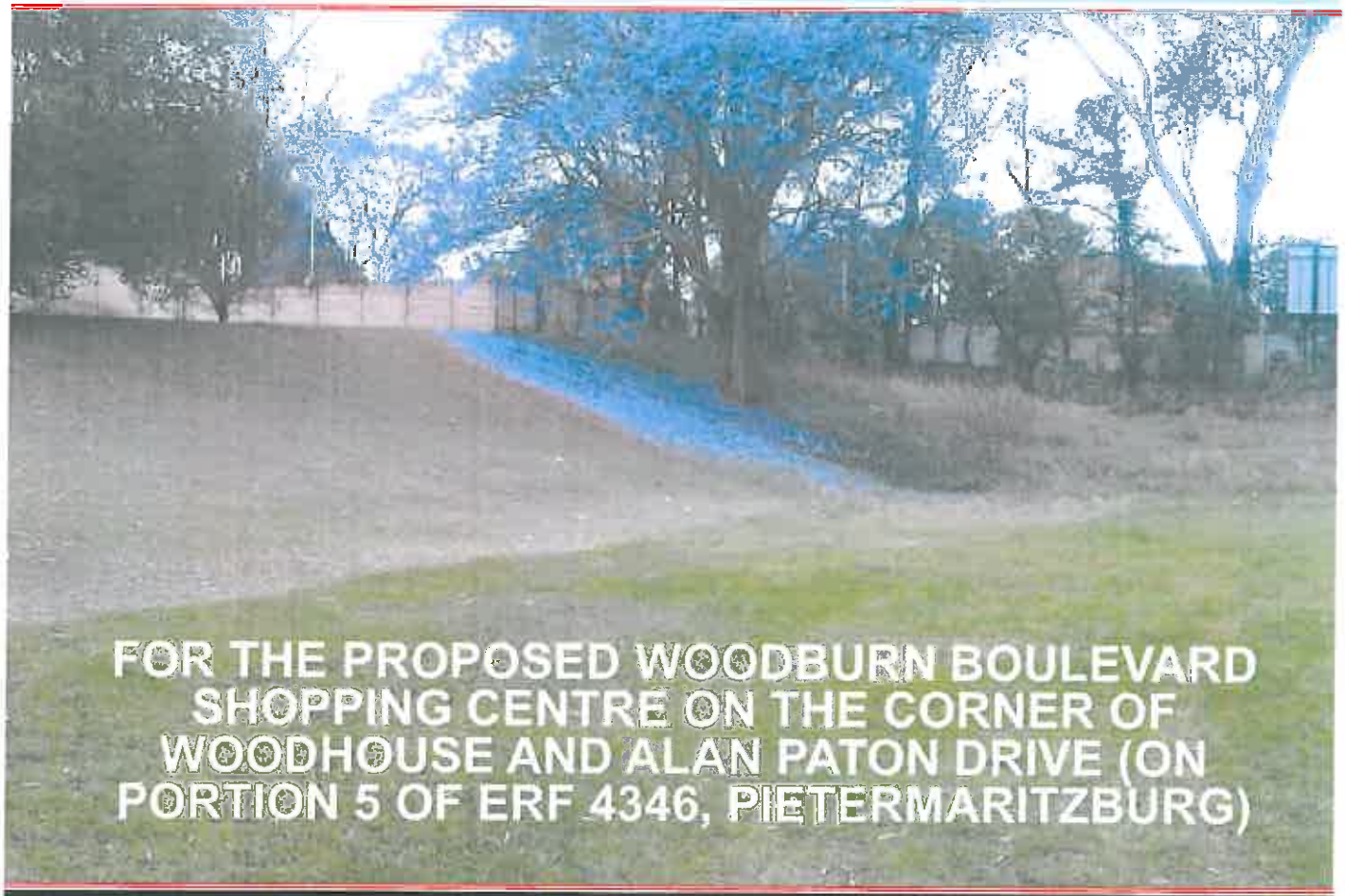
FINAL BASIC ASSESSMENT



FOR THE PROPOSED WOODBURN BOULEVARD SHOPPING CENTRE ON THE CORNER OF WOODHOUSE AND ALAN PATON DRIVE (ON PORTION 5 OF ERF 4346, PIETERMARITZBURG)

APRIL 2013- DC22/0059/2011

Bokamoso ENVIRONMENTAL

BOKAMOSO LANDSCAPE ARCHITECTS & ENVIRONMENTAL CONSULTANTS

P.O. BOX 11375
MAROELANA
0161

TEL: (012) 346 3810
FAX: (012) 460 7079

E-MAIL: lizelleg@mweb.co.za

agriculture
& environmental affairs

Department:
Agriculture
& Environmental Affairs
PROVINCE OF KWAZULU-NATAL

	(For official use only)
EIA File Reference Number:	DC/
NEAS Reference Number:	KZN/EIA/
Waste Management Licence Number: (if applicable)	
Date Received:	

BASIC ASSESSMENT REPORT

Submitted in terms of the Environmental Impact Assessment Regulations, 2010 promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998)

This template may be used for the following applications:

- **Environmental Authorization** subject to basic assessment for an activity that is listed in Listing Notices 1or 3, 2010 (Government Notices No. R 544 or No. R 546 dated 18 June 2010); or
- **Waste Management Licence** for an activity that is listed in terms of section 20(b) of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) for which a basic assessment process as stipulated in the EIA Regulations must be conducted as part of the application (refer to the schedule of waste management activities in Category A of Government Notice No. 718 dated 03 July 2009).

Kindly note that:

1. This **basic assessment report** meets the requirements of the EIA Regulations, 2010 and is meant to streamline applications. This report is the format prescribed by the KZN Department of Agriculture & Environmental Affairs. Please make sure that this is the latest version.
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with text.
3. Where required, place a cross in the box you select.
4. An incomplete report will be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it will result in the rejection of the application as provided for in the regulations.
6. No faxed or e-mailed reports will be accepted.
7. The report must be compiled by an independent environmental assessment practitioner ("EAP").
8. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

9. The KZN Department of Agriculture & Environmental Affairs may require that for specified types of activities in defined situations only parts of this report need to be completed.
10. The EAP must submit this basic assessment report for comment to all relevant State departments that administer a law relating to a matter affecting the environment. This provision is in accordance with Section 24 O (2) of the National Environmental Management Act 1998 (Act 107 of 1998) and such comments must be submitted within 40 days of such a request.
11. **Please note that this report must be handed in or posted to the District Office of the KZN Department of Agriculture & Environmental Affairs to which the application has been allocated (please refer to the details provided in the letter of acknowledgement for this application).**

DEPARTMENTAL REFERENCE NUMBER(S)

File reference number (EIA):	
File reference number (Waste Management Licence):	

SECTION A: DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER AND SPECIALISTS

1. NAME AND CONTACT DETAILS OF ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

Name and contact details of the EAP who prepared this report:

Business name of EAP:	**Bokamoso Environmental Consultants and Landscape Architects**		
Physical address:	36 Lebombo Avenue Ashlea Gardens Pretoria		
Postal address:	P.O. Box 11375, Maroelana		
Postal code:	0161	Cell:	083 255 838 4
Telephone:	(012) 346-3810	Fax:	086 570 565 9
E-mail:	lizelleg@mweb.co.za		

2. NAMES AND EXPERTISE OF REPRESENTATIVES OF THE EAP

Names and details of the expertise of each representative of the EAP involved in the preparation of this report:

Name of representative of the EAP	Education qualifications	Professional affiliations	Experience at environmental assessments (yrs)
Lizelle Gregory	BL (UP) Professional Landscape Architect and Environmental Consultant . Registered professional Landscape Architect with Practise Number: ……	**ILASA** **SALAP** **IAIA**	More than 21 years of experience. Conducted more than 1 000 EIA's and related reports (Refer to Appendix …. For Company profile and CV Attached)

3. NAMES AND EXPERTISE OF SPECIALISTS

Names and details of the expertise of each specialist that has contributed to this report:

Name of specialist	Education qualifications	Field of expertise	Section/ s contributed to in this basic assessment	Title of specialist report/ s as attached in Appendix D

			report	

SECTION B: ACTIVITY INFORMATION

1. PROJECT TITLE

Describe the project title as provided on the application form for environmental authorization:

Project Title: Woodburn Boulevard Shopping Centre

O&T Developement (Pty) Ltd is planning a proposed 6 500m² shopping centre development to be known as the **Woodburn Boulevard Shopping Centre.**

The proposed development will take place on Portion 5 of Erf 4346 KwaZulu-Natal and it is situated within the uMgungundlovi District Municipality Boundaries, approximately 1Km to the south-west of the Pietermaritzburg CBD. The site is located on the corner of Woodhouse Road and Alan Paton Drive and the Fox-Hillspruit Canal (a tributary of the Umsumduzi River) runs along the western boundary of the study area. **Refer to Figure 1 for Locality Map and Refer to Figure 2 for Aerial Photograph. (Please refer to Appendix H for enlarged copies of figures)**

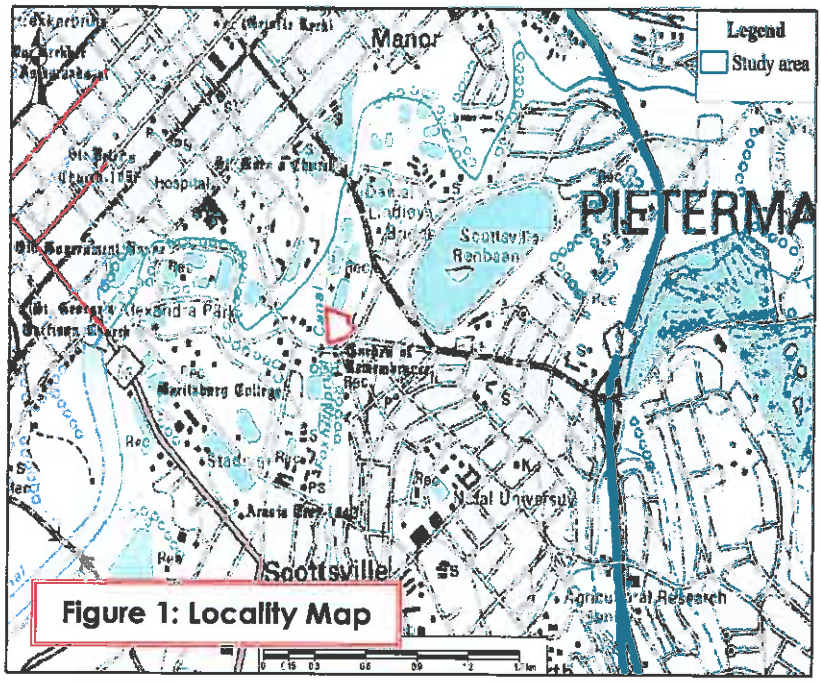


Figure 1: Locality Map

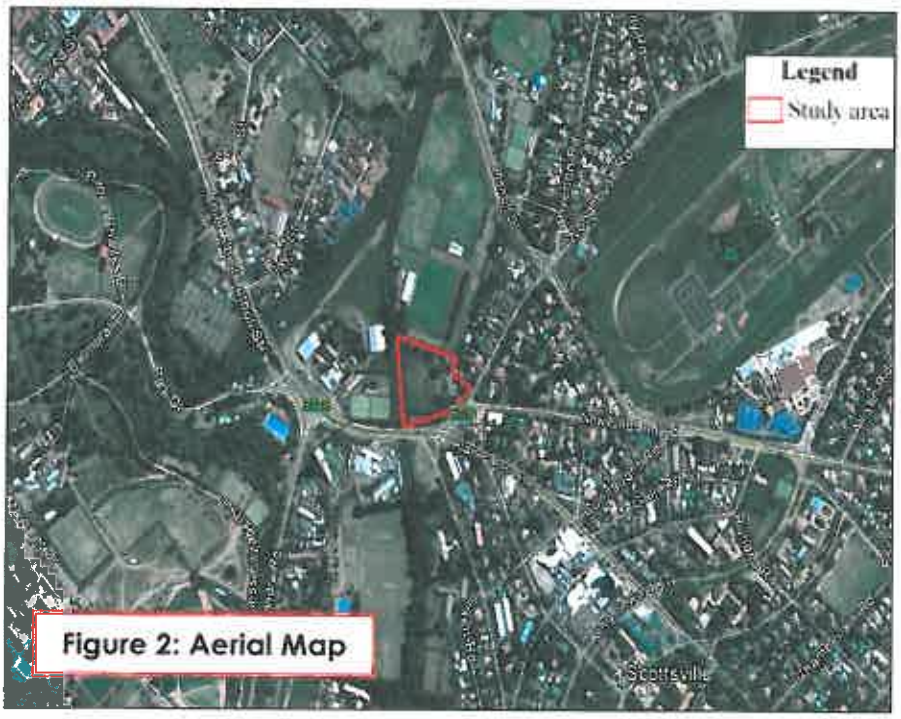


Figure 2: Aerial Map

2. PROJECT DESCRIPTION

Provide a detailed description of the project:

O&T Developement (Pty) Ltd is planning a proposed 6 500m² shopping centre development to be known as the **Woodburn Boulevard Shopping Centre.**

The proposed development will take place on Portion 5 of Erf 4346 KwaZulu-Natal and it is situated within the uMgungundlovi District Municipality Boundaries. The site is located on the corner of Woodhouse Road and Alan Paton Drive and the Fox-Hillspruit Canal (a tributary of the Umsumduzi River) runs along the western boundary of the study area.

The study area was purchased by the applicant for development purposes from the KwaZulu-Natal Rugby Union, which formerly used the study area as additional sporting fields to the main stadium. At present the study area is covered with lawn and some excavation activities already took place on the property. A Vodacom Tower and some advertisement boards and other signage are erected along the southern boundary of the site and is visible from Alan Paton Drive. Apparently the excavations were done by a former party that also planned to develop the property.

The site is now zoned for business purposes and therefore it was not deemed necessary to also apply for activity 24. During a meeting in March 2013, the local authority and the KZN DAEA confirmed that it will not be necessary to apply for Activity 24, because the study area no longer has a zoning equivalent to an open space zoning.

The site (in its current state) appears neglected and unutilised and is regarded (from an economical point of view) as a prime position for a commercial/retail facility.

The applicant already obtained the town planning rights in 2009 by means of a Development Facilitation Act Application and the local authority fully supports the proposed application. Please note that for Town Planning Application Purposes (the DFA Application), the study area formed part of a larger study area and the proposed shopping centre development is regarded, from a Town Planning point of view, as a first phase of the larger development.

When the applicant commenced with the DFA application (at the time when the 2006 NEMA EIA Regulations were still in effect), the proposed development and its associated activities were not regarded as listed activities and therefore it was not necessary for the applicant to obtain EIA authorisation for the proposed development.

The applicant/ developer however did not commence with construction and since they obtained the DFA approval the EIA Regulations changed.

When the developer approached the involved local authority to finalise the services agreements and the development plans, the local authority indicated that it will now be necessary for the developer to obtain EIA authorisation for activities associated with the shopping centre development, because the proposed phase 1 of the development now triggers activities listed in the 2010 Amended NEMA EIA Regulations.

The developer had several meetings with the local and provincial authorities in order to determine whether it will not be possible to apply for an exemption from the 2010 Amended EIA Regulations, because the application commenced long before the Amended Regulations came into effect, but due to the fact that the 2010 Amended EIA Regulations make no provision for exemption from listed activities, the relevant

authority confirmed that it will be necessary for the applicant to follow a Basic Assessment Process in terms of the 2010 Amended NEMA EIA Regulations.

Important!!!!!! ***As explained above, this application is only applicable to the first phase (the shopping centre) of the larger development for which town planning approval has already been granted. If any listed activities are triggered when doing the final layouts and designs for the remainder of the development, the applicant will submit a separate EIA application (most probably for a Basic Assessment) to KZN DAEA for consideration.***

The activities triggered by the First Phase (the shopping centre development) are associated with the river that flows to the west of the study area and with the open space usage of the site and to follow now are the activities applied for:

Indicate the number and date of the relevant notice:	Activity No (s) (In terms of the relevant notice) :	Describe each listed activity as per the detailed project description (and not as per wording of the relevant Government Notice):
R.544, 18 June 2010 - (Listing Notice 1)	**9**	The construction of facilities or infrastructure exceeding 1000 metres in length for the bulk transportation of water, sewage or storm water- (i) With an internal diameter of 0.36 metres or more; or (ii) with a peak throughput of 120 litres per second or more, Excluding where: a. such facilities or infrastructure are for bulk transportation of water, sewage or storm water or storm water drainage inside, a road reserve; or b. Where such construction will occur within urban areas but further than 32 metres from a water course, measured from the edge of a watercourse.

R. 544, 18 June 2010 - (Listing Notice 1)	**Activity 11**	The Construction of: (i) Canals; (ii) Channels; (iii) Bridges; (v) Weirs; (vi) Bulk storm water outlet structures; (x) Infrastructure or structures covering 50 square metres or more. Where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.
R. 544, 18 June 2010- (Listing Notice 1)	**Activity 18**	The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock from: (i) a watercourse; but excluding were such infilling, depositing, dredging, excavation, removal or moving: (i) is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority; or (ii) Occurs behind the development setback line.
R. 544, 18 June 2010- (Listing Notice 1)	**Activity 37**	The expansion of facilities or infrastructure for the bulk transportation of water sewage or storm water where: (a) the facility or infrastructure is expanded by more than 1000 metres in length; or (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more- excluding where such expansions: (i) relates to the transportation of water, sewage or storm water within a road reserve; or (ii) where such expansions will occur within urban areas but further than 32 metres form a watercourse, measured form the edge of the watercourse

R. 544, 18 June 2010- (Listing Notice 1)	**Activity 39**	The expansion of: (i) canals; (ii) channels; (iv) weirs; (v)bulk storm water outlet structures Within a watercourse or within 32 metres form a watercourse, measured form the edge of a watercourse, where such expansions will result in an increased development footprint, but excluding where such expansions will occur behind the development setback line.

3. ACTIVITY DESCRIPTION

Describe each listed activity in Listing Notice 1 (GNR 544, 18 June2010), ~~or~~ Listing Notice 3 (GNR 546, 18June 2010) or Category A of GN 718, 3 July 2009 (Waste Management Activities) which is being applied for as per the project description:

Indicate the number and date of the relevant notice:	Activity No (s) (In terms of the relevant notice) :	Describe each listed activity as per the detailed project description (and not as per wording of the relevant Government Notice)[1]:
R.544, 18 June 2010- (Listing Notice 1)	9	The construction of facilities or infrastructure exceeding 1000 metres in length for the bulk transportation of water, sewage or storm water- (i) With an internal diameter of 0.36 metres or more; or (ii) with a peak throughput of 120 litres per second or more, Excluding where: c. such facilities or infrastructure are for bulk transportation of water, sewage or storm water or storm water drainage inside, a road reserve; or d. Where such construction will occur within urban areas but further than 32 metres from a water course, measured from the edge of a watercourse.

It was decided to include this activity, because the services and infrastructural design of the proposed shopping centre must still be finalised. The proposed shopping centre development and its associated infrastructure and facilities will be developed within 32 metres from a water course/ the edge of a water course. According to the involved civil engineer, the storm water will be discharged into the river, but the system to be implemented will be in accordance with the local authority storm water standards and guidelines and the proposed system will be designed to prevent flooding, siltation, water pollution and erosion.

R. 544, 18 June 2010- (Listing Notice 1)	**Activity 11**	The Construction of: (iv) Canals; (v) Channels; (vi) Bridges; (v) Weirs; (vi) Bulk storm water outlet structures; (x) Infrastructure or structures covering 50 square metres or more. Where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.
Certain elements and features of the proposed shopping centre will be developed within 32 metres from the watercourse and such features will exceed 50m².		
R. 544, 18 June 2010- (Listing Notice 1)	**Activity 18**	The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock from: (ii) a watercourse; but excluding were such infilling, depositing, dredging, excavation, removal or moving: (iii) is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority; or (iv) Occurs behind the development setback line.
During the construction phase more than 5m³ of material will be excavated from the watercourse. The anticipated activities will amongst others include the excavations required for the installation of storm water management measures, the excavations for basement parking and structures, rehabilitation works adjacent to the river and the removal of littering and exotic invaders and the installation of other services associated with the proposed development. *Please note, that the adjacent water course includes no wetlands in the vicinity of the study area. The local authority and KZN DAEA requested that the possible occurrence of wetlands on and adjacent to the study area be confirmed and according to the appointed wetland specialist, the section of the watercourse adjacent to the study area does not incorporate any wetlands.*		

R. 544, 18 June 2010	**Activity 37**	The expansion of facilities or infrastructure for the bulk transportation of water sewage or storm water where: (a) the facility or infrastructure is expanded by more than 1000 metres in length; or (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more- excluding where such expansions: (i) relates to the transportation of water, sewage or storm water within a road reserve; or (ii) where such expansions will occur within urban areas but further than 32 metres form a watercourse, measured form the edge of the watercourse
There is a possibility that the proposed development will require the upgrading/ expansion of existing services and infrastructure and some of the proposed expansions will be within 32 metres from a watercourse. The services agreement between the local authority and the developer will be finalised as soon as the EIA authorisation is issued. The applicant already spent a significant amount of money on the application, and due to financial reasons it will not be possible to do more detailed services and infrastructural designs until the authorisation has been issued.		
R. 544, 18 June 2010	**Activity 39**	The expansion of: (i) canals; (ii) channels; (iv) weirs; (v)bulk storm water outlet structures Within a watercourse or within 32 metres form a watercourse, measured form the edge of a watercourse, where such expansions will result in an increased development footprint, but excluding where such expansions will occur behind the development setback line.
The services upgradings required for the proposed shopping centre could require the expansion of bulk storm water outlet structures. The services agreement and engineering details could trigger this activity. It was therefore decided to rather include this activity as one of the possible listed activities. The impacts assessment and the mitigation measures included as part of this Basic Assessment therefore took this activity and the anticipated impacts of the construction and operational phases of such potential structures into consideration.		
R. 544, 18 June 2010	**Activity 24**	The transformation of land larger than 1000m² in size, to residential, retail, commercial, industrial or institutional use, where at the time of coming into effect of this Schedule, such land was zoned open space, conservation or had an equivalent zoning.

Prior to the DFA application, which applied for the shopping centre rights as referred to in this BAR, the study area was utilised as sports grounds and such use could be regarded as a zoning equivalent to open space. It was therefore decided to also include this activity as part of the activities applied for. Note that we did not identify this activity as one of the activities applied for on the notices and advertisements, but it was decided, during the compilation of the BAR to rather include this activity as one of the activities applied for in the BAR. It will be highly appreciated if the local authority and KZN Department of Agriculture and Environmental Affairs could confirm whether this activity should be included in the Final BAR.

Important!!!! *During a meeting that was held at the local authority (between the developer, the local authority, the KZN Department of Agriculture and Environmental Affairs (DAEA) and Bokamoso, it was confirmed that the study area is not zoned as open space and therefore it is not necessary to include/ apply for Activity 24. It will therefore not be requested (at the end of the report) that the delegated authority include Activity 24 as part of the listed activities to be authorised (if the delegated authority decide to grant authorisation).*

4. FEASIBLE AND REASONABLE ALTERNATIVES

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

Describe alternatives that are considered in this report. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

<u>Sections B 5 – 15 below should be completed for each alternative.</u>

5. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. List alternative sites were applicable.

Alternative:	**Latitude (S):**			**Longitude (E):**		
Alternative S1[2] (preferred or only site alternative)	**29°**	**36'**	**45.73"**	**30°**	**23'**	**27.44"**
Alternative S2 (if any)	0	'	"	0	'	"
Alternative S3 (if any)	0	'	"	0	'	"

In the case of linear activities:

Alternative:	**Latitude (S):**			**Longitude (E):**		
Alternative S1 (preferred or only route alternative)						
• Starting point of the activity	0	'	"	0	'	"
• Middle point of the activity	0	'	"	0	'	"
• End point of the activity	0	'	"	0	'	"
Alternative S2 (if any)			"			"

[2] "Alternative S.." refer to site alternatives.

- Starting point of the activity
- Middle point of the activity
- End point of the activity

0	'	"	0	'	"
0	'	"	0	'	"
0	'	"	0	'	"

Alternative S3 (if any)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

0	'	"	0	'	"
0	'	"	0	'	"
0	'	"	0	'	"

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 500m along the route for each alternative alignment.

6. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:	**Size of the activity:**
Alternative A1[3] (preferred activity alternative)	**17 820m²** The study area for Alternative 1 is 17 820m², the proposed retail space will be 6 500m².
Alternative A2 (if any)	**17 820m²** The study area for Alternative 2 is also 17 820m² and the proposed retail and commercial space is 29 000m².
Alternative A3 (if any)	m²

or, for linear activities:

Alternative:	**Length of the activity:**
Alternative A1 (preferred activity alternative)	m
Alternative A2 (if any)	m
Alternative A3 (if any)	m

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:	**Size of the site/servitude:**
Alternative A1 (preferred activity alternative)	m²
Alternative A2 (if any)	m²
Alternative A3 (if any)	m²

[3] "Alternative A.." refer to activity, process, technology or other alternatives.

7. SITE ACCESS

Does ready access to the site exist?	YES	NO
If NO, what is the distance over which a new access road will be built		m

Describe the type of access road planned:

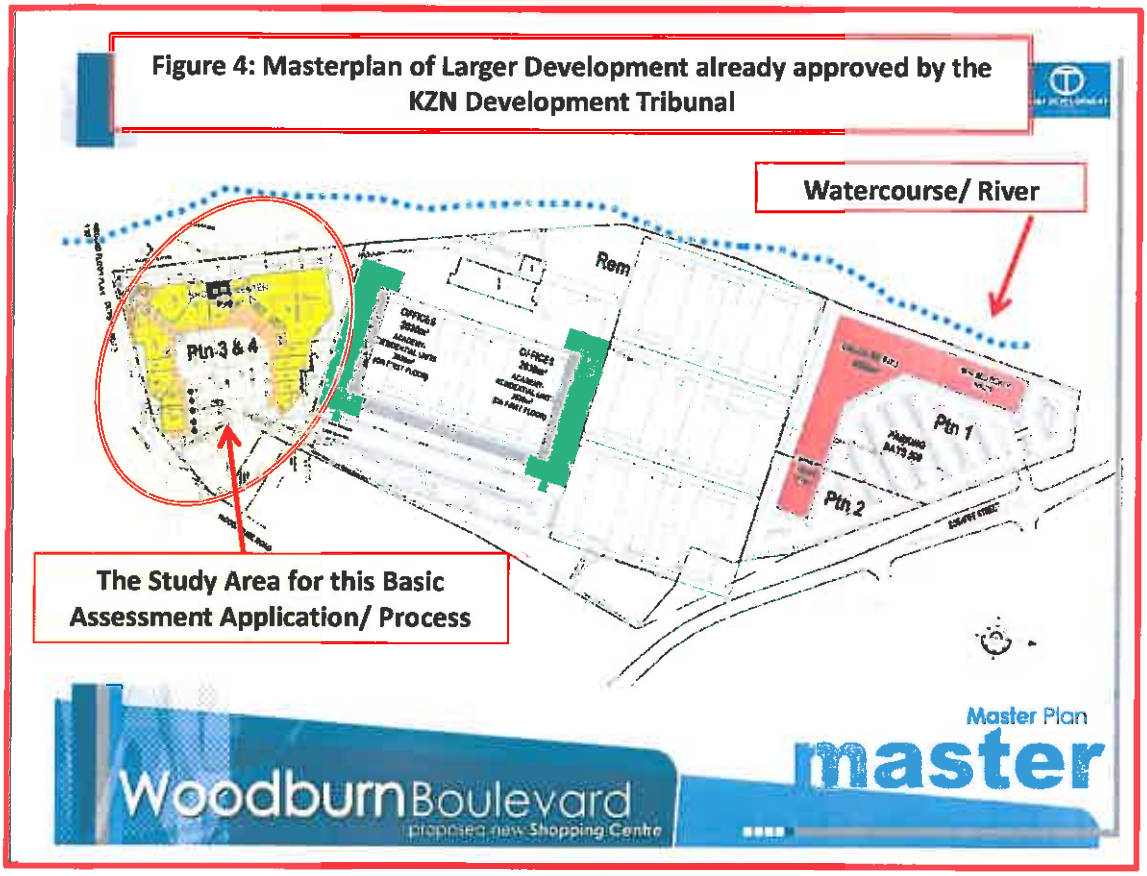
As already mentioned, the proposed shopping centre development will be situated on the grounds of the KwaZulu-Natal Rugby Union and the proposed access for the shopping centre will remain at the existing access point of the rugby club. **Refer to Figure 3 Below.** It is however important to note that the existing intersection will be upgraded to accommodate the increased traffic generated by the development and other developments in the area.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

Figure 3: Access Point of Proposed New Shopping Centre and Proposed Development Layout

Note that the proposed shopping centre will eventually form part of a larger development across the entire property of the Rugby Club, which has already been approved by means of a DFA Application.

The developer is however only planning to develop the shopping centre at this stage and will submit Basic Assessments for the following phases as soon as the land-uses and layouts for such phases have been finalised. ***Refer to Figure 4 for Master Layout Plan*** of Proposed Larger Development already approved by the KZN Development Tribunal.



8. SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this report.

The site or route plans must indicate the following:

8.1. the scale of the plan which must be at least a scale of 1:500;

8.2. the property boundaries and numbers/ erf/ farm numbers of all adjoining properties of the site; **Refer to Figure 5 and Appendix A (i)**

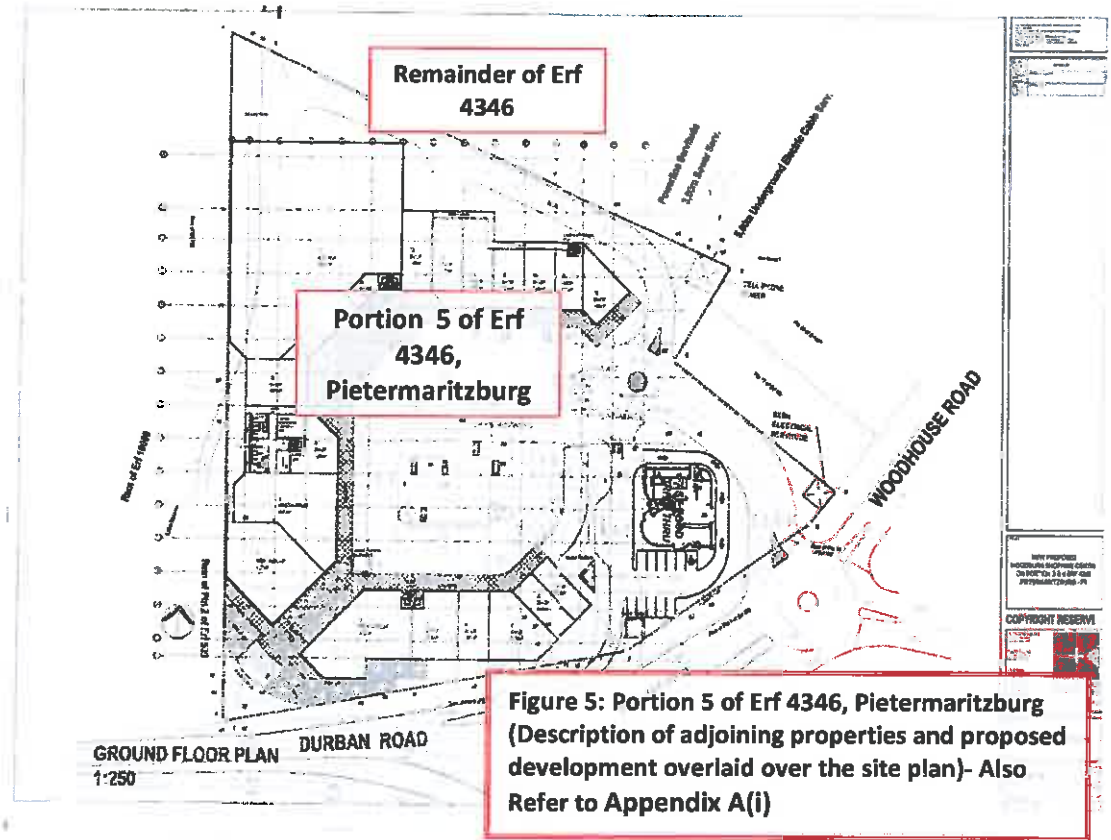


Figure 5: Portion 5 of Erf 4346, Pietermaritzburg (Description of adjoining properties and proposed development overlaid over the site plan)- Also Refer to Appendix A(i)

8.3. the current land use as well as the land use zoning of each of the properties adjoining the site or sites; **Refer to Appendix A(ii) and Figure 6**

8.4. the exact position of each element of the application as well as any other structures on the site; **Refer to Appendix A (i) and (iii)**

8.5. the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;

8.6. walls and fencing including details of the height and construction material;

8.7. servitudes indicating the purpose of the servitude; **Refer to Appendix A (i)**

8.8. sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):

- rivers, streams, drainage lines or wetlands;
- the 1:100 year flood line (where available or where it is required by DWA);
- ridges;
- cultural and historical features; **Refer to Appendix A(iv)**
- areas with indigenous vegetation including protected plant species (even if it is degraded or infested with alien species); **Refer to Appendix A (v)**

8.9. for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and **Refer to Appendix A(vi)**

8.10. the positions from where photographs of the site were taken. **Refer to Appendix B**

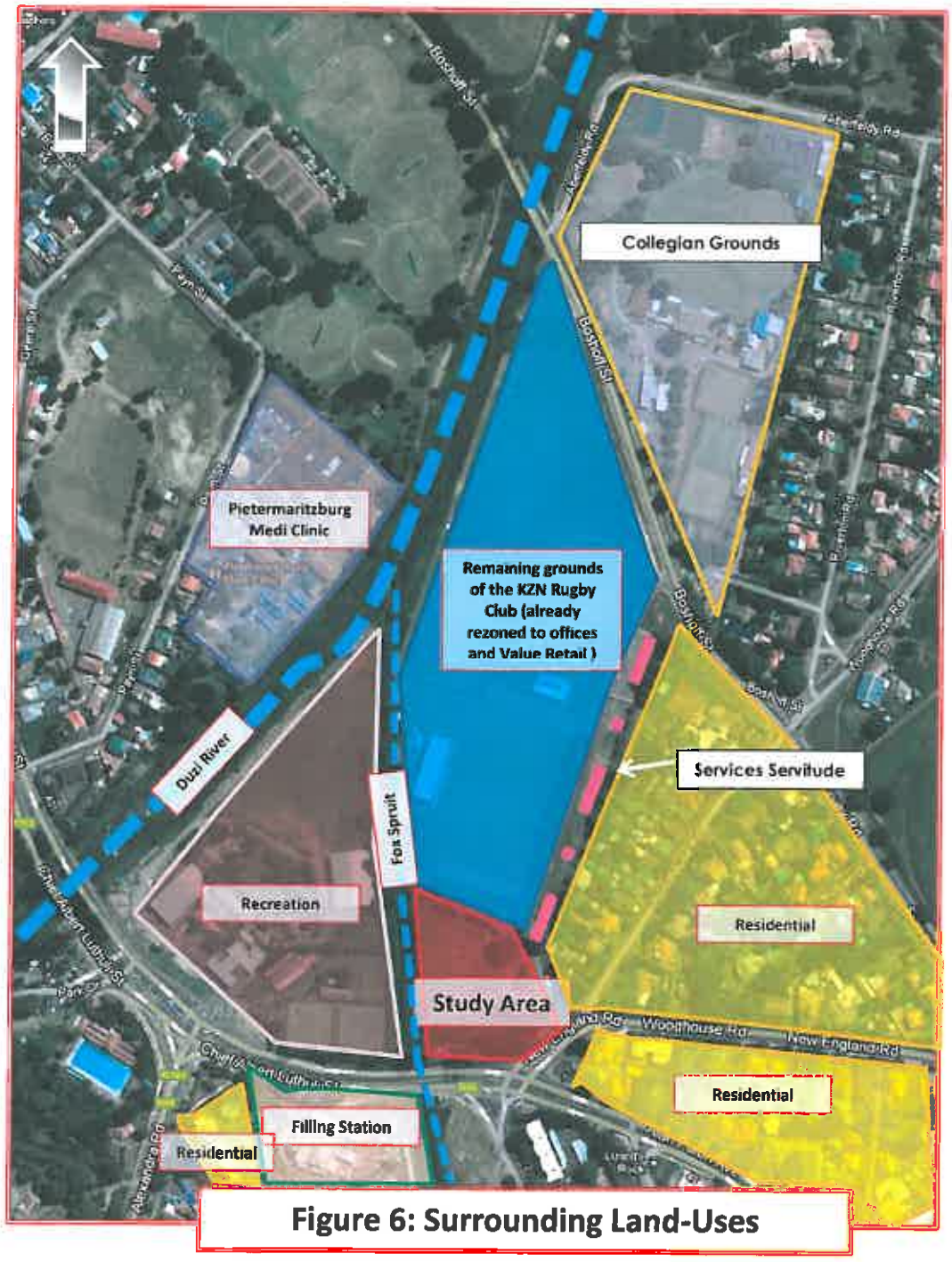


Figure 6: Surrounding Land-Uses

The study area is situated within an area with mixed land-uses. The Woodburn site is partly bordered by the Umsumduzi River and the YMCA complex. To the north-east it is bordered by Boshoff Street and to the east thereof, the Collegians Club and filling station can be found. To the east the property is bordered by residential dwellings

and to the south the study area is bordered by the Durban/New England Road, from which access is currently obtained.

In the wider surrounding area, a variety of uses are found such as clinics, schools, sports facilities, residential buildings etc. The University of Natal is situated approximately 1km to the south-east of the study area. The university is a tertiary institution, which in itself makes a major contribution in the economy of the city.

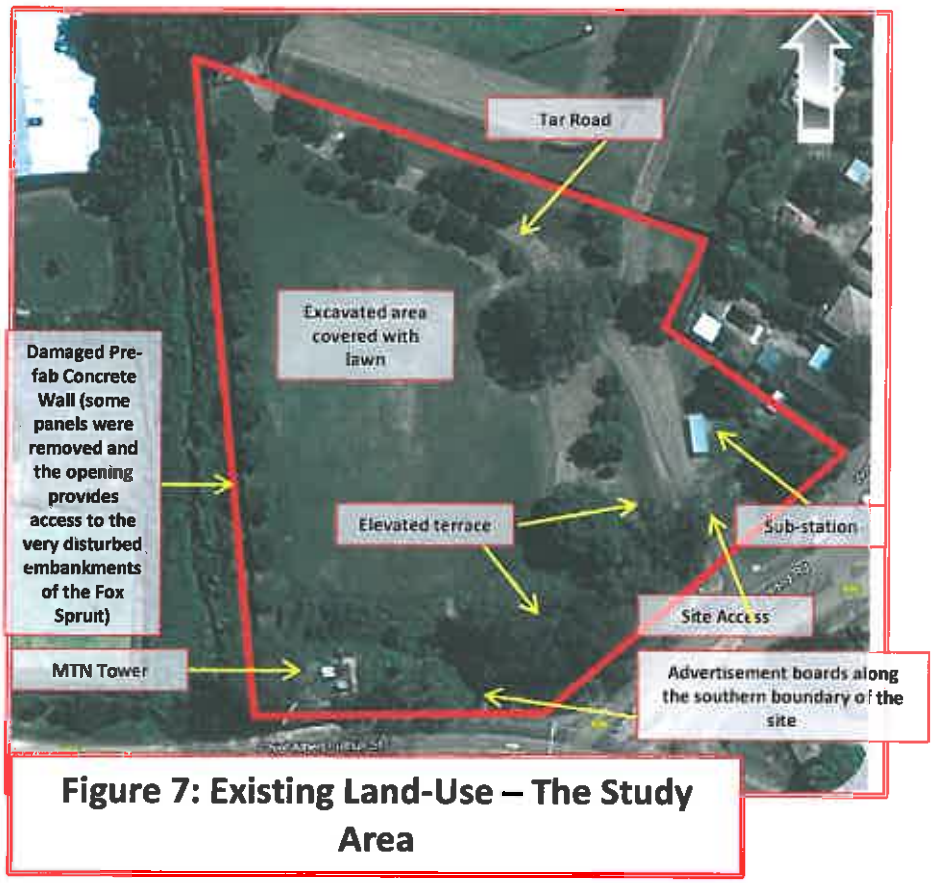


Figure 7: Existing Land-Use – The Study Area

9. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under **Appendix B** to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

10. FACILITY ILLUSTRATION

A detailed illustration of the facility must be provided at a scale of 1:200 and attached to this report as **Appendix C**. The illustrations must be to scale and must represent a realistic image of the planned activity/ies.

11. ACTIVITY MOTIVATION

11.1. Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R 100 000 000.00	
What is the expected yearly income that will be generated by or as a result of the activity?	R 7 000 000.00	
Will the activity contribute to service infrastructure?	**YES**	NO
Is the activity a public amenity?	**YES**	NO
How many new employment opportunities will be created in the development phase of the activity?	± 150	
What is the expected value of the employment opportunities during the development phase?	±R 8000/ employee	
What percentage of this will accrue to previously disadvantaged individuals?	±50%	
How many permanent new employment opportunities will be created during the operational phase of the activity?	± 150	
What is the expected current value of the employment opportunities during the first 10 years?	±R6 000/ employee/month	
What percentage of this will accrue to previously disadvantaged individuals?	±60%	

11.2. Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

According to the applicant, most of the shops/ space in the centre have already been reserved for tenants that are anxious to occupy. In fact, they are currently experiencing enormous development pressure from such tenants who want the developer to supply them with an opening date for the facility. The proposed facility will only be a community centre/ local shopping centre and the main purpose of the facility will be to fulfil in the needs of the surrounding local community.

Furthermore the proposed development will take place on a disturbed site which is situated on a strategically located corner, which makes the proposed facility very accessible and visible. An EIA authorisation, which expired, was already issued for the proposed development on the study area.

During the application process, Bokamoso had several discussions with the various departments of the involved local authority and the local authority indicated that the fully support the proposed development, which already has a very long history and which is already (with its new zoning) incorporated as part of the local authority Frameworks and Plans.

As already mentioned, the town planning application for the proposed development was done in terms of the Development Facilitation Act and the KZN Development Tribunal already approved the land-use rights on the study area in September 2001.

Also note that the Former Department of Agriculture and Environmental Affairs also issued a Positive Record of Decision for the proposed development on the study area, but this authorisation already lapsed and one of the conditions of the authorisation states that a separate authorisation will be required for any development which will affect any river or stream course. It is furthermore important to note that the Department of Agriculture and Environmental Affairs indicated to the Development Tribunal that they are in support of the proposed development, subject to certain conditions, which have been included into the conditions of establishment.

Apart from the fact that the developer already has an impressive tenant list for the proposed facility, the involved town and regional planners supplied the following inputs regarding the need and desirability.

The development of the town of Pietermaritzburg has since its inception been influenced by the topography as well as the presence of certain major transportation routes. It has, as was in the case of many other towns and cities in the country, also been influenced by the former policy of racial segregation. The situation has now changed and the city "experience pressure" to have the imbalance created by the latter, rectified. This process, which takes place naturally, requires adjustments in urban form. It is generally known that the poorer part of the population tend to locate themselves in close proximity of the CBD, which means that a number of commercial activities have to re-adjust themselves in the market place.

It is also a common phenomenon, and especially in the post-apartheid era that developments along transportation corridors proceed to take place and although this phenomena emerges without any specific economic base, it can probably be ascribed to the fact that movement along these corridors leads to the spontaneous development thereof.

However, with the advent of increased motor car ownership amongst the more effluent part of the community on the one hand, and the higher degree of mobility amongst the poorer part of the community on the other hand, an interesting phenomenon can be observed if the changing urban structures of cities are studied. The first mentioned resulted therein that regional shopping centres and decentralised office parks have become viable.

In addition hereto an increase in spending power amongst the more affluent parts of the community created a demand for especially decentralised shopping facilities. As the latter are consumer driven, the market identified the changing pattern and has responded thereto.

Many examples can be found thereof and the Pavillion in Durban-Westville can be quoted as an example in this regard. The further development t of the Gateway Shopping Mall in the Umlanga area is another example of a decentralised shopping facility and office development.

The higher degree of mobility among the poorer part of the community resulted therein that the CBD's experience d a total transformation as can be observed in Pietermaritzburg (i.e. Shopping patterns and habits differ in the sense that this part of the community live quite far from the CBD and do not have the choice of variety in the places where they reside and furthermore facilities there are totally underdeveloped if the facilities in the CBD are compared therewith. These two phenomena namely the decentralisation of shopping facilities and the influx to the CBD, have resulted therein that properties abutting onto all major transportation routes / corridors experience a natural tendency to land-use change.

Decentralisation should in view of the above, be accepted as a given and major transportation corridors should be planned to permit the development thereof for uses other than necessarily residential only.

Decentralisation has a negative impact on the residential quality of the existing properties along the corridors for the simple reason that increased traffic movement along the major routes is perceived to increase noise and air pollution levels. The noise levels in residential

areas should not exceed 55dBa, but along major transport routes such noise levels are often exceeded, which makes it almost unbearable for people to stay in residents adjacent to such roads. This in turn results therein that residential developments along transportation routes over time tend to become decayed. The logical and practical solution for planners should be to accept the change which takes place namely decentralisation and higher mobility and plan these corridors to accommodate the pressures referred to.

The study area form part of and is known as Scotsville-Pelham. The area has always been and still is, to certain extent, a residential suburb situated in relatively close proximity of the CBD. The area also fulfils a major educational function, as far as that a number of schools and university is situated within the area.

The area can be decried as a low residential area consisting of normal single residential houses with some medium density residential development interspersed at places.

Interesting however the presence of boarding houses in the area is ascribed to the presence of the University of Natal where students tend to move into houses or communes.

The area is furthermore served by some commercial developments, the most important of which the shopping centre situated on the corner of Durban Road and King Edwards Avenue.

It is however so that the Scotsville-Pelham area fulfils from a commercial and educational point of view, a far greater role than what is required for its own use. It can be argued that it even serves the entire city and in some instances even fulfils a regional function.

Although this may be a situation which may be difficult to reverse and although it is not the purpose of this motivation to undertake the re-planning of the Scotsville-Pelham area, the continuous pressure which is experienced by areas in the Scotsville-Pelham area for commercial/ business areas should not be permitted to continue unhindered as this will result in a total change in character. When opportunities arise, they should be viewed against the residential character of the area, but at the same time areas should be identified where the pressures which are experienced can be accommodated and it can be argued that the study area is ideally situated to accommodate the need which has been identified by the developers. This opportunity will not only satisfy the need, but it also holds financial benefits for the Natal Rugby Union that needs the money to promote the development of sport in the region.

From an ecological, safety and security point of view, the proposed development can also be regarded as an opportunity, because the development can be designed in such a way that it opens-up towards the Foxspruit, which is currently very polluted and of which the banks are covered with exotic invaders, litter and rubble.

During the site visit it was discovered that someone removed one of the pre-fab concrete wall panels, which separates the study area from the overgrown open spaces along the spruit. We climbed through the opening in the wall in order to determine the state of the riparian zone associated with the river and found it to be overgrown with weeds, covered with rubble and litter and some signs of vagrants that use the area as hiding place were also spotted.

From an environmental (social, economical, ecological and institutional) point of view the proposed development is regarded (if well planned and managed) as sustainable.

Indicate any benefits that the activity will have for society in general:

- The provision of a wide range of facilities under one roof,
- Highly accessible to the local community and to passer's by. The passersby that will visit the centre will increase the feet that will visit the facility and external buying power will increase the economical viability of the proposed local shopping centre,
- The rehabilitation and protection of the open space area associated with the Fox Spruit,
- Improved safety and security along the spruit,
- Removal of litter from the river and assist with the improvement of the water quality in the river,
- Creation of habitats along the river
-

Indicate any benefits that the activity will have for the local communities where the activity will be located:

- Temporary jobs during the construction phase,
- Permanent and temporary jobs during the operational phase,
- Increased rates and taxes payable to the local authority,
- Upgrading of existing services and infrastructure,
- Implementation of new infrastructure and services,
- Social upliftment,
- Shopping facilities in close proximity of community, and
- Improved security

12. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are relevant to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline: Administering authority: Date:

National Environmental Management Act No 107 of 1998	**National & Provincial**	**27 November 1998**
The NEMA is primarily an enabling Act in that it provides for the development of environmental implementation plans and environmental management plans. The principles listed in the act serve as a general framework within which environmental management and implementation plans must be formulated.		
Amended NEMA Regulations and Listed Activities R. 543, R. 544, R.545 & R. 546	**National & Provincial**	**2 August 2010**
Due to the fact that the application was submitted after 2 August 2010, it had to be submitted in terms of the 2010 Amended NEMA EIA Regulations. The new Regulations include three listing notices, which must be considered when compiling an application.		

Listing Notices 1 and 2 are applicable on a National Basis and the activities as listed in Listing Notice 3 are province specific. If listed activities in Listing Notices 1 and 3 are triggered, the applicant must compile and submit a Basic Assessment Report (BAR) and if activities listed in listing notice 2 are triggered the applicant must follow a full EIA Process. ***Implications for the Proposed Development:*** The proposed development only triggers activities in Listing Notice 1 and therefore it will only be necessary to submit a BAR.		
National Water Act, 1998 (Act No. 36 of 1998)	**National & Provincial**	**20 August 1998**
The purpose of this Act is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways that take into account, amongst other factors, the following: ▪ Meeting the basic human needs of present and future generations; ▪ Promoting equitable access to water; ▪ Promoting the efficient, sustainable and beneficial use of water in the public interest; ▪ Reducing and preventing pollution and degradation of water resources; ▪ Facilitating social and economic development; and ▪ Providing for the growing demand for water use. In terms of the Section 21 of the National Water Act, the developer must obtain water use licenses if the following activities are taking place: a) Taking water from a water resource; b) Storing water; c) Impeding or diverting the flow of water in a watercourse; d) Engaging in a stream flow reduction activity contemplated in section 36; e) Engaging in a controlled activity identified as such in section 37(1) or declared under section 38(1);		

f) Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit; g) Disposing of waste in a manner which may detrimentally impact on a water resource; h) Disposing in any manner of water which contains waste from or which has been heated in any industrial or power generation process; i) Altering the bed, banks, course or characteristics of a water course; j) Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and k) Using water for recreational purposes. The National Water Act also required that (where applicable) the 1:50 and 1:100 year flood line be indicated on all the development drawings (even the drawings for the external services) that are being submitted for approval. ***Implications for the Proposed Development:*** In terms of Section 21 of the National Water Act, the installation and upgrading of the external services will most probably require some section 21 Water-Use Licenses (WULA) or General Authorisations (GA). The developer of the industrial township (on the remainder of the study area) already appointed another EAP for the relevant external services applications (EIA and WULA/GA applications). These applications will therefore not form part of this application. Bokamoso had a meeting (June 2012) regarding the possible activities that could be triggered in terms of S21 of the NWA and according to the official at DWA (Ms. Manisha Thakurdin) no S21 WULA will be required, because the watercourse (the Foxhill Spruit) is not a natural watercourse and the study area is not affected by any wetlands. The Department however mentioned that the Existing Liberty Mall site also incorporates sections below the 1:100 year flood line and certain flood management measures had to be implemented in order to prevent the flooding of		

the permanent structures on the site. The DWA official requested that the flood management measures implemented at the Liberty Mall be considered for purpose of the proposed new Woodburn Shopping Centre, especially if the plan is to place some basement parking below the flood line. The developer/ applicant took this advice from DWA into consideration and appointed the storm water engineers of the Liberty Mall (Jefarres & Green) to assist with the compilation of the storm water management concept for the proposed Woodburn Development. Unfortunately this process caused some severe delays in the application process, because the applicant and the EAP wanted to provide DWA with workable solutions for consideration during the EIA process. ***Refer to Appendix D(i) for a copy of the Jeffares and Green report***		
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	**National**	**2004**
The objectives of this Act are- *(a)* within the framework of the National Environmental Management Act, to provide for- (i) the management and conservation of biological diversity within the Republic and of the components of such biological diversity; (ii) the use of indigenous biological resources in a sustainable manner; and (iii) the fair and equitable sharing among stakeholders of benefits arising from bio-prospecting involving indigenous biological resources; *(b)* to give effect to' ratified international agreements relating to biodiversity which are binding on the Republic; *(c)* to provide for co-operative governance in biodiversity management and conservation; and *(d)* to provide for a South African National Biodiversity Institute to assist in achieving the objectives of this Act.		

Implications for the Development: No Red Listed Species were identified on site, and the vegetation of the study area is regarded as disturbed. All connectivity with the larger regional open space system will be conserved through the protection and rehabilitation of the riverine system adjacent to the study area.		
National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004)	**National**	**2004**
The purpose of the Act is "To provide for the prevention of the pollution of the atmosphere. ***Implications for the development:*** During the construction phase, dust pollution can become a significant factor, especially to the surrounding residences and landowners. Dust control would be adequately minimised during this phase by way of water spraying and possible dust-nets, when working close to existing residential dwellings. The additional vehicles generated by the proposed development is according to the involved Traffic Engineers minimal and air pollution created by the additional vehicles can be regarded as insignificant.		
National Environmental Management Protected Areas Act, 2003 (Act No. 57 of 2003)	**National**	**2003**
The purpose of this Act is to provide for the protection, conservation and management of ecologically viable areas representative of South Africa's biological biodiversity and its natural landscapes. ***Implications for the development:*** Not Significant. The study area is not situated in a Protected Area identified in terms oft he protected areas act.		
National Heritage Resources Act, 1999 (Act No.	**National & Provincial**	**April 1965**

45 of 1965)		
The National Heritage Resources Act legislates the necesity and heritage impact assessment in areas earmarked for development, which exceed 0.5ha. The Act makes provision for the potential destruction to existing sites, pending the archaelogist's recommendations through permitting procedures. Permits are administered by the South African Heritage Resources Agency (SAHRA)/ Amafa Kwazulu Natal. ***Implications for the development:*** Although no features of Heritage importance were identified during the Assessment, if any such features are discovered during construction activities and clearing of the application site, the correct "procedures for an Environmental incident" ***(at the end of EMP, Appendix F)*** must be followed.		
National Environmental Management: Waste Act, Act. No 59 of 2008	**National & Provincial**	**2008**
This new act came into effect on 1 July 2009 and it replaces Section 20 of the Environmental Conservation Act. This Act requires that permits be obtained for certain listed activities (as listed under this act). One of the activities that require a permit under the Waste Act is the onsite treatment of effluent. ***Implications for the Proposed Development:*** No permits will be required in terms of the Waste Act for the proposed development.		
The Development Facilitation Act, 1995 (Act No 67 of 1995) (DFA)	**National**	**1995**
This Act is specifically aimed at creating a single legal mechanism to deal with all the diverse aspects of land development in an integrated fashion revolving around: ▪ The promotion of integration of the social, economic, institutional and physical aspects of		

land development; ▪ The promotion of integrated land development in rural and urban areas in support of each other; ▪ The promotions of the availability of residential land and employment opportunities in close proximity to or integrated with each other; ▪ The promotion of a combination of diverse land-uses, with each proposed land development area to be judged on its own merit and no specific use, whether residential, commercial, conservation etc., to be regarded as less important; ▪ Discouraging urban sprawl to promote more compact towns/cities; ▪ Encouraging environmentally sound land development practices; and ▪ Promoting sustained protection of the environment. The Development Principles, listed in Chapter 1 to the Development Facilitation Act, 1995 (the Act), legislate matters of general principle whilst providing mechanisms for more detailed principles and policies to acquire statutory force at national and provincial levels of government. The responsibility of Government as to the day-to-day administration of land development is encapsulated in these principles. The principles aim to reduce the likelihood of capricious or arbitrary decisions in respect of land development proposals by preventing incidents in response to political pressures or otherwise. Such principles were intended to render the development environment more predictable and rational when compared to past planning systems. The Development Facilitation Act, 1995 allows a prospective developer of a land development area to approach a single provincial planning tribunal for authorization. Such planning tribunal has wide powers to incorporate and decide on any related legislative requirements during one consolidated process (i.e. cancel of servitudes; impose zoning restrictions, subdivision of land, etc.). ***Implications for the Proposed Development:***		

Not significant, the proposed development will be in line with the principles contained in the DFA.		
The Msunduzi Municipality C-Plan	**Local**	**2012**
According to the Msunduzi Municipality's C-Plan the Foxhill Spruit, which forms the western boundary of the study area incorporates some wetland vegetation. During a site visit conducted by Mrs. L. Gregory of Bokamoso the riparian zone of the Foxhill Spruit was found to be in a very disturbed and neglected state and no wetlands were identified. The local authority and the delegated authority agreed with the findings of Bokamoso, but recommended (during a joint meeting between the applicant, the delegated authority and the local authority that was held held in March 2013) that Bokamoso appoint a wetland specialist that is familiar with the area to confirm that there is no wetland on the study area or adjacent to or in the spruit. The wetland specialist (Eco – Pulse) conducted a wetland study along the spruit and concluded that there is no wetland present on or adjacent to the study area. ***Refer to Appendix D(II) for Wetland study***		

13. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

Refer to Appendix D (iii) for Engineering Input

13.1. Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	YES	NO
If yes, what estimated quantity will be produced per month?	Not available. The ECO will supply the quantities to the department when notifying the department of commencement of construction	

How will the construction solid waste be disposed of? (describe)

During the construction phase the disposal of solid waste will be the responsibility of the developer. An area on the application site will be earmarked for dumping of solid waste to be disposed of during construction. This area must be situated carefully not to be visible from the surrounding residents. The demarcated area must be easily accessible for dumping trucks to collect waste. The waste will be carted to a registered landfill site. The conditions as stipulated above should made part of the authorization when the Department has made a decision. During the operational phase all disposal of solid waste will be the responsibility of the Local Authority.

Where will the construction solid waste be disposed of? (provide details of landfill site)

All construction solid waste will be disposed of at the nearest registered landfill site. No solid waste will be dumped on surrounding open areas or adjacent properties.

Will the activity produce solid waste during its operational phase?	YES	NO
If yes, what estimated quantity will be produced per month?	Not available	

How will the solid waste be disposed of? (provide details of landfill site)

The solid waste on the development site will be stored in municipal waste bins/ waste skips and it will be collected by the involved local authority or appointed waste contractor from the waste collection areas. The waste contractor/ municipality will then dispose of the waste at a registered landfill site.

The waste storage and collection areas will make provision for waste separation and for the recycling of waste (i.e. through the provision of a separate storage areas for recyclable waste)

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

N/A

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine the further requirements of the application.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?	YES	NO

If yes, contact the KZN Department of Agriculture & Environmental Affairs to obtain clarity regarding the process requirements for your application.

Is the activity that is being applied for a solid waste handling or treatment facility?	YES	NO

If yes, contact the KZN Department of Agriculture & Environmental Affairs to obtain clarity regarding the process requirements for your application.

13.2. Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	YES	NO
If yes, what estimated quantity will be produced per month?	m^3	
Will the activity produce any effluent that will be treated and/or disposed of on site?	Yes	NO

If yes, contact the KZN Department of Agriculture & Environmental Affairs to obtain clarity regarding the process requirements for your application.

Will the activity produce effluent that will be treated and/or disposed of at another facility?	YES	NO

If yes, provide the particulars of the facility:

Facility name: N/A

Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

The solid waste on the development site will be stored in municipal waste bins/ waste skips and it will be collected by the involved local authority or appointed waste contractor from the waste collection areas. The waste contractor/ municipality will then dispose of the waste at a registered landfill site.

The waste storage and collection areas will make provision for waste separation and for the recycling of waste (i.e. through the provision of a separate storage areas for recyclable waste)

13.3. Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	YES	NO
If yes, is it controlled by any legislation of any sphere of government?	YES	NO

If yes, contact the KZN Department of Agriculture & Environmental Affairs to obtain clarity regarding the process requirements for your application.

If no, describe the emissions in terms of type and concentration:

The only emissions that will be released into the atmosphere as a result of the development will be the additional traffic exhaust fumes that will be released. This will however be insignificant

13.4. Generation of noise

Will the activity generate noise?	YES, there is a possibility	NO
If yes, is it controlled by any legislation of any sphere of government?	YES	NO

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

Air conditioner noise – not significant
Noise generated by transformers and fridges-sometimes unpleasant, if necessary must put in building
Traffic noise
Noise caused by places of refreshment, especially after 24h00.

14. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

municipal	water board	groundwater	river, stream, dam or lake	other	the activity will not use water

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:		litres
Does the activity require a water use permit from the Department of Water Affairs?	YES	NO

If YES, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this report.

15. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

The following recommendations should be considered:

- To orientate building towards the North.
- Where possible energy saving light bulbs must be used in all the units as well as outside.
- Time switches must be used for outdoor lighting.
- Geysers must be fitted with insulation blankets.
- Solar panels can be used to heat the water and geysers and for outdoor lighting.
- Maximum utilization of daylight.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

The EMP for the development will encourage the developer to use solar power as alternative energy source, even if this alternative source only supplies a fraction of the energy required.

SECTION C: SITE/ AREA/ PROPERTY DESCRIPTION

Important notes:

- For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No. (e.g. A): [ ]

- Subsections 1 - 6 below must be completed for each alternative.

Note: Due to the fact that there are no site alternatives, this form will only be completed once for Alternative 1 (the preferred alternative with a lower coverage) and 2.

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

The natural topography of the site has been severely disturbed. A large platform for use as sport fields were created on the site. Such platform was created by cutting away the existing soil and dumping it at an unknown spoil site. This action left the remaining platform below the 1:50 year flood line of the Foxhill Spruit.

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site **(Please cross the appropriate box)**.

Alternative S1 (preferred site):

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front

Alternative S2 (if any):

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front

Alternative S3 (if any):

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Has a specialist been consulted for the completion of this section? YES | NO

If YES, please complete the following:

Name of the specialist:			
Qualification(s) of the specialist:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Are there any rare or endangered flora or fauna species (including red data species) present on any of the alternative sites?	YES	NO
If YES, specify and explain:		
Are their any special or sensitive habitats or other natural features present on any of the alternative sites?	YES	NO
If YES, specify and explain:	Even though the Foxhill Spruit forms the western boundary of the study area, this open space strip cannot be regarded as ecologically sensitive, because it has been severally disturbed by littering, the dumping of rubble and exotic invaders and weeds. The area adjacent to the river however has high ecological potential and should be rehabilitated as part of the development project to promote habitat creation, the protection of water quality and the development of the ecological potential as identified.	
Are any further specialist studies recommended by the specialist?	YES	NO
If YES, specify:		
If YES, is such a report(s) attached in Appendix D?	YES	NO

Signature of specialist: _____ Date: _____

The 1:250 000 geological map of the area reveals that the site is generally underlain by shales of the Pietermaritzburg Formation of the Ecca Group. Extensive alluvial terrace deposits are however associated with the confluences of the major rivers of the area and it is executed that this may occur on this site. The alluvium consists of interlayered dark grey-brown, brown or red-brown silty and sandy clay as well as clayey to silty sands. It varies in thickness from between 2m and 8.5m and some exposures of the alluvial boulder can be expected.

Is the site(s) located on any of the following (cross the appropriate boxes)?

	Alternative S1:		Alternative S2 (if any):		Alternative S3 (if any):	
Shallow water table (less than 1.5m deep)	YES	NO	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	NO	YES	NO	YES	NO
An area sensitive to erosion	YES	NO	YES	NO	YES	NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities.

Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

4. GROUNDCOVER

Has a specialist been consulted for the completion of this section?	YES Only a wetland delineation conducted by Eco-Pulse. The EAP is a Qualified Professional Landscape Architect and due to the disturbed nature of the study area and its surroundings it was not regarded as necessary to conduct any ecological, red data or any associated studies	NO

If YES, please complete the following:

Name of the specialist:	Eco-Pulse		
Qualification(s) of the specialist:	Adam Teixeira-Leite (Professional scientists- recommended by the local authority) Douglas Macfairlane (Professional scientists- recommended by the local authority)		
Postal address:	Address: 26 Mallory Road, Hilton, South Africa, 3245		
Postal code:	3245		
Telephone:		Cell:	084 368 452 7
E-mail:	dmacfarlane@eco-pulse.co.za	Fax:	

Are there any rare or endangered flora or fauna species (including red data species) present on any of the alternative sites?	YES	NO
If YES, specify and explain:		
Are their any special or sensitive habitats or other natural features present on any of the alternative sites?	YES	NO
If YES, specify and explain:		
Are any further specialist studies recommended by the specialist?	**YES**	NO
If YES, specify:	It was recommended that a wetland study be conducted in order to confirm the possible occurrence of wetlands on or adjacent to the study area. The wetland specialist confirmed that there are no wetlands in the vicinity of the study area.	

If YES, is such a report(s) attached in Appendix D?	YES	NO

Signature of specialist: ***Refer to Appendix Dii for signed report*** Date: **April 2013**

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld - good condition[E]	Natural veld with scattered aliens[E]	Natural veld with heavy alien infestation[E]	**Veld dominated by alien species[E]** Area along the river – not part of the study area, but adjacent to study area	Gardens
Sport field	Cultivated land	**Paved surface**	**Building or other structure**	Bare soil

If any of the boxes marked with an "E "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

5. LAND USE CHARACTER OF SURROUNDING AREA

Cross the land uses and/or prominent features that currently occur within a 500m radius of the site and give a description of how this influences the application or may be impacted upon by the application:

Note: Also refer to Pages 18 and 20-23 of this document for more detail regarding surrounding land-use

Land use character			**Description**
Natural area	**YES**	NO	Disturbed riparian vegetation adjacent to the FoxHill Spruit
Low density residential	**YES**	NO	Mainly to the east
Medium density residential	**YES**	NO	Mainly to the south, north and the east
High density residential	**YES**	NO	Mainly to the south – high rise block
Informal residential	YES	NO	
Retail commercial & warehousing	**YES**	NO	To the south
Light industrial	YES	NO	
Medium industrial	YES	NO	
Heavy industrial	YES	NO	
Power station	**YES**	NO	Small substation and power line servitude on the site
Office/consulting room	**YES**	NO	Hospital to the west
Military or police base/station/compound	YES	NO	
Spoil heap or slimes dam	YES	NO	

Quarry, sand or borrow pit	YES	NO	
Dam or reservoir	YES	NO	
Hospital/medical centre	**YES**	NO	Hospital to the west
School/ creche	YES	NO	
Tertiary education facility	YES	NO	
Church	YES	NO	
Old age home	YES	NO	
Sewage treatment plant	YES	NO	
Train station or shunting yard	YES	NO	
Railway line	YES	NO	
Major road (4 lanes or more)	YES	NO	
Airport	YES	NO	
Harbour	YES	NO	
Sport facilities	**YES**	NO	To the north and west of the study area
Golf course	YES	NO	
Polo fields	YES	NO	
Filling station	**YES**	NO	To the south of the study area
Landfill or waste treatment site	YES	NO	
Plantation	YES	NO	
Agriculture	YES	NO	
River, stream or wetland	**YES**	NO	The Fox Hill spruit forms the western boundary of the study area and the Duzi flows almost parallel to the spruit, further west
Nature conservation area	YES	NO	
Mountain, hill or ridge	YES	NO	
Museum	YES	NO	
Historical building	YES	NO	
Protected Area	YES	NO	
Graveyard	YES	NO	
Archaeological site	YES	NO	
Other land uses (describe)	YES	NO	

6. CULTURAL/ HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or within 20m of the site?	YES	NO
If YES, contact a specialist recommended by AMAFA to conduct a heritage impact assessment. The heritage impact assessment must be attached as an appendix to this report.		
Briefly explain the recommendations of the specialist:	Even though no specialist was appointed to assist with surveys, Bokamoso did notify SAHRA & Amafa Kwazulu Natal of the proposed development.	
Will any building or structure older than 60 years be affected in any way?	YES	NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO

If YES, please submit the necessary application to AMAFA and attach proof thereof to this report.

SECTION D: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

(a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
  (i) the site where the activity to which the application relates is or is to be undertaken; and
  (ii) any alternative site mentioned in the application;

(b) giving written notice to—
  (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
  (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
  (v) the local and district municipality which has jurisdiction in the area;
  (vi) any organ of state having jurisdiction in respect of any aspect of the activity (as identified in the application form for the environmental authorization of this project); and
  (vii) any other party as required by the competent authority;

(c) placing an advertisement in—
  (i) one local newspaper; or
  (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;

(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and

(e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
  (i) illiteracy;
  (ii) disability; or

(iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

(a) indicate the details of the application which is subjected to public participation; and

(b) state—

(i) that an application for environmental authorization has been submitted to the KZN Department of Agriculture & Environmental Affairs in terms of the EIA Regulations, 2010;(ii)

(iii) a brief project description that includes the nature and location of the activity to which the application relates;

(iv) where further information on the application can be obtained; and

(iv) the manner in which and the person to whom representations in respect of the application may be made.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

4. DETERMINATION OF APPROPRIATE PROCESS

The EAP must ensure that the public participation process is according to that prescribed in regulation 54 of the EIA Regulations, 2010, but may deviate from the requirements of subregulation 54(2) in the manner agreed by the KZN Department of Agriculture & Environmental Affairs as appropriate for this application. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate.

Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before this application is submitted. The comments and responses must be captured in a comments

and response report as prescribed in the EIA regulations (regulation 57 in the EIA Regulations, 2010) and be attached as Appendix E to this report.

6. PARTICIPATION BY DISTRICT, LOCAL AND TRADITIONAL AUTHORITIES

District, local and traditional authorities (where applicable) are all key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning the environmental sections of the local authority must be informed of this application and provided with an opportunity to comment.

Has any comment been received from the district municipality?	YES	NO

If "YES", briefly describe the feedback below (also attach any correspondence to and from this authority with regard to this application):

Has any comment been received from the local municipality?	**YES**	NO

If "YES", briefly describe the feedback below (also attach any correspondence to and from this authority with regard to this application):

The comments were received on 15 August 2012. There were also various meetings between the local authority and the EAP in order to discuss the issues identified during the process.

Has any comment been received from a traditional authority?	YES	NO

If "YES", briefly describe the feedback below (also attach any correspondence to and from this authority with regard to this application):

7. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the site or property, such as servitude holders and service providers, should be informed of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?	**YES**	NO

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

Yes, a meeting was held with Department of Water Affairs on 21 August 2012 in order to discuss the findings of the DBAR and in order to confirm whether it will be necessary to compile and submit Section 21 WULA for the proposed development. DWA confirmed during the meeting that the Foxhill Spruit is a man-made channel, which has already been altered and therefore it will not be necessary to apply for (c) and (i).

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

- Development within the flood line area and storm water management;
- Water pollution, siltation, erosion;
-Rehabilitation of areas adjacent to the Fox Hill Spruit;
-Confirm occurrence of a wetland;
-Availability of services;
-Current zoning of the study area; and
-Traffic impacts (access).

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached as Appendix E to this report):

The issues raised by the I & APs were recorded and addressed in an issues and reponse report attached hereto as Appendix E(iii).

2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

2.1. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN PHASE

a. Site alternatives

List the potential impacts associated with site alternatives that are likely to occur during the planning and design phase:

Alternative S1 (preferred alternative)

The application site is currently vacant and has been disturbed by human activity. S1 deals with locality alternatives and there is **only one locality alternative**, namely the study area as described in this application, for the proposed development.

The applicant purchased the study area from the land-owner after extensive research indicated that the study area is suitable for the Proposed Shopping Centre.

Note: no mitigation measures will be supplied for the positive impacts, because it is not necessary to mitigate positive impacts. Where possible mitigation measures to prevent or restrict negative impacts will be supplied when the negative impacts are listed. These mitigation measures will be incorporated as part of the EMP. ***Refer to Appendix H***

Direct Impacts: Impact directly caused by the development

Indirect Impacts. Impacts caused by development impacts – **not** directly noticeable or identifiable

Direct Impacts (Planning and Design Phase)

Positive

- High Visibility,
- Maximum exposure,
- Very Accessible,
- Size and shape of the property regarded as ideal,
- Availability of municipal services,
- Not regarded as ecologically sensitive,
- A positive RoD was already issued for the proposed development on a former occasion,
- The study area is situated within the "urban edge",
- In terms of "noise pollution" the proposed land-use is regarded as very compatible with the noise levels created by the surrounding major roads,

Negative:

- Possible riverine vegetation, hydrology issues and 1:100 year flood line along western boundary of the study area – layout must take these aspects into consideration and original layout must take the flood lines into consideration,
- Water pollution risks,
- Storm water management very important and can be a costly exercise,
- Perched water conditions,
- External services must be installed and upgraded in order to link-up with municipal services (not the responsibility of the applicant, the property owner already appointed another EAP to assist with the EIA and Section 21 Water-use License Application processes)

Indirect Impacts.

Positive

- Not in close proximity of other similar shopping centers,
- Saving in fuel costs, because not necessary to travel to other shopping centres convenient shopping,
- Will be developed on a site that is situated within the urban edge, but some major upgrading are required to the services and infrastructure to connect it to the municipal system

These upgradings are much needed in the vicinity of the study area and such services and infrastructure are often not possible to implement without economical injections from large developers such as the applicant. Once the external services/ bulk lines are implemented, the way is paved for the commencement/ implementation of smaller developments around the larger development that made connections to municipal services possible. The smaller development is usually complimentary to the larger development and in this case the shopping centre. This symbiosis contributes to sustainable development, because

1) The Shopping Centre Development will make it possible for smaller developments in the services catchment to connect to municipal services and to densify around the Shopping Centre; and
2) The additional people that are drawn to the area through the smaller developments will increase the feet drawn to the shopping centre.
   - The establishment of social facilities such as movies, places of refreshment, restaurants and other forms of

	entertainment
Negative:	- Reckless development activities next to the wetland and drainage line can cause siltation and water pollution and can have a negative impact on the ecological integrity of the larger regional open space system. - Possible economical impacts on other shopping centers, competitive shop outlets/ restaurants in Pietermaritzburg (competition), - If not sympathetically planned, the architectural style, finishes (especially exterior finishes, color themes, lighting and signage, could have a detrimental impact on the visual qualities and "sense of place" of the surrounding environment
Mitigation:	- Take the 1:100 year flood line into consideration when planning the basements and other levels of the proposed facility, - Plan to erect a conservation fence on the conservation line and incorporate the costs for such a fence into the tender documents of the contractors from the start, - Storm water management plans must be designed to address the construction (temporary measures) and operation phases (mostly permanent measures), - Appoint a suitably qualified urban economist to conduct a market study that will identify the specific retail and commercial needs for the proposed shopping centre (only if necessary), - The proposed development will be situated on a very prominent site and if well planned and managed, the proposed development could be developed to act as "Place Making Structure" and to enhance the "Sense of Place" of the study area and its surroundings

Definition and More detailed discussion of "Sense of Place" and "Place Structure" as referred to above:

"Sense of Place" is the subjective feeling a person gets about a place by experiencing the place visually, physically, socially and emotionally. The "Sense of Place" of an area is one of the major contributors to the "Image of the area".

The ***image of an area*** consists of two main components, namely *place structure* and *sense of place*. These could be defined as the following:

- **Place Structure** refers to the arrangement of physical place making elements within a unique structure that can be easily legible and remembered.
- The **Sense of Place** is the subjective meaning attached to a certain area by individuals or groups and is linked to its history, culture, activities, ambience and the emotions the place creates.

The main "Sense of Place" creators on the study area are the views towards the south and the wetland area which is situated to the south and west of the site.

As already mentioned the surrounding area has been earmarked for mixed urban development by the Local Municipality and the study area and its surroundings are situated in the urban edge It is anticipated that the area will develop more rapidly once the Shopping Centre has been developed and once the external services upgrading have been completed

Areas that are in the process of being transformed from "i.e. residential to commercial" often appear neglected and structures on such properties often appear dilapidated and the tranquil and rural atmosphere often change to an atmosphere of an area without identity and with safety and security problems Vagrants and criminals often move into such areas, because the security risks associated with such neglected areas often force people away As mentioned in this report, one of the specialists found a dead body hanging from a tree during one of the site inspections

Once the new and approved urban developments are completed, the newly developed structures, landscapes, facilities etc will create a different Sense of Place with a safe and urban atmosphere Vagrants and criminals will feel uncomfortable and move out of the area, because the new developments will attract eyes into the area and vagrants and criminals often feel uncomfortable when they know that they are being watched

The theme/ styles of the new urban developments are very important, because the first developments in such an area will set the development themes/ trends and standards Other developments to follow in the area will most likely follow the same trends/ themes and standards From a Sense of Place and Place making point of view, the proposed development is regarded as very important The proposed development will act as one of the social gathering points/nodes in the area and if well planned and managed this node could help to set a theme for the surrounding developments Furthermore the proposed development could be planned to feature as prominent landmark, it could act as place making structure and it could enhance the Sense of place of the study area and its surroundings

Alternative S2

Similar to Alternative 1 and will therefore not be repeated

No-go alternative (compulsory)

The "No-Go" option is not regarded as a viable option, because the study area is currently unutilised and it is becoming a sleeping and walking area for vagrants The Natal Rugby Union sold the land to the developer for development purposes and is no longer responsible for the maintenance and security of the property

The no-go alternative entails that the site stays in its current state without development This alternative cannot be implemented and is not regarded as a viable If the study area is left in its current (disturbed) state, the site will be subject to erosion, siltation and water pollution Once these destructive processes "kick-in", the direct impacts on the site will eventually trigger indirect impacts on the adjacent wetlands and other ecological systems to which the study area is connected

From a social point of view, the undeveloped and derelict site can become a security risk. Sites that have been earmarked for development and that already have development rights in place; can easily become neglected if it takes long to get the development off the ground

In the case of the specific study area, the "no-go" area is not regarded as a viable alternative

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1	Alternative S2	Alternative S3
	- Amend the development layout to avoid the wetland areas, wetland buffers and areas below the 1:100 year flood line; - Delineate a conservation line on the plans for the beginning and where possible avoid any work within 1m from the wetland buffer; - Plan to erect a conservation fence on the conservation line and incorporate the costs for such a fence into the tender documents of the contractors from the start. - Storm water management plans must be designed to address the construction (temporary measures) and operation phases (mostly permanent measures); - Appoint a suitably qualified urban economist to conduct a market study that will identify the specific retail and commercial needs for the proposed Regional Mall. The study must take the existing and latent rights of the possible competitive into consideration and must rather strive to identify complimentary needs in the specific catchment; - The proposed development will be situated on a very prominent site and if well planned and managed, the proposed development could be developed to act as "Place Making Structure" and to enhance the "Sense of Place" of the study area and its surroundings; - The architectural styles and finishes must blend in tastefully with the surrounding environment, especially if one takes into consideration that the proposed development will be situated at the "entrance" into Pietermaritzburg. The strategic location of the site creates an opportunity to create a structure that will be regarded as a "Place-making Structure"/ Landmark; - If planned and managed correctly, the proposed development could have a positive impact on the	N/A	N/A

	surrounding areas and can create a "Sense of Place" and act as a Place making Structure/ Landmark in this new development area, - Due to the location and topography of the study area and surroundings the proposed development will be visible from the surrounding properties and roads. However, it could also have a positive impact if the development is well-planned and integrated with the surrounding area. The visibility is also desirable and positive in terms of the retail component of the development, and - Designs and features that incorporate/ reflect some of the histories of the surrounding area will most definitely contribute to the "Sense of Place" of the study area and the surrounding area		

b. Process, technology, layout or other alternatives

List the impacts associated with any process, technology, layout or other alternatives that are likely to occur during the planning and design phase (please list impacts associated with each alternative separately):

Alternative A1 (preferred alternative)

Direct impacts:

Indirect impacts:

Cumulative impacts:

Alternative A2 (If any)

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

Indirect impacts:

Cumulative impacts:

Indicate mitigation measures to manage the potential impacts listed above:
Alternative A1 (preferred alternative)

A1 Commercial: Shopping Centre Development

O&T Developement (Pty) Ltd is planning a proposed 6 500m² shopping centre development to be known as the **Woodburn Boulevard Shopping Centre.**

Alternative A1 (Shopping Centre): Direct/ Indirect/ Cumulative Impacts

Note: *No mitigation required for positive impacts, some guidelines were however supplied (where regarded as necessary) in order to ensure optimal development of environmental opportunities/ potential associated with positive impacts*

Design and Planning Phase:

Environmental Aspects	Geology, Soil and Soil Stability	Water Quality	Flora	Fauna	Land Character Use	Visual Quality & sense of place	Air Quality	Archaeology	Socio-Economic	Direct Impact	Indirect Impact	Cumulative Impact
DESIGN AND PLANNING PHASE												
1) If the layout encroaches onto the wetland and wetland buffer area/ riverine area	■	■	■	■						√	√	√
Mitigation:	*Amend the original mall layout in order to avoid the wetland, wetland buffers and take the 1:100 year flood line into consideration – discuss the fact that the development will be below the flood line with the local authority and DWA.*											
2)If the layout encroaches onto the 1:100 year flood line	■	■	■	■					■	√	√	√
Mitigation:	*Amend the original mall layout in order to avoid the wetland, wetland buffers and – discuss the fact that the development will be below the flood line with the local authority and DWA*											
3) Even though the local authority agreed that the services can be connected to the municipal systems, some upgrading will be required to link the services of the proposed development up with the local authority service networks									◆■	√	√	√
Mitigation:	*-Identify all the external services upgrading required to connect to the municipal system – water and sanitation and apply and plan for the upgrading of such services*											
Guidelines:	*-Plan bulk services networks, capacities and alignments of bulk services in such a way that it will be possible for future smaller developments to also link-up with municipal services;* *-Prevent the pumping of services. Rather plan for services to gravitate*											
4) The study area is very visible. The proposed shopping centre									◆	√	√	

creates the ideal opportunity to design a development that will enhance the "Sense of Place" of the study area and the surrounding area	
Guidelines:	*-The architectural styles and finishes must blend in tastefully with the surrounding environment, especially if one takes into consideration that the proposed development will be situated at the "entrance" into Pietermaritzburg. The strategic location of the site creates an opportunity to create a structure that will be regarded as a "Place-making Structure"/ Landmark*
6) The topography of the study area is regarded as ideal for a regional mall (from a design, engineering and social point of view) Design – not too steep and therefore no significant cut and fill exercises required Engineering – slope sufficient to allow for the successful installation of services Social – not many stairs and steep exterior areas	◆ ◆ ◆ ◆ ◆ ◆ √ √
Guidelines:	*-Plan for the implementation of temporary storm water management measures during the construction phase;* *-Storm water management during the operational phase is also very important, because the study area is situated adjacent to a flood line and a spruit;* *- the storm water management must be planned to prevent erosion, siltation and water pollution;* *- The storm water discharge points must be outside the wetland buffer and the flood line;* *-The storm water management must be designed to ensure the long terms sustainability of the wetland system and to protect the ecological integrity of the larger open space system to which it is connected*
7) Geological conditions ideal for the development of a shopping centrel.	◆ ◆ ◆ √ √ √
Guidelines:	*- Some perched water conditions could occur along the southern boundary of the study area (adjacent to the wetland area) and storm water management and basements must be planned to address potential seepage problems. The appointed geotechnical engineer must approve the design of the structures and must conduct more detailed geotechnical investigations in order to confirm the absence of dolomites and the presence of perched water conditions (the follow up survey must be done during the rainy season, because the identification of perched water conditions is more accurate during eh rainy season)*

8) Vehicle maintenance, site camps, storage of building materials and products on site and storage of waste on site could cause pollution	■	■				■	■		■	√	√	√		
Mitigation:	*-Locate and design areas allocated for the storage of waste and equipment and to act as site camp in such a way that it will prevent pollution (air, water, soil, noise and visual) during the construction and operational phases of the project.*													
9) Heavy vehicle traffic and noise increase on the local roads.						■			■	√	√			
Mitigation:	*-Determine heavy vehicle movement patterns and circulation routes during the planning phase. If necessary allow for a separate heavy vehicle access route. Allow for delivery areas that are in close proximity of the site access road and the freeway. Do not allow any heavy vehicle access (construction vehicles) through the wetland or flood line areas. Incorporate vehicle movement rules as part of the tender documentation.*													
10)Veld fires may cause damage to infrastructure, vegetation and fauna			■	■		■			■	√	√	√		
Mitigation:	*-Provide a designated area for fires (for heating and cooking by construction workers only) during the construction phase;* *- No fires will be allowed during the operational phase*													
11)Construction during the rainy season can cause unnecessary delays and damage to the environment	■	■	■	■					■	√	√	√		
Mitigation:	*- If possible, compile a construction program that will allow for the main construction works (especially the construction works in close proximity of the flood line and the wetland areas) during the winter months*													
12) Accidental introduction of exotic invaders			■							√	√	√		
Mitigation:	*-Appoint a suitably qualified Landscape Architect or Horticulturist to assist with the compilation of landscaping and planting plans that specify the usage of plant species that are indigenous, preferably endemic. In cases where exotic species are to be used, such species must be non-invasive.* *-The Landscape Architect must be appointed to supervise the landscaping implementation during the construction phase and must certify (once the landscaping has been implemented) that the plant species that were used comply with the required standards.*													
13) Lighting pollution						■			■	√	√			
Mitigation:	*- Security lighting during the construction and operation phase must be carefully planned. These lights must no spill into the eyes of oncoming traffic and must no shine into adjacent properties;* *-Interior lighting must be subtle and in order to prevent it from lighting up the sky and from using energy, the implementation of movement switches (especially for large glassed interior areas that are highly visible) should be considered during design stages;* *- Exterior lighting, especially the lighting in the vicinity of the open space areas must be designed to shine downwards and the bulbs to be used should rather be "dim" that bright;* *-Prevent the implementation of exterior advertising signs and name boards that will flicker into the eyes of surrounding neighbours and into the eyes of oncoming traffic;*													

	-Obtain the necessary approvals for the erection of advertising and other signs (also take the SAMOAC document into consideration) at the relevant authorities. If signs are visible from a national road, Applications must be submitted to SANRAL, if visible from a provincial road (KZN Roads) the application must be submitted to KZN Roads Department and if visible from a local road, the application must be submitted to the Msunduzi Local Municipality. Exterior lighting, especially the lighting in the vicinity of the open space areas must be designed to shine downwards and the bulbs to be used should preferably
14) If areas where vegetation was removed for construction are not rehabilitated.	■ ■ ■ √ √ √
Mitigation:	*- Compile a rehabilitation plan for the construction phase. Areas that will remain as natural vegetation after the development took place (i.e. the wetland and wetland buffer area) must be indicated on all the planning drawings and measures must be put in place (already during the construction phase) to protect and rehabilitate these areas on an on-going basis*
15) Topsoil may be lost if not removed, stockpiled correctly and used during rehabilitation works.	■ ■ ■ √
Mitigation:	*-Identify areas that are suitable for the storage of topsoil on all planning drawings. These areas must be located outside drainage lines, wetland buffers and wetland areas. Furthermore, it should not be stored in areas with perched water conditions*
16) Security could become a problem during the construction phase	■ ■ √ √
Mitigation:	*-Allow for 24 hour security on the construction site during the construction phase. Make provision for security costs in the project budgeting and tender process;* *-Only allow security personnel to sleep on the site during the construction phase and also plan for the implementation of a security system that will reflect a database of all workers and personnel on site during the construction phase;* *-If possible fence the construction site and allow for one/ two allocated and monitored contractor's entrance/s*

Alternative A2

A2 Shopping Centre with a higher Coverage (29 000m²)

Apart from the fact that the coverage of the second alternative is significantly higher, the anticipated impacts are regarded as similar. In some cases such impacts are however more severe, because of the larger coverage (i.e. will have a larger impact on the traffic, will have a larger impact on storm water (more impermeable surfaces) etc.

Due to the similarities of the anticipated impacts, it was decided that the table as supplied above, is also applicable to Alternative 2. No additional tables are required.

Alternative A3

Not applicable

No-go alternative (compulsory)

The "No-Go" option is not regarded as a viable option, because the study area is currently unutilised and it is becoming a sleeping and walking area for vagrants. The Natal Rugby Union sold the land to the developer for development purposes and is no longer responsible for the maintenance and security of the property.

The no-go alternative entails that the site stays in its current state without development. This alternative cannot be implemented and is not regarded as a viable. If the study area is left in its current (disturbed) state, the site will be subject to erosion, siltation and water pollution. Once these destructive processes "kick-in", the direct impacts on the site will eventually trigger indirect impacts on the adjacent wetlands and other ecological systems to which the study area is connected.

From a social point of view, the undeveloped and derelict site can become a security risk. Sites that have been earmarked for development and that already have development rights in place, can easily become neglected if it takes long to get the development off the ground.

In the case of the specific study area, the "no-go" area is not regarded as a viable alternative.

The following measures must be put in place to end, prevent and restrict environmental degradation if it is decided that the no-go option will be the preferred alternative:

- Rehabilitation plan;
- Temporary and permanent erosion, siltation and water pollution prevention measures;
- A security plan to prevent any further security/ crime related incidences one he study area;
- An on-going alien and weeds control programme.

Note: This alternative is not regarded as a viable alternative, because the study area has been earmarked for development (inside the urban edge), construction already commenced and it is not regarded as sustainable to spend large sums of money on the rehabilitation on land which is already disturbed and it will not (from a financial point of view) be possible for the owner to maintain the site and implement that rehabilitation and weed control programmes without enjoying any economical benefits from the activities on the study area.

Alternative A1:	**Alternative A2:**

2.2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION PHASE

Alternative S1 (preferred alternative) – Site Alternative

Direct Impacts: Impact directly caused by the development

Indirect Impacts: Impacts caused by development impacts – not directly noticeable or identifiable

Direct impacts (Construction Phase):

Positive:

- Temporary jobs to local community that reside in close proximity of study area

Negative:

- Temporary impacts on the hydrology (wetland, wetland buffer and 1:100 year flood line areas);
- Water pollution risks;
- Services no readily available for usage during the construction phase. Will have to use generators and must arrange for temporary toilet facilities and water

	trucks - Dangerous when construction vehicles enter onto the freeway from the study area, - Temporary disruption of services and access to surrounding properties
Indirect Impacts	
Positive:	
	- Temporary economical injection to surrounding businesses (i e. filing station across the street, hardware stores, take away outlets etc)
Negative:	
	- Reckless construction activities next to the wetland and drainage line can cause siltation and water pollution and can have a negative impact on the ecological integrity of the larger regional open space system,
Mitigation:	
	- Delineate a conservation line on the plans for the beginning and where possible avoid any work within 1m from the wetland buffer, - Plan to erect a conservation fence on the conservation line and incorporate the costs for such a fence into the tender documents of the contractors from the start, - Storm water management plans must be designed to address the construction phase (temporary measures),

Alternative S2

N/A

Alternative S3

N/A

No-go alternative (compulsory)

The no-go alternative entails that the site stays in its current state without development (if at all possible to prevent the owners from implementing the N12 Industrial Township rights already approved)

As already mentioned construction already commenced on the N12 Industrial Township study area and large areas are already left exposed. The following measures must be put in place to end, prevent and restrict environmental degradation:

- Rehabilitation plan,
- Temporary and permanent erosion, siltation and water pollution prevention measures;
- A security plan to prevent any further security/ crime related incidences one he study area;

• An on-going alien and weeds control programme **Note:** This alternative is not regarded as a viable alternative, because the study area has been earmarked for development (inside the urban edge), construction already commenced and it is not regarded as sustainable to spend large sums of money on the rehabilitation on land which is already disturbed and it will not (from a financial point of view) be possible for the owner to maintain the site and implement that rehabilitation and weed control programmes without enjoying any economical benefits from the activities on the study area

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

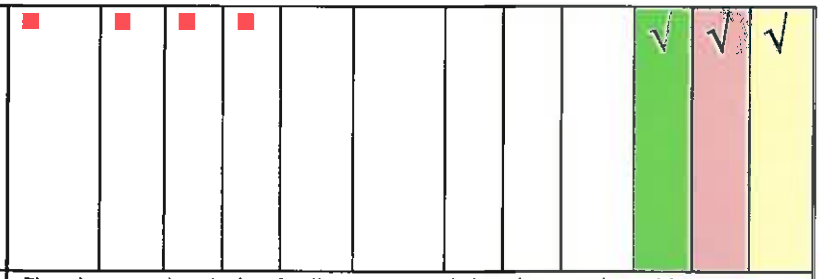
Alternative S1	**Alternative S2**	**Alternative S3**
Already addressed above – also refer to EMP	Already addressed above	N/A

Alternative A1 (Shopping Centre of 6 500m²): Direct/ Indirect/ Cumulative Impacts

Note: *No mitigation required for positive impacts, some guidelines were however supplied (where regarded as necessary) in order to ensure optimal development of environmental opportunities/ potential associated with positive impacts*

Construction Phase:

Environmental Aspects	**Geology, Soil Stability and Soil**	**Water Quality**	**Flora**	**Fauna**	**Land Character Use**	**Visual Quality & sense of place**	**Air Quality**	**Archaeology**	**Socio-Economic**	**Direct Impact**	**Indirect Impact**	**Cumulative Impact**
CONSTRUCTION PHASE												
1) Erosion	■	■	■			■				√	√	√
Mitigation:	*– A storm water management plan must be compiled for the construction and operational phases of the proposed development;* *– Large exposed areas during the construction phases should be limited. Where possible areas earmarked for construction during later phases should remain covered with vegetation coverage until the actual construction phase. This will prevent unnecessary erosion and siltation in these areas;* *- Rehabilitate exposed areas immediately after construction in these areas is completed (not at the end of the project);* *– Unnecessary clearing of flora resulting in exposed soil prone to erosive conditions should be avoided;* *– Specifications for topsoil storage and replacement to ensure sufficient soil coverage as soon as possible after construction must be implemented;* *– All embankments must be adequately compacted and planted with grass to stop any excessive soils erosion and scouring of the landscape;* *– Storm water diversion measures are recommended to control peak flows during thunder storms;* *– The eradication of alien vegetation should be followed up as soon as possible by replacement with indigenous vegetation to ensure quick and sufficient coverage of exposed areas.*											

2) Siltation, erosion and water pollution could occur in the systems lower down in the catchment area if a stormwater management plan is not implemented	
Mitigation:	*The storm water design for the proposed development must be designed to:* - *Reduce and/ or prevent siltation, erosion and water pollution. If erosion, siltation and water pollution is not addressed, the sustainability of the drainage and the open space systems lower down in the catchment area can be negatively impacted by the development.* - *Storm water runoff should not be concentrated as far as possible and where possible sheet flow should be implemented.* - *The vegetation must be retained as far as possible, and rehabilitated if disturbed by construction activities to ensure that erosion and siltation do not take place.*
3)Construction works within or the wetland area or flood line in close proximity of the wetland area or the 1;100 year flood line area could have a negative impact on the hydrology, the integrity of the wetland area and on the ecological systems associated with the drainage line/ wetland	
Mitigation:	- *Delineate a conservation line on the plans for the beginning and where possible avoid any work within 1m from the wetland buffer;* - *Prior to the commencement of construction, the appointed ECO and contractor must confirm (on site) the delineation of the conservation fence;* - *Erect the conservation fence prior to the commencement of construction activities;* - *No construction vehicles will be allowed within the conservation area (the area fenced-off for conservation purposes);* - *Only workers that do rehabilitation works and workers allocated to implement services within the wetland buffer areas will be allowed to enter the protected areas;* - *Any works in such areas will be done under strict supervision (it is however important to note that the construction of the shopping centre wiill not require any construction related works within the riverine areas.* - *The reason why work within the adjacent wetland areas is addressed is due to the fact that Isago already has an RoD which allows for construction and rehabilitation works within the wetland zones;* - *Storm water management plans must be designed to address the construction phase (temporary measures);* - *A comprehensive storm water management plan indicating the management of all surface runoff generated as a result of the development (during both the construction and operational phases) prior to entering any natural drainage system or wetland, must be submitted and approved by the local authority and DWA and submitted to KZNDAE prior to construction activities commencing;* - *Attenuation ponds and energy dissipaters must be installed on the study area to*

	break the speed of the water and to act as siltation ponds; *- Surface storm water generated as a result of construction phase must not be channelled directly into any natural drainage system or wetland;* *- The storm water management plan must indicate how surface runoff will be retained outside of the demarcated buffer/flood zone and how the natural release of retained surface runoff will be simulated;* *- The storm water management plan should be designed in a way that aims to ensure that post development runoff does not exceed predevelopment values in:* *•Peak discharge for any given storm;* *•Total volume of runoff for any given storm;* *•Frequency of runoff; and* *•Pollutant and debris concentrations reaching water course;* *- Bio-swale and bio-filters could be installed to minimize the risk of pollutants entering the natural drainage system of the area.*
4)Should the construction phase be scheduled for the summer months, frequent rain could cause very wet conditions, which makes it extremely difficult to build in and to do rehabilitation works of disturbed areas.	■ ■ ■ ■ ■ ■ ■ ■ ■ √ √ √
Mitigation:	*-Construction workers and construction vehicles and machinery must stay out of the soggy areas during the wet periods. Barrier tape should be used to demarcate the areas that are drenched with water (especially the ecologically sensitive areas and the areas covered with valuable topsoil) and it should only be removed when the appointed Environmental Control Officer (ECO)/ site supervisor/ project manager/ main contractor regard the conditions in the affected areas as favourable.*
5) If dry and windy conditions occur during the construction phase, dust pollution could become a problem.	
Mitigation:	*-Sweeping of the construction site, clearing of builders' rubble and debris as well as the regular watering of the construction site (storage areas, roads etc.) must take place. During the windy periods the site should be damped down at least two times per day.*
6) The eradication of weeds and exotic invaders	◆ ◆ ◆ ◆ √ √ √
Guidelines:	*– All Category 1 Declared weeds, Category 2 Declared invader and Category 3 Declared invaders occurred on the study area and must be eradicated prior to construction and throughout the operational phase of the development;* *– No plants not indigenous to the area, or exotic plant species, especially lawn grasses and other ground-covering plants, should be introduced in the communal landscaping of the proposed site, as they will drastically interfere with the nature of the area;* *– Forage and host plants required by pollinator species in the area should also be used in landscaped areas.*
7) Noise of construction machinery could have a negative impact on the fauna species during the	■ √

construction phase.													
Mitigation:	*- Noise should be kept to a minimum and the development should be done in phases to allow faunal species to temporarily migrate into the conservation areas in the vicinity.*												
8) During the construction phase (if not managed correctly) fauna species could be disturbed, trapped, hunted or killed.				■						√			
Mitigation:	*- The integrity of remaining wildlife should be upheld, and no trapping or hunting by construction personnel should be allowed. Caught animals should be relocated to the conservation areas in the vicinity. Council shall prosecute offenders;* *- Conservation-orientated clauses should be built into contracts for construction personnel as well as buyers of property within the new development complete with penalty clauses for non-compliance;* *- Domestic pets must be excluded from areas of good quality bird habitat;* *- Information boards must be erected within the development information residents of the presence of Red Data bird species, their identification, conservation status and importance, biology, habitat requirements and the requirements of the plan in terms of management.*												
9) Loss of habitat can lead to the decrease of fauna numbers and species.				■						√	√		
Mitigation:	*– All mitigation measures for impacts on the indigenous flora of the area should be implemented in order to limit habitat loss as far as possible and maintain and improve available habitat, in order to maintain and possibly increase numbers and species of indigenous fauna.*												
10) Perched water conditions during construction	■	■							■	√	√	√	
Mitigation:	*- Some perched water conditions could occur along the southern boundary of the study area (adjacent to the wetland area and during wet conditions it could become necessary to de-water areas for construction purposes. In many cases water is pumped from construction areas/ cut-off trenches are implemented to create dry conditions for construction. Discuss the temporary and permanent dewatering alternatives with the architect, civil engineer, geo-hydrologist, wetland specialist, geotechnical engineer and ECO in order to determine the most suitable method. The most economical alternative is not necessarily the preferred alternative from a geo-hydrological and ecological point of view. The solution must be sustainable.*												
11) Structures of cultural and historical significance may be destroyed.								■		√			
Mitigation:	*- It should be noted that in terms of the South African Resources Act (Act 25 of 1999) Section 35(4) no person may, without a permit issued by the responsible heritage resources authority destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or material;* *- Also important is that Section 34(1) of this act states that no person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit, issued by the relevant provincial heritage resources authority.*												
12) Possibility of illegal settlements and increased security problems									■	√	√		
Mitigation:	*- With the exception of the appointed security personnel, no other workers, friend or relatives will be allowed to sleep on the construction site (weekends included);* *- Presence of law enforcement officials at strategic places must be ensured.*												

13) Damage to roads									■	√	√	
Mitigation:	*-Construction vehicles must avoid using sub-standard roads (i.e. roads in agricultural holdings that are not constructed to provincial/ local authority standards);* *-Record the condition of the surrounding roads (with photographs) prior to construction and require that contractors repair all damages caused during the construction phase;* *-Cover newly paved areas and kerbs with a sand layer during the construction phase to prevent direct damage;* *-Construction vehicles should only be permitted to use a designated construction entrance;* *Construction vehicles and activities as well as other heavy vehicles to avoid peak hour traffic times.*												
14) Damage to the existing services and infrastructure during the construction phase and disruptions in services (i.e. electricity, water, damage to Telkom cables) during the construction phase.									■	√	√	√
Mitigation:	*-Determine areas where services will be upgraded and relocated well in advance;* *- Discuss possible disruptions with affected parties to determine most convenient times for service disruptions and warn affected parties well in advance of dates that service disruptions will take place*												
15) Dangerous excavations									■	√		
Mitigation:	*- Although regarded as a normal practice, it is important to erect proper signs indicating the danger of the excavation in and around the development site. Putting temporary fencing around excavations where possible.*												
16) Creation of temporary and permanent jobs									◆	√	√	√
Mitigation:	*– In order to limit the influx of people from other areas, it is recommended that (where possible) only people from the local communities be employed.*												
17) Surface water flows will be altered during the construction phase	■	■	■	■						√	√	
Mitigation:	*A comprehensive storm water management plan indicating the management of all surface runoff generated as a result of the development (during both the construction and operational phases) prior to entering any natural drainage system or wetland, must be submitted and approved by the local authority and DWA and submitted to KZNDAE prior to construction activities commencing;* *- Attenuation ponds and energy dissipaters must be installed on the study area to break the speed of the water and to act as siltation ponds;* *- Surface storm water generated as a result of construction phase must not be channelled directly into any natural drainage system or wetland;* *- The storm water management plan must indicate how surface runoff will be retained outside of the demarcated buffer/flood zone and how the natural release of retained surface runoff will be simulated;* *- The storm water management plan should be designed in a way that aims to ensure that post development runoff does not exceed predevelopment values in:* *•Peak discharge for any given storm;* *•Total volume of runoff for any given storm;* *•Frequency of runoff; and* *•Pollutant and debris concentrations reaching water course;* *- Bio-swale and bio-filters could be installed to minimize the risk of pollutants*												

	entering the natural drainage system of the area.
18) The use of insufficient drainage systems during the construction phase (i.e. sub-surface drainage systems & no mechanisms to break the speed of the surface water)	■ ■ ■ ■ √ √
Mitigation:	*- Attenuation ponds and energy dissipaters must be installed on the study area to break the speed of the water and to act as siltation ponds;* *– Implement temporary storm water management measures that will help to reduce the speed of surface water. These measures will also assist with the prevention of water pollution, erosion and siltation;* *- In order to prevent large exposed areas, it is recommended that the construction of the development be done in phases. Each phase should be rehabilitated immediately after the construction for that phase has been completed. The rehabilitated areas should be maintained by the appointed rehabilitation contractor until a vegetative coverage of at least 75% has been achieved;* *- No excavated materials should be dumped in or near drainage channels.*
19) Waste Management The construction and operational phases of the proposed development will create large quantities of builder's and domestic waste to be accommodated by local legal landfill sites.	■ ■ ■ ■ ■ ■ √ √
Mitigation:	– Prevent unhygienic usage on site and pollution of the natural assets. Develop a central waste temporary holding site to be used during construction. (Near the access entrance). This site should comply with the following: - Skips for the containment and disposal of waste that could cause soil and water pollution, i.e. paint, lubricants, etc.; - Small lightweight waste items should be contained in skips with lids to prevent wind littering; - Bunded areas for containment and holding of dry building waste. - THESE AREAS SHALL BE PREDETERMINED AND LOCATED IN AREAS THAT IS ALREADY DISTURBED. THESE AREAS SHALL NOT BE IN CLOSE PROXIMITY OF DRAINAGE CHANNELS; - Workers will only be allowed to use temporary chemical toilets on the site. CHEMICAL TOILETS SHALL NOT BE IN CLOSE PROXIMITY OF DRAINAGE CHANNELS; - No French drain systems may be installed; - No bins containing organic solvents such as paints and thinners shall be cleaned on site, unless containers for liquid waste disposal are placed for this purpose on site; - All waste must be removed to a recognized waste disposal site on a weekly basis. No waste materials may be disposed of on or adjacent to the site. The storage of solid waste on site, until such time that it may be disposed of, must be in the manner acceptable to the Local Authority; - Keep records of waste reuse, recycling and disposal for future reference. Provide information to ECO. (Environmental Control Officer)
20) Vehicle maintenance, site camps, storage of building materials and products on	■ ■ ■ √ √ √

site and storage of waste on site could cause pollution													
Mitigation:	*-Locate and design areas allocated for the storage of waste and equipment and to act as site camp in such a way that it will prevent pollution (air, water, soil, noise and visual) during the construction and operational phases of the project.*												
21)Veld fires may cause damage to infrastructure, vegetation and fauna			■	■		■			■	√	√	√	
Mitigation:	*-Provide a designated area for fires (for heating and cooking by construction workers only) during the construction phase;* *- No fires will be allowed during the operational phase*												
22) Accidental introduction of exotic invaders			■							√	√	√	
Mitigation:	*-Appoint a suitably qualified Landscape Architect or Horticulturist to assist with the compilation of landscaping and planting plans that specify the usage of plant species that are indigenous, preferably endemic. In cases where exotic species are to be used, such species must be non-invasive.* *-The Landscape Architect must be appointed to supervise the landscaping implementation during the construction phase and must certify (once the landscaping has been implemented) that the plant species that were used comply with the required standards.*												
23) Lighting pollution						■			■	√	√		
Mitigation:	*- Security lighting during the construction and operation phase must be carefully planned. These lights must no spill into the eyes of oncoming traffic and must no shine into adjacent properties*												
24) If areas where vegetation was removed for construction are not rehabilitated.	■	■	■							√	√	√	
Mitigation:	*- Compile a rehabilitation plan for the construction phase. Areas that will remain as natural vegetation after the development took place (i.e. the wetland and wetland buffer area) must be indicated on all the planning drawings and measures must be put in place (already during the construction phase) to protect and rehabilitate these areas on an on-going basis*												
25) Topsoil may be lost if not removed, stockpiled correctly and used during rehabilitation works.	■	■	■							√			
Stockpiling in the wrong areas might be detrimental to fauna and flora and will deplete the soil quality. Topsoil should be stockpiled as specified in the EMP to ensure that the soil quality doesn't deplete and that the grass seed remain in the soil for later rehabilitation of the disturbed areas. In addition to the impact discussed in the paragraph above, rainwater falling onto stockpiles may become polluted with dust originating from aggregate and other construction material, such as bitumen from pre-mix stockpiles. Therefore stockpiles of topsoil should be correctly covered to prevent this as well as loss of topsoil by wind erosion. The footprint of stockpile areas will be contaminated with the stored material and will require cleaning before rehabilitation.												
Mitigation:	*-Identify areas that are suitable for the storage of topsoil on all planning drawings. These areas must be located outside drainage lines, wetland buffers and wetland areas. Furthermore, it should not be stored in areas with perched water conditions;*												

	-Designated areas for stockpiling of construction materials must be specified by the Environmental Control Officer in an area that is already disturbed; *- Remove vegetation only in designated areas for construction;* *-Rehabilitation works must be done immediately after the involved works are completed;* *-All compacted areas should be ripped prior to them being rehabilitated/landscaped;* *- The top layer of all areas to be excavated must be stripped and stockpiled in areas where this material will not be damaged, removed or compacted. This stockpiled material should be used for the rehabilitation of the site and for landscaping purposes;* *- Strip topsoil at beginning of works and store in stockpiles no more than 1,5 m high in designated materials storage area;* *– Stockpiles should be covered correctly*
26) Security could become a problem during the construction phase	
Mitigation:	*-Allow for 24 hour security on the construction site during the construction phase. Make provision for security costs in the project budgeting and tender process;* *-Only allow security personnel to sleep on the site during the construction phase and also plan for the implementation of a security system that will reflect a database of all workers and personnel on site during the construction phase;* *-If possible fence the construction site and allow for one/ two allocated and monitored contractor's entrance/s*

Alternative 2 (A shopping Centre of 29 000m²): Direct/ Indirect/ Cumulative Impacts

Note: The construction phase impacts of this alternative is similar to the construction phase impacts of Alternative 1 and therefore the above mentioned impacts table will not be repeated.

From an environmental management point of view it will be more advantageous to implement Alternative, which supplies detailed construction guidelines, especially with regards to the protection of the wetland and drainage line areas.

2.3. IMPACTS THAT MAY RESULT FROM THE OPERATIONAL PHASE

Note: The operational phase impacts of this alternative is similar to the operational phase impacts of Alternative 1 and therefore the above mentioned impacts table will not be repeated.

Alternative S1 (Preferred Alternative)

Alternative A1 (Shopping Centre): Direct/ Indirect/ Cumulative Impacts

Note: *No mitigation required for positive impacts, some guidelines were however supplied (where regarded as necessary) in order to ensure optimal development of environmental opportunities/ potential associated with positive impacts.*

Operational Phase impacts for S1 and A1 are combined in the table below

Environmental Aspects	Geology, Soil and Soil	Water Quality	Flora	Fauna	Land Use Character	Visual Quality & sense of	Air Quality	Archaeolo gy	Socio-Economic	Direct Impact	Indirect Impact	Cumulative Impact
OPERATIONAL PHASE												
1) The eradication of weeds and exotic invaders	◆	◆	◆	◆						√	√	√
Guidelines:	*– All Category 1 Declared weeds, Category 2 Declared invader and Category 3 Declared invaders occurred on the study area and must be eradicated prior to construction and throughout the operational phase of the development;* *– No plants not indigenous to the area, or exotic plant species, especially lawn grasses and other ground-covering plants, should be introduced in the communal landscaping of the proposed site, as they will drastically interfere with the nature of the area;* *– Forage and host plants required by pollinator species in the area should also be used in landscaped areas.*											
2) Noise caused by restaurant, places of amusement, events (especially after hours) and noise caused by air conditioners, compressors etc.				■					■		√	
Mitigation:	*- Implement operational phase guidelines supplied by acoustical engineer for the operational phase during the operational phase;* *-Take the Gauteng Noise Control Regulations, 1999 into consideration, even though the study area is not situated in Gauteng- this document will supply useful noise guidelines and thresholds*											
3) Upgrading of municipal services									◆	√	√	√
4) Upgrading of provincial and local roads									◆	√	√	√
Mitigation:												
5) Increase in adjacent land-values									◆	√		
6) Rates and taxes payable to the local authority									◆	√	√	√
7) Traffic increase in the area, will have an impact on the traffic flow of the area – more severe impacts anticipated with the Regional Mall Development									■	√	√	
Mitigation:	*-Already addressed during construction phase*											
8)Creation of many permanent jobs									◆	√	√	√

9) Lighting pollution						■			■	√	√	
Mitigation:	*- Security lighting during the construction and operation phase must be carefully planned. These lights must no spill into the eyes of oncoming traffic and must no shine into adjacent properties;* *-Interior lighting must be subtle and in order to prevent it from lighting up the sky and from using energy, the implementation of movement switches (especially for large glassed interior areas that are highly visible) should be considered during design stages;* *- Exterior lighting, especially the lighting in the vicinity of the open space areas must be designed to shine downwards and the bulbs to be used should rather be "dim" that bright;* *-Prevent the implementation of exterior advertising signs and name boards that will flicker into the eyes of surrounding neighbours and into the eyes of oncoming traffic;* *-Obtain the necessary approvals for the erection of advertising and other signs (also take the SAMOAC document into consideration) at the relevant authorities. If signs are visible from a national road, Applications must be submitted to SANRAL, if visible from a provincial road (KZN roads) the application must be submitted to KZN Roads Department and if visible from a local road, the application must be submitted to the Local municipality. Exterior lighting, especially the lighting in the vicinity of the open space areas must be designed to shine downwards and the bulbs to be used should preferably*											

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1	Alternative S2	Alternative S3
Already addressed above – also refer to EMP	Already addressed above	N/A

List the potential activity/technology alternative related impacts (as appropriate) that are likely to occur as a result of the operational phase:

Alternative A1 (preferred alternative)
Already addressed and listed in table above

5. IMPACTS THAT MAY RESULT FROM THE DECOMISSIONING AND CLOSURE PHASE

List the potential site alternative related impacts (as appropriate) that are likely to occur as a result of the decommissioning or closure phase:

Alternative S1 and A1 (Preferred Alternatives)

Note: *Although it is highly unlikely that Alternative A1 and S1 will decommission within the next 50 years, it was decided to incorporate impacts in anyway. It is more likely that the Shopping Mall will be upgraded within the next 50 years and the construction phase impacts as listed above will then be applicable.*

Direct impacts:

- Noise created by machinery and possible blasting exercises;
- Dust pollution;
- Visual Pollution;
- Impact on storm water drainage and on the ecological integrity of the open space system to the south of the study area and on the wetland system.

- Impacts on existing services- some disruptions of services,
- Security problems,
- Large exposed areas with infertile soils,
- Decommissioning activities could cause danger to children and animals of the surrounding areas,
- Illegal disposal of demolition waste,
- Demolition works during the dry and windy season will be more detrimental from an air pollution point of view,
- Demolition works during the rainy season can cause unnecessary delays and damage to the environment,
- Uncontrolled activities and access to sensitive areas in the vicinity,
- Uncontrolled fires may cause damage or loss to vegetation and fauna in the area,
- Heavy vehicle traffic increase could disrupt the surrounding landowners' daily routines, and

Indirect impacts:

- Loss of permanent jobs,
- Loss of rates and taxes payable to the local authority,
- Decrease in land values (site and adjacent properties)

Alternative S2

Not applicable

Alternative S3

Not applicable

No-go alternative (compulsory)

During the decommissioning phase the derelict buildings if left unattended will bring in factors such as crime into the area. Vandalism of buildings and rodents can also become issues.

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1 and A1	Alternative A2	Alternative S2, S3 and A3
An environmental rehabilitation plan must be in place for the possibility that the activity will be abandoned	Not applicable	Not applicable

6. PROPOSED MANAGEMENT OF IMPACTS AND MITIGATION

Indicate how identified impacts and mitigation will be monitored and/or audited.

Alternative S1 and A1	Alternative S2	Alternative S3
These impacts will be mitigated and monitored through the implementation of an EMP for the Planning & Design, Construction and Operational Phases. The EMP (Refer to Appendix H) recommends that the developer appoint someone to compile a decommissioning plan for a possible decommissioning / upgrading phase within the first operational year of the Shopping Centre. This Decommissioning	Not applicable	Not applicable

Plan must be submitted to the involved local authority and KZNDAE for record keeping and monitoring purposes		

7. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative S1 (Site Alternative) and A1 (Activity Alternative) (The Preferred Alternative)

Alternative S1:

Project Title. Woodburn Boulevard Shopping Centre

O&T Developement (Pty) Ltd is planning a proposed 6 500m² shopping centre development to be known as the **Woodburn Boulevard Shopping Centre**.

The proposed development will take place on Portion 5 of Erf 4346 KwaZulu-Natal and it is situated within the uMgungundlovi District Municipality Boundaries, approximately 1Km to the south-west of the Pietermaritzburg CBD. The site is located on the corner of Woodhouse Road and Alan Paton Drive and the Fox-Hillspruit Canal (a tributary of the Umsumduzi River) runs along the western boundary of the study area. **Refer to Figure 1 for Locality Map and Refer to Figure 2 for Aerial Photograph.**

Alternative A1:

Commercial: Shopping Centre (6 500m²) – total development footprint 17 820m²

The developer proposes to construct a Shopping Centre (area to be transformed = 17 820m²) on the study area. The proposed Mall will promote economic development in Pietermaritzburg.

According to the applicant's urban economists and the involved local authority, the study area is ideally situated for the proposed development.

The most significant impacts identified for the construction and operational phases are:

Construction Phase:

Negative Impacts:

Bio-Physical Environment:

- Perched water conditions,
- Impacts on the water- resources, hydrology and geo-hydrology,
- Erosion and siltation,
- Construction during the rainy season,

Socio-Economical Environment.

- Waste management;
- Temporary disruption of services and accesses to surrounding properties;
- Noise pollution;
- Visual pollution;
- Safety and security problems;
- Dangerous conditions on roads;
- Dust pollution;
- Dangerous conditions on and around site (i.e. dangerous excavations)

Institutional Environment:

- If development is approved, the developer, contractor and sub-contractors must comply with conditions of the authorisation and with the EMP;
- Must allow for compliance with the conditions of the authorisation and the EMP in the project budget and in the tender documentation;
- More costly to implement a development that complies with the EMP, conditions of the authorisation and all other relevant legislation, policies and frameworks

Positive Impacts:

Bio-Physical Environment:

- Protection of the wetlands and drainage areas;
- Rehabilitation of disturbed areas and coverage of exposed areas;
- Implementation of an EMP that supplies guidelines for sustainable and environmentally sound development

Socio-Economical Environment:

- Creation of temporary jobs;
- Economical advantages to surrounding businesses (i.e. filling station, hardware stores, food outlets etc.);

Institutional Environment:

- Project planning already made financial provision for emergency situations, rehabilitation and other mitigation measures

Operational Phase:

Negative Impacts:

Bio-Physical Environment:

- Damage of the wetland areas if visitors to the mall have access to the natural open space areas

Socio-Economical Environment:

- Possible noise pollution;
- Visual pollution (if not well planned and managed);
- Increased traffic;
- Competition (other retail and commercial facilities in the area);

Institutional Environment:

- Implementation of guidelines and mitigation measures as supplied in approvals and EMP;

- Must allow for compliance with the conditions of the authorisation and the EMP in the project budget for the centre management,
- More costly to implement a development that complies with the EMP, conditions of the authorisation and all other relevant legislation, policies and frameworks

Positive Impacts:

Bio-Physical Environment:

- Protection of the riverine system and removal of exotic invaders, Rehabilitation of disturbed areas and coverage of exposed areas,
- Implementation of an EMP that supplies guidelines for sustainable and environmentally sound development

Socio-Economical Environment:

- Creation of permanent and temporary jobs,
- Upmarket social facilities in the area.
- Increase of surrounding property values,
- Installation of bulk services and infrastructure for the larger area. Will make it possible for smaller developments to connect to municipal services and to get off the ground,
- Upgrading of services and surrounding roads,
- Rates and taxes payable to the local authority,
- Convenient shopping facility (one stop facility),
- improved security.
- If well planned and managed the development will set a trend and standards for other future developments in the area

Institutional Environment.

- The establishment of a development that will comply with the most recent legislation, frameworks and policies

Summary of the preferred Alternative (Alternative S1 and A1):

Biophysical Environment:

During the site visit it was clear that the application site is not affected by any sensitive or ecological features such as ridges, rocky outcrops, rivers or drainage lines which will require protection and conservation. Furthermore, no Red Data fauna or flora species were identified on the proposed development site or in its immediate surroundings.

The most significant bio-physical issues associated with the proposed development are the ground water pollution risks associated with the perched water conditions. The potential impacts on the hydrological features (i.e. spruit to the west of the site) associated with the drainage feature along the southern boundary of the study area were also regarded as significant.

Unacceptable storm water management practices and the possible introduction of invader plants into the surrounding environment are also regarded as issues that should be addressed.

It was however found that it will be possible to mitigate the anticipated bio-physical impacts to more acceptable levels/ to prevent impacts completely and if planned and managed correctly, the proposed development could even contribute to the bio-diversity (i.e. in terms of habitat creation) of the surrounding Environment.

Social Environment:

Most of the adverse social impacts are only temporary impacts that are associated with the construction phase of the development. These impacts are usually easy to mitigate, especially if effective management measures (i.e. an Environmental Management Plan) are implemented.

Although the proposed development will be visible from the surrounding properties, the proposed Retail/Commercial development can be designed and implemented to be visually more acceptable to the surrounding area.

According to the appointed civil engineers the provision of services will not be a problem. The study area is situated within the urban edge and in an area earmarked for densification and urban development. The services master planning for the area will thus make provision for future municipal services in the area. It has already been confirmed by the involved local authority that it will be possible to link the study area to the municipal water supply system in the area. As already mentioned, the local authority already has a longer term master plan for the installation of a new gravity sewer pipeline in the area and an EAP has already been appointed to apply for the sections of the external services that will trigger listed activities in terms of the 2010 Amended NEMA Regulations and to apply for the necessary Section 21 Water-Use Licenses in terms of the National Water Act, 1998.

According to the traffic engineers, some road upgradings (especially at the intersection)will be required to accommodate the proposed development.

Only 3 Interested and Affected Parties Registered during the Public Participation Process. The approach was to follow a transparent and accommodating Public Participation Process which allows the interested and affected parties ample opportunity to raise issues and to supply inputs regarding the development proposal. The public participation that was followed was done in accordance with the public participation guidelines as supplied in NEMA. Flyers were distributed to surrounding landowners, tenants, stakeholders and residents by means of hand delivering, faxes or e-mails. A notice was also placed in the Local Newspaper and 2 advertisements were erected at prominent points on the proposed application site. It is the opinion of Bokamoso that all the issues raised during the Public Participation Process have been listed, addressed and significantly mitigated to establish a sustainable development on the study area. No "Fatal Flaws" associated with the social environment were identified.

Economical Environment:

Surrounding Properties

If the development is constructed and managed according to high architectural and landscaping standards, the proposed development will only improve the character as well as the "sense of place" in the area. In order to regulate high building and design standards, the buildings will be designed to comply with pre-determined architectural standards and guidelines (architectural styles, sizes of the buildings, finishes of the buildings etc.). The proposed development will most definitely contribute to an increase in the surrounding property values.

Job Creation

- **Construction phase**
  During the Construction phase, it is estimated that one construction job is created for every R300 000 spent on Building costs. It is estimated that approximately 15% of these created jobs will be permanent positions.
- **Operational phase**
  Statistically it is accepted that every 38-40m² of Retail Gross Lettable Area developed will create 1 permanent job within the Retail sphere.

  Furthermore in addition to the jobs created within the Retail sector, job creation within

the outsourced functions will also be created with additional job opportunities such as cleaning, Ground and Interior Maintenance, Security and Centre Management Functions

Agricultural Activities

The current land use of the site has led to severe degradation of soils. Furthermore, none of the surrounding properties are currently practising any agricultural or related activities.

Institutional Environment

The proposed development is in line with the planning frameworks and policies for the area. The proposed development site is also situated within the urban edge.

Alternative S2

N/A

Alternative S3

N/A

Alternative A1 (preferred alternative)

Already addressed above as part of S1 Alternative

Alternative A2

A2 Industrial, Business 1 and Municipal Development

The second activity alternative considered is the option of developing the study area in line with the approved Industrial Rights, Business 1 and Municipal Land-use rights which already vest in the property and for which a RoD has already been issued. Note that construction activities for the industrial development already commenced some time ago and if the Mall is not developed, the existing land-uses, which is not regarded as the most suitable land-uses by the urban economist, the current land-owner and the involved local authority, will be exercised.

The most significant impacts identified for the construction and operational phases are:

Construction Phase

Negative Impacts:

Bio-Physical Environment:

- Perched water conditions;
- Impacts on the wetlands and geo-hydrology;
- Erosion and siltation;
- Construction during the rainy season;
- Damage of the wetland areas during construction without any conservation fences or construction guidelines or mitigation measures

Socio-Economical Environment:

- Waste management;
- Temporary disruption of services and accesses to surrounding properties;
- Damage to cultural and historical features;
- Noise pollution;
- Visual pollution;

- Safety and security problems,
- Dangerous conditions on roads,
- Dust pollution;
- Dangerous conditions on and around site (i.e. dangerous excavations)

Institutional Environment:

- Development already approved. No strict mitigation measures, guidelines or EMP. Based on historical environmental legislation, policies and guidelines

Positive Impacts

Bio-Physical Environment:

- Rehabilitation of disturbed areas and coverage of exposed areas,
- Implementation of an EMP that supplies some guidelines for development

Socio-Economical Environment:

- Creation of temporary jobs,
- Economical advantages to surrounding businesses (i.e. filling station, hardware stores, food outlets etc.),

Institutional Environment:

- Not significant

Operational Phase:

Negative Impacts

Bio-Physical Environment:

- Pollution of wetland areas and drainage areas adjacent to the industrial development,
- A development that stretches across hydrological and ecological features,
- Air pollution associated with industrial activities,
- Pollution of ground water and surface water

Socio-Economical Environment.

- Possible noise pollution,
- Visual pollution (if not well planned and managed),
- Increased traffic (lighter vehicle and heavy vehicle traffic).

Institutional Environment.

- The establishment of a development that will not comply with the most recent legislation, frameworks and policies

Positive Impacts:

Bio-Physical Environment

- Implementation of an EMP that supplies some guidelines for development

Socio-Economical Environment:

- Creation of permanent and temporary jobs
- Availability of upmarket industrial facilities in the area.
- Increase/ decrease of surrounding property values,
- Installation of bulk services and infrastructure for the larger area. Will make it possible for smaller developments to connect to municipal services and to get off the ground,
- Upgrading of services and surrounding roads,
- Rates and taxes payable to the local authority

Institutional Environment:

- Not significant

Alternative A3

Not applicable

No-go alternative (compulsory)

The "No-Go" alternative

If the "No-Go" alternative is followed, the study area will be developed in anyway. As already mentioned that study area already received a positive RoD for Industrial, Municipal and Business 1 land-uses and the construction phase for the larger study area already commenced some time ago. The construction activities involve the construction of entrance roads and a significant amount of civil works which left large areas exposed. If the current construction activities seize, the study area will be subject to erosion and this can cause soil degradation, siltation, water pollution and a decrease in bio-diversity.

From a social point of view, the undeveloped and neglected site can become a security risk. Sites that have been earmarked for development and that already have development rights in place, can easily become neglected if it takes long to get the development off the ground. The fact that a dead person was found on the study area during one of the specialist's site visits proofs the current security risks.

In the case of the specific study area, the "no-go" area is not regarded as a viable alternative

8. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner).

YES	NO
X	

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorization that may be granted by the competent authority in respect of the application:

- Based on the above, it is recommended that the delegated authority only approve Activities 9, 11, 37 and 39 of R 544 of 18 June 2010. Activity 24 must be excluded from the authorisation, because the study area is not zoned open space,
- Mitigation measures, in the form of the EMP ***(Appendix F)***, must be implemented during the construction and operational phases;
- The EMP and ROD must be implemented by the contractor and/or any sub-contractors,
- An onsite ECO (Environmental Control Officer) must be appointed to monitor the implementation of the EMP,
- Environmental monitoring must be conducted as specified in the EMP,
- External environmental monitoring must be conducted to ensure overall compliance

with legislative requirements and the EMP,

- A detailed Stormwater Management Plan must be compiled by the appointed engineer and implemented during construction and operational phases,
- The detailed storm water management plan must be compiled to be in line with the storm water report compiled by ***Jeffares and Green Report*** and the storm water management principles as applied by the Liberty Mall development must also be considered (this was a request of DWA) Note that the developer appointed Jefarres and Green (storm water engineers for the Liberty Mall) to assist with the storm water management of the proposed development, especially in the areas where the basement parking will be below the flood line;
- The Site Development Plan (SDP) and Landscape development Plan (LDP) should be approved by the Local Authority,
- No snaring or hunting of animals during the construction phase,
- If during construction any new evidence of archaeological sites or artefacts, paleontological fossils, graves or other heritage resources are found, the operations must be stopped and a qualified archaeologist or SAHRA/ Amafa Kwazulu Natal must be contacted immediately for an assessment of the find,
- After clearing of the vegetation the site should be protected against erosion,
- Proper compaction must be executed to prevent settlements from taking place,
- Foundation recommendations made by the engineer must be adhered to,
- The safety and security of the people in the surrounding area are important and must be taken in to consideration during the construction phase,
- Specific roads must be allocated for the use by construction vehicles and photos must be taken prior to construction in order to determine if any damage has been done Upgrading of the roads is a prerequisite (if so required according to the traffic engineer),
- The developer/engineers must make sure that sufficient services are available,
- Local people must be employed,
- All waste must be disposed of at a registered waste disposal site.
- Due to the fact that the Fox Hill Spruit is a man-made/ altered watercourse and due to the fact that there are no wetlands in close proximity of the study area, it will not be necessary to apply for any Section 21 WUL in terms of the National Water Act, 1998. This matter was discussed with DWA during a consultation meeting in June 2013 and DWA confirmed that not S21WULA will be required, and
- Rehabilitation must be done correctly and to the satisfaction of the ECO

SECTION G: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports
Appendix D(i): Jeffares & Green Report
Appendix D(ii): Wetland Delineation Report
Appendix D(iii): Engineering Input
Appendix D(iv): Traffic Impact Study

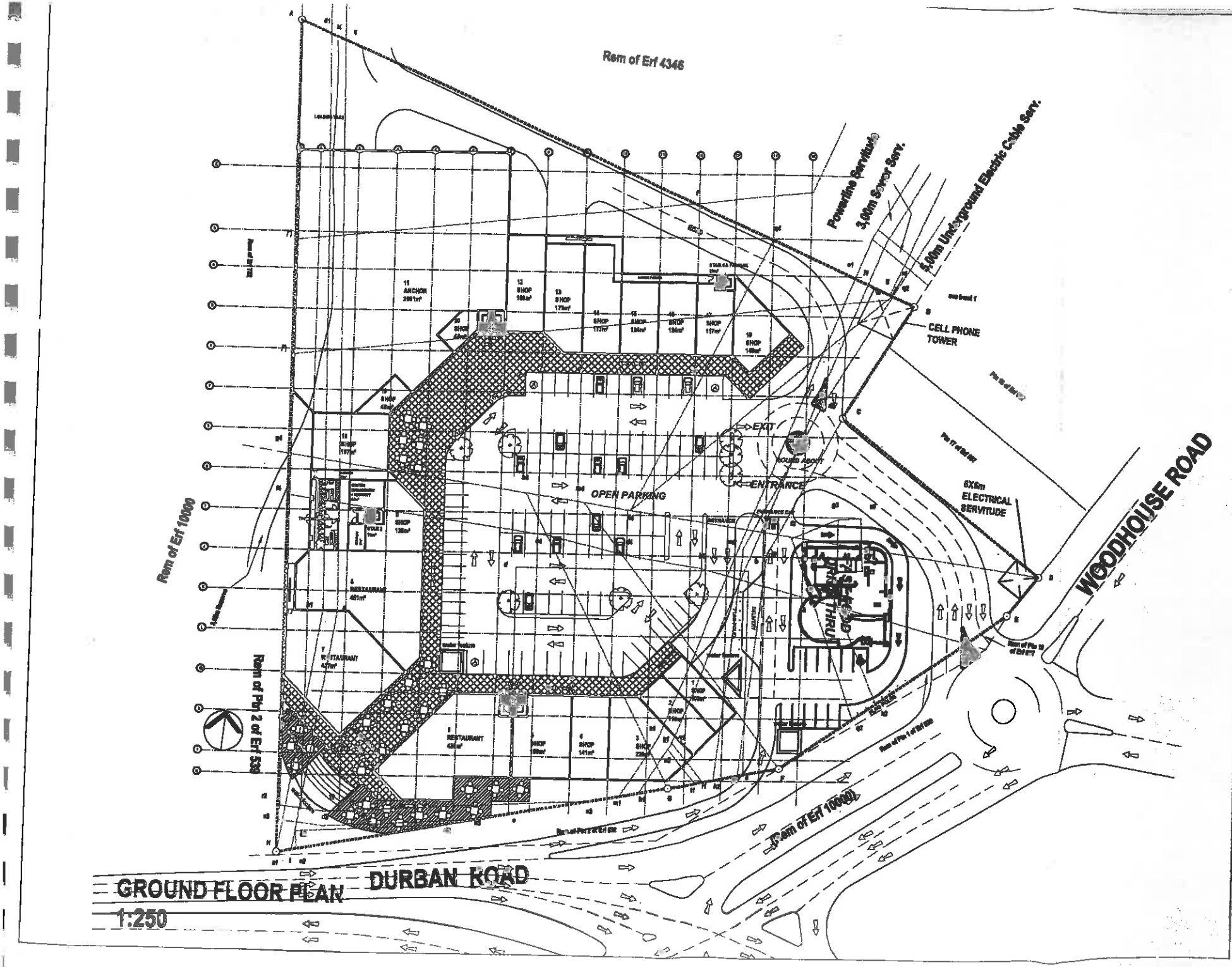
Appendix E: Public Participation
Appendix E(i): Advert and Notices
Appendix E(ii): Comments & Inputs received from Authorities
Appendix E(iii): Issues and Response Report

Appendix F: Final Environmental Management Programme (EMPr)

Appendix G: Enlarged copies of figures

Appendix A:

Site plan

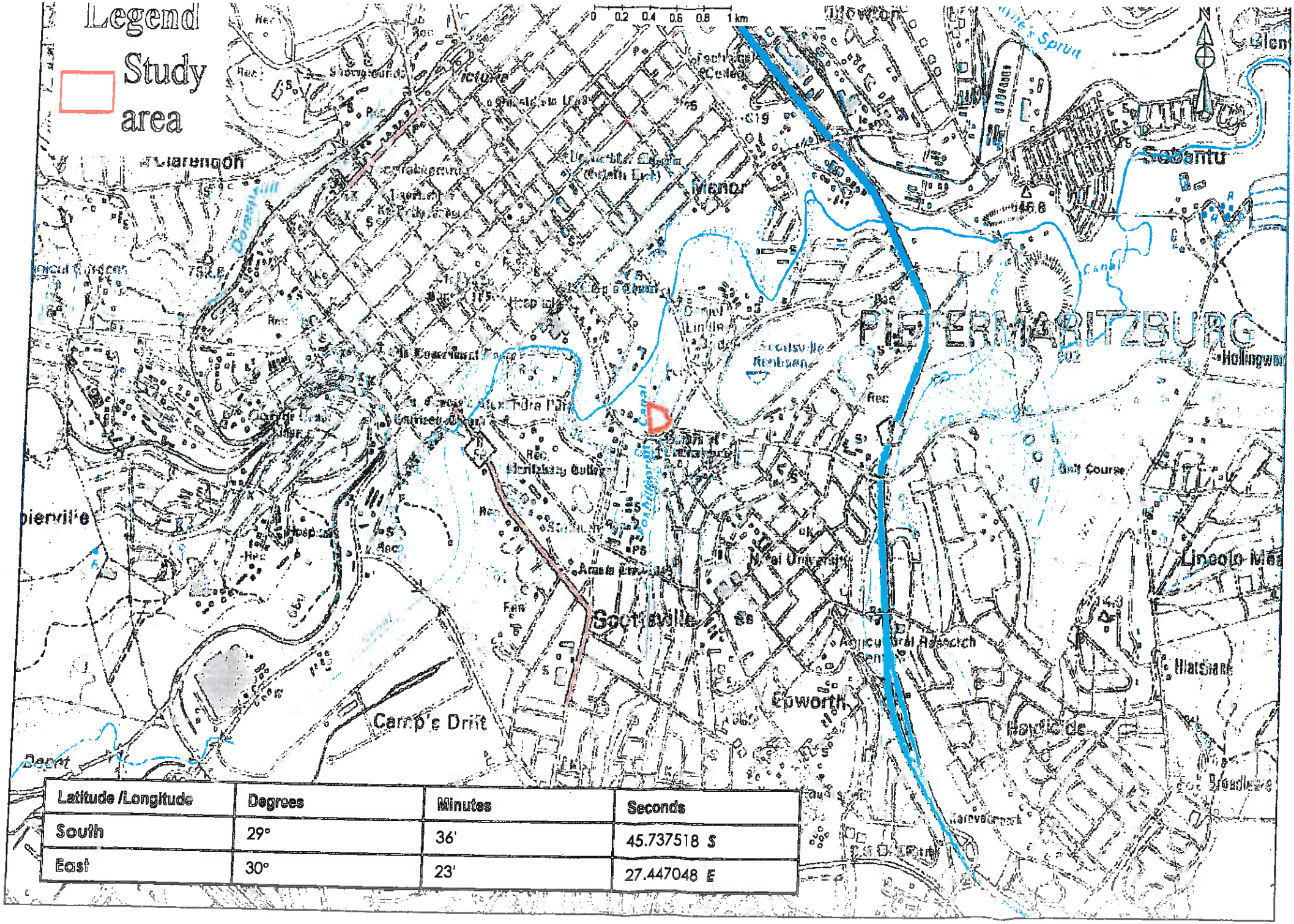


GROUND FLOOR PLAN
1:250

NEW PROPOSED WOODBURN SHOPPING CENTRE ON PORTION 3 & 4 ERF 4346 PIETERMARITZBURG - FT

BOOGERTMAN +PARTNERS ARCHITECTS

GROUND FLOOR PLAN



Latitude /Longitude	Degrees	Minutes	Seconds
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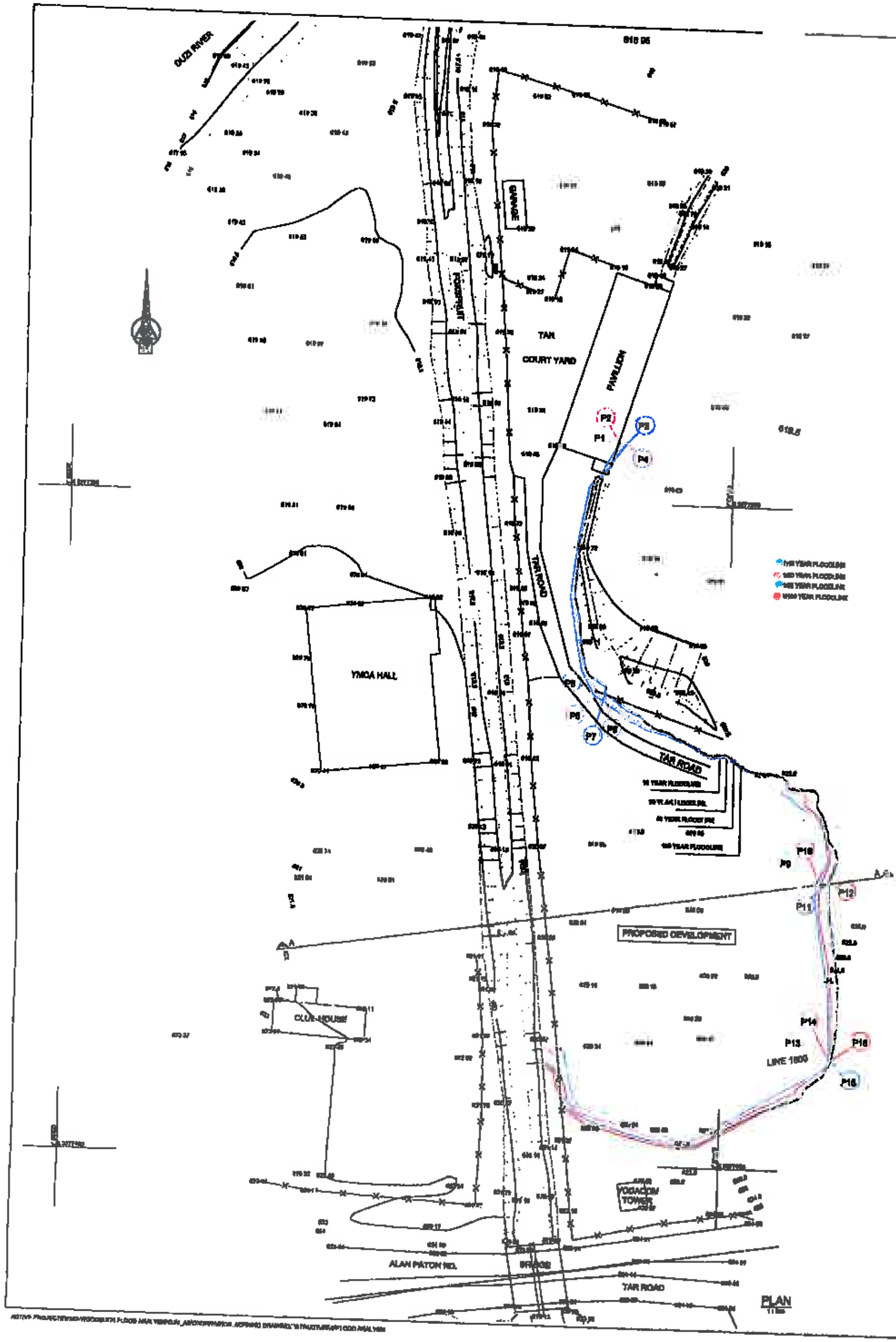
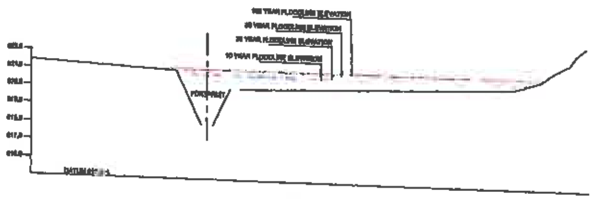
East	30°	23'	27.447048 E





SECTION A-A

HYDROLOGICAL INFORMATION : FOOTPRINT AT WOODBURN STADIUM	
CATCHMENT AREA : 12,6 km² METHOD USED TO DETERMINE RUNOFF : RATIONAL METHOD	
FLOW PERIOD	FLOW m³/sec
1:10 YEAR	[illegible]
1:20 YEAR	[illegible]
1:50 YEAR	[illegible]
1:100 YEAR	[illegible]

CO-ORDINATES			ELEVATION			
POINT	X	Y	1:10 YEAR	1:20 YEAR	1:50 YEAR	1:100 YEAR
P1	[illegible]	[illegible]	[illegible]	-	-	-
P2	[illegible]	[illegible]	-	[illegible]	-	-
P3	[illegible]	[illegible]	-	-	[illegible]	-
P4	[illegible]	[illegible]	-	-	-	[illegible]
P5	[illegible]	[illegible]	[illegible]	-	-	-
P6	[illegible]	[illegible]	-	[illegible]	-	-
P7	[illegible]	[illegible]	-	-	[illegible]	-
P8	[illegible]	[illegible]	-	-	-	[illegible]
P9	[illegible]	[illegible]	[illegible]	-	-	-
P10	[illegible]	[illegible]	-	[illegible]	-	-
P11	[illegible]	[illegible]	-	-	[illegible]	-
P12	[illegible]	[illegible]	-	-	-	[illegible]
P13	[illegible]	[illegible]	[illegible]	-	-	-
P14	[illegible]	[illegible]	-	[illegible]	-	-
P15	[illegible]	[illegible]	-	-	[illegible]	-
P16	[illegible]	[illegible]	-	-	-	[illegible]

NOTES :

FOR DISCUSSION

REVISION

PROJECT TITLE: WOODBURN FLOOD ANALYSIS

DESCRIPTION: FLOOD ANALYSIS

2362/S1

AFRICON CONSULTING
Professional Services in Development
Africon Engineering International (Pty) Limited Reg No 93/05435/07

Pietermaritzburg
161 Pietermaritz Street
3201, Pietermaritzburg
P O Box 1340, 3200 Pietermaritzburg
South Africa
Tel: (0331) 42-5851
Fax: (0331) 94-1326
e-mail:afripmb@iafrica.com
Divisions: Civil, Geotechnical and Environmental; Structural Engineering Services; International; Development Services and Project Management; Contract Management and Materials; Transportation; Information Technology; Electrical and Mechanical; Training and Communications

Our reference : K101(7028)/COR/RJJ/sv

03 March 1999

J Crewe & Associates
PO Box 964
PRETORIA
0001

04/03/99
8:15

Sirs

PIETERMARITZBURG : RIVERSIDE DEVELOPMENT : FLOODLINES

Large sections of the proposed development lie within the flood plain of the Duzi River. The sections in question are the new shopping centre on the Woodburn fields and the proposed hotel on the Collegians Club grounds.

The area under discussion has been flooded on various occasions, the most notably being the floods of 1987.

Various floodline calculations have been commissioned on the Duzi River, the latest being a study by SWK Consulting Engineers in September 1995. The study was commissioned by Umgeni Water when a decision was taken to lower the dam wall of the Henley Dam, upstream of Pietermaritzburg.

The dam wall has subsequently been lowered and it is, therefore, believed that this study provides the best information with regards to the floodlines under the present land use in the Duzi River catchment.

The floodlines were calculated using the IFMS (Integrated Flood Management Systems) software, which is based on the well-known HEC2 model. The section of river between Henley Dam and the Darville Water Works was modelled by SWK. Detailed cross-sections at strategic points and major changes in the river flow direction was used as input to the model. The calculated flows were also calibrated with recorded flood volumes. Inlet and outlet conditions at all structures crossing the river were included in the model.

Extracts from the SWK report indicating the positions of the cross-sections applicable to the development (10930 – Woodburn site, and 10688 – Collegians Club site) and the 1:20, 1:50 and 1:100 flood levels are attached to this report.

to page 2/ .....

Current legislation requires that no development takes place within the 1:50 year floodline (level 620,14 msl) and that special conditions apply to developments within the 1:100 year floodline (621,12 msl). For reference purposes the Medi-Clinic Private Hospital across the river is built on a platform at a level of approximately 621,5 msl and has not been affected by any recent floods.

As discussed with yourselves the possibility of building the shopping centre and hotel on columns above the floodlines is a viable option. This solution will have a minimal impact on the existing floodline (if any) and as an added benefit the space below the hotel and shopping centres can be used for parking.

Considering the small level difference between the 1:50 and 1:100 year floodlines it is recommended that consideration be given to building the structures at the 1:100 year floodline levels.

We trust the above is of use to yourselves.

Yours faithfully

RJ JOUBERT
pp AFRICON CONSULTING

Enclosures

1/20 year

I F M S - INTEGRATED FLOOD MANAGEMENT SYSTEM - STEADY STATE MODEL
F L O O D L I N E S C O M P U T A T I O N S
Developed by Dr P. Kolovopoulos
Version 2.01

Program is lisenced to: SCOTT WILSON KIRKPATRICK
Serial number: 1

Output file: d:\flood\duzi\duz.RES

Chainage	Water lvl	Crit. lvl	Bed level	Energy lvl	Froude	Flow
500.00	598.20	598.20	591.84	599.08	1.08	670.00
1000.00	599.42	595.73	590.35	599.78	0.19	670.00
1057.00	599.66	598.19	591.84	599.87	0.15	670.00
1350.00	599.97	595.70	590.35	600.26	0.14	670.00
1500.00	601.02	601.02	594.63	602.05	1.10	670.00
2000.00	602.29	599.67	594.67	602.60	0.48	670.02
2240.00	602.72	599.54	594.67	602.89	0.23	650.00
2500.00	602.89	601.19	594.31	603.25	0.28	650.00
2540.00	603.03	601.12	594.31	603.35	0.25	650.00
3000.00	603.81	601.54	594.56	604.02	0.15	650.00
4700.00	604.49	602.75	597.07	604.50	0.01	650.00
6600.00	604.63	603.91	598.33	605.60	0.77	650.00
7500.00	608.00	606.17	603.22	608.19	0.14	560.00
7503.00	608.00	605.71	601.85	608.20	0.12	560.00
7517.00	607.91	606.44	602.71	608.26	0.26	560.00
8000.00	609.55	608.89	604.87	610.06	0.50	560.02
8050.00	609.97	609.16	605.46	610.41	0.37	560.00
8072.00	610.13	608.24	605.46	610.46	0.16	560.00
8072.20	610.52	608.24	606.00	610.80	0.12	560.00
8098.00	608.40	609.12	606.88	610.83	3.31	560.00
8100.00	610.11	610.28	606.88	611.27	1.40	560.00
8190.00	610.74	610.74	607.36	611.71	1.00	560.00
8990.00	615.56	615.31	610.33	617.11	1.00	560.00
9390.00	617.57	616.83	610.48	617.69	0.13	560.00
9790.00	617.76	615.96	611.67	618.11	0.49	560.00
10290.00	618.25	616.76	612.52	618.82	1.00	560.00
10688.00	619.05	617.07	613.42	619.38	0.17	560.00
10690.00	619.10	617.03	613.42	619.39	0.15	560.00
10692.00	619.14	616.74	613.42	619.40	0.13	560.00
10692.20	619.01	616.74	614.00	619.29	0.14	560.00
10698.00	619.16	616.74	613.42	619.42	0.13	560.00
10700.00	619.14	616.87	613.51	619.43	0.15	560.00
10930.00	619.29	618.11	614.50	619.68	1.00	560.00
11422.00	620.84	621.33	616.82	623.04	1.00	560.00
11422.20	621.33	621.33	617.00	622.92	1.00	560.00
11428.00	622.26	621.33	616.82	623.18	0.52	560.00
11430.00	622.88	621.47	616.82	623.25	0.30	560.00
11435.00	622.89	621.46	616.82	623.26	0.29	560.00
11444.00	622.72	621.36	617.03	623.46	0.39	560.00
11444.20	622.39	621.33	617.00	623.25	0.47	560.00
11449.00	622.84	621.36	617.03	623.53	0.36	560.00
11450.00	623.10	621.05	617.03	623.56	0.33	560.00
11510.00	623.16	621.71	616.89	623.71	0.52	560.00
11960.00	624.13	623.04	617.96	624.46	0.31	560.00
12104.00	624.27	621.76	616.34	624.67	0.27	560.00
12110.00	624.16	621.54	616.34	624.82	0.23	560.00
Bridge Opening-->Pressure flow			Flow : 560.00		Velocity :	3.50
12112.00	624.60	621.54	616.34	625.17	0.19	560.00
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12595.00	625.58	623.34	618.27	626.09	0.50	560.00
12600.00	625.49	623.04	618.27	626.20	0.25	560.00
12600.20	625.61	622.77	618.00	626.23	0.21	560.00

1/50 year

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------------------------------------------------------------------------------
     I F M S - INTEGRATED FLOOD MANAGEMENT SYSTEM - STEADY STATE MODEL
               F L O O D     L I N E S     C O M P U T A T I O N S
                        Developed by Dr P. Kolovopoulos
                                Version 2.01
------------------------------------------------------------------------------

Program is lisenced to: SCOTT WILSON KIRKPATRICK
Serial number:   1
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Output file:  d:\flood\duzi\duz.RES

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Chainage	Water lvl	Crit. lvl	Bed level	Energy lvl	Froude	Flow
500.00	598.72	598.72	591.84	599.67	0.96	930.00
1000.00	599.96	596.71	590.35	600.50	0.27	930.00
1057.00	600.39	598.70	591.84	600.62	0.15	930.00
1350.00	600.68	596.67	590.35	601.10	0.22	930.00
1500.00	601.66	601.66	594.63	602.72	1.00	930.00
2000.00	603.00	600.69	594.67	603.24	0.30	930.00
2240.00	603.33	600.53	594.67	603.49	0.17	900.00
2500.00	603.41	602.00	594.31	603.91	0.40	900.00
2540.00	603.60	601.95	594.31	604.03	0.38	900.00
3000.00	604.57	602.24	594.56	604.82	0.16	900.01
4700.00	605.21	602.86	597.07	605.22	0.01	900.00
6600.00	605.21	605.04	598.33	606.47	1.00	900.00
7500.00	608.81	606.68	603.22	609.02	0.14	780.00
7503.00	608.79	606.32	601.85	609.04	0.13	780.00
7517.00	608.71	607.10	602.71	609.10	0.24	780.00
8000.00	610.24	609.50	604.87	610.78	0.47	780.00
8050.00	610.58	609.69	605.46	611.11	0.39	780.00
8072.00	610.62	608.79	605.46	611.13	0.23	780.00
8072.20	610.52	608.79	606.00	611.05	0.24	780.00
8098.00	608.88	609.67	606.88	611.61	2.82	780.00
8100.00	610.47	610.90	606.88	612.02	1.81	780.00
8190.00	610.74	611.26	607.36	612.62	1.91	780.00
8990.00	616.90	616.90	610.33	618.12	1.16	780.00
9390.00	618.41	617.09	610.48	618.50	0.07	780.00
9790.00	618.52	616.79	611.67	618.79	0.47	780.00
10290.00	618.85	618.55	612.52	619.37	0.66	780.00
10688.00	619.47	617.67	613.42	620.00	0.26	780.00
10690.00	619.57	617.61	613.42	620.01	0.21	780.00
10692.00	619.63	617.36	613.42	620.03	0.19	780.00
10692.20	619.48	617.36	614.00	619.91	0.20	780.00
10698.00	619.67	617.36	613.42	620.06	0.18	780.00
10700.00	619.63	617.50	613.51	620.09	0.21	780.00
10930.00	620.14	619.53	614.50	620.28	0.18	780.00
11422.00	621.65	622.21	616.82	624.18	1.00	780.00
11422.20	622.21	622.21	617.00	624.05	1.00	780.00
11428.00	623.26	622.21	616.82	624.34	0.53	780.00
11430.00	624.17	622.30	616.82	624.43	0.18	780.00
11435.00	624.17	622.30	616.82	624.44	0.18	780.00
11444.00	623.90	622.24	617.03	624.73	0.37	780.00
Bridge Opening-->Pressure flow			Flow : 780.00		Velocity :	3.91
11449.00	624.51	622.24	617.03	625.15	0.25	780.00
11450.00	624.87	621.83	617.03	625.19	0.20	780.00
11510.00	625.08	622.60	616.89	625.25	0.13	780.00
11960.00	625.31	623.56	617.96	625.55	0.22	780.00
12104.00	625.34	622.95	616.34	625.73	0.21	780.00
12110.00	625.34	622.95	616.34	625.77	0.32	780.00
Bridge Opening-->Pressure flow			Flow : 552.48		Velocity :	3.45
12110.40	625.86	625.86	625.00	626.28	1.00	227.52
12112.00	626.02	622.95	616.34	626.29	0.13	780.00
12575.00	625.82	624.44	618.27	626.75	0.44	780.00
12595.00	626.75	624.45	618.27	627.12	0.34	780.00

1/100 year.

I F M S - INTEGRATED FLOOD MANAGEMENT SYSTEM - STEADY STATE MODEL
F L O O D L I N E S C O M P U T A T I O N S
Developed by Dr P. Kolovopoulos
Version 2.01

Program is lisenced to: SCOTT WILSON KIRKPATRICK
Serial number: 1

Output file: d:\flood\duzi\duz.RES

Chainage	Water lvl	Crit. lvl	Bed level	Energy lvl	Froude	Flow
500.00	599.17	599.17	591.84	600.24	0.93	1230.00
1000.00	600.44	598.03	590.35	601.22	0.39	1230.00
1057.00	601.11	599.15	591.84	601.36	0.14	1230.00
1350.00	601.36	597.73	590.35	601.93	0.47	1230.00
1500.00	602.06	602.06	594.63	603.36	1.08	1230.00
2000.00	603.67	602.50	594.67	603.87	0.19	1230.00
2240.00	603.93	602.45	594.67	604.08	0.13	1200.00
2500.00	603.92	602.62	594.31	604.55	0.56	1200.00
2540.00	604.17	602.53	594.31	604.70	0.53	1200.00
3000.00	605.28	603.00	594.56	605.56	0.15	1200.00
4700.00	605.90	603.10	597.07	605.92	0.01	1200.00
6600.00	605.94	605.94	598.33	607.17	1.03	1200.00
7500.00	609.45	607.17	603.22	609.71	0.15	1040.00
7503.00	609.41	606.93	601.85	609.74	0.16	1040.00
7517.00	609.32	607.76	602.71	609.80	0.27	1040.00
8000.00	610.89	610.01	604.87	611.43	0.42	1040.00
8050.00	611.15	610.22	605.46	611.78	0.41	1040.00
8072.00	611.11	609.38	605.46	611.85	0.30	1040.00
8072.20	610.52	609.38	606.00	611.47	0.43	1040.00
8098.00	609.43	610.26	606.88	612.39	2.39	1040.00
8100.00	610.79	611.56	606.88	612.75	2.12	1040.00
8190.00	611.22	611.78	607.36	613.37	1.95	1040.00
8990.00	617.58	617.58	610.33	618.80	1.04	1040.00
9390.00	619.07	617.33	610.48	619.16	0.06	1040.00
9790.00	619.20	618.14	611.67	619.37	0.21	1040.00
10290.00	619.34	618.96	612.52	619.85	0.50	1040.00
10688.00	619.86	618.35	613.42	620.64	0.36	1040.00
10690.00	620.04	618.30	613.42	620.66	0.28	1040.00
10692.00	620.12	618.01	613.42	620.69	0.25	1040.00

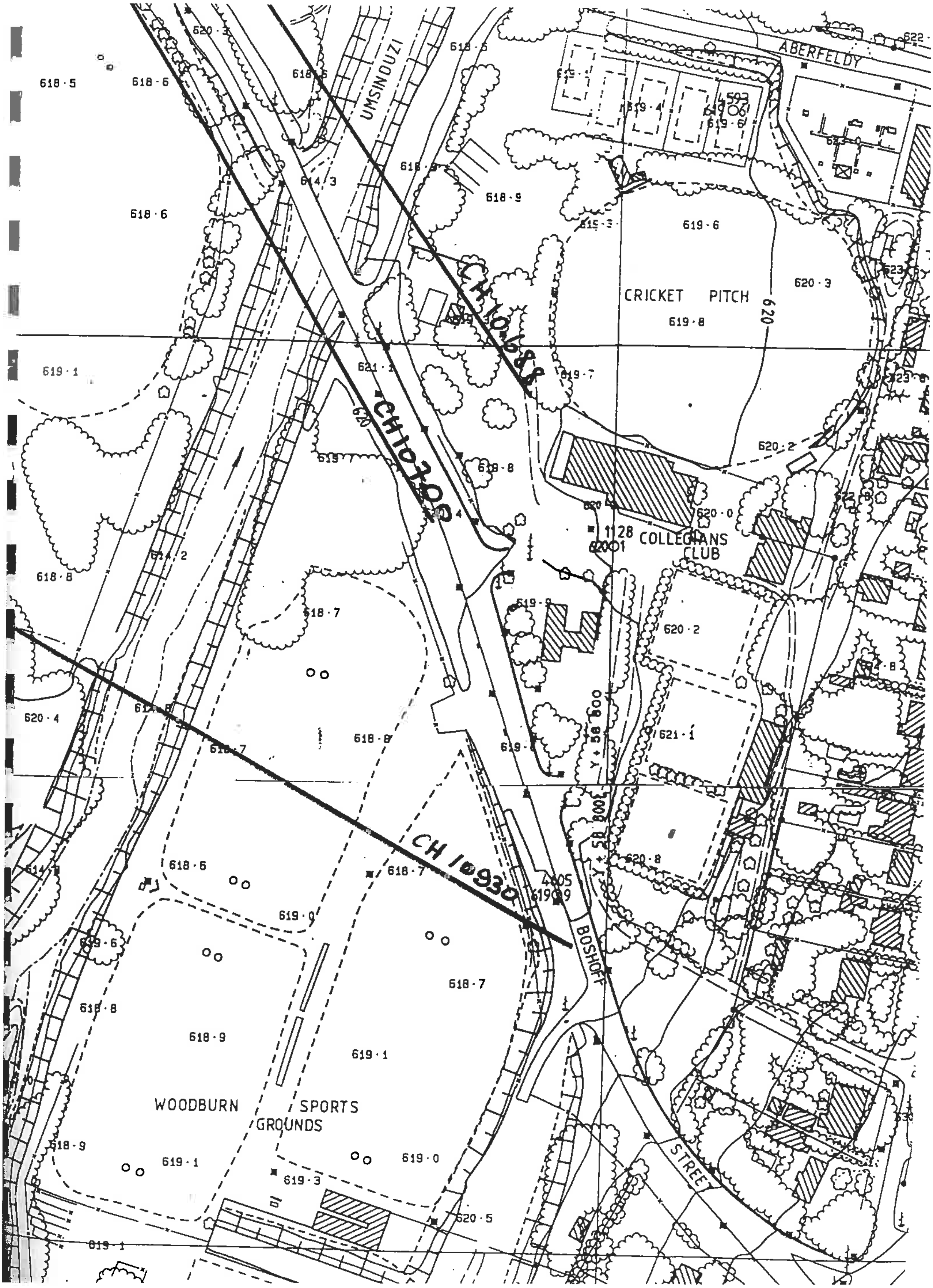
|Bridge Opening-->Pressure flow |Flow :1040.00 |Velocity : 3.44

10698.00	620.63	618.01	613.42	621.10	0.18	1040.00
10700.00	620.58	618.19	613.51	621.13	0.23	1040.00
10930.00	621.20	619.76	614.50	621.27	0.05	1040.00
11422.00	622.46	623.09	616.82	625.32	1.00	1040.00
11422.20	623.09	623.09	617.00	625.18	1.00	1040.00
11428.00	624.32	623.09	616.82	625.53	0.50	1040.00
11430.00	625.43	622.93	616.82	625.64	0.11	1040.00
11435.00	625.44	622.93	616.82	625.64	0.11	1040.00
11444.00	625.27	622.93	617.03	625.71	0.25	1040.00

|Bridge Opening-->Pressure flow |Flow : 671.12 |Velocity : 3.36

11444.40	625.75	625.75	624.78	626.17	1.00	368.88
11449.00	625.87	622.93	617.03	626.18	0.15	1040.00
11450.00	625.88	622.93	617.03	626.19	0.15	1040.00
11510.00	626.11	624.21	616.89	626.24	0.07	1040.00
11960.00	626.27	624.21	617.96	626.44	0.14	1040.00
12104.00	626.18	623.91	616.34	626.63	0.21	1040.00
12110.00	626.23	623.91	616.34	626.64	0.31	1040.00
12110.20	622.84	623.40	616.00	626.16	1.32	1040.00
12112.00	623.74	623.74	616.34	626.41	1.00	1040.00
12575.00	626.05	625.50	618.27	627.54	0.67	1040.00
12595.00	627.67	626.05	618.27	628.00	0.24	1040.00

Hospital
Legislative Assembly
School
LINDLEY BRIDGE
PEDESTRIAN BRIDGE
CH 12 104
CH 10 930
COMMERCIAL RD
COMMERCIAL
BRIDGE
PEDESTRIAN BRIDGE


UMSINDUZI
ABERFELDY
CRICKET PITCH
CH10688
CH10700
CH10930
1128 COLLEGIANS CLUB
BOSHOFF
STREET
WOODBURN SPORTS GROUNDS
Y + 58 600
618·5
618·6
619·1
618·8
620·4
619·6
620·3
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619·3
620·5

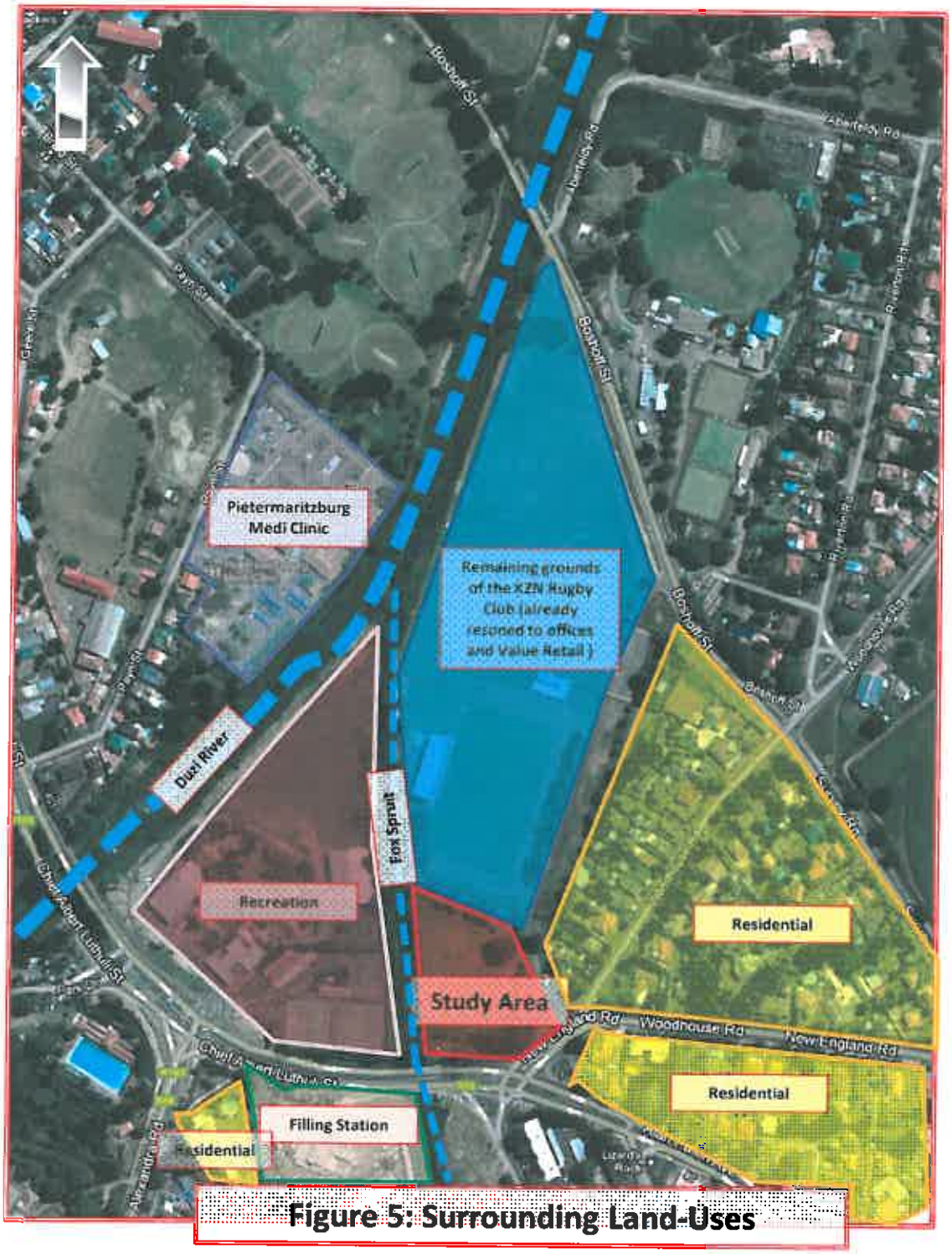


Figure 5: Surrounding Land-Uses

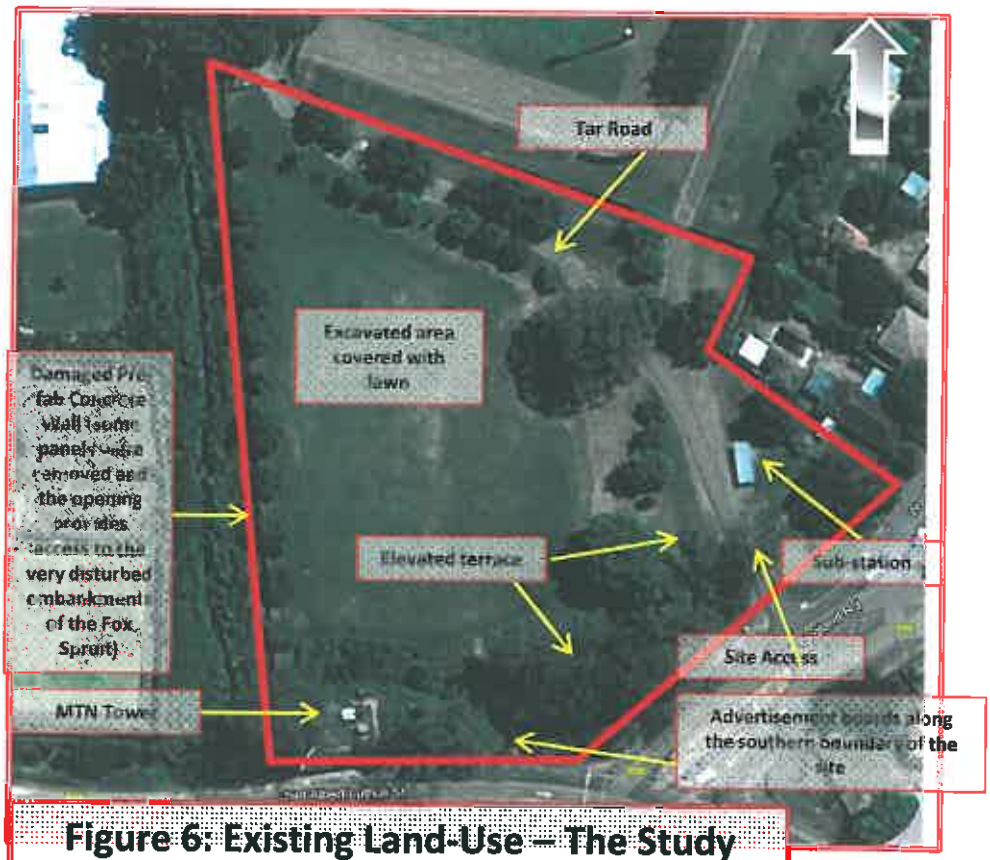
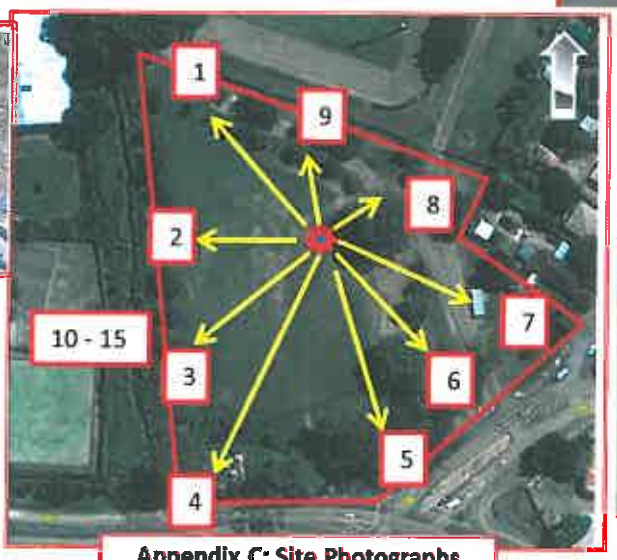


Figure 6: Existing Land-Use – The Study Area

Appendix B:

Photographs



Appendix C: Site Photographs


WOODEWRN RUGBY STADIUM
The World of Temperature Control
DAIKIN
NEXT FIXTURE


KINGSPARK RUGBY STADIUM
www.booysen.co.za
BOOYSEN
033 3424
The World of Temperature Control
DAIKIN


POWERADE
Kick 'n
Whistle

Notice is given of an application to the Kwazulu- Natal Department of Agriculture, Environmental Affairs & Rural Development, in terms of regulation no. R543 published in the Government Notice no. 33306 of 18 June 2010 of the National Environment Management Act, 1998 (Act No. 107 of 1998) governing Basic Assessment procedures (Notice 1 and 3 – Governing Notice R544 & R546) for the following activity:

Name of project: **Woodburn Boulevard Shopping Centre**

Project description: The proposed project will entail the development of 6500m² Shopping Centre in the city of Pietermaritzburg, KwaZulu-Natal.

Property description: The study area is located on the corner of Woodhouse Road and Alan Paton Drive on Portion 5 of Erf 4346, Pietermaritzburg.

The application was submitted for the following activities in terms of the Government Notice R. 544, R. 545 & R. 546, 18 June 2010:

R. 544, 18 June 2010	Activity 9
R. 544, 18 June 2010	Activity 11
R. 544, 18 June 2010	Activity 18
R. 544, 18 June 2010	Activity 37
R. 544, 18 June 2010	Activity 39

Extent: The total study area is approximately 1.7885 ha in extent.

Name of the proponent: O & T DEVELOPMENT (PTY) LTD

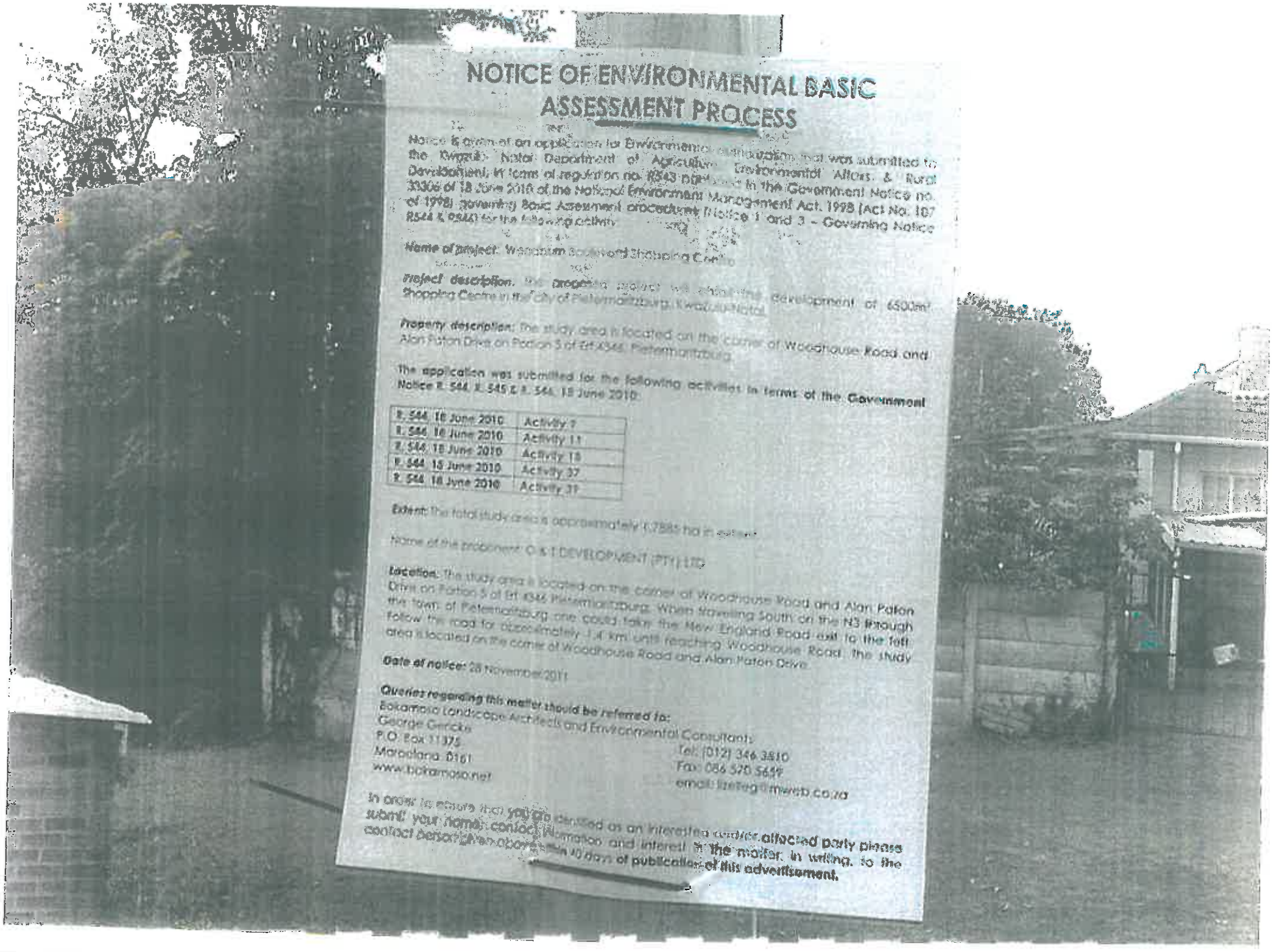
Location: The study area is located on the corner of Woodhouse Road and Alan Paton Drive on Portion 5 of Erf 4346 Pietermaritzburg. When travelling south on the N3 through the town of Pietermaritzburg one could take the New England Road exit to the left follow this road for approximately 1.4 km until reaching Woodhouse Road. The study area is located on the corner of Woodhouse Road and Alan Paton Drive.

Date of notice: 28 November 2011

Queries regarding this matter should be referred to:

Bokamoso Landscape Architects and Environmental Consultants
George Gericke
P.O. Box 11375
Waroelana 0161
www.bokamoso.net
Tel: (012) 346 3810
Fax: 086 570 5659
email: lizelleg@mweb.co.za

In order to ensure that you are identified as an interested and/or affected party please submit your name, contact information and interest in the matter, in writing, to the contact person given above within 40 days of publication of this advertisement.



NOTICE OF ENVIRONMENTAL BASIC ASSESSMENT PROCESS

Notice is given of an application for Environmental authorisation that was submitted to the Durban Natal Department of Agriculture, Environmental Affairs & Rural Development, in terms of regulation no. R543 published in the Government Notice no. 33306 of 18 June 2010 of the National Environment Management Act, 1998 (Act No. 107 of 1998) governing Basic Assessment procedures (Notice 1 and 3 – Governing Notice R544 & R545) for the following activity:

Name of project: Woodhouse Boulevard Shopping Centre

Project description: The proposed project will entail the development of 6500m² Shopping Centre in the City of Pietermaritzburg, KwaZulu-Natal.

Property description: The study area is located on the corner of Woodhouse Road and Alan Paton Drive on Portion 5 of Erf 4346, Pietermaritzburg.

The application was submitted for the following activities in terms of the Government Notice R. 544, R. 545 & R. 546, 18 June 2010:

R. 544, 18 June 2010	Activity 9
R. 544, 18 June 2010	Activity 11
R. 544, 18 June 2010	Activity 18
R. 544, 18 June 2010	Activity 37
R. 544, 18 June 2010	Activity 39

Extent: The total study area is approximately 1.7886 ha in extent.

Name of the proponent: O & T DEVELOPMENT (PTY) LTD

Location: The study area is located on the corner of Woodhouse Road and Alan Paton Drive on Portion 5 of Erf 4346 Pietermaritzburg. When travelling South on the N3 through the town of Pietermaritzburg one could take the New England Road exit to the left. Follow the road for approximately 1.4 km until reaching Woodhouse Road. The study area is located on the corner of Woodhouse Road and Alan Paton Drive.

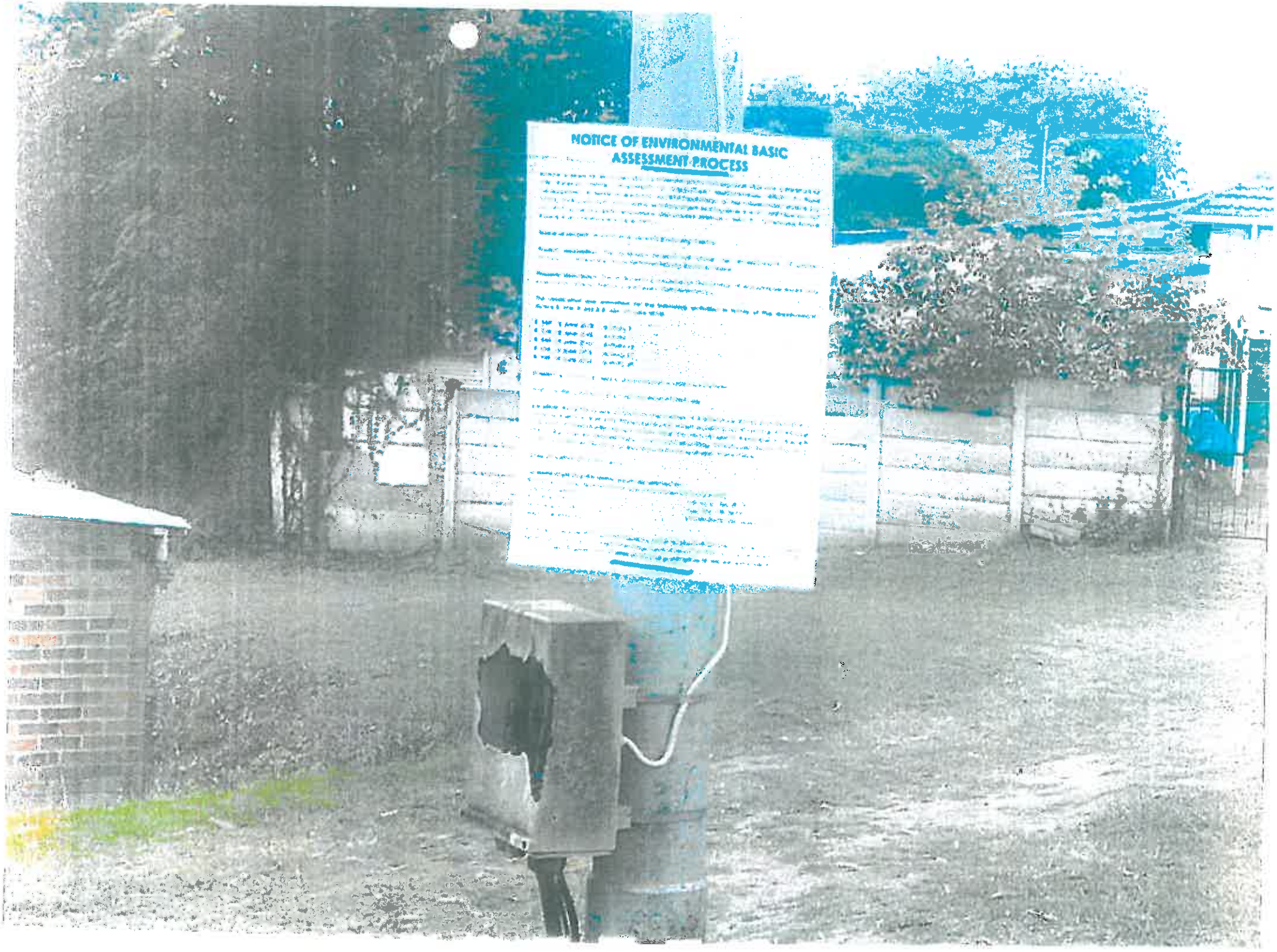
Date of notice: 28 November 2011

Queries regarding this matter should be referred to:

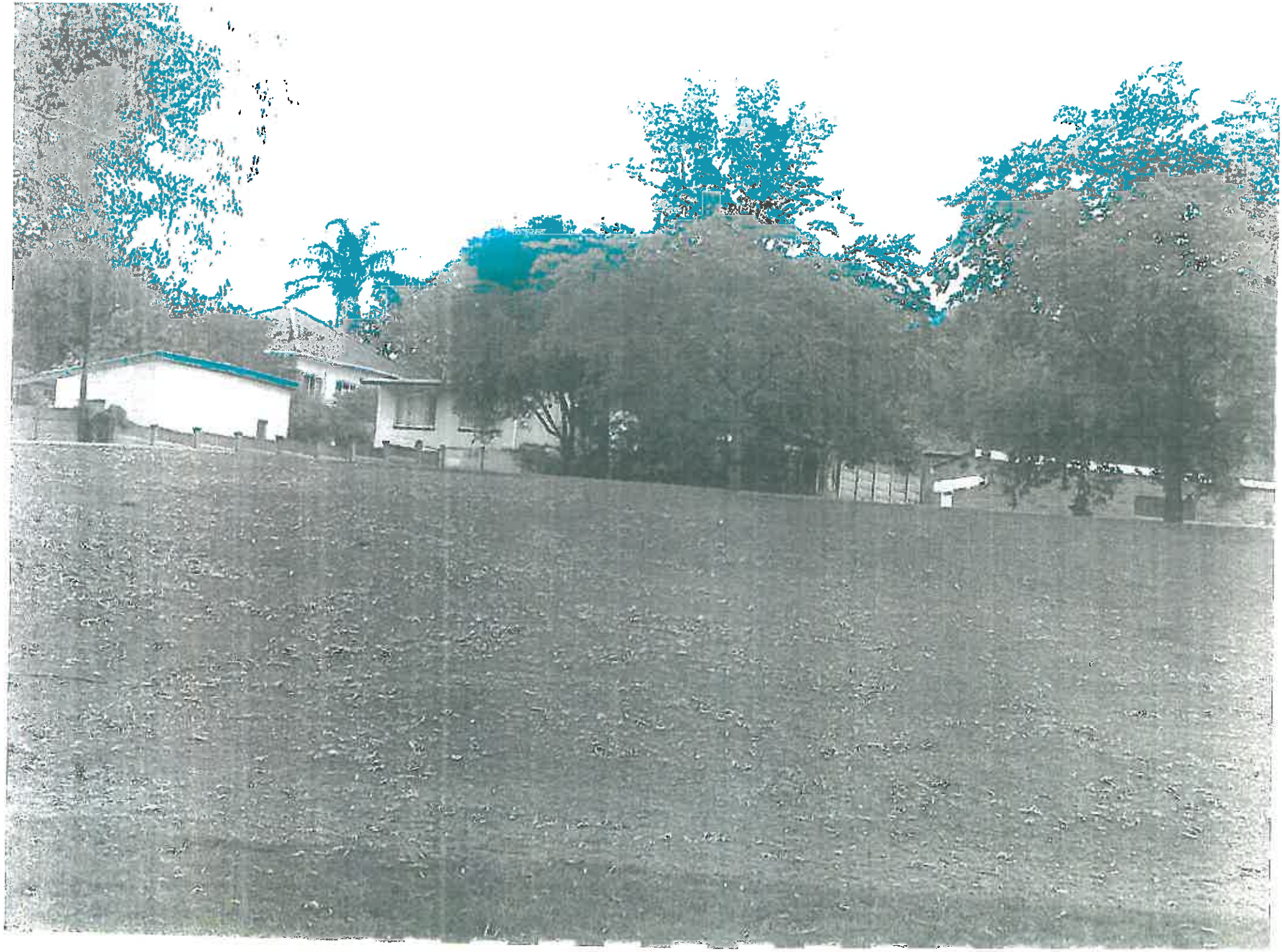
Bokamoso Landscape Architects and Environmental Consultants
George Gericke
P.O. Box 11375
Maroelana, 0161
www.bokamoso.net

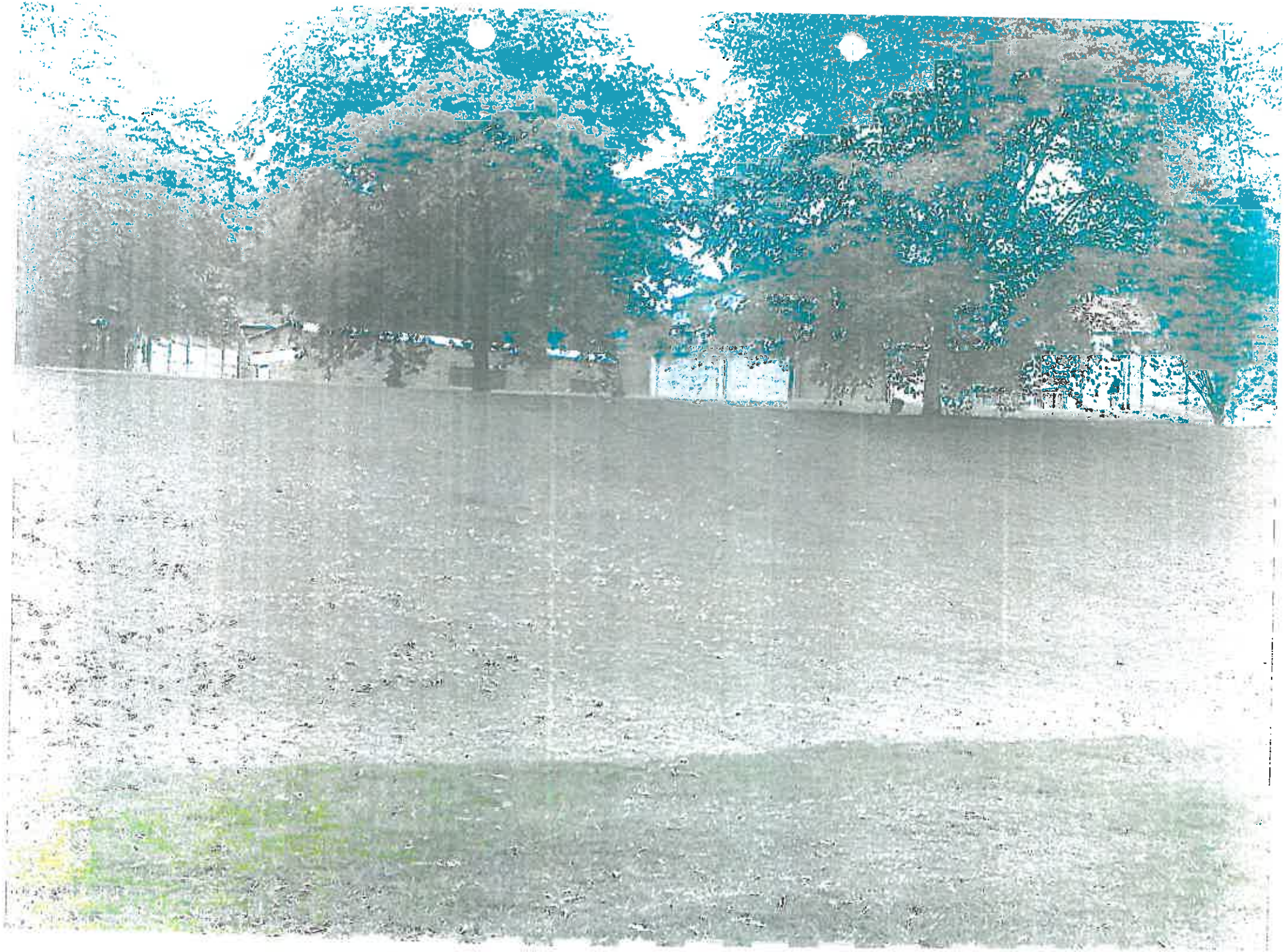
Tel: (012) 346 3810
Fax: 086 570 5659
email: liaison@mweb.co.za

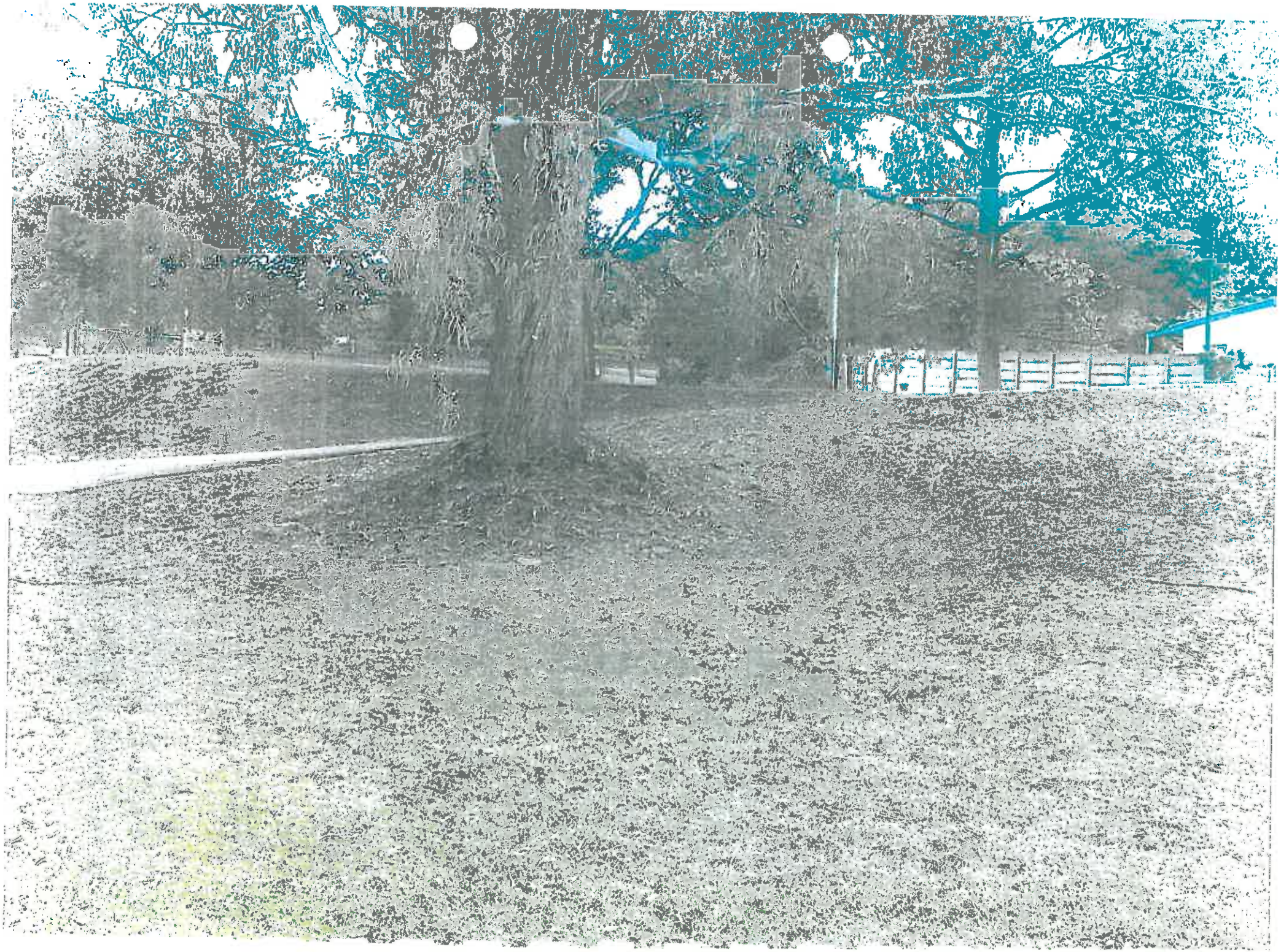
In order to ensure that you are identified as an interested and/or affected party please submit your name, contact information and interest in the matter, in writing, to the contact person given above within 30 days of publication of this advertisement.

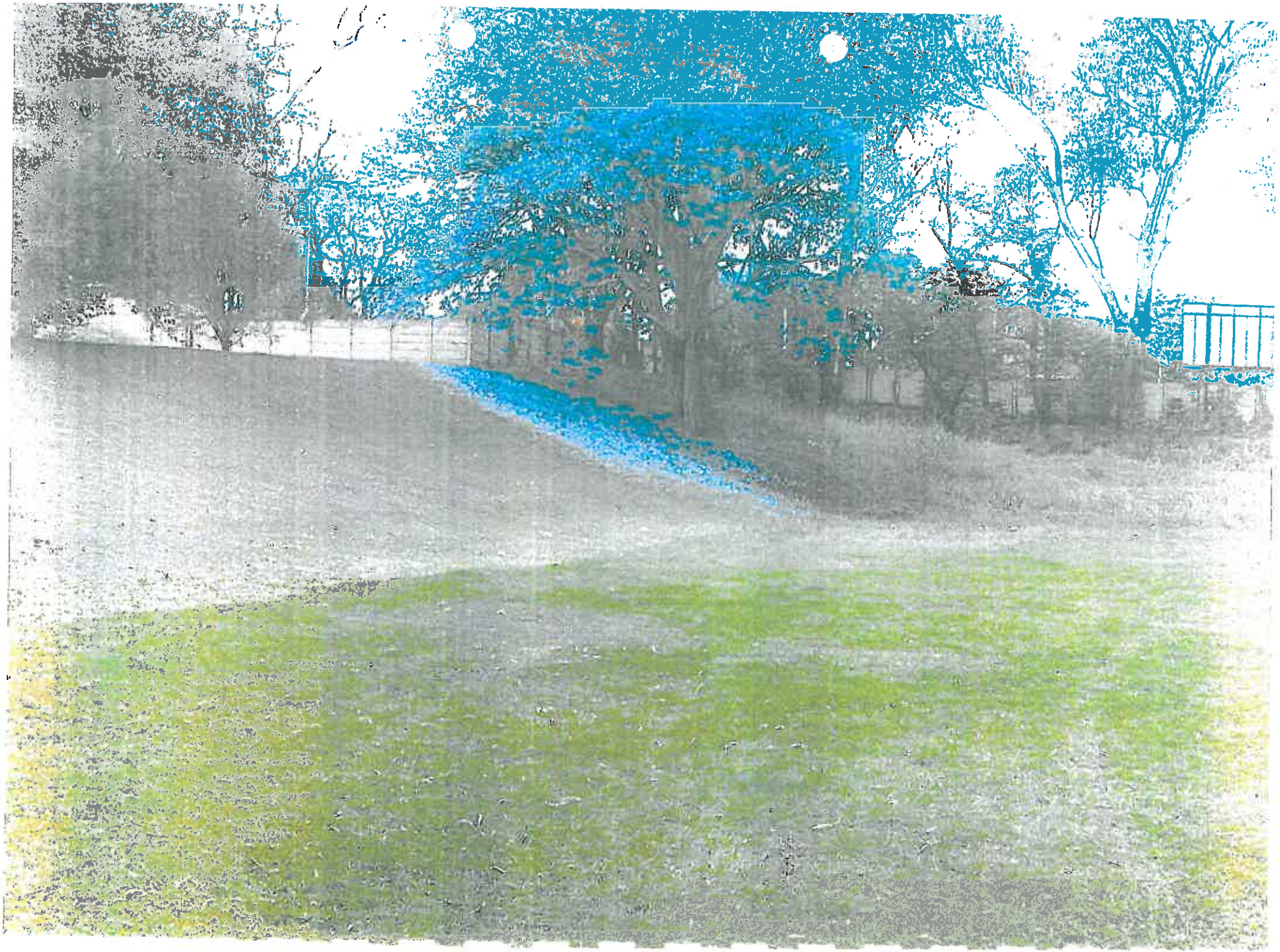

NOTICE OF ENVIRONMENTAL BASIC ASSESSMENT PROCESS

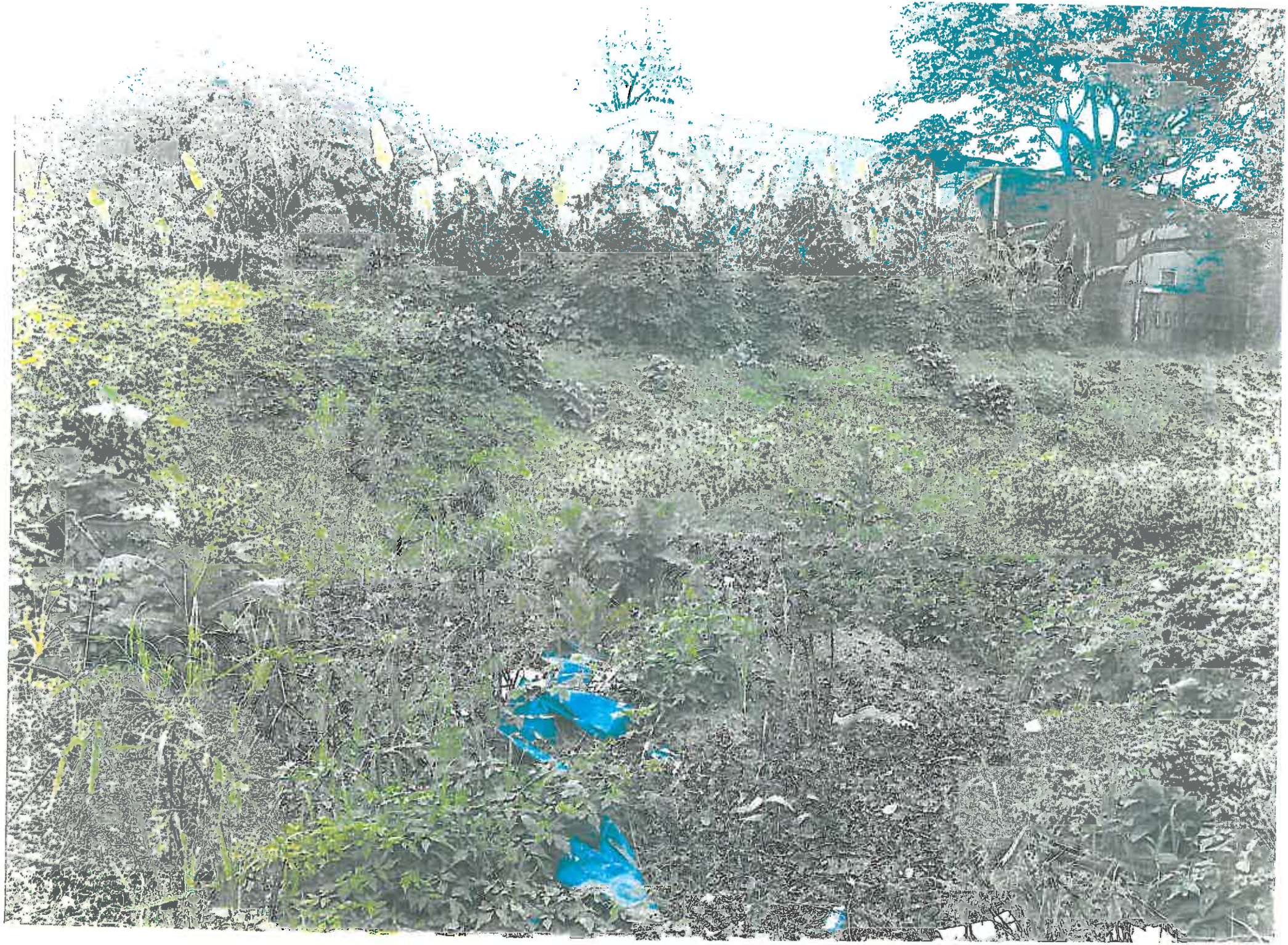

Husqvarna

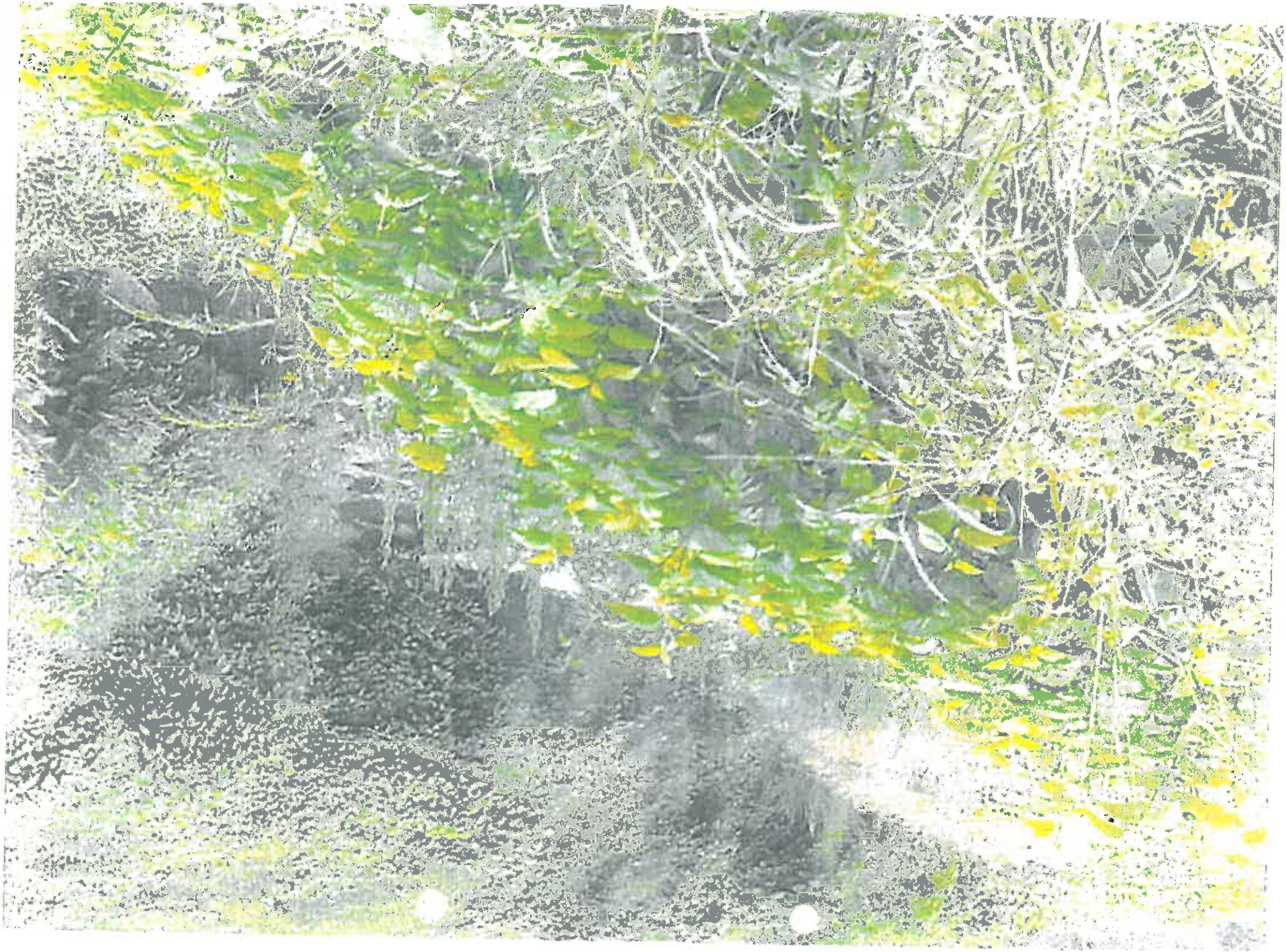












Appendix C:

Facility Illustration

Computer generated Perspective

perspective

O&T DEVELOPMENT

Woodburn Boulevard

proposed new Shopping Centre

WOODBURN SHOPPING CENTRE - PIETERMARITZBURG

DATE: 2010/05/07 | REV E

AREA SCHEDULE

SITE AREA: 17027 m²

BASEMENT	GLA	GLA	COVER AREA	P. REQ.	P. PROV.
STAIR 1	59				
STAIR 2	20				
STAIR 3	59				
STAIR 4	20				
STORE 1	50	56		1	
STORE 2	71	71		1	
STORE 3	18	18		1	
ANCHOR STORE	649	649		7	
PARKING SPACES					359
	952	794	0	10	359

GROUND FLOOR:					
SHOP 1	239	239		15	
SHOP 2	155	155		10	
SHOP 3	259	259		16	
SHOP 4	138	138		9	
SHOP 5	442	442		24	
RESTAURANT 6	495	495		25	
RESTAURANT 7	449	449		27	
RESTAURANT 8	173	173		8	
SHOP 9	223	223		12	
SHOP 10	32	32		2	
ANCHOR 11	2000	2000		122	
SHOP 12	30	30		2	
SHOP 13	27	27		2	
SHOP 14	38	38		3	
SHOP15	172	172		11	
SHOP 16	196	196		12	
SHOP 17	122	122		8	
SHOP 18	116	116		7	
SHOP 19	132	132		8	
STAIR 1	36				
STAIR 2	19				
STAIR 3	36				
STAIR 4 & PASSAGE	58				
CENTRE MANAGER	44			1	
CLEANERS	20				
MALE TOILETS	33				
FEMALE TOILETS	31				
DUCT	17				
PARAPLEGIC TOILET	4				
PASSAGE	73				
WALKWAYS	1533				
PARKING SPACES					117
	7342	5438	0	324	117

TOTALS	8294	6232	0	334	476

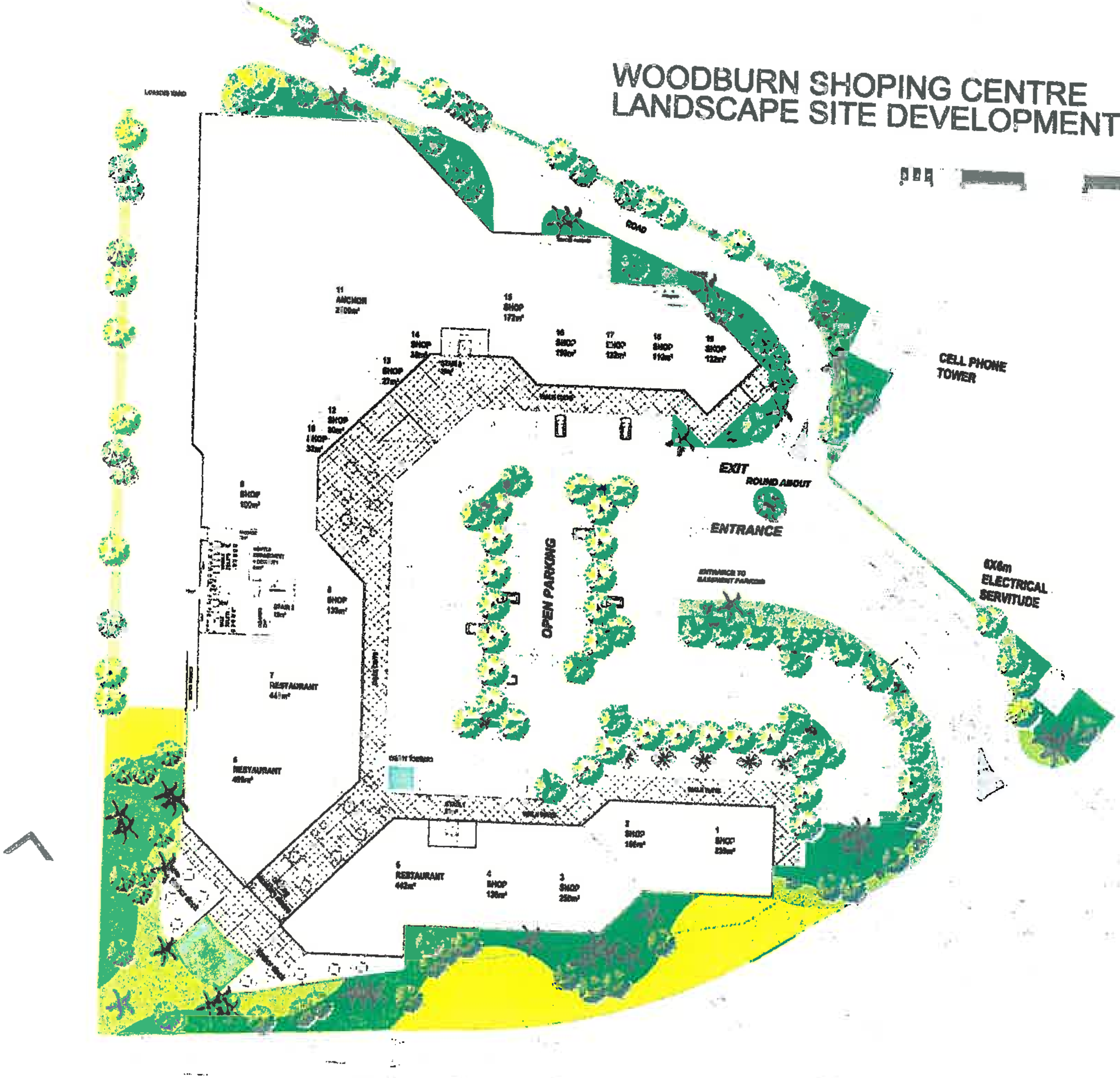
Woodburn Boulevard

proposed new Shopping Centre

Ground Floor Plan

ground

WOODBURN SHOPING CENTRE LANDSCAPE SITE DEVELOPMENT PLAN



LEGEND:

TREES

Acacia xanthophloea		
Vepris undulata		53
Phoenix reclinata		33
Aloe sp		

SHRUBS & GROUNDCOVERS		AR
	Mix: Cymbopogon ... Carex "Green Frost" 4L @ 12m²	118
	Mix: Chondropetalum sp & Trachelospermum sp & ... 4L @ 9/m²	112
	Mix: Barleria obtusa (30%) 4L @ 9/m² ... (70%) 4L @ ...	770

LAWN

	Cynodon dactylon	737m

Habitat
LANDSCAPE ARCHITECTS

Client/Kliënt:
O & T dDevelopment

Project/Projek:
Propsed New Woodburn Shopping Centre

Drawing/Tekening:
Landscape Site DevelopmentPlan

Date/Datum: 5 August 2016
Scale/Skaal: 1:250 @ A0
Project nr/Projek nr: H L 0005 Site Plan
Drawn/Geteken: S DU TOIT

Woodburn Boulevard

proposed new Shopping Centre

basement

Basement Plan

Woodburn Boulevard

proposed new **Shopping Centre**

PIETERMARITZBURG

D&T DEVELOPMENT

Woodburn Boulevard

proposed new Shopping Centre

Ground Floor Plan

ground

Annexure H

3.19.30 Special Area 30 *(nb DFA Tribunal decision)*

3.19.30.1 In addition to the general provisions of the Scheme, the following shall apply exclusively to the Special Area 30 zone.

3.19.30.2 Use of Land and Buildings

3.19.30.2.1 Reference to Map -cross-hatched black, being Parts of Erven194, 298, and 4346, Pietermaritzburg, and part of Rem of Townlands being the Collegians Club/Woodburn Rugby Stadium, off Boshoff Street : Scottsville.

3.19.30.2.2 Expressly Permissible Development or uses of Land or Uses of Buildings -

1.6.4 Business Premises, subject to Proviso 3.19.30.3.1

1.6.28 Residential Building including Flats but excluding an Hotel, subject to Proviso 3.19.30.3.4.

1.6.29 Restaurant, subject to Proviso 3.19.30.3.1

1.6.33 Shop, subject to Proviso 3.19.30.3.1

1.6.36 Specialised Office, subject to Proviso 3.19.30.3.2

3.19.30.2.3 Development or Uses of Land or Uses of Buildings Permitted by Special Consent -

1.6.15 Motor Saleroom, subject to Proviso 3.19.30.3.3

1.6.16 Motor Workshop (ancillary to a Motor Saleroom and excluding panel beating, spray painting and engine and chassis overhauls)

1.6.24 Place of Public Entertainment, subject to Proviso 3.19.30.3.1.

1.6.28 Residential Building including Flats and an Hotel, subject to Proviso 3.19.30.3.4.

3.19.30.2.4 Expressly Prohibited Development or Uses of Land or Uses of Buildings -

All Development or uses of Land or uses of Buildings not under Clause 3.19.30.2.2 hereof.