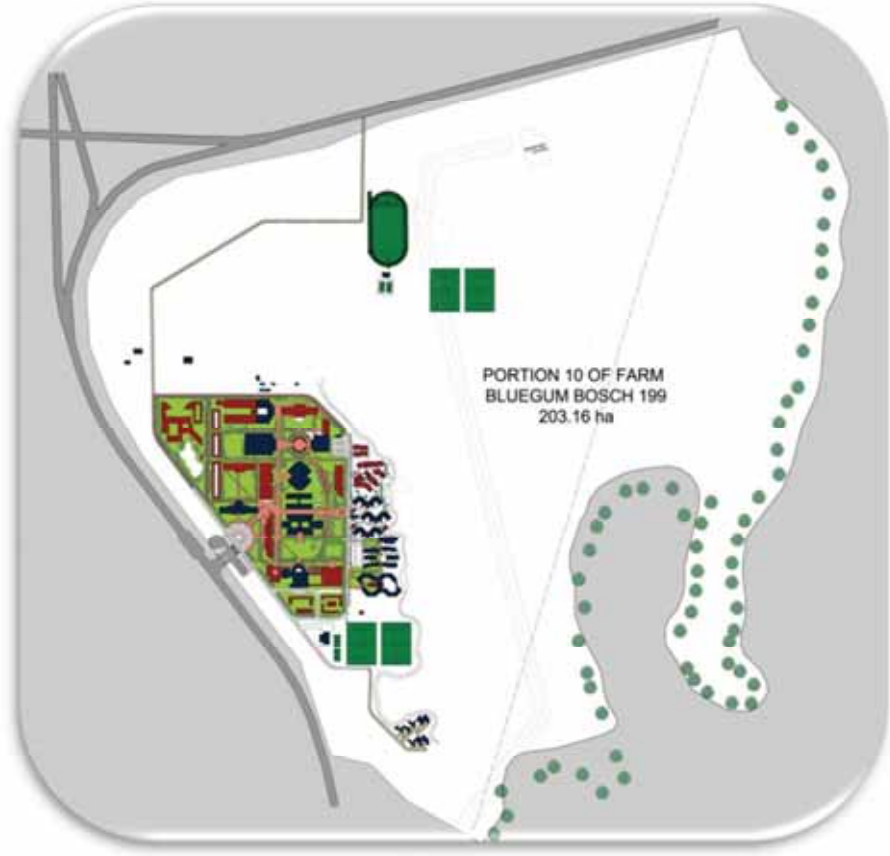
STRATEGIC DEVELOPMENT PLAN: QWA-QWA CAMPUS

DECEMBER 2013

DEPARTMENT PHYSICAL PLANNING



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1. INTRODUCTION

1.1.BACKGROUND AND PURPOSE

Planning for the future begins with an understanding of the status quo: the place, the people and the social, economic and environmental forces underlying the trends that are shaping the University's development.

Change and growth are inevitable, and development pressures are a given. Nevertheless, a university with foresight and insight can guide and manage development to ensure the best possible outcome.

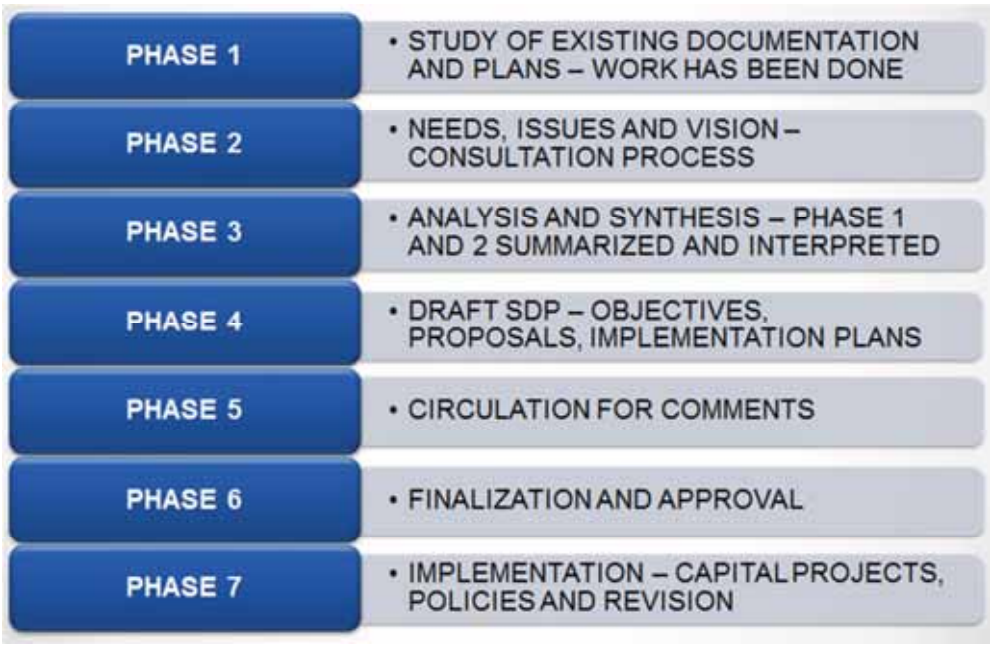
The overall intention of the UFS Strategic Development Plans (SDP's) is to guide and manage urban growth, and to balance competing land use demands, by putting in place a long term, logical development path that will shape the spatial form and structure of the campuses.

The proposed development path must be dynamic and adaptive and will need to be reviewed from time to time to ensure that they remain relevant, realistic and informed by changing events.

1.2.METHODOLOGY

Seven (7) phases are utilised to reach the desired outcome, as explained in Figure 1.

Figure 1: Methodology of UFS Strategic Development Planning



2. STATUS QUO

2.1.STUDY AREA

Consisting of one farm portion (Portion 10 of the farm Bluegum Bosch 199, District Harrismith) with an extent of 203.1598 Ha, the Qwa-Qwa Campus of the University of the Free State is situated approximately 70km south east of Betlehem and 2km north of Phuthaditjhaba in the foothills of the Maluti mountains. The site is situated adjacent and west of the R57 that leads to Phuthaditjhaba in the south and Kestell to the north, in the eastern Free State and to the north west of Lesotho. The property has a natural boundary to the eastern side created by the Namahadi river.

Map 1: Locality Plan – Qwa Qwa Campus

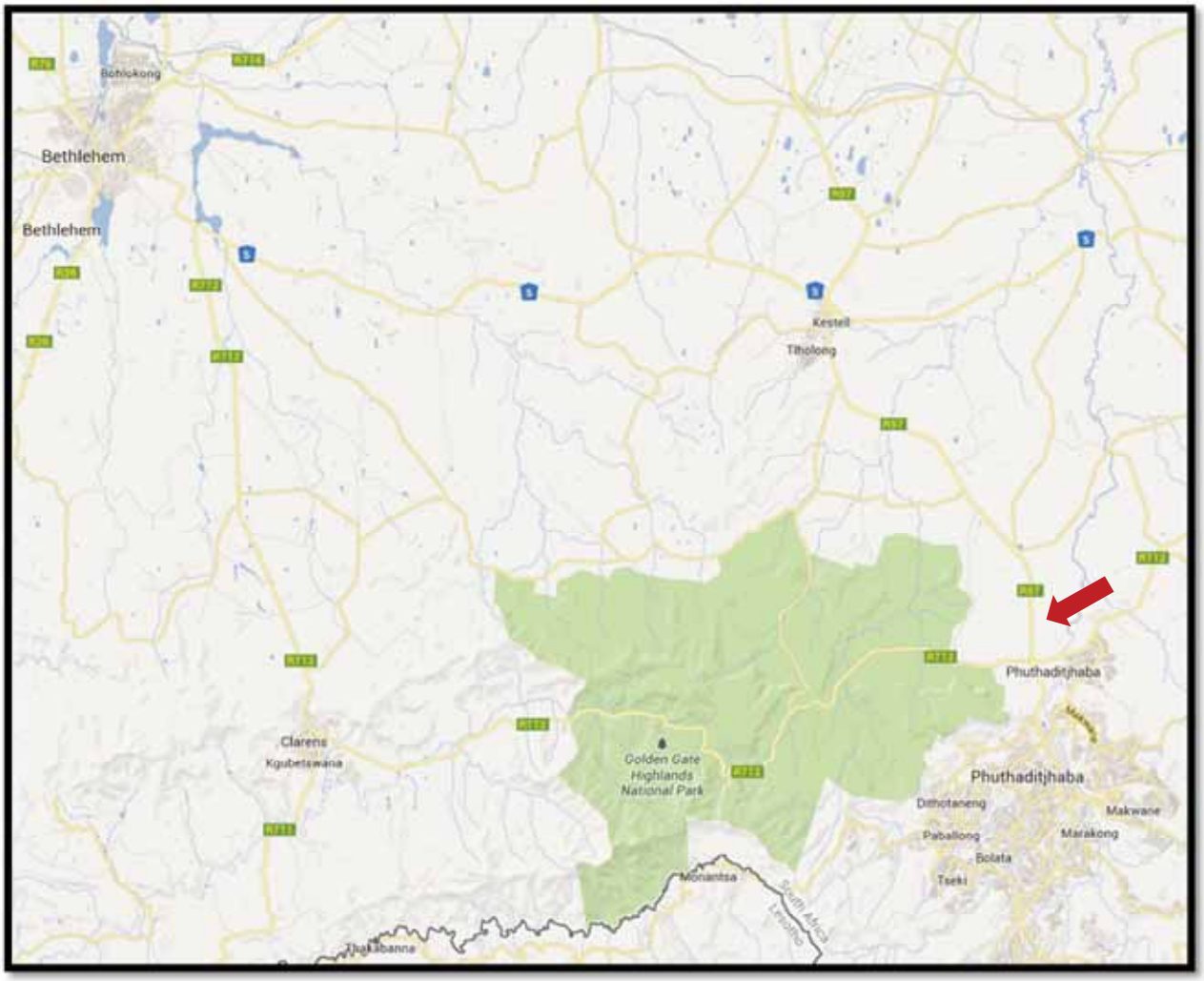


Table 1: Relevant Property

QWA-QWA CAMPUS	
Portion 10 of the farm Plaas Bluegum Bosch 199,district Harrismith	203.1598
TOTAL 3	**203.1598**

Figure 1: Aerial photo of QwaQwa Campus

Map 2 and Table 2 provides more information with regard to the existing and proposed future buildings on the campus.

Table 2: Buildings - Assignable and Non-Assignable Space

BUILDING NAME	Number	M²	SPACE USAGE	ASSIGNABLE	NON ASSIGNABLE	TOTAL
Admin	89	122.67	Offices			
	1	161.00	Lecture Rooms			
	3	73.92	Conference Rooms			
	2	23.94	workshops			
				1794.392	1491.938	3286.33
Library	26	562.53	Office			
	7	421.484	Lecture Rooms			
	8	665.159	Labs			
	1	228.832	Study areas			
	2	77.468	Conference Rooms			
				2856.656	1460.914	4317.57
Education Building	32	340.21	Offices			
	3	308.45	Lecture Rooms			
	1	24.67	Conference Room	822.496	601.104	1423.6
Gate House	1	5.07	Gate House	15.897	0.551	16.448
Geesteswetenskap	37	359.04	Offices			
	2	232.00	Lecture Rooms			
	2	88.27	Conference Room			
	1	142.58	Labs			
				857.103	566.497	1423.6
Boiler Room	1	11.22	Offices			
	2	227.46	Workshops			
				273.842	56.446	330.288
Lecture Halls and Offices	10	136.29	Offices			
	6	1146.51	Lecture Rooms	1389.34	463.288	1852.628
Mandela Hall	3	50.01	Offices			0
	1	1833.41	Assembly Space			
				2299.386	759.557	3058.943
Media Lab	1	13.50	Offices			0
	3	52.60	Lecture Rooms			
	1	312.95	Labs			0
				382.117	140.913	523.03
Natural & Agricultural Sciences	48.00	546.033	Offices			
	1.00	30.145	Conference Rooms			
	19.00	1598.208	Labs	2462.39	1480.901	3943.291
Central Kitchen, Dining Hall	2	33.74	Offices	1702.688	323.582	2026.27
Teacher Training Facilities	6	128.59	Offices			
	6	945.52	Lecture Rooms			
	3	391.21	Labs			0
				1573.474	1767.902	3341.376
Technical Services	1	9.42	Offices			
	3	93.25	Workshops			
				117.303	29.365	146.668
				16547.084	**9142.958**	**25690.042**
			Percentage	**64.41**	**35.59**	**100.00**

STUDENT HOUSING

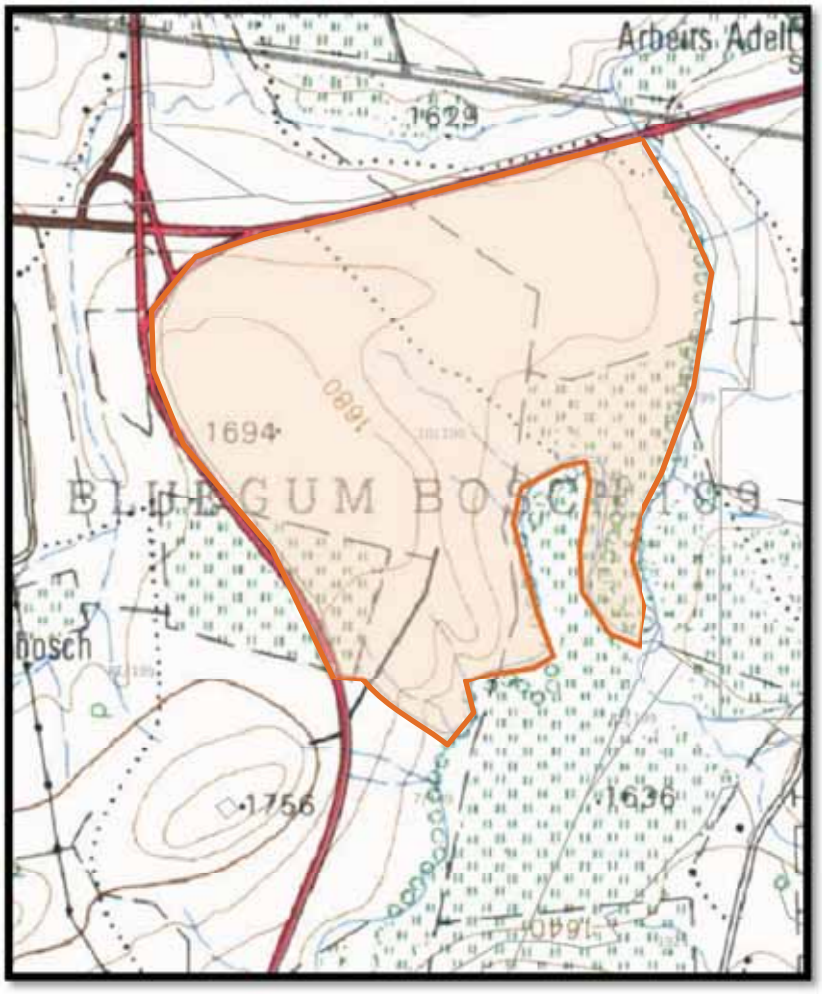
	M²	Ha	%
Non Assignable Space	7684.05	0.77	47.85
Assignable Space	8374.46	0.84	52.15
Total Area	**16058.52**	**1.61**	**100.00**

2.2.NATURAL CHARACTERISTICS

2.2.1. TYPOGROPHY, GEOLOGY AND VEGETATION

Qwa-Qwa Campus is situated at approximately 1680m above sea level with a relatively steep slope towards the south eastern part of the property. The land generally slopes towards the Namahadi River to the south and east, which can cause challenges for future growth and development.

Figure 2: 1: 50 000 Topographical Map



The sandstone formations in the area form the upper part of the Karoo Supergroup. The following sequence of geological formations is visible (starting from the bottom): the Molteno Formation, Elliott Formation, Clarens Formation, and the Drakensberg Formation. The yellow-brown Golden Gate and Brandwag cliffs in Golden Gate National Park to the east, are made up of the Clarens formation.

The site is situated in an area of rich highveld and montane grassland flora with a variety of grass species, bulbs and herbs.

2.2.2. CLIMATE

Puthaditjhaba normally receives about 650 – 800mm of rain per year. Rainfall occurs mainly during mid-summer. The average high temperature ranges between 17°C in June and July and 27°C during January, February and December.[1]

The coldest weather occurs during June and July, with an average minimum winter temperature of -2°C and the area can experience thick snowfall.

2.2.3. ENVIRONMENTALLY SENSITIVE AREAS

No official information could be obtained regarding the environmental sensitivity of the relevant property, but the proximity of the Golden Gate National Park, surrounding mountainous regions and natural drainage system – leads to the conclusion that the area will have environmentally sensitive areas along the eastern southern boundary.

The area utilised for the existing developments should not pose a threat, but environmentally responsible management systems and policies (e.g. recycling, disposal of hazardous material, construction methods, energy saving etc.) should be implemented or maintained.

2.3.INFRASTRUCTURE AND SERVICES

2.3.1. WATER AND SEWER

The current layout condition of the reticulation network has not been well documented and as far as could be ascertained, plans are not available. This can be regarded as a major information gap that must be rectified. The information as per Table 3 was obtained from the Infrastructure Audit conducted in November 2013.

Table 3: Water and Sewer Infrastructure: Quantities

Description	Unit	Quantity
WATER (MEDIUM PRESSURE PIPELINES)		
Class 9 & 12 uPVC pipes		
32 mm dia	m	500
40 mm dia	m	400
50 mm dia	m	450
63 mm dia	m	0
75 mm dia	m	0
90 mm dia	m	0
110 mm dia	m	500
160 mm dia	m	550
200 mm dia	m	550
225 mm dia	m	0
250 mm dia	m	0
300 mm dia	m	300
SEWERS		
(a) SABS 791 uPVC Class 34 drain pipes:		

[1] Source:www.worldweatheronline.com

(1) 110 mm dia	m	600
(2) 160 mm dia	m	600
(3) 200 mm dia	m	300
(4) 250 mm dia	m	700
(5) 315 mm dia	m	0

2.3.2. ELECTRICITY[2]

2.3.2.1. ELECTRICAL INFRASTRUCTURE AND CONSUMPTION

Map 2 provides a visual representation of the electrical reticulation on Qwa-Qwa Campus distributed by means of nine (9) mini substations.

Table 4: kWh per m² per annum

	kWh				
	2012	**2011**	**2010**	**2009**	**2008**
QWA QWA	5 266 746	5 231 569	4 986 683	4 958 149	4 871 890
kWh/m²/per annum	122	121	115	115	113

Table 5: Maximum Annual Electricity Demand (kVA)

	2012	**2011**	**2010**	**2009**	**2008**
QWA QWA	1 534	1 413	1 387	1 335	1 203
Annual Increase	**121**	**26**	**52**	**132**	

Table 6: Rand Value of Consumption

	2012	**2011**	**2010**	**2009**	**2008**
QWA QWA*	R 6 224 580	R 4 990 088	R 3 659 257	R 2 727 965	R 2 205 328
Annual Increase	R 1 234 492	R 1 330 831	R 931 292	R 522 637	

**Estimate*

Table 7: Average R/kWh (VAT Incl)

	2012	**2011**	**2010**
QWA QWA*	R 1.18	R 0.95	R 0.73

**Estimate*

The network is close to its maximum firm capacity of 2 MVA (80 %) and a capacity upgrade is required to keep in step with the planned Infrastructure expansion to 4MVA firm capacity.

[2] *Source: UFS Electrical - and Mechanical Engineers*

2.3.3. TELECOMMUNICATION & WI-FI ACCESS

Telkom infrastructure and cell phone coverage is available. Wi-Fi Coverage has been finalised.

2.3.4. ROADS & STORMWATER

According to the Infrastructure Audit conducted in November 2013, the roads infrastructure needs attention.

Stormwater infrastructure was deemed in a good condition and only limited renovation is needed.

Table 8: Length and Surface – Paved/Tarred Roads

± LENGTH OF TARED ROADS	1.313 Km
± AREA OF TARRED ROAD SURFACE (HA)	0.8506 Ha

Table 9: Gates, Entrance and Exit Lanes

GATES	ENTRANCE LANE	EXIT LANE
1	2	2

Table 10: Pedestrian Walkways

± LENGTH OF PRIMARY PEDESTRIAN WALKWAYS IN KM	2.8
± AREA OF PRIMARY PEDESTRIAN WALKWAYS IN HA	0.6

Table 11: Existing Stormwater Infrastructure – Quantities

STORMWATER		
Excavate, supply and lay concrete pipe culverts on class C bedding (spigot and socket), complete with all Manholes but excluding stormwater catch pits		
RC Class 100 D pipes:		
150 mm Ø	m	400
300 mm Ø	m	1000
375 mm Ø	m	0
450 mm Ø	m	400
525 mm Ø	m	0
600 mm Ø	m	1000
675 mm Ø	m	0
Supply and lay concrete box culverts on class C bedding		
(i) culverts 750 x 450	m	0
(ii) culverts 1200 x 450	m	0
(iii) culverts 1200 x 600	m	500
(iv) culverts 1500 x 600	m	300

Supply and lay pre-cast concrete kerbs and channels as per SANS 927 : 2013		
(1) Figure 3 Concrete Kerbs	m	10500
(2) Figure 14 Concrete Tapered Channel	m	10500
Construction of Stormwater Kerb Inlets as per SABS 1200 LE, including steel frames and cover slabs		
(1) 2x1m	no	20
(2) 3x1m	no	10
(3) 4x1m	no	5

2.4.TRAFFIC MANAGEMENT AND PARKING

2.4.1. ACCESS MANAGEMENT

As part of an overall endeavour to provide security for students and personnel on campus, a measure of traffic access management is applied.

Vehicles entering the campus have to pass through a security check point, but pedestrians have uncontrolled access to the campus.

The possibility of installing access control by means of the swiping of student cards should seriously be considered.

Table 12: Parking

Parking Area	**Size**
ADMIN	1487
RESIDENCES	1131
EDUCATION	818
HUMANITIES	669
LIBRARY	1616
TOTAL IN M²	5721
TOTAL IN HA	0.57
Number of Disabled Parking Bays	0

Five (5) parking areas are utilised. Demarcation of parking is orderly and does not pose much of a challenge. New external signage should be considered to support good order and amenity by providing clear indications on which vehicles must park where.

There is a definite need to develop or demarcate parking for people with disabilities.

2.4.2. PEDESTRIAN / CYCLE PATHS

The Qwa Qwa campus boasts dedicated pedestrian routes that offer safe and easy movement for students between destinations. These routes include directional way-finding as well as pause and socializing areas.

The pedestrian system provides the connections between the different modes of transport and is a critical element in supporting the transit system.

To encourage more walking, the pedestrian element supports:

- Providing a continuous network so that pedestrians are not stranded short of their destination or forced into difficult or potentially dangerous situations;
- Ensuring a safe walking environment through adequate maintenance, vegetation trimming and lighting;
- Creating a pedestrian-oriented environment through high quality design and pedestrian amenities; and
- Providing routine education and enforcement on the rights and responsibilities of pedestrians, bicyclists and vehicle drivers.

2.5.EXISTING AND FUTURE LAND USE

The utilisation of the study area can be divided into eight (8) main land use categories, namely:

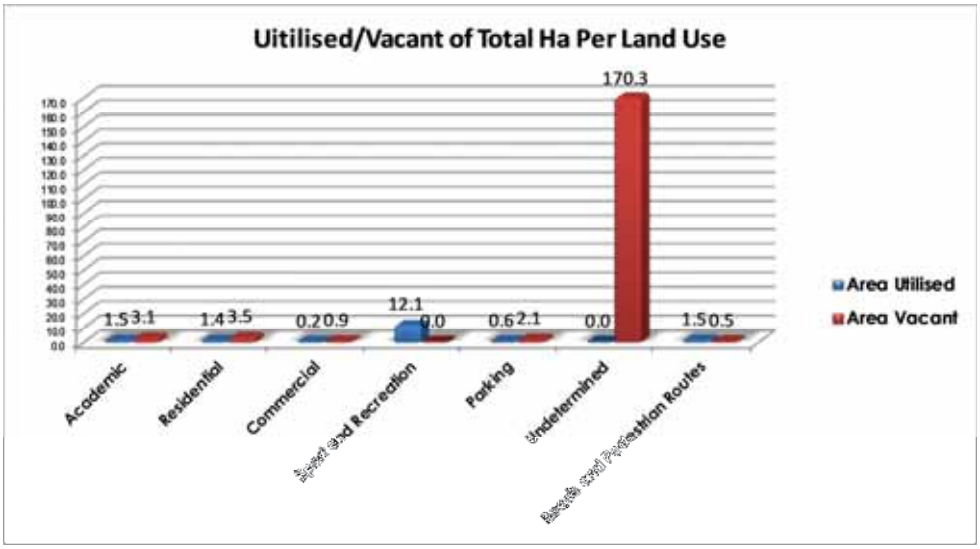
- Academic and Ancillary Buildings;
- Sport and Recreation (including active and passive open spaces);
- Commercial / Business;
- Residential
- Parking;
- Undetermined; and
- Roads and Pedestrian Walkways.

Map 4, Table 13 and Graphs 1, 2 and 3 provide more information with regard to land use categories for future and existing land uses. Areas that were identified as vacant but with a potential land use was earmarked by means of future land use planning as per the current SDP. It thus reflects the status quo of the current situation, but as strategic planning is a dynamic process, this may change as the strategic planning of the campus develops.

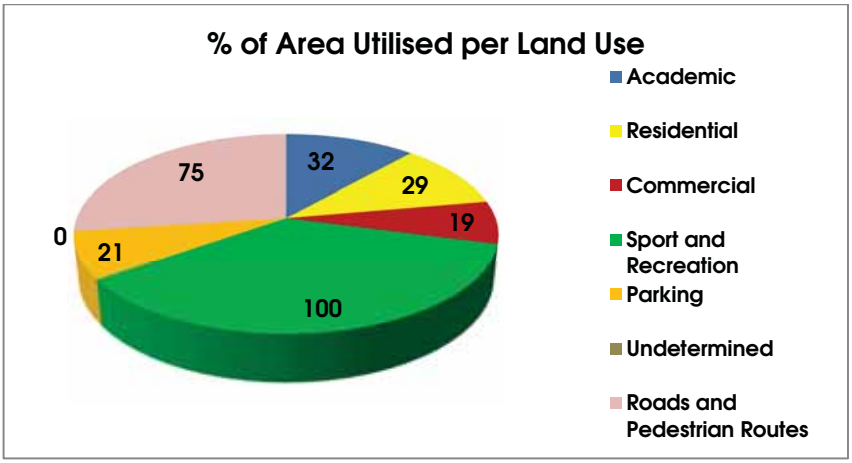
Table 13: Hectares per Land Use Category

LAND USE	AREA UTILISED (HA)	AREA VACANT (HA)	TOTAL (HA)
Academic	1.5	3.1	4.5
Residential	1.4	3.5	4.9
Commercial	0.2	0.9	1.1
Sport and Recreation	12.1	0.0	12.1
Parking	0.6	2.1	2.6
Undetermined	0.0	170.3	170.3
Roads and Pedestrian Routes	1.5	0.5	2.0
TOTAL	**17**	**180**	**198**

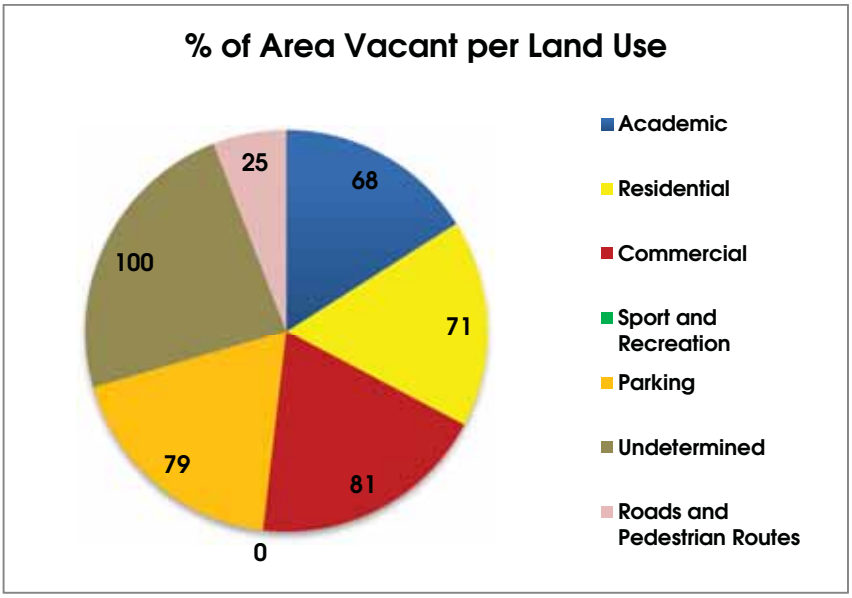
Graph 1: Vacant and Utilised Land per Hectare and Land Use



Graph 2: Percentage of Land Utilised (±17 Ha) per Land Use



Graph 3: Percentage of Land (of ±180Ha) Vacant per Planned Land Use



2.6.LAND AVAILABILITY

According to the calculation as represented in Table 13, theoretically 44Ha of land is available for various land use categories. It should be mentioned that there are certain factors that need to be taken into consideration that can negatively influence the optimal utilisation of the above, such as:

- Availability of Bulk Infrastructure
- Viability of Infrastructure development
- Topography
- Soil conditions
- Infill Development; and
- Economy of Scale

3. SCENARIO PLANNING

3.1.SPATIAL OBJECTIVES AND STRUCTURING ELEMENTS

One of the positive aspects of the Qwa Qwa Campus is that the whole site has been planned as a functioning unit. All existing residential development is located in the eastern side of the campus, with all existing sport facilities to the south, while the academic and support services are situated to the north and west.

The above planning also supports the creation of parking areas and dedicated pedestrian routes that offer safe and easy movement for students between destinations.

A definite north/south and east/west development axis has been established and a concerted effort has been made to ensure that these development corridors are strengthened by considering the visual impact, landscaping and topography. The semi-circular connecting pathway creates an interesting layout while improving access and accessibility.

The topography of the site does pose a challenge regarding future expansion of the campus, but at present enough space is available to focus mainly on in-fill development as per Map 2. This will support the productive utilisation of existing services and infrastructure which is the main spatial objective on the Qwa Qwa Campus.

3.2.GROWTH PROJECTIONS (STUDENT NUMBERS INTEPRETED INTO INFRASTRUCTURAL AND SPATIAL NEEDS)

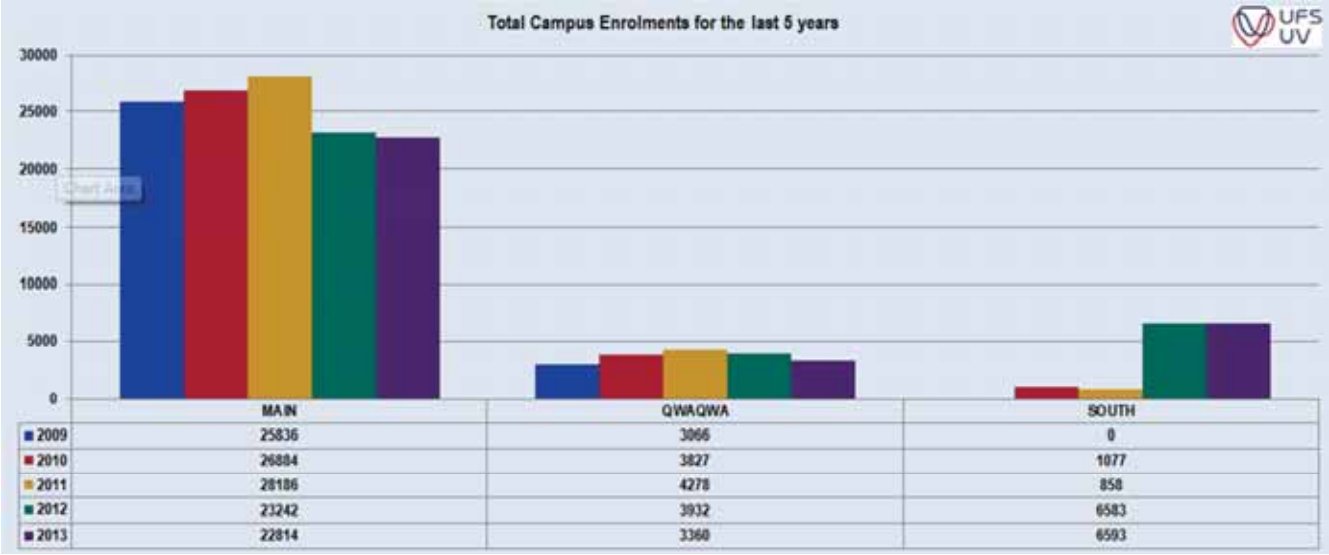
Additional facilities, for undergraduate students, will also depend on the University's strategy regarding growth. Should the University be able to stabilise its enrolments for the medium term (at least five years) and have a clear longer term growth path, it will enable better planning of the physical component of the university, such as lecture rooms and facilities, residences, and parking.[3]

[3] Prof Verna Nel, UFS Dept. Urban Planning

If the figures below are studied, this may be the case already which can be regarded as an opportunity to erase backlogs that have been causing challenges with regard to spatial realm of the campus. Enrolment figures have been relatively stable since 2009, with the highest number of student enrolments in 2011, namely 4279.

Graph 4: Enrolment

Figures per Campus 2009-2013



	MAIN	QWAQWA	SOUTH
2009	25836	3066	0
2010	26884	3827	1077
2011	28186	4278	858
2012	23242	3932	6583
2013	22814	3360	6593

Source: UFS Directorate for Institutional Research and Academic Planning (DIRAP)

3.3. PRIORITY ISSUES IDENTIFIED

Table 14: Priority Issues Identified

	PROJECT LIST 2014 -2017	2014	2015	2016	2017
1	General asset preservation and needs incl visible deterioration	■	■	■	■
2	Sound system Nelson Mandela Hall	■			
3	Signage	■			
4	Landscaping and Open Spaces	■	■	■	■
5	Overnight Accomodation for visiting staff	■			
6	Extension to library for study facilities		■		
7	Smaller needs requested by faculties and support services	■			
	(Blue book requests)	■	■	■	■
8	Ablution to sport facilities		■		
9	Road maintenance	■	■	■	
10	Disabled Parking	■	■	■	
11	Disability access to various buildings (DHET)	■	■		
12	Student Housing - 250 BED with infra structure (DHET)				
13	Geography & Physics Building (DHET)				
14	Infrastructure Survey and Mapping and BMS	■	■	■	
15	Space Audit		■		

4. DEVELOPMENT PROPOSALS

4.1.SPATIAL

4.1.1. LAND USE

Paragraph 2.5, Table 13 as well as Graphs 1, 2 and 3 already provide some information with regard to land use categories for future and existing land uses.

Areas that were identified as vacant but with a potential land use earmarked by means of future land use planning as per the current SDP is also indicated.

Table 15 provides a concise summary of the envisaged development concept on the main campus.

Table 17: Spatial Development

North	1. Academic: Closure of the north/south axis by construction of the new Geography and Physics Building 2. Academic: westward extension of the Science Building 3. Academic: northwards extension of Library 4. Academic: Infill Development between existing hall and administration building 5. Parking: Covered parking 6. Roads: Complete linkage with existing infrastructure 7. Residential: Future development of post grad housing
East	1. Residential: New Residence (250 Beds) 2. Residential: In-fill development 3. Parking: Proposed Student parking the east of residences
South	1. Residential: In-fill development 2. Sport & Recreation: Renovations and Infill Development 3. Parking: Covered parking to the south of student centre 4. Commercial: Extension of east/west axis of the student centre
West	1. Access: Detailed Development of New Access area 2. Academic: : In-fill development to the west of Education building 3. Roads: Complete linkage with existing infrastructure

Notwithstanding the above, a Space Audit should be conducted on the Qwa-Qwa campus of the UFS. The above-mentioned is a comprehensive review of currently assigned space and included building-specific inspections of space assigned to the relevant units.

This report can be made available via the UFS website so that the deans of faculties can firstly ascertain if the information is still up to date and secondly utilize it for internal spatial planning of the faculties and departments. This does not cover the condition of accommodation.

The Space Audit process is intended to serve as a planning tool and can provide information for reference during:

- Improving productive utilization of space;
- Internal assessments of space allocations;
- Prospective planning to accommodate changing situations; and
- Realignment of program priorities over a reasonable planning horizon.

In this time frame, it will be recognized that certain flexibility will be required to accommodate emerging opportunities, that identification of shrinking functions may provide the potential for phase-out, compaction, or relocation to make way for new programs or expanding projects.

4.1.2. PEDESTRIAN- AND CYCLE PATHS,

Pedestrian travel is the real measure of accessibility of a transportation system. Walking is the original mode of travel and is essential to all other modes. Whether a student is walking from a parked car to a lecture hall or from a residence to the student centre, the pedestrian portion of every trip helps determine the enjoyment, safety and convenience of that trip.

In most areas on the main campus, the pedestrian connections are strategic, providing pedestrian linkages between activity areas and transit.

Pedestrian Principals:

- Pedestrian travel is involved in every trip and is the basis for all other modes of travel. A high-quality pedestrian environment has been developed and will continue to be developed as the foundation for the desired multimodal transportation system.
- The university's standard for pedestrian mobility and accessibility is the ability of a wheelchair user to move safely and conveniently through the transportation system. The Qwa-Qwa Campus is posing challenges in this regard that must be addressed by means of the DHET project pertaining to disability access to various buildings.
- A high-quality pedestrian environment includes the ability to travel safely and conveniently and to have reasonable crossing opportunities; to travel through a comfortable and interesting environment provided by high-quality design; and to have appropriate pedestrian amenities such as benches, shade and water fountains.
- New academic development such as the proposed lecture halls will be linked with the existing pedestrian network.

4.1.3. OPEN SPACE

Outside learning areas and passive open space can all contribute to the provision of areas to support the integration and social development of our students.

Because of the climate, these areas will have to create sufficient shelter and consider site orientation to ensure optimum utilisation. An outdoor gym should also be investigated as a way of creating an open space where students can interact and exercise.

4.2.INFRASTRUCTURAL

4.2.1. WATER

It became clear from the status quo analysis that the existing information regarding water infrastructure needs to be updated. The ideal would be to develop a GIS (geographical information system) that can be utilised during maintenance programmes, upgrading and the design of new capital infrastructure and services.

4.2.2. ELECTRICITY

Upgrading of the outdoor switching yard is envisaged in the near future as the maximum firm capacity of the electricity supply to Qwa Qwa Campus will soon be exceeded due to the continued expansion of Infrastructure. Estimated costs of this upgrade currently amounts to R3,410,00-00.

The recent repairs highlighted critical weaknesses to existing inferior and non-maintainable switchgear that needs to be replaced ASAP, to the value of R240,000 and this equipment can be re-used in the major capacity upgrade requested above.

An independent metering point on the site boundary is also included in the upgrade estimated at R 210,000-00.

4.2.2.1. JOHNSON CONTROLS BUILDING MANAGEMENT SYSTEM

The installation of a Johnson Controls BMS (Building Management System) should be explored over the next five financial years. The Johnson Controls BMS system is a computer based control system used for plant control and monitoring and, very importantly, energy management.

From "bottom" upwards it consists of:

Electronic plant controllers: These controllers are computer programmed to execute control functions of air conditioning, ventilation, central heating and hot water plants. These specific control functions are done by the controllers, not the central computer.

Network Interface Units: These units are the interface between the central computer and the plant controllers. A large number of controllers are connected to one interface unit. These units act as a gateway to convey messages between the central computer and the plant controllers.

Central computer: The central computer is linked via the campus network infrastructure to the interface units. A highly developed and expensive program is used to do all the necessary control functions.

The following important functions are performed:

- Graphic display of each plant is available on the computer screen. On this display information such as temperatures, whether the plant is on or off, certain fault conditions etc. is available.
- Important alarm conditions can be programmed to come up automatically.
- Temperatures can be set remotely.

The plant can be switched on and off at pre-set scheduled times. All the above functions play a major role in enhancing the maintenance of systems and in many cases fault conditions are attended to even before it is reported by building users.

Energy management: This is cost wise by far the most important function of the BMS.

The system monitors the total energy demand of the campus constantly and is programmed to limit energy usage to pre-set levels in order to save on electricity costs.

The monthly electricity bill consists of the following:

Maximum kVA demand measured over a period of 30 minutes any time during the month: This means that, should the demand be e.g. 10 000 kVA for 30 minutes this component of the bill will be R1 038 882 incl. VAT. The system is programmed to limit the demand to different levels during peak, standard and off peak periods. This is done by switching large energy users (e.g. large heating plants) on and off for maximum and minimum periods to limit usage without noticeable detrimental effect in building comfort as far as possible.

Access demand: The maximum peak demand measured during a 12 month period is used to calculate the access demand fee. In 2011 the maximum demand registered for the year was just under 11 000 kVA.

KWh consumption during peak, standard and off peak times: By using the pre-set maximum demand levels for the time of use periods, the system strives to minimize energy usage during expensive peak times by switching large users off and rather let them run during the less expensive periods. In most cases heating systems have large hot water storage vessels in which heating energy can be stored during less expensive periods and be used during peak times without switching on the heaters.

4.2.3. SANITATION

It became clear from the status quo analysis that the existing information regarding sanitation infrastructure needs to be updated. The ideal would be to develop a GIS (geographical information system) that can be utilised during maintenance programmes, upgrading and the design of new capital infrastructure and services.

4.2.4. TELECOMMUNICATION & WI-FI ACCESS

It became clear from the status quo analysis that the existing information needs to be updated in collaboration with ICT services. The ideal would be to develop a GIS (geographical information system) that can be utilised during maintenance programmes, upgrading and the design of new capital infrastructure and services.

4.2.5. ROADS & STORMWATER

The development and implementation of a roads and storm water maintenance plan is must be considered. Such a study and the outcome will significantly contribute to orderly maintenance of existing infrastructure.

A link road from the western side, to the existing road network will significantly increase accessibility.

4.2.6. PARKING

Areas to a total extent of ±2, 1 Ha have been earmarked for the extension of parking facilities. If 70% of this area can be effectively utilised, approximately 490 new parking spaces can be created.

This development will be phased as the need arises due to growth.

4.3. TRAFFIC ACCESS MANAGEMENT

4.3.1. ACCESS MANAGEMENT

The development of the new access gate at Qwa Qwa Campus is nearly completed. One entrance point for vehicles and one entrance point for pedestrians will be utilised.

Vehicle and pedestrian access control will be implemented when practical completion has been reached.

4.4. ENVIRONMENTAL

At the University of the Free State there are various initiatives underway dealing with energy saving, the management of waste, and the conservation of water.

To date no formal planning policy for sustainability has been officially adopted by the University, but a draft report has been finalized for comments in November 2013.

The purpose of this policy is to address issues of sustainability in the following ways:

- The policy on the environment should form part of the core values of the institution.
- The policy should address not only the built, but also the natural landscape, i.e. the campus.
- The policy should set minimum standards of performance.
- The policy should seek synergy with the global university community, as well as offer leadership to the local communities in which the university is situated.

4.5. POLICIES / GUIDELINES

The following UFS documents, policies and guidelines are relevant to support good order and amenity in the Physical Planning Department and its related functions and responsibilities:

Table 15: Relevant Policies and Guidelines

DOCUMENT	RELEVANCE
DEPARTMENT PHYSICAL PLANNING	
Physical Planning Technical Guide: Edition 1	This document is an overview of the key elements of the material and/or methods to be used in all UFS facilities, representing all preceding directives. It has been compiled to establish principles while at the same time endeavouring to promote uniformity in regard to the usage of materials and regulations. Building materials and methods given preference to would be economically justifiable and suitable for long-term usage and implementation in order to reduce maintenance and repair work.
Guidelines regarding directional signage and signage on buildings	Navigational system on campus, principles regarding signage on buildings (e.g. names of buildings only, departments on entrance doors etc.).
Guidelines regarding applications for structural changes	Management of and control over of structural changes of UFS property.
Parking Policy, 2012	The purpose of this document is to establish guidelines and principles for the use of parking places with a view to alignment with the UFS's strategic objective to provide green, healthy, affordable, safe, fair and orderly parking. This document only applies to the Main Campus.
Environmental Policy (Green Policy) – Draft at present	When draft document has been approved, the prescriptions of policy will guide construction projects to decrease the UFS's carbon footprint and environmental impact.
Guidelines for providing braille and tactile signage to facilities	Recommended guidelines from the RNZFB (Royal New Zealand Foundation of the Blind) were followed in compiling these signage specifications.
Procurement documents for contracts (below R1million, above R1million and above R5million)	Prescriptions regarding tendering procedure, returnable documents, prescribed contracts, verification of BBBEE status.
HESA's formal response: Government Gazette No 36361 of 11 April 2013 contains a proposed policy on student housing at public universities together with applicable norms and standards accompanied by a call for comment by interested parties.	Physical Infrastructure: Locality, Design, Health and Safety, Furnishings and Fittings, Construction, repairs and Maintenance etc.

DEPARTMENT FINANCE	
Policy and Procedure for Purchases	Strict adherence to the Procurement Policy and related procedures is of the utmost importance to ensure a successful audit and a good working relationship with Provisioning and Finance and Provisioning
UFS & OTHER	
Brand Identity Guidelines, 2013	Utilisation of UFS Logo and colours, faculty colours and fonts of internal directional signage.
Policy of the University of the Free State on Naming and Renaming, 2013	Naming of buildings, streets and spaces need to be approved by the naming and re-naming committee.
Occupational Health & Safety Act	Relevant Regulations.
Policy and Procedure of Council delegated authority	Signing of building contracts, lease agreements, offers to purchase and service agreements.
South African National Standards (SANS) Codes of the South African Buro of Standards	As applicable to a wide range of issues pertaining to Physical Planning's projects

5. CONCLUSION

The SDP should inform the decision-making process regarding the locations that are favoured for new investments and the provision of facilities and infrastructure. The strategy for spatial development cannot on its own ensure the success of the implementation of the SDP.

The spatial strategy is supported by various other UFS strategies and programmes which is part of a co-ordinated and integrated package to ensure that investments and programmes form the basis of longer-term growth and development.

It also requires that there must be a certain level of intervention with decision-making and implementation to ensure a deliberate move towards a more functional and optimal spatial pattern for the University, also creating sustainable spatial patterns and infrastructure development. The extents in which financial and institutional resources are mobilised can, and have had a major positive impact resulting in meaningful changes.

MAP 1: RELEVANT PROPERTY

MAP 2: EXISTING AND PROPOSED BUILDINGS

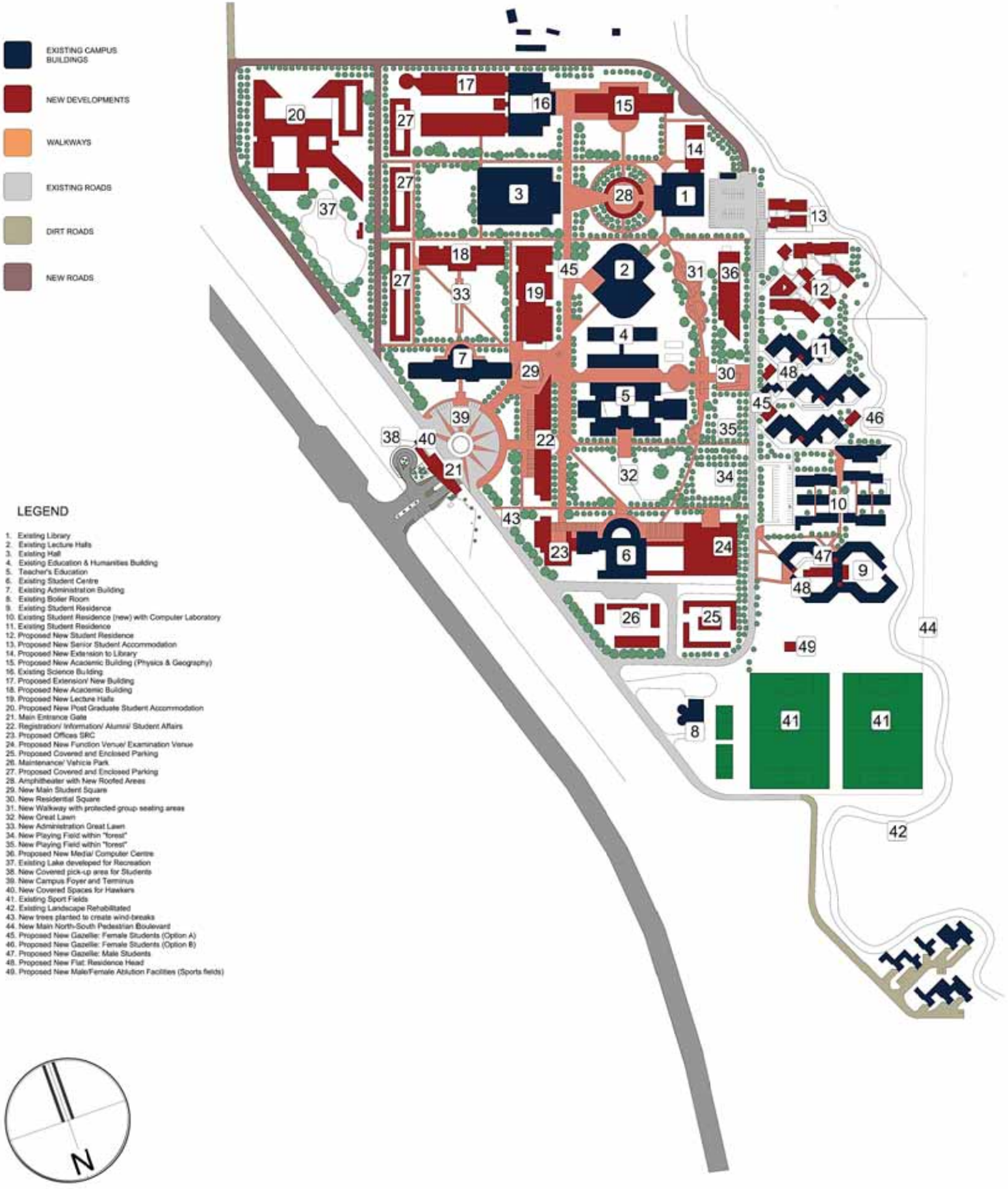
MAP 3: ELECTRICAL RETICULATION

MAP 4: STRATEGIC DEVELOPMENT PLAN

University of the Free State

QWA-QWA CAMPUS

ROODT ARCHITECTS



LEGEND

1. Existing Library
2. Existing Lecture Halls
3. Existing Hall
4. Existing Education & Humanities Building
5. Teacher's Education
6. Existing Student Centre
7. Existing Administration Building
8. Existing Boiler Room
9. Existing Student Residence
10. Existing Student Residence (new) with Computer Laboratory
11. Existing Student Residence
12. Proposed New Student Residence
13. Proposed New Senior Student Accommodation
14. Proposed New Extension to Library
15. Proposed New Academic Building (Physics & Geography)
16. Existing Science Building
17. Proposed Extension/ New Building
18. Proposed New Academic Building
19. Proposed New Lecture Halls
20. Proposed New Post Graduate Student Accommodation
21. Main Entrance Gate
22. Registration/ Information/ Alumni/ Student Affairs
23. Proposed Offices SRC
24. Proposed New Function Venue/ Examination Venue
25. Proposed Covered and Enclosed Parking
26. Maintenance/ Vehicle Park
27. Proposed Covered and Enclosed Parking
28. Amphitheater with New Roofed Areas
29. New Main Student Square
30. New Residential Square
31. New Walkway with protected group seating areas
32. New Great Lawn
33. New Administration Great Lawn
34. New Playing Field within "forest"
35. New Playing Field within "forest"
36. Proposed New Media/ Computer Centre
37. Existing Lake developed for Recreation
38. New Covered pick-up area for Students
39. New Campus Foyer and Terminus
40. New Covered Spaces for Hawkers
41. Existing Sport Fields
42. Existing Landscape Rehabilitated
43. New trees planted to create wind-breaks
44. New Main North-South Pedestrian Boulevard
45. Proposed New Gazelle: Female Students (Option A)
46. Proposed New Gazelle: Female Students (Option B)
47. Proposed New Gazelle: Male Students
48. Proposed New Flat: Residence Head
49. Proposed New Male/Female Ablution Facilities (Sports fields)

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UFS·UV

University of the Free State

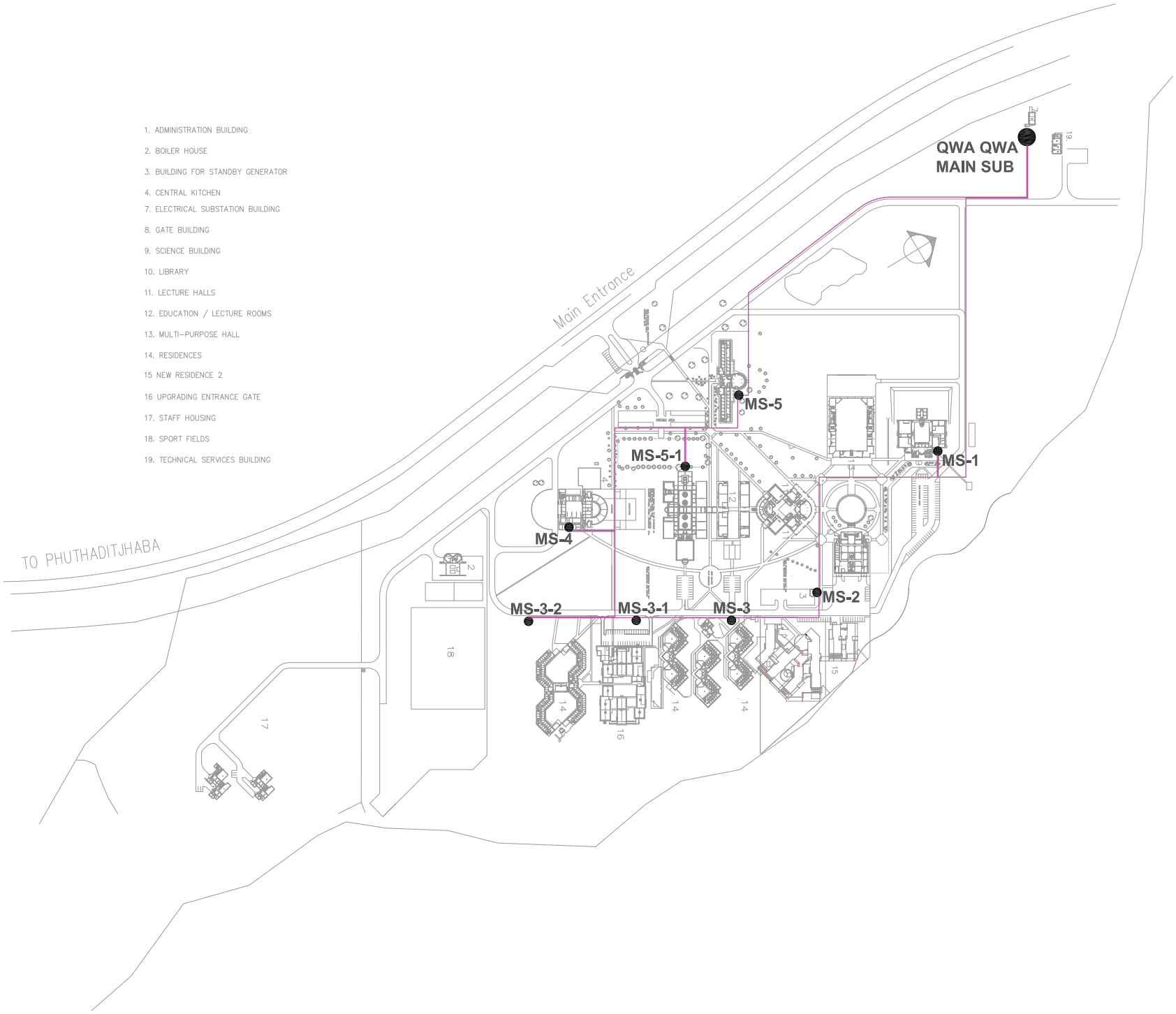
Qwa-Qwa Campus Plan

Strategic Development Plan

0 100 200 400

ROODT ARCHITECTS

Habitat LANDSCAPE ARCHITECTS



LEGEND

- 4.0 MVA CABLE (70mm² Cu, XLPE)
- SUBSTATION
- MINI-SUBSTATION

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Projek / Project

UFS: QWA QWA CAMPUS
INTERNAL MV NETWORK

Installasie / Installation

11 kV NETWORK

Tek.Beskrywing / Dwg.Description

SITE PLAN:
11kV CABLE ROUTES

Ontwerp/Designed	Geteken/Drawn
BJJ	BJJ
Nagesien/Checked	Datum/Date
JMV	2011-08-04

Skaal / Scale: N/A

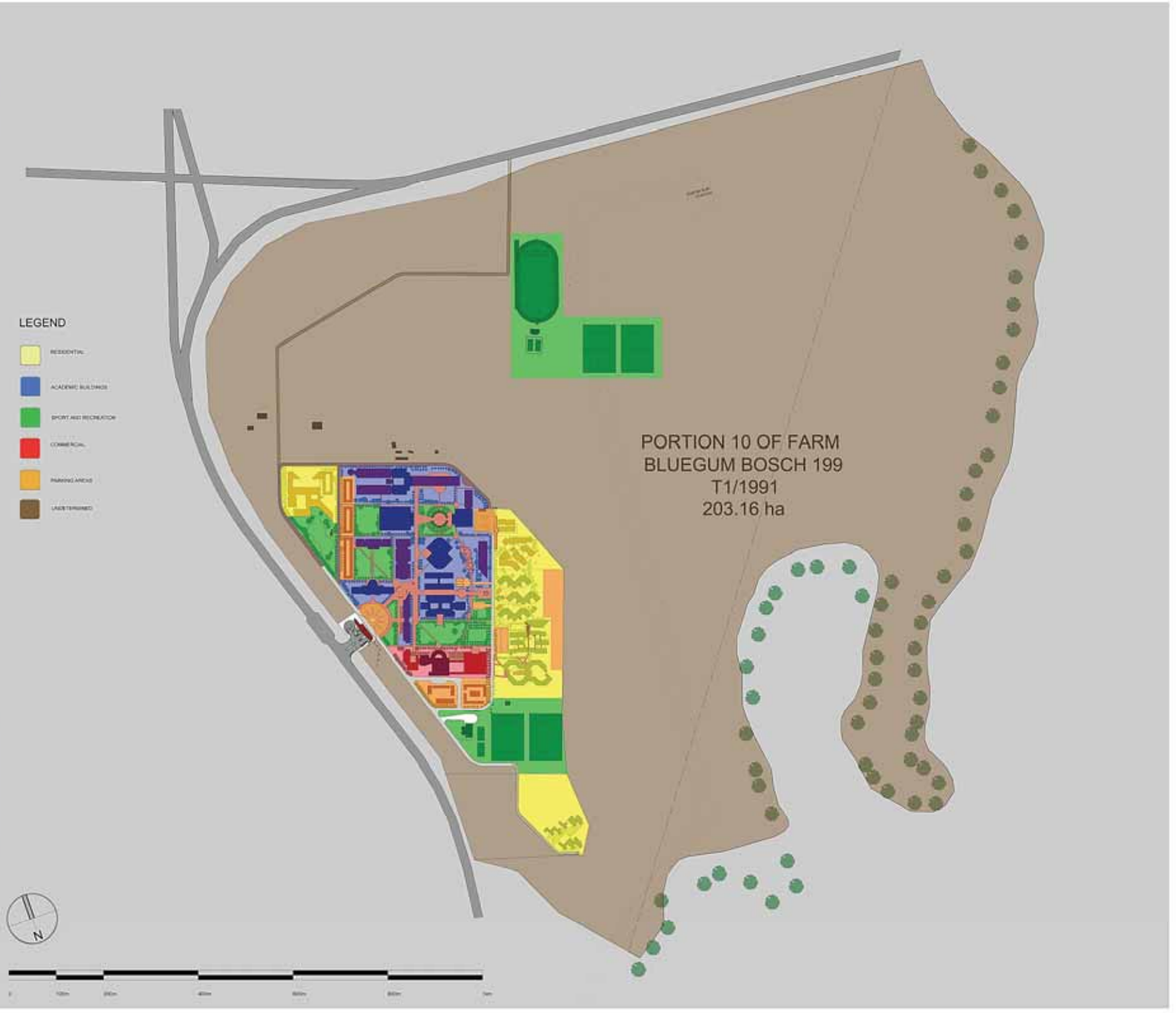
Tekening / Drawing: 2011-8-2

REV 0

University of the Free State

QWA-QWA CAMPUS

UFS·UV



ROODT ARCHITECTS