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| Merits Consulting Engineers Ltd  Hennessy Avenue,  Quatre Bornes 72249  Mauritius  BRN: C13118659 |  |  |
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| Date: 23/08/2022 |  | REF: P768.A12\_6189R1 |
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| Mr Mervin Govender  Email: smgovender72@gmail.com | | |
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| Townhouses and Apartments at Unicity | | |
| RE: Mechanical & Electrical Engineering Consultancy Proposal R1 | | |
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| Dear Mr Govender,  We thank you for giving us this opportunity for working on your project. Following our meeting with Mr Nicolas Lo, we are pleased to present this revised proposal for Mechanical and Electrical Engineering Consultancy for your consideration.   1. **Project Description**   The project is located in the Unicity on a plot area of 3 acres and consist of the construction of 17 townhouses and 36 apartments.   1. **Scope of Services**   We will provide design and Level 2 construction monitoring services of the following systems for the project.   |  |  |  | | --- | --- | --- | |  | **Drainage & Disposal Systems** | **Scope** | | R11 | Foul drainage above ground | Design | | R12 | Drainage below ground (within building footprint) | Design | | R14 | Sewage Pumping | Design | |  | **Water Services** |  | | S10 | Cold Water | Design | | S14 | Irrigation | Performance specs | | S17 | Water reclamation system | Design | |  | **Fire Suppression / Fire Fighting** |  | | S60 | Fire Hose Reels | Design | | S61 | Dry Riser | Design | | S62 | Wet Risers | Design | | S63 | Sprinklers | Design | | S65 | Fire Hydrants | Design | | S70 | Gas Fire Fighting | Design | | N10 | Portable Fire Extinguishers / Blankets | Design | |  | **Ventilation / Air Conditioning** |  | | U10 | General Ventilation | Design | | U11 | Toilet Ventilation | Design | | U12 | Kitchen Ventilation | Design | | U13 | Car Park Ventilation | Design | | U14 | Smoke Extract / Smoke Control | Design | | T62 | VRF System Air Conditioning | Design | | W60 | Building Management System | Design | |  | **Power, Earthing, Lightning Protection & EMC** |  | | V10 | Emergency and Standby Generators | Design | | V11 | HV supply / Public Utility Supply | Design | | V20 | LV distribution | Design | | V22 | General LV Power | Design | | V32 | Uninterruptible power supply | Design | | V33 | LV earthing and bonding | Design | | V34 | HV earthing and bonding | Design | | V35 | Lightning and surge protection system | Design | | V36 | Electromagnetic compatibility | Design | |  | **Lighting** |  | | V21 | General technical and plantroom areas | Design | | V40 | Emergency lighting | Design | | V41 | Area flood lighting | Design | |  | **IT and Telecoms** |  | | W70 | Structured cabling system | Design | |  | **Electronic Security** |  | | W20 | Closed circuit television | Performance specs | | W40 | Access control | Performance specs | | W41 | Security detection and alarm | Performance specs | |  | **Detection and Alarm** |  | | W15 | Fire detection and alarm | Design | |  | **Transport System** |  | | X10 | Lifts | Performance specs |   In addition to the above, we will liaise with the following Utility Authorities for their technical requirements:   * Central Electricity Board * Central Water Authority * Mauritius Telecom * Mauritius Fire and Rescue Service * Wastewater Management Authority  1. **Work Stage & Deliverables**   Our Key Deliverables are listed below and are aligned to RIBA work stages adapted to local needs.   |  |  |  | | --- | --- | --- | | **Work Stage** | **Brief Description of Services** | **Key Deliverables** | | **Stage 0**  Strategic Definition | Identification of client need and objectives, and possible constraints on development  Development of initial statement of requirements into design brief.  Identification of utilities requirement | * Review Client Brief * Identification of major utilities constraints | | **Stage 1**  Preparation & Brief | Identification of any demolition required  Firm up on design brief based on client project brief | * Outline Concept Design Report | | **Stage 2**  Concept Design | Coordinate spatial requirement into Architect Plans  Identify major plant sizing and control strategies  Identify authority’s requirement for inclusion in the design  Prepare cost estimates | * Preliminary Drawings * Outline Specification * Preliminary cost Estimates * Concept Design Report | | **Stage 3**  Developed Designed | Develop preliminary design into scheme design and schematic diagram based on agreed control strategies  Identify clashes with structural and architectural elements  Firm up authorities’ requirement  Prepare updated cost estimates | * Developed design drawings * outline specification * Cut sheets of proposed plants * Updated cost estimates * Drawings for BLUP | | **Stage 4**  Technical Design | Identify any further clashes and resolve  Develop outline specification into detailed specifications  Prepare schedules of equipment  Prepare bill of quantities & specifications  Prepare tender document for inclusion with QS document  Launch tenders & response to queries  Analyse offers and prepare recommendation | * Detailed Designed Drawings * Specifications * Schedules of equipment * Bill of Quantities * Pre-Tender Estimates * Tender Document * Tender Analysis and recommendation | | **Stage 5**  Construction | Issue a set of construction documentation to contractors  Issue supplementary construction information upon request from contractors via RFI  Review contractors’ submittals, i.e. shop drawings, Materials and equipment  Inspect works before permanent concealment  Inspect works for workmanship  Inspect works for financial valuation certification  Inspect works for Testing, Commissioning and taking over | * A set of construction drawings * Response to RFI * Reviewed shop drawings * Inspection reports * Progress Valuation Certificates * Cost Reports * Witness Testing & Commissioning   Commented 0&M Manuals | | **Stage 6**  Hand-over | Take-over installation from contractors on behalf of Client  Arrange for training of Client Staffs  Agree on final accounts with contractors  Carry out a snag list for the contractors to attend within a set time  Handover O&M Manuals to Client | * Practical completion certificate * Final O&M manuals * Final snags list | | **Stage 7**  Defects Liability  (12 months) | Arrange visit with contractor and follow up on pending snags  Request contractor to fine tune systems depending on usage  Assist contractor in resolving latent defects | * Final snags list * Final completion * Project closure |  1. **Our Resources**   Our operation is based on a flat organisation and for your project, we propose the following Organisation chart:   1. **Key Deliverables**   We list below our key deliverables format in line with our sustainability goals:   |  |  |  | | --- | --- | --- | | **Item** | **Key Deliverables** | **Format** | | 1 | Reports, Inspects and the likes | Soft in PDF | | 2 | Sketches | Soft in PDF | | 3 | Design & Tender drawings | Soft in DWG and PDF | | 4 | First set of construction drawings | In DWG, PDF and hard print | | 5 | Subsequent set of construction drawings | In DWG and PDF |  1. **Professional Fees**   Based on the scope of services and project description, we have estimated our fee based on a percentage of the total construction cost capped at 250M and broken down as follows:   |  |  |  | | --- | --- | --- | | No | Services | Fee (MUR) Exc. VAT) | | 1 | Stage 0 to 3 – up to BLUP | 325,000 | | 2 | Stage 4 – Detailed Design & Tender | 1,250,000 | | 3 | Stage 5 to 6 – Construction | 1,125,000 | | 4 | Stage 7 – Defects Liability Period | 125,000 |  1. **Terms of Payment**   Our terms are for payment of our invoices within 21 days of their date of issues which will be on achieving the following milestone basis:   * 100% of Item 1 above upon submission of BLUP application * 100% of item 2 above pro-rata over three months till submission of Tender Documents * 100% of item 3 above pro-rata over 18 months of construction period i.e., MUR 62,500 per month * 50% of item 4 above upon issuance of practical completion certificate * 50 % of item 4 above upon end of defects liability period  1. **Validity**   Our offer remains valid for 60 days as from date of this letter and the fee is based on actual inflation rates.  We hope our proposal is of value to your project and we look forward to hearing from you soon.  We do remain at your disposal for any clarification/discussion. | | |
| Yours faithfully, |  |  |
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| **Jayshen Rammah** |  |  |
| CEng MIEI MCIArb  Director |  |  |
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| Dispatched by: By Email |  |  |