VISUAL IMPACT ASSESSMENT REPORT FOR THE PROPOSED GOVHANI STUDENT ACCOMMODATION, SOSHANGUVE, GAUTENG PROVINCE

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EXECUTIVE SUMMARY

Selahle Consultancy and Projects (SCP) was appointed by Govhani Student Accommodation, as the independent environmental consultant to undertake the Environmental Authorization (EA) for the proposed student housing project, within the City of Tshwane, Soshanguve, Gauteng Province.

Outline Landscape Architects was requested to compile a Visual Impact Assessment (VIA) for the project. This VIA is a specialist study that addresses the visual effects of the proposed development of the energy plant and associated infrastructure.

OVERVIEW OF DEVELOPMENT

Govhani Student Accommodation intends to construct 27 four (4) story accommodation block buildings with a base bed capacity of 2505 beds on Portion 2 to 102 of Erf 1305 in Soshanguve M. The site is undeveloped and consists of natural vegetation, it is therefore considered as a greenfield site.

Essential services including water and electricity will be supplied by the City of Tshwane Metropolitan Municipality, while sewage will connect to the existing municipal system.

The project scope will also include external works such as parking, landscaping and storm water drainage system, the rooms are 37m2 of bedroom and bathroom. The following facilities will complement the student housing:

- Canteen
- Recreational area
- Laundry area
- Refuse area
- Parking
- Security facilities

The primary activities expected during the construction phase include:

- Clearance of vegetation for erven and road development
- Earthworks and installation of civils
- Delivery of construction materials
- Storage and / or stockpiling of construction materials
- Mixing and preparation of construction materials
- Extension of services to the site

FINDINGS AND RECOMMENDATIONS

VIEWER SENSITIVITY

Within the receiving environment, specific viewers (visual receptors) experience different views of the visual resource and value it differently. They will be affected because of alterations to their views due to the proposed project. The visual receptors included in this study are:

- Residents
- Tourists
- Motorists

SIGNIFICANCE OF VISUAL IMPACTS

VISUAL IMPACT ON RESIDENTS

The study area is mostly residential. Numerous residents may experience intrusion on their views due to the presence of the proposed student housing facility. They are recognised as the general population of the study area and are identified as affected visual receptors.

It can be concluded that the study area has a high density of residents that will be affected viewers.

VISUAL IMPACT ON TOURISTS

The entire regional area is considered to have low tourism potential due to the residential, urban nature of the environment. No tourists are expected to be affected by the proposed development.

VISUAL IMPACT ON MOTORISTS

The major routes within the study area are the Mabopane Highway (R80), Ruth First Road, the M43 and Flower Street. The secondary road network carries a much lower volume of motorists. The duration of the motorist's view will be temporary, and it is expected that the visual intrusion that they will experience will be low.

RECOMMENDED MITIGATION MEASURES

In most cases, the landscape and visual impacts occurring during the construction phase can be mitigated effectively. Rehabilitation of the disturbed areas may cause a reduction in the negative visual impact of the study area.

CONCLUSION

The proposed Govhani Student Accommodation housing development has been evaluated against internationally accepted criteria to determine the impact they will have on the landscape character and the viewers that have been identified in the study area.

Table 10: Evaluation of Proposed Activities

Activities	Impact Rating Criteria							Significance
	Extent	Probability	Reversibility	Duration	Loss of Resources	Cumulative Effect	Intensity	
Student Housing **(without mitigation)**	2 Local	3 Probable	2 Partly Reversible	4 Permanent	2 Marginal	3 Medium	3 Medium	48 Negative Medium
Student Housing **(with mitigation)**	2 Local	3 Probable	2 Partly Reversible	4 Permanent	2 Marginal	3 Medium	2 Medium	32 Negative Medium

Visual Impact Rating Tables for the Development of the Soshanguve Student Accommodation

GEOGRAPHICAL EXTENT		
This is defined as the area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales and as such bracketing ranges are often required. This is often useful during the detailed assessment of a project in terms of further defining the determined.		
1	Site	The impact will only affect the site
2	Local/district	Will affect the local area or district
3	Province/region	Will affect the entire province or region
4	International and National	Will affect the entire country

PROBABILITY		
This describes the chance of occurrence of an impact		
1	Unlikely	The chance of the impact occurring is extremely low (Less than a 25% chance of occurrence).
2	Possible	The impact may occur (Between a 25% to 50% chance of occurrence).
3	Probable	The impact will likely occur (Between a 50% to 75% chance of occurrence).
4	Definite	Impact will certainly occur (Greater than a 75% chance of occurrence).

REVERSIBILITY		
This describes the degree to which an impact on an environmental parameter can be successfully reversed upon completion of the proposed activity.		
1	Completely reversible	The impact is reversible with implementation of minor mitigation measures
2	Partly reversible	The impact is partly reversible, but more intense mitigation measures are required.
3	Barely reversible	The impact is unlikely to be reversed even with intense mitigation measures.
4	Irreversible	The impact is irreversible, and no mitigation measures exist.

IRREPLACEABLE LOSS OF RESOURCES		
This describes the degree to which resources will be irreplaceably lost as a result of a proposed activity.		
1	No loss of resource.	The impact will not result in the loss of any resources.
2	Marginal loss of resource	The impact will result in marginal loss of resources.
3	Significant loss of resources	The impact will result in significant loss of resources.
4	Complete loss of resources	The impact results in a complete loss of all resources.

DURATION		
This describes the duration of the impacts on the environmental parameter. Duration indicates the lifetime of the impact as a result of the proposed activity		
1	Short term	The impact and its effects will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase (0 – 1 years), or the impact and its effects will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0 – 2 years).
2	Medium term	The impact and its effects will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (2 – 10 years).
3	Long term	The impact and its effects will continue or last for the entire operational life of the development but will be mitigated by direct human action or by natural processes thereafter (10 – 50 years).
4	Permanent	The only class of impact that will be non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered transient (Indefinite).

CUMULATIVE EFFECT		
This describes the cumulative effect of the impacts on the environmental parameter. A cumulative effect/impact is an effect which in itself may not be significant but may become significant if added to other existing or potential impacts emanating from other similar or diverse activities as a result of the project activity in question.		
1	Negligible Cumulative Impact	The impact would result in negligible to no cumulative effects
2	Low Cumulative Impact	The impact would result in insignificant cumulative effects
3	Medium Cumulative impact	The impact would result in minor cumulative effects
4	High Cumulative Impact	The impact would result in significant cumulative effects

INTENSITY/ MAGNITUDE		
Describes the severity of an impact		
1	Low	Impact affects the quality, use and integrity of the system/component in a way that is barely perceptible.
2	Medium	Impact alters the quality, use and integrity of the system/component but system/ component still continues to function in a moderately modified way and maintains general integrity (some impact on integrity).
3	High	Impact affects the continued viability of the system/ component, and the quality, use, integrity and functionality of the system or component is severely impaired and may temporarily cease. High costs of rehabilitation and remediation.
4	Very high	Impact affects the continued viability of the system/component, and the quality, use, integrity and functionality of the system or component permanently ceases and is irreversibly impaired (system collapse). Rehabilitation and remediation often impossible. If possible, rehabilitation and remediation often unfeasible due to extremely high costs of rehabilitation and remediation.

SIGNIFICANCE

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale and therefore indicates the level of mitigation required. This describes the significance of the impact on the environmental parameter. The calculation of the significance of an impact uses the following formula:

(Extent + probability + reversibility + irreplaceability + duration + cumulative effect) x magnitude/intensity.

The summation of the different criteria will produce a non-weighted value. By multiplying this value with the magnitude/intensity, the resultant value acquires a weighted characteristic which can be measured and assigned a significance rating.

Points	Impact Significance Rating	Description
6 to 28	Negative Low impact	The anticipated impact will have negligible negative effects and will require little to no mitigation.
6 to 28	Positive Low impact	The anticipated impact will have minor positive effects.
29 to 50	Negative Medium impact	The anticipated impact will have moderate negative effects and will require moderate mitigation measures.
29 to 50	Positive Medium impact	The anticipated impact will have moderate positive effects.
51 to 73	Negative High impact	The anticipated impact will have significant effects and will require significant mitigation measures to achieve an acceptable level of impact.
51 to 73	Positive High impact	The anticipated impact will have significant positive effects.
74 to 96	Negative very high impact	The anticipated impact will have highly significant effects and are unlikely to be able to be mitigated
74 to 96	Positive Very high impact	The anticipated impact will have highly significant positive effects.

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LIST OF ABBREVIATIONS

EIA	Environmental Impact Assessment.
LCA	Landscape Character Assessment.
LT	Landscape Type
VAC	Visual Absorption Capacity
VIA	Visual Impact Assessment.
ULI	Urban Land Institute
ZVI	Zone of Visual Influence.

STRUCTURE OF THE REPORT

In terms of the NEMA 2014 EIA Regulations contained in GN R982 of 04 December 2014 (as amended) all specialist studies must comply with Appendix 6 of the NEMA 2014 EIA Regulations GN R982 of 04 December 2014.

Information to be included in specialist reports.

Legal Requirement		**Relevant Section in Specialist study**
(1)	A specialist report prepared in terms of these Regulations must contain-	
	details of-	
	(i) the specialist who prepared the report; and	Professional Experience and Section 1
	(ii) the expertise of that specialist to compile a specialist report including a curriculum vitae	Professional Experience and Section 1
	a declaration that the specialist is independent in a form as may be specified by the competent authority;	Declaration of Independence
	an indication of the scope of, and the purpose for which, the report was prepared;	Section 1 and 3
(cA)	an indication of the quality and age of base data used for the specialist report;	Section 2
(cB)	a description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change;	Section 5
	the duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment;	Section 2
	a description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	Section 2
	details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternatives;	Section 5
	an identification of any areas to be avoided, including buffers;	N/A
	a map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;	N/A
	a description of any assumptions made and any uncertainties or gaps in knowledge;	Section 2
	a description of the findings and potential implications of such findings on the impact of the proposed activity or activities;	Section 5
	any mitigation measures for inclusion in the EMPr;	Section 6
	any conditions for inclusion in the environmental authorisation;	N/A
	any monitoring requirements for inclusion in the EMPr or environmental authorisation;	N/A

Legal Requirement		Relevant Section in Specialist study
	a reasoned opinion	Section 5
	whether the proposed activity, activities or portions thereof should be authorised;	Section 5
	regarding the acceptability of the proposed activity or activities; and	Section 5 and 7
	if the opinion is that the proposed activity, activities or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan;	Section 5 and 7
	a description of any consultation process that was undertaken during the course of preparing the specialist report;	Not Applicable
	a summary and copies of any comments received during any consultation process and where applicable all responses thereto; and	Not Applicable
	any other information requested by the competent authority.	Not Applicable
(2)	Where a government notice *gazetted* by the Minister provides for any protocol or minimum information requirement to be applied to a specialist report, the requirements as indicated in such notice will apply.	

1. INTRODUCTION

Selahle Consultancy and Projects (SCP) was appointed by Govhani Student Accommodation, as the independent environmental consultant to undertake the Environmental Authorization (EA) for the proposed student housing project, within the City of Tshwane, Soshanguve, Gauteng Province.

Outline Landscape Architects was requested to compile a Visual Impact Assessment (VIA) for the project. This VIA is a specialist study that addresses the visual effects of the proposed development of the energy plant and associated infrastructure.

Outline Landscape Architects is an independent sub-consultant and neither the author, nor Outline Landscape Architects will benefit from the outcome of the project decision-making.

Kathrin Hammel, the principal Landscape Architect and Visual Specialist from Outline Landscape Architects undertook this Visual Impact Assessment. She is a registered Professional Landscape Architect at the South African Council of Landscape Architects, SACLAP no. 20162. Kathrin has been involved as a Visual Impact Specialist since 2009

1.1. BACKGROUND AND BRIEF

This VIA will conform to the requirements of a Level Three assessment which requires the realisation of the following objectives (Adapted from Oberholzer (2005)):

- Determination of the extent of the study area.
- Description of the proposed project and the receiving environment.
- Identification and description of the landscape character of the study area.
- Identification of the elements of particular visual value and -quality that could be affected by the proposed project.
- Identification of landscape- and visual receptors in the study area that will be affected by the proposed project and assess their sensitivity.
- Indication of potential landscape- and visual impacts.
- Assessment of the significance of the landscape- and visual impacts.
- Recommendations of mitigation measures to reduce and/or alleviate the potential adverse landscape- and visual impacts.

1.2. STUDY AREA

The Govhani Student Accommodation housing development will be located on Portion 2 to 102 of Erf 1305 in Soshanguve M. The site is undeveloped and consists of natural vegetation, it is therefore a greenfield site.

Figure 1: Locality Plan

Figure 2: Proposed Site Layout Plan

2. STUDY APPROACH

2.1. INFORMATION BASE

This assessment was based on information from the following sources:

- Topographical maps and GIS generated data were sourced from the Surveyor General, and EcoGIS (2025) respectively.
- Observations made and photographs taken during the site visit.
- Professional judgement based on experience gained from similar projects; and
- Literature research on similar projects.

2.2. ASSUMPTIONS AND LIMITATIONS

This assessment was undertaken during the conceptual stage of the project and is based on information available at the time.

- This level of assessment excludes surveys to establish viewer preference and thereby their sensitivity. Viewer sensitivity is determined by means of a commonly used rating system (Table 12).
- The site visit was conducted on the 6th of October 2025 and the photographs used in this report illustrate the character of the landscape in the summer season.

2.3. LEVEL OF CONFIDENCE

The level of confidence assigned to the findings of this assessment is based on:

- The level of information available and/or understanding of the study area (rated 2); and
- The information available and/or knowledge and experience of the project (rated 3).

This visual impact assessment is rated with a general confidence level of 6. This rating indicates that the author's general confidence in the accuracy of the findings is *high* (Table 11). Where the confidence level of specific findings is not regarded as high, it is noted in the last column of each impact assessment table.

2.4. METHOD

A broad overview of the approach and methodology used in this assessment is provided below:

- The extent of the study area is determined and indicated in Figure 1.
- The site is visited to establish a photographic record of the site, views and areas of particular visual quality and or -value.
- The project components and activities are described and assessed as potential elements of visual and landscape impacts.
- The receiving environment is described in terms of its prevailing landscape- and visual character.
- Landscape- and visual receptors that may be affected by the proposed project are identified and described.
- Mitigation measures are proposed to reduce adverse impacts.
- The findings of the study are documented in this Visual Impact Assessment.

3. PROJECT DESCRIPTION

3.1. OVERVIEW OF DEVELOPMENT

Govhani Student Accommodation intends to construct 27 four (4) story accommodation block buildings with a base bed capacity of 2505 beds on Portion 2 to 102 of Erf 1305 in Soshanguve M. The site is undeveloped and consists of natural vegetation, it is therefore considered as a greenfield site.

Essential services including water and electricity will be supplied by the City of Tshwane Metropolitan Municipality, while sewage will connect to the existing municipal system.

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3.2. PROJECT COMPONENTS AND ACTIVITIES

Each project activity will affect the receiving environment differently and is therefore discussed separately. The following project components will occur during the construction and operational phases of the project and are identified as elements that may cause a potential landscape and/or visual impact:

3.2.1. CONSTRUCTION CAMPS AND LAY-DOWN YARDS

Temporary construction camps will be present for the duration of the construction period. The appointed contractor will set up construction camp. The material lay-down yards are expected to be located adjacent to the construction camp and will serve as storage areas for the construction material and equipment.

3.2.2. ACCESS ROADS

Access roads have been designed (Figure 2), and these can be constructed at the start of the construction of the facility and to be used during construction.

4. DESCRIPTION OF THE AFFECTED ENVIRONMENT

Landscape and visual impacts may result from changes to the landscape. A distinction should be made between impacts on the visual resource (landscape) and on the viewers. The former are impacts on the physical landscape that may result in changes to landscape character while the latter are impacts on the viewers themselves and the views they experience.

4.1. VISUAL RESOURCE

Visual resource is an encompassing term relating to the visible landscape and its recognisable elements, which through their co-existence, result in a particular landscape character.

4.1.1. LANDSCAPE CHARACTER

Soshanguve is a township situated about 30 km north of Pretoria, Gauteng, east of Mabopane. It is notable for its significant educational institutions, including two campuses of the Tshwane University of Technology, and a multi-purpose stadium that was used as a training site for the 2010 FIFA World Cup. The area is characterized by a vibrant community and a mix of housing types, from formal houses to informal settlements.

The natural landscape has been destroyed by urbanization, small scale farming and invasive species (Figure 4). Mixed residential developments are one of the key land-uses of the study area.

Vegetation types that have been identified (Figure 3) on the proposed site is Central Sandy Bushveld and is within the Bushveld vegetation zone. Some indigenous tree species were found on site and should be protected.

The landscape character does not change significantly as the site is situated within a residential area, on a sloped site (Figure 5). Landscape types are distinguished by differences in topographical features, vegetation communities and patterns, land use and human settlement patterns (Swanwick, 2002).

4.1.2. VISUAL CHARACTER

Visual character is based on human perception and the observer's response to the relationships between and composition of the landscape, the land uses and identifiable elements in the landscape. The description of the visual character includes an assessment of the scenic attractiveness regarding those landscape attributes that have aesthetic value and contribute significantly to the visual quality of the views, vistas and/or viewpoints of the study area.

The overall landscape is degraded, with polluted landscapes around residential developments and towns. Commercial and industrial areas have a negative effect on the visual character of the landscape.

4.1.2.1 Visual Value

Visual value relates to those attributes of the landscape or elements in the landscape to which people attach values that though not visually perceivable, still contribute to the value of the visual resource. These visual values are derived from ecological, historical, social and/or cultural importance and are described in terms of their uniqueness, scarcity, and naturalness and/or conservation status. The importance of visual value of a landscape or element in the landscape is measured against its value on an international, national and local level.

The study area has been disturbed and there is no unspoilt and pristine landscape remaining.

4.1.2.2 Visual Quality

Visual quality is a qualitative evaluation of the composition of landscape components and their excellence in scenic attractiveness. Many factors contribute to the visual quality of the landscape and are grouped under the following main categories (Table 1) that are internationally accepted indicators of visual quality (FHWA, 1981):

Table 1: Criteria of Visual Quality (FHWA, 1981)

INDICATOR	CRITERIA
Vividness	The memorability of the visual impression received from contrasting landscape elements as they combine to form a striking and distinctive visual pattern.
Intactness	The integrity of visual order in the natural and man-built landscape, and the extent to which the landscape is free from visual encroachment.
Unity	The degree to which the visual resources of the landscape join together to form a coherent, harmonious visual pattern. Unity refers to the compositional harmony of inter-compatibility between landscape elements.

The landscape is allocated a rating from an evaluation scale of 1 to 7 and divided by 3 to get an average. The evaluation scale is as follows: Very Low =1; Low =2; Moderately Low =3; Moderate =4; Moderately High =5; High =6; Very High =7

The regional landscape is assessed against each indicator separately. All three indicators should be *high* to obtain a *high* visual quality. The evaluation is summarised in Table 2.

Table 2: Visual Quality of the regional landscape

VIVIDNESS	INTACTNESS	UNITY	VISUAL QUALITY
2	1	1	Low

The visual quality of the landscape is low and can be attributed to mixed residential and commercial developments.

4.1.2.3 Visual absorption capacity

Visual Absorption Capacity (VAC) signifies the ability of the landscape to accept additional human intervention without serious loss of character and visual quality or value. VAC is founded on the characteristics of the physical environment such as:

- Degree of visual screening:
  A degree of visual screening is provided by landforms, vegetation cover and/or structures such as buildings. For example, a high degree of visual screening is present in an area that is mountainous and is covered with a forest compared to an undulating and mundane landscape covered in grass.
- Terrain variability:

Terrain variability reflects the magnitude of topographic elevation and diversity in slope variation. A highly variable terrain will be recognised as one with great elevation differences and a diversity of slope variation creating talus slopes, cliffs and valleys. An undulating landscape with a monotonous and repetitive landform will be an example of a low terrain variability.

- Land cover:

  Land cover refers to the perceivable surface of the landscape and the diversity of patterns, colours and textures that are presented by the particular land cover (i.e. urbanised, cultivated, forested, etc.).

A basic rating system is used to evaluate the three VAC parameters. The values are relative and relate to the type of project that is proposed and how it may be absorbed in the landscape (Table). A three-value range is used; three (3) being the highest potential to absorb an element in the landscape and one (1) being the lowest potential. The values are counted together and categorised in a *high*, *medium* or *low* VAC rating.

Table 3: Regional Visual Absorption Capacity evaluation

ACTIVITY	VISUAL SCREENING	TERRAIN VARIABILITY	LAND COVER	VAC
Student Housing Development	2	1	2	moderate

The VAC of the study area is considered moderate and provides moderate overall screening capacity for this project. The moderate VAC relates to the structures and buildings of the existing residential developments that can absorb the new proposed housing development.

Figure 3: Vegetation Map

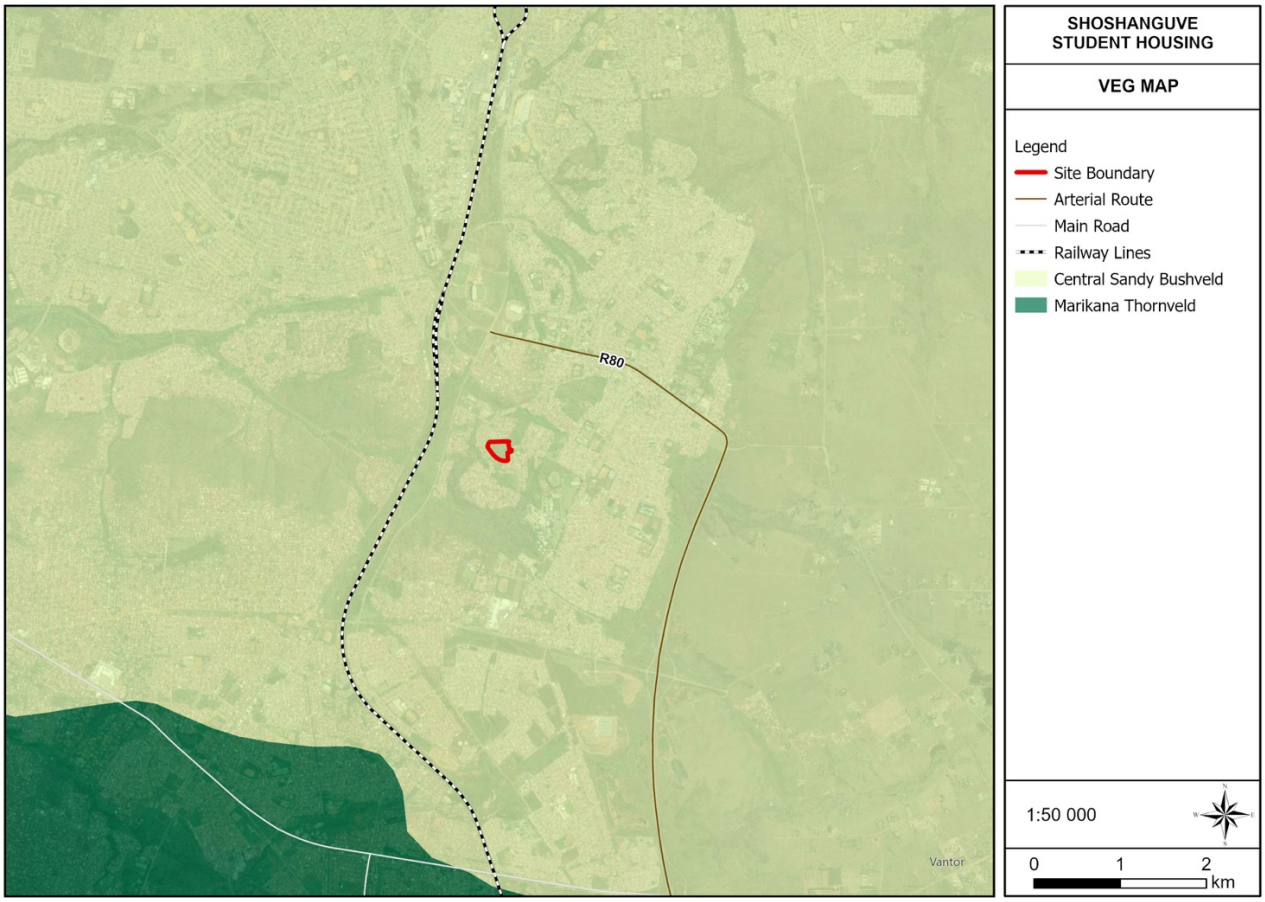


Figure 4: Land Cover Map

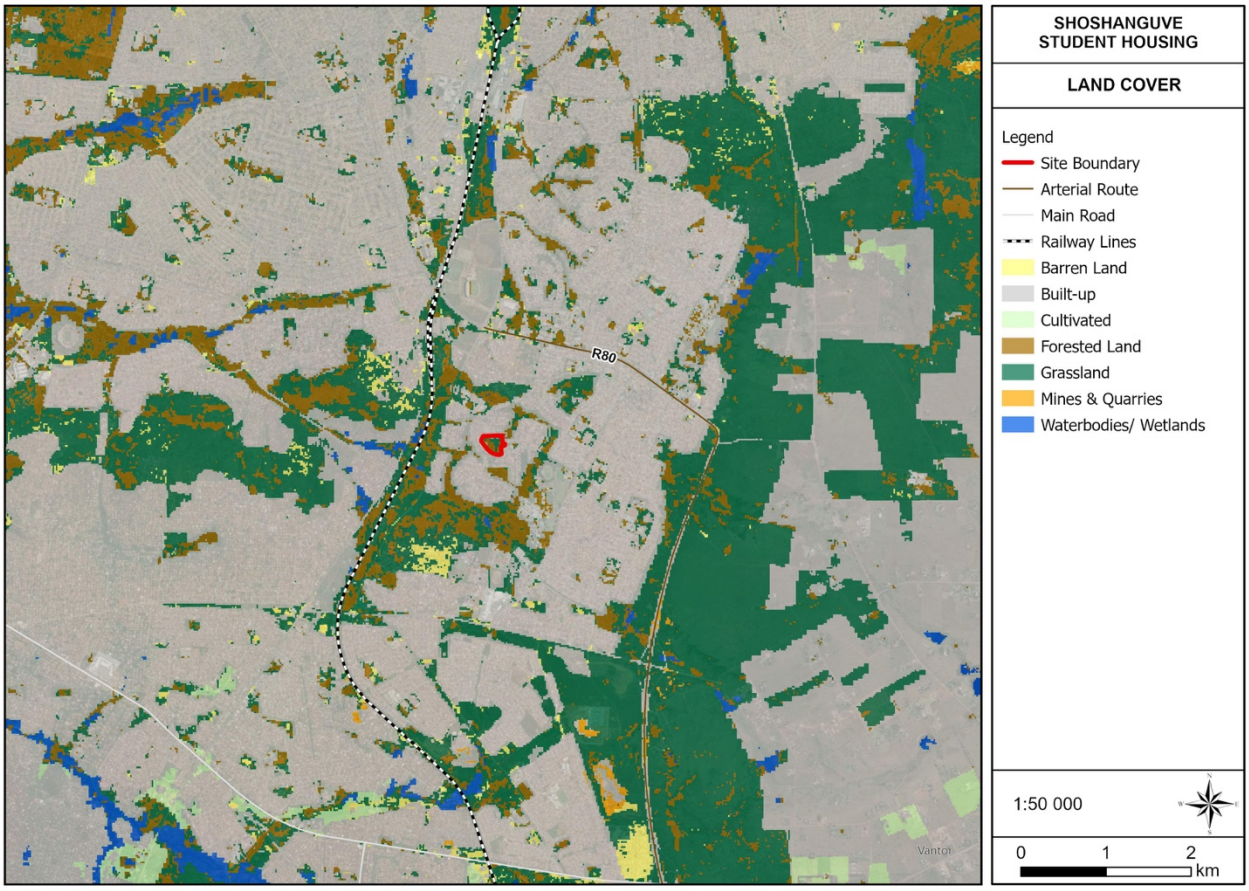


Figure 5: Elevation Map

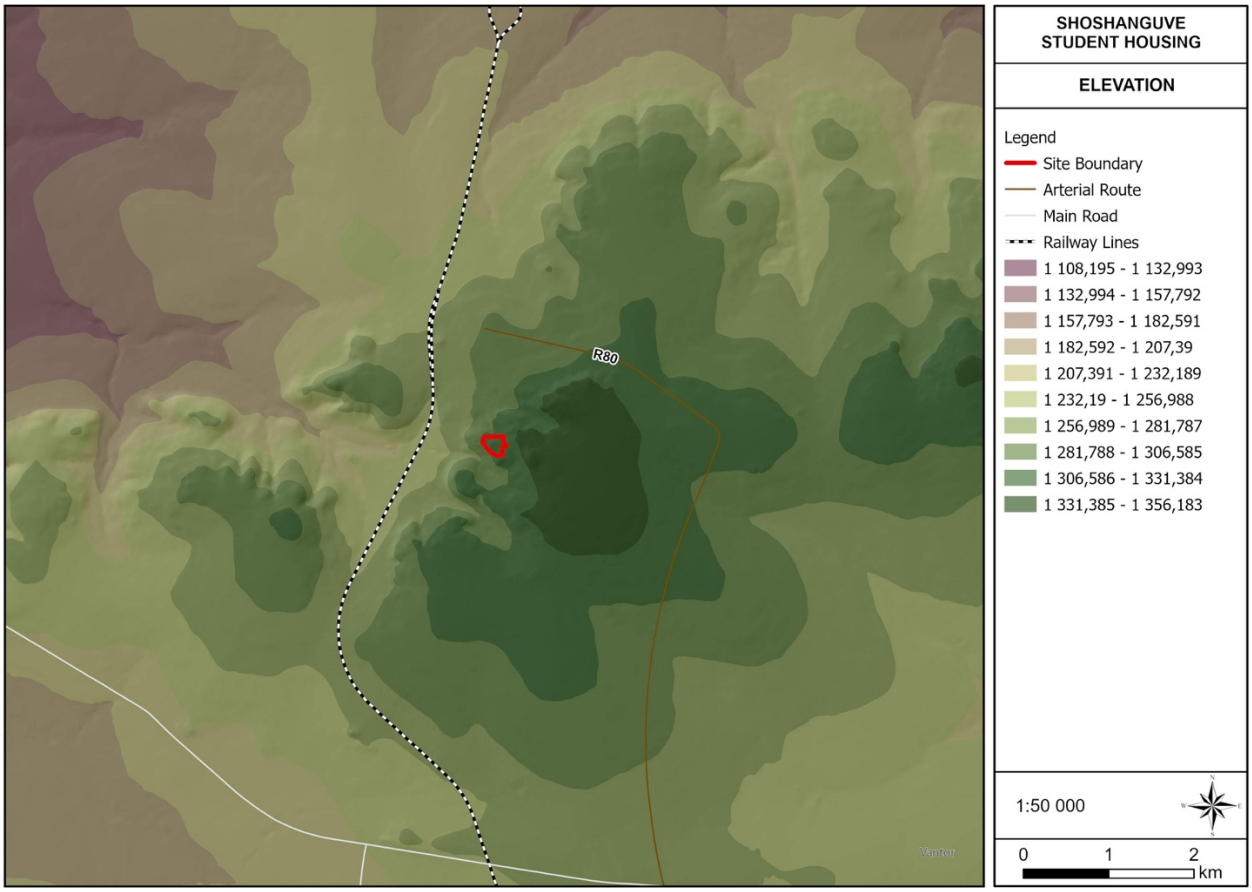


Figure 6: Landscape Character of Study Area

Figure 7: Landscape Character near the site

Figure 8: View towards the entrance of the site on the east

Figure 9: View to the north of the site

Figure 10: View to the west of the site

5. IMPACT ASSESSMENT

The significance of impacts is a comparative function relating to the severity of the identified impacts on the respective receptors. The significance of an impact is considered *high* should a *highly* sensitive receptor be exposed to a *highly* severe impact as indicated on Table below.

Table 4: Significance of impacts

RECEPTOR SENSITIVITY	IMPACT SEVERITY		
	LOW	MEDIUM	HIGH
LOW	No significance	Low	Low
MEDIUM	Low	Medium	Medium
HIGH	Low	Medium	High

5.1. SIGNIFICANCE OF LANDSCAPE IMPACT

5.1.1. LANDSCAPE CHARACTER SENSITIVITY

The sensitivity of the landscape character is an indication of the degree to which a particular landscape can accommodate change from a particular development, without detrimental effects on its character (GLVIA, 2002). A landscape with a *high* sensitivity would be one that is greatly valued for its aesthetic attractiveness and/or have ecological, cultural or social importance through which it contributes to the inherent character of the visual resource.

The majority of the study area is considered to have low landscape character sensitivity due to the developed landscape, environmental degradation and the minimal pristine condition of the landscape, the low visual quality and low tourism value. There are some trees on site to provide moderate visual screening, which should be protected during construction activities. The vegetation in the area is sparse and most plants are shrubs and ground covers with few trees to provide height.

Previous human induced activities and interventions have impacted significantly on the original landscape character. In this case, industrial and existing infrastructure, including power lines, roads, and mining, industrial and residential developments can be classified as landscape disturbances and elements that cause a reduction in the condition of the affected landscape type and negatively affect the quality of the visual resource.

The assessment of the landscape is substantiated through professional judgement and informed reasoning which is based on the landscape character assessment in Section 4 above. A landscape sensitivity rating was adapted from GOSW (2006) (Table) and applied in the classification of the study area into different sensitivity zones.

Table 5: Landscape character sensitivity rating (Adapted from GOSW, 2006)

	DESCRIPTION
Low sensitivity	These landscapes are likely to: ◦ Have distinct and well-defined landforms; ◦ Have a strong sense of enclosure; ◦ Provide a high degree of screening; ◦ Have been affected by extensive development or man-made features; ◦ Have reduced tranquillity; ◦ Are likely to have little inter-visibility with adjacent landscapes; and ◦ Exhibit no or a low density of sensitive landscape features that bare visual value.
Moderate sensitivity	These landscapes are likely to: ◦ Have a moderately elevated topography with reasonably distinct landforms that provides some sense of enclosure; ◦ Have been affected by several man-made features; ◦ Have limited inter-visibility with adjacent landscapes; and ◦ Exhibit a moderate density of sensitive landscape features that bare visual value.
High sensitivity	These landscapes are likely to: ◦ Consist mainly of undulating plains and poorly defined landforms; ◦ Be open or exposed with a remote character and an absence of man-made features; ◦ Are often highly visible from adjacent landscapes; and ◦ Exhibit a high density of sensitive landscape features that bare visual value.

5.1.2. SEVERITY OF POTENTIAL LANDSCAPE IMPACTS

Landscape impacts are alterations to the fabric, character, visual quality and/or visual value which will either positively or negatively affect the landscape character. During the construction and operational phases, the project components are expected to impact on the landscape character of the landscape types it traverses. The magnitude/severity of this intrusion is measured against the scale of the project, the permanence of the intrusion and the loss in visual quality, -value and/or VAC.

Table 6: Landscape impact – Altering the landscape character.

LANDSCAPE IMPACT								
Activity	**Nature of Impact**	**Extent of Impact**	**Duration of Impact**	**Severity of Impact**	**Probability of Impact**	**Significance without Mitigation**	**Significance with Mitigation**	**Level of Confidence**
Construction phase								
Student Housing	Negative Impacting on the visual quality of the landscape due to the presence of foreign elements and a loss of vegetation cover	Localised impacts over an extensive area	Permanent if not mitigated	Moderate	Probable	Moderate	Low	High
Associated Infrastructure				Moderate	Probable	Moderate	Low	High
Operational phase								
Student Housing	Negative Impacting on the visual quality of the landscape.	Localised impact	Permanent if not mitigated	Moderate	Probable	Moderate	Low	High
Associated Infrastructure				Moderate	Probable	Moderate	Low	High

Construction phase

The activities that are expected to cause landscape impacts and that are associated with the construction phase, are the establishment of construction camps and the construction of the infrastructure. These activities will create surface disturbances which will result in the removal of vegetation and the exposure of the underlying soil. The exposed soil and change in texture will contrast severely with the intact vegetation around the disturbance footprint.

The extent of the disturbances will generally affect a relatively small footprint area.

The construction camps and lay-down yards are anticipated to disturb a much larger area. The size and location of the construction camps will play a major role in the severity of the landscape impact. Due to the ongoing construction of the area, the construction camp may be easily associated with existing activities and therefore mitigates the impact considerably.

Considering the moderate VAC throughout most of the study area, the developed condition of great parts of the landscape, the *severity of landscape impact* during the construction stage is expected to be *low*.

Sensitive placement of the construction camps, limited surface disturbance and prompt rehabilitation can further reduce the severity of the impact.

The *severity of the landscape impact* for the development of the infrastructure is expected to be low. All surface activities will be visible from close proximity from the site, especially from the roads passing the site, however due to the existing developments in the vicinity the visual impact will not be significant.

Operational phase

All operational activities will be visible from along the roads that pass the development. It may pose a visual impact to residents that look onto the site and road users that regularly use Flower Street and the M43.

Surface disturbances that occur during construction may remain for an extended period during the operational phase. These are seen as residual effects carried forward from the construction phase and can be completely or substantially mitigated if treated appropriately during the construction phase.

The main impact will be caused as a result of the presence of the completed infrastructure and the buildings. The existing industrial activities and visual association will help to reduce the impact.

5.2. SIGNIFICANCE OF VISUAL IMPACTS

5.2.1. VIEWER SENSITIVITY

Within the receiving environment, specific viewers (visual receptors) experience different views of the visual resource and value it differently. They will be affected because of alterations to their views due to the proposed project. The visual receptors are grouped according to their similarities. The visual receptors included in this study are:

- Residents
- Motorists
- Tourists

To determine visual receptor sensitivity a commonly used rating system is utilised. This is a generic classification of visual receptors and enables the visual impact specialist to establish a logical and consistent visual receptor sensitivity rating for viewers who are involved in different activities without engaging in extensive public surveys.

5.2.1.1 Residents

Residents of the affected environment are classified as visual receptors of *high* sensitivity owing to their sustained visual exposure to the proposed development as well as their attentive interest towards their living environment.

5.2.1.2 Tourists

These are regarded as visual receptors of exceptional *high* sensitivity. Their attention is focused on the landscape which they essentially utilise for enjoyment purposes and appreciation of the quality of the landscape.

5.2.1.3 Motorists

Motorists are generally classified as visual receptors of *low* sensitivity due to their momentary view and experience of the proposed development. As a motorist's speed increases, the sharpness of lateral vision declines, and the motorist tends to focus on the line of travel (USDOT, 1981). This adds weight to the assumption that under normal conditions, motorists will show *low* levels of sensitivity as their attention is focused on the road and their exposure to roadside objects is brief.

5.2.2. SEVERITY OF POTENTIAL VISUAL IMPACTS

Severity of visual impact refers to the magnitude of change to specific visual receptor's views and/or experience of the landscape. Severity of visual impact is influenced by the following factors:

- The **viewer's exposure** to the project:
  - Distance of observers from the proposed project.
  - The visibility of the proposed project (ZVI).
  - Number of affected viewers.
  - Duration of views to development experienced by affected viewers.
- Degree of **visual intrusion** created by the project.

Empirical research indicates that the visibility of the proposed student housing and hence the severity of visual impact decreases as the distance between the observer and the proposed student housing increases. The landscape type can mitigate the severity of visual impact through topographical or vegetative screening. Bishop *et al* (1988) noted that in some cases the student housing as an object, may dominate the view for example, silhouetted against the skyline, or in some cases be absorbed in the landscape. A complex landscape setting with a diverse land cover and topographical variation has the ability to decrease the severity of visual impact more than a mundane landscape (Bishop *et al*, 1985).

The Zone of Visual Influence (ZVI) is determined through a Geographical Information System (GIS). The result reflects a shaded pattern which identifies the areas that are expected to experience views of the proposed student housing. The ZVI is limited to 5km from the proposed student housing.

A visibility analysis and viewer sensitivity has been completed for the proposed student housing (Appendix 1, Figure 11). According to Bishop *et al* (1988), visual receptors within 1 km from the proposed student housing development are most likely to experience the highest degree of visual intrusion, hence contributing to the severity of the visual impact. This is considered as the zone of highest visibility after which the degree of visual intrusion decreases rapidly at distances further away.

In order to assess the extent and degree of visibility in the visual envelope, GIS was utilized. A visibility analysis was performed which provides the following information on Figure 11 below:

- The areas within the visual envelope that may experience views of the proposed project; and
- The degree of visibility in terms of the percentage of the proposed project that will be visible from a specific location.

The GIS performs an analysis for elevated observer points which represents the approximate height of the student housing (max 4-storey 18m) in a digital elevation model (DEM). This results in a visibility map with the degree of visibility illustrated by a colour.

The visibility analysis considers worst-case scenarios, using line-of-sight, based on topography alone. The screening capability of vegetation is not captured in the base model of the DEM and is therefore not considered in these results.

5.2.2.1 Potential visual impacts on Residents

Table 7: Potential Visual Impact on Residents

Activities	Impact Rating Criteria							Significance
	Extent	Probability	Reversibility	Duration	Loss of Resources	Cumulative Effect	Intensity	
Student Housing **(without mitigation)**	2 Local	3 Probable	2 Partly Reversible	4 Permanent	2 Marginal	3 Medium	3 Medium	48 Negative Medium
Student Housing **(with mitigation)**	2 Local	3 Probable	2 Partly Reversible	4 Permanent	2 Marginal	3 Medium	2 Medium	32 Negative Medium

The study area is mostly residential. Numerous residents may experience intrusion on their views due to the presence of the proposed student housing facility. They are recognised as the general population of the study area and are identified as affected visual receptors.

The preliminary design of the development (Figure 2) indicates a buffer zone of trees to be planted along the periphery of the development. This will offer some screening of the development to residents and soften the hardness of the buildings.

It can be concluded that the study area has a high density of residents that will be affected viewers.

Construction phase

During the construction phase, unsightly views may be created by the presence of the construction camp and the lay-down yards. The duration of the potential visual impact will be temporary which will result in an anticipated *low* significance of visual impact for all the alternatives. The visual exposure to the construction activity will be limited.

The cleared site, construction camp and material lay-down yards will appear unsightly and out of character. Large scale construction machinery will be highly visible and increase awareness of the construction activity over a considerable area. The visual intrusion caused during the construction stage will be moderate but will be temporary in nature.

Operational phase

The residents adjacent to the proposed development may experience a moderately high degree of visual intrusion.

The current presence of commercial, institutional facilities and small-scale industries in the visual field of the residents will reduce the impact experienced.

The VAC of the landscape plays a role in the visibility of the proposed development and associated infrastructure. Some VAC is provided by the existing vegetation and topography in the landscape in which the development is proposed.

The overall visual impact and can be regarded as moderately low.

5.2.2.2 Potential visual impacts on tourists

Table 8: Potential Visual Impact on Tourists

Activities	Impact Rating Criteria							Significance
	Extent	Probability	Reversibility	Duration	Loss of Resources	Cumulative Effect	Intensity	
Student Housing **(without mitigation)**	2 Local	2 Low	2 Partly Reversible	4 Permanent	1 Low	1 Low	1 Low	12 Negative Low
Student Housing **(with mitigation)**	2 Local	2 Low	2 Partly Reversible	4 Permanent	1 Low	1 Low	1 Low	12 Negative Low

The entire regional area is considered to have low tourism potential due to the residential, urban nature of the environment. No tourists are expected to be affected by the proposed development.

Construction phase

The temporary duration of the construction phase is not expected to cause any visual impacts. The location, number and size of the construction camps and lay-down yards will be crucial in regulating the impact. It is anticipated that the visual impact will occur localised and that a very small number of tourists will be adversely affected by these project components during construction.

Their exposure to possible unsightly views of the construction camps and the associated activity will however be minimal and localised.

The potential visual impact on tourists during the construction phase of the proposed project can be mitigated with relative ease. The greatest factor to consider is the location of the construction camp.

The severity of the visual impact of the student housing building and associated infrastructure on tourists will be low, causing a low visual impact.

5.2.2.3 Potential visual impacts on motorists

Table 9: Potential Visual Impact on Motorists

Activities	Impact Rating Criteria							Significance
	Extent	Probability	Reversibility	Duration	Loss of Resources	Cumulative Effect	Intensity	
Student Housing **(without mitigation)**	2 Local	3 Probable	2 Partly Reversible	4 Permanent	2 Marginal	2 Low	2 Medium	30 Negative Medium
Student Housing **(with mitigation)**	2 Local	3 Probable	2 Partly Reversible	4 Permanent	1 Low	2 Low	2 Medium	28 Negative Low

The major routes within the study area are the Mabopane Highway (R80), Ruth First Road, the M43 and Flower Street. The secondary road network carries a much lower volume of motorists. The duration of the motorist's view will be temporary, and it is expected that the visual intrusion that they will experience will be low.

The preliminary design of the development (Figure 2) indicates a buffer zone of trees to be planted along the periphery of the development. This will offer some screening of the development to residents and soften the hardness of the buildings.

Construction phase

The potential visual impact that may be experienced by motorists during the construction phase is considered to be minimal. Limited information is available, and the number, location and size of the construction camps and lay-down yards are essential for accurately assessing the visual impact.

The presence of the construction camps and lay-down yards may create unsightly views. Motorists' visual exposure to the impact will be brief and the severity of visual impact will be *low*. The significance of potential visual impact is expected to be *low*.

Operational phase

The proposed facility is visible to motorists intermittently along the M43 and Ruth First Road. It will be most visible from Flower Street but is also the route that the residents will use to access the development. The existing residential landscape can absorb the impact. The severity and significance of the visual impact on motorists will be low.

The region is associated with residential areas, small-scale industry and commercial sites which reduces the significance of the overall visual impact. The speed at which motorists travel and the association of the regional area with residential developments and commercial industries has a moderating effect on the severity of the visual impact and further reduces visual.

6. RECOMMENDED MITIGATION MEASURES

The aim of mitigation is to reduce or alleviate the intrusive contrast between the proposed project components and activities, and the receiving landscape to a point where it is acceptable to visual and landscape receptors.

6.1. GENERAL

- Where areas are going to be disturbed through the destruction of vegetation, for example, the establishment of the construction camp, the vegetation occurring in the area to be disturbed must be replanted with endemic, indigenous species. A hydroseeding application is recommended in the disturbed areas as a measure of rehabilitation.

6.2. INFRASTRUCTURE BUILDINGS

- Rehabilitate disturbed areas around buildings as soon as practically possible after construction. This should be done to restrict extended periods of exposed soil.
- Plant fast-growing endemic trees along the building yard, service road and infrastructure. The trees will with time create a screen and increase the biodiversity of the area.
- It is also recommended that trees be planted along the perimeter of the site, to reduce the visual impact of viewers.
- The landscape plan indicates trees planted along the perimeter of the site and within the development. The developer should adhere to this plan to reduce the visual impact as much as possible.

6.3. ACCESS ROUTES

- Make use of existing access roads where possible.
- Where new access roads are required, the disturbance area should be kept to a minimum. A two-track dirt road will be the most preferred option.
- Locate access routes so as to limit modification to the topography and to avoid the removal of established vegetation.
- Road verges that need to be cleared should be kept to a minimum.
- Access routes should be located on the perimeter of disturbed areas such as cultivated/fallow lands so as not to fragment intact vegetated areas.
- If it is necessary to clear vegetation for a road, avoid doing so in a continuous straight line. Alternatively, curve the road in order to reduce the visible extent of the cleared corridor.

6.4. CLEARED SERVITUDES

- Locate the proposed facility on a cleared servitude so as to avoid the removal of established vegetation.
- Avoid a continuous linear path of cleared vegetation that would strongly contrast with the surrounding landscape character. Feather the edges of the cleared corridor to avoid a clearly defined line through the landscape.

6.5. CONSTRUCTION CAMPS AND LAY DOWN YARDS

- If practically possible, locate construction camps in areas that are already disturbed or where it isn't necessary to remove established vegetation like for example naturally bare areas.
- Utilise existing screening features such as dense vegetation stands or topographical features to place the construction camps and lay-down yards out of the view of sensitive visual receptors.
- Keep the construction sites and camps neat, clean and organised in order to portray a tidy appearance.
- Screen the construction camp and lay-down yards by enclosing the entire area with a dark green or black shade cloth of no less than 2m height.

7. CONCLUSION

The proposed student housing development has been evaluated against internationally accepted criteria to determine the impact they will have on the landscape character and the viewers that have been identified in the study area.

Table 10: Evaluation of Proposed Activities

Activities	Impact Rating Criteria							Significance
	Extent	Probability	Reversibility	Duration	Loss of Resources	Cumulative Effect	Intensity	
Student Housing **(without mitigation)**	2 Local	3 Probable	2 Partly Reversible	4 Permanent	2 Marginal	3 Medium	3 Medium	48 Negative Medium
Student Housing **(with mitigation)**	2 Local	3 Probable	2 Partly Reversible	4 Permanent	2 Marginal	3 Medium	2 Medium	32 Negative Medium

Visual Impact Rating Tables for the Development of the Soshanguve Student Accommodation

GEOGRAPHICAL EXTENT		
This is defined as the area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales and as such bracketing ranges are often required. This is often useful during the detailed assessment of a project in terms of further defining the determined.		
1	Site	The impact will only affect the site
2	Local/district	Will affect the local area or district
3	Province/region	Will affect the entire province or region
4	International and National	Will affect the entire country

PROBABILITY		
This describes the chance of occurrence of an impact		
1	Unlikely	The chance of the impact occurring is extremely low (Less than a 25% chance of occurrence).
2	Possible	The impact may occur (Between a 25% to 50% chance of occurrence).
3	Probable	The impact will likely occur (Between a 50% to 75% chance of occurrence).
4	Definite	Impact will certainly occur (Greater than a 75% chance of occurrence).

REVERSIBILITY		
This describes the degree to which an impact on an environmental parameter can be successfully reversed upon completion of the proposed activity.		
1	Completely reversible	The impact is reversible with implementation of minor mitigation measures

2	Partly reversible	The impact is partly reversible, but more intense mitigation measures are required.
3	Barely reversible	The impact is unlikely to be reversed even with intense mitigation measures.
4	Irreversible	The impact is irreversible, and no mitigation measures exist.

IRREPLACEABLE LOSS OF RESOURCES		
This describes the degree to which resources will be irreplaceably lost as a result of a proposed activity.		
1	No loss of resource.	The impact will not result in the loss of any resources.
2	Marginal loss of resource	The impact will result in marginal loss of resources.
3	Significant loss of resources	The impact will result in significant loss of resources.
4	Complete loss of resources	The impact results in a complete loss of all resources.

DURATION		
This describes the duration of the impacts on the environmental parameter. Duration indicates the lifetime of the impact as a result of the proposed activity		
1	Short term	The impact and its effects will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase (0 – 1 years), or the impact and its effects will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0 – 2 years).
2	Medium term	The impact and its effects will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (2 – 10 years).
3	Long term	The impact and its effects will continue or last for the entire operational life of the development but will be mitigated by direct human action or by natural processes thereafter (10 – 50 years).
4	Permanent	The only class of impact that will be non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered transient (Indefinite).

CUMULATIVE EFFECT		
This describes the cumulative effect of the impacts on the environmental parameter. A cumulative effect/impact is an effect which in itself may not be significant but may become significant if added to other existing or potential impacts emanating from other similar or diverse activities as a result of the project activity in question.		
1	Negligible Cumulative Impact	The impact would result in negligible to no cumulative effects
2	Low Cumulative Impact	The impact would result in insignificant cumulative effects
3	Medium Cumulative impact	The impact would result in minor cumulative effects
4	High Cumulative Impact	The impact would result in significant cumulative effects

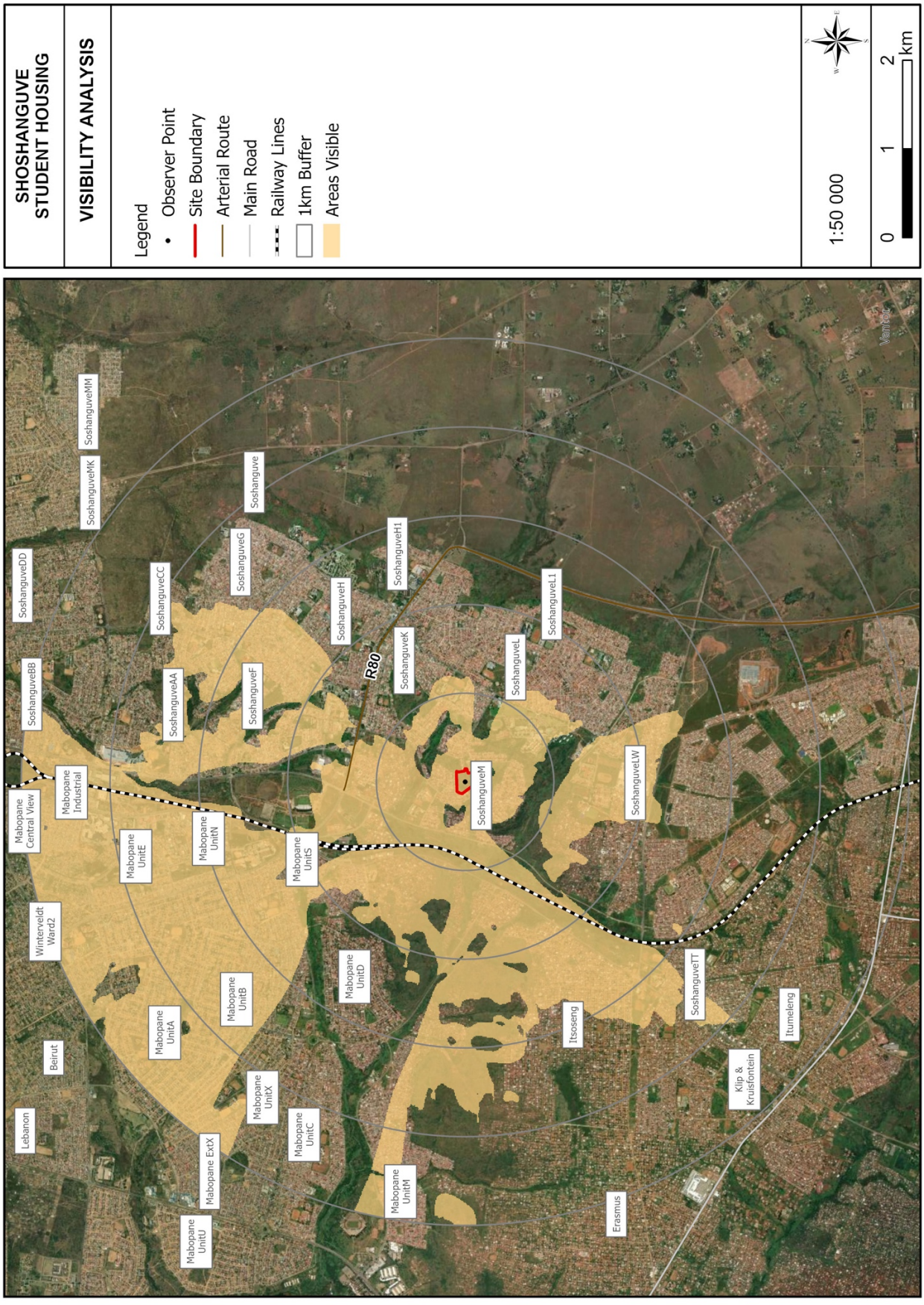
INTENSITY/ MAGNITUDE		
Describes the severity of an impact		
1	Low	Impact affects the quality, use and integrity of the system/component in a way that is barely perceptible.
2	Medium	Impact alters the quality, use and integrity of the system/component but system/ component still continues to function in a moderately modified way and maintains general integrity (some impact on integrity).
3	High	Impact affects the continued viability of the system/ component, and the quality, use, integrity and functionality of the system or component is severely impaired and may temporarily cease. High costs of rehabilitation and remediation.
4	Very high	Impact affects the continued viability of the system/component, and the quality, use, integrity and functionality of the system or component permanently ceases and is irreversibly impaired (system collapse). Rehabilitation and remediation often impossible. If possible, rehabilitation and remediation often unfeasible due to extremely high costs of rehabilitation and remediation.

SIGNIFICANCE		
Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale and therefore indicates the level of mitigation required. This describes the significance of the impact on the environmental parameter. The calculation of the significance of an impact uses the following formula: (Extent + probability + reversibility + irreplaceability + duration + cumulative effect) x magnitude/intensity. The summation of the different criteria will produce a non-weighted value. By multiplying this value with the magnitude/intensity, the resultant value acquires a weighted characteristic which can be measured and assigned a significance rating.		
Points	Impact Significance Rating	Description
6 to 28	Negative Low impact	The anticipated impact will have negligible negative effects and will require little to no mitigation.
6 to 28	Positive Low impact	The anticipated impact will have minor positive effects.
29 to 50	Negative Medium impact	The anticipated impact will have moderate negative effects and will require moderate mitigation measures.
29 to 50	Positive Medium impact	The anticipated impact will have moderate positive effects.
51 to 73	Negative High impact	The anticipated impact will have significant effects and will require significant mitigation measures to achieve an acceptable level of impact.
51 to 73	Positive High impact	The anticipated impact will have significant positive effects.
74 to 96	Negative very high impact	The anticipated impact will have highly significant effects and are unlikely to be able to be mitigated
74 to 96	Positive Very high impact	The anticipated impact will have highly significant positive effects.

APPENDIX 1

Figure 11 reflects the results of a viewer sensitivity visibility assessment, carried out using GIS software. The results provide a clear interpretation of the extent of the visual influence and also provide an indication of the land use that can be expected in the affected areas.

Figure 11: Visibility Analysis of Proposed Student Housing



GLOSSARY OF TERMS

Aesthetics	The science or philosophy concerned with the quality of sensory experience. (ULI, 1980)
Horizon contour	A line that encircles a development site and that follows ridgelines where the sky forms the backdrop and no landform is visible as a background. This is essentially the skyline that when followed through the full 360-degree arc as viewed from a representative point on the site defines the visual envelope of the development. This defines the boundary outside which the development would not be visible.
Landscape characterisation/ character	This covers the gathering of information during the desktop study and field survey work relating to the existing elements, features, and extent of the landscape (character). It includes the analysis and evaluation of the above and the supporting illustration and documentary evidence.
Landscape condition	Refers to the state of the landscape of the area making up the site and that of the study area in general. Factors affecting the condition of the landscape can include the level maintenance and management of individual landscape elements such as buildings, woodlands etc and the degree of disturbance of landscape elements by non-characteristics elements such as invasive tree species in grassland or car wrecks in a field.
Landscape impact	Changes to the physical landscape resulting from the development that include; the removal of existing landscape elements and features, the addition of new elements associated with the development and altering of existing landscape elements or features in such as way as to have a detrimental effect on the value of the landscape.
Landscape unit	A landscape unit can be interpreted as an "outdoor room" which are enclosed by clearly defined landforms or vegetation. Views within a landscape unit are contained and face inward.
Sense of place	That distinctive quality that makes a particular place memorable to the visitor, which can be interpreted in terms of the visual character of the landscape. A more emotive sense of place is that of local identity and attachment for a place "*which begins as undifferentiated space* [and] *becomes place as we get to know it better and endow it with value*" (Tuan 1977)[1].
Viewer exposure	The extent to which viewers are exposed to views of the landscape in which the proposed development will be located. Viewer exposure considers the visibility of the site, the viewing conditions, the viewing distance, the number of viewers affected the activity of the viewers (tourists or workers) and the duration of the views.
Viewer sensitivity	The assessment of the receptivity of viewer groups to the visible landscape elements and visual character and their perception of visual quality and value. The sensitivity of viewer groups depends on their activity and awareness within the affected landscape, their preferences, preconceptions and their opinions.
Visual absorption capacity (VAC)	The inherent ability of a landscape to accept change or modification to the landscape character and/or visual character without diminishment of the visual quality or value, or the loss of visual amenity. A high VAC rating implies a high ability to absorb visual impacts while a low VAC implies a low ability to absorb or conceal visual impacts.

[1] Cited in Climate Change and Our 'Sense of Place', http://www.ucsusa.org/greatlakes/glimpactplace.html

Visual amenity	The notable features such as hills or mountains or distinctive vegetation cover such as forests and fields of colour that can be identified in the landscape and described. Also included are recognised views and viewpoints, vistas, areas of scenic beauty and areas that are protected in part for their visual value.
Visual character	This addresses the viewer response to the landscape elements and the relationship between these elements that can be interpreted in terms of aesthetic characteristics such as pattern, scale, diversity, continuity and dominance.
Visual contour	The outer perimeter of the visual envelope determined from the site of the development. The two-dimensional representation on plan of the horizon contour.
Visual contrast	The degree to which the physical characteristics of the proposed development differ from that of the landscape elements and the visual character. The characteristics affected typically include: • Volumetric aspects such as size, form, outline and perceived density; • Characteristics associated with balance and proportion such scale, diversity, dominance, continuity; • Surface characteristics such as colour, texture, reflectivity; and • Luminescence or lighting.
Visual envelope	The approximate extent within which the development can be seen. The extent is often limited to a distance from the development within which views of the development are expected to be of concern.
Visual impact	Changes to the visual character of available views resulting from the development that include: obstruction of existing views; removal of screening elements thereby exposing viewers to unsightly views; the introduction of new elements into the view shed experienced by visual receptors and intrusion of foreign elements into the view shed of landscape features thereby detracting from the visual amenity of the area.
Visual impact assessment	A specialist study to determine the visual effects of a proposed development on the surrounding environment. The primary goal of this specialist study is to identify potential risk sources resulting from the project that may impact on the visual environment of the study area, and to assess their significance. These impacts include landscape impacts and visual impacts.
Visual quality	An assessment of the aesthetic excellence of the visual resources of an area. This should not be confused with the value of these resources where an area of low visual quality may still be accorded a high value. Typical indicators used to assess visual quality are vividness, intactness and unity. For more descriptive assessments of visual quality attributes such as variety, coherence, uniqueness, harmony, and pattern can be referred to.
Visual receptors	Includes viewer groups such as the local community, residents, workers, the broader public and visitors to the area, as well as public or community areas from which the development is visible. The existing visual amenity enjoyed by the viewers can be considered a visual receptor such that changes to the visual amenity would affect the viewers.
Zone of visual influence	The extent of the area from which the most elevated structures of the proposed development could be seen and may be considered to be of interest (see visual envelope).

LEVEL OF CONFIDENCE

Table 11: Confidence level chart and description

CONFIDENCE LEVEL CHART				
	Information, knowledge and experience of the **project**			
Information, and knowledge of the **study area**		3b	2b	1b
	3a	9	6	3
	2a	6	4	2
	1a	3	2	1

3a – A *high* level of information is available of the **study area** in the form of recent aerial photographs, GIS data, documented background information and a thorough knowledge base could be established during site visits, surveys etc. The study area was readily accessible.

2a – A *moderate* level of information is available of the **study area** in the form of aerial photographs GIS data and documented background information, and a moderate knowledge base could be established during site visits, surveys etc. Accessibility to the study area was acceptable for the level of assessment.

1a – *Limited* information is available of the **study area,** and a poor knowledge base could be established during site visits and/or surveys, or no site visit and/or surveys were carried out.

3b – A *high* level of information and knowledge is available of the **project** in the form of up-to-date and detailed engineering/architectural drawings, site layout plans etc. and the visual impact assessor is well experienced in this type of project and level of assessment.

2b – A *moderate* level of information and knowledge is available of the **project** in the form of conceptual engineering/architectural drawings, site layout plans etc. and/or the visual impact assessor is moderately experienced in this type of project and level of assessment.

1b – *Limited* information and knowledge is available of the **project** in the form of conceptual engineering/architectural drawings, site layout plans etc. and/or the visual impact assessor has a low experience level in this type of project and level of assessment. (Adapted from Oberholzer. B, 2005)

VISUAL RECEPTOR SENSITIVITY

Table 12: Visual receptor sensitivity

VISUAL RECEPTOR SENSITIVITY	DEFINITION (BASED ON THE GLVIA 2ND ED PP90-91)
Exceptional	Views from major tourist or recreational attractions or viewpoints promoted for or related to appreciation of the landscape, or from important landscape features.
High	Users of all outdoor recreational facilities including public and local roads or tourist routes whose attention or interest may be focussed on the landscape; Communities where the development results in changes in the landscape setting or valued views enjoyed by the community; Residents with views affected by the development.
Moderate	People engaged in outdoor sport or recreation (other than appreciation of the landscape);
Low	People at their place of work or focussed on other work or activity; Views from urbanised areas, commercial buildings or industrial zones; People travelling through or passing the affected landscape on transport routes.
Negligible (Uncommon)	Views from heavily industrialised or blighted areas

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