

ADDINGTON HOSPITAL

REFURBISHMENT AND UPGRADING OF COLD WATER, HOT WATER, WASTEWATER AND FIRE RETICULATION AT ADDINGTON HOSPITAL NURSING COLLEGE & ACCOMMODATION

SECTION 1

1. Description of works

1.1. Employer's Objective

To appoint a suitable service provider to assess, design, construct and keep available the existing services while replace/rehabilitating/refurbishing/upgrading the cold water, hot water, wastewater and fire water reticulation and protection at Addington nursing college and accommodation.

1.2. Scope of Work

Cold water:

- i. Replacement of the cold water pumps with their electrical motors, refurbish all existing pumps and electrical motors to be kept as spares
- ii. Replace existing Switchgear and Control panel (to include protection gear)
- iii. Pressure control gear
- iv. Replace all valves for cold water reticulation
- v. Repair roof reservoir for cold water
- vi. Repair cold water reticulation
- vii. Water proofing the roof and repairing existing full bores
- viii. Installing lateral fulling full bores in the cold water storage reservoir room
- ix. Inspect entire cold water reticulation system and repair and/or replace specific sections on the rising main, gravity main and reticulation for cold water
- x. Install of telemetry system to remotely monitor critical equipment and/or condition of entire system

ADDINGTON HOSPITAL

- xi. Produce O&M manuals
- xii. Produce as-built drawings

Hot water:

- i. Refurbish and/or replace existing hot water plant
- ii. Replacement pumping gear for hot water
- iii. Inspect entire hot water reticulation system and repair and/or install new sections of both the rising main, gravity main and reticulation for hot water
- iv. Replace all valves for hot water reticulation system
- v. Install telemetry system to remotely monitor critical equipment and/or condition of entire system
- vi. Produce O&M manuals
- vii. Produce as-built drawings

Wastewater:

- i. Replace existing cast-iron sewer stack with suitable PVC material
- ii. Inspect entire wastewater reticulation system and replace and/or repair specific sections
- iii. Replace all wastewater valves
- iv. Install additional inspection and/or maintenance access points
- v. Produce O&M manuals
- vi. Produce as-built drawings

Fire reticulation:

- i. Re-design fire reticulation water reticulation system to suit current statutory requirements
- ii. Design should comprehensively address fire detection, fire protection and evacuation
- iii. Replace existing pumping gear and refurbish existing to be kept as spares
- iv. Replace all safety, information and mandatory signage
- v. Install telemetry system to remotely monitor critical equipment and/or condition of entire system
- vi. Produce O&M manuals
- vii. Produce as-built drawings

ADDINGTON HOSPITAL

1.3. Employer's Design

1.3.1 None

No Submission or partial compliance of detailed CV's of all mandatory Professionals fully meeting the required level of skills and post Professional registration experience

1.4. Resources

1.4.1 The project would require the following disbursement resources:

Submission of CV's on the provided "CV template" for the following mandatory Professional team

- Professional Civil & Structural Engineer = 5 years post ECSA registration
- Professional Mechanical Engineer/Technologist = 3 years post ECSA registration
- Professional Electrical Engineer/Technologist = 3 years post ECSA registration
- Professional Fire Engineer = 3 years post ECSA registration
- Environment, Health & safety: = 3 years post Professional registration
- Professional Draftsperson = 3 years post Professional registration

1.4.2 Applicable Professional Indemnity (PI) Insurance is as follows:

- Professional Civil & Structural Engineer = R10 million
- Professional Mechanical Engineer/Technologist = R5 million
- Professional Electrical Engineer/Technologist = R5 million
- Professional Engineer (fire specialist) = R5 million
- Environment, Health & safety = R3 million
- Professional Draftsperson = R2 million

or

- Combined/consolidated PI insurance = R30 million (listing all the above-mentioned resources)

1.5. Parts of the Work which the Contractor is to design

1.5.1 The Contractor is to design the whole of the works as **Section 1.2 Scope of Works**

1.5.2 The Contractor shall work under the strict supervision and control of a NEC 3 project manager appointed by the Department of Health KZN Province.

1.5.3 The Contractor is responsible for the overall design of the works, any amendments that needs to be made to his design and to prepare as-built drawings for the completed works.

1.5.4 The Contractor shall appoint suitably qualified and experienced professionals to carry out both the design portion and the construction portion of the works.

1.5.5 The Contractor shall submit to the NEC3 Project Manager and DoH Project Leader all applicable design calculations and drawings for both temporal and permanent works.

ADDINGTON HOSPITAL

- 1.5.6 The Contractor's works (both temporal and permanent) shall comply with minimum standards/requirements to both the National Building Regulations and with all Local Authority.

1.6. Procedure for submission and acceptance of Contractor's design

- 1.6.1 The Contractor's documentation shall be issued to the NEC3 Project Manager under cover of the Contractor's transmittal note indicating all Contract references (i.e. Project No, Contract No. etc.) as well as the Contractor's Project Document Number, Revision number, Title and chronological listing of transmitted documentation. Formats of Contractor's data submitted is dependent on the project procedure and shall be specified by the NEC3 Project Manager, upon the notified request of the Contractor.
- 1.6.2 The contractor shall deliver both hard copies and electronic media copies (CD rom) to the NEC3 Project Manager either at the address stated within the Contract Data or at the Project site office.
- 1.6.3 All electronic documentation shall be submitted by the Contractor in Adobe Acrobat (.PDF) and native file format.
- 1.6.4 Acceptance of documentation by the NEC3 Project Manager will in no way relieve the contractor of his responsibility for the correctness of information, or conformity with his obligation to provide the works. This obligation rests solely with the Contractor.
- 1.6.5 After review, a copy of the original review/marked-up drawing/document, with the NEC3 Project Manager's consolidated comments and document status marked on the Contractor Review Label, is scanned and the original document with comments shall be returned to the contractor under cover of the project's Transmittal Note for revision or re-submittal as instructed and to be included in the master copy data file where applicable.
- 1.6.6 The Contractor shall allow the NEC3 Project Manager 2 weeks unless otherwise stated and agreed, to review and respond to the Contractor's submission of their documentation, i.e. from time of receipt of the hardcopy to the document control office to the time of dispatch. The Contractor does not proceed with the relevant work until the NEC3 Project Manager has accepted his design.
- 1.6.7 On receipt of the reviewed documentation the contractor shall make any modifications requested/marked-up and resubmit the revised documentation to the NEC3 Project Manager within 2 working days. Queries regarding comments/changes should be addressed with the NEC3 Project Manager prior to re-submittal. Any re-submittals, which have not included the changes/comments identified, will be returned to the Contractor to be corrected. The Contractor shall re-issue the revised documentation incorporating all comments and other specified details not included in the previous issue within 2 working days of receipt of the marked-up document.

1.7. Review and Acceptance of Contractor Documentation

The contractor submits documentation as the 'works Information' requires to the NEC3 Project Manager for review and acceptance.

ADDINGTON HOSPITAL

1.8. Other requirements of the Contractor's design

1.8.1 The Contractor's design complies with the following:

- Legislation: Minimum applicable legislation (latest version) include:
 - i. Public Finance Management Act
 - ii. Occupational Health & Safety Act 85 of 1993
- Policies:
KZN applicable Health Policies (structural Installations 2013)
- Norms and Standards: Minimum applicable Norms and Standards
 - i. SANS 10400, 10120, 10252/3
 - ii. DPW Civil Engineering Specifications
 - iii. Red book
 - iv. IUSS – Environment and Sustainability
 - v. Other applicable IUSS Health Facility Guides
- Other requirements:
Municipal by-laws

1.9. Use of Contractor's design

1.9.1 The Contractor grants the Employer a license to use the copyright in all design data presented to the Employer in relation to the works for any purpose in connection with the contraction, re-construction, refurbishment, repair, maintenance and extension of the works with such licence being capable of transfer to any third party without the consent of the contractor.

1.9.2 The Contractor vests in the Employer full title guarantee in the intellectual property and copyright in the design created in relation to the works.

1.10. As-built drawings, operating and maintenance schedules

1.10.1 The Contractor provides the following:

- As Built Drawings

All as-built red line drawings must be signed-off by the Contractor's responsible person before issue to NEC3 Project Manager for acceptance.

- Installation, Maintenance and Operating Manuals and data Books

The Contractor provides manuals in an A4 hard cover, grease and waterproof binder, using 2 ring type binders

Drawings and charts larger than A4 are properly folded and those greater than A3 are enclosed in an A4 plastic pocket of adequate strength.

ADDINGTON HOSPITAL

The manuals are well indexed and user friendly and must include a summarized Table of Contents. The index for data packs must be submitted to the NEC3 Project Manager for acceptance at the beginning of the project to enable the Contractor to maintain and update the on a continuous basis throughout the project lifecycle. The Contractor submits the draft Table of Contents to the NEC3 Project Manager for acceptance prior to the compilation and official submittal of the manuals and data books.

The originals of all brochures shall be issued to the NEC3 Project Manager. When a general brochure is applicable to a range of equipment, then the specific item, catalogue number or model number shall be stated, which is best achieved by introducing a separate index page, which cross references the specific item to a tag number. The address, phone numbers, fax numbers, email addresses, and reference numbers of all Sub-Contractors is provided.

Where manuals include drawings that still need to be revised to "As-Built" status, and such manuals are required prior to As-Built" status, the manual will not be considered to be in its final form until the "As-Built" version of each such drawing has been incorporated.

The required number of copies of the manual (s) shall be as specified by the NEC3 Project Manager and submitted per type or model number of equipment included in the contract, or as specified by the NEC3 Project Manager.

All electronic copies (.pdf) of Data Packs to be properly indexed and bookmarked. All pages that make-up the data book or manual must be sequentially numbered.

2. Construction

2.1. Temporal works, Site services and Construction constraints

The site establishment area shall be have a clearly visible sign posted and be compliant with the relevant safety regulation and restrictions that might be in place until the Contractor has de-established from site and comply with OHS Act 85 of 1993.

The Contractor is responsible for the security of the Works until completion and hand-over and must make his own arrangement for security and the safekeeping of his property.

Housing of the Contractor's people on site is not permitted.

Since the site shall remain live during the construction stage. It is the responsibility of the Contractor to ensure the Works are properly guarded and protected at all times and pose no safety risks to the both the property and lives of our staff, visitors and patients.

ADDINGTON HOSPITAL

The Contractor must ensure that the working area is well lit at night and that all fences, obstacles and hazards are clearly marked.

The Contractor must make his own arrangement for telecommunication facilities, if required, for his use during the execution of the Works.

The Contractor, within fourteen days after completion, must completely remove from site all his plant, materials equipment, stores and temporary office accommodation or any other asset belonging to him and leave the site in a tidy condition to the satisfaction of the NEC3 Project Manager. No excess or discarded materials, plant

Unless expressly stated as a responsibility of the Employer, Site services and facilities, all residual requirements for the provision of facilities and all items of Equipment necessary for the Contractor to Provide the Works remains the responsibility of the Contractor.

Wherever the Contractor provides facilities (either his own or for the NEC3 Project Manager and DoH Project Coordinator/Leader) and all items of Equipment, involving, inter alia, offices, accommodation, laboratories, Materials storage, compound areas etc., within the

Working Areas, then the Contractor makes good and provides full reinstatement to the land (including all apparatus of the Employer and Others in, on or under the land) and surrounding areas to its original standards, upon dismantling of such facilities and items of Equipment.

Unless expressly stated as a responsibility of the Employer, Site services and facilities all residual requirements for the provision of facilities and all items of Equipment necessary for the Contractor to Provide the Works remains the responsibility of the Contractor.

The Contractor will be held responsible for any damages to existing structures and services caused by him during the provision the execution of this Contract, fair wear and tear excluded, and shall repair damage(s) to the satisfaction of the NEC3 Project Manager and/or DoH Project Coordinator/Leader before completion of the Works

For this purpose, a joint inspection with the NEC3 Project Manager and/or DoH Project Coordinator/Leader and the Contractor shall be carried out prior to occupation of the Works and any existing damages noted. Repair work to damaged existing structures and services may be carried out during the contract period or during the defects correction period if so authorised. The Contractor will be required to conduct a photographic site survey of the occupied area showing existing structures and services. This report must be submitted to the

ADDINGTON HOSPITAL

NEC3 Project Manager for approval and will be used in assessing the damages to structures and services if applicable.

2.2. People Restrictions on Site, Hours of Work, Conduct and Records

The working hours shall be in accordance with the requirements of the Department of Labour and as agreed with the relevant trade unions. Relevant documentation and information shall be provided to the NEC3 Project Manager and Supervisor on a regular basis, and prior to commencement of the Works.

The Constructor shall keep daily records of his people engaged on site and working areas, including all EPWP, Sub-Contracting, and Suppliers. The Employer and the NEC3 Project Manager shall be given unencumbered access to such daily records at all reasonable times.

2.3. Control of Noise, Dust and Waste

The Contractor shall take all reasonable steps to contain unacceptable levels of noise and dust, in accordance with the specified and referenced environmental, health and safety requirements

The Contractor shall dispose of all waste products at a registered waste disposal site, to be approved by the NEC3 Project Manager. The Contractor shall provide written proof that all permits for the waste disposal site are in place.

2.4. Health and Safety Requirements

At all times during construction, the Contractor is responsible for the safety of all persons on the Site and on the equipment and shall have the necessary systems and procedures in place to effectively manage this in relation to H&S requirements in addition to those of the OHS Act and Regulation (85 of 1993, CR 2014).

The Contractor shall comply with all applicable legislation and regulations.

The Contractor shall comply with but not be limited to the following Acts:

- The Compensation for Occupational Injuries and Diseases Act no. 130 of 1993.
- The Contractor shall produce proof of his registration and good standing with the Compensation Commissioner in terms of the Act and submit with his offer.
- Occupational Health and Safety Act 85 of 1993.
- National Water Act 36 of 1998
- Environmental Management Act 107 of 1998
- The Provisional Ordinances and Local Authority, by-laws and all relevant regulations framed there under

ADDINGTON HOSPITAL

2.5. Samples

The Contractor shall furnish samples and/or certificate as called for or may be called for by the NEC3 Project Manager / DoH Project Coordinator/Leader. Materials and/or workmanship not corresponding with approved samples may be rejected.

Samples for approval shall be required for paint colours, partitions, joinery with associated finishes, wall finishes, ceiling finishes, floor finishes, windows, louvres, shopfronts, all sanitary fittings and face brick sample wall (2m²). These approved samples shall remain on site for the duration of the Works.

2.6. Completion, Testing, Commissioning and Construction of Defects

2.6.1 Works to be done by the Completion Date

The Contractor shall have done everything required to provide the Works on or before the Completion Date

2.6.2 Access for Correction of Defects

Should the Contractor have to return to the Site after completion of the Works to effect an improvement or repair, the Contractor shall organise access for all staff members required to perform the Works. Recognising that the Works will be used by the Employer as quarantine facilities for patients infected by the COVID-19 virus the Contractor shall liaise with the Employer and NEC3 Project Manager to arrange access and shall provide all staff members required to perform the Works with Personal Protective Equipment.

2.6.3 Hand-over Procedures

Handover procedures shall be agreed with the Employer prior to the completion of the Works.

ADDINGTON HOSPITAL