1 JONKER STREET, INDUSTRIAL
AREA, KNYSNA, 6571
hofmeyr@hofmeyrassociates.co.za

P.O. BOX 1009
KNYSNA, 6570
TEL: (044) 382 0996

HOFMEYR & ASSOCIATES
CONSULTING ENGINEERS, KNYSNA

REPORT ON ENGINEERING SERVICES FOR BRENTON COVE CAMP SITE

PORTION 152 OF 216 UITZICHT

15 SEPTEMBER 2025

CONTRACT:

Name: Mr Rudi Neethling
Erf number: PTN 152 OF 216
Our reference: 24/42

CLIENT DETAILS:

VGBD Town Planners
Knysna
6571

Contact person: Mr. L Druce
E-mail: lloyddruce@mweb.co.za
Tel: 082 552 8145

DOCUMENT HISTORY:

Revision	Date	Comments
0	8 July 2024	
1	6 August 2024	
2	14 April 2025	No of units & occupancy reduced
3	15 April 2025	Updated SDP & Borehole Test
4	19 July 2025	Updated SDP, Water & Sewer
5	15 September	Addendum

REPORT ON ENGINEERING SERVICES FOR PROPOSED CAMP SITE PORTION 152 OF 216 UITZICHT

CONTENTS

1. Introduction

The owner of portion 152 of Uitzicht 216 intends to create 25 camp sites on the property, each consisting of a tent on a timber deck with its own individual ablution facilities. Each tent will accommodate a maximum of 2 people.
This will be in addition to the existing house and staff quarters.
The property has been filled up in the past to a level of approximately 2m above Mean Sea Level.

The campsite will be run throughout the year.

2. Topography & Vegetation

The property is very flat and low lying. Vegetation consists of grass and invader trees. The owner is currently clearing the property of all invader trees. These trees are being processed through a chipper to create a mulch bed and encourage growth.

3. Roads Access & Stormwater

Access to the proposed Development will be off the existing tar road leading into the Brenton on Lake residential area.
The internal roads on the property will be constructed using precast concrete grass blocks on G5 subbase gravel. The grass blocks will be filled with topsoil and planted with grass.

Stormwater will be accommodated in grass lined swales to lead water away from the campsites and roads.

4. Water

4.1 Water Demand

a) **Water Demand**

Camp Site Occupation of camp sites is limited to 2 people per site.
Water Demand = 25 sites x 2 people x 150litres per person per day
= 7 500 litres per day.

b) **Water Demand House & Staff Quarters**

Admin & Staff Quarters = 10 people x 150 litres per person per day
= 1 500 litres per day
Total Water Demand = 9 000 litres per day

c) **Water for fire flighting**

This Development, in my opinion falls into fire risk category - Low Risk Group 4: Residential - areas where the gross floor area of a 'house" is generally less than 55m². This group includes low-cost housing schemes.
This fire risk group does not include any firefighting capability and relies on Municipal firefighting services.
Intuitively, I would advise some sort of firefighting capability provided by say a pressure pump at the water reservoir. to boost the pressure in the reticulation, which would supply two or three fire hydrants. Fire-fighting could take place using lay flat hoses fed from the hydrants.
The next fire category in line would be Low Risk Group 3, which calls for a fire flow of 350litres per minute and water storage for per hour of fire flow. I would recommend that the Development aim at this capability.

4.2 Water Storage

In terms of the Ref Book Guidelines, water storage must be provided to satisfy :

a) 2 Days of AADD	= 2 x 9 000	= 18 000 litres
b) 1 Hour of fine flow	= 60 min x 300 litres / min	= 18 000 litres
Total reservoir storage		= 36 000 litres

The Developer intends to provide a 100 000-litre water storage bladder on site, housed in a screened and roofed enclosure.

4.3 Water Supply

The water supply to the Development will be provided from various sources.

1. On site borehole (main supply) fitted with a pump powered by a 5.5 kW 380 Volt electric motor. Attached is a borehole yield certificate for 18 000 litres per hour, borehole recovery results and water quality test results.
   The borehole will provide the AADD for the Development in 0.5 hours of pumping at 18 000 litres per hour.
   The water quality test results are satisfactory. Water from the borehole will be sterilized with chlorine or UV before being pumped into the reservoir.

2. Harvesting of roof water (supplementary supply).
   Harvested roof water will be stored in tanks adjacent to the buildings and fed into those buildings as an emergency backup supply via a small pressure pump. This water will be chlorinated in the rainwater tanks.

4.4 Water Storage & Water Reticulation

A 100kilolitre water storage bladder will be constructed on site to store borehole water and supply the water reticulation. The reservoir will be housed in a screened enclosure with a roof.

a) General Water Reticulation

This reticulation will consist of a 75mm diameter ring main with 20mm diameter connections to each tent and other connections to buildings as required. This reticulation will be pressurized with an electric pump from the reservoir. This reticulation will provide all needs.

b) Fire Reticulation

Two or Three fire hydrants will be erected on the 75mm diameter ring main. The hydrants will be used to supply fire buckets or to fight fire directly, using lay flat hoses. Fire trucks will also be resupplied from these hydrants. The pressure in the reticulation will be boosted during a fire, using a petrol-powered pump, which will be tested regularly.

5. Sewage Treatment & Disposal

5.1 Sewage Generated

Over 95% of the water used on this Development will end up in the sewer.

Water Demand AADD	= 9 000 litres per day
Sewage Generated	= say 8 600 litres per day

5.2 Sewage Treatment

Each group of 5 tents and the house and staff quarters will be provided with a 3 600 litre below ground plastic septic tank. The outflow from the septic tanks will be piped to a sewage pump station with a capacity of 5 000 litres. The pump station will pump the septic tank effluent to a package treatment plant capable of treating 8 600litres per day of sewage per day to Department of Water and Sanitation general standards. The treated effluent will be sterilized and will then be used to irrigate lawns in the vicinity of the tents.

6. Refuse Removal

Refuse will be collected on site and sorted into:

a) Refuse for the dump

b) Recyclable material

c) Compostable material

The refuse and recyclable material will be stockpiled in a refuse collection facility at the entrance to the Development. From the facility it will be collected as part of the Municipal refuse and recyclable weekly collection.
The compostable material will be composted on site and used in the landscape gardening activities on site.

7. Electrical supply

Although the property has a Municipal electricity connection, The Developer intends to provide his own electricity for the Campsite Development.
Each group of tents and the house and staff quarters will be provided with a bank of solar panels, an inverter and batteries to supply power for lighting only.
All cooking and water heating will be done using low pressure gas appliances.

ADDENDUM TO REPORT

Because of the lengthy process involved in applying for and receiving a water use license, the Developer has decided to opt for an interim services solution as follows to service Phase 1 of his development.

Water Supply

The development property currently has a domestic water supply connection.
The Developer proposes to position two 5000 litre water tanks on his property close to his metered water connection.
These tanks will fill from the Municipal connection with the inflow controlled by a ball valve.
The internal water reticulation for the proposed development will be fed from these 2 tanks through an electric pressure pump.

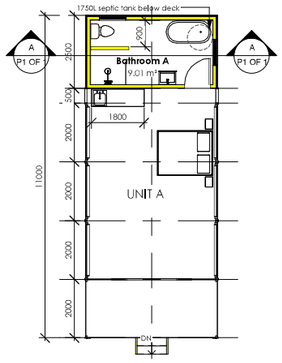
Sewage Disposal

Wastewater from the development will be separated into grey water and sewage. The grey water will be used to irrigate lawn areas and the sewage from the development will be collected in a gravity sewer reticulation, which will discharge into a 12000 litre conservancy tank.
The Municipal sewage tanker service will empty the conservancy tank as required.
Upon receipt of a water use license from the Department of Water and Sanitation, the Developer will revert to the use of borehole water and a package sewage treatment plant to service his development.

MUNICIPAL STAMP

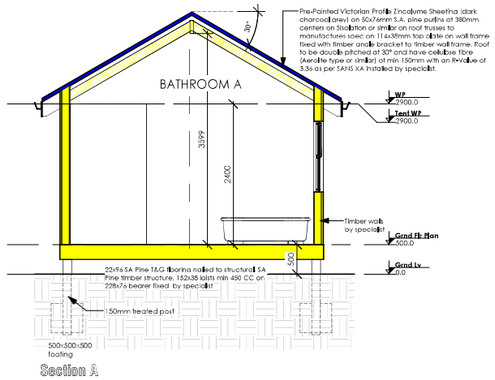
3D View 1

3D View 2



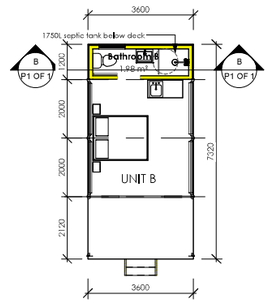
Ground Floor Plan -New Tents

1 : 100



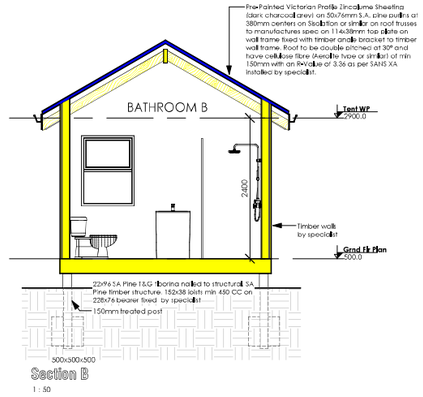
Section A

1 : 50



Ground Floor Plan -New Small Tent

1 : 100



Section B

1 : 50

AREAS & COVERAGE	
STRUCTURE	AREA
EXISTING COVERAGE	
MAIN BUILDING 1	37.37 m²
MAIN BUILDING 2	265.35 m²
MAIN BUILDING 3	35.65 m²
STORAGE AREA 3	30.42 m²
GENERATOR ROOM	11.82 m²
ABLUTION BLOCK	9.01 m²
LAPA	107.02 m²
CONVENIENCE STORE	11.20 m²
STAFF ACCOMMODATION	37.37 m²
STORAGE SHED 1 - AFDAK	113.00 m²
STORAGE SHED 1	224.00 m²
STORAGE SHED 2	135.92 m²
Total Existing	1249.90 m²
NEW COVERAGE	
UNIT A1	11.26 m²
UNIT A2	11.26 m²
UNIT B	4.32 m²
UNIT B2	4.32 m²
UNIT B1	4.32 m²
UNIT A1 Timber Pattern	16.75 m²
UNIT A2 Timber Pattern	16.75 m²
UNIT B1 Timber Pattern	23.65 m²
UNIT B2 Timber Pattern	23.65 m²
UNIT B2 Timber Pattern	23.65 m²
Total New	179.82 m²
COVERAGE	
EXISTING COVERAGE	1249.90 m²
NEW COVERAGE	179.82 m²
TOTAL COVERAGE	1552.52 m²
Site Area	41083 m²
Coverage Percentage	3.78 %
Campers Areas x30 [332m each]	9960.00 m²

SITE DEVELOPMENT PLAN

1 : 1000

This is a CAD generated drawing. Figured dimensions have preference over scaled dimensions and large scaled drawings supercede small scaled drawings.
Please Note:
All 3D renders/pictures are for illustrative purposes only, actual buildings/structures may differ.

CONTRACTORS NOTE:
These drawings are issued on the understanding that competent and experienced builders will use them. Contractor is to verify and check all levels and boundary pegs on site, and check the same against drawings before putting work in hand. Any errors, discrepancies and omissions to be reported to the Architect/draughtsman immediately. All work and levels to be strictly in accordance with SABS 0400 requirements and Council regulations. No work to encroach site boundaries. Site is to be kept neat and all unnecessary rubble to be moved off site timeously. Levels of adjacent site are to be re-instated where disturbed after completion of work.

OCCUPANCY CLASS: H4 - DWELLING HOUSE

ZONING:

All timber construction to be in strict accordance with SABS 082 Code of Practice.

Sheldon van Onselen
Arch. Draft.
Reg. No. PAD4/217798

PLANS R US
ARCHITECTURAL SERVICES

Sheldon van Onselen
Professional Architectural Draughtsperson
Reg. No. PAD4/217798

Knysna Office:
43 Waterfront Drive, Knysna
Telephone: 044 386 0127 Cellular: 082 457-7616
Email: sheldon@plansrus.co.za

SHEET NAME: SDP	
PURPOSE OF ISSUE: Submission	
PROJECT DETAILS: Brenton Cove Camp Site Farm 216-152 Brenton on Lake	
CLIENT DETAILS: Rudi Neethling Farm 216-152 Brenton on Lake	
Scale: As shown	Drawn: FS/SvO
Date: 29/05/2025	Checked: SvO
Project Number: Kny 348	Drawing No.: P1 OF 1
Client's Signature	Revision: 0
Print Size: A1	
Note:	