PROJECT:
PROPOSED NEW ACCOMMODATION, OFFICES ETC. AT CAPE MORGAN RESERVE KEI MOUTH (No. 09/FY/20)

DESIGN REPORT
STAGE 3

EDGE To EDGE
1275CC

TURNKEY SERVICE PROVIDER

Report prepared for:
EASTERN CAPE PARKS & TOURISM AGENCY
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Date: 28 August 2020
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ADVENTURE PROVINCE
Eastern Cape
PARKS & TOURISM AGENCY

1. INTRODUCTION AND CONTEXT

Based on the Client's (ECPTA) approval of the concepts presented at the Digital (MSTeams) meeting on 7th July 2020 (refer to Minutes of meeting) the Edge-to-Edge 1275 cc Turnkey Team has developed the designs, coordinating the architectural, civil, structural, mechanical and electrical aspects of the project.

The full pack of Stage 3 drawings is attached:

Architect's Drawing numbers: Annexure 1

20-001/SDP-01 REV 06 SITE PLAN
20-001/SP-100 REV 10 BUILDING A FLOORPLANS
20-001/SP-101 REV 04 BUILDING A PARKING LEVEL PLAN
20-001/SP-102 REV 03 BUILDING A ELEVATIONS SHEET 1
20-001/SP-103 REV 03 BUILDING A ELEVATIONS SHEET 2
20-001/SP-104 REV 02 BUILDING A SECTIONS
20-001/SP-106 REV 02 BUILDING A TYPICAL UNITS A AND B
20-001/SP-200 REV 06 BUILDING B & B1 – FLOORPLAN
20-001/SP-201 REV 03 BUILDING B & B1 – SECTION & ELEVTIONS
20-001/SP-300 REV 03 BUILDING C – FLOORPLAN, SECTION & ELEVTIONS
20-001/SP-400 REV 07 BUILDING D – FLOORPLAN
20-001/SP-401 REV 02 BUILDING D – SECTION & ELEVTIONS

Civil and Structural engineer's drawings: Annexure 2

S201501-RCB-01 BEAMS FIRST FLOOR BLDG A
S201501-RCB-02 BEAMS SECOND FLOOR BLDG A
S201501-RCB-03 BEAMS EAVES LEVEL BLDG A
S201501-RCC-01 COLUMNS BLDG A
S201501-RCS-01 FIRST FLOOR RC SLAB BLDG A
S201501-RCS-01 SECOND FLOOR RC SLAB BLDG A
S202450-CSL-01 COMBINED SERVICES LAYOUT – SITE
S202450-GD-01 SEPTIC TANK AND FRENCH DRAIN DETAIL
S202450-GD-02 MANHOLE DETAILS
S202450-GD-03 FIRE HYDRANT AND CATCHPIT DETAILS
S202450-SL-01 PARKING SURFACE LAYOUT –SITE & BUILDING A

Electrical and Mechanical Engineer's drawings: Annexure 3

EL20-02-SP-L01 – REV 00 BUILDING A – LIGHTING & POWER LAYOUT PLANS
EL20-02-A-PL01 – REV01 BUILDING A - TYPICAL UNIT POWER AND LIGHTING LAYOUT
EL20-02-B-PL01 – REV01 BUILDING B - POWER AND LIGHTING LAYOUT
EL20-02-C-PL01 – REV01 BUILDING C -POWER AND LIGHTING LAYOUT
EL20-02-D-PL01 – REV01 BUILDIND D - POWER AND LIGHTING LAYOUT
LIGHT FITTING SCHEDULE
EL20-02-A-FP – REV 00 BUILDING A – FIRE PROTECTION LAYOUT
EL20-02-B-FP – REV 00 BUILDING B – FIRE PROTECTION LAYOUT
EL20-02-D-FP – REV 00 BUILDING D – FIRE PROTECTION LAYOUT
EL20-02-B-HVAC – REV 00 BUILDING B – HVAC LAYOUT
EL20-02-D-HVAC – REV 00 BUILDING D – HVAC LAYOUT

EL20-02-C-LPG&DW – REV 00 BUILDING C – GAS AND WATER LAYOUT
EL20-02-D-LPG&DW – REV 00 BUILDING D – GAS LAYOUT

For reference only, the latest two Elemental Estimates are also attached from the Quantity Surveyor which is based on the attached drawings. (See Annexure 4)

2. DESIGN DRAWINGS

The concept designs were presented to various stakeholders for their input with Minutes of each meeting being copied to the Project leader. The inputs have now been incorporated in the current drawings:

- TOURISM GRADING COUNCIL OF SOUTH AFRICA (TGCSA) for feedback on the typical unit design and compliance with 3-Star Grading in the Self-catering category. These comments and recommendations have been incorporated into the designs.
- ECPTA departments relating to CCTV, Access Control and Audio-Visual
- Great Kei Local Municipality – to introduce the project to the Local Economic Development Office as well as the Council for inclusion in the spatial development Framework for the area
- Liaison with Eskom in terms of electrical supply – application enquiry.
- DEDEAT Engagement regarding the EIA requirement for Building A

2.1 BUILDING A – NEW SELF-CATERING ACCOMMODATION

The Stage 3 designs currently allow for a 3 level building:
Lower Ground level accommodating:
- 27 undercover parking bays
- Heat Pump Plant room for water heating
- Low Voltage Room
- Photo-voltaic battery storeroom
- Refuse holding area
- Two general stores and a loading bay
- Access stairs to the upper ground level

Upper ground Level accommodating:
- 10 standard 2-sleeper Self-Catering Units
- 2 wheel-chair friendly units – 2 sleeper
- Reception Office
- 2 paraplegic parking bays with ramped access to the accommodation level
- Rainwater tank storage areas (6 tanks) for toilet flushing.
- Access and fire escape stairs

First Floor accommodating:
- 12 standard 2-sleeper Self-Catering Units
- Access and fire escape stairs

The building is planned as a reinforced concrete frame structure, with brick walls finished with pigmented scratch-plaster finish for reduced maintenance. Panels of CCA-treated timber latte to match those used on existing screens at the Conference centre, will

provide screening on balconies and some shading on the upper concourse. These latte will also provide wind-breaks through the central concourse area.
Aluminium roof-sheeting on timber rafters, with Insulation is proposed for the roof.
Aluminum windows and doors are proposed on the building.
Floor finishes vary between brushed concrete on external walkways, to cemcrete or equal screed finishes and tiles areas.

The poor founding conditions revealed by the Geotech report indicate that large founding pads will be needed, along with over-excavation and soil improvements such as re-compacting layers below the pads.

The water heating will be provided by a centralized but energy efficient Heat-Pump system. The stoves will be Induction type – which are also energy efficient.
LED light fittings are to be used where feasible.

60 000 litres storage capacity of rainwater in tanks will allow for substantial rainwater harvesting. These tanks will however be linked to the existing water supply in the event of long dry spells. This water will be utilized to flush toilets, thereby substantially reducing the water supply needs of the building.

An additional standby tank of water incoming from the mains supply, will also provide 10 000 litre back-up. The incoming water supply is currently not treated, and is supplied from and open-air dame some distance from the site. It is proposed that this water is treated before distribution to the units and other buildings.

Sewer treatment for the 24 units is proposed as a septic tank and French drain system sized accordingly.
Although we originally planned to install heaters (panels) and fans, the more electrically efficient heat-recovery air-conditioning units are proposed instead, with fresh-air intake above the entrance door to each unit.

20/08/2020 update: It is noted that there may be a change of scope on the number and type of units as well as the parking undercover area – revised scope pending.
Furthermore the EIA process for this building is estimated to only be concluded on 30 January 2021(pending DEDEAT fast-tracking)
It is therefore recommended that the work on building A be stopped until the above issues are resolved.

2.2 BUILDING B – OFFICES AND BREAKAWAY ROOMS

Following various inputs from ECPTA department officials, the final design at stage 3 is as follows:
Office Suite 1: (Operators Suite)
Reception/waiting office: 25m2
Office – 17m2
IT/Server room – 105m2
Tea kitchen – 6.5m2
Toilet 3.3m2
The entrance door leading to the suite will be fitted with a maglock for access control (tag-system)
The rooms will be air-conditioned.

Total Suite: 68m2

Breakaway Rooms:
Break-away 1: seats 24
Break-away 2: seats 25
Break-away 3: seats 24
The breakaway rooms will each be fitted with a projector and screen. The entrance door leading to the 3 rooms will be fitted with a maglock for access control (tag-system)
20/08/2020 update
It is noted that one breakaway room may become the business centre – revised scope pending. This room will be fitted with a counter and plug points to accommodate printers, pc's etc. for use by guests. (Equipment not included)

Office Suite 2: (ECPTA/Reserve Suite)
Entrance lobby/waiting area: 15m2
Two Offices – 14m2 and 18m2
Store Room - 7m2
Tea kitchen – 8m2
Toilet 3.4m2
The entrance door leading to the suite will be fitted with a maglock for access control (tag-system)
The rooms will be air-conditioned.
Total Suite: 107m2

Utility Rooms:
Four general store rooms – 14m2 each
Launderette – (self-service) – 9m2 plus drying yard
Linen Holding Store room – 9m2
Staff rest room – (for kitchen/restaurant staff) – 18m2

Building B – existing ablutions
This building is proposed as the Staff Change Room and Ablutions – (for kitchen/restaurant staff) – 38.5m2 (M&F) and will be renovated.

Where the roof is damaged, these sections will be replaced with Nutec-cement roof sheets in the same profile. The entire Boat Store area will be demolished and reconstructed with matching roof-sheeting. Throughout Building B, the walls will be plastered and painted, with a new internal brick skin constructed inside the building. New tiled floor finishes installed, and new ceilings fitted throughout. All existing steel-framed windows and all existing doors and frames will be removed, and new Aluminium windows and doors will be fitted, along with new timber doors as applicable.

The entire verandah will be re-constructed and extended along the existing boat storage area and around the front (entrance face of the building. A new signage wall is proposed with the ECPTA logo. The existing timber screens will be removed and used elsewhere on the site, with new paves areas established, flowing off the verandah from which the break-away rooms are accessed.

It is anticipated that tea would be served in the main conference room foyer – less than 50m away- and this means that the existing ablutions in the conference centre will also

serve the conference attendees. The offices and breakaway rooms will be fitted with air-conditioning console units.

Parking of 14 cars will also be accommodated near the entrance to the site, directly onto the entrance offices. 3 x 5000 litre rainwater tanks will also gather rainwater for use in the gardens around the site – harvesting rainwater from the roof of this building.

2.3 BUILDING C – RANGERS HOUSE

The existing building will be renovated and the roof checked for water-tightness, and repaired and repainted where needed. The house will accommodate two private bedrooms each with their own bathroom, leading off the central open-plan lounge/kitchen area. One room will also have an external door as per Reserve manager's request. It is also proposed that a verandah addition be included to expand the living area slightly.
A new gas geyser will provide hot water to the kitchens and bathroom. Rainwater is also to be collected from this roof in two tanks for use in gardens. The sewer system is to be serviced (de-sludge the septic tank)

This building condition is fair and structurally stable. All finishes will be renovated (new ceilings, floor tiles, bathroom fittings, cupboards and windows and doors.

2.4 BUILDING D – KITCHEN AND RESTAURANT

The existing Exhibition Building utilized by the Strandloper Trail, is to be converted to a kitchen, and extended to incorporate a restaurant/dining area which leads onto the pool area.

The following has been accommodated:
Kitchen – 65.3m2
Cold & Freezer Rooms
Dish and Pot Wash-up areas with sinks
Dry Store
Cold and Hot kitchen with starter equipment fitted including overhead extraction and gas supply. The layout takes into account a functional kitchen which can be added to by the operator of the restaurant.
Restaurant -140m2
Small bar / cashier area
Buffet/serving counter with plug points
Seating for 80 persons – at tables of 4/6 or 10
The pool deck will be extended, with a ramp and steps connecting the restaurant and deck to the existing main conference building. The existing ablutions in the conference centre will serve the restaurant – a mere 10m away.
It is proposed that both hot water for the kitchen and cooking be fueled by LP Gas.
Air-conditioning units will be installed in the restaurant, with extraction in the kitchen.

The primary function of the restaurant is seen as supporting the Conference venue, but consideration should also be given to the restaurant operating independently and this may affect the seating plans and operator's requirements in terms of the kitchen layout, and

menu offered. At this stage the pendant light fittings are designed according to the table layout shown. A TV point and speakers in the restaurant will also be provided (equipment not included)
The building extension will be constructed from brick and pigmented, scratch-plaster, with new Aluminium roof sheeting on timber rafters (with insulation. New aluminium windows and doors.

2.5 BUILDING E – CONFERENCE CENTRE ITEMS

It was confirmed by the Reserve manager that the Audio-Visual fixtures existing in the Conference centre were operational when last an event was held there at the end of 2019. No new system is therefore anticipated. The existing system consists of Automated screen, overhead (ceiling mounted) projector, with floor plugs to link a laptop, wall-mounted speakers, and a blue-tooth microphone system with amplifier in a lockable cupboard. Re-training can be arranged for this system.

The main entrance door will be fitted with maglock (tag system) for access control.

2.6 OTHER ITEMS: CCTV

As per the meeting held with the various departments managing this aspect of ECPTA facilities, it was agreed in the meeting to incorporate the following in the project. Refer to minutes.
The proposal includes ten new CCTV cameras erected around the Cape Morgan Conference centre and surrounding buildings:

- One fixed camera facing the gatehouse and existing boom gate
- One rotating camera in the 'street' between Building B (offices) and E (main conference centre)
- One rotating camera south of Building D & E – viewing the back of the two buildings and the parking area on this south side
- One fixed camera looking down the street between the restaurant kitchen and the Strandloper building
- One fixed camera looking across the driveways into Building A parking area
- One fixed camera looking towards Building E - Conference Centre main entrance doors
- One camera on Building B verandah – looking over all the entrance doors
- 3 extra cameras for blind spots around the site

The cameras would be linked to a 1 Terabyte storage hard-drive. Depending on the number of cameras, this will give about 7 days of recording. There are no internal cameras proposed – only external coverage. The position of the monitors and hard-drive is proposed in the IT/Server Room run by the operator.

3. COSTS

In a turnkey scenario, the great challenge to the Turnkey Service Provider is how to provide an accurate FIXED PRICE and TIME PERIOD on the scope given at tender stage, when so many factors are still to be discovered. The price tendered for the construction only – including P&G, escalation and vat was **R 38 046 801.99**. Note this excludes the professional fees and disbursements.

After the award of the tender, the team set about designing according to the scope, conducting site investigations, site survey, geotech and environmental scoping – hampered severely by the Covid 19 Lockdown. The first elemental estimate prepared on the designs dated 30/06/2020, came back over budget, at **R43.8 million** (excluding professional team fees & disbursements). Hence the professional team was back to the designs to effect savings within the scope.

The second elemental estimate (also attached) dated 13/07/2020 shows the project still over budget at **R40.13 million** as a result of the poor soil/founding conditions revealed by the geotech investigation for this 3-storey design. So despite re-design, the budget was still problematic. Revising building A in terms of the central walkways led to further savings, and revised mechanical electrical estimates –see estimate dated 16/07/2020 with the project construction costs at **R39 850 000.00** (Excl. professional fees and disbursements)

The team was in the process of looking at revising the foundation design when the ECPTA Project leader announced the imminent scope changes for Building A on 13 August 2020 during an 'ms-teams' meeting of same date.

Elemental Estimate no.4 is pending the issuing of instructions relating to the change of scope.

4. PROGRAM & WAY FORWARD

This project was awarded on 22/03/2020, with National Lockdown being implemented on 26/03/2020. While the 12 week delay during hard lockdown had serious consequences for the team's ability to conduct site investigations etc., every effort was made to reduce this time, and the current effect is 6 weeks behind schedule.

There are however other factors contributing to additional delay on the program.

The first is the EIA process. This has added 142 days to the Construction period since work on Building A (including demolition of the existing building) cannot commence construction until the EIA approval is obtained. While DEDEAT have promised to fast-track the process, the Variation Order no. 01 (EIA) –Rev01 that was submitted to ECPTA 09 August 2020 sets out the worst-case scenario impact along with its costs. Should any time be made up in the process, a revised VO will be submitted along with revised costs. Note that the EIA was on instruction from ECPTA.

The second delay is the pending change of scope. This has been awaited from ECPTA since13 August 2020. (Two weeks lapsed as of today's report.)

Since we have not yet received the details of the scope change, we are not able to completely wrap up the other buildings as there may need to be adjustments on these items to accommodate increased costs for the scope changes– unless these additional costs will be added to the budget.

The re-design of Building A will also affect the timeframe as we are basically returning to Stage 1-2 (Inception and Concept) on this part of the work. Where this overlaps runs concurrently with the existing EIA delay, this will be taken into account and every effort will be made to keep delays to a minimum.

We therefore recommend that we adopt the following as a way forward:
The project will be implemented in two phases to prevent a total stopping of work:
Phase 1 – Buildings B(Offices & Stores), Building C (Rangers House) and Building D (Kitchen and Restaurant) to proceed as designed. It is anticipated that Municipal submission, working drawings and commencement of Construction on site can proceed on approval of Stage 3 drawings from ECPTA.

Phase 2 will follow for Building A once the EIA is approved. Should the Municipal Submission for building A be included in the above, there is a risk that the Great Kei Municipality will hold back Plan Approval on all buildings until the EIA is obtained. Once the scope change is issued and while the EIA process is already underway, the redesign work on Building A can commence.

Thereafter approval of Stage 3 Design will be sought, followed by Municipal Submission and working drawings of the new design.

It is strongly recommended that the revised scope instruction be issued to the team urgently – even if it is just for pricing purposes, so that the Turnkey Team can assess the impact of redesign and keep momentum on the project.

We reconfirm our commitment to deliver a quality project to ECPTA and look forward to resolving these issues effectively.

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