SERVICES REPORT

FOR
CAVA MOLA MINING (PTY)LTD

CONSOLIDATION OF ERVEN RE/141 & 390

KEURBOOMSTRAND

PLETTENBERG BAY

ROADS, STORMWATER, WATER AND SEWER

AUGUST 2021

Rev: 1 **TK1591**

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SERVICES REPORT FOR THE CONSOLIDATION OF ERVEN RE/141 & 390 – KEURBOOMSTRAND

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1. INTRODUCTION

This report has been prepared by Tuiniqua Consulting Engineers at their Knysna office, who have been appointed by the Developer, Cava Mola Mining (PTY)LTD, as the Civil Consultants for this project. The purpose of this report is to provide the necessary information on the proposed civil services within this Development and the connections to the bulk infrastructure in the area.

2. LOCATION

The erven to be consolidated are the remainder of erf 141 and erf 390, Keurboomstrand, Plettenberg Bay (attached as Annexure A). The two erven are approximately 749m^2 and 870m^2 in extent, respectively. Main Street runs along the northern boundary of RE/141, while Read Street is located on the eastern boundary, as indicated on the Site Plan. Erf 373 borders erf 390 on the eastern boundary, and erf 140 on the western boundary. The RE/152 is located on the southern boundary.

3. TOPOGRAPHY AND ACCESS

The property is located in an existing residential township. Access to the property will be provided from the existing tarred municipal road i.e. Main Street. One access will be provided for the consolidated erf. The existing access to RE/141 will be utilized for access to the consolidated erf. The property has a gradual slope in a southern direction towards the beach.

4. SUPPLY AUTHORITY

The supply authority for the area is Bitou Municipality, and therefore comment was requested from their Technical Services Department, on all matters relating to the civil services. However, no reply was received from the Municipality, by the time this report was compiled. Existing connections will be utilized for the consolidated erf, the fact that the Municipality has not commented should not be an issue. If any increase in civil services demand is required, augmentation fees and capital contributions in this regard will be calculated and payable in accordance with Council's policy.

5. BULK SERVICES

Bitou Municipality was requested to comment on the proposed connection points for water and sewer. The existing water and sewerage connection for RE/141 will be utilized for the consolidated erf. No new services connections will be required.

5.1 WATER RETICULATION

The existing waterline along Main Street will supply the consolidated erf with potable water, the existing water connection will be utilized for the consolidated erf. The proposed development will consist of one residential dwelling.

5.2 SEWER RETICULATION

The existing municipal bulk sewer line runs on the northern boundary of RE/141 and the existing connection will be utilized for the proposed consolidation.

5.3 ROADS

There is an existing road network servicing this area, the road leading to this property is tarred and of good quality.

5.4 STORMWATER

The runoff from the road drains into a natural drainage system which will have no influence on the proposed development.

5.5 ELECTRICAL

The existing electrical connection for RE/141 will be utilized for the consolidated erf.

6. INTERNAL SERVICES

6.1 OUTLINE SCHEME

The design of the services for the development will be based on the principles contained in the Guidelines for Human Settlement Planning and Design published but the Department of Housing and to the Council's requirements for engineering services. The services will be installed according to SANS 1200 and materials will comply with ISO standards. Internal services will be located within the boundaries of the property.

6.2 WATER RETICULATION

There is an existing Municipal water main located on the southern side of Main Street. The existing and proposed water demand is taken from the "GUIDELINES FOR THE PROVISION OF ENGINEERING SERVICES AND AMENITIES IN RESIDENTIAL TOWNSHIP DEVELOPMENT".

Fig 9.9 – for erven not exceeding 2000m^2

Existing	
Erf	Demand kl/day
RE/141 (749m^2)	0.8
390 (870m^2)	0.8
TOTAL DEMAND	**1.6**

Proposed consolidation	
Erf	Demand kl/day
Consolidated erf (1619m^2)	1.5
TOTAL DEMAND	**1.5**

The annual average daily water demand for the consolidated erf will be 1.5kl/day and will not increase the existing water demand. The existing Municipal connection will be sufficient for the proposed development.

6.3 SEWER RETICULATION

The calculated expected sewage flow for the proposed consolidation will be as follows:

Table: Sewage Discharge

Existing	
Erf	Flow kl/day
RE/141 (749m^2)	0.67
390 (870m^2)	0.67
TOTAL DEMAND	**1.33**

Proposed consolidation	
Erf	Flow kl/day
Consolidated erf (1619m^2)	1.5
TOTAL DEMAND	**1.25**

A full waterborne sanitation system is envisaged for the proposed development. Internal sewer drainage will be provided, by means of Class 34x110 mm diameter pipes that gravitates to the municipal system on the northern boundary of the property.

6.4 INTERNAL ROADS

Not applicable.

6.5 INTERNAL STORMWATER

Storm water will not be concentrated and will be discharged in an acceptable manner.

6.6 WASTE MANAGEMENT

Disposal of waste shall be done via normal municipal domestic waste collection.

ANNEXURE A

Locality Plan

ALL DIMENSIONS AND LEVELS ARE TO BE VERIFIED ON SITE BY THE CONTRACTOR BEFORE COMMENCING ANY WORK

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THIS DRAWING IS NOT TO BE USED IN WHOLE OR PART OTHER THAN FOR THE INTENDED, PURPOSE AND PROJECT, AS DEFINED ON THIS DRAWING.

REFER TO THE CONTRACT FOR FULL TERMS AND CONDITIONS.

ON ORIGINAL

0 5 10 15 20 25 30 40 50MM

No	Date	Details	Chd	Appd

Revisions

CLIENT:

CAVA MOCA MINING

TUINIQUA CONSULTING ENGINEERS

TEL (044) 382-3474

Prepared by	Checked by	Reviewed by
TM	SM	SM

Project: SERVICES REPORT CONSOLIDATING ERVEN RE/141 & 390

Detail: LOCALITY PLAN

Scale:	Date:
N.T.S.	26/08/2021

Project No.	Dwg. No.
TK 1591	/ SP / R0

ANNEXURE B

Site Plan

COUNCIL

BUILDERS WORK

GENERAL NOTES:

THIS DRAWING IS INTENDED TO BE USED FOR THE PURPOSE OF ACQUIRING CONSTRUCTION APPROVAL FROM THE LOCAL AUTHORITY. IT IS ONLY TO BE USED FOR THE PURPOSE OF CONSTRUCTION ONCE APPROVAL HAS BEEN GRANTED AND THE DRAWINGS HAVE BEEN ISSUED FOR CONSTRUCTION BY THE ARCHITECT.
ALL LEVELS, HEIGHTS, DEPTHS AND DIMENSIONS TO BE CHECKED BY CONTRACTOR ON SITE BEFORE BUILDING. ALL WORK TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL BUILDING REGULATIONS. ALL BUILDING MATERIALS AND COMPONENTS TO BE TREATED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. ALL BUILDING MATERIALS & COMPONENTS TO COMPLY WITH REQUIREMENTS CONTAINED IN THE RELEVANT PARTS OF SANS 10400. FIGURED DIMENSIONS TO BE TAKEN PRECEDENCE TO SCALING.

SANS 10400 B - STRUCTURAL DESIGN
ALL STRUCTURAL ELEMENTS TO BE CONSTRUCTED AS PER ENGINEERS SPECIFICATIONS AND SANS 10400

SANS 10400 C - DIMENSIONS
ALL DIMENSIONS TO BE CHECKED ON SITE AND ANY DISCREPANCIES TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECTS FOR AMENDMENT.
MINIMUM ROOM SIZES TO COMPLY WITH SANS 10400 D

SANS 10400 D - PUBLIC SAFETY
FENCE TO BE ERECTED TO PREVENT THE PUBLIC FROM ENTERING THE SITE DURING CONSTRUCTION.
ANY CHANGE IN LEVEL MORE THAN 1m SHALL BE PROVIDED WITH A BALUSTRADE OR WALL AND SHALL COMPLY WITH THE REQUIREMENTS OF SANS 10400 D.
IN CASE OF A SWIMMING POOL, THE OWNER SHALL PROVIDE A WALL OR FENCE WITH SELF CLOSING AND SELF LATCHING GATE TO ENSURE NO PERSON CAN HAVE ACCESS TO THE POOL FROM THE STREET OR ANY PUBLIC PLACE.

SANS 10400 E - SITE OPERATION
SANITARY FACILITIES TO BE PROVIDED DURING CONSTRUCTION AS PER SANS 10400 E AND REMOVED AS SOON AS CONSTRUCTION IS COMPLETE.
WHERE SO REQUIRED A BUILDING SHALL BE PROTECTED AGAINST SUBSTERRANEAN TERMITE ACTIVITY.
ALL STORMWATER DISPOSAL ARRANGEMENT DURING CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF SANS 10400 E

SANS 10400 G - EXCAVATIONS
EXCAVATIONS TO BE LESS THAN 2m DEEP OR PER ENGINEERS SPECIFICATIONS AND TO COMPLY WITH SANS 10400 G

SANS 10400 H - FOUNDATIONS
ALL FOUNDATIONS PER ENGINEERS SPECIFICATIONS AND SANS 10400 H

SANS 10400 J - FLOORS
ALL FLOORS PER ENGINEERS SPECIFICATIONS AND SANS 10400 J

SANS 10400 K - WALLS
WALLS ACCORDING TO SANS 10400 K AND R VALUE OF EXTERNAL WALLS TO COMPLY WITH SANS 10400 XA
EXTERNAL WALLS TO BE 280mm CLAY BRICK WALLS OR 300mm CAVITY WALLS TO BE PLASTERED AND PAINTED BETWEEN BRICKS
INTERNAL WALLS TO BE 140mm OR 280mm CLAY BRICK WALLS TO BE PLASTERED AND PAINTED BETWEEN BRICKS
BOUNDARY WALLS TO BE 280mm CLAY BRICK WALLS MAX 1.8m HIGH TO BE MAINTENANCE FREE ON NEIGHBOURS SIDE

SANS 10400 L - ROOFS
ROOFS ACCORDING TO ENGINEERS SPECIFICATION AND TO COMPLY WITH SANS 10400 L
ALL TIMBER TO BE ACCORDING TO SANS 10400
TRENCH INSULATION TO ACHIEVE R VALUE ACCORDING TO SANS 10400 XA

SANS 10400 M - STAIRWAYS
STAIRWAYS TO HAVE MIN 250mm TREADS WITH MAX 200mm RISERS. ANY FLIGHT OF STAIRS WITH MORE THAN 3 RISERS SHALL HAVE A CONTINUOUS HANDRAIL EXTENDING THE FULL LENGTH OF THE STAIRS
ALL STAIRWAYS ACCORDING TO SANS 10400 M

SANS 10400 N - GLAZING
ALL GLAZING TO BE ACCORDING TO SANS 10400 N AND FENESTRATION TO COMPLY WITH SANS 10400 XA
THICKNESS OF PANES OF GLASS AS PER SANS 10400 N 4.2
TRANSPARENT GLAZING TO BE MARKED WHERE IT IS NOT LIKELY TO BE APPARENT TO ANY PERSON APPROACHING IT
SAFETY GLAZING TO BE USED FOR ALL DOORS AND SIDE PANELS, ANY WINDOWS WITH SILL HEIGHT OF LESS THAN 500mm OR A WINDOW ON NORMAL TRAFFIC HOTSPOTS WITH A SILL HEIGHT OF LESS THAN 800mm WITHOUT A PERMANENT BARRIER

SANS 10400 O - LIGHTING AND VENTILATION
TO COMPLY WITH SANS 10400 O AS WELL AS SANS 10400XA
OPENINGS ON EXTERNAL WALLS TO BE AT LEAST 10% OF THE FLOOR AREA OF THE ROOMS AND THE TOTAL OPENABLE WINDOWS AND DOORS SHALL NOT BE LESS THAN 5% OF THE FLOOR AREA

SANS 10400 P - DRAINAGE
ALL DRAINAGE TO COMPLY WITH SANS 10400 P AND TO BE INSTALLED BY A COMPETENT PERSON (SANITATION).
ALL NEW SOIL WATER PIPES TO BE 110mm uPVC WITH A FALL OF MIN 1:40 AND AN INSERT LEAD NOT LESS THAN 100mm
ALL NEW WASTE WATER PIPES TO BE 32mm uPVC AND VENTILATION PIPES MIN 40mm. ANY TYPE OF JOINT BETWEEN DISSIMILAR MATERIALS SHALL BE ACCEPTABLE TO SABS.
CONNECTIONS BETWEEN PIPES AND FITTINGS SHALL BE WATERTIGHT UNDER NORMAL WORKING CONDITIONS. CLEANING AND INSPECTION EYES TO BE INSTALLED ACCORDING TO SANS 10400 P

SANS 10400 R - STORMWATER DISPOSAL
ALL STORMWATER DISPOSAL TO BE ACCORDING TO SANS 10400 R AND ENGINEERS SPECIFICATION
GUTTERS AND DOWNPIPES TO COMPLY WITH SANS 10400 R. SUITABLE GUTTERS TO BE INSTALLED TO ENSURE THAT NO WATER IS DISCHARGED FOR STRUCTURE

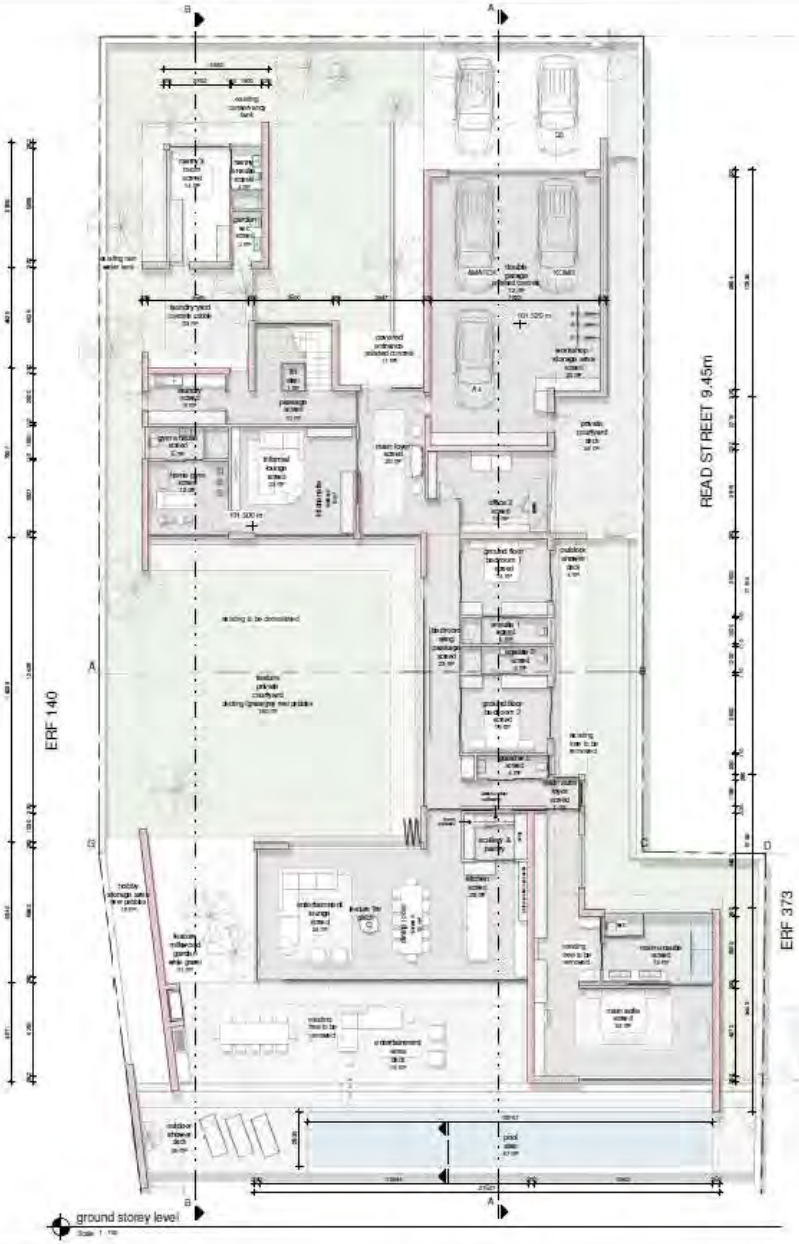
SANS 10400 T - FIRE PROTECTION
FIRE PROTECTION TO COMPLY WITH SANS 10400 T
BUILDING CLASSIFIED AS H1 OR H4 TO COMPLY WITH SANS 10400 T table 201
ANY DOOR BETWEEN SLEEP GARAGE AND ANY SLEEP ROOM SHALL HAVE A FIRE RESISTANCE OF NOT LESS THAN 30 MIN AND SELF CLOSING. ANY SHALL FASTEN A THRESHOLD OF NOT LESS THAN 30mm
NO COMBUSTIBLE ROOF COMPONENTS SHALL PENETRATE THE SEPARATING ELEMENT BETWEEN THE GARAGE AND THE HABITABLE ROOM

SANS 10400 V - SPACE HEATING
ANY FUEL FIRE, CHIMNEY, HEATER OR FIREPLACE TO COMPLY WITH SANS 10400 V
ALL CHIMNEYS TO BE CONSTRUCTED FROM NON COMBUSTIBLE MATERIAL AND BE NOT LESS THAN 200mm AND SHALL NOT BE LESS THAN 100mm IN HEIGHT FROM THE POINT OF CONTACT BETWEEN SLEEP CHIMNEY AND THE ROOF

SANS 10400 XA
ENERGY USAGE IN BUILDING TO COMPLY WITH SANS 10400 XA AS WELL AS THE ENERGY EFFICIENCY IN BUILDINGS ACCORDING TO SANS 204
SEE ON ELEVATIONS AND DETAILS PROVIDED

ELECTRICAL
ALL ELECTRICAL WORK TO BE CARRIED OUT BY A REGISTERED ELECTRICIAN

PLUMBING
ALL ELECTRICAL WORK TO BE CARRIED OUT BY A REGISTERED PLUMBER



NOTES:

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ALL CONDITIONS SHALL SUBSISTS THAT BEFORE ANY INTERPRETATION IS MADE THAT REMAIN WITH ALL THE REGULATIONS ACTS OF PARLIAMENT OF THE REPUBLIC OF SOUTH AFRICA.

SCHEDULE OF AREAS

SITE:	1000m²
CONSTRUCTED AREA	210m²+60m²+40m²=310m²
COVERAGE	40%

FAR CALCULATION:

AREA FOR FAR	750m²+210m²=960m²
FAR	0.6

ROOF CALCULATION:

TOTAL ROOF AREA	750m²
TOTAL FLAT ROOF AREA	750m²
TOTAL FLAT ROOF %	=100%

TOTAL AREAS:

HOUSE GF	480m²
CONVERTED STORY	210m²
NANNY	60m²
HOUSE FF	=690m²
COVERED BALCONY	70m²
TOTAL COVERED	760m²

ARCHITECT NOTES:

CLIENT COMMENTS:

REV. No.	REVISIONS	DATE	BY

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PROJECT:
ADDITIONS & ALTERATIONS TO EXISTING DWELLING
ERF 141 & 390, KEURBOOMSTRAND, PLETTENBERG BAY

CLIENT:
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DRAWN BY: CD	PLOT DATE: 2025-10-07	CHECKED BY: TD	PROJECT No: 14
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FOR INFORMATION			
GROUND FLOOR			REV: