baumann et al, 2015, pg21)

Context Specific Village Indicators:

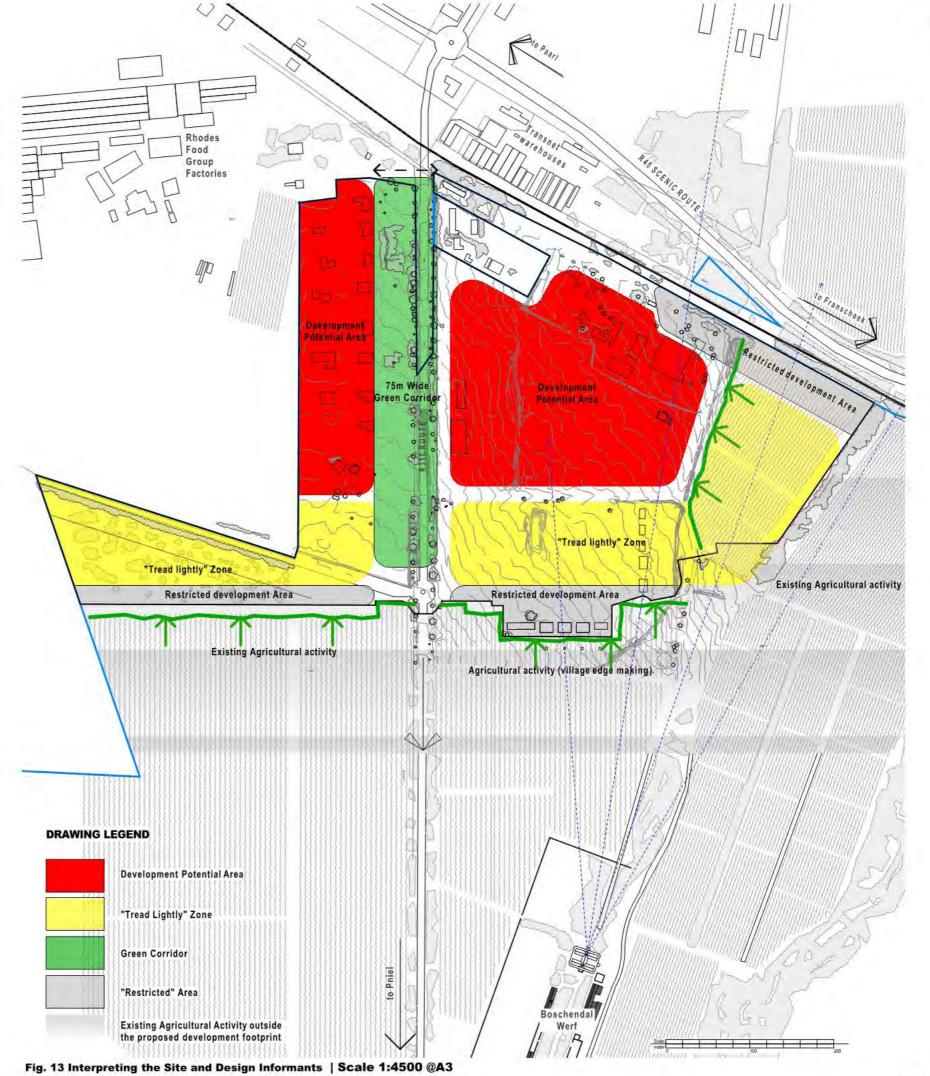
- 1. Planning and design responses should respect and work with the following:
 - existing elements of the cultural landscape
 - the existing water network
 - the historical movement network, which should be retained to the greatest degree possible
 - the recycling of buildings and structures wherever appropriate
- 2. The R310 should run through the village within an extensively planted green corridor, some 75 meters wide (from the western building facade to the edge of the agricultural hedge on the east), creating the visual impression of a linear park with a treed avenue.
- 3. The movement network should tie in with the sub-regional system of movement.
- 4. The movement network should be highly permeable.
- 5. A hierarchical public space network should overlap and correspond to the movement network, knitting together the elements of public significance
- There should be a clear density gradient in response to the movement hierarchy and to sight-lines and visual indicators. The village should be wrapped on two sides by 'tread lightly' zones.
- 7. Planting mitigation measures (eg. avenues, windbreaks) should be used to 'finish off the southern edge of the village, while at the same time consolidating the extent of the northern edge of the agricultural setting of the Boschendal homestead and werf precinct. Orthogonal geometries should be employed to give expression to the cultural landscape of the Winelands of the Cape.

2.6. INTERPRETATION OF COMPOSITE CONSTRAINTS AND INFORMANTS IN TERMS OF DEVELOPMENT POTENTIAL

An interpretation of the Heritage indicators and Directives produce different categories of land potential:

- 'Restricted development' or areas where development should be restricted.
- 'Tread Lightly' Zones or areas where development is possible while retaining dominance of the agricultural landscape.
- 'Development potential areas' or land parcels which could be considered for development.

On a more detailed level, the outcome includes the designated 'green buffer' zone as a constraint to protect the R310 scenic route and view cones toward the Boschendal Manor House.



© Prepared by Philip Briel and Wilko le Roux dated September 2015. Copyright protected. All rights reserved.

2.7. DESIGN FACTORS TO CONSIDER

During the introduction to this chapter, it was argued that authenticity and retaining the dominance of agriculture in the existing historic cultural landscape is achieved through appropriate integration into the existing landscape and community. The outcome is establishing a settlement with authentic village qualities that detract from typical examples of suburbia and security estates. In preceding pages, the document focus on how integration is achieved on a structural level. It is however also important to discern design qualities that contribute to the creation of an authentic village.

The heritage indicators and directives (Baumann et al, 2015. pg18) list the following generic village qualities, organizational principles and indicators that need to be considered. The principles are first considered on broad levels of village and generic principles, before refining to street level and generic architectural controls.

1. Achieve qualities of rural village, not suburbia:

- A significant amount of the village should be open to public access: a gated development is not allowed;
- The village should be seen as a social entity, organized around a social heart: public spaces (for example, the village green) are central to this:
- More publicly-orientated buildings should abut higher order spaces, helping to define the space (they should not occur in the space);
- Bring the rural and wilderness areas surrounding the villages into the daily life of the village through view-lines and vistas focused on prominent natural features;
- Use both organic and straight-line geometries in the layouts, when straight lines are used, they should be used for structural reasons (for example, important axial alignments);
- Frame views
- Achieve qualities of 'street' (a multi-functional space accommodates a number of modes of movement as well as other activities) as opposed to 'road' (a conduit for motor cars);
- To this end, buildings facing onto streets should be brought to the front of the plot and 'build-to' lines should be defined to make the street in terms of important streets. This system also promotes primarily green 'hollow-blocks';
- No rears of buildings should front onto any form of public space;
- Use rural elements (for example, grachts or swales to manage storm-water, low walls, hedges, tree canopies), not urban elements such as kerbs or walls;
- 2. Achieve both unity and diversity in the built form. The main instrument of unification should be the use of a common space syntax, albeit in different forms. The common space syntax should include the following features:
 - A continuous 'main street' which structures the village. A system
 of much smaller streets should 'network' off this;
 - A water network: storm water run-off should occur on the surface in a system of grachts;
 - A spatial focus (e.g. the village green) which is the primary social space of the village. The more publicly-orientated buildings should abut, and help make, this space.
 - Strategically positioned non-residential uses reinforcing the hierarchy of publicness;
 - A system of axial alignments, vistas and focal elements;
 - A pattern of sub-division reinforcing active street boundaries and preventing 'dead-edges' from fronting onto the public domain and promoting the concept of the 'hollow' blocks;
 - A gradation of height reinforcing the hierarchy of publicness and gateway spaces:
 - A system of 'Cape' rural building typologies and associated structures and elements: Process is also central to achieving complexity and diversity. As a general principle, no one designer should design more than two buildings in close proximity to each other:
 - A system of building types which distinguishes between gateway and mid-block pinching buildings, street liners, corner buildings and pavilion buildings. The structural types should reinforce the structural layout of the village;
 - A system of structural planting reflecting 'Capeness' and 'ruralness:
 - Process is also central in achieving complexity and diversity. As a general principle, no one designer should design more than four buildings in close proximity to each other

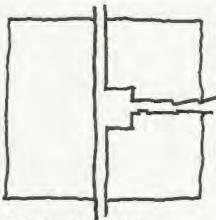


Fig 14. Open to public Access

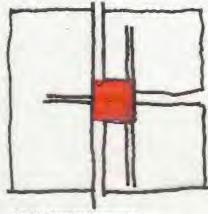


Fig 16.Organized around a social heart

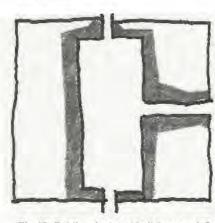


Fig 18. Public orientated buildings to define space

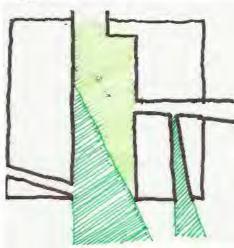


Fig 19. Scenic vistas bring nature into the village

Fig: 14-20 Qualities of a Rural Village

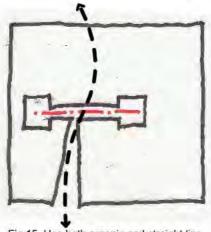


Fig 15. Use both organic and straight line geometries.

Use straight line geometries for important axial alignments

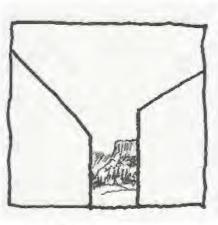


Fig 17.Frame views



Fig 20. Acieve qualities of 'Street'

- Accomodate various modes of movement.
- Buildings brought to the front edge of plots create a strong street edge, while allowing garden space at the back.
- No rears of buildings should face the streets

2.7.1 GENERIC STRUCTURAL INDICATORS (Baumann et al. 2015, Pg19)

2.7.1.1. Factors that should inform the Movement Network:

- It is necessary to establish a clear village movement network, minimizing excessive repetition and sameness;
- The village should be pedestrian and NMT dominant, while still accommodating vehicles;
- Qualities of 'street' (multifunctional linear spaces which also accommodate movement) as opposed to 'road' (a single purpose conduit for cars) should be captured throughout the development;
- The village should be anchored by a mixed-use high street.

2.7.1.2. Factors that should inform the approach to Public Space:

- It is necessary to establish a clear spatial hierarchy;
- The village should be anchored by a village square which is integrated with the high street;
- Primary gateways into the village should be spatially announced;
- All buildings should be used to define and make public space. The architecture should primarily take the form of background buildings.

2.7.1.3. Public institution/community facilities should occur in exposed (highly accessible) locations

2.7.1.4. In response to height:

- Height policy should respond to access, with the highest density at the most accessible place.
- No building should exceed walk-up forms (3 storeys) in the dense areas.
 There is a maximum height of 2 storeys in the more embedded, private areas and 1 storey
- No building should exceed a single storey in the 'tread lightly' zone.

2.7.2 GENERIC STREET ORGANIZATIONAL INDICATORS

- The street hierarchy should be clear and legible, with the dominance of the Main Street apparent;
- Blocks should be relatively small to promote permeability;
- Scaling elements such as stoeps and pergolas can be used as moderating devices in house-street relationships. Height can also be used to protect privacy.
- Minor streets should have a narrow street surface (in the order of 5 meters with a two meter walk-way to allow easy turning into driveways);
- There must be a clear threshold or transition of publicness to privacy, scaling elements such as stoeps and pergolas can be used as modulating devices in house-street relationships. Height can be used to protect privacy;
- There should be no kerbs. Storm-water run-off should occur on the surface and channels should be used as place making elements.



Fig 21.Surface run storm water (Leivoor, Grachts, or Swales)



Fig 23. Tradition of Werfs



(hedges or trees) to define space, not walls or kerbs.



Fig 24. Surface run storm water (Lei-voor, Grachts, or Swales)

CHAPTER 3. DESIGN

3.1. DEVELOPMENT AND DESIGN ETHOS:

THE ETHOS OF SUSTAINABLE URBAN DEVELOPMENT

3.1.1 Why develop at all?

Property development is regarded as an important contributor to economic growth, but more importantly as a provider of basic social infrastructure. Responsible, sustainable development, executed by the private sector, can be regarded as an important means of supplying building stock for an ever increasing population.

With this in mind, municipalities designate certain areas and nodes as part of the urban edge. This creates opportunities for the private sector to develop these areas. The node at the intersection of the R45 and R310 is one such area, earmarked by the Stellenbosch Municipality as suitable for further development and improvement.

Some of the land in the area under of the land discussion is owned by Boschendal Estates. The character and location under discussion is viewed by its owners as:

- A partially degraded brown field of little agricultural value.
- Partially built up and surrounded by existing urban development, encompassing housing, factories, offices and civic amenities.
- Hemmed in by major rural mobility routes and a railway track. The municipality in turn regards the area as:
- An urban node which is part of an already developed intersection strategically located between three major rural towns and typical of a general settlement pattern scattered around various intersections in the wine lands.
- An eyesore in what is regarded as an important scenic route.
- A problematic intersection requiring intervention in terms of traffic safety and flow.

It is thus evident, in terms of the existing physical character and defects of the site, that both the municipality and current land owners have an obligation to intervene and improve the area to the benefit of all.

Also, it is undeniable that financial benefit is a motivating factor in developing the node further. Boschendal Estate has embarked on an investment and restoration programme amounting to R300 000 000, in respect of both its agricultural and heritage assets. It is reasonable to expect that some of that investment needs to be recovered and made available for the protection, management and improvement of the assets under its control.

The economic benefits of this development could thus be foreseen as a major boost, not only for the protection of Boschendal as an asset of national importance, but also in terms of its ability to deliver on public good.

The important question is not why to develop, but how to develop responsibly.

3.1.2 Responsible Development

The development model resulting in gated, suburban, housing estates on green-field sites is widely regarded as undesirable in terms of good place making. Irreversible damage caused to the authentic character of the wine lands, as an agrarian landscape by such development is evident to the observer. It is the intention of Boschendal, to avoid this type of model by delivering on what is expected to constitute a new benchmark in sustainable development and excellent place making in the wine lands area of the Cape.

In pursuing a philosophy of sustainable development, Boschendal adheres to three important principles: social, economic and environmental sustainability.

3.1.3 Social sustainability

The main attributes of social sustainability are manifested by:

- provision of public good
- promotion of social cohesion and diversity in communities
- delivering healthy living environments.

Boschendal Village (BV) is delivering on public good by strengthening and supplementing the existing civic amenities that already exist in the proposed development node. The existing clinic will be updated to provide improved service, not only to the inhabitants of BV but also to those in surrounding areas. A pre-school will be provided on site, open to the BV inhabitants as well as to the wider community. The informal trading activities, which already exist next to the R310, will be supported by the provision of shelter and accessibility. Most importantly, the impetus being provided by the development will have a major impact on the improvement of traffic and pedestrian safety through the upgrading and rationalising of the existing T- junction, as well as the provision of dedicated bus and taxi stops.

Furthermore, the creation of a new high street, parallel to the R310 and completely accessible to the public, will provide a vibrant and consolidated business and retail node, available to all. This will provide job opportunities as well as amenities and work places closer to home. The interface between the residents of BV, visiting tourists and the local population will be strengthened through the provision of such an open civic trading zone. It is the antithesis of the general model of insulated gated developments.

Apart from providing much needed housing stock, the preferred model of delivering multiple dwelling types will inevitably foster a more diverse community by allowing for a wide price range, and whereby facilitating access to entry level as well as high-end buyers. The result is anticipated to be an intergenerational and income demographic that promotes social vibrancy.

The developers intend to go a step further by actively subsidising housing on a rental housing scheme, for essential key services personel in the community. Essential key services personel are defined in general terms as people who provide key services, either directly or indirectly to the public. This includes teachers, nurses and other health workers and police, but extends to social workers, bus and ambulance drivers and a great variety of other workers, not all in the public sector. In considering proposals to help essential key services personel to meet their housing needs the developers will take the following factors into account: -

- the extent to which essential key services personel need to live near their work because of factors such as un-social work patterns.
- the needs and preferences of essential key services personel
- the extent to which essential key services personel can afford housing
- the extent to which essential key services personel are associated with Boschendal

It is believed that the insertion of these members of society into a neighbourhood, which might normally be financially out of reach, will foster the creation of an inclusive and diverse community.

The association and generous access to Boschendal farm afforded to residents of BV will further instil a sense of civic pride and social cohesion. The abundance of open space, opportunities for physical activity and the availability of locally produced food is expected to contribute significantly to the general well- being of the BV community.

3.1.4 Economic sustainability

The main facets of economic sustainability are to be found in:

- support for the local economy
- the creation of local jobs
- forging symbiotic economic systems

The consolidation and expansion of a mixed use economic and tourist hub should provide job opportunities for the local population as a result of revenue inflows. The symbiotic relationship between Boschendal farm and BV will generate a mix of commercial offerings which should underpin sustainable business development in the future.

The purchasing power embedded within the Boschendal Village community, coupled with direct access to the werf amenities should have a positive effect on Boschendal Farm's financial viability and in so doing help secure a valuable national heritage asset. As a potential consumer of Boschendal produce, the BV community will support the agricultural viability of the farm. Fostering home industry initiatives which add value to raw produce is a priority for Boschendal, and this initiative will benefit from the various outlets and markets provided by BV residents.

The inevitable gentrification of Boschendal Village, improving on what is currently a dormant and unresolved zone, should also spur the landowners of neglected properties in the vicinity to emulate the example, thereby promoting economic growth and an increase in property values which in turn should unlock further economic activity. The provision of jobs and support to local suppliers during the construction of BV will be substantial. Boschendal has embarked on a skills development programme and the construction of BV would provide a much needed additional vehicle to help realise this initiative.

3.1.5 Environmental sustainability

The main facets of environmental sustainability are:

- reducing C02 emissions
- avoiding greenfield development
- promoting density and reducing sprawl
- reducing waste

The creation of a mixed use, dense development will inevitably lead to a reduction in motor vehicle use as unnecessary work and shopping trips will be avoided. Also the minimization of the development footprint will reduce the roll out of energy hungry infrastructure. The compulsory inclusion of PV and solar installations will further reduce BV's carbon footprint and the potential in terms of harnessing the combined critical mass of BV and BF, in respect of bio-digesters is significant. It is not impossible to foresee a near closed loop and off-grid energy system, with most electricity obtained from this combined resource. A brownfield site within an existing urban node, and yet with no existing agricultural activity or bio-diversity issues, lends itself well to development as it avoids the problems associated with isolated greenfield developments in sensitive ecological or agricultural zones.

On site sewerage disposal, waste re-cycling and re-use, as well as a local water supply will further ensure BV's environmental sustainability as renewable sources and waste minimization controls will be firmly embedded. This will reduce the burden on municipal suppliers and the environment.

3.1.6 What does the physical form of sustainable development look like?

Within the context of a rural village, Boschendal Village embraces the quality of urbanism rather than that of sub-urbanism. It is applied at the full range of scales from a single building to an entire community, without losing its village character.

Walkability

-Most amenities within a 10-minute walk.

-Pedestrian dominant and friendly street design (buildings close to street; porches, windows & doors; tree-lined streets; on street parking; hidden parking lots; garages in rear lane; narrow, slow speed

Connectivity

-Interconnected street grid network disperses traffic & eases walking

- -A hierarchy of narrow streets, avenues and alleys
- -High quality pedestrian network and public realm makes walking pleasurable

Mixed-Use & Diversity

- -A mix of shops, offices, apartments, and homes. Mixed-use within neighbourhoods, within blocks, and within buildings
- -Diversity of people of ages, income levels, cultures, and races

Mixed Housing

A range of types, sizes and prices in close proximity

Quality Architecture & Urban Design

Emphasis on human comfort and the creation of a sense of place; special placement of civic amenities within community; human scale architecture rooted within the local vernacular, contemporary in style rather than pastiche.

Traditional Neighbourhood Structures

- -Hierarchy of public spaces with a discernible centre and edge
- -Public space at centre
- -Importance of quality public realm; public open space designed as civic art
- -Containing a range of uses and densities within a 10-minute walk

Increased Density

-More buildings, residences, shops, and services closer together for ease of walking, to enable a more
efficient use of services and resources, and to create a more convenient, enjoyable place to live.
 Sustainability

- -Minimal environmental impact of development and its operations
- -Eco-friendly technologies, respect for ecology and the value of natural systems
- -Energy efficiency and -less use of finite fuels
- -More local production
- -More walking, less driving

Quality of Life

Taken together these factors engender a high quality of life and create places that enrich, uplift, and inspire the human spirit.

3.2. CONCEPT AND OVERALL URBAN DESIGN PRINCIPLES

"In essence, the character of the proposed development will be that of rural village, characterised by certain urban qualities, discreetly knitted into an agrarian landscape, whilst responding to the historical context of the area."

- Publically accessible, diverse and vibrant.
- Varied in building typology, size and cost.
- Mixed use
- Quality public space
- Compact and dense
- Interconnected and permeable
- Walkable
- Responsive to the genius loci
- Quality architecture and urban design
- Safe and secure
- Environmentally, socially and economically sustainable

The village should be well-contained and as small and compact as possible, and new agricultural areas should be brought right up to the settlement edges. The town should respond to the predominant agricultural patterns, but must have strong spatial edge-definition in order to eliminate the possibility of future expansion or sprawl. The use of structural landscaping is paramount in achieving this principle.

In spite of the fact that the village will be located on a busy tourist route and straddle a major rural road, access will be limited. In order to provide accessibility, vibrancy and interconnectedness the village will be developed along a new high street, parallel to the R310. This high street will intersect the main axis into the village at an open public space consisting of a vibrant, farmers market square. This square will not only form the heart of the development but will also serve as the commercial node for the wider community.

The high street will contain various shops, galleries, offices, restaurants, educational facilities, a crèche, entry level housing and open public space for relaxation. The area closer to the R45 will display a civic character as the existing police station and clinic forms part of that precinct already. The educational facility and public transport drop off and collection points will also be located in that vicinity.

The main axis leading from the market square, will traverse an elongated public open space, formalised by a lane of trees and a lei-voor and continuing down the gentle slope, towards the quieter residential neighbourhoods where it will terminate in a generous community werf. This werf will serve as a flexible outdoor space and will set up an architectural conversation with the existing historical werf at the Boschendal manor house. These two werfs are connected by means of a meandering lower order cycle and pedestrian pathway. It will also serve as a focal point for public gatherings and occasions and will serve as a gateway from the village to the farm. The werf will be home to a health centre and other public amenities.

Leading off the main axis are diverse neighbourhoods consisting of various types of homes, ranging from narrow row houses to generous free standing homes. The predominant typology will be that of perimeter building blocks with courtyard parking. It will allow for pleasant, walkable streetscapes and squares, devoid of blind walls and garages.

The streets will be lined with corner buildings, gateway buildings and landmark buildings in appropriate locations, as well as infill buildings. These buildings will be predominately of a horizontal character, unless specified differently in specific areas. The predominant geometry will be that of wall architecture with horizontally proportioned apertures, built to line.

Human scale will be reinforced at the edges of public spaces and streets by the use of colonnades, verandas and pergolas where needed. Overlooking features like balconies, roof terraces and windows will be enforced as safe city mechanisms to ensure security through surveillance. Most public spaces and roads will be pedestrian-dominated; parking will be dispersed as well as consolidated in various ways. Formalised, structural planting will further reinforce the idea of horizontality, linearity and simplicity.

The village will provide civic amenities to a broad range of surrounding communities, both within and outside the village extents. This principle is important in terms of the authenticity of place. Gated and security complexes, no matter how architecturally well-designed or well-laid out, can never amount to villages, as they lack a public and civic realm. It has already been established that gated complexes are an anathema within the Cape Winelands Cultural Landscape, essentially creating "black holes' within the agricultural continuum. Higher-order villages depend on their relationship with surrounding movement routes for broad exposure in order to attract higher-order civic and commercial activities. This relationship is symbiotic and must be carefully articulated.

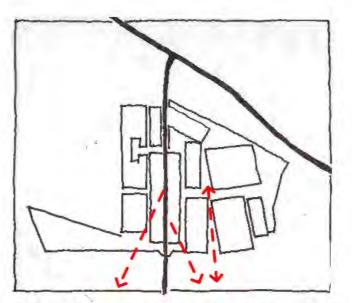


Fig.25 The village geometry acnowledge the historic farmstead and exploit Key views that connect the village with the surrounding Historic cultural landscape.

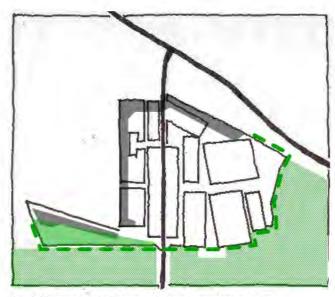


Fig.26 Strong spacial edge definition in response to the surrounding context prevent future expansion or sprawl. On the South, East and North East edges, edgemaking responds to wilderniss, the Scenic route and Agricultural landscape of the farm. On the North and West edges, edgemaking responds to existing development and industrial landscape.

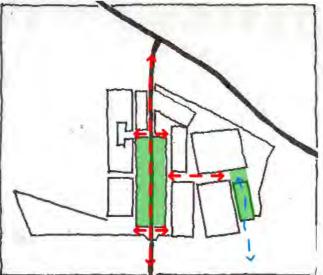


Fig.27 The main axis connects the Market quare with the community werf, two key areas that ties the village to the scenic route and historic farmstead.

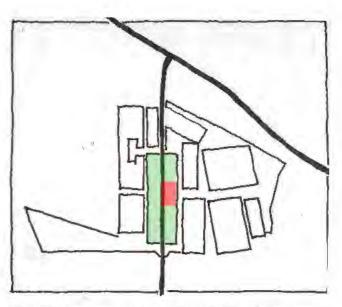


Fig.28 The Village is designed around a Heart consisting of a village green and a vibrant commertial node.

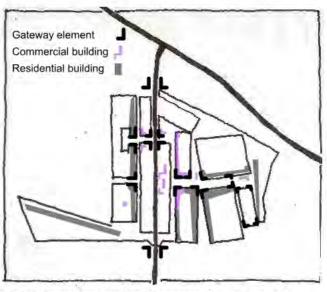


Fig.29 Edgemaking on public facing areas through the use of gateways, building 'pinch points' and strong street edge definition.

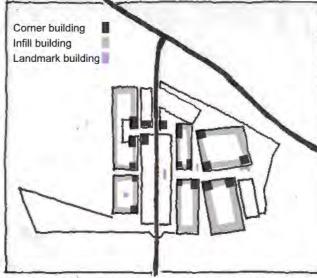


Fig.30 Building types enforce spacial definition and place making.

© Prepared by Philip Briel and Wilko le Roux dated September 2015. Copyright protected, All rights reserved.

3.3. URBAN DESIGN DISCOURSE AND INTENT

This section outlines the application of key design principles in response to the heritage indicators and controls established during chapter 2 of this report.

3.3.1 URBAN DESIGN GEOMETRY

Grid, axial alignments, vistas and focal points.

A clear and legible street grid is established in order to maximise permeability. Visual connections along axis ensure legibility and orientation at all times. The grid is slightly twisted to align the lower slopes with the existing contours and to allow the community werf at the end of the main axis to be mostly flat. The twisted grid has the added benefit of opening up a funnel-like view cone in line with the manor house according to the heritage indicator conditions. A further benefit of the twisted grid is that it alleviates monotony in terms of the geometry as the various intersections demand varied architectural solutions.

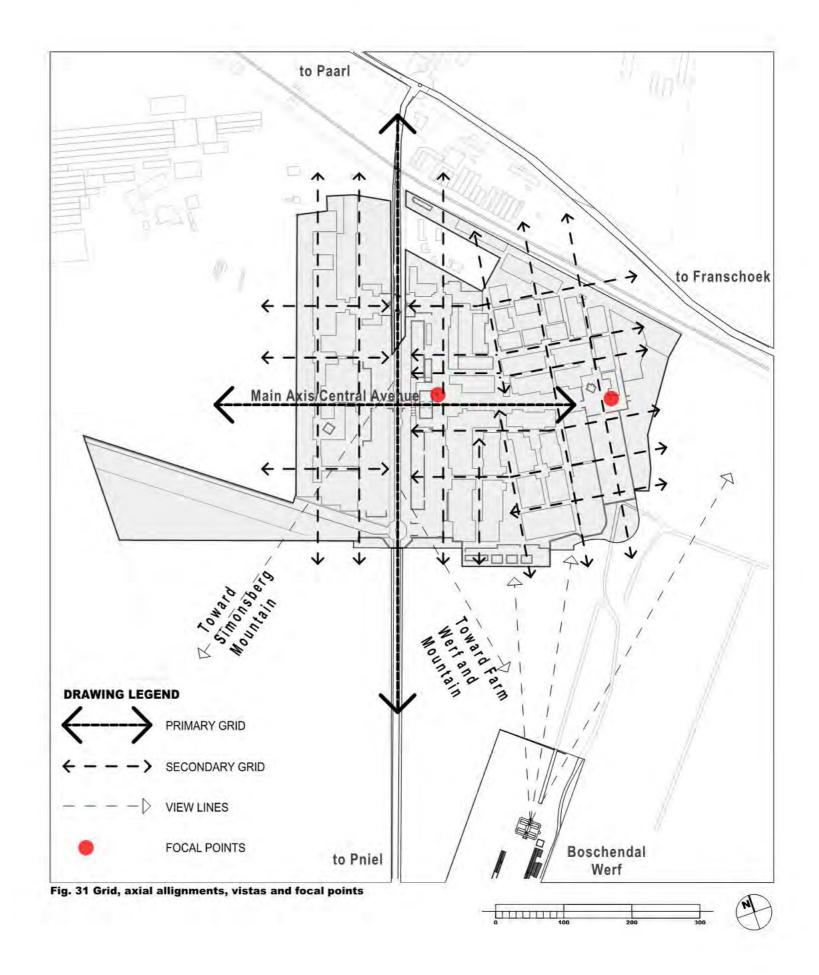
The main axis across the R310 down the central avenue delivers order and hierarchial legibility, and ties the two precincts straddling the R310 together. The formalisation of the main axis also reinforces the importance of the market building and square as a landmark and a focal point. The same goes for the werf at the end of the main axis, as its connection to the main axis reinforces its importance as a public space. A secondary axis running, from west to east across the main central axis ties the neighbourhoods together, visually and physically. The axis traverses and terminates in various neighbourhood squares.



Fig. 30.1 Axial focal point Stellenbosch (Arisal, 2012)



Fig. 30.2 Example of small town grid layout (Google Maps, 2015)



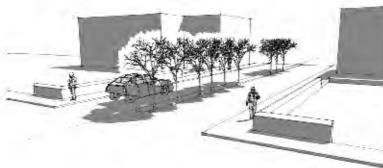
© Prepared by Philip Brief and Wilko le Roux dated September 2015. Copyright protected. All rights reserved.

3.3.2. ACCESS AND ROUTE INTEGRATION

The site gains access from the R310, which traverses the site. Due to the classification of this road as a mobility route, access off it is limited. Preliminary traffic assessments suggest the creation of a traffic circle at the intersection of the western boundary and the R310 as an access point midway between the new traffic circle and the existing T-junction of the R310 and R45. Both of these access points provide the opportunity for creating gateways and thresholds, announcing the transition from the rural transect to village.

An additional traffic circle is to be provided at the T-junction of the existing gravel minor road 5230 and the R310. This road has the potential to be connected back to the R45 which could absorb traffic which otherwise would have been directed towards the existing T-junction of the R310 and R45. This could be useful





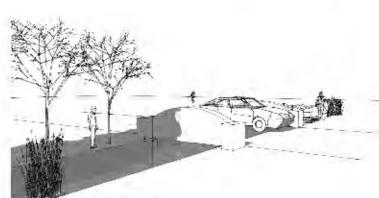


Fig. 32 Indicative gateways

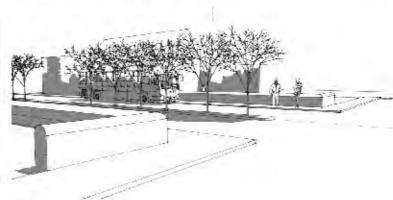


Fig. 33 Gateway at Pniel (Briel, 2015)

As the R310 is a well- used pedestrian and cycle zone, and as it will evolve into an urban civic zone due to development on both side, a pedestrian crossing is proposed at the junction with the new market square and central axis. It is foreseen that educational and commercial activity and new jobs on offer in the new high street might increase foot and bicycle traffic towards the development node, particularly from Pniel. It is thus important to provide a safe pedestrian crossing and design for a pedestrian crossing to allow for a safe drop off zone for taxis and busses. This section of the road already has a 60km/hr speed limit.

The two new intersection points along the R310 are spatially treated as gateway points that employ the design language of low werf walls, absence of curbing and continuity of materiality seen at the main gateway node of Pniel.

Aside from around the main intersection, all new development is located more than 60m from the R310. Bus embayments are located adjacent to the civic precinct in the northernmost section of the village.



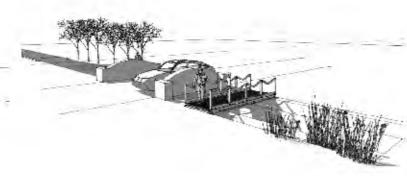




Fig. 34 Culvert crossing and footbridge (Briel, 2015)

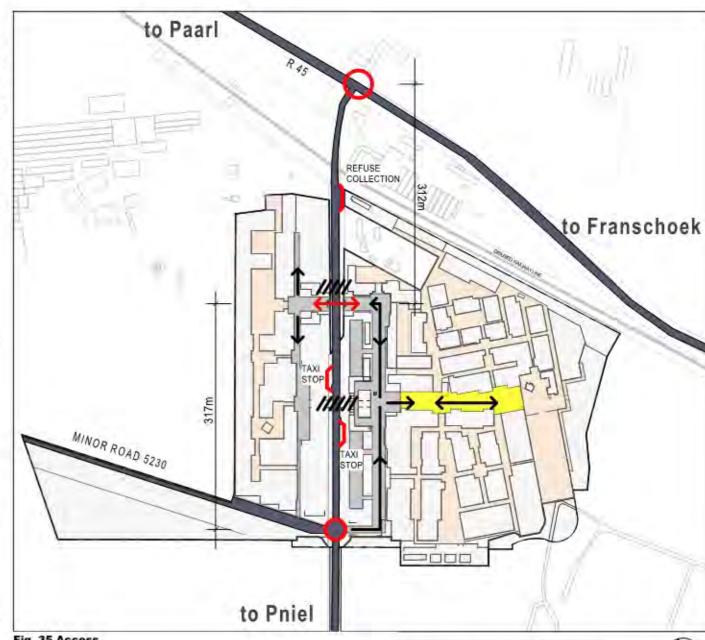


Fig. 35 Access





PROPOSED NEW TRAFFIC CIRCLE



PEDESTRIAN CROSSING

PROPOSED NEW INTERSECTION

3.3.2. a. Street hierarchy.

All streets in the village will have the official designation of "private roads" however some of these streets will have a high degree of public accessibility. The stretch of street parallel to the R310 and in between the two intersection points along the R310 comprises the main "high street" of the new village, and is activated on both sides by market/commercial buildings and spaces in existing shed buildings, formal retail spaces, and flexible parking areas. A series of secondary "gateway nodes" and "pinch points" define gateways into the more residential parts of the new village that all lead off from these main, "public" streets. Some of these streets are publically accessible during business hours and would be manned by a guard after-hours, while others are located within the residential "super-blocks" and would require remote control or invited access by the residents living there. A service lane is established between the mixed use and commercial buildings and the residential areas in order to accommodate delivery vehicles, parking ramps and refuse removal without imposing on the village streets. These lanes are one-way and controlled with gateways at either end.



Fig. 36 Dorp Street, Stellenbosch (Briel, 2015)

- **3.3.2.b.** The High street: Fig 37 Curb parking can be an important element of high street design, as it offers convenience as well as creating a buffer for activity on the sidewalk and adjoining properties. The high street will be regarded as a well-used thorough-fare and should contain pedestrian-oriented edges, blending together two seemingly incompatible characteristics into a highly mobile, yet walkable thoroughfare. The inclusion of on-street parking, bicycle travel, and wide landscaped pedestrian areas will complement the mixed-use character of the high street. The main square should be of a different surface material to enforce NMT dominance in that area as it is perceived as a busy, lively public space, blurring the lines between NMT and motorised dominance. The road surface to be no wider than 7 metres.
- **3.3.2.c.** The Central avenue: The central avenue on the main axis should allow for the inclusion of onstreet parking, bicycle travel, and wide landscaped pedestrian walkways abutting a lei-voor will promote the central avenue as a longitudinal open public space rather than a thoroughfare. Multiple street liner buildings will open up onto the central axis and are therefore important to protect pedestrian dominance in this area. The road surface to be no wider than 6 metres and speed limits should be 45km/hr.
- 3.3.2.d Neighbourhood streets: The side streets are generally one or two narrow lanes only, and serve predominantly local traffic and access to abutting property. Streets will feed into courtyards or mews, which will be mostly where cars will be parked in residential neighbourhoods. The streets will also lead into the various underground parking basements associated with high density apartment buildings. The narrowness and relative quietness of some of the streets will automatically lead to pedestrian dominance. The road surface to be no wider than 5 metres. Speed limits should be very low (25km/hr).
 3.3.2.e. Pedestrian lanes and footpaths: A system of pedestrian lanes, leading onto public open spaces are distributed across the site and not always demarcated, but could simply be open routes between buildings. This particularly applies amongst high density apartment buildings. The foot paths are more informal by design, of a meandering character and prevalent where the village flows out onto the farm. Lanes and footpath should be no wider than 2 metres.

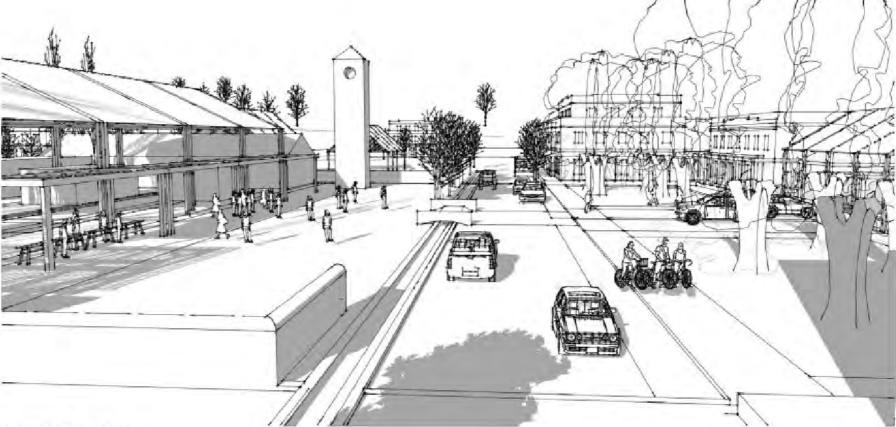


Fig. 37 The high street

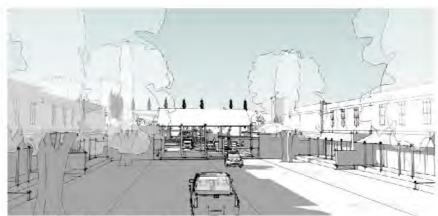


Fig. 38 Neighbourhood streets

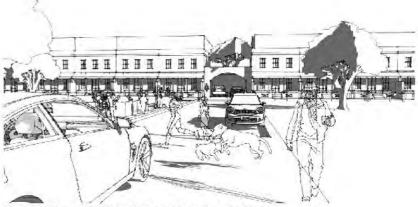


Fig. 40 Typical indicative neigbourhood street



Fig. 39 Example of pedestrian zones amongst townhouses (Briel, 2015)



3.3.2.f. Street design: The qualities of street, as opposed to road, should be promoted through bringing buildings forward to the street edge, having buildings face onto the street edge and positively address it by means of stoeps, and through using rural elements such as lei-water sloots, low walls, treed avenues and hedges, rather than concrete kerbs, to manage storm water and define the thresholds between streets and pavements. The width of streets should establish a clear hierarchy, with more minor streets and lanes being much narrower and possibly of more textured surfacing in order to promote slower driving speeds.

The street section through the main residential avenue within the village illustrates the multi-functional use of the linear space of the street to accommodate treed avenues, leiwater sloots, cycle lanes and linear open green spaces. The buildings directly abut the street edge, with visually accessible front gardens and stoeps creating privacy thresholds. The heights employed for the buildings help to define the street space, and are design to be proportional to its width in order to provide a comfortable sense of enclosure, that then heightens the sense of "framed view" when intersecting streets afford glimpses towards the Boschendal werf and its surrounding agricultural landscape.

Roads will be finished in textured, robust finishes with minimal concrete curbs and edges. Curbs will be subtle and or non - existent. Traffic speed reduction will be promoted through the application of a variation in finishes and the hierarchy of roads and streets will be reflected in the type of material used. The use of tarmac will be minimised and preferably not applied at all. The use of lei-voors and planting will be utilised as barriers to no go zones.

3.3.2.g. Design factors that influence target speed:

The following design factors contribute to speed reduction and should be incorporated into street designs as appropriate in urban areas:

- Using narrower travel lanes;
- Using physical measures to narrow the roadway;
- · Using on-street parking to create side friction;
- Eliminating super elevation;
- · Eliminating shoulders, except for bicycle lanes;
- · Using smaller curb radii;
- · Eliminating channelized right-turn lanes;
- Using paving materials with texture (See fig 41-43);
- · Properly using speed limit, warning, and advisory signs and devices.

3.3.2.h. Parking: Parking can be divided into four categories:

- on-street parking for the public
- off street parking for the public
- on street private parking for residents
 - off street private parking for residents

The use of parking werfs, edged by low walls and hedges is allocated where en-masse parking is required, for instance in the vicinity of the market square, the northern precinct gateway as well as the southern werf. Some of the bigger mixed -use complexes will contain basement parking as well as surface parking in discreet locations.

Parking within the residential neighbourhoods for residents will be off street in all instances, located within garages, leading off secondary streets or mews or squares. Visitors parking will be provided within the street reserves in allocated zones. The higher density residential areas will include basement parking for residents and visitors although some surface parking will be allocated for visitors too.

3.3.2.i. Ramp entrance dimensions and articulation:

Ramp entrances and exits should be located in separate locations and should be single lanes only. This allows for a reduction in the gape of the opening, thus reducing the distance across for pedestrians as well as mitigating the visual impact. Entrances and exits should be treated as doorways into buildings and not as holes in the ground.



Fig. 41 Mews parking - Groot Constantia (Briel, 2015)



Fig. 42 Example of road surface with local stone (Briel, 2015)



Fig. 43 Example of exposed aggregate, brick and local stone as road surfaces at Boschendal (Briel, 2015)



Fig. 44 Werf parking - High Constantia (Briel, 2015)



Fig. 45 Werf parking - Groot Constantia (Briel, 2015)



Fig. 46 Werf Parking: Constantia civic centre (Briel, 2015)



Fig. 47 Parking behind wall werfs

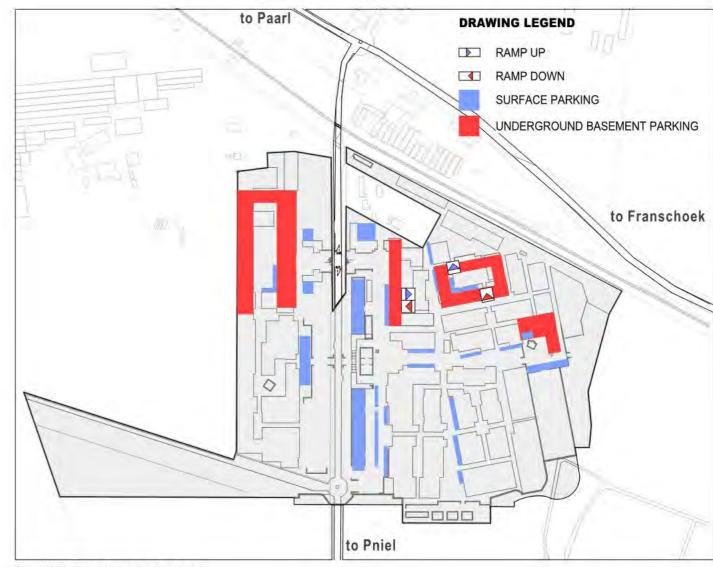
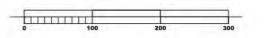


Fig. 48 Parking location by type

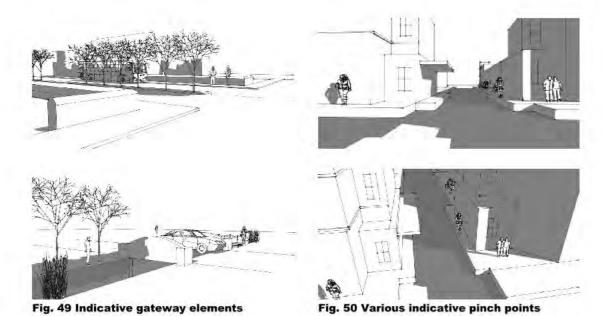




3.4. GATEWAYS AND THRESHOLDS

3.4.a) Along public roads.

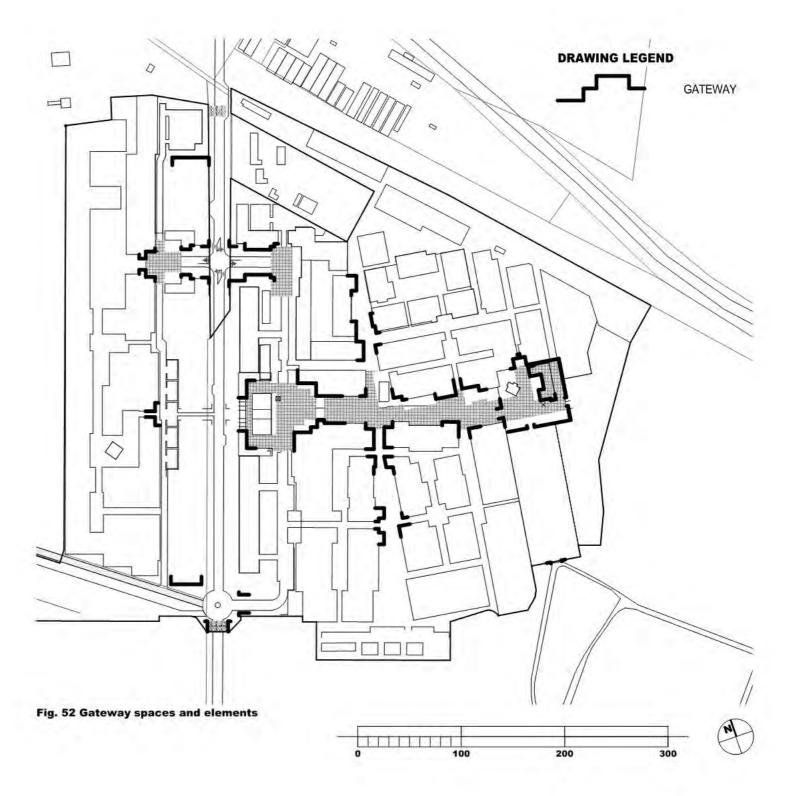
The village is made up of major gateways and gateway spaces along the R310, a secondary gateway space and gateway (the village square) along the "high street", and a series of "pinch point" gateways leading off from the central avenue, which provide a degree of controlled access, both through management and visual markers/thresholds, into the main residential areas and the farmland beyond. The utilisation of the werf, as a tool for formalising the landscape provides the opportunity for creating gateways combined with the use of culvert barriers and bridges as thresholds. It is proposed that these element are used before reaching the R310, as indicated, to announce the transition from rural to urban and to deliver design continuation from Pniel as these same elements had successfully been used there.



3.4.b) Along private internal roads. Public space and transition zones are emphasised through the use of pinch points and gateways. It also creates the opportunity for providing surveillance features and integrated security barriers. These pinch points also functions as traffic calming mechanisms and serves the purpose of doorways into outdoor rooms, whilst creating interest on facade plain.



Fig. 51 Gateway at Alphen (Briel, 2015)

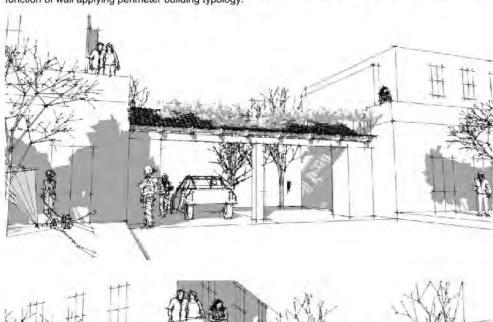


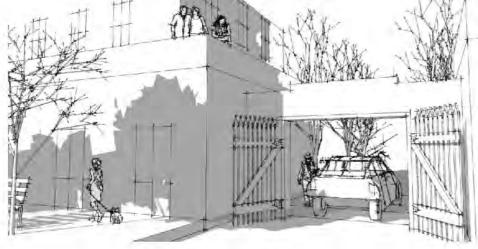
3.5. ACCESSIBILITY

As was discussed earlier, the principle of public accessibility is of great importance. This is a fundamental principle to adhere to, as a direct response in counteracting the gated village syndrome. Thus, the creation of the high-street, that is a mixed zone open to the general public on a 24hr basis, is being supported as a mandatory control to ensure accessibility.

However, the principle of safety and security is a reality that needs consideration. The central axis, leading to the main residential areas is entered across a threshold and through a gateway. It is not gated or barricaded as such, however it allows for observational surveilance and monitoring, thus deterring unwanted intrusion. The central axis will be open to the public as the community werf is regarded as an activity zone and collection point for public gatherings and activities. However, the residential precincts, leading off the central avenue may be safeguarded through controlled access points, as was discussed under the gateway section. The trade-off between public accessibility and safety can be reconciled if these principles are adhered to.

The northern -western precinct is regarded as an island, due to its location and is secured due to its sole function as a residential zone, however, it is not walled, onto the public open space. The front of buildings are facing this zone, thus creating a street scape that is active, rather than dead and thus serving the function of wall applying perimeter building typology.





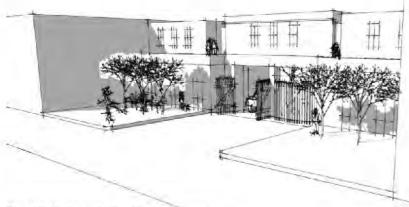
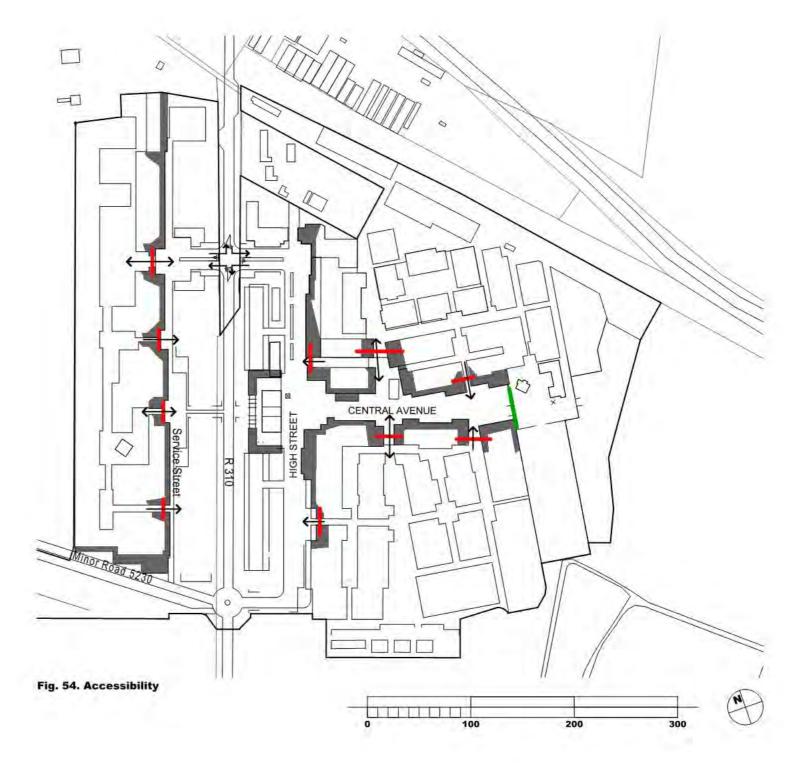


Fig. 53 Various indicative gateways



© Frepared by Philip Brei, and Wilko le Roux dated September 2015. Copyright protected. All rights reserved.

3.6 PUBLIC VS PRIVATE SPACE

Figure 56 illustrates the extent of public accessible areas in relation to private areas. Public access falls within areas of significant commercial and social activity.

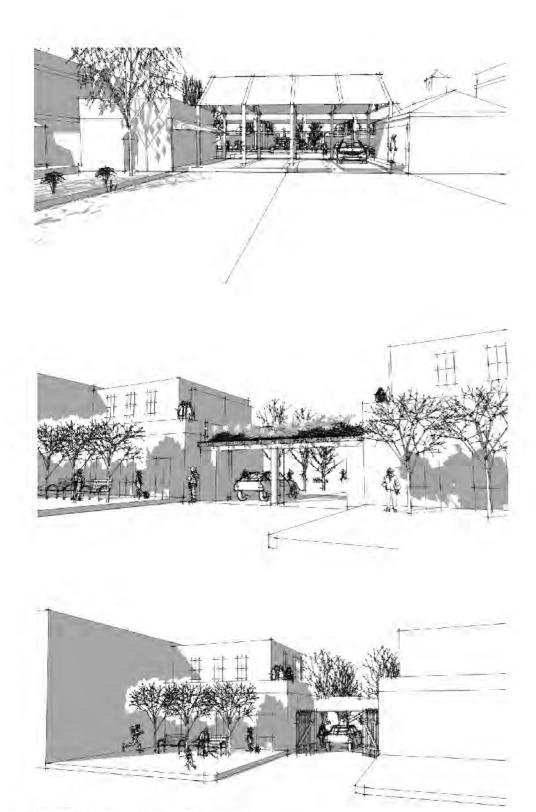
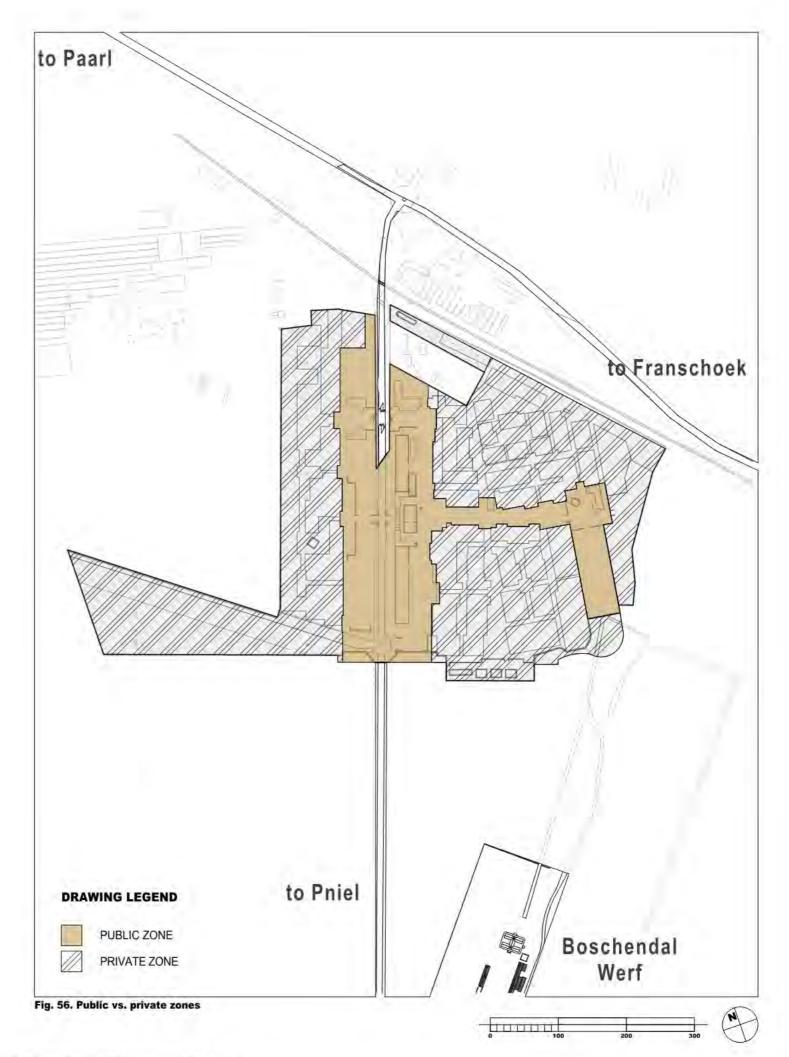


Fig. 55. Indicative gateway structures



3.7 OPEN SPACES

3.5.1 Hierarchy and location of public open spaces. The urban design of the village is dominated by the location and connection of public open spaces. It consists of a combination of green open spaces as well, as hard open spaces. The predominant green structure is that of a family of werfs, scattered across the site. The green open space adjacent to the R310 should remain as grassland, punctuated by an incomplete werf wall on both ends to provide for structure, order as well as gateway elements. This space is regarded as the foreground to views towards the north-west and should remain uncluttered. It not only responds to the genius-loci of the Cape werf, endemic of the area, but also structures open space in such a way that it can be utilised as flexible community spaces or outdoor rooms as these werfs are generally flat open and centrally located. The low character of the werf concept along the R310 also serves as a gateway element and resists the temptation to create municipal fyntuin gardening. The low walls not only contain and formalise space but also allows for views across and for a generally feel of openness, which is particularly important due to its location along a scenic route.

The predominant urban open space is that of the market square which will be characterised by a bustling atmosphere. It is located on a major intersection and consists of the main market square and two secondary treed squares on either side of the main axial entrance to the residential zone. Street life and café culture will spill over into these secondary squares whilst mixed trading will happen in the main square. The market square itself will be managed and controlled by Boschendal which is planning on it being a major organic artisanal food outlet and tourist hub. These will be the main social public spaces of the village. The market building and other mixed use buildings should directly abut, and help make and define, these spaces.

The main axis leading from the market square, will traverse an elongated public open space, formalised by a lane of trees and a lei-voor, down the gentle slope, towards the quieter residential neighbourhoods. The surrounding buildings which abut the street edge uniformly around all its edges, creates an active edge. Human scale is brought into these areas through the provision of doorways, plinths, steps, windows, verandas and colonnades.

A single public pavilion building will be located within this space. The central avenue space will terminate in a generous community werf at the bottom of the hill. This werf will serve as a flexible outdoor space and will set up an architectural conversation with the existing historical werf at the Boschendal manor house. These two werfs are connected by means of a meandering lower order cycle and pedestrian pathway. It will also serve as a collection point for public gatherings and occasions and will serve as a gateway from the village to the farm. The werf will be home to a health centre and other public conveniences, including a coffee shop and restaurant.



Fig. 57 Indicative corner square as public space



Fig. 58 PAVILION MARKET BUILDING

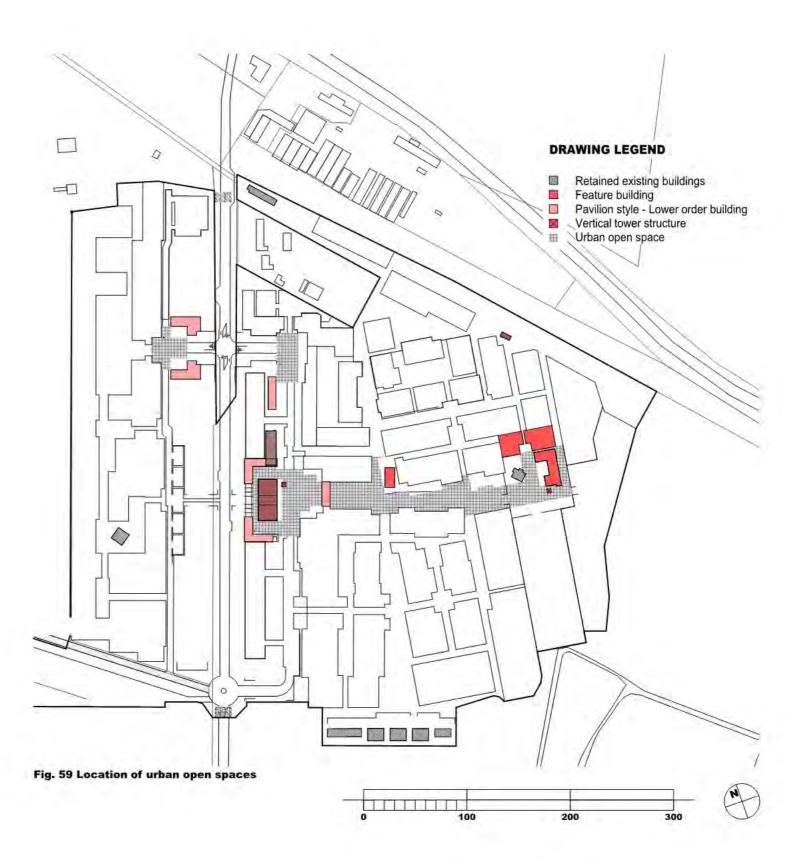




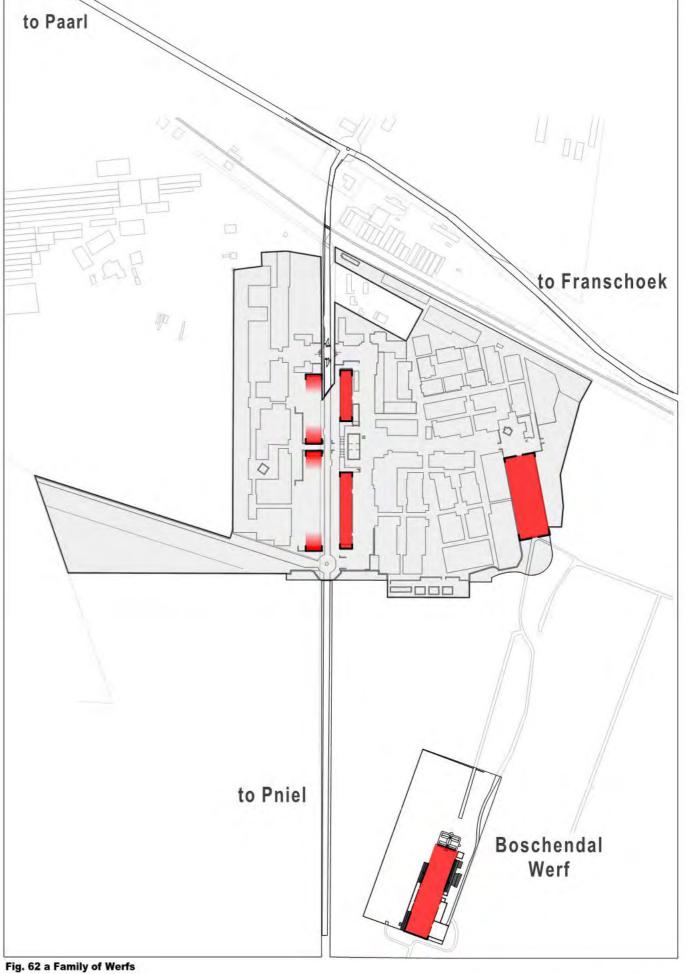
Fig. 60 Werf at Boschendal (Google Maps, 2015)

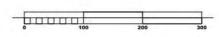




Fig. 61 Biscuit Mill Market









3.7.2 Structural planting and green open space.

The existing trees along the R 310 should be conserved and reinforced through a long term planting programme. As a significant amount of plane trees are already planted along the R310 towards Pniel, it would be desirable to use the same species of tree to allow for continuation all the way to the T-Junction with the R45. Invasive blue-gums and pines could be removed over time as the plane trees establish themselves. The jacaranda forest to the north of the R310 should be kept as part of the existing green open space, as is stipulated by the Heritage indicators. The existing hedge to the south of the R310 is an important landscaping element in terms of visually shielding the proposed new development. However it is proposed that a significant gap be created at the junction with the market square and central axis, to allow for a momentary window on to the high street, thus enticing travellers to deviate and enter the high street at any of its two entrance points. It is also important to abruptly end the hedge when that the iconic view towards the Boschendal manor house opens up, travelling from east to west. The area within the mentioned view cone above should remain void of any landscaping that might impair the view and should rely on low, horizontal, uncluttered and simple, meadow planting.



Fig. 63 Village green Stanford, Overberg

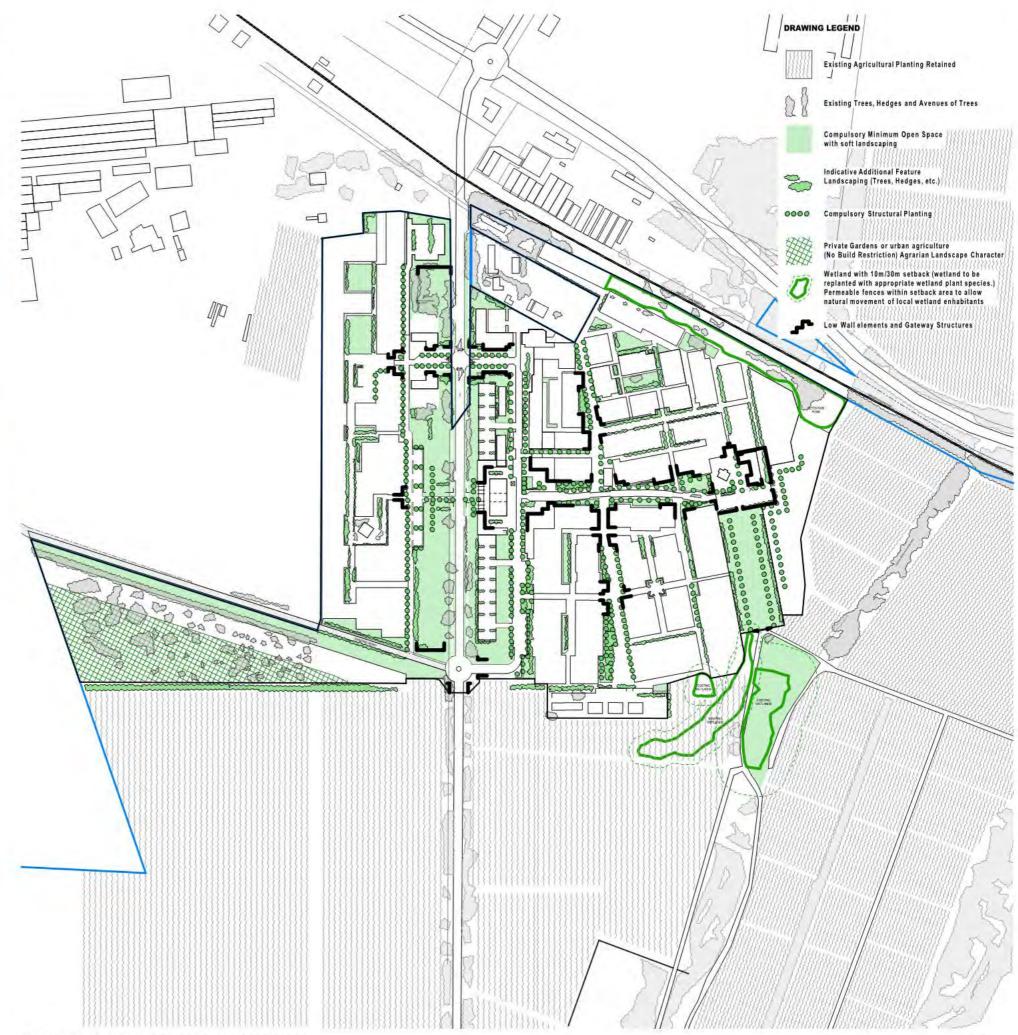


Fig. 64 Structural planting and green open space



A hedge should be planted along the village side of the existing farmworkers' cottages to provide a visual barrier from the manor house onto the new village. Vineyards should be planted up to a minimum of 5 metres from the existing farmworkers' cottages on the western edge.

A straight line of plane trees should be planted along the central avenue in order to reinforce the axis down to the main werf at the bottom of the hill. The High street should also be flanked by an avenue of plane trees , echoing the linearity of the planting along the R310. Not only will this provide shade in a busy public space but also emphasise the importance of these two routes. The same species of tree will also be used as shade trees in the parking areas. Hedging should be included around the parking areas to mitigate the presence of cars and buses en-masse. The residential squares should be framed by trees in order to formalise and shade these outdoor public spaces.

Compulsory planting of vineyards as indicated, hard up against the village edge and the rehabilitation of wetlands by specialists is required.



Fig. 65 Braak at Stellenbosch as flexible open space (Briel, 2015)

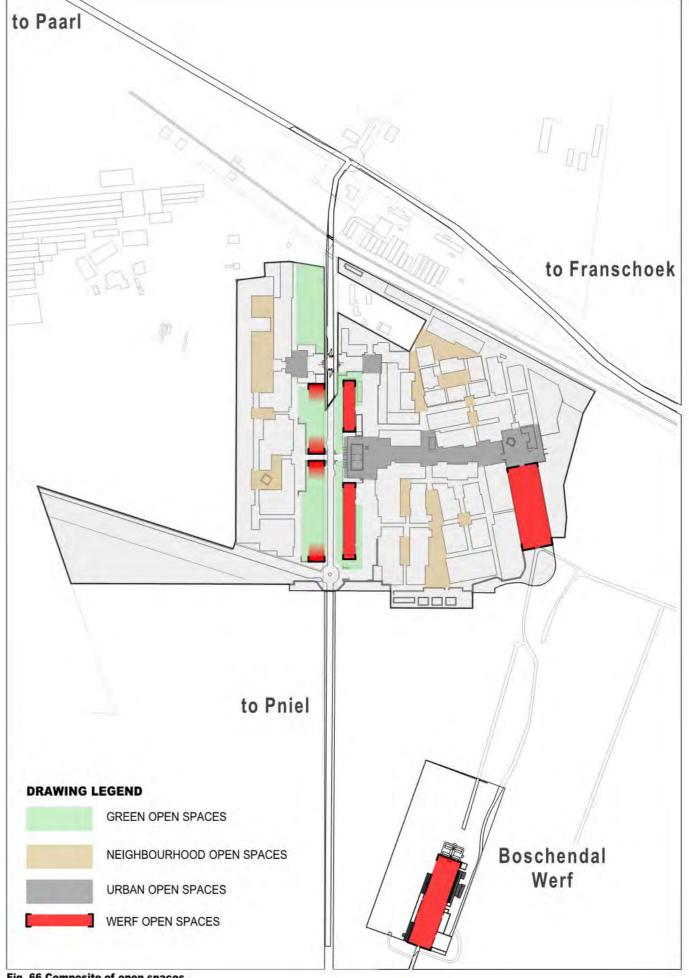
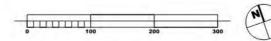


Fig. 66 Composite of open spaces



3.7.3 Surface water structure.

Storm water will be dispersed predominately by means of open surface treatment. The availability of stone on site will allow for the building of traditional Cape lei-voor systems. As water could be brought onto site, by means of dam overflow higher up on the farm, the idea of a functioning lei-voor system can be successfully created. The gravity fed system will flow year round and will not only cool the immediate environment in summer but will also contribute to the character of a rural, agrarian platteland village. Traversing these waterways means the construction of bridges, culverts and swales which in itself will provide the opportunity to deliver hard landscape architecture which will further re-inforce an agrarian character.

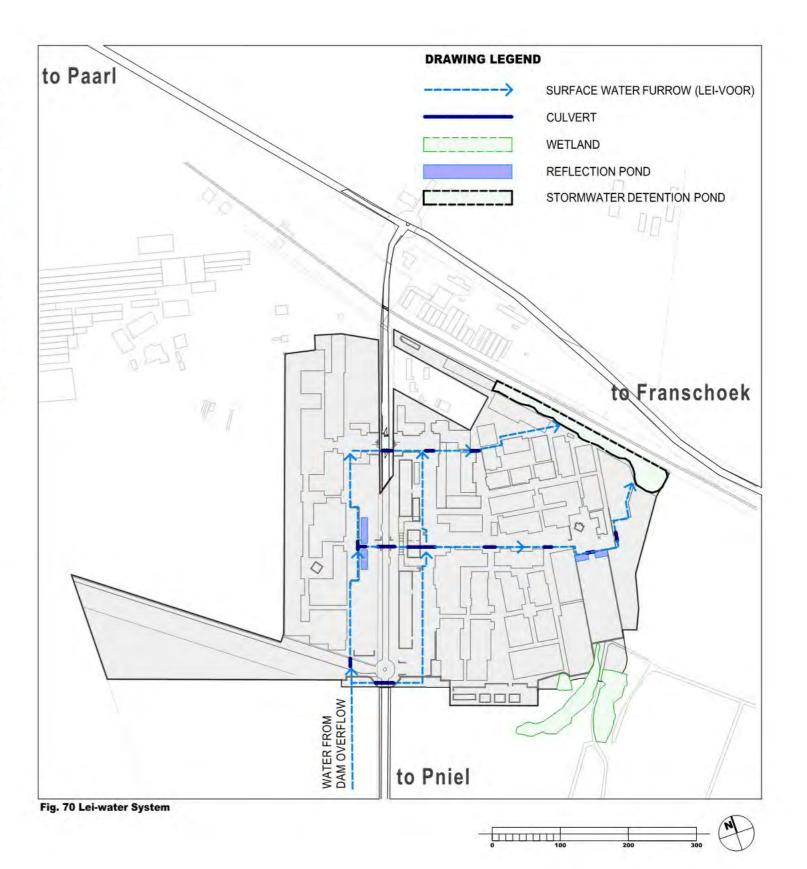


Fig. 67 Surface water channel at Groot Constantia (Briel, 2015)

Fig. 68 Lei-voor, Stellenbosch (Briel, 2015)



Fig. 69 Duck pond and bridge Groot Constantia (Briel, 2015)

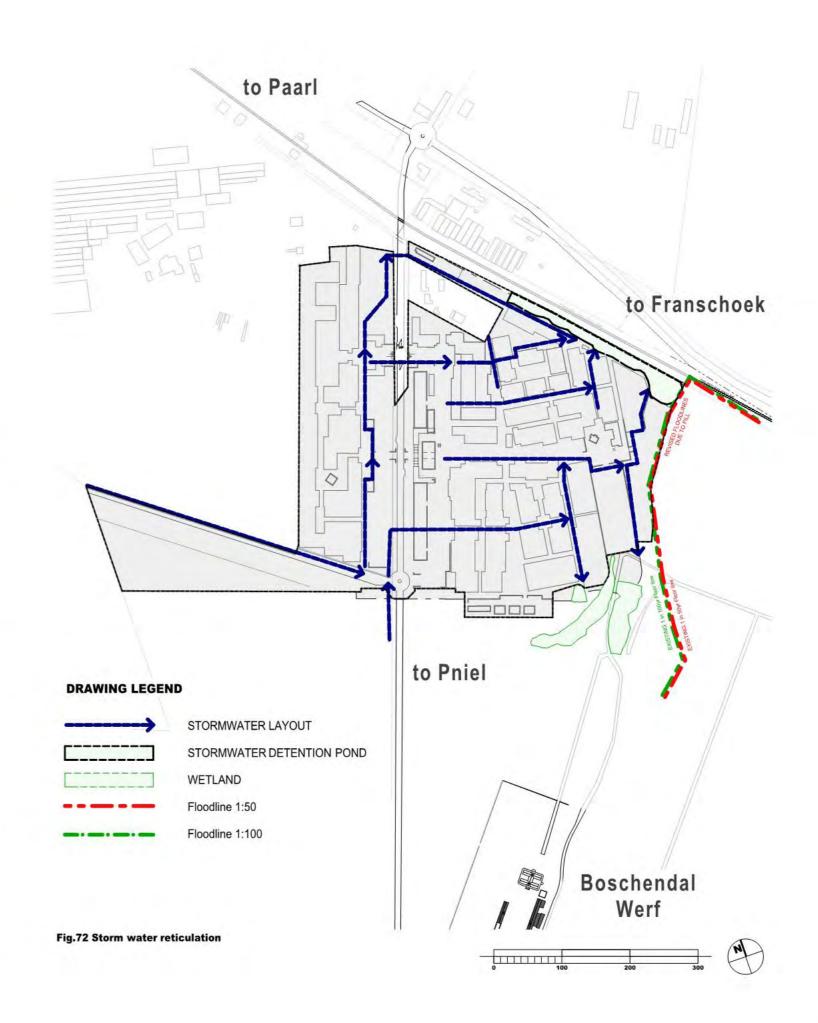


The storm water and lei-voor system will disperse into a natural green, permeable retention pond, situated along the north-eastern boundary of the site. As it stretches along the entire northern boundary it will thus create a green visual zone, which answers to the Heritage indicators in terms of visual mitigation from the R45.

The use of the lei-voor as edging also serves as a barrier to vehicles entering no go zones, without having to erect any vertical barriers or bollards. This further enhances the rural quality of the village, and controls traffic without having to populate the environment with too many signs, fences or visual barriers.



Fig. 71 Lei-voor, Prins Albert (Tony, 2014)

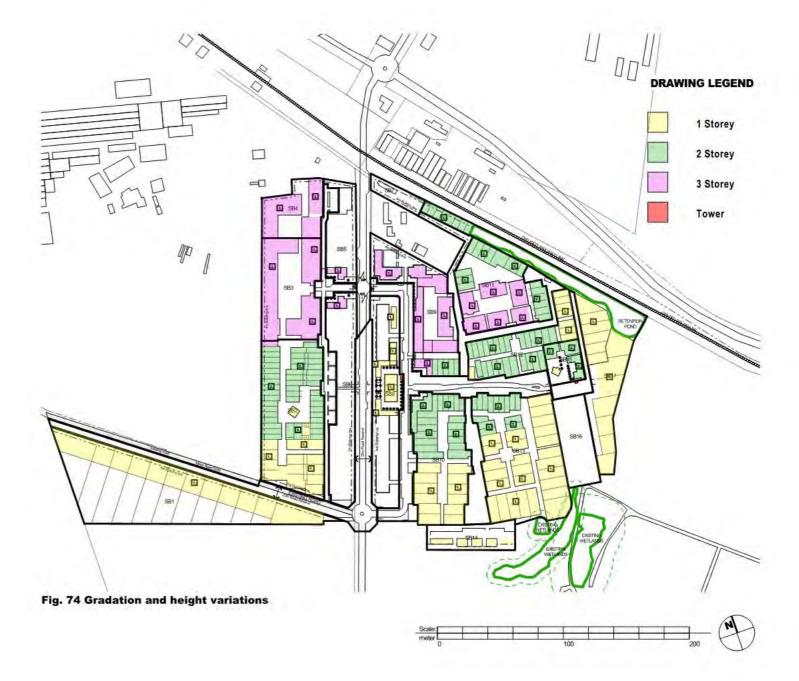


3.8 HEIGHT AND DENSITY.

3.6.a. Gradation of heights - The gradation of the development in terms of height is informed by the principle of hierarchy as well as visual mitigation from the Boschendal werf and scenic routes. The building increase from one storey to three storeys as it recedes from the quiet edges of the development towards the bustling mixed use centre. Height restrictions are imposed as per the attached diagrams and tables. A gradation of heights and associated uses of buildings should be employed, with increased height and publicness of uses responding to higher degrees of access. No building should exceed 3 storeys in height, and all buildings in the "tread lightly" edge zones should be single storey. Public and institutional or community facilities must occur in visually exposed and highly accessible locations. All of the above aspects have been well-integrated into the proposed village design. Heights transition from single storey around the village edges, to three storeys close to the central intersection point with the R310. Similarly, the more public and community/institutional facilities are all concentrated along the R310, where they are highly visually accessible to a broader population of people, as well as being highly accessible along the network of permanently open, public streets running parallel to the R310.



Fig. 73 Example of small town grid layout (Google Maps, 2015)

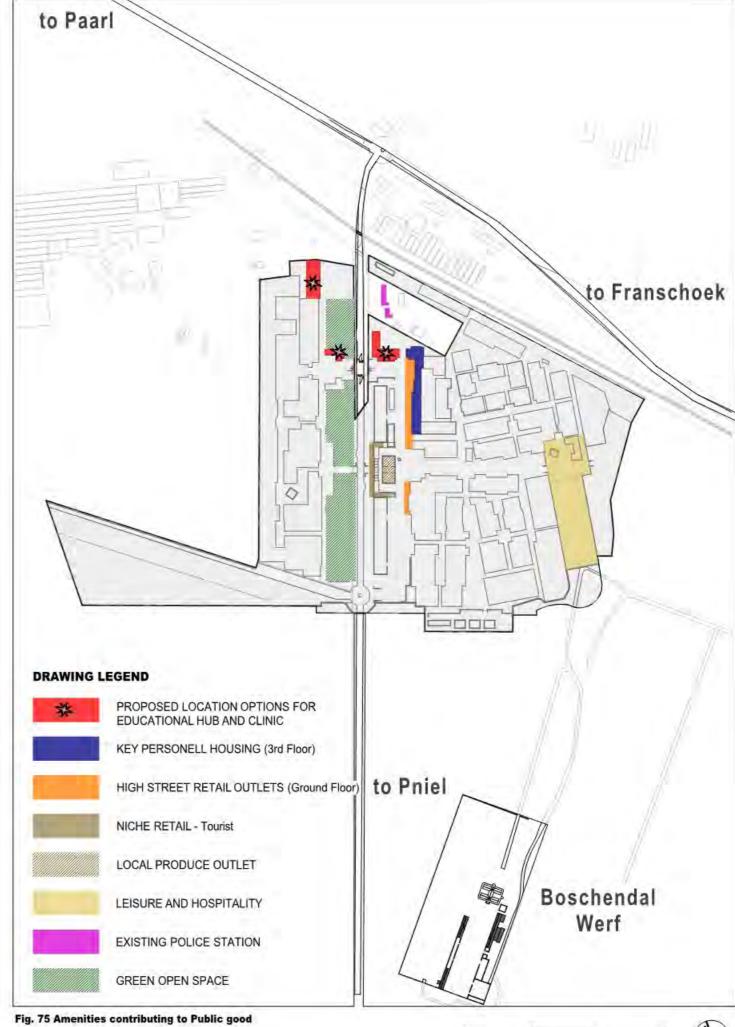


Prepared by Philip Brief and Wilko le Roux dated September 2015. Copyright protected. All rights reserved.

3.9. LAND USE

3.9.1 Amenities contributing to public good.

The site is dotted with civic and community oriented functions. The civic zone already contains a police station and clinic. Educational facilities like a crèche/ early child development/ aftercare centre as well as a community market will be provided in close proximity to the civic zone, where it provides easy access to surrounding communities. These amenities are relatively easily reached by means of an existing pedestrian and cycle path from Pniel. The concept of key services personnel housing, as was described in the introduction to this chapter and is an important component in terms of delivering public good and these will also be located within the high street zone.





3.10 PERIMETER FENCING.

The southern portion is fully fenced along the R310 as well as the railway side with a high quality palisade fence. The internal farm fencing, bordering the proposed village consists of typical farm wire mesh fencing. The northern-western precinct is fenced along the common boundary with Rhodes Food Group by means of a wall and with wire mesh along the remaining edges.

It is recommended that these fences can remain. However it has to be interrupted with openings along the R310 which corresponds with the openings in the existing hakia hedge. Thus the hedge and fence functions as a homogenous element.(see fig. 77)

It is recommended that any other fencing required should be a combination of palisade and hedge as per the existing palisade fence colour.



Fig. 76 Example of intergrated fence and hedge (Babylonstoren) (Briel, 2015)

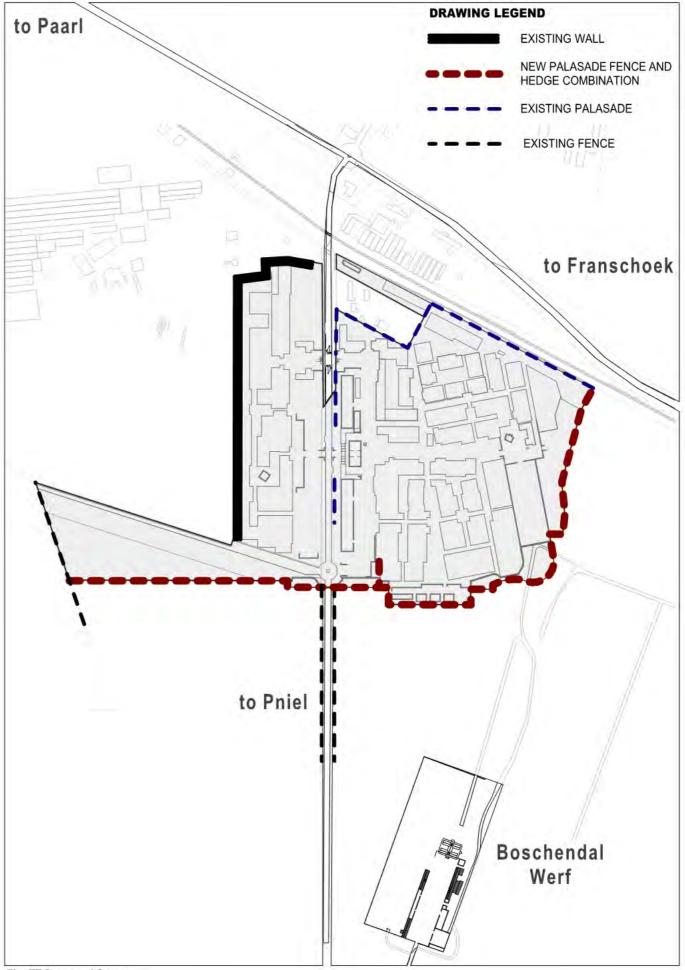
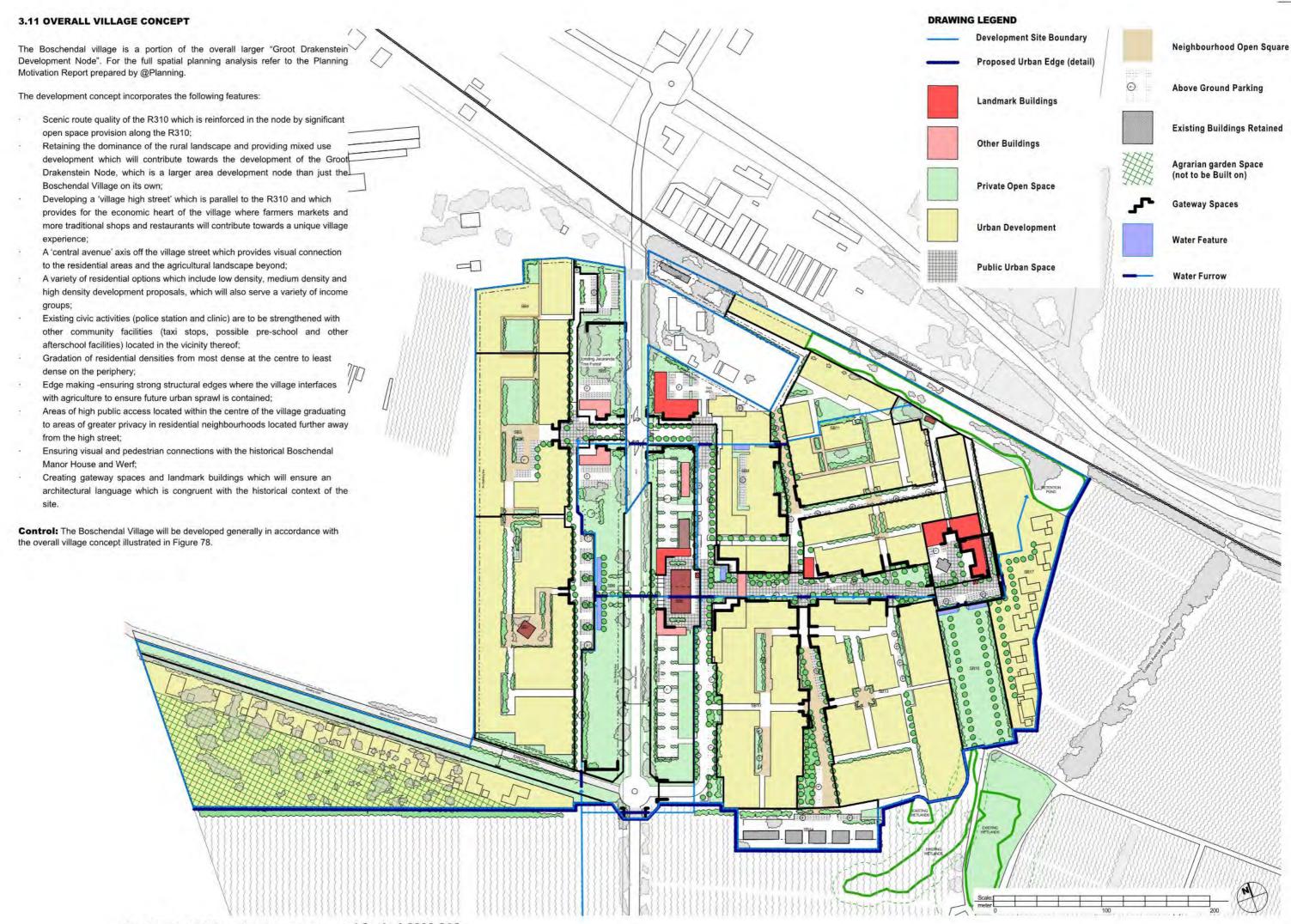
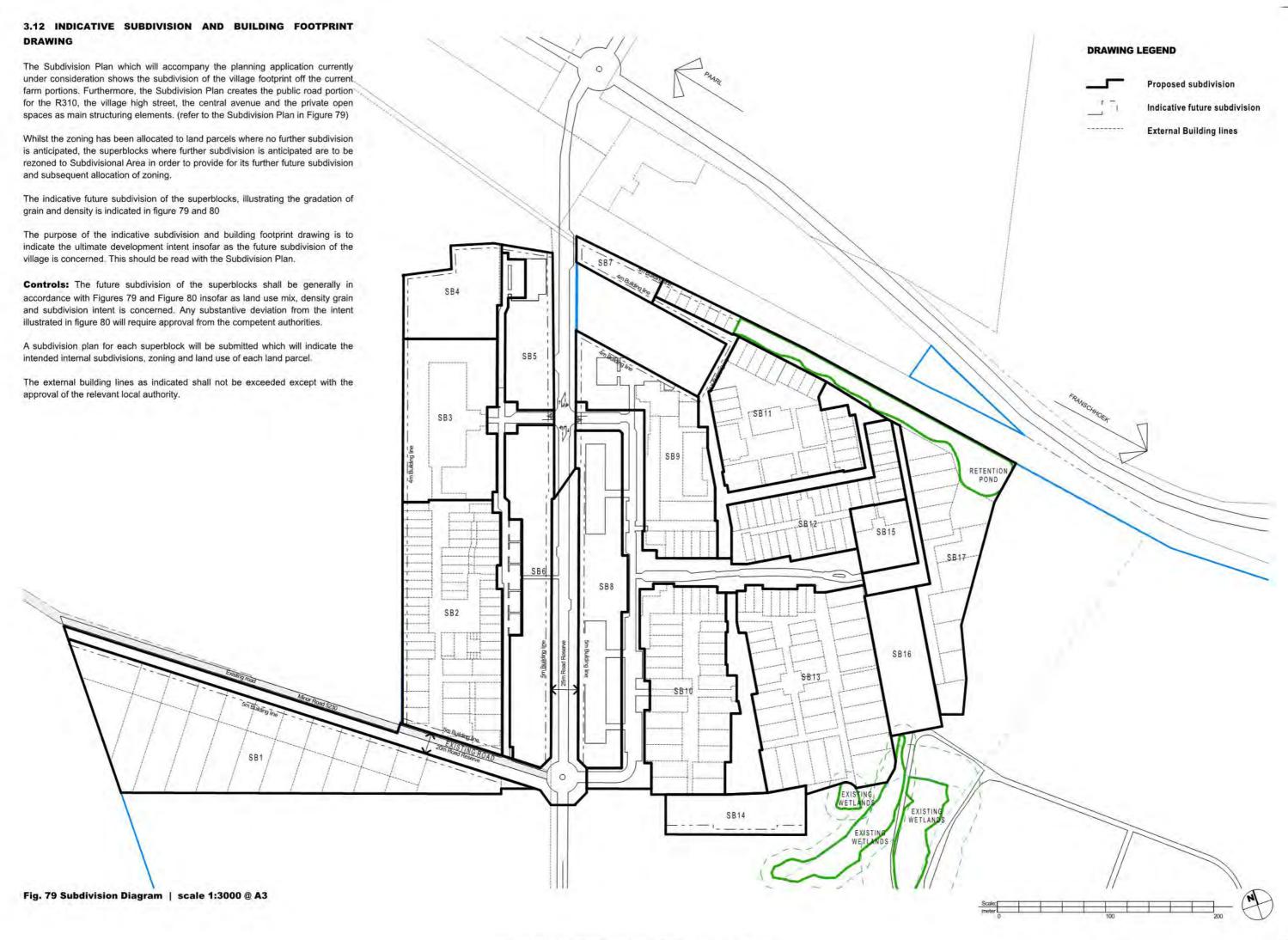


Fig. 77 Proposed fences

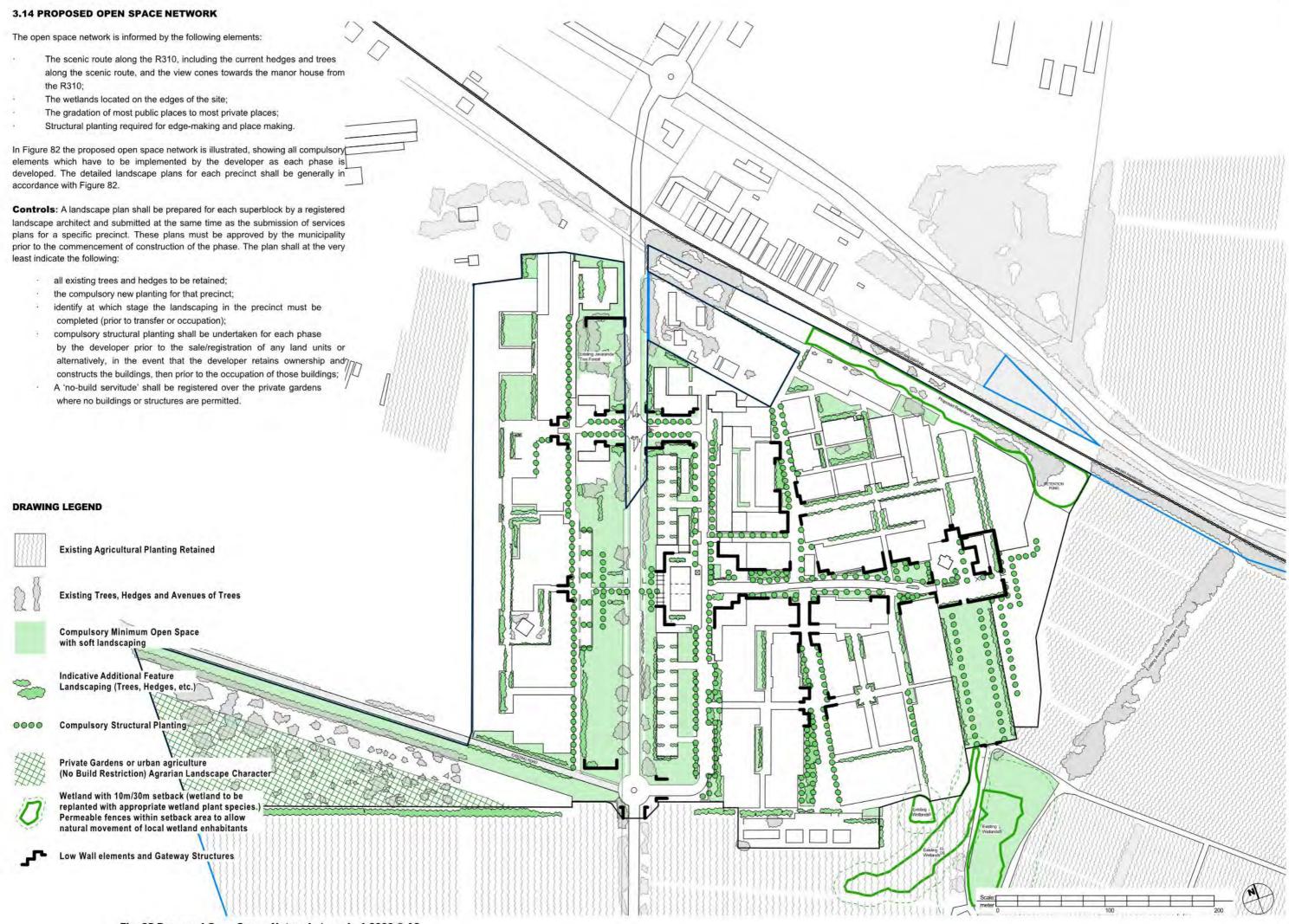




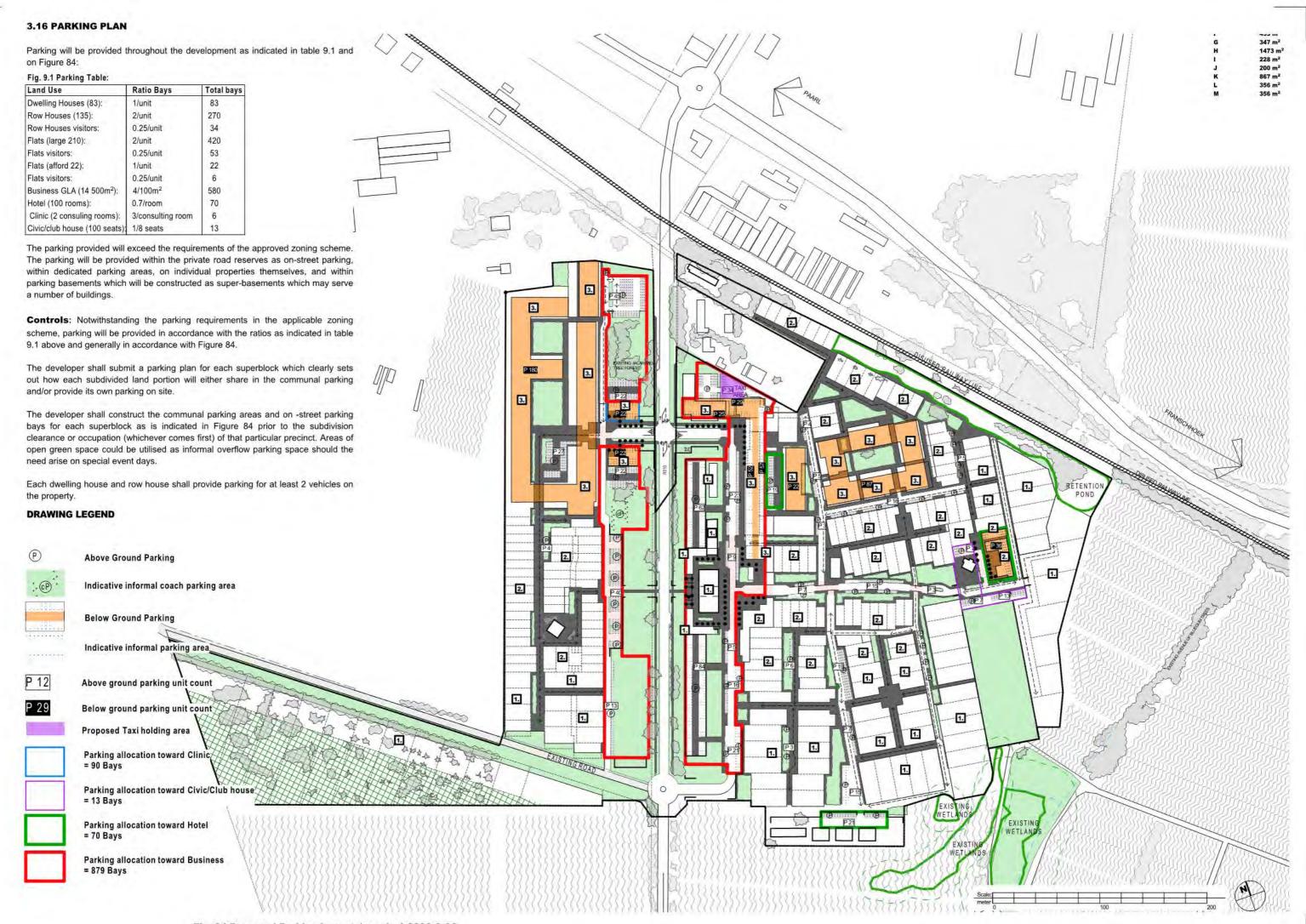




3.13 PROPOSED LAND USE CONCEPT Fig. 6.1 LAND USE TABLE LAND USE DENSITY UNITS Community facilities, including a clinic, early child development and aftercare The land use mix on the property is illustrated in the land use table (Fig.6.1) and centre, maintenance and recycling facilities are also proposed. It is proposed/ furthermore illustrated on the land use concept plan in Figure 81. Free standing dwelling houses Residential (Low Density) 24 Dwelling Units that these facilities is clustered around and in close proximity to the existing single storey 59 Dwelling Units police station. Possible locations for these facilities are indicated with a * on Row houses: single storey Residential (Low Density) The core of the development will comprise mixed use development which includes a farmers market, shops, and restaurants, places of entertainment, Row houses & duplexes: double 135 Dwelling Units Residential (Medium offices and other related businesses as well as apartments on the upper levels. Apartments & row houses. Three Residential (High Density) 210 Dwelling Units Restricted maximum retail of 500m² floor area per franchise as principle to establish a balanced competitive market between local and national retailers. The mixed use core of the village will be surrounded with residential development. Key workers apartments Residential (High Density) 10% or max of 47 units Preferable average size of retailers +/- 150m2. of varying densities and unit sizes, ranging from 3 storey residential buildings Residential Total 475 Dwelling Units near the core which contain medium to high density flats, double storeyed town & The final land use mix for each superblock will be indicated on the subdivision row houses to one and two storey free standing residential units. In line with 100 Bedrooms Hotel/Guest apartments/Guest —plan for that superblock. provincial guidelines, the highest densities of the village will be located at the cottages Retail: single storey Business (Low density) Retail: 3 000m² GLA centre of the village, whilst the lower densities will be located around the edges. Retail on ground storey General Business/Res on 1st floor Business (Medium density Retail: 500m2 GLA Maximum 475 residential units are proposed in this development of which at least 3 000m2 GLA 10% (Maximum 47 units) of the accommodation will be housing for key workers 0 Business (High density) Retail: 1 000m2 GLA Retail on ground storey such as teachers, policemen, nurses etc. in the form of a rental housing scheme General Business/Res on 1st + 2nd Gen Business 6 000m2 GLA owned by Boschendal (Pty) Ltd.) Retail: single storey Business (Market) Retail: 1 000m2 GLA A hotel or guest accommodation of approximately 100 rooms is also proposed. 쏬 Retail GLA: General Business GLA: GRAND TOTAL BUSINESS: 5 500m² GLA 9 000m² GLA 14 500m² GLA Controls: The final land use mix in the development shall be generally in accordance with the land uses illustrated in Figure 81 and table 6.1. The Clinic (to be developed) 2-3 Consulting rooms in 1631/4 maximum development extent which may not be exceeded is summarised as ousiness GLA follows: Early childhood development and aftercare 120 children POLICE STATION Residential: 475 dwelling units Civic/Community Buildings (multi-purpose spaces which may be used as a place of worship) 500m2 GLA General Business GLA: 14 500m2 EXISTING Hotel/Guest accommodation: 100 bedrooms DES FOOD GROUP ome owners utility (Recycling and maintenance) ± 500m2 GLA Community facilities GLA: 3000 m2 GLA LAND USES: RESIDENTIAL: LOW DENSITY (Free standing) RESIDENTIAL: GARDENS ONLY (NO STRUCTURE) RESIDENTIAL: LOW DENSITY (Row houses) RESIDENTIAL: MEDIUM DENSITY (Row houses) RESIDENTIAL: HIGH DENSITY (Flats) RESIDENTIAL (HOSPITALITY) COTTAGES (WITH CONSENT FOR GUEST ACCOMODATION) BUSINESS: LOW DENSITY M/U - 1 STOREY BUSINESS: MEDIUM DENSITY M/U - 2 STOREY BUSINESS: HIGH DENSITY M/U - 3 STOREY BUSINESS: MARKET CIVIC BUILDINGS CLINIC, EARLY CHILD DEVELOPMENT + AFTERCAR UTILITY REFUSE OPEN SPACE **AGRICULTURAL** ROADS PUBLIC ROADS PRIVATE 1 0 EXISTING FARM TRACKS INDICATED NEW PLANTING 50 yr FLOODLINE NEW PLANTING 100 yr FLOODLINE WETLAND + BUFFER ZONE RICULTURAL LAND RETENTION POND 1574/7 DEVELOPMENT SITE BOUNDARY Fig. 81 Proposed land use | scale 1:3000 @ A3



3.15 ROAD AND MOVEMENT NETWORK The main public movement network consists of provincial roads which are designated as public roads in terms of the applicable legislation. These are the R45, R310 and minor road 5230). Two traffic circles are proposed, one at the intersection of the R45/R310 and one at the R310 and minor road 5230. A new full intersection is proposed halfway between these two circles which will provide further access to the development. The development proposal furthermore consists of a network of roads which, although officially designated as private roads, will have different levels of publicaccess, ranging from the most publicly accessible roads of the high street to the most private roads internal to the residential areas. The high street is in effect a service road running parallel to the R310 and which will be the activity street of the development. The internal road hierarchy is illustrated in Figure 83 clearly illustrates the intended road network. 0 The pedestrian movement network on the site is also illustrated on Figure 83. This establishes the principle of controlled public access across the site to provide pedestrian circulation towards the Manor House and Werf. Controls: The final development will be generally in accordance with the movement network as illustrated in figure 83. Full access control may only be implemented on the indicative internal network of private roads. The rules of the owners association will ensure full public access to the high street and controlled public access to the central avenue during business hours, subject to the rules adopted by the owners association. The public road portion of the R310 will be subdivided and ceded to the relevant authority. **DRAWING LEGEND Existing Public Roads** Main Structuring Private Roads With High Degree of Public Access (servitude right of way) Indicative Network of Internal Private Roads Proposed New Traffic Circle Proposed New Pedestrian Crossing **Existing Public Pedestrian Routes** Main Private Non Motorised and Pedestrian Routes with Daytime Public Access **Developoment Site Boundary Gateway Spaces** Fig. 83 Proposed Road and Movement Network | scale 1:3000 @ A3



3.17 HEIGHT CONTROLS **DRAWING LEGEND** The maximum height of buildings is indicated in Figure 85. The concept is to allow a gradation of heights from the must urban dense development at the heart of the village, less dense and lower buildings at the edges. 1 Storey Controls: Buildings shall not exceed the number of storeys as indicated on the 2 Storey attached Figure 85. Notwithstanding this restriction, where pitched roofs are permitted by the urban design guidelines, an additional storey may be provided within the pitched roof portion of the building, provided that the urban design and-3 Storey architectural guidelines are adhered to. Tower 0 3. 3. SB4 3. SB5 3. 3. 2, SB3 3. 3. 3. 1. SB9 3. 3. 3. RETENTION 3, 1. 3. 2. 2. 2. 3. 2. 2. SB-17-2. 1. 2. 2. 2. 2. 2. 2. 2. SB16 1. 1. 1. SB13 1. 1. 1. 1. 1. 1. SB1 Fig. 85 Maximum Permissible Building Heights | scale 1:3000 @ A3

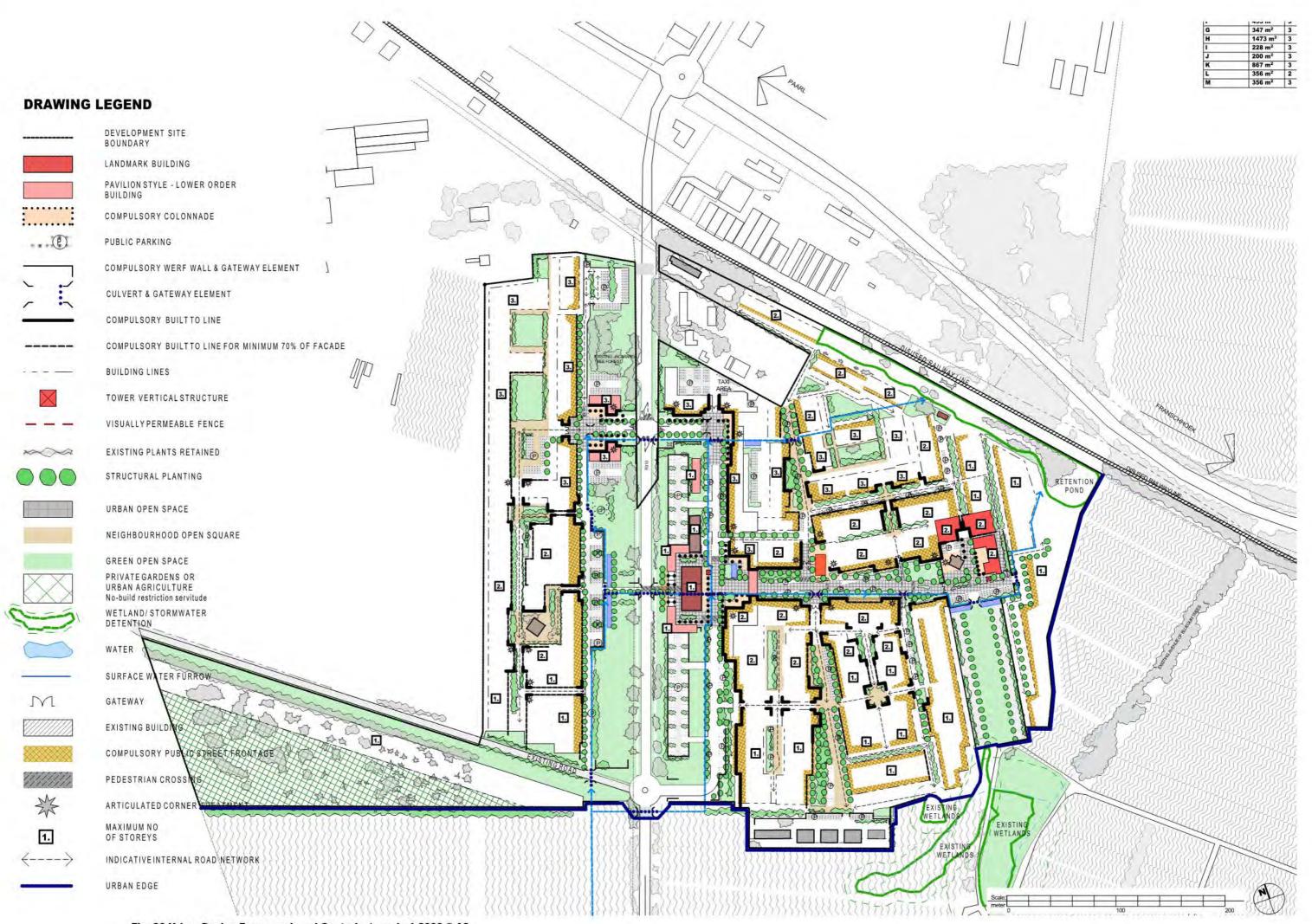


Fig. 87 Figure Ground diagram illustrating grain and density

DRAWING LEGEND The Proposed coverage density in relation to Plot area is illustrated by Fig 87. Indicative figure ground 'building footprints' 50% building coverage in relation to Erf size (within illustrated area) 60% building coverage in relation to Erf size (within illustrated area) 旦 50% 50%

200

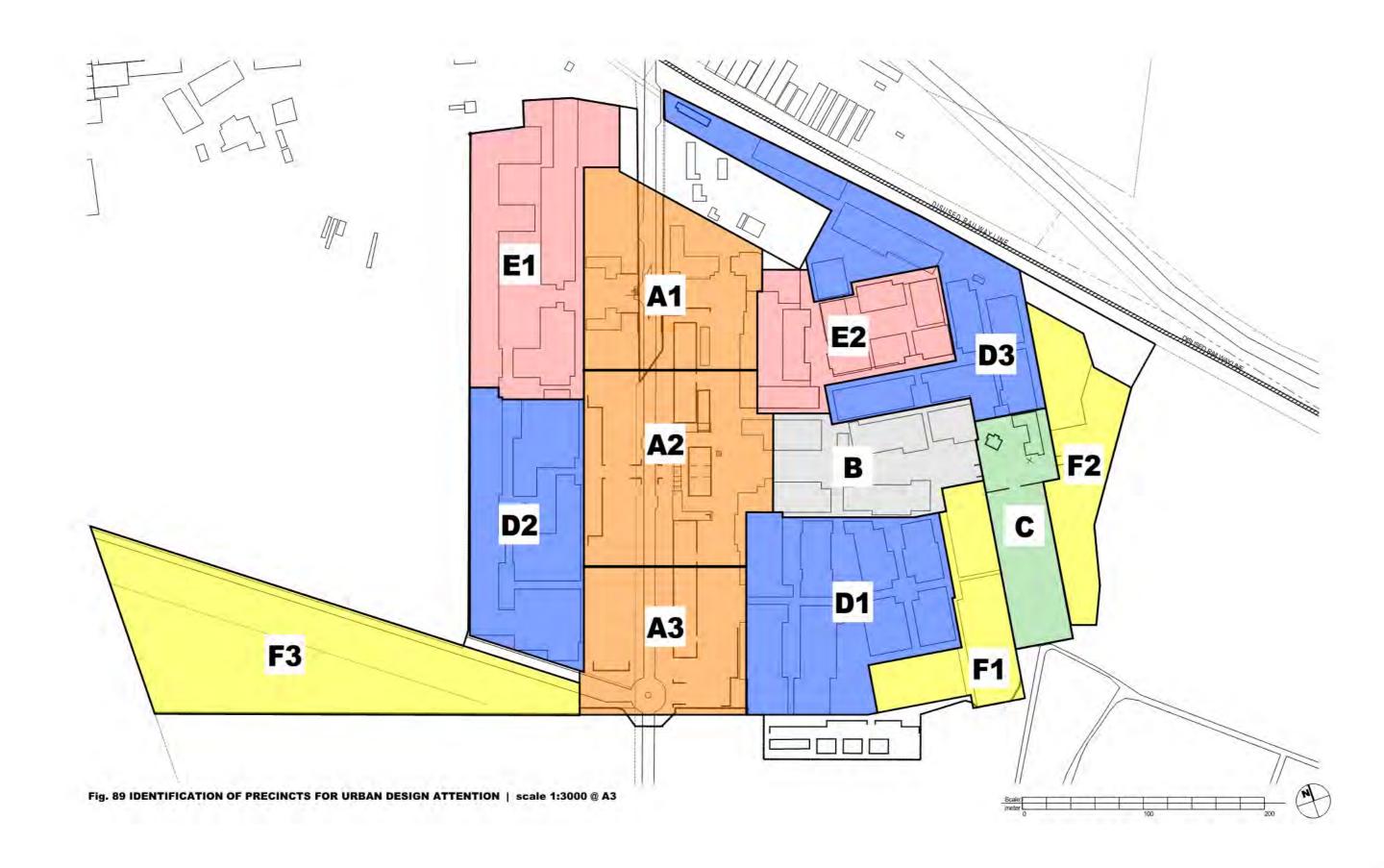
300



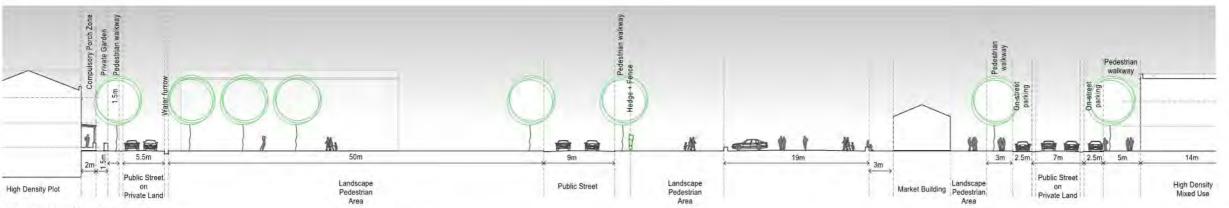
CHAPTER 4. PRECINCT PLANS

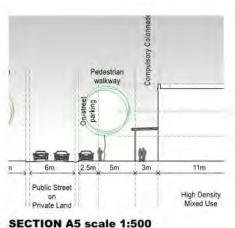
4.1 IDENTIFICATION OF PRECINCTS FOR URBAN DESIGN ATTENTION

The overall village concept is subdivided into smaller precincts to enable the concept design to be developed in closer detail. Fig. 89 illustrate the location of the different precincts outlined in this chapter.









SECTION A4 scale 1:500

4.2 PRECINCT A

1.Intent and desired character

The R310 divides the precinct into two portions, abutted by green open space on either side.

By setting the village edges back from the R310, visual impact of the built environment, on the established scenic route is thus minimized.

The village High street and commercial centre is located towards the east of the R310. The western edge of precinct A1 is lined with mixed housing types.

In both instances the buildings forming the village boundary delivers an urban character, with active street frontages whilst retaining the core elements associated with a rural scenic route, namely greenness and openness.

2.Precinct No: A

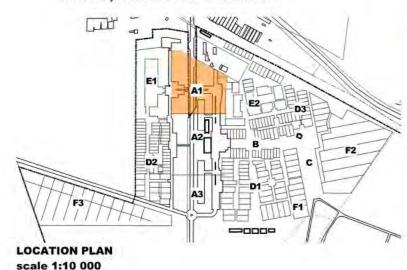
- 3. Area: 6.8 ha
- 4. Land Use: Mixed Use Business + General Residential
- 5. Height: As Indicated
- 6. Coverage: Refer to Fig.87, pg41
- 7. Zoning Density: Refer to Fig.81, pg35
- 8. The role and performance expectation of the precinct:
- 8.1 To provide low, medium and high density retail, commercial and residential opportunities.
- 8.2 To establish the village core retail and commercial opportunities in support of residential opportunities at the village and in the surrounding communities.
 8.2 Restricted maximum retail of 500m² floor area per franchise as principle to
- **8.2** Restricted maximum retail of 500m² floor area per franchise as principle to establish a balanced competitive market between local and national retailers. Preferable average size of retailers +/- 150m².

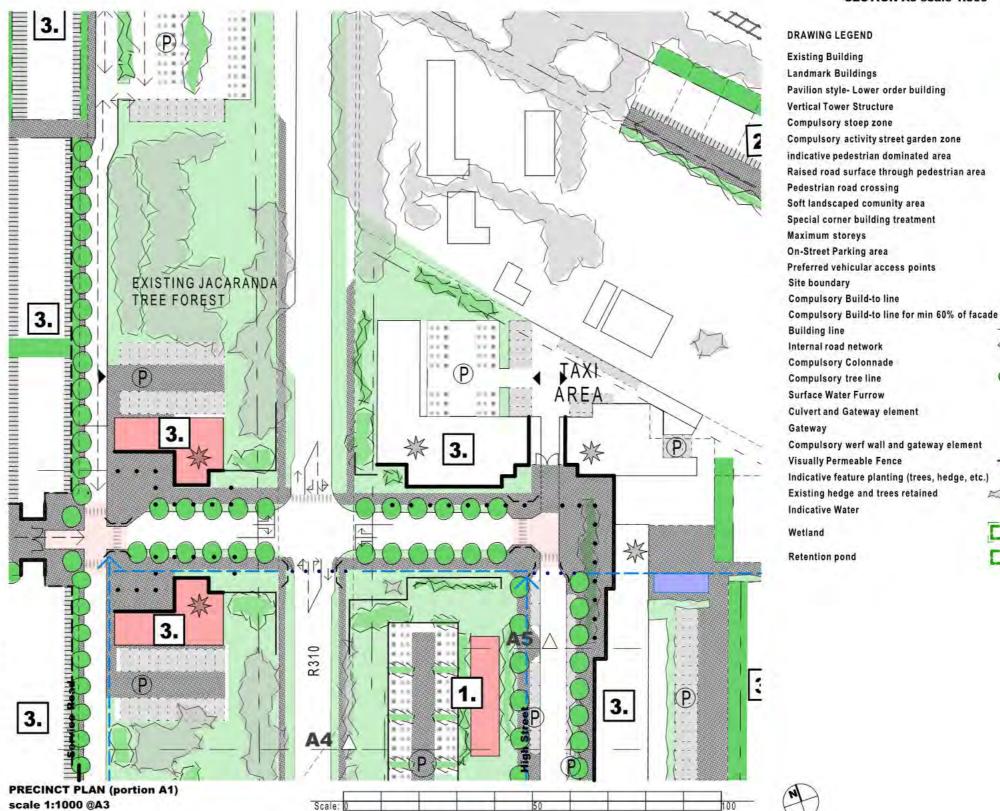
9. Mandatory Performance Controls

9.1 Building Lines:

Residential:

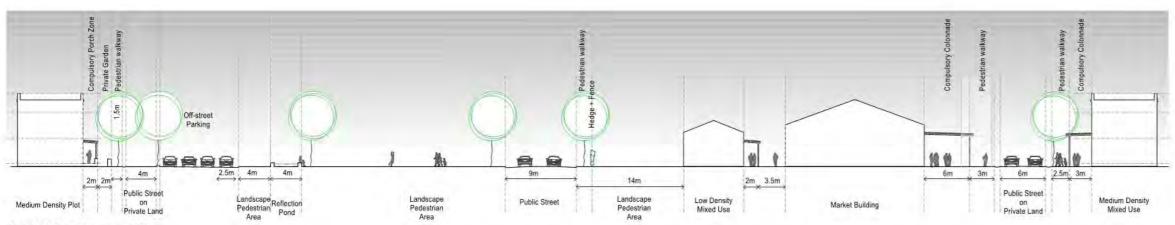
- Variable Build-to, Building and Set back lines as shown.
- 4m External building lines
- Minimum 1,5m Soft Landscape along street edge between building and boundary fence.
- Minimum 2m Porch zone along street facing edge to establish an open community character and surveillance zone.



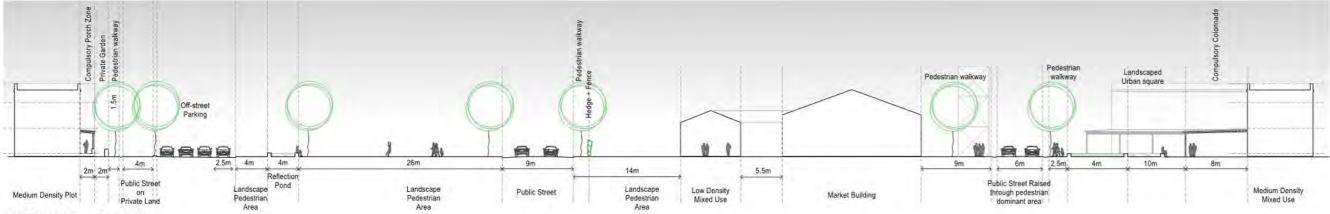


炎1.

W



SECTION A2 scale 1:500



SECTION A3 scale 1:500

9.1 Building Lines:(Cont.)

 Compulsory build-to lines to define various pinch points along access routes into the precinct, thereby strengthening the perimeter edge of the precincts

Business:

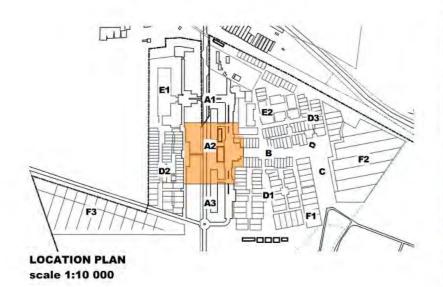
- Build-to lines to guide the shape and permeability of the urban edge.
- Compulsory build-to lines to define various pinch points along access routes into the precinct, thereby strengthening the perimeter edge of the precincts.

9.2 Access:

Two intersections branching off the R310 as shown.

9.3 Parking:

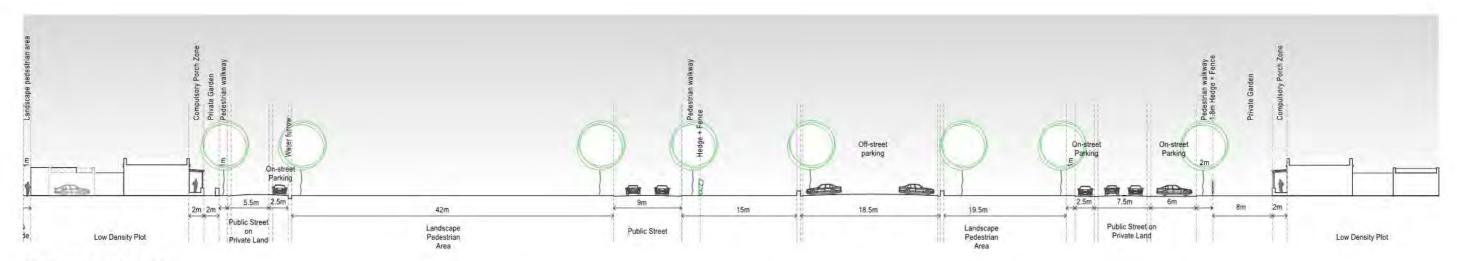
- Off-Street parking is available at various allocated parking areas as shown.
- On-Street parking is an important element of high street design, as it
 offers convenience as well as creating a buffer for activity on the sidewalk
 and adjoining properties.





DRAWING LEGEND

Existing Building Landmark Buildings Pavilion style- Lower order building **Vertical Tower Structure** Compulsory stoep zone Compulsory activity street garden zone indicative pedestrian dominated area Raised road surface through pedestrian area Pedestrian road crossing Soft landscaped comunity area Special corner building treatment Maximum storeys On-Street Parking area Preferred vehicular access points Site boundary Compulsory Build-to line Compulsory Build-to line for min 60% of facade **Building line** Internal road network **Compulsory Colonnade** Compulsory tree line Surface Water Furrow .) (**Culvert and Gateway element** W Gateway Compulsory werf wall and gateway element Visually Permeable Fence Indicative feature planting (trees, hedge, etc.) Existing hedge and trees retained



SECTION A1 scale 1:500

9.3 Parking: (cont.)

Parking is separated into small manageable clusters throughout the area as a strategy to minimize the visual impact on the natural landscape. The use of parking werfs, edged by low walls and hedges is allocated where en-masse parking is required.

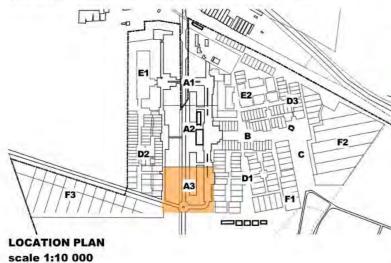
9.4 Special features:

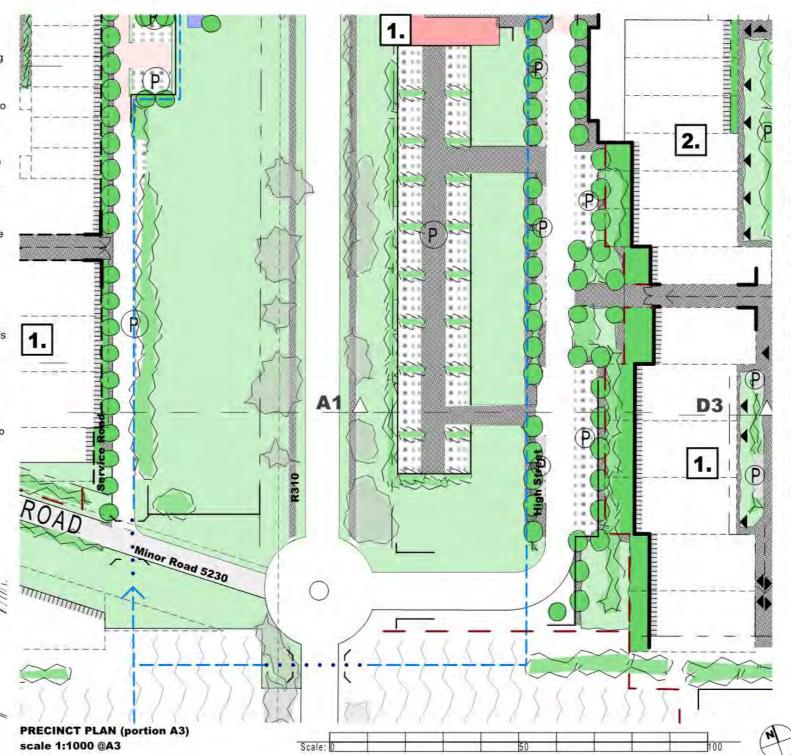
The high street will contain pedestrian-oriented edges, blending together two seemingly incompatible characteristics into a highly mobile, yet walkable thoroughfare. The inclusion of on-street parking, bicycle travel, and wide landscaped pedestrian areas will complement the mixed-use character of the high street. The main square should be of a different surface material to encourage non-motorised travel in that area as it is perceived as a busy, lively public space, blurring the lines between non-motorised and motorised dominance. The road surface to be no wider than 7metres.

Further traffic calming interventions to compliment driver awareness and the making of a pedestrian dominant space:

- Narrow road sections where pedestrian activity increase as incentive to drivers to slow down, and be more aware of their surroundings.
- Strategic location of pedestrian crossings to compliment traffic calming interventions.
- Different surface texture of the road surface where pedestrian activity is encouraged.
- Raised road surface for pedestrian dominant areas.

The jacaranda forest to the north west of the R310 should be kept as part of the existing green open space, as is stipulated by the Heritage indicators. The existing hedge to the east of the R310 is an important landscaping element in terms of visually shielding the proposed new development. However it is proposed that a significant gap be created at the junction with the market square and central axis, to allow for a momentary window on to the high street, thus enticing travellers to deviate and enter the high street at any of its two entrance points. It is also important to abruptly end the hedge when that the iconic view towards the Boschendal manor house opens up, travelling from north to south.





DRAWING LEGEND

Retention pond

Existing Building Landmark Buildings Pavilion style- Lower order building **Vertical Tower Structure** Compulsory stoep zone Compulsory activity street garden zone indicative pedestrian dominated area Raised road surface through pedestrian area Pedestrian road crossing Soft landscaped comunity area Special corner building treatment 1. Maximum storeys On-Street Parking area Preferred vehicular access points Site boundary Compulsory Build-to line Compulsory Build-to line for min 60% of facade **Building line** Internal road network Compulsory Colonnade Compulsory tree line Surface Water Furrow **Culvert and Gateway element** Gateway Compulsory werf wall and gateway element Visually Permeable Fence Indicative feature planting (trees, hedge, etc.) Existing hedge and trees retained Indicative Water Wetland

4.3 PRECINCT B

1.Precinct intent and desired character

The precinct forms the main route for vehicular access into the village portion located east of the R310. In addition multiple street liner buildings will open up onto the central avenue and are therefore important to protect pedestrian dominance in this area.

The precinct is characterised as a central avenue that would be pecieved more as a longitudinal open space rather than a thoroughfare. Its character is derived from the inclusion of on-street parking, bicycle travel, and wide landscaped pedestrian walkways abutting a lei-voor along its edges.

On either side of the curved road, building edges contribute to the character by defining a perimeter shape that contains a series of interconnected urban rooms. The perimeter built edge is set back substantially from the road with landscaped portions to soften the landscape and distance the buildings from the busy road.

When viewed from the perspective of a visitor cycling or driving down the road, the curve in the road plays an important role in exposing focal points along the street, thereby creating a simple labyrinth that draws a visitor down the road and deeper into the precinct until reaching the activity space that is located at the furthest end of the street.

2.Precinct No: B

- 3. Area: 1.4 ha
- 4. Land Use: Row Houses
- 5. Height: 2 Storey
- 6. Coverage: 60% (Refer to Fig.87, pg41)
- 7. Zoning Density: Refer to Fig.81, pg35
- 8. The role and performance expectation of the precinct:
- 8.1 To provide access into the village precincts located east of the R310.
- 8.2 To provide medium density residential opportunities
- **8.3** To provide soft landscape open space for neighbourhood activity in support of surrounding residential opportunities.

9. Mandatory Performance Controls

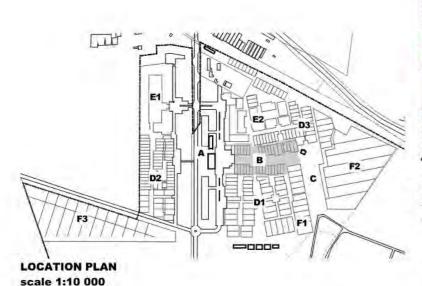
9.1 Building Lines:

Residential:

- Variable Build-to, Building and Set back lines as shown.
- Minimum 1,5m Soft Landscape along street edge between building and boundary fence/hedge.
- Minimum 2m Porch zone along street facing edge to establish an opSECTION B1 scale 1:500
- community character and surveillance zone.
- Compulsory building-to lines to establish a well defined urban edge that contains and define a series of interlocking urban rooms.

9.2 Access:

- Access through the main entrance located off the village high street.
- Access to other precincts is obtained through access control points leading off this precinct.



10.3 Parking:

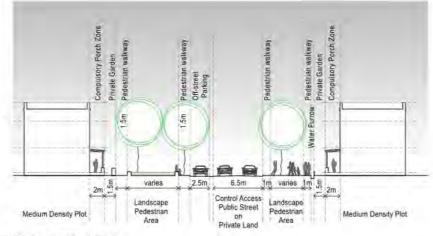
- Off-street parking is available in a small muse accessed from the back of properties through controlled access points and available to residents only
- On-street parking is provided along the High street as a convenience to visitors in support of the residences located along the route and the activities provided at landmark building structures.

Parking is separated into small manageable clusters throughout the area as a strategy to minimize the visual impact on the natural landscape. The use of parking werfs, edged by law walls and hedges is allocated where en-masse parking is required

10.4 Special features:

The precinct will contain pedestrian-oriented edges, blending together two seemingly incompatible characteristics into a highly mobile, yet walkable thoroughfare. The inclusion of on-street parking, bicycle travel, and wide landscaped pedestrian areas will complement the character of the precinct.

Traffic calming interventions to compliment driver awareness and the making of a pedestrian dominant space:

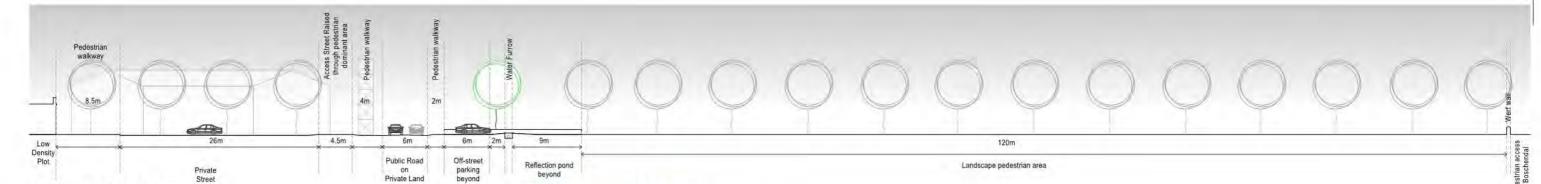




- Narrow road sections where pedestrian activity increase as incentive to drivers to slow down, and be more aware of their surroundings.
- Strategic location of pedestrian crossings to compliment traffic calming interventions.
- Different surface texture of the road surface where pedestrian activity is encouraged.
- Raised road surface for pedestrian dominant areas.

Attention to the design and detailing of soft and hard landscaping features, urban furniture, etc. plays a supportive role to define the character of the main activity spaces and contribute to the theme of place-making applied throughout the village.





SECTION C3 scale 1:500

4.4 PRECINCT C

1. Precinct intent and desired character

The central avenue street will terminate in a generous community werf at the bottom of the hill. This werf will serve as a flexible outdoor space and will set up an architectural conversation with the existing historical werf at the Boschendal manor house.

These two werfs are connected by means of a meandering lower order cycle and pedestrian pathway. It will also serve as a collection point for public gatherings and occasions and will serve as a gateway from the village to the farm. The werf will be home to a hotel and associated public conveniences.

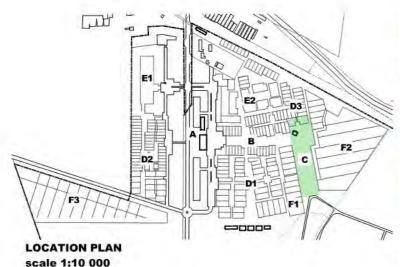
- 2.Precinct No: C
- 3. Area: 1 ha
- 4. Land Use: Hotel + Open Space
- 5. Height: as indicated
- 6. Coverage: Refer to Fig.87, pg41
- 7. Zoning Density: Refer to Fig.81, pg35
- 8. The role and performance expectation of the precinct:
- 8.1 To provide community amenities to residents and visitors.
- 8.2 Serve as a visual and physical connection with the historic werf at Boschendal farm
- 9. Mandatory Performance Controls
- 9.1 Building Lines: N/A
- 9.2 Access:
 - Access through the main vehicular road running through the village. Pedestrian access route provided to Boschendal farm.

9.3 Parking:

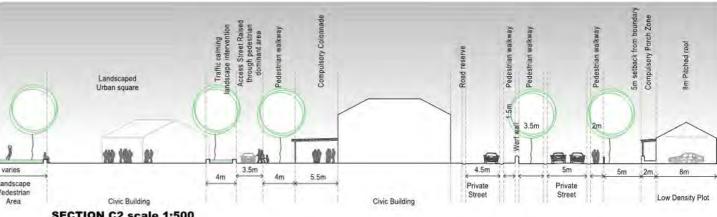
Provision for parking is separated into small manageable clusters throughout the area as a strategy to minimize the visual impact on the natural landscape. The use of parking werfs, edged by low walls and hedges is allocated where en-masse parking is required.

9.4 Special features:

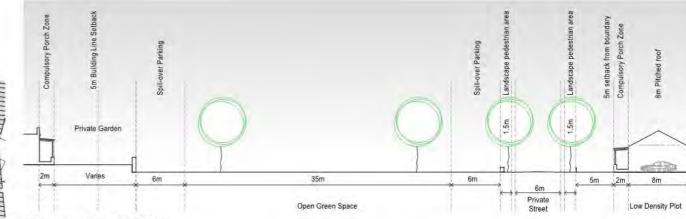
Special attention to the design and detailing of soft and hard landscaping features, urban furniture, werf walls, trees, etc. plays a supportive role to define the character of the precinct and contribute to the theme of placemaking applied throughout the village.



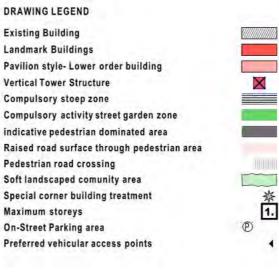




SECTION C2 scale 1:500



SECTION C1 scale 1:500



Site boundary Compulsory Build-to line Compulsory Build-to line for min 60% of facade **Building line** Internal road network Compulsory Colonnade Compulsory tree line Surface Water Furrow **Culvert and Gateway element** Gateway Compulsory werf wall and gateway element Visually Permeable Fence Indicative feature planting (trees, hedge, etc.) Existing hedge and trees retained **Indicative Water** Wetland Retention pond

4.5 PRECINCT D1

1.Precinct intent and desired character

The precinct is characterized by a gradation in height and density as one moves away from the village centre toward Boschendal farm. The gradation of the development in terms of height is informed by the principle of hierarchy as well as visual mitigation from the Boschendal werf and scenic routes. A more formal urban edge along the north and west, where the precinct border the village high street and a relaxed neighborhood edge toward the south and east edges, where the precinct meets the farm.

The urban grid is slightly rotated to align the lower slopes with the existing contours and to allow the community werf at the end of the central avenue to be mostly flat. The rotated grid has the added benefit of opening up a funnel-like view cone in line with the manor house according to the heritage indicator conditions. A further benefit of the rotated grid is that it alleviates monotony in terms of the geometry as the various intersections demand varied architectural solutions. This concept accentuates the theme of place-making applied throughout the village.

2.Precinct No: D1

- 3. Area: 3 ha
- 4. Land Use: Row houses + Guest cottages
- 5. Height: as indicated
- 6. Coverage: 50% (Refer to Fig.87, pg41)
- 7. Zoning Density: Refer to Fig.81, pg35
- 8. The role and performance expectation of the precinct:
- 8.1 To provide low and medium density residential opportunities.
- **8.2** To negotiate the transition from the village core to the low impact rural farm edge. p
- 9. Mandatory Performance Controls

9.1 Building Lines:

- Variable Build-to, Building and Set back lines as shown.
- Minimum 1,5m Soft Landscape along street edge between building and boundary fence.
- Minimum 2m porch zone along street facing edge to establish an open community character and surveillance zone.
- Compulsory building-to lines to define various pinch points along access routes into the precinct, thereby strengthening the perimeter edge of the precincts.

9.2 Access:

- From the north as shown with promotion of one-way traffic

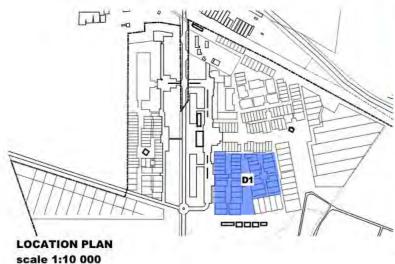
flows to prevent congestion at a single access point.

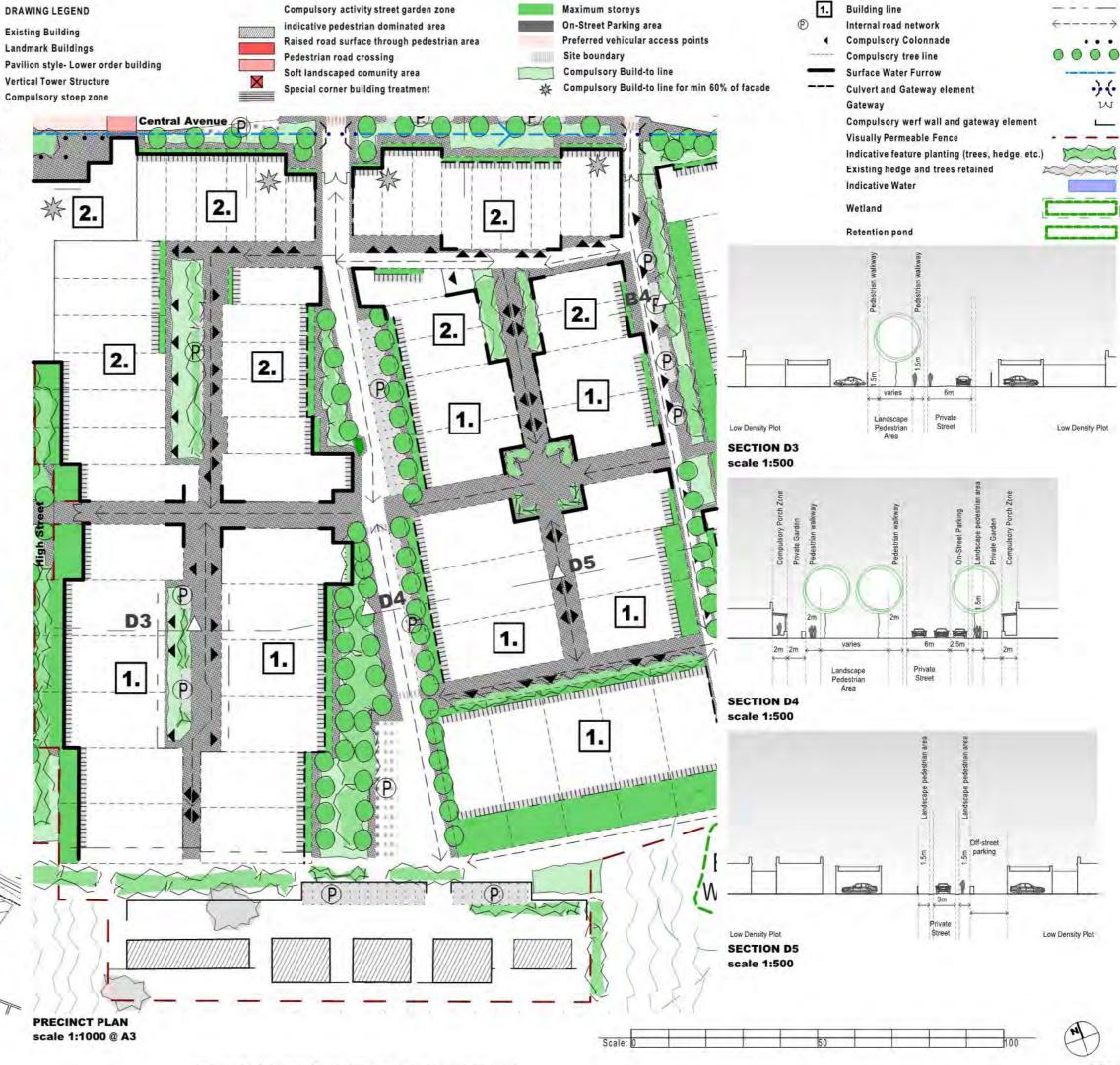
9.3 Parking:

- Off-street, Access from internal private muse for garage parking located to the back of plots with compulsory 5m garage setback from boundary edge to prevent vehicles blocking private streets.
- On-street parking for visitors is provided on the central access route.

9.4 Special features:

- Semi-public green and urban spaces for use by residents.
- Predominant pedestrian routes.





4.6 PRECINCT D2

1.Precinct intent and desired character

Located on the West side of the R310, the precinct is characterised by its dual facing frontage and pedestrian dominant urban spaces.

The precinct fronts onto a open green activity space and has a strong presence of surveillance over the green. An approach road running parallel between the green and buildings provide a physical buffer as one moves from Public and semi-public to private space. The Precinct is accessed off the approach road through controlled access.

Dwellings on the back edge of the precinct fronts onto the inside of the precinct and contribute to a lively internal character that is accentuated by a pedestrian dominance. This concept is supported by a strong pedestrian connection with the High street and Market located at the heart of the village entrance on the opposite side of the R310.

2.Precinct No: D2

- 3. Area: 1.9 ha
- 4. Land Use: Row Houses
- 5. Height: 1 and 2 Storey residential
- 6. Coverage: 60% (Refer to Fig.87, pg41)
- 7. Zoning Density: Refer to Fig.81, pg35
- 8. The role and performance expectation of the precinct:
- 8.1 To provide low and medium density residential opportunities.

9. Mandatory Performance Controls

9.1 Building Lines:

- 4m external building line on western boundary;
- Variable Build-to, Building and Set back lines as shown.
- Minimum 1,5m Soft Landscape along street edge between building and boundary fence.
- Minimum 2m Porch zone along street facing edge to establish an open community character and surveillance zone.
- Compulsory building-to lines to define and strengthening the perimeter edge of the precincts.

9.2 Access:

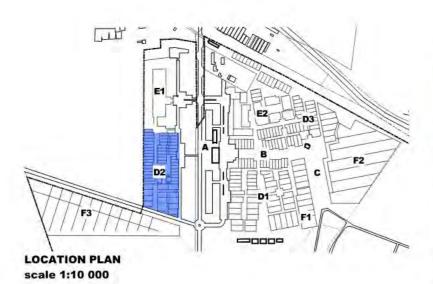
 From the service access street which is parallel to the R310 with two-way traffic flows to prevent congestion at a single access point.

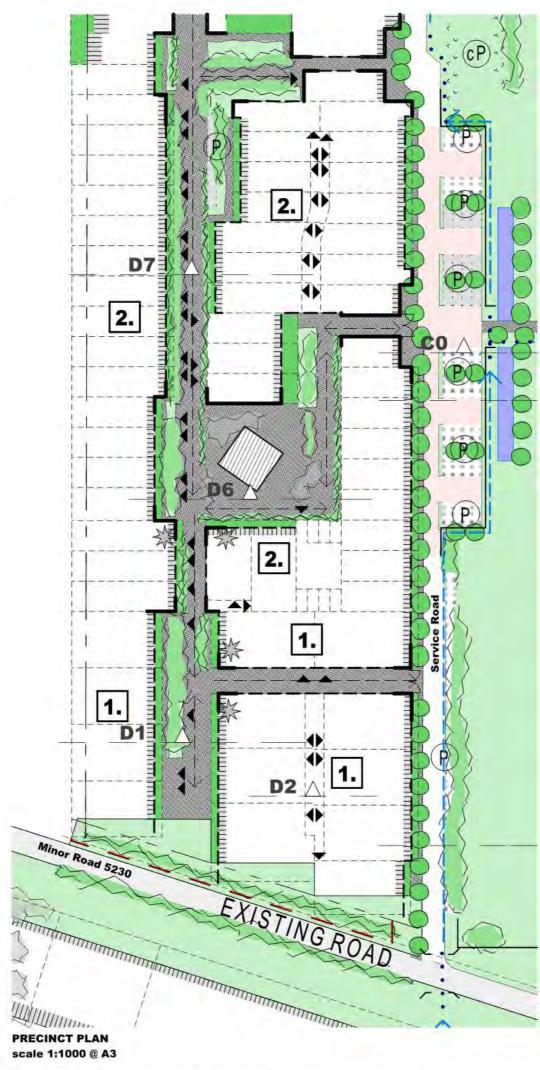
9.3 Parking:

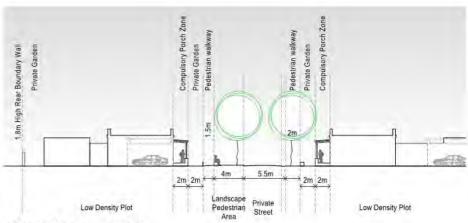
- Off-street, access from internal private street for garage access with compulsory 5m garage setback from boundary edge to prevent vehicles blocking streets. Where garages face public space, the fronatges of properties are obscured with more generous green planting.
- On-street parking for visitors is provided on the service access street.

9.4 Special features:

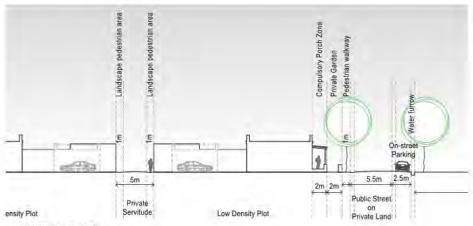
- Internal green and urban spaces.
- Predominant pedestrian routes and strong pedestrian connection with village high street.







SECTION D1 scale 1:500



SECTION D2 scale 1:500 **Existing Building** Landmark Buildings Pavilion style- Lower order building **Vertical Tower Structure** Compulsory stoep zone Compulsory activity street garden zone indicative pedestrian dominated area Raised road surface through pedestrian area Pedestrian road crossing Soft landscaped comunity area Special corner building treatment Maximum storeys On-Street Parking area Preferred vehicular access points Site boundary Compulsory Build-to line Compulsory Build-to line for min 60% of facade **Building line** Internal road network Compulsory Colonnade 00 Compulsory tree line Surface Water Furrow **Culvert and Gateway element** Gateway Compulsory werf wall and gateway element Visually Permeable Fence Indicative feature planting (trees, hedge, etc.) Existing hedge and trees retained Indicative Water Wetland Retention pond



4.7 PRECINCT D3

1.Precinct intent and desired character

The precinct intent is to provide mixed residential opportunities in support of the village. The precinct is characterised by higher density units and urban design with a private street network running through it. The narrowness and relative quietness of some of the streets will automatically lead to pedestrian dominance.

2.Precinct No: D3

- 3. Area: 1.2 ha
- 4. Land Use: Row Houses
- 5. Height: As indicated
- 6. Coverage: 60% (Refer to Fig.87, pg41)
 7. Zoning Density: Refer to Fig.81, pg35
- 8. The role and performance expectation of the precinct:
- 8.1 To provide low and medium density residential opportunities.

9. Mandatory Performance Controls

9.1 Building Lines:

- 10m buffer along the wetland.
- Variable Build-to, Building and Set back lines as shown.
- Minimum 1,5m Soft Landscape along street edge between building and boundary fence.
- Minimum 2m porch zone along street facing edge to establish an open community character and surveillance zone.
- Compulsory building-to lines to define and strengthening the perimeter edge of the precincts.

9.2 Access:

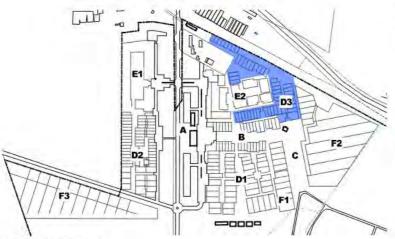
From the south and west through roads branching off the village main vehicular axis.

9.3 Parking:

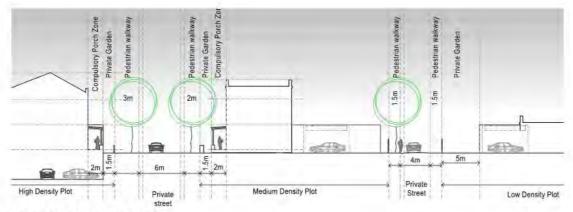
- Off-street, access from internal private street for garage access toward the back of plots with compulsory 5m garage setback from boundary edge to prevent vehicles blocking private streets.
- On-street parking for visitors is provided on the central access route.

9.4 Special features:

- Internal green and urban spaces for use by residents.
- Pedestrian preferencial internal private streets.



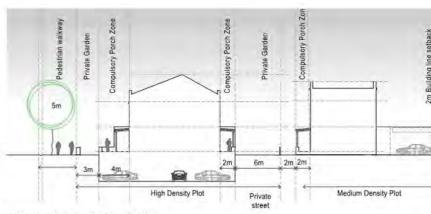
LOCATION PLAN scale 1:10 000



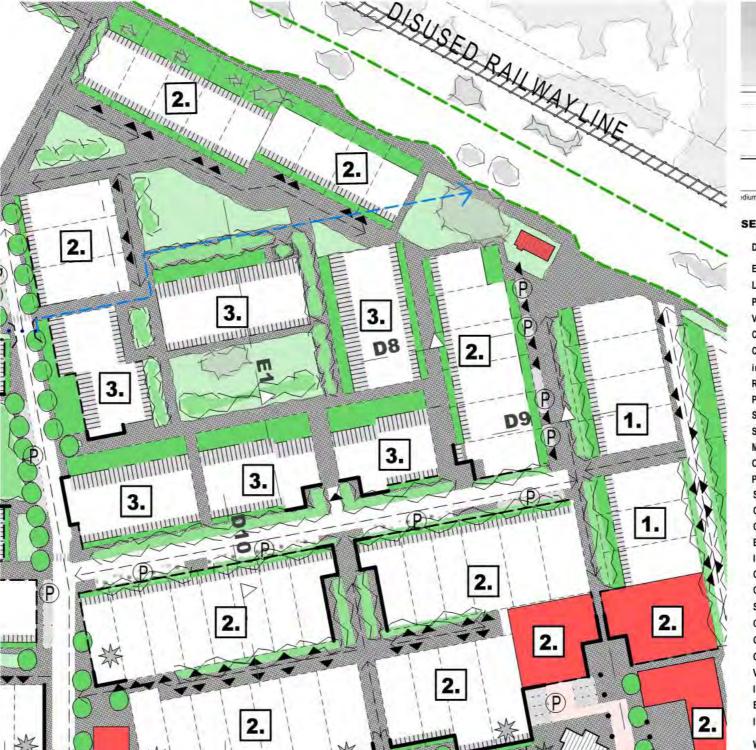
SECTION D10 scale 1:500

PRECINCT PLAN

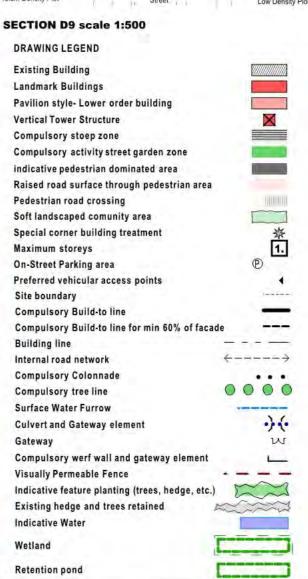
scale 1:1000 @ A3



SECTION D8 scale 1:500



5.5m dium Density Plot Low Density Plot Street





Scale:

4.8 PRECINCT E1

1.Precinct intent and desired character

Located on the west side of the R310, the precinct is characterised by its dual facing frontage and pedestrian dominant urban spaces. The precinct provides high density housing opportunities.

The precinct fronts onto a open green activity space and has a strong presence of surveillance over the green. A service street running parallel between the green and buildings provide a physical buffer as one moves from public and semi-public to private space. The precinct is accessed off the approach road through controlled access.

Buildings on the back edge of the precinct front onto the inside of the precinct and contribute to a lively internal character that is accentuated by a pedestrian dominance. This concept is accentuated by a strong pedestrian connection with the high street on the opposite side of the R310.

2. Precinct No: E1

LOCATION PLAN

scale 1:10 000

- 3. Area: 2.2 ha
- 4. Land Use: Flats
- 5. Height: 3 Storey residential
- 6. Coverage: 50% (Refer to Fig.87, pg41)
 7. Zoning Density: Refer to Fig.81, pg35
- 8. The role and performance expectation of the precinct:
- 8.1 To provide high density residential opportunities.

9. Mandatory Performance Controls

9.1 Building Lines:

- 4m building line on western and northern common boundary.
- Variable Build-to, Building and Set back lines as shown.
- Minimum 1,5m Soft Landscape along street edge between building and boundary fence.
- Minimum 2m Porch zone along street facing edge to establish an open community character and surveillance zone.
- Compulsory building-to lines to define and strengthening the perimeter edge of the precincts.

9.2 Access:

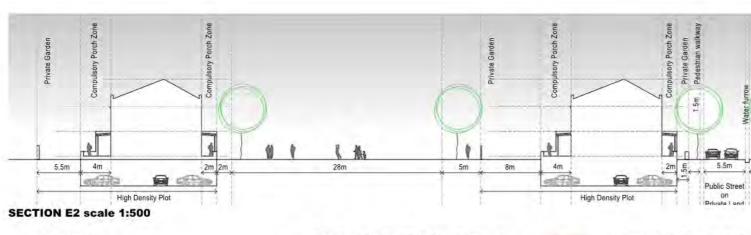
- From the east off the service road running paralel to the R310;
- From the south via precinct D2.

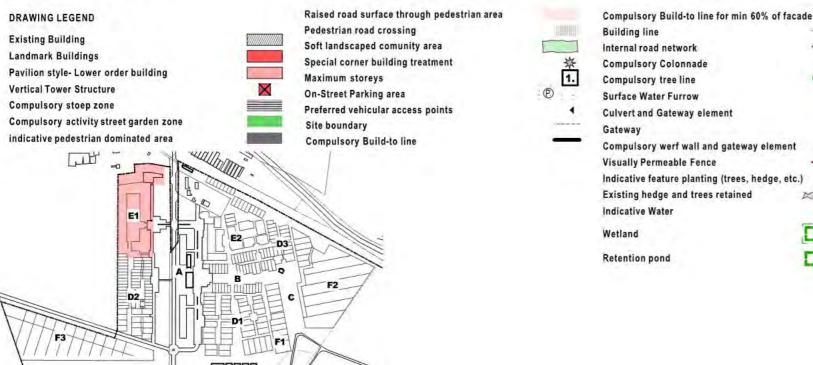
9.3 Parking:

Off-street, private basement parking for residents and visitors accessed through an access control point

9.4 Special features:

- Internal green and urban spaces for use by residents.
- Pedestrian preferential private internal streets.







4.9 PRECINCT E2

1.Precinct intent and desired character

The precinct provides high density housing opportunities and is located in the heart of the north-east portion of the village.

The precinct has a well defined edge facing various private and activity streets with a strong presence of surveillance over the surrounding area.

The precinct has a private internal character, pedestrian dominant internal streets and landscape activity zone.

- 2. Precinct No: E2
- 3. Area: 0.7 ha
- 4. Land Use: Flats
- 5. Height: 3 Storey residential
- 6. Coverage: 60% (Refer to Fig.87, pg41)
- 7. Zoning Density: Refer to Fig.81, pg35
- 8. The role and performance expectation of the precinct:
- 8.1 To provide high density residential opportunities.

9. Mandatory Performance Controls

9.1 Building Lines:

- Variable Build-to, Building and Set back lines as shown.
- Minimum 1,5m Soft Landscape along street edge between building and boundary fence.
- Minimum 2m Porch zone along street facing edge to establish an open community character and surveillance zone.
- Compulsory build-to lines to define and strengthening the perimeter edge of the precincts.

9.2 Access:

 From the south and east through the main intersection to the R310

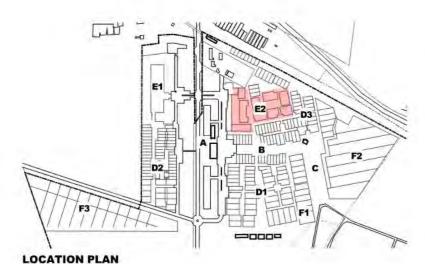
9.3 Parking:

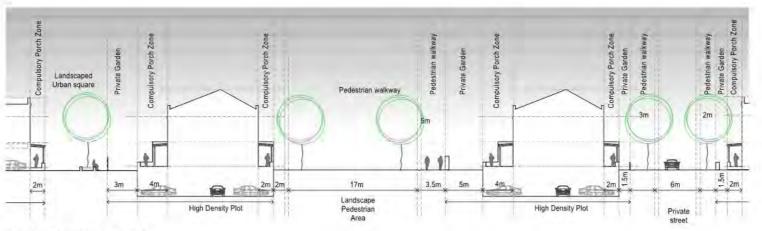
 Off-street, private basement parking for residents and visitors accessed through an access control point

9.4 Special features:

scale 1:10 000

- Internal green and urban spaces for use by residents.
- Pedestrian preferential internal private streets.





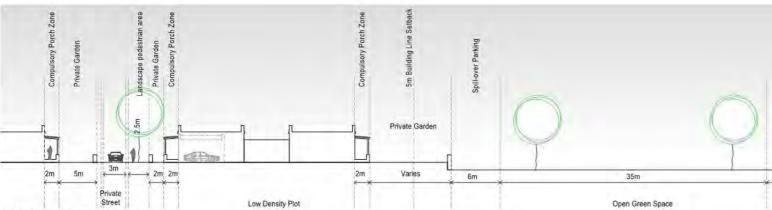
SECTION E1 scale 1:500

scale 1:1000 @ A3



Scale:

DRAWING LEGEND **Existing Building** Landmark Buildings Pavilion style- Lower order building **Vertical Tower Structure** Compulsory stoep zone Compulsory activity street garden zone indicative pedestrian dominated area Raised road surface through pedestrian area Pedestrian road crossing Soft landscaped comunity area Special corner building treatment ※1. Maximum storeys On-Street Parking area Preferred vehicular access points Site boundary Compulsory Build-to line Compulsory Build-to line for min 60% of facade **Building line** Internal road network Compulsory Colonnade Compulsory tree line Surface Water Furrow **Culvert and Gateway element** Gateway Compulsory werf wall and gateway element Visually Permeable Fence Indicative feature planting (trees, hedge, etc.) Existing hedge and trees retained Indicative Water Wetland



SECTION F1 scale 1:500

4.10 PRECINCT F1

1. Precinct intent and desired character

The precinct consists of low density housing opportunities bordering the Boschendal farm.

The precinct is located on the edge of the village and at the closest proximity to the werf and manor house at Boschendal. It's character defines the most significant threshold of the development and serves as a mechanism to manage the transition from village to farm landscape and the impact of one on the other.

2.Precinct No: F1

3. Area: 1 ha

4. Land Use: Dweling houses

5. Height: 1 Storey

6. Coverage: 50% (Refer to Fig.87, pg41)

7. Zoning Density: Refer to Fig.81, pg35

8. The role and performance expectation of the precinct:

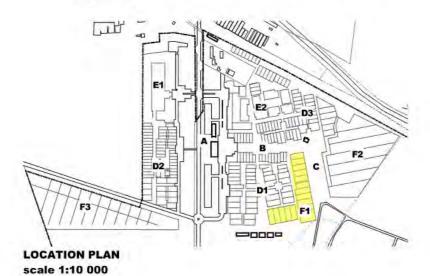
8.1 To provide low density residential opportunities.

8.2 To employ a sensitive approach to design that is sympathetic to the historic buildings and werf at Boschendal. The design of this precinct must have a submissive and uncompetitive character toward the historic manor house at Boschendal.

9. Mandatory Performance Controls

9.1 Building Lines:

- Variable build-to, building and set back lines as shown.
- Various building line setback along the rear boundary of properties as shown
- Soft landscape of various thickness along street edge between building and boundary fence as shown.
- Minimum 2m porch zone along street facing edge to establish an open community character and surveillance zone.
- Minimum 2m porch zone along the rear boundary edge to establish a frontage toward the surrounding areas.
- Compulsory building-to lines to define various pinch points along access routes into the precinct, thereby strengthening the perimeter edge of the precincts.



9.2 Access:

Off the main access road from the north and as shown with promotion of one-way traffic flows to prevent congestion at a single

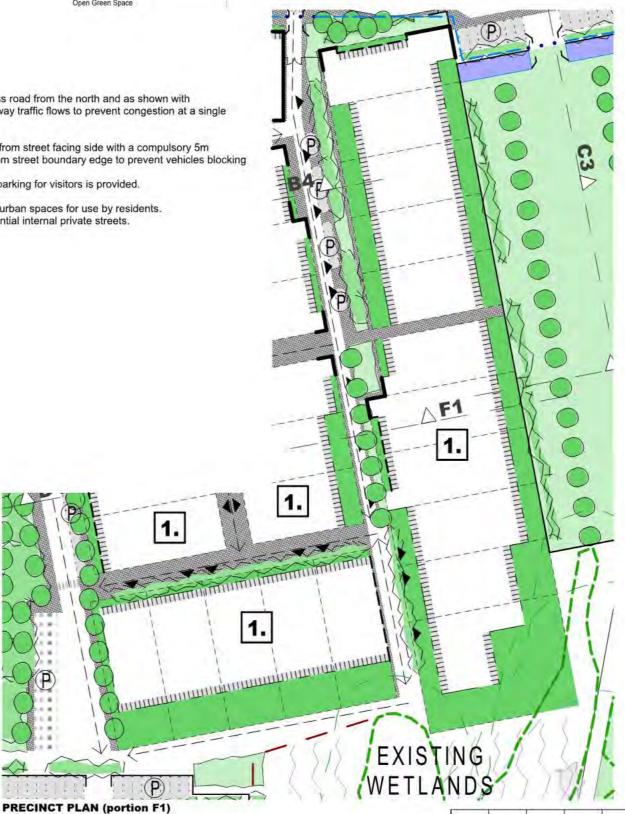
9.3 Parking:

Off-street, access from street facing side with a compulsory 5m garage setback from street boundary edge to prevent vehicles blocking private streets.

On-street, limited parking for visitors is provided.

9.4 Special features:

- Private green and urban spaces for use by residents.
- Pedestrian preferential internal private streets.



DRAWING LEGEND

Existing Building Landmark Buildings Pavilion style- Lower order building **Vertical Tower Structure** Compulsory stoep zone Compulsory activity street garden zone indicative pedestrian dominated area Raised road surface through pedestrian area Pedestrian road crossing Agrarian landscaping/urban agriculture no-build servitude Soft landscaped comunity area Special corner building treatment Maximum storeys On-Street Parking area Preferred vehicular access points Site boundary Compulsory Build-to line Compulsory Build-to line for min 60% of facade **Building line** Internal road network Compulsory Colonnade Compulsory tree line

Gateway Compulsory werf wall and gateway element

Visually Permeable Fence Indicative feature planting (trees, hedge, etc.)

Existing hedge and trees retained Indicative Water

Wetland

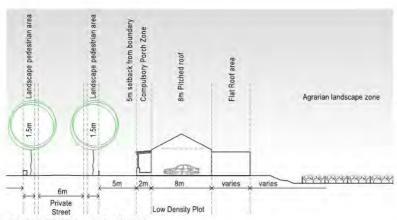
Retention pond

Surface Water Furrow

Culvert and Gateway element



scale 1:1000 @ A3



SECTION F1 scale 1:500

4.11 PRECINCT F2

1. Precinct intent and desired character

The precinct consists of low density housing opportunities bordering the Boschendal farm.

The precinct is located on the edge of the village overlooking Boschendal's vineyards. The character of the precinct reflect the rural setting and forms the interface with the existing working farm.

- 2.Precinct No: F2
- 3. Area: 0.8 ha
- 4. Land Use: Dwelling houses
- 5. Height: 1 Storey
- 6. Coverage: 50% (Refer to Fig.87, pg41)
- 7. Zoning Density: Refer to Fig.81, pg35
- 8. The role and performance expectation of the precinct:
- 8.1 To provide low density residential opportunities.
- 8.2 To employ a sensitive approach to design that is sympathetic to the historic buildings and werf at Boschendal. The design of this precinct must have a submissive and uncompetitive character toward the historic manor house at Boschendal.

9. Mandatory Performance Controls

9.1 Building Lines:

- 5m building line along minor road 5230 measured from edge of road reserve.
- Variable Build-to, Building and Set back lines as shown.
- Various building line setback along the rear boundary of properties
- Soft landscape of various thickness along street edge between building and boundary fence as shown.
- Minimum 2m porch zone along street facing edge to establish an open community character and surveillance zone.
- Minimum 2m porch zone along the rear boundary edge to establish a frontage toward the surrounding areas.

9.2 Access:

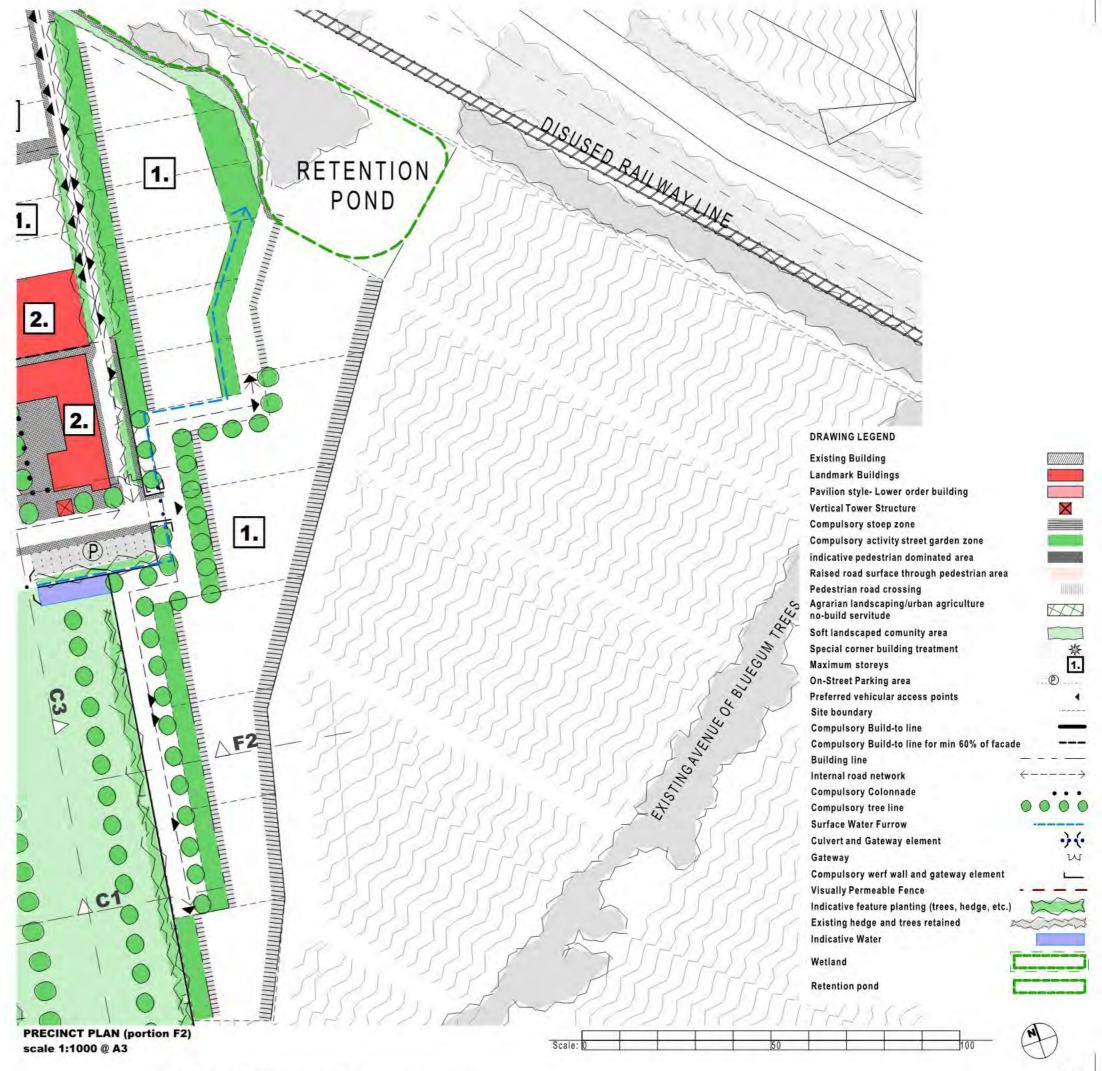
Off access-controlled private road.

9.3 Parking:

Only off-street parking with a compulsory 5m Garage setback from street boundary edge.

9.4 Special features:





4.12 PRECINCT F3

1. Precinct intent and desired character

The precinct consists of low density housing opportunities bordering the Rhodes portion of Boschendal farm located to the west of the R310.

The character of the precinct reflect the rural setting and serves as a mechanism to manage the transition from village to farm landscape.

2.Precinct No: F3

- 3. Area: 3.2 ha
- 4. Land Use: Dwelling houses
- 5. Height: 1 Storey
- 6. Coverage: 50% (Refer to Fig.87, pg41)
- 7. Zoning Density: Refer to Fig.81, pg35
- 8. The role and performance expectation of the precinct:
- 8.1 To provide low density residential opportunities.
- 8.2 To employ a sensitive approach to design that is sympathetic to the natural agrairian landscape.

9. Mandatory Performance Controls

9.1 Building Lines:

- 5m Building line along minor road 5230 as measure from the edge of the road reserve.
- Variable build-to, building and set back lines as shown.
- Various building line setback along the rear boundary of properties as shown
- Soft landscape of various thickness along street edge between building and boundary fence as shown.
- Minimum 2m porch zone along street facing edge to establish an open community character and surveillance zone.
- Minimum 2m porch zone along the rear boundary edge to establish a frontage toward the surrounding areas.

9.2 Access:

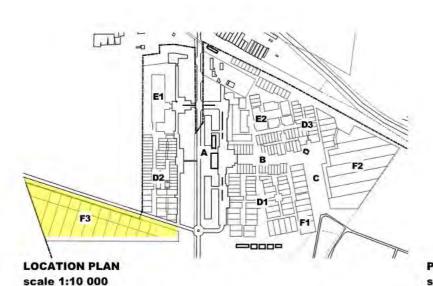
Off minor road 5230

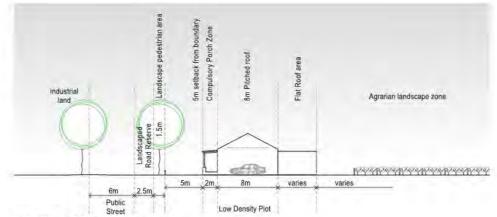
9.3 Parking:

Only off-street parking with a compulsory 10m garage setback from street boundary edge.

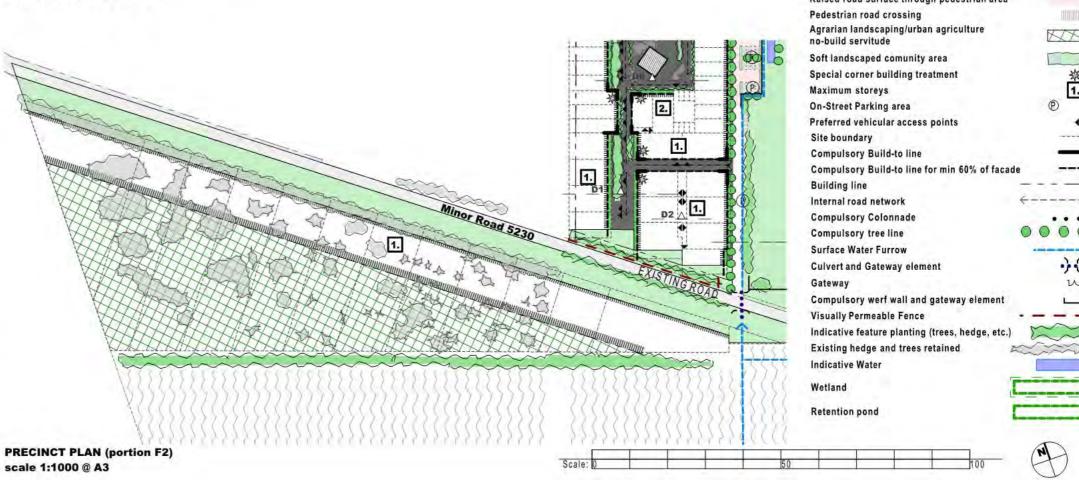
9.4 Special features:

Agrarian landscaping or urban agriculture no-build area servitude.





SECTION F1 scale 1:500



Pavilion style- Lower order building

Vertical Tower Structure Compulsory stoep zone Compulsory activity street garden zone indicative pedestrian dominated area Raised road surface through pedestrian area 1.

CHAPTER 5. ARCHITECTURAL DIRECTIVES AND CONTROLS

5.1 Broad architectural design principles

The architectural design principles is an extension of the overall village concept and support the design principles discussed in preceding chapters.

Three levels of concern is addressed in the Boschendal Heritage Impact assessment (Baumann et al, 2015) and architectural guidelines:

- Generic Indicators; These follow logically from preceding settlement-orientated indicators. However the focus shifts to individual or complexes of buildings. Particular emphasis is placed on the relation buildings have on one another and their impact in contributing to the overall village design and character.
- Mandatory controls: These relate to the buildings interaction with the 'streetscape' and how a building creates a public interface with the street. These controls contribute to the realization of the generic indicators.
- 3. Principles of sustainability

5.2 Generic Indicators

- · All new buildings should reflect recessive architecture (they should be background buildings);
- More important public buildings should not mimic the architecture of the past (e.g. the use of gables etc.). They should be modern in their architecture. Nevertheless, the 'wall-plate' architecture of the Cape should dominate;
- · No architectural themes (eg Tuscan);
- Buildings, structures, built elements and landscaping should promote the natural, rural, historical and architectural character of the broader Boschendal precinct within the valley;
- Existing architecturally significant buildings and homesteads of historical or aesthetic importance, including their
- landscape settings, should be conserved and, where necessary, pre¬served;
- The character of new buildings and associated elements must reflect qualities of 'Capeness' and 'ruralness', expressed in the spirit of contemporary design;
- Buildings must be designed to optimize their spatial and design structural role (e.g. gateway buildings, corner buildings, landmark buildings, street-liners, pavillions);
- Most buildings must be designed as background buildings, to make them as unobtrusive and recessive as possible. More prominent buildings should be used strategically (for example, as landmarks or as terminating elements for important axes);
- Buildings and their associated elements (walls, hedges, etc.) must contribute to defining and thus
 making the street along which they are located;
- The geometries of horizontality reflected in the landscape must be respected, especially in considerations of roof silhouettes;
- · Buildings generally must be kept low but height should be used to reinforce spatial structure;
- · Roof silhouettes must be as unobtrusive as possible;
- Proportions must be elegant, with wall surfaces dominating openings and cut-outs (apertures). The
 apertures should be vertically proportioned;
- Surveillance over public space, including the street, is compulsory: no dead-edges are allowed;
- · Colours must be muted.
- · Where appropriate, use barnyard architecture to define space.

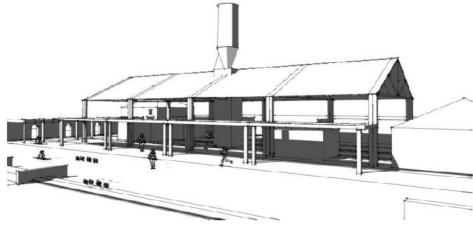


Fig. 104. Indicative gateway building



Fig. 105. Perimeter block with articulated street corner

5.3 Mandatory Controls

- Buildings should not occur at an angle to the street boundary;
- Compulsory build-to lines are defined to ensure that buildings play their spatial and design structural role most effectively, (e.g. buildings close to the street);
- The maximum height is three storeys in dense areas, two storeys in the more embedded areas and one storey in the 'tread-lightly' zones
- No more than ground floor plus two more floor for flat roofed buildings;
- All flat roofed buildings should have a parapet on three sides in order to create a 'boxed' geometry.
- · No gutters should appear on the front of the unit but should occur to the rear;
- · When roofs are pitched, the allowable range is between
- 35° 45°
- In single storey structure with pitched roofs, accommodation will be allowed in the roof void, however all skylights to be flush with the roof plain and not to face any public street.
- · No mono-pitched roofs are allowed;
- · No tiled roofs are allowed;
- No significant interruptions to the horizontally promoted by the roof silhouettes (e.g. chimneys higher than0,5 m above the roof ridge) are not allowed; the only exception is on corners or with landmark buildings.
- · No expressed gable ends (parapets) are allowed.
- · Materials must project over the end walls and finish flush with
- · The outside face;
- No dormer windows are allowed in the roof of upper floor in pitched-roof buildings facing the public street.
- · The use of skylights is acceptable if not visible from the road;
- Wall openings must be vertically proportioned, consistent with the traditions of walled architecture

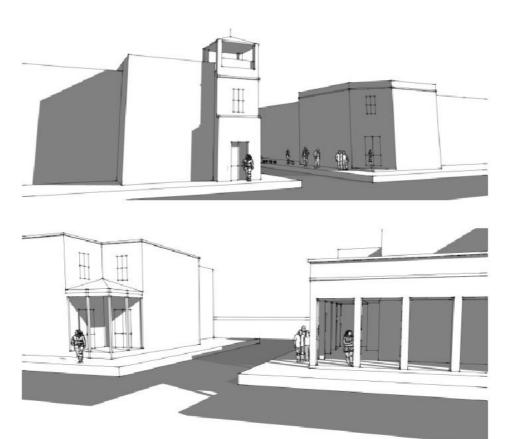


Fig. 106. Indicative corner buildings

5.4 ARCHITECTURAL GUIDELINES

5.4.1 Primary Building Forms

- The use of horizontality and wall architecture is to be the dominant architectural form. This
 is to mitigate the visual impact, to promote simplicity and to deliver cohesive design.
- Certain buildings and nodes will have to deviate from the principal of horizontality, specifically in relation to the roof form, in order to allow for legibility, hierarchy and diversity and is demarcated as such. (See fig.109)

The use of perimeter building blocks should be widely applied. It results in active street edges and promotes walkability and safety. The building edges, which generally is built to line, results in impermeable, but living walls. It allows for buildings to serve as a soft security layer. It also allows for the parking of cars out of view, by locating garages within courtyards and mews.

- Street edges will be made up of various types of buildings, strung together. These
 buildings will spill out directly onto streets in some instances (central Avenue) or setback
 behind narrow gardens and stoeps in other areas (neighbourhood zones).
- Corners will be articulated responsively by the introduction of special corner buildings.
- Certain buildings are designated gateway buildings and should be articulated as such.
 Street lines should be filled in amongst those vericus types and should be generally.
- Street liners should be filled in amongst these various types and should be generally more recessive.
- Colonnaded building edges are compulsory in certain areas as edges to buildings are
 important in terms of providing human scale. It does not only provide shade and shelter
 but also reduce the scale of buildings. This is particularly helpful in the mixed use areas
 as a substantial amount of pedestrian use is envisaged along those edges.
- Landmark buildings and structures: Certain buildings or structures are designated landmark buildings. (Refer to Fig.78) It allows for legibility and orientation and emphasizes the hierarchical importance of certain public spaces. These buildings are allowed to deviate from the general rule of horizontality and wall plate architecture and may exceed the limitations on height in a specific location.



Fig. 107. Indicative recessive street liners

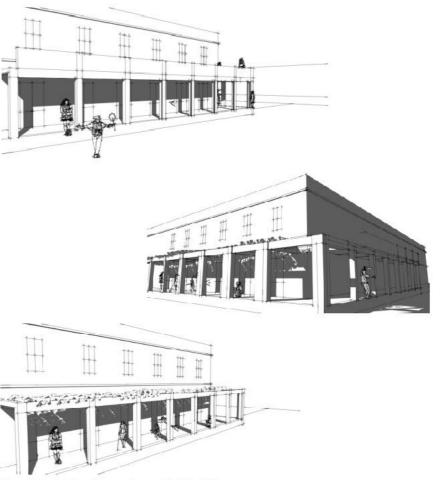


Fig. 108. Indicative colonnaded buildings

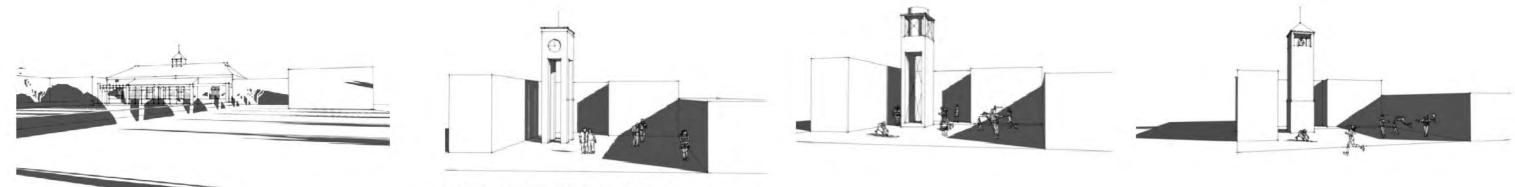


Fig. 109. Indicative landmark building

Fig.110. Indicative landmark structures



Fig.111. Example of rural free standing cottage - Werf cottages at Boschendal



Fig. 112 Market building example Martin Kruger Architects - Birkenhead Brewery.



Fig. 113 Alternative Market building example Philip Briel Architects -Olive Press at Boschendal



Fig. 114. Triple Storey townhouse example: Alphen, Cape Town.



Fig. 115. Recessive and light third floor. Revel Fox and Partners

5.4.2 The design of architectural forms and related built elements should:

- conform to the principles of the relationships between buildings to street space, as defined by the compulsory building lines:
- 2. Contribute towards 'Green Architecture which includes:
- Local water capture through a series of surface run water furrows and dealing with storm water runoff.
- Climate control through use of traditional building forms and openings, including promotion of party walls, cross ventilation and recessed covered verandas.
- Appropriate design in reaction to the orientation of the site.
- Planting to shade buildings and minimize heat reflection off hard landscape surfaces.
- Promoting the use of solar energy and obscuring unsightly panels from view behind roof parapet walls.
- Employing recycling practices.
- The use of Green materials
- A minimum of 50% of building energy requirements to be provided through sustainable technologies.
- Promote a sense of community.

5.4.3 Public Interface and Street Frontage:

Buildings fronting onto activity streets should promote the open character of the space, while not being completely detached from it. A small garden space at the front edge of properties promotes a degree of privacy from the activity street while a compulsory porch zone promotes a strong sense of surveillance, relationship and community. Fencing along the street boundary is allowed, but restricted to 600mm height to ensure the visual connection over the private/public threshold is not lost.

All elevations facing activity streets to be symmetrical and proportioned as outlined in the architectural directives.

All solar panels, chimneys, Air Conditioning units, heat pumps, satellite dishes, skylights and the like, should be located between the parapet lines of the roof and not be visible from the pavement area immediately abutting the street boundary.

All above ground water storage tanks and water storage elements must be located toward the back of the property and no part thereof may be visible from the pavement area immediately abutting the street boundary.

5.4.4 Roofs:

Flat roof behind parapet walls along the activity street edge defines a strong walled architecture. Mono-pitch roofs toward the rear of properties will be allowed, but should be obscured from the activity street view. Maximum roof angles as per architectural directives.

5.4.5 Ground plane and Surface treatment:

The surface treatment between vehicular and pedestrian areas should be predominantly continuous to promote a sense of shared interaction with only slight changes to deal with water runoff and form surface water furrows. Surface water furrows and 'Leiwater grachts" to be maintained along the road edge and where indicated.

Materials should be a course textured paving or cobbles to promote awareness of a prevailing pedestrian urban landscape.

Surface level changes between dwellings and the surrounding areas to define public, semi-public and private space. A front 'Stoep' level of 400mm above NGL is required.

5.4.6 Walls:

Thick masonry walling with punched openings, reflecting the rural architectural character of the surrounding landscape. Low masonry farm walls to demarcate social areas within the landscape.

5.4.7 Fenestration and Openings:

The use of natural resources for lighting, cross-ventilation and airflow within buildings is encouraged. Uncovered North and West facing windows should be set deep into walled surfaces to provide solar protection. West facing windows should be protected by covered verandas and trees where practical to do so. A 1:2 width to Height ratio is required for all openings. Openings must be vertically orientated.

All openings to have functioning shutters, with the exception of front doors.

5.4.8 Material, and Colour:

Use of local and natural materials is encouraged. Light paint colours to be used for walls, with dark colours to be used for mono-pitch roofs and other metal elements.

5.4.9 Side and Rear Boundary treatment:

Masonry boundary walls, posts and fencing allowable to a height of 1.8m along the side and rear boundaries only. Hedges are also permitted and encouraged.

Where palisade fencing is used, it has to be in combination with a hedge to completely obscure the fence. Precast walling, barbed-wire and electrical fencing is not allowed, instead clearly defined zones with associated human surveillance through good design is promoted.

5.4.10 Parking:

Access from internal private street for garage access situated at the back of plots with compulsory 5m garage setback from boundary edge to prevent vehicles blocking private streets. No shade netting or parking structures is allowed. Limited street parking is allowed in activity streets. Only trees may be used to provide shading for on-street parked vehicles. No garage access permitted from high street/central avenue.

5.4.11 Landscaping:

Use Indigenous plants and tree species to promote the character of an agrarian landscape and as per the plant species guideline established for the village. Trees along the street edge to be spaced at average 10m intervals. Landscaping to be in accordance with the landscape master plan to be designed by a registered landscape architect.

5.4.12 External Lighting:

No floodlighting is allowed

5.4.13 Signage:

No billboards are allowed; Signage should not be overpowering and should follow the guidelines as set out in the architectural directives.

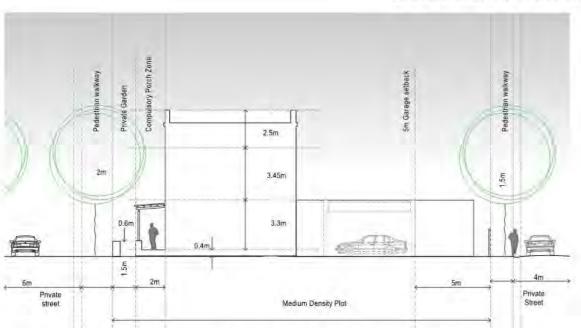


Fig. 116 MEDIUM DENSITY RESIDENTIAL (Precints: B+D1+D2+D3) scale 1:250 @A3



Fig. 117 LOW DENSITY RESIDENTIAL (Precincts: F2 +F3) (Single residential erfen) scale 1:250 @A3

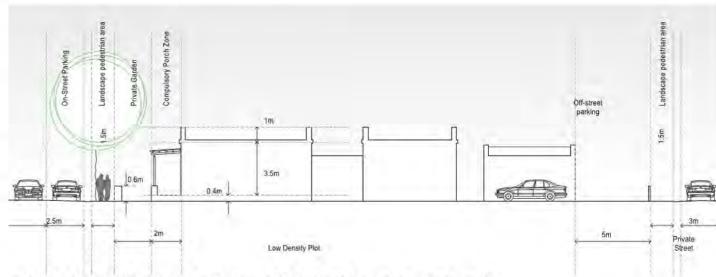


Fig. 118 LOW DENSITY RESIDENTIAL (Precinct: F1+D2) scale 1:250 @A3

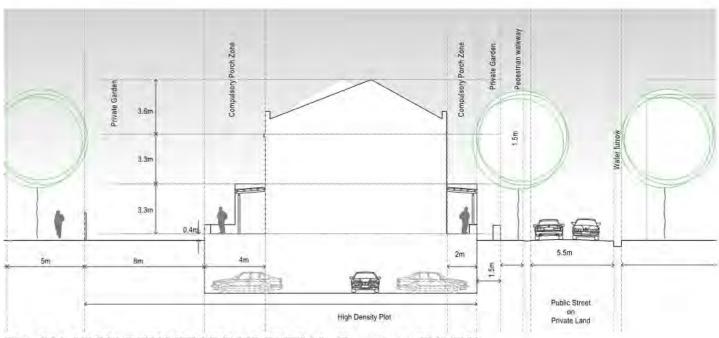
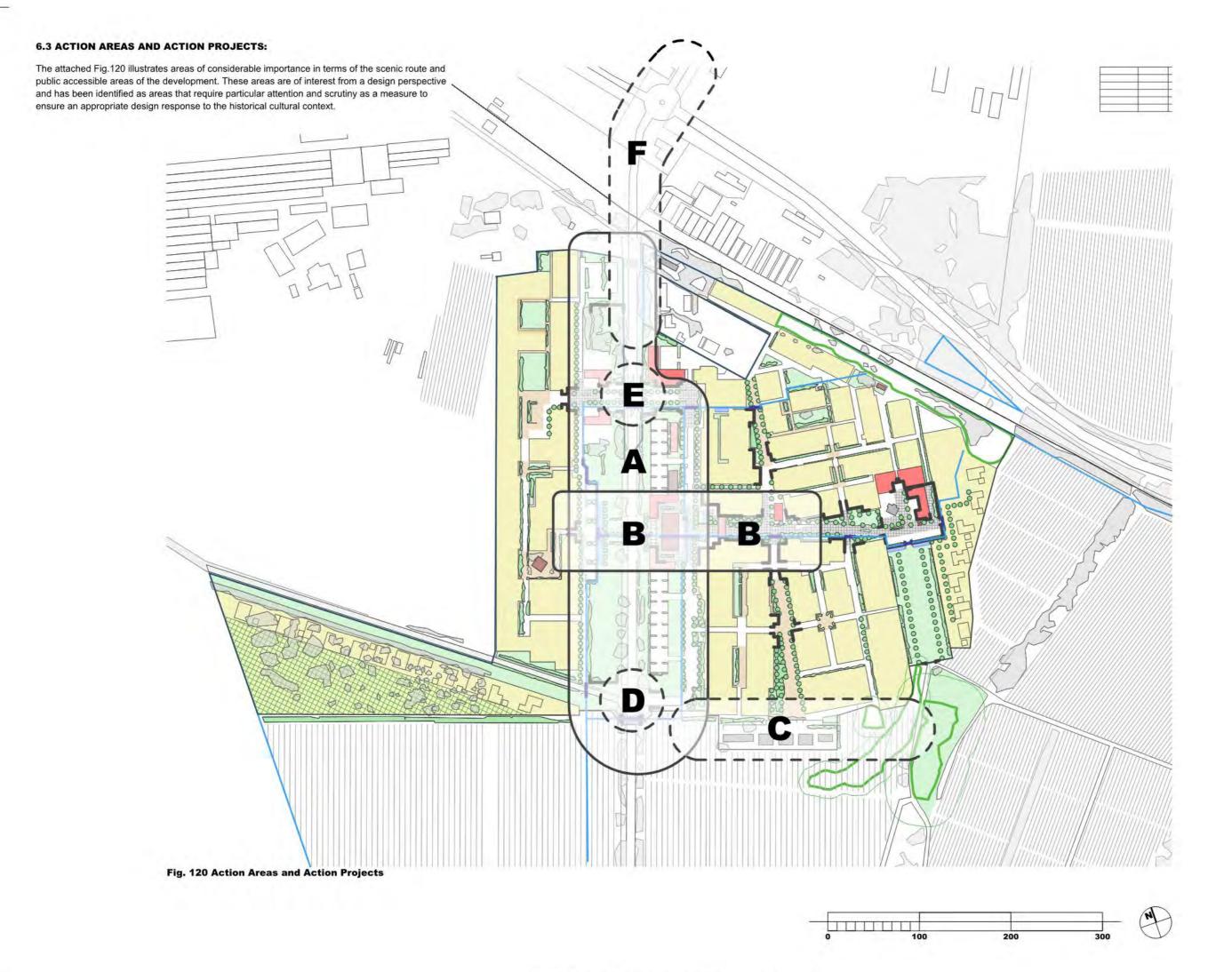


Fig 119 HIGH DENSITY RESIDENTIAL (Precinct E1+E2) scale 1:250 @A3

CHAPTER 6. IMPLEMENTATION



6.4 ARCHITECTURAL DIRECTIVES:

6.4.1.Introduction.

It is the responsibility of the developers to ensure the delivery of quality architecture at Boschendal Village and to avoid, at all cost, the creation of anything resembling an architectural theme park. The preservation and celebration of the historic character of Boschendal and the region is paramount, and it is thus imperative to only allow recessive, timeless architecture that is more concerned with the village and region as a whole, than with singular architectural statements.

6.4.2. Appointment of architects and review mechanism.

- Multiple architects will design the buildings at Boschendal Village. Therefore, competent, architectural practises must be invited to participate in bringing a variety of quality architecture to Boschendal Village. This is to prevent repetition and blandness.
- All architectural practices must be SACAP Registered Professional Architects (Pr. Arch).
- The approved team of architects must be subjected to a system of peer review amongst themselves.
- The architects will also be subjected to an architectural review committee. This committee will be appointed by the developer.

6.4.3 Private erven development planning, submissions and approval requirements.

- All buildings must comply with the guidelines and controls set out herein in addition to Municipal and National Building regulations.
- The approval process requires the signature and stamp of the Controlling Architect and the Developer and later the Architectural Review Committee as appointed by the Owners' Association without which the drawings will not be accepted by Local Authority.
- Until such time as the Owners' Association has been inaugurated references herein relating to it and the Architectural Review Committee shall be replaced by the Controlling Architect and the Developer.
- No building work may be undertaken without the specified approval procedures having been followed. The construction of all buildings and out-buildings, structures of any nature, swimming pools and all additions and alterations to such buildings must comply with the architectural requirements of the development and shall be approved by the Board of Trustees after consideration by the Architectural Review Committee.
- Every homeowner, shall be a member of the Association and shall be obliged to abide by the architectural & landscaping regulations of the development as laid out in Architectural Directives.
- The following structures have been put in place for the building plan submission of the village prior to it being sent to the Local Authority for approval.

6.4.4. Architectural review committee

In terms of the constitution of the Boschendal Village Owners' Association (the Association) the Trustees shall appoint an Architectural Review Committee, whose function shall be inter alia:

- to ensure that construction in the village is performed in a proper and workman-like manner.
- to ensure that the architectural and landscaping design manual condition in respect of the land is complied with at all times.
- · The Architectural Review Committee shall be constituted as follows:
- · An appointed Trustee
- · Two practising professional architects
- · The Chairperson of the Association
- The maintenance manager appointed by the Owners' Assosiation

6.4.5.Approval process.

The procedures as set hereunder will apply to all building operations of whatsoever kind in the Village and have been devised to ensure a harmonious development, and a consistent high quality architectural outcome.

- All Architectural design including Engineering drawings must be submitted to the Association for all proposed building works and a record will be kept of all plans submitted as well as the date of submission.
- Any homeowner intending to undertake building work in the village shall be obliged to inform owners of all properties immediately adjoining his property of his intention to build. Such notification shall be done via registered mail, and proof of such notification shall be submitted to the Association as part of the application process.
- The building plans and all required documentation shall then be submitted on to the
 professional architect appointed by the Association who will scrutinize the plans and
 documents to ensure compliance with the design criteria as set out in the urban design
 framework and architectural directives.

- Upon scrutiny of the plans, the professional architect shall varify departures in breach of the urban design framework and architectural directives (if any), that need to be adressed in order for plans to be eligable for approval.
- The Controlling Architect and Developer shall meet when necessary and once the Architectural Review Committee is in place it shall meet once a month on a specified and predetermined day for the purpose of considering plans submitted for approval. All plans must be submitted at least seven days prior to each monthly meeting of the Committee, failing which they will stand over to the next meeting. The Architectural Review Committee shall have discretion to limit the amount of plans to be discussed during each monthly meeting. All plans shall be reviewed on a chronological basis according to the date the plan was submitted.
- All plans submitted shall be subject to review by the Architectural Review Committee.

 Upon consideration of the plans, the Committee will then make a recommendation with regard to the approval or rejection of the plans. Where plans are rejected, the Committee shal provide reasons for the rejection and provide recommendations on areas that need to be adressed in order for plans to be reconsidered for approval.
- The Architectural Review Committee shall after each meeting prepare a report setting out its recommendations in respect of all plans considered. This report shall be presented to the Board of Trustees at its monthly meeting. The Trustees shall then finally authorize or reject the plans submitted. The Association shall thereafter immediately notify the homeowner of the decision of the Trustees.
- Upon approval of the plans by the Board of Trustees, the Association shall return the approved plans to the homeowner concerned who shall then submit such plans together with the prescribed fees to the local authority for its consideration.

6.4.6. Scrutiny fees and deposits.

- Upon submission of the plans to the Association, the homeowner shall pay a fee for the scrutiny thereof and subsequent site inspection by the architect appointed by the Association, together with a sidewalk deposit.
- The amount of the scrutiny and inspection fee shall be dependent upon the nature and extent of the building work to be undertaken and shall be as determined by the Association from time to time. The Association reserves the right to charge an additional fee in the event of further consultations with the homeowner and/or his architect being necessary.

6.4.7. Adoption of Architectural Directives

- The Owners Association may, at its annual meetings, or any special meeting adopt, amend or vary the Architectural Directives.
- The Architectural Directives will inform all building design and building plans

© Prepared by Philip Briel and Wilko le Roux dated September 2015. Copyright protected. All rights reserved.

REFERENCES

Specialist Reports:

- 1. Abrahamse C. 2015. Proposed Boschendal Village: Urban Design Parameters Report.
- 2. Baumann N, Winter S, Dewar D, Louw P. 2015. Proposed Boschendal Village: Heritage Indicators and Directives.
- 3. Kendrick, N. Hart, T. 2015. Archaeological Assessment of Portions 7/1674 and 10/1674 of Boschendal Estate.
- 4. Schroms, H. 2015. Grondverslag vir die plaas Boschendal Village.
- 5. Snaddon, K. 2015. Environmental Impact assessment of proposed Boschendal Village, Boschendal Estate: Freshwater ecosystems baseline report.

Email:

6. Helme, N. 2015. Email, Comment on revised, proposed layout for Boschendal Village development.

Websites:

- 7. BMW Motorrad Club Cape, Tony, 2014. viewed September 2015, http://www.bmwmotorcycleclubcape.co.za/cant-wait-sequel
- 8.Boschendal Farm 2015, Site map, Google maps, South Africa, viewed September 2015, https://www.google.co.za/maps/@-33.8750765, 19.003418,9225m/data=!3m1!1e3>
- 9. Google Maps, Stellenbosch, Arisal, 2012. viewed September 2015, <www.panoramio.com>.

ANNEXURE F

ILLUSTRATED TIMELINE

Illustrated Historical Timeline for the Residual lands

International events	Local events	Drakenstein and Dwars River Valleys
Date Events	Date Events	Date Events
	700 000 ya Stone age hunter gathers & pastoralists occupied the Western Cape.	During the pre-colonial period, the area was occupied by hunter-gathers and pastoralists. Archaeological remains dating to the Early Stone Age, Middle Stone Age and Later Stone Age periods have been recorded in the area. Stone hand axes found in the soils overlaying the gravel terraces of the Valley indicate that stone age hunter gatherers may have been in occupation from as early as 700 000 years ago (Kantor, Todeschini & Pistorius, 2005).
15 th C Age of exploration	 2000 ya Hunter gatherers and Khoekhoen 1486 Portuguese explorers landed on the Cape Coast near (now) Mossel Bay. In 1503 and 1510 Portuguese sailors landed in Table Bay (TANAP). 	From about 2000 years ago the area was part of the transhumance pattern of Khoekhoen pastoralists, who followed regular paths with their cattle. Recently, important archaeological remains dating to the Later Stone Age and Colonial Contact periods were discovered in the vicinity of the historical werf on the nearby Solms Delta farm.
1598 Edict of Nantes granted French Calvinist protestants rights of religious freedom, ending the French wars of religion.	1647 A Dutch ship ran ashore in Table Bay, giving rise to serious considerations of using the Cape as a refreshment station (TANAP).	
1685 Revocation of the Edict of Nantes (by the Edict of Fontainebleau), destruction of protestant churches and closure of schools, coupled with increased persecution of protestants in France caused massive numbers of Huguenots to flee France for countries whe Protestantism could be	1679 Stellenbosch was established by Governor van der Stel. 1687 Records of land transactions began to be kep 1688 Huguenot refugees began to arrive at the Cape, and settle in the Oliphants (Franschhoek) and Drakenstein Valley. Governor Simon van der Stel named the valley Drakenstein in honour of visiting Hig Commissioner H.A van Reede tot Drakenstein.	Settlers were provided with basic provisions and equipment by the VOC, for which a ledger of debt was kept (Coertzen, in Lucas,2004). Nieuwedorp Title Deed was granted in 5 parts, chronologically to Arnoldus Basson, Jacobus van As, Erasmus van Lier, Willem Basson and Pierre Meyer. Arnoldus Basson was married to Ansela

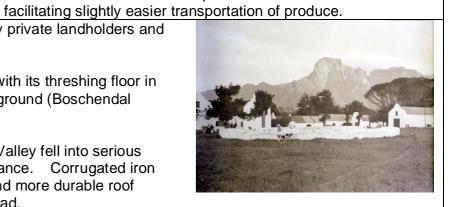
International events	Local events	Drakenstein and Dwars River Valleys
Date Events	Date Events	Date Events
		owned half of the Valley and remained the controlling family through the 18 th and 19 th C. Meererust and Eenzaamheid Title Deeds were granted Boschendal Title Deed was granted as 2 farms, the first to Huguenot Nicolaas de la Noi/Noij in 1890, the second to Jean de Long in 1713, transferred to Abraham de Villiers in 1715. Remain in de Villiers family until 1879. One of 3 brothers who collectively became one the controlling families of the Valley. Present house completed in 1812. Remains of mid 18 th C house evident foundations to present house. Languedoc Title Deed (right) granted to Pierre Benezet. Was purchased in 1700 by the owner of Rhone, and was thereafter referred to as Rhone and Languedoc'. Rhone Title Deed to Huguenot Jean Garde. In 1700 he acquired the adjacent farm Languedoc to be farmed as a single unit. The farms were acquired by Claudine Lombard in 1727 – an example of how women became important landowners in the early Cape and how property could be transferred through the fem line. The farms were owned by two women (Claudine Lombard and later her daughter Magdale for almost a century. Oldest building is the wine tasting centre, perhaps the original homestead Present homestead completed in the 1760s during the ownership of Pieter and Magdalena Joubert, nee Lombard. The farms acquired by Haupt famly in the 19 th C. Bethlehem Title Deed (right) granted to Petrus Simond, the Minister who accompanied the Huguenot refugees to the Cape in 1688. Being in the employ of the VOC, the company built him a house on the farm. He left the Cape in 1702 (Vos, 2008). In the mid c19 th the farm was transferred to the Haupts, owners of Rhone, Lanquedoc and Goede Hoop. Ruins of original house
		south-west of the current building. The current homestead, barn and cellar are considered to have been constructed mid 19 th C (V 2008).

International events	Local events	Drakenstein and Dwars River Valleys
Date Events	Date Events	Date Events
	Early 18th century In early Cape slavery, slaves were sometimes granted their freedom in gratitude for service by the last will and testament of their owners. Slave women were also freed when they married settlers, a relatively common practice. Freed slaves and their families could become important landowners and farmers.	 By 1700, 80 slaves were recorded in the Valley, 70 men, 6 women and 4 boys (CA A2250), and by 1710 drawings of the settlement including a church and houses were being undertaken by travellers. Inventory taken on the death of Maria Klement (wife of Jacobus van As) lists them with three children, owning three (unnamed) pieces of land in Drakenstein, and as having three (unnamed) slaves, at least one of which was female, 5 horses, 900 sheep, 115 and household goods (CA MOOC8/1.60).
	"In the 18 th century 'de Kaap' referred to the area within a day's journey of Cape Town" (Penn,	Figure (right) Drawing of the settlement in c1710 by Valentijn (Boschendal Private Collection)
18 th c VOC mandated to exploit the minerals of their far reaching outposts	2005:9) 1710 Slave shortage resulted in requests to apprentice children of free Khoi women and slave fathers (Clift, 1985) 1713 Smallpox epidemic with slave and Khoi populations experiencing high death rates. 1721- 1775 Use of Khoi labour increased, culminating in the 1775 indenture system, where children of Khoi mothers and slave fathers could be indentured from 18 months to 25 years of age. 1770 (below) "A plan of the Town of the Cape of Good Hope and its environs" taken by Monsieur Boursett, December 1770, published in London, 1795 (Vergunst, 2001)	 Goede Hoop Title Deed was granted to Susanna de Vos (widow of Nicolaas de la Noij). It appears to have been occupied for some time before the grant. In 1735 De Villiers bought by Abraham de Villiers, youngest son of Jacque de Villiers of Boschendal Remained in the de Villiers family throughout 18th and 19th C. Present homestead built in 1821. Foundations of original house in backyard of present homestead. 18th C fabric is embedded within werf e.g. stables and annex. Strong 19th layering, most notably the homestead, cellar and werf layout. Boschendal B granted to Jean de Long. Transferred in 1715. Inventory taken on the death of Jacobus van As. His widow was Helena Schalk van Merwen, and they had six children (presumably including the three from his first marriage), 5 pieces of land consolidated into one farm (Nieuwendorp), a farm in Paarl (Witsenbergh), 1370 sheep, 129 cows, 12 horses, nine male and 2 female slaves and extensive household goods and produce (CA MOOC8/2.89). By 1724, the de Villiers family had purchased Nieuwedorp (Lucas, 2004). 1730s Construction of the northern portion of the Taphuis (outbuilding on Rhone), to incorporate the pioneer dwelling (constructed between 1690 and 1720). It is thought that the building may later have housed slaves and had a fowl run on one end (Vos, 2004). 1740s (right) Plans of shafts perhaps connected with the Silvermine (Lucas, 2004) 1743-1744 Precious metals were "discovered" in the Simonsberg by Frans Diedreik Muller. A group of wealthy and influential VOC officials at the Cape set up a mining company called the Octroojeerde Society der Mynwerken aan de Simonsberg and the mine was called Goode Verwachting or Great Expectations. Work began in 1743. Muller was appointed as bergmeetster (mining master). Labour fell to VOC soldiers, sailors and some slaves, the number of which grew as conditions worsened. By 1747 the mine housed about 40 people. Long tunnels were dug into the hillside along with connecting shafts of

	ational events	Local e	events	Drakenstein and Dwars River Valleys
Date	Events	Date	Events	Date Events
1792 by 1795	War broke out between France and Britain VOC was bankrupt with far-reaching consequences for its settlements, and Britain annexed the Cape.	1755 1767 1795 c1800	Smallpox epidemic with 2072 reported fatalities in the settlement (Worden, et.al.1998). Outbreak of smallpox, with slaves and freeblacks severely affected, fewer fatalities than previously. The British East India Company took over administration of the affairs of the bankrupt VOC.	a wash house, smelting works, coal store and labourers dwellings still exist. C18th ruins of a huge stone structure described in the mining records as a water mill or water muragie, situated on the farm named Papiermolen or Paper Mill. No contemporary viable water source is available but the main structure comprises two solid central piers that suggest that it carried heavy machinery like wheels or cogs. Inventory of Susanna Gardiol and Claude Marais of Drakenstein indicate them owning Meerrust, Lekkerwijn, Plessi Marli and wel van Pas as well as a house in Cape Town; an example of the accumulation of land and wealth by this time. Inventory listing of 'Rhone and Languedoc' after the death of the owner's wife (Claudina Lombaart) names six children and 4 farms owned by the couple in Drakenstein. The inventory described (on Rhone and Languedoc) a T shaped house, separate cellar, mill house and wagon house, lists and names 5 male slaves, 39 oxen and 2 horses among many other belongings (CA MOOC8/7.59). Inventory of Pieter Booijs, living at Nieuwedorp, but who did not own the farm contains interesting items of wealth (e.g. silver buttons and a gold ring) but it appears he had no dependants, nor any land (CA MOOC8/11.12) Bethlehem was inventoried, after the death of Johanna le Roes (wife of Andreas du Toit) perhaps in childbirth, as goods are listed and a year later the list was confirmed and at that time included a one year old child not listed in the first inventory (CA MOOC8/17.16b) Goods listed are one slave, 9 oxen, 3 horses, and some equipment. There was no description of dwelling, but there were sufficient goods to have warranted a building of sorts (CA MOOC8/17.16b and CA MOOC8/17.16b). There were 4.2 million vines in Drakenstein. Right: Portion of a mapped summary of land grants in the Drakenstein Valley until c1750 shows occupied and unoccupied land and the distribution of agricultural land across the Valley slopes and floor (Guelke, 2004).

International events	Local events	Drakenstein and Dwars River Valleys
Date Events	Date Events	Date Events
1802 Treaty of Amiens	1803 Batavian government took over management of	Early 19 th
1807 British abolition of oceanic Slave Trade.	the Colony. 1804 Freedom of religion granted by de Mist.	C Many of the architectural set pieces of the Valley established during economic boom including the homesteads of Boschendal, Rhone, Goede
1814 Anglo-Dutch Treaty. Britain declared the Cape of Good Hope a British Colony.	1808-1816 Illegal slave ships captured by the British were invariably redirected to the Cape and some 1750 'prize negroes' entered the Cape labour market and were apprenticed for	Hoop & Bethlehem. Separate accommodation quarters for slaves began to be built on the wealthier farms, thus housing the expanded slave population.
1832 Great Reform Act (UK). Number of people eligible to vote increased.	periods of fourteen years in this way (Saunders in Bank, 1991:23). Early 19 th	Thibault Military survey (right) of the Valley and surrounds is an exceptional depiction of topographical features (roads, paths and rivers) and the occupants of farms (CA M3/405). It visually illustrates the Dutch manner of 'setting
1834 Abolition of slavery in British Colonies.	century Period of agricultural prosperity in the wine industry at the Cape through preferential tariffs in export. Trade with England created a huge market for wines.	out places' where roads travel between people, as compared to the later British manner where roads travel in relatively straight lines between places.
	1812 Amendment of the 'Hottentot Proclamation'	1810 There were 16.9 million vines in Drakenstein.
	allowed Khoekhoen children to be indentured from age 8 for ten years.	1817 Beginning of quitrent grants, which substantially enlarged landholdings across the Valley and effectively removed common arable and grazing land between farm holdings, rendering all but the outspans to private land ownership.
	1816 Registration of ownership of slaves became mandatory, and births, deaths and transfers were recorded.	1823 Wine Producers returns for Boschendal, Rhone & Lanquedoc, Bethlehem, Johannesdal, Papiermolen, Goede Hoop (incl. Johannesdal?)
	Wine producers returns were recorded, along with the numbers of slaves and Hottentots working on farms. Wine prices started dropping in c1821 and continued to do so, creating economic hardship for wine farmers.	and Nieuwedorp indicate that across these farms there were 36 Hottentots and 118 slaves in 1823 (CA WT17). The De Villiers family owned four of the seven farm sets at the time, two of which were owned by widows.
	1828 Ordinance 50 granted freedom to the Khoekhoen and entrenched religious freedom. Post of Surveyor General created to ensure cadastral control of land.	1830s (right) Survey compilation of land in the Drakenstein Valley. All of this land except Rachelsfontein and de Bordje was privately owned by the 1830s, and the outspans were privately owned by the 1870s. Roads and rivers have been emphasised for clarity.
	1833 Between 1833 and 1841 some 700 British children were brought to the Cape and	1843 Farm land from Papiermolen and Goede Hoop was
	indentured to local employers. 1834 Slaves emancipated to apprenticeship and freed in 1838.	donated towards the establishment of a mission station for freed Christian slaves (Pniel). Each family was given a plot to build a house and
	1836 Slave compensation payouts began to take effect, with owners being paid for the loss of their property. The capital injection into the Cape through payouts was equal to the gross domestic product of the time	allocated arable land to grow vegetables. The primary objective of the Church mission was religious instruction and baptism into Christianity, but it also provided the opportunity for social stability within the labour force upon which the farmers were dependent. Under the patriarchal and
	(Meltzer). 1840 Outbreak of smallpox (Weeder, 2006) 1840s Period of economic hardship, sometimes	strict tuition of Minister Stegman, (who remained at Pniel until his death in 1910), the community was preached self sufficiency, independent identity and taught skills seen as empowering freedom from the ethos of slavery. Many of Pniel's residents can trace their family histories to the founding

Internat	tional events	Local events	Drakenstein and Dwars River Valleys
Date	Events	Date Events	Date Events
		claimed to be linked to emancipation. Severe economic depression from the 1860s. 1849 Protests against the importation of convicts into the Colony. 1858 Outbreak of smallpox (Weeder, 2006)	of the village. A close knit community with strong familial links has developed. Pniel has strong connections to RFF, with successive generations of families having worked for Rhodes Fruit Farms/Amfarms. Survey of proposed change of old road in order to shorten the distance between Stellenbosch and Franschhoek, new Helshoogte pass and R310 followed the completion of a new hardened road from Klapmuts to Cape Town and facilitating slightly easier transportation of produce.
1860 E	Britain abolished preferential tariffs for Cape wines, which were unable to compete with European wines for quality.	 1860s Discovery of diamonds 1860s Drop in Cape export wine trade. 1880s Discovery of gold. 1882 Disastrous outbreak of smallpox, catalysing th introduction of cemetery closure and the 1886 cemetery riots. 	1870s Outspans began to be purchased by private landholders and incorporated into farms. Image (right) Boschendal late 19 th century, with its threshing floor in the foreground and historic werf in the background (Boschendal Private Collection)
1860s Scramble for Africa1872 Responsible government granted to the Cape.	1890s Consolidation of British Colonial interests in Cape Colony; development of harbour and railway to Beaufort West and Kimberley. Late 19th century Period of economic decline at the Cape 1886 Outbreak of phylloxera destroyed virtually all Cape vineyards, leaving many farmers bankrupt and the Cape economy in ruin. 1892 Franchise and Ballot Act excluded many African men from the vote. 1895 The Jameson Raid sparked massive controversy in the Boer Republics and eventually led to the Outbreak of War between the British and the Boers.	Late 19 th C Many of the homesteads of the Valley fell into serious disrepair following little maintenance. Corrugated iron replaced thatch as a cheaper and more durable roof option, e.g. Bethlehem homestead. 1897 Beginning in 1897 Cecil John Rhodes and his agent, Michell, advised by Harry Pickstone, bought 26 farms and consolidated them into Rhodes Fruit Farms . Rhodes instructed his agents to give preference to those farms with examples of Cape Dutch homes, and he set aside substantial sums for their maintenance. The historical homesteads became the manager's houses. Extensive orchards were planted and fruit became the primary produce of the Valley. Rhodes died before his vision of a Cape fruit industry was fully realised but Pickstone, whose technological advances and international expertise influenced fruit production in South Africa, implemented his vision. Farms consolidated into Rhodes Fruit Farms included Boschendal, Rhone, Lanquedoc, Goede Hoop, Nieuwedorp, Champagne, Weltevreden, Lubeck, Werde, Watergat, Zondernaam and Bien Donne.	
		Right: Leander Starr Jameson as caricatured by Vanity Fair (UK) in 1895 Below: Paul Kruger caricatured by Vanity Fair (UK) in 1899	c1897 Johannesdal established when 8 farmers from Pniel obtained small holdings along the southern boundary. Kylemore was established around the turn of the century. Below (left) Alys Fane Trotter drawings of Boschendal stoep, Goede Hoop and Rhone homesteads Below (right) Pemberton Drawing of the Simonsberg looking up the entrance axis to Nieuwedorp (c1900, Boschendal Private Collection)









International events	Local events	Drakenstein and Dwars River Valleys
Date Events	Date Events	Date Events
	1899- 1902 The South African War (Previously referred to as the Anglo-Boer War or the Great War). Right: Cape Garrison artillerymen at camp in the Durbanville area (CA	Herbert Baker's extensive architectural intervention in the Valley began at Rhodes' request. Baker designed a cottage for Rhodes that was constructed on or adjacent to the site of the ruined Nieuwedorp homestead. It combined Cape cottage features with the Arts and Craft movement, and Rhodes died before it was complete. Rhodes Cottage became a guesthouse for use of the company's executives and international political and business personalities. It contains items of furniture and memorabilia important to RFF, and was renovated in the early 1990s.
	Below: c1899 Cecil John Rhodes on the stoep at Groote Schuur (Durbach, 1988)	The village of Lanquedoc was designed by Baker and built for RFF farm workers. It consisted of 140 cottages, each with a garden and included a church and a school. The village design was intended to attract good labour away from the mines. Unique example of planned labourers' housing.
		1900 The Champagne homestead was completed. Designed by the architectural firm of Baker, Kendall, Massey & Earl, it was situated on a farm adjacent to Boschendal.
1901 Death of Britain's Queen Victoria		 1900 (Right) Brink series map of the Drakenstein Valley and surrounds, depicting cadastral and topographical features. 1904 Drakenstein's role in water supply to Cape Town
	1901 Outbreak of the Plague in Cape Town, causing the location of the first 'native compound' at	consolidated. Railway to the Valley made transport of deciduous fruit to Docks easier.
	Ndabeni. 1901 The Locations Act was the first legislation that forced segregated residential living	1914 Rhodes Fruit Farms acquired a portion of land that contains the old mining shafts. The title deed includes reservation of the rights to all precious metals on this land.
1914- 1918 First World War	1902 Rhodes died at his house in Muizenberg 1904 Cape Town Waterworks planned a pipeline from Drakenstein to Cape Town on the French Hoek Water Scheme. The South African War (Previously referred to as the Anglo- Boer War or the Great War).	Right: Landscape photograph of Drakenstein mountain with a bridge over the Dwars River in the foreground, and a cart approaching the (unknown) photographer (Boschendal private Collection). Left: Topographical survey of Rhodes Fruit Farms' landholding, c1920s (Boschendal Private Collection)
	1906 Economic depression worst since the 1880s 1910 Union of SA 1913 Natives Land Act limited ownership of land by Black South Africans to the 'reserves', and was the beginning of increasingly restrictive legislation.	THE RHODES FRUIT FARMS LTD. TOPOGRAPHICAL PLAN OF THE FARMS LTD. TOPOGRAPHICAL PLAN O
	1919 Outbreak of Influenza caused many deaths and subsequent hardship.	

Interna	ational events	Local events	Drakenstein and Dwars River Valleys
Date	Events	Date Events	Date Events
1926 1931	Balfour Declaration Statute of Westminster	Below: Portrait of Herbert Baker at work (Durbach, 1988)	1925 De Beers took over RFF and appointed an international expert in the fruit industry, Alfred Appleyard, as Managing Director with the aim of efficient consolidation and restructuring of the business operation. A jam factory and cannery were established and planned use of water resources was part of the medium term implementation for the consolidated operation.
1936- 1945	Second Wold War		Image (right) The view across Rhodes Cottage, part of the farming operation that remained vines over the extensive change to fruit of the rest of the farms. These remain some of the most productive vines on the Boschendal Estate (Boschendal, 2007)
			 1920s The first house in Pniel received electricity, but most houses only received access to municipal services (like refuse collection) in the 1980s. 1933 Right: Landscape photograph of Drakenstein from Helshoogte (CA E5834)
			1934 Construction of a number of Bell Towers on RFF farms in commemoration of slave emancipation.
			1937 De Beers sold RFF to Abe Bailey. Below: photographs of the major set-piece homesteads taken in the early 20 th century. From left to right: Boschendal (CA E2573); Rhone (CA E528); Goede Hoop (CA E756), and Bethlehem (unknown, Boschendal Collection)
1960	South African Republic; Increasing isolation and international sanctions	1948 National Party came to power and a bank of	1940 Syndicate of businessmen purchased RFF after Bailey's death. They owned and developed the farms for the next 28 years.
	international cartolions	legislation entrenching segregation and apartheid ensued with overwhelming	1940s Expansion of Lanquedoc Village
		consequences for South Africa and the labour and social structure of the Western Cape.	Right: Photograph of labourers waiting to be paid in Lanquedoc Village, date of photograph is unknown (CA AG7532)
		 1950 Population Registration Act required racial classification of all South Africans. 1950s Transportation, refrigeration and irrigation revolutionised agricultural production. 	1950s Jack Manning appointed Managing Director after the death of Appleyard in 1949. Massive expansion undertaken - new dams and irrigation, new workers cottages, trucks and tractors replaced horses and mules, altering transport mechanisms

International events	Local events	Drakenstein and Dwars River Valleys
Date Events	Date Events	Date Events
	1954 Group Areas Act of 1954 irrevocably altered the nature of settlement and understandings of community across South Africa.	altogether. Irrigation doubled the productive agricultural area and increased yields by 700%. Refrigeration technology improved and export markets boomed. Bethlehem, with substantial planned subdivision was bought by RFF. By 1968 RFF employed hundreds of people and produced and packaged large scale export crops.
	1961 Sharpville uprisings resulted in multiple deaths.1966 The Berg River water articulation Project began.	 Johannesdal, Lanquedoc, Pniel and Kylemore declared 'Coloured' areas in terms of the Group Areas Act, illustrated in a site plan showing liquor restrictions concomitant with the declarations. Further expansion of Lanquedoc took place. Anglo American with De Beers purchased RFF, became Amfarms for the next 31 years. Development of cottage cluster housing typologies for farm workers, built over the next 20 years, began in 1963.
	1970s Increase in political awareness and resistance to apartheid across the country, coupled by popularisation of the Black Consciousness movement and student protests to being taught in Afrikaans.	1970s Amfarms re-established the wine industry in the Valley under the Boschendal brand. Right: Excelsior and Rhodes Cottage, which became the guest-house of RFF (CA AG7545; AG7530; AG 7547)
	1976 Massive resistance to 'gutter education' culminated in the Soweto riots and country-wide political activism, and sparked extensive arrests and security police clampdowns to quell the resistance and return the	 1974 on Gawie and Gwen Fagan restored the Boschendal homestead and gardens to their 19th century appearance. Original entrance to the front of Boschendal made redundant by the current access to the rear. Homestead was declared a National Monument and established as a museum open to the public, modelled on the grand European country establishments. It was period furnished to the early 19th C with many pieces being loaned or donated to the Rhodes National Heritage Trust. Restaurant opened in 1978 in the old wine cellar, beginning the custom of Winelands restaurants serving traditional Cape cuisine, now popular with local and international visitors. Many generations of the Valley's families have been involved in the restaurant, which provided opportunities for skills training. 1974 Municipal upgrade to all roads included the re-alignment of the road through Pniel and Boschendal and the removal of Oak trees in Pniel. 1976 Thembalethu 'Bantu Dormitories' plans drawn and implemented (see Figure below left and photographs below right)
	country to apartheid status quo.	1978 Extensions to existing 'Coloured' school. Plans for the restoration of Rhone drawn by the Fagans, implemented c1979.

International events	Local events	Drakenstein and Dwars River Valleys
Date Events	Date Events	Date Events
	1980 Declaration of a State of Emergency	1980s Building additions and alterations on a number of RFF sites. Expansion of restaurant tourism catering to the new demand for informal visitor experience resulted in establishment of Le Pique Nique at Boschendal. In the mid 1990s the old slave quarters were converted into a second restaurant.
	1983 Institution of Tricameral Parliament	1983 The first Xhosa school, Nondzame, was established at Uilkraal.
	Toda mondiar of modifical candidate	1990s State of the art red wine cellar built at Rhone to improve red wine quality and major improvements undertaken to the vineyards giving rise to wines that would win many awards e.g. the coveted SA
	1990 ANC unbanned; Nelson Mandela released from prison and date announced for first democratic elections	Wine Grower of the Year award at the International Wine and Spirits Competition in the UK in 2004. Many generations of the Valley's families have worked in the wine industry in the cellar and vineyards.
	4004 First democratic elections Noles y Mandele	 Land owned by the church until 1994 transferred to residents. Mountain lands above Nieuwedorp and Bethlehem were conceptually delineated from the farming operations and declared nature reserves – The Simonsberg and Drakenstein Nature Reserves.
	1994 First democratic elections; Nelson Mandela first democratically elected president.	Below: Appleyard photograph, taken c1930s showing Lanquedoc to the right, and the expanse of de Bordje extending up the Drakenstein Mountain, this is now Nature Reserve land.
	1995 Repeal of racially based legislation and introduction of legislation aimed at social and economic upliftment and justice including land reform, housing and infrastructure provision, e.g. Establishment of Security of Tenure Act (Act 62 No 62 of 1997 ESTA)	
		Extensions to Lanquedoc village were completed and ownership of the new and existing houses transferred to existing and retired workers of Boschendal Farmlands funded by Anglo American and the Land Affairs as part of a land reform project.
		Archaeological research on the silvermine ruins and Goede Hoop homestead carried out by a team led by Dr Gavin Lucas of the Cambridge Archaeological Contracts Office.
		Right: Layout of Goede Hoop werf by Lucas' team of archaeologists (Lucas, 2004)
		Anglo American sells its historical landholdings in the Valley to Boschendal Ltd and Two Rivers Development Company. Conditions of sales stipulated various requirements for social and economic upliftment and conservation. This culminated in the formulation of the Sustainable Development Initiative (SDI).
		2004 Hennie Vos archaeological investigations of buildings on Goede Hoop and Rhone, and in 2007/8 of Bethlehem.

In Brief - People and their connections:

People are listed in more or less the era in which they were in Drakenstein. The order of listing is reflective of nothing more significant than that. There are a few factors that need to be borne in mind while reading this list. These are:

- o History is biased. Historical records can be collated to tell stories about people whose actions gained the attention of record keepers for various reasons, in the manner that was indicative of that period of time. This reflects the biases of that period in history rather than reflecting a bias in collecting material now. For instance, landowners can be traced, for periods of time agricultural produce can be estimated, Christian births, baptisms, marriages and deaths may be traceable, but the lives of those marginalised by the dominant hegemony of the time are virtually invisible. Slaves and Khoekhoen were only recorded in exceptional circumstances, and not usually in ways that can produce longitudinal progressions of their lives.
- o It is important to note that during the VOC period women, once married, did not change their names, they retained the name that they were born with, and are therefore referred to by that name in official documents, and with their marriage partners name where applicable. The system of inheritance was both patriarchal and matriarchal, which gave women a certain retained legal status that shifted depending on whether they were single or married, but was retained regardless of marital status.
- o British period records differ quite markedly from Dutch period records, and the different governance foci are directly reflected in the kinds of records kept. Below is a listing of items of largely social history which have bearing on understanding the dominant class in the Valley, but also have some unusual notations of the marginalised.

Who they were, when	Who they were connected to	What is known of the story at this point:
Jacob van As (Jacobus) arrived at Drakenstein in the late 1680s.	Jacobus was one of the children of Angela of Bengal (Mooi Ansiela or Ansela), a slave who had served and was freed by Jan van Riebeeck and was manumitted in 1666 (Lucas, 2004). Jacobus first married Maria Clement/Klement, and after her death Helena van der Merwe (Lucas, 2004). Jacobus was the half sister of Anna de Koning, another child of Ansela's, who married Olof Bergh and became extremely wealthy and possible the most famous free black woman at the Cape.	Angela was freed in 1666 with her three or four children, and in 1669 married and ex-VOC soldier, Arnoldus Basson. They had several more children themselves, and were granted land in Basson's name, next to Jacobus van As in Drakenstein, while keeping land at Cape Town. A third piece of what became Nieuwedorp was granted to Willem Basson, Jacobus' half brother. Willem married Helena, Maria's sister. Jacobus died at Drakenstein in 1713, leaving Helena Schalk van Merwen a widow with six children and 625 acres of productive farmland at Drakenstein and land at Paarl (CA MOOC8/2.89). His half sister, Maria Basson, died widowing Christiaan Maasdorp with apparently no children and two properties on the Liesbeek river and another in town (CA MOOC8/2.92). The inventories of van As and Maria Basson were taken on the same day, 30 th November 1713. Helena Clement also died in 1713 at Hout Bay, widowing Willem Basson and leaving him with their two children (CA MOOC8/2.76). After Jacobus' death in 1713, his widow married Christiaan Maasdorp, who had likewise been widowed in the same year. (Lucas, 2004). The familial links were powerful, and retained power by both continued and newly created links between the extended family. In 1716 they sold Nieuwedorp and moved away. See Lucas, 2004 for extended description.
Claas Anthonij Anthonij van Madagascar Jacob Mars Moses Cupido Sambo Andries Flora Marie, 1713	Jacobus van As and Helena Schalk van Merwen (CA MOOC8/2.89) or van der Merwe (Lucas, 2004).	These were the slaves belonging to the couple at the time of Jacobus van As' death in 1713 (CA MOOC8/2.89). Helena remarried to Christiaan Maasdorp or Matzdorp (Lucas, 2004), and nothing further is known about the slaves.
Abraham de Villiers from 1689	Pierre de Villiers and Jacob de Villiers (brothers).	Abraham de Villiers arrived at the Cape with his two brothers Pierre and Jacob, in 1689 from a wine farm in the Champagne district of Burgundy, France. They had been recommended to the VOC at the Cape as having good knowledge of wine farming. They settled in the Oliphansthoek (now Franschhoek) on adjacent farms, which they named Champagne, Bourgogne and La Bri. (Lucas, 2004). In 1702, he made 6 complaints against a Hottentot called Kleine Kaptein who likewise accused him of abuses (see Lucas, 2004), and in the same year Abraham moved to the Dwars River Valley, buying Meerrust. He later purchased Boschendal (1710) and Lekkerwijn (1716). He sold Boschendal to his brother, Jacob, who relocated from Franschhoek. The two brothers were married to Huguenot sisters Susanna and Marguerite Gardiol. Abraham died in 1720 and his wife, who remarried and lived in Cape Town, inherited the farms. He had one

Who they were, when	Who they were connected to	What is known of the story at this point:
		son, who was disabled, but he ensured that the farms remained in the de Villiers family by leaving them to his wife. After her death, the two remaining properties were passed onto his daughters (in their husband's names). The properties were later passed back to a male de Villiers descendant, Jacob's son, Jan. Jan acquired Boschendal after his father's death, in 1736 (Coertzen, in Lucas, 2004).
Jacob de Villiers, 17 th and 18 th century	Brother of Abraham and father of 12 children (7 boys and 5 girls), including Jan, Abraham and Jacob, who were influential at Drakenstein.	See above for origin. Jacob moved to Drakenstein from Franschhoek when he acquired Boschendal from his brother, Abraham between 1710 and 1720. In 1724, Jacob acquired Nieuwedorp, making him the largest landowner in the Valley, and putting his landholding at over 1000 acres. Jan and Abraham married sisters, Elizabeth and Susanna Joubert, whose aunt, Louisa, had married their older brother, Jacob. The Jouberts were also wealthy and influential Huguenot settlers (Lucas, 2004). Abraham, acquired Goede Hoop in 1735, placing two brothers and their wives (who were sisters) on adjacent farms.
Pierre Jacob and Susanna de Vos	Huguenot refugees. Susanna de Vos married Nicolaas de Lanoij after Pierre Jacob's death (Vos, 2004).	Pierre Jacobs and Susanna de Vos had three children, Daniel, Sara and Susanna. Pierre died in 1693 (Le Roux & Le Roux, in Vos, 2004). Susanna de Vos married de Lanoij in 1698, who owned Boschendal. De Lanoij died in 1703 and de Vos had died by 1708. An inventory taken at the sale of goods after Susanna's death indicates that either Boschendal or Goede Hoop was being taken care of by Hans Hattingh. Hattingh was married to de Lanoij's sister (CA MOOC8/2.24 and Lucas, 2004). There were no slaves among the possessions. Hattingh bought Goede Hoop at that time, keeping it within the extended family. Other people in the Valley who bought things at the sale were Gerrit Basson, Jacobus van As, Abraham de Villiers, and de Vos' son and two sons-in-law (CA MOOC8/2.24)
Frans Deidrik Muller, husband of Catharina Gertuuijd van Staaden 1747	Catharina was the daughter of Cornelia Venter, who was married to the 'landbouwer' Carel Titus Just	When, in 1747, Cornelia died, she was married to Carel Just and they owned Seeven Rivieren in Banghoek and de Wolvedans in Stellenbosch. Catharina was one of three children from her mother's first marriage and there were six Titus children, varying in age from 18 years to 5 months old. (CA MOOC8/6.122) Muller, Catharina's husband, was the man responsible for the Silver mine at Drakenstein.
Titus van Malebaar Arend van Bengalen Cupido van de Kust Alexander van Bengalen Onkruijt van Bengalen Fortuin van Boegies Erasmus van de Caab Rosetta van Bengalen Dina van Mallebaar	Cornelia Venter and Carel Titus	They were listed as the slaves of the couple at the death of Cornelia in 1747 (CA MOOC8/6.122). Their familial or social connections are unknown. There are two female slaves listed.
Fortuin van Rio de la Goa Fortuin van Bengalen Pieter van Ceijlon September van de Caab Julij van Boegies, 1749	Claudina Lombaart and Gerrit van Hoeting	They were named as the slaves of Gerrit van Hoeting after Claudina's death at Rhone and Languedoc in 1749 (CA MOOC8/7.59). Their social or familial connections are not recorded, nor is it known what happened to them.
Frans van Mosambiqc, 1777	Johanna le Roes and Andries Stephanus du Toit	The only known connection is that Frans was named as the single slave of the du Toit's in 1777, when Johanna died. His social connections are unknown (CA MOOC8/17a)
Flux of Mozambique, labourer, sold 1821 Carolus of Mozambique, labourer, manumitted 1827 Maandag of Mozambique, labourer Mentor of Mozambique, labourer, transf 1831	Paul de Villiers, Jan's son, Boschendal, who had extensive family links in the Cape and at Drakenstein.	These were all slaves owned by Paul de Villiers, of Boschendal between 1817 and 1836 (from Boschendal Private Collection, from the CA SO records, the exact reference is not available). This is a slave listing for a single Drakenstein farmer, with more than one property. Iferences that can be made from this list are: Mothers and children (fathers were not recorded), the heartbreak of infant losses and the separations of mothers from their children by transfer:

Who they were, when	Who they were connected to	What is known of the story at this point:
Solon of Mozambique, herdsman	This they were confidence to	Philida was the mother of twins Willig and Klaas, both of were born 1817 and died 1818, Oranje b 1818, Lea b
Syn of this Colony, herdsman		1819. Philida was sold in 1820 but her children were not
Frans of this Colony, herdsman		Saartijie was the mother of Jephta b 1827 (when Saartjie was 18), Goliath b 1830, Candaza b 1832 and Sara b
Oranje of this Colony, labourer		1834
Saloman of this Colony, labourer,		
sold 1823 Arend of this Colony, labourer		Styn was the mother of Jephta b 1820 d 1822, April b 1822, Adam b 1825, Philida b 1831 and Frans b 1834
Goliath of this Colony, labourer		Lys was the mother of Dorenda b 1818 and Klaas b 1821. Lys was sold in 1823. Her children were not.
August of this Colony, labourer		
Adriaan of this Colony, coachmen		Candaza was the mother of Syn b 1822
Isaac of this Colony,		
Geduld of this Colony		Mina was the mother of Adam b 1821. Mina was sold in 1826, and Adam sold 10 years later.
Willig, son of Philida, born 1817		
died 1818		Of interest is that a number of the children were given the names of another slave, some of the boys have the
Klaas, son of Philida, born 1817,		name of a male slave, but whether or not that indicates familial links is unknown. Some children's mothers are
died 1818 (twin of Willig)		not named and it is possible that the named mothers had additional children to those recorded.
Oranje, son of Philida, born 1818		
Abel of this Colony,		Nothing further is directly known about these people post-emancipation. There are not a full collection of slave
Braam, 1 yr old in 1817		records for all of the RFF farms in the Boschendal Collection, but they would provide similar kinds of
Fortuin, 2 yr old in 1817		information.
Cornelis of Mozambique, cook,		
died 1829		
Jephta, son of Styn, b 1820, died		
1822		
David of this Colony, labourer,		
transf 1831		
Manuel of this Colony, labourer,		
transf 1829		
Adam son of Mina, transf 1836		
Klaas, son of Lys b 1821		
Syn, son of Candaza, b 1822		
April son of Styn, b 1822		
Mandie of this Colony, d1824		
Adam, son of Styn, b 1825		
Jephta, son of Saartjie, b 1827		
Goliath, son of Saartjie, b 1830		
Frans, son of Styn, b 1834		
Formula		
Females:		
Lys of this Colony, housemaid, sold		
in 1823		
Dorenda, daughter of Lys, b 1818		
Philida of this Colony, housemaid,		
sold 1820		
Mina of this Colony, housemaid,		
sold 1826		
Dorenda of this Colony, housemaid		
Styn of this Colony, housemaid		
Saartjie of this Colony		
Lea, daughter of Philida b 1819,		

Who they were, when	Who they were connected to	What is known of the story at this point:
died 1819		
Lea of this Colony, 4 yrs in 1819		
Candaza of this Colony, housemaid		
Philida daughter of Styn, b 1831		
Candaza daughter of Saartjie, b		
1832		
Sara daughter of Saartjie, b 1834		
1017 1000		
1817-1836		
Herbert Baker	Cecil John Rhodes	Baker was born in Cobham, Kent, in 1862.
		He arrived in South Africa in 1892. He forged powerful alliances with Cecil John Rhodes, and was active as an
		architect in South Africa from 1892 to 1912, although he practiced in the Cape largely until Rhodes' death in
		1902, after which his Cape office continued to function, but he moved to the Transvaal. He left for India in
		1912.

REFERENCES

- Anderson, M. & Field, S. 2003. *Langa Heritage Study*. Unpublished report for the Planning and Economic Development Directorate, City of Cape Town
- Bank, A. 1991. The decline of Urban Slavery at the Cape, 1806 to 1843. Cape Town: Centre for African Studies.
- Bickford-Smith, V. 1995. Ethnic Pride and Racial Prejudice in Victorian Cape Town: Group Identity and Social Practice, 1875-1902. Cambridge: Cambridge University Press.
- Bickford-Smith, V. 1997. *Leisure and Social Identity in Cape Town*, British Cape Colony, 1838-1910, Cape Town: University of Cape Town. pp1-33.
- Baumann & Winter. 2005. Boschendal Heritage Impact Assessment for the Founders Estates. Unpublished Report for SAHRA.
- Boucher, M. & Penn, N. 1992. Britain at the Cape, 1795-1803. Houghton: Brenthurst Press.
- Coertzen, P. 1998. The Huguenots of South Africa. Publisher details unknown.
- Da Costa, Y. & Davids. A. 1994. Pages from Cape Muslim History. Pietermaritzburg: Shuter & Shooter.
- De Wet, G.C. 1987. "White Settlement in the Drakenstein Valley up to 1700", in Oberholster, A.G. (ed) *Paarl Valley 1687-1987*. Pretoria: Human Sciences Research Council.
- Durbach, R. 1988. Kipling's South Africa. Cape Town: Chameleon Press.
- Guelke, L. 1989. Freehold farmers and frontier settlers, 1657-1780. In: Elphick, R. & Giliomee, H. (eds) *The shaping of South African society* 1652-1840. Cape Town: Maskew Miller Longman.
- Kantor, P., Todeschini, F., Pistorius, P. 2005. Cape Winelands Cultural Landscape: IDAS VALLEY, Stellenbosch. Unpublished Draft 2 Conservation Plan for Public Comment prepared for the Idas Valley Heritage and Environmental Association.
- Oberholster, A.G. (ed.). 1987. Paarl Valley 1687-1987. Pretoria: Human Sciences Research Council.
- Penn, N. 2005. The Forgotten Frontier. Cape Town: Double Storey Books.
- Randle, T. 2005. Brief Historical Timeline of the Dwars River Valley for the Last 2000 years. Unpublished report compiled for Baumann and Winter Boschendal Estates Heritage Impact Assessment.
- Vergunst, N. (ed & curator). 2001. *Hoerikwaggo: Images of Table Mountain. C*ape Town: South African National Gallery.
- Vos, H. 2004. Rhone Farm, Groot Drakenstein: Structural Investigations of an 18th century Outbuilding. Unpublished report for Dennis Moss partnership.
- Vos, H. 2004. De Goede Hoop Farm, Dwars River Valley, Drakenstein: Historical Survey of the Owners. Unpublished Report for Boschendal Estates.
- Vos, H. 2008. Preliminary notes on the Owners of Old Bethlehem. Unpublished preliminary notes for Boschendal Estates.
- Weeder, M. 2006. The Palaces of Memory: A re-construction of District One, Cape Town, before and after the Group Areas Act. Unpublished Masters' Thesis for the University of the Western Cape.
- Worden, N, van Heyningen, E. & Bickford-Smith, V. 1998. *Cape Town: the making of a city*. Cape Town: David Philip.
- Worden, N. & Crais, C. (eds.) 1994. Breaking the Chains. Johannesburg: Witwatersrand University Press.

ANNEXURE G

SOCIAL IMPACT ASSESSMENT

REFER TO APPENDIX G11 OF THE BAR

ANNEXURE H

PUBLIC PARTICIPATION COMMENTS



VERNACULAR ARCHITECTURE SOCIETY OF SOUTH AFRICA

UMBUTHO WEZAKHIWO ZEMVELI WASEMZANTSI AFRIKA

VOLKSBOUKUNDIGE VERENIGING VAN SUID-AFRIKA

PO BOX/POSBUS 15347, VLAEBERG, 8018

Email: info@vassa.org.za

Website: www.vassa.org.za

10 November, 2016

Ms Lindsay Speirs Lindsay@dougjeff.co.za Doug Jeffrey Environmental Consultants

PROPOSED MIXED USE DEVLEOPMENT ON PORTIONS 7 AND 10 OF FARM 1674, BOSCHENDAL (BOSCHENDAL VILLAGE); BASIC ASSESSMENT REPORT

Thank you for giving VASSA an opportunity as an I&AP to comment on the proposed development of Boschendal Village.

VASSA's comments on the development proposals as described in the BAR and Public Meeting Information Posters are below. We have focused our comments on aspects particularly related to Heritage issues.

VASSA supports the general approach of the proposed development project which:

- Is compatible with the Stellenbosch Municipal SDF intention to use nodal development to enhance and retain the traditional open agricultural land use and vistas. VASSA would emphasize that it is essential to maintain urban edges into the future to protect viable agricultural activity and rural environments.
- Recognizes that, while the site, itself, does not offer architecturally significant buildings, the
 project must be designed to support the exceptional architectural and cultural significance
 of the surrounding heritage farms, scenic routes and the broader Dwars River Valley.
 (Heritage Resources, BAR pp60/61)

In particular, VASSA strongly supports the proposal's commitment to:

- Protect the iconic view cone from the R310 toward the Boschendal homestead and the mountains behind;
- Protect the view from the Boschendal homestead north past the new development toward the mountains to the north;
- Maintain a green buffer along the R310 Scenic Route; and
- Develop building form complementary to, without copying, local heritage buildings.

Further, VASSA supports the implementation of the recommendations of the Heritage Assessment Report (BAR, Appendix G12) and Urban Design Framework (BAR, Appendix G2). With respect to

these two elements of the proposal document, VASSA also notes the observation made in the Conclusion of the Basic Assessment Report (page 21), "The overall heritage impact of Alternative 5 (a,b or c), including the mandatory controls and guidelines specified in the Urban Design Report and recommended mitigation measures is regarded as potential medium-high positive. However, should these mandatory controls, guidelines and mitigation measures not be implemented, then the overall heritage impact of the proposed development is potentially medium-high negative." The proposed development must make provision for ongoing implementation of the controls, guidelines and mitigation measures.

While VASSA feels that the details of architectural language will be a critical aspect of the success – or not – of the development, we do not have a comment at this time on the specific elements of the Architectural Indictors and Controls. (16l and 16m: Heritage Indicators.) However the HIA refers to

"The proposal to apply for World Heritage Site status for the Stellenbosch winelands has important implications for development in the area, and particularly for maintaining the landscape integrity of the vineyards and mountain slopes in general".

VASSA emphasizes that systems must be put in place for the monitoring and management of development over time. This will be essential to ensure the ongoing management of the scale and detail of development in the village, as well as the critical interface between the proposed village and the surrounding historically significant environment.

Yours Faithfully,

André van Graai

Chairperson

Vernacular Architecture Society of South Africa



18th November 2016

Ms. Lindsay Speirs
Doug Jeffery Environmental Consultants
High Acres
Simondium Road
Klapmuts
7625

Transmitted by email to. lindsay@dougleff.co.za

Dear Ms Speirs

COMMENTS ON THE PROPOSED MIXED USE DEVELOPMENT ON PORTIONS 7 AND 10 OF FARM 1674, BOSCHENDAL (BOSCHENDAL VILLAGE): BASIC ASSESSMENT REPORT

The Cape Institute for Architecture (CIfA) as an I&AP makes the following comments on the proposed development of Boschendal Village.

CIfA generally supports the general approach of the proposed development project which:

- Is compatible with the Stellenbosch Municipal SDF intention to use nodal development to enhance and retain the traditional open agricultural land use and vistas. It is however essential to maintain urban edges into the future to protect viable agricultural activity and rural environments.
- Recognizes that, while the site, itself, does not offer architecturally significant buildings, the project must be designed to support the exceptional architectural and cultural significance of the surrounding heritage farms, scenic routes and the broader Dwars River Valley, particularly as it is proposed that it be nominated as a World Heritage Site.

Therefore, ClfA strongly supports the proposal's commitment to:

- Protect the iconic view cone from the R310 toward the Boschendal homestead and the mountains behind:
- Protect the view from the Boschendal homestead north past the new development toward the mountains to the north;
- Maintain a green buffer along the R310 Scenic Route; and
- Develop building form complementary to, without copying, local heritage buildings.





In addition, we support the implementation of the recommendations of the Heritage Assessment Report (BAR, Appendix G12) and Urban Design Framework (BAR, Appendix G2). With respect to these two elements of the proposal document, VASSA also notes the observation made in the Conclusion of the Basic Assessment Report (page 21), "The overall heritage impact of Alternative 5 (a, b or c), including the mandatory controls and guidelines specified in the Urban Design Report and recommended mitigation measures is regarded as potential medium-high positive. However, should these mandatory controls, guidelines and mitigation measures not be implemented, then the overall heritage impact of the proposed development is potentially medium-high negative." The proposed development must make provision for ongoing implementation of the controls, guidelines and mitigation measures.

It's critical that systems be put in place for the monitoring and management of development over time. This will be essential to ensure the ongoing management of the scale and detail of development in the village, as well as the critical interface between the proposed village and the surrounding historically significant environment.

Yours sincerely

Asa Gordon
Executive Officer
The Cape Institute for Architecture
issued on behalf of the ClfA Heritage Committee

/1 Hout Street, Cape Town, 8001. PO Box 3952, Cape Town, 8000 1: 021 424 7128 F: 021 424 3620 E: info@cifa.org.za W. www.cifa.org.za

Lindsay Speirs

From: Desmond Adams <desmonda223@gmail.com>

Sent: 18 November 2016 11:35 PM

To: Lindsay Speirs

Cc: michael. fraser0; Mona Kleinschmidt; WILLIAM KEET; pietersenkj91@gmail.com;

christalina kana

Subject: Re: Objection to the proposed Boschendal Village Development portions 7 & 10 of

Farm 1674, Boschendal

Follow Up Flag: Follow up Flag Status: Flagged

Dear Mr. Jeffreys,

Firstly, thank you for adhering to the Act no.107 of 1998 instructing you to have a broad public participation process with the people of the Dwars River Valley. Unfortunately many of these people today still do not know anything about the proposed development.

Secondly, I hereby strongly object against the development on the following basis:

1. Heritage Act is very clear - ANY DEVELOPMENT should be benefitting the DISADVANTAGE RESIDENTS - in this case the Previously Disadvantaged OF THE DWARSRIVÈR VALLEY.

2. Social and Economic Impact.

As experienced with the previous owners of Boschendal nothing actually to realised what is spelled out by the abovementioned Act.

When ownership shifted to the current owners, they made it very clear that they do not owe the people of Valley a thing. Although promises are made in the proposal we know that the Heritage Act will not be adhere to in terms of the above.

3. Housing Opportunities.

It is very clear no that no opportunity will be given to residents of the Valley in terms of housing as they do not have the financial capacity - prices will be on purpose be out of reach. It means that the development will be for foreigners and we will be strangers in our own Valley. This is unacceptable.

4.INTERGRATION.

The proposal is aimed to foster intergration of people thus also of activities. The current electrified fence between Boschendal and it adjacent communities is a definite effort to do just the opposite -practicing what was painful before 1994 and currently still.

5. ACCESS to Conservation Areas.

This was a burning issue during the initial discussions with the first owners of Boschendal. Those promised conservation areas were never given as stated in deed of donations.

The current owners made it very clear - No Access for those born in the Valley by crecting electified fences.

Mr.Doug Jeffreys based on the current situation and what is being proposed, I as resident and affected of the Dwarsriver Valley, strongly object against the Boschendal Village Development on portions 7 & 10 of Farm 1674 Boschendal.

Regards.

Desmond Adams - Representative of Kylemore as Trustee on Boschendal Treasury Trust.

Our Ref: HM/CAPE WINELANDS/STELLENBOSCH/

PORTION 7 AND 10 OF FARM BOSCHENDAL 1674

Case No.: 15052003AS0525M Enquiries: Andrew September

E-mail: andrew.september@westerncape.gov.za

Tel 021 483 9543 **Date**: 17 February 2017

Sarah Winter

21 Upper Towers Road

Muizenberg

7945

sewinter@yebo.co.za



INTERIM COMMENT

In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999) and the Western Cape Provincial Gazette 6061, Notice 298 of 2003

HERITAGE IMPACT ASSESSMENT: PROPOSED MIXED-USE DEVELOPMENT ON PORTION 7 AND 10 OF FARM BOSCHENDAL 1674, STELLENBOSCH, SUBMITTED IN TERMS OF SECTION 38(8) OF THE NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999)

CASE NUMBER: 15052003AS0525M

The matter above has reference.

Heritage Western Cape is in receipt of your application for the above matter received on 18 October 2016. This matter was discussed at the Impact Assessment Committee (IACom) meeting held on 08 February 2017.

The Committee noted that:

 Members of the Committee reported back on the site visit to the proposed Boschendal Village on the 26 January 2017.

INTERIM COMMENT

The Committee was generally supportive of the urban design framework and the compact nodal urban development in a rural context. Some concerns were, however, expressed and these would need to be addressed. They include the following:

- It was felt that more information is required to link the proposed development into the broader municipal vision for the area. This is specifically in respect of actual and potential edges to the urban/rural development.
- Concerns were expressed with regard to certain of the proposed typologies relating to the
 development. These include the proposed development to the west of the R310, and in
 particular to the suburban strip of single residential units sprawling to the west.
- It was felt that certain of the housing typologies need to be developed further and this includes looking at the issue of height and suburban density.
- Clarification is required in respect of the proposed parking and edge treatment along the R310. Concern was raised that this has strong potential to end up looking like a suburban shopping mall parking lot.
- It was recommended that more vigorous illustrations of the visual impacts are provided, particularly at a more immediate scale and in relation to the portion of the site where 3 storey development is proposed, as well as the impact to and from the R45 and R310 scenic routes.
- It is re iterated that the social impact assessment must be included within the provision of the heritage impact assessment. In addition it was recommended that the appropriate engagement with representatives of effected parties I&APs is undertaken and that they a meaningful part of the process.
- The relationship between the proposed new development and the Boschendal werf needs to be explored more thoroughly, particularly in respect to old movement routes, existing gateways etc.

www.westerncape.gov.za/cas

Street Address: Protea Assurance Building, Green Market Square, Cape Town, 8000 • Postal Address: Private Bag X9067, Cape Town, 8 • Tel: +27 (0)21 483 5959 • E-mail: ceoheritage@westerncape.gov.za

Straatadres: Protea Assuransie gebou, Groentemarkplein, Kaapstad, 8000 • Posadres: Privaatsak X9067, Kaapstad 800

Our Ref:

HM/CAPE WINELANDS/STELLENBOSCH/

PORTION 7 AND 10 OF FARM BOSCHENDAL 1674

15052003AS0525M Case No.:

Enquiries: Andrew September

andrew.september@westerncape.gov.za E-mail:

021 483 9543 Tel

Date: 17 February 2017

HWC reserves the right to request additional information as required.

Should you have any further queries, please contact the official above and quote the case number.

Yours faithfully

Mxolisi Dlamuka

Chief Executive Officer, Heritage Western Cape

• Tel: +27 (0)21 483 5959 • E-mail: ceoheritage@westerncape.gov.z

Proposed Mixed Use Development on Boschendal Estate Portion

Our Ref:

Erfenis Wes-Kaap

Heritage Western Cape



T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za South African Heritage Resources Agency | 111 Harrington Street | Cape Town P.O. Box 4637 | Cape Town | 8001 www.sahra.org.za

Enquiries: Gcobani Sipoyo

Tel: 021 465 2198

Email: gsipoyo@wc.sahra.org.za

CaseID: 10249

Date: Tuesday April 04, 2017

Page No: 1

Interim Comment

In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Boschendal Pty Ltd

Proposed Mixed Use Development on Boschendal Estate Portion 7 and Portion 10 of Farm 1674

Thank you for submitting your application to SAHRA. The Boschendal Mixed Use Development (BMUD) application was reviewed by the SAHRA Built Environment Unit for assessment fro an interim comment. The proposed Boschendal Mixed Use Development (BMUD) is located at the junction of two established transport links, the R310 and R45. The development is also located adjacent to the railway line that used to link Franschoek and Paarl.

The following documents were submitted to SAHRA:

- -Heritage Impact Assessment BOSCHENDAL VILLAGE NODE: Portion 7 of Farm 1674 and Portion 10 of Farm 1674, Boschendal, Stellenbosch Municipality, Prepared By: Nicolas Baumann, Sarah Winter, Dave Dewar, Piet Louw, September 2016
- -Boschendal Village Mixed Use Development Social Impact Assessment, by Tony Barbour and Schalk van der Merwe, February 2017

Heritage Impact Assessment Recommendations:

SAHRA is of the view that the Heritage Design Indicators are to form part of the final report and be duly incorporated in the development. (HIA, p.50-51, September 2016)

The design development must proceed in accordance with the Urban Design Framework dated November 2015 (Annexure E) and the Heritage Indicators in Section 8 (pages 14-22) of the HIA report.

- The proposed residential erven in Precinct F2 must be reduced in extent to exclude the existing orchard from the proposed development, as shown in Alternative 5c.
- More refined articulation of building elevations and roofscapes in Precincts E1 and E2 must be undertaken at the precinct plan level.
- The implementation of the Landscape Framework Plan prepared by CNdV Landscape Architects. Refer to Figure 25.



an agency of the

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za

South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001

www.sahra.org.za

 An Integrated Environmental Management Plan must be formulated to address mandatory controls and guidelines related to lighting, signage and architectural and landscaping treatment included in Section 8.7, 8.8 and 8.9 above and formulated in Section 5 of the Urban Design Framework.

Social Impact Assessment

SAHRA is of the view that the following recommendation should be duly considered when assessment of the application is conducted.

The following recommendations should be implemented to ensure that the proposed development caters to the needs of the local community:(Social Impact Assessment, by Tony Barbour and Schalk van der Merwe, February 2017, p.x-xi)

- The owners of Boschendal should liaise with the SLM and local community leaders to identify potential development initiatives aimed at addressing the needs an challenges facing the Dwars River Valley;
- The structure of the trust aimed at supporting local development initiatives and the composition of the trustees should be discussed with representatives from the SLM, workers on Boschendal and the local community;
- The developer should ensure that the retail component of the development takes into account the needs of the local community. In this regard the findings of the SIA highlight the need for a shop, such as a Spar or Pick and Pay, in the study area;
- The food outlets associated with the proposed development should cater for the local community and not only tourists;

Boschendal Village Mixed Use Development SIA February 2017

- Public access to and use of all public spaces within the development should be provided and guaranteed;
- Activities and events that create opportunities for and encourage the use of the public spaces by the local community should be held on a regular basis. These in include school outings, picnic's, music events etc. In addition:
- The developer and planners need to take into account the existing operations that border onto the site, specifically the operations undertaken by RFG and Imibala, in the final design and layout. Potentially sensitive land uses, such as hotels and residential areas should not be located in close proximity to adjacent land uses

Proposed Mixed Use Development on Boschendal Estate Portion

Our Ref:



an agency of the

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za

South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001

Enquiries: Gcobani Sipoyo Tel: 021 465 2198

Email: gsipoyo@wc.sahra.org.za

CaseID: 10249

that have the potential to create a nuisance;

• The developer must recognise and acknowledge the right of these operations to carry on operating and the right to expand their operations in the future;

Page No: 3

Date: Tuesday April 04, 2017

• Prospective homeowners and business owners must be informed of the existing operations that border onto the site and that they will continue to operate in the area, and may expand at some future date.

The establishment of the proposed Boschendal Village Mixed Use Development is supported on the condition that the recommended enhancement and mitigation measures contained in the SIA report and other specialist reports are implemented. This recommendation applies to Alternative 5a, 5b and 5c.

(Social Impact Assessment, by Tony Barbour and Schalk van der Merwe, February 2017, p.x-xi)

Comment:

SAHRA Built Environment therefore, has no objection to the proposed Boschendal Mixed Use Development (BMUD) development provided that all specialist recommendations are duly complied with by the applicant. SAHRA also recommends that the recommendations contained within the SOCIAL IMPACT ASSESSMENT be incorporated in the Final HIA.

SAHRA has concerns in the impact of the revision of the urban edge and the proposed amendment thereof as this would adversely affect the character and significance of the cultural landscape. Along with the heritage design indicators contained in the heritage impact assessment BOSCHENDAL VILLAGE HERITAGE IMPACT ASSESSMENT SEPT 2016 p.30-33. SAHRA is of the view that these should be considered in the implementation of the project and incorporated in the overall design of the Development, although alternative 5 is favourable. The issue of the urban edge needs to be resolved before development takes place as highlighted in the letter of January 2017 contained in the Social Impact Assessment, **Annexure C p. 119-123.**

It is understood that this is an interim comment to the report, however once the development is submitted for approval SAHRA requests the following:

In regard to the above it is recommended that the following form part of the final report:

- That the spatial references, i.e. GPS co-ordinates, referred to in the report are plotted in the context
 of site plan and site map. SAHRA is, however, unable to comment on the intended built
 interventions proposed without proper documentation in the form of technical drawings illustrating the
 extent of interventions in the report. This technical documentation should be part of the submission.
- - As part of the construction phase, SAHRA would recommend that a suitably qualified heritage consultant be part of the construction phase and a *Construction Management* Plan as part of the documentation to ensure that no *Historic Fabric of Significance* is compromised during construction.

Proposed Mixed Use Development on Boschendal Estate Portion

Our Ref:



an agency of the

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za

South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001

www.sahra.org.za

Enquiries: Gcobani Sipoyo Tel: 021 465 2198

Email: gsipoyo@wc.sahra.org.za

CaseID: 10249

Date: Tuesday April 04, 2017

Page No: 4

SAHRA endorses the adoption of alternative 5 with mitigation subject the conditions set out in the Social Impact Assessment as well as those in the Heritage Impact Assessment as the most viable option in terms of the overall design of the development is concerned provided all related specialist recommendations are duly followed as contained in all reports submitted as part of the application and all heritage related principles are followed. Should you have any queries please do not hesitate to contactMr. Ben Mwasinga at bmwasinga@sahra.org.za, Heritage Officer at and Mr. Gcobani Sipoyo, Heritage Officer at gsipoyo@sahra.org.za.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Gcobani Sipoyo Heritage Officer

South African Heritage Resources Agency

ADMIN:

Direct URL to case: http://www.sahra.org.za/node/374232 (, Ref:)

Terms & Conditions:

1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for

Proposed Mixed Use Development on Boschendal Estate Portion

Our Ref:



an agency of the

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Gcobani Sipoyo Tel: 021 465 2198

Email: gsipoyo@wc.sahra.org.za

CaseID: 10249

Date: Tuesday April 04, 2017

Page No: 5

proposed work.

- 2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
- 3. SAHRA reserves the right to request additional information as required.



Belangegroep Stellenbosch Interest Group

HM/CB/0815/32 18 November 2016

Lindsay Speirs Doug Jeffery Environmental Consultants lindsay@dougieff.co.za

Dear Me Speirs

Proposed Boschendal Village Farm 1674, Portions 7 and 10, Dwars River Valley

Pre-Application DEA&DP Reference Number: 16/3/3/6/7/1/B4/45/1096/15

The Stellenbosch Interest Group would like to comment as follows on the Heritage Impact Assessment

The SIG supports the findings and recommendations of the HIA, and trusts that it will lead to an acceptable development in the Grade I landscape. Regarding the visual impact, the following should also be mentioned:

<u>Building Heights:</u> The SIG shares the concerns regarding building heights expressed in the VIA, and is of the opinion that building heights of more than two storeys should not be considered for any section of the development. (Two and a half storeys, i.e. 'n third storey within the roof space is also not appropriate.)

<u>Traffic Circles:</u> Only traffic circles (including at the intersection of the R310 and Central Avenue) with calming measures as expressed in the Urban Design Framework document, should be used. Please refer to the 8th point listed under section 2.3 (page 10). No traffic lights should be introduced along the R310 or R45.

Kind regards

Patricia Botha (Chairperson)

☑ 2217, Dennesig 7601 021 886 4741 info@stellenboschinterestgroup.org