

MAKUKHANE CONSULTING ENGINEERS CC t/a CVW ELECTRICAL

PLANNING REPORT

SEEGENOT LANDGOED ON ERF 2841, GREATBRAK RIVER: REZONING TO GENERAL RESIDENTIAL ZONE I

CONTRACT NO. ME 1767-2

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Date: 10 May 2024

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Revision 0



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1. Introduction:

Mossel Bay Erf 2841 has reference.

Our reference: ME 1767-2

Municipal reference: C7774172 (See Annexure C)

Erf 2841 is located on the corner of the R102 and Souwesia Weg, Great Brak River. The property (application area) measures a total of 107 790 m². The application area is currently zoned as Agricultural Zone 1 (AZ1) in terms of the Mossel Bay Municipality Zoning Scheme By-law (2021). Zoning status will be changed to General Residential Zone I (GRZI). The estimate 68 erven will be calculated to NRS 034-1:2007, Urban multi-story/estate (LSM 8; High end).

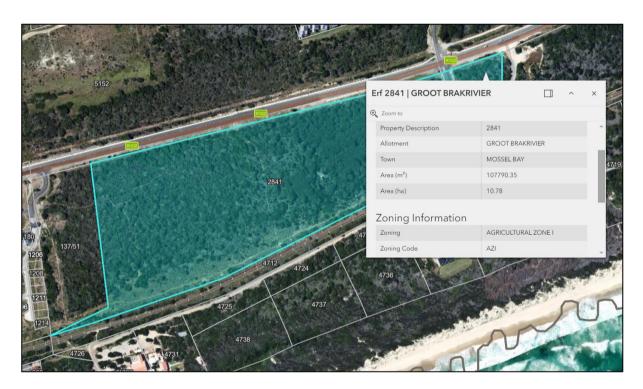


Figure 1: Project location.



Figure 2: Existing MV network.

2. Project Layout

The project will consist of medium and low voltage reticulation including service connections and street lighting. A total of 68 single residential erven will be established, equipped with services. The development will be a gated community with access control, closed to the public. The development will be constructed over a four-phase period – phased development.

Portion Nos.	Zonings	Size (ha)	% of development	
1 - 21, 27 - 53, 58 - 75, 79 & 80	Gen Res Zone I	1,4937	28.45	
25, 85	Utility Zone	0.0167	0.32	
22 - 24, 54, 55, 76, 77, 81 - 84	Open Space Zone II	2.8163	53.64	
26, 56, 57, 78, 86	Transport Zone III	0.6712	12.78	
87	Transport Zone II	0.2525	4.81	
TOTAL		5.2504	100.00	

Table 1: Land use Schedule

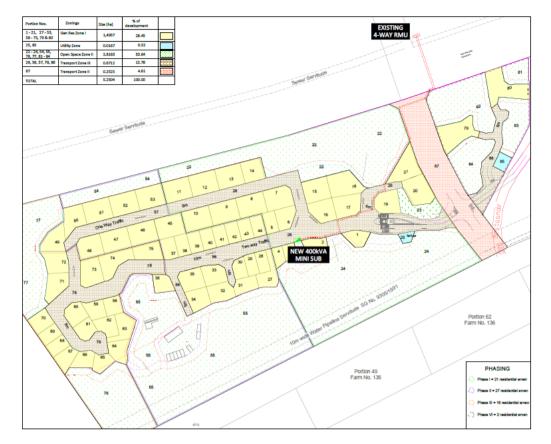


Figure 3: Phasing layout.

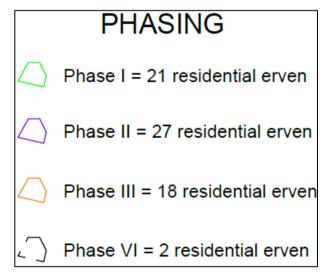


Figure 4: Phasing breakdown.

3. Planning

The following planning will make provision for the external and internal electrical reticulation requirements for the development, Seegenot on Erf 2841, Great Brak.

3.1. Electrical Supply: Reticulation Network

- 3.1.1. Electricity will be supplied by the supply authority, Mossel Bay Municipality. The Mossel Bay Municipality will provide a 400kVA mini substation. The cost of the mini substation will be for the developer's account. The total estimated maximum demand for the entire development will amount to 216kVA (ADMD).
- 3.1.2. The existing 4-Way RMU, located on the corner of the R102 and Fynbos Avenue will supply a ring feed to the development. 70mm² PILC Cu 3Cr SWA -TABLE 18 cables will be buried directly in die soil and laid from the 4-Way RMU up to the location of the new 400kVA mini substation and back to the existing 4-Way RMU.
- 3.1.3. The external reticulation network will become Mossel Bay Municipal property and be added to the Mossel Bay Municipal asset register. All material and workmanship will comply with Mossel Bay Municipal standards.



Figure 5: Existing 4 Way RMU

3.1.4. Horizontal drilling (pipe drilling) will be used to install service sleeves underneath the R102 and Souwesia Weg respectively. All necessary statutory requirements (wayleaves) will be applied for and adhered to.

3.2. Electrical Supply: Internal

- 3.2.1. The development falls into the category Urban Multi-Story/Estate provision for a 60 Amp single-phase electricity supply in the distribution board of each residential stand, a 16/25 mm² Cu 2-core service cable will be required.
- 3.2.2. The distribution on the property will be 11000V at high voltage level and 420/242V at low voltage level. Underground cable systems will be installed, which will have no visual impact on the environment. High Voltage cables will be installed at a minimum depth of 1000 mm and Low Voltage cables at a minimum depth of 600 mm from finished ground level. All cables will be directly buried, and PVC SWA PVC.
- 3.2.3. Energy efficient Street lighting, 26 W LEDs on 5,4 m Poles will be provided. The design will ensure adequate illumination to suite for the road users and pedestrians.
- 3.2.4. In order to minimize electricity load shedding and blackouts, thereby improving the quality of supply, developers and homeowners shall install energy efficient lighting (residential and streetlights) arrangements, Rooftop Photovoltaic system (25 % of actual supply), geysers that incorporate solar/heat pump/gas water heating and LPG gas cooking.
- 3.2.5. All electrical services will be installed in accordance with SANS 10142-1&2 respectively, NRS034-1 and Mossel Bay Municipal standard specifications. The internal reticulation of the property up until the service connection to each individual stand will be taken over by Mossel Bay Municipality and added to the municipal asset register.

3.3. NERSA-467-58 Guidelines on electricity resale

3.3.1. **Reseller:** The Electricity Pricing Policy refers to a reseller as a 'non licensed trader of electricity'.

The tariff rates and tariff structure according to which electricity is resold must be identical to the approved tariff rates and tariff structure that would have been applicable had the customer been supplied with electricity by Mossel Bay Municipality. This is in line with Electricity Pricing Policy [Position 43(a)], which states that: Non-licensed traders of electricity shall provide the electricity at terms, tariffs, and services not less favourable than that provided by the licensed distributor in the area. This tariff could be renegotiated should license distributor impose higher bulk tariff charges or the reseller could apply with NERSA to be licensed reseller.

4. Recommendation(s)

The following recommendations are made:

- 1. The new 400kVA mini substation must be made available by Developer and maintained by Mossel Bay Municipality.
- 2. Ring feed termination to the existing 4 Way RMU must be applied for and approved by Mossel Bay Municipality.
- 3. Wayleave application must be submitted to Western Cape Provincial Government and Mossel Bay Municipality respectively to cross required roads. In addition, a wayleave must be submitted to Openserve (Telkom) to ensure no damages to possible fibre lines along the intended route.
- Electricity will be supplied by the supply authority, Mossel Bay Municipality. The electrical department will confirm enough spare capacity is available on the Eskom Contracted Notified Maximum Demand at Grootbrak Substation (66/11 kV - 1 x 10 MVA Transformer).

Please contact me if you have any queries.

Yours faithfully CVW ELECTRICAL

Jaco van Rooyen Pr Techni Eng. Makukhane Consulting Engineers

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Annexures



MOSSEL BAY MUNICIPALITY MOSSELBAAI MUNISIPALITEIT UMASIPALA MOSSEL BAYI

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16/2/1//P Harmse C7774172 19 August 2021

By e-mail: jb.cvw@cvw-e.com

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Attention: Mr. JB Snyman

Dear Sir,

APPLICATION FOR AN ELECTRICAL SUPPLY POINT: ERF 2841, GREAT BRAK RIVER, MOSSEL BAY

Your application dated 11 August 2021 refers.

We hereby confirm that the capacity of 1 031.5kVA for the planned Rensburg Estate 137-Retirement Village on Erf 2841, Great Brak River, Mossel Bay will be made available from the existing 11kV network feeding from Tergniet Switching Substation.

Yours faithfully

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DIRECTOR: INFRASTRUCTURE SERVICES

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