

PART C3 WORKS INFORMATION

WORKS INFORMATION

FOR



THE NATIONAL DEPARTMENT OF HEALTH

DETAILS

| | |
|-----------------------------|--|
| PROJECT NAME | The appointment of a service provider for fixed and firm turnkey priced contract for the construction of the Msukaligwa Community Health Centre Located in the Gert Sibande District Municipality in the Mpumalanga Province |
| CONTRACT NO | NDoHF02-2025/2026 |
| DESCRIPTION OF WORKS | The project involves the construction (completion) of a new Community Health Centre in Msukaligwa, Mpumalanga, including all associated civil, structural, architectural, electrical, and mechanical works. |

AND ACCEPTED BY

DETAILS OF THE SERVICE PROVIDER

| | |
|-------------------------|--|
| COMPANY NAME | |
| CIDB CRS NUMBER | |
| CSD NUMBER | |
| CONTACT PERSON | |
| E-MAIL ADDRESS | |
| TELEPHONE NUMBER | |
| CELLPHONE NUMBER | |
| SIGNATURE | |

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

DOCUMENT PROPERTIES

| DESCRIPTION | VALUE |
|----------------------------|---|
| Employer | National Department of Health |
| Works Information document | Completion of Construction of Msukaligwa Community Health Centre; Msukaligwa Local Municipality, Gert Sibande District Mpumalanga Province. |
| Date | 30 September 2025 |
| Document Status | For Tender |
| Referenced as | NDoHF02-2025/2026 |

DOCUMENT HISTORY

| REVISION | DATE | PREPARED BY | CHECKED BY | SUPPORTED BY |
|----------|------------|-------------------------------|-----------------------------|---|
| 000 | 2025/09/29 | Ailton Macamo (Consultium) | Sipho Njobe (Consultium) | Christie Engelbrecht (National Department of Health) |

TABLE OF ABBREVIATIONS

| ABBREVIATION | DESCRIPTION |
|--------------|--|
| BoQ | Bill of Quantities |
| CHC | Community Healthcare Centre |
| HT | Health Technology |
| HVAC | Heating, Ventilation & Air Conditioning |
| ICT | Information and Communication Technology |
| IUSS | Infrastructure Unit Support Standards |
| MDoH | Mpumalanga Department of Health |
| MLM | Msukaligwa Local Municipality |
| NDoH | National Department of Health |
| NEC | New Engineering Contract |
| OEM | Original Equipment Manufacturer |
| O&M | Operation & Maintenance |
| PFMA | Public Finance Management Act |
| PSP | Professional Service Providers |
| SABS | South African Bureau of Standards |

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

| ABBREVIATION | DESCRIPTION |
|--------------|----------------------------------|
| SANS | South African National Standards |
| VAT | Value Added Tax |
| Wi-Fi | Wireless Fidelity |

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

TABLE OF CONTENTS

| | | |
|----------|--|-----------|
| 1 | EMPLOYER’S OBJECTIVES..... | 9 |
| 1.1 | Primary Objective..... | 9 |
| 1.2 | Secondary Objective | 9 |
| 1.3 | Contractor’s Obligation towards the Employer’s Objectives | 9 |
| 2 | PURPOSE..... | 9 |
| 2.1 | Purpose of the Works Information | 9 |
| 2.2 | Contractor’s Considerations..... | 10 |
| 2.3 | Alignment of Contractor’s Bid Submissions with Works Information | 10 |
| 2.4 | Instruction and Variations | 11 |
| 3 | SCOPE OF WORKS..... | 11 |
| 3.1 | General Scope | 11 |
| 3.2 | Design Responsibility | 12 |
| 3.3 | Existing Works | 13 |
| 3.4 | Architectural Works | 13 |
| 3.5 | Structural Works | 14 |
| 3.6 | Civil Works..... | 15 |
| 3.7 | Electrical & ICT Works | 17 |
| 3.8 | Mechanical & Wet Services..... | 19 |
| 3.9 | Fire Protection..... | 21 |
| 3.10 | External Works & Landscaping..... | 26 |
| 3.11 | Health Technology..... | 27 |
| 3.12 | Occupational Health and Safety Consultant | 30 |
| 3.13 | Services | 31 |
| 3.14 | Handover Deliverables | 32 |

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

| | | |
|----------|--|-----------|
| 3.15 | Completion Definitions | 33 |
| 4 | COMPLIANCE WITH LEGISLATION | 33 |
| 4.1 | Other Statutory Requirements | 33 |
| 4.2 | General construction standards | 35 |
| 4.3 | Other Prescripts | 36 |
| 4.4 | Occupational Health and Safety | 36 |
| 5 | RISK ALLOCATION AND PRICING UNDER NEC OPTION A..... | 36 |
| 5.1 | Contractor's Duty to Assess and Price Risks | 36 |
| 5.2 | Bill of Quantities..... | 37 |
| 5.3 | Fixed and Firm Nature of the Contract | 37 |
| 5.4 | Exclusion from Compensation Events (NEC Clause 60.1) | 37 |
| 5.5 | Employer's Risks (Clause 80) | 38 |
| 5.6 | Current Risk Register | 38 |
| 5.7 | Contractor's Acknowledgement | 38 |
| 5.8 | Approval procedures for any deviations | 38 |
| 6 | PROGRAMME REQUIREMENTS | 39 |
| 6.1 | Submission Needs | 39 |
| 7 | ACTIVITY SCHEDULE | 40 |
| 7.1 | Activity Schedule Requirements | 40 |
| 7.2 | Acceptable Activity Schedule | 40 |
| 7.3 | Unacceptable Activity Schedule | 42 |
| 7.4 | Other Matters | 44 |
| 8 | ADVANCE PAYMENT | 44 |
| 8.1 | Purpose of Advance Payment | 44 |
| 8.2 | Quantum and Draw-Down | 44 |

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

| | | |
|-----------|--|-----------|
| 8.3 | Advance Payment Guarantee..... | 45 |
| 8.4 | Repayment and Security | 45 |
| 8.5 | Legislative Compliance | 45 |
| 9 | QUALITY ASSURANCE AND CONTROL..... | 46 |
| 9.1 | Description | 46 |
| 9.2 | Quality Assurance | 46 |
| 9.3 | Quality control | 47 |
| 9.4 | The Quality Management Plan | 47 |
| 10 | CONTRACTOR'S KEY PERFORMANCE INDICATORS (KPIS) | 50 |
| 10.1 | Introduction | 50 |
| 10.2 | Time / Programme | 50 |
| 10.3 | Cost / Commercial..... | 50 |
| 10.4 | Quality..... | 50 |
| 10.5 | Health, Safety & Environment (HSE) | 51 |
| 10.6 | Stakeholder & Communication | 51 |
| 11 | SOCIAL FACILITATION AND LOCAL EMPLOYMENT GENERATION | 51 |
| 11.1 | Introduction | 51 |
| 11.2 | General Labour minimum targets | 51 |
| 11.3 | Small Micro & Medium Enterprises (SMME) | 52 |
| 12 | ARCHITECTURAL STATUS QUO | 53 |
| 12.1 | Layout Arrangement | 53 |
| 12.2 | Block A – Plan Layout | 54 |
| 12.3 | Block A Status of Works | 55 |
| 12.4 | Block B - Plan Layout | 56 |
| 12.5 | Block B Status of Works | 57 |

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

| | | |
|-----------|---|-----------|
| 12.6 | Block C - Plan Layout | 58 |
| 12.7 | Block C Status of Works | 59 |
| 12.8 | Block D - Plan Layout..... | 60 |
| 12.9 | Block D Status of Works | 61 |
| 12.10 | Block E - Plan Layout | 62 |
| 12.11 | Block E Status of Works..... | 63 |
| 12.12 | Block F - Plan Layout | 64 |
| 12.13 | Block F Status of Works..... | 65 |
| 12.14 | Block G - Plan Layout..... | 66 |
| 12.15 | Block G Status of Works | 67 |
| 12.16 | Block H - Plan Layout..... | 68 |
| 12.17 | Block H Status of Works | 69 |
| 12.18 | Block J - Plan Layout | 70 |
| 12.19 | Block J Status of Works | 71 |
| 12.20 | Block K - Plan Layout | 72 |
| 12.21 | Block K Status of Works..... | 73 |
| 12.22 | Block L - Plan Layouts | 74 |
| 12.23 | Block L Status of Works | 75 |
| 12.24 | Block M1 & M2 - Plan Layout..... | 76 |
| 12.25 | Block M1 & M2 Status of Works | 77 |
| 12.26 | Block P Plan Layout | 78 |
| 12.27 | Block P Status of Works..... | 79 |
| 13 | CIVIL ENGINEERING STATUS QUO | 80 |
| 13.1 | Introduction | 80 |
| 13.2 | General Quality of Work | 80 |

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

| | | |
|-----------|---|-----------|
| 13.3 | Vegetation Removal and Bulk Earthworks Platforms..... | 81 |
| 13.4 | Excavations for Raft Foundations | 81 |
| 13.5 | Casting of Raft Foundations | 82 |
| 13.6 | Sewer Reticulation | 82 |
| 13.7 | Water Reticulation | 83 |
| 13.8 | Stormwater drainage | 84 |
| 13.9 | Roadworks..... | 85 |
| 13.10 | Anchor Block Retaining Wall | 86 |
| 14 | ELECTRICAL ENGINEERING | 87 |
| 14.1 | Introduction | 87 |
| 14.2 | Status of Electrical works | 88 |
| 14.3 | Scope of electrical work..... | 89 |
| 15 | STRUCTURAL ENGINEERING | 90 |
| 15.1 | Introduction | 90 |
| 15.2 | Foundations & Rafts:..... | 90 |
| 15.3 | Ring beams:..... | 91 |
| 15.4 | Steel Roof: | 91 |
| 15.5 | Scope of Works Status..... | 91 |
| 15.6 | Concrete cube results | 94 |
| 15.7 | Structural works key focal items | 95 |
| 16 | MECHANICAL ENGINEERING | 96 |
| 16.1 | Introduction | 96 |
| 16.2 | Wet services engineering..... | 96 |
| 16.3 | Drainage Installation | 96 |
| 16.4 | Water Supply..... | 96 |

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

| | | |
|-----------|--|------------|
| 16.5 | In terms of the bulk storage tanks | 97 |
| 16.6 | Fire Services Engineering | 97 |
| 16.7 | Fire Services Installation Progress..... | 97 |
| 16.8 | HVAC Engineering | 98 |
| 16.9 | Medical Gas..... | 98 |
| 16.10 | Supply & Installation of Dental Chairs..... | 99 |
| 16.11 | Supply & Installation of Autoclave | 99 |
| 17 | KNOWN DESIGNS REQUIRED BY THE CONTRACTOR | 100 |
| 18 | LINKED STATUS QUO REPORTS, AS BUILTS, CONSTRUCTION DRAWINGS AND OTHER RELEVANT REFERENCES | 101 |

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

1 EMPLOYER'S OBJECTIVES

1.1 Primary Objective

- 1.1.1 The Employer's primary objective is to provide health services to communities through facilities that comply fully with the prescribed norms and standards for health infrastructure and achieve optimum levels of operational functionality, safety, and sustainability for patient care.

1.2 Secondary Objective

- 1.2.1 The Employer's secondary objective is to deliver public health infrastructure in a manner that: promotes labour-intensive construction methods wherever feasible; creates temporary employment opportunities for local unemployed persons; and provides training and skills development to enhance their future employability.

1.3 Contractor's Obligation towards the Employer's Objectives

- 1.3.1 The Contractor shall plan, manage, and execute the works in a manner that demonstrably supports and achieves both the primary and secondary objectives of the Employer.

2 PURPOSE

2.1 Purpose of the Works Information

- 2.1.1 The Works Information forms an integral part of the Contract and sets out the Employer's requirements for the construction and completion of the works. Its objectives are to:
- 2.1.1.1 Define clearly what is to be provided, how it is to be provided, and to what standards so that the Contractor's design, planning and execution align with the Employer's objectives.
 - 2.1.1.2 Establish a basis for the Activity Schedule and the programme, ensuring that all activities and deliverables are costed, scheduled and resourced in line with the fixed and firm Option A pricing structure.
 - 2.1.1.3 Identify any constraints, statutory obligations, site-specific conditions, and quality and safety requirements to be observed by the Contractor.
 - 2.1.1.4 Minimise ambiguities and potential for disputes by ensuring a single, consistent point of reference for the technical, contractual and procedural requirements of the Works.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

2.2 Contractor's Considerations

2.2.1 When interpreting this Works Information, the Contractor shall:

- 2.2.1.1 Comply fully with the scope, standards, specifications, codes of practice and all legislative and regulatory obligations described herein.
- 2.2.1.2 Incorporate all Employer's activities (such as access dates, approvals, information supply, inspections, etc.) into the Programme and Activity Schedule, ensuring dependencies and interfaces are properly represented.
- 2.2.1.3 Recognise that under Option A (fixed and firm):
 - 2.2.1.3.1 The Prices are not adjustable for fluctuations, and the Contractor carries the risk of industrial relations, productivity, resource usage, market price changes and quantities unless stated otherwise in the Contract Data.
 - 2.2.1.3.2 Front-loading of costs is not permitted; each activity in the Activity Schedule must fairly represent the value and timing of the corresponding work or deliverable.
 - 2.2.1.3.3 Payments will only be made upon the completion of each activity as stated in the Activity Schedule and accepted by the Project Manager.
- 2.2.1.4 Ensure that all activities, methods and temporary works required for proper execution (even if not explicitly described but reasonably inferred) are included in the Contractor's scope and prices.
- 2.2.1.5 Take account of site conditions, risks, constraints, health and safety obligations, environmental management measures, and community/stakeholder interfaces described in the Works Information.
- 2.2.1.6 Co-ordinate with other contractors, utilities and the Employer's representatives where stated, and include for such interfaces in the programme and resources.
- 2.2.1.7 Maintain records and submit all designs, test certificates, quality control documentation, method statements, risk assessments, and as-built information as specified.

2.3 Alignment of Contractor's Bid Submissions with Works Information

- 2.3.1 The Contractor's methodology, programme, and Activity Schedule shall be prepared and maintained strictly in line with the Works Information and all requirements stated therein. These documents must:
 - 2.3.1.1 Reflect the scope, constraints, sequencing, milestones, and technical requirements described in the Works Information;

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

2.3.1.2 Be consistent with the standards, specifications, codes of practice, and quality obligations specified in the Works Information; and

2.3.1.3 Be updated as required to remain fully aligned whenever the Works Information is revised by the Project Manager.

2.4 Instruction and Variations

2.4.1 This Works Information will be managed in accordance with NEC Contract Clauses 14, 16, 17 and 60.

2.4.2 Any change to the Works Information will be issued as a Project Manager's instruction and treated as a compensation event where the contract so provides.

2.4.3 The Contractor shall not depart from the Works Information without such written instruction.

3 SCOPE OF WORKS

3.1 General Scope

3.1.1 The works comprise the completion, rectification, testing, and commissioning of all outstanding construction and engineering works at the Msukaligwa CHC. The Contractor shall:

3.1.1.1 Conduct a full site due diligence of the partially built structures, installed services, and surrounding conditions (to be submitted a month after award for the employer's record).

3.1.1.2 Rectify all defective, non-compliant, or incomplete works, whether identified in this document, annexures, drawings, through inspections or not.

3.1.1.3 Complete all outstanding works to achieve a fully functional, compliant health facility aligned to the Works Information, IUSS, National Building Regulations, SANS Standards, and relevant MDoH requirements.

3.1.1.4 Provide all statutory approvals, test certificates, as-builts, warranties, and O&M manuals.

3.1.1.5 Take responsibility for industrial relations in totality.

3.1.1.6 Ensure the maximum usage of local resources.

3.1.1.7 Manage health, safety, and environmental risks in accordance with the Occupational Health & Safety Act (1993) and Construction Regulations (2014).

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 3.1.2 The Contractor shall take all appropriate measures necessary for the general security and safety of the site of the works, including the provision of any temporary fencing, hoardings, dust screens, temporary signs, etc he deems necessary or are required by law, the cost of which shall be provided for in the Activity Schedule and no claims shall be entertained in this regard.
- 3.1.3 The Contractor shall provide, maintain, and service suitable office accommodation, equipment, and facilities for use by the Employer's Representative. This shall include one dedicated site office of not less than 20 m² in floor area. The office must be ventilated, well-lit, suitably laminated, reasonably soundproof, constructed with a hard floor finish, and be securely lockable. It shall be furnished with a desk large enough for drawings to be rolled out and used for writing, a minimum of three temporary chairs, and at least two power points.
- 3.1.4 The Contractor shall provide a dedicated site boardroom for use during site meetings and by the Contractor. The boardroom shall be of sufficient size, with a minimum internal height of 3 m, and must be ventilated, well-lit, suitably laminated, reasonably soundproof, and constructed with a hard floor finish. It shall be furnished with a meeting table large enough for drawing reviews and writing space, together with sufficient temporary chairs or benches to accommodate all attendees at site meetings.
- 3.1.5 The Contractor is permitted to utilise all immovable structures on site.

3.2 Design Responsibility

- 3.2.1 The Contractor's professional team (architectural, structural, civil, electrical, mechanical, fire, ICT, wet services, medical gases, HT, and all other disciplines) shall assume full responsibility for all designs, existing works, and remedial solutions, and construction methodologies applied on the project.
- 3.2.2 The Contractor shall ensure that all professional team members are appropriately registered with their statutory councils at all times.
- 3.2.3 The Contractor remains solely liable for the adequacy, safety, and compliance of all designs and solutions, including any temporary works, and no reliance may be placed on information or

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

drawings previously prepared by others.

- 3.2.4 The Employer and Employer's Representative retain a review and acceptance role only, without assuming design liability.

3.3 Existing Works

- 3.3.1 Status-Quo Reports, Specifications and Designs are linked to this document. These annexures provide a factual record of previous works and designs but do not limit the Contractor's responsibility.
- 3.3.2 Responsibility for full completion and rectification of all works rests solely with the Contractor, regardless of whether a defect is explicitly listed or not.
- 3.3.3 The Contractor shall price and allow for:
- 3.3.3.1 Demolition and removal of defective works.
- 3.3.3.2 Protection of existing services and structures.
- 3.3.3.3 Temporary works and measures required to ensure safe execution of remedial and completion works.

3.4 Architectural Works

The Contractor shall:

- 3.4.1 Complete all outstanding works to achieve a fully functional, compliant health facility aligned to the IUSS, National Building Regulations, SANS Standards, and relevant MDoH requirements.
- 3.4.2 Complete all works as per the Works Information and Site Information (Status-Quo Reports, Specifications and Designs)
- 3.4.3 Complete all brickwork, plastering, internal/external finishes, windows, doors, ceilings, partitions, and painting.
- 3.4.4 Rectify misaligned door frames, incorrectly placed lintels, poor plastering, and unfinished surfaces.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 3.4.5 Install joinery, kitchen fittings, built-in furniture, and fittings.
- 3.4.6 Install signage, wayfinding, and statutory notices.
- 3.4.7 Complete external face brickwork and ensure cleaning and sealing where required.
- 3.4.8 Provide floor finishes, wall finishes, and ceilings in accordance with specifications.
- 3.4.9 Complete construction of the main clinic building, including Blocks A, B, C, D, E, F, G, H, J, K, and L.
- 3.4.10 Complete construction of the guardhouse (Block P).
- 3.4.11 Complete construction of the maintenance blocks (M1 and M2).
- 3.4.12 Install public seating, and kitchen equipment.

3.5 Structural Works

The Contractor shall:

- 3.5.1 Complete all outstanding works to achieve a fully functional, compliant health facility aligned to the IUSS, National Building Regulations, SANS Standards, and relevant MDoH requirements.
- 3.5.2 Complete all works as per the Works Information and Site Information (Status-Quo Reports, Specifications and Designs)
- 3.5.3 Complete all reinforced concrete works, including rafts, ring beams, slabs, and remedial works.
- 3.5.4 Rectify non-compliant ring beams and install chemical anchors as per the structural engineer's remedial.
- 3.5.5 Install and align all structural steelwork, including rafters, columns, and roof structures.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 3.5.6 Provide structural certification for all remedial works prior to sheeting.
- 3.5.7 Carry out scanning, testing, and concrete repairs to ensure compliance with structural requirements.
- 3.5.8 Complete the retaining wall, including finishing of drainage and erosion control elements.
- 3.5.9 Comply with all structural engineering regulations including but not limited to;
 - 3.5.9.1 SANS 10400 – National Building Regulations
 - 3.5.9.2 SANS 10160 – The General Procedures and Loadings
 - 3.5.9.3 SANS 10100 – 1 The structural use of concrete Part 1
 - 3.5.9.4 SANS 10100 – 2 The structural use of concrete Part 2
 - 3.5.9.5 SANS 10162 – 1 The structural use of steel Part 1
 - 3.5.9.6 SANS 10162 – 2 The structural use of steel Part 2: Cold-formed steel structures
 - 3.5.9.7 SANS 10163 – 1 The structural use of timber Part 1: Limit-stress design
 - 3.5.9.8 SANS 10163 – 2 The structural use of timber Part 2: Allowable stress design
 - 3.5.9.9 SANS 10164 – 1 The structural use of masonry Part 1: Unreinforced masonry walling
 - 3.5.9.10 SANS 10164 – 2 The structural use of masonry Part 2: Structural design and requirements for reinforced and prestressed masonry
 - 3.5.9.11 SANS 10137 – The installation of glazing in building
 - 3.5.9.12 SANS 1263-1 Safety and security glazing materials for buildings Part 1: Safety performance of glazing materials under human impact
 - 3.5.9.13 SANS 2001- CC1 (for Concrete) Degree of Accuracy II of all concrete elements
 - 3.5.9.14 SANS 2001- CS1 for Steelwork and
 - 3.5.9.15 AAAMSA
 - 3.5.9.16 Eurocode 6 – Design of masonry structures – Part 1 -1: General rules for reinforced and unreinforced masonry structures

3.6 Civil Works

The Contractor shall:

- 3.6.1 Complete all outstanding works to achieve a fully functional, compliant health facility aligned to the IUSS, National Building Regulations, SANS Standards, and relevant MDoH requirements.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 3.6.2 Complete all works as per the Works Information and Site Information (Status-Quo Reports, Specifications and Designs)
- 3.6.3 Complete minor earthworks, including internal road shaping.
- 3.6.4 Complete sewer, water, and stormwater reticulation, including manholes, kerb inlets, and erosion protection.
- 3.6.5 Rectify and complete defective sewer and stormwater systems.
- 3.6.6 Complete internal roads, parking areas, kerbing, paving, and road signage.
- 3.6.7 Provide municipal service connections and prove them through testing.
- 3.6.8 Shape platforms and embankments to required gradients for stormwater management.
- 3.6.9 Finalise retaining walls and provide guardrails/balustrades where required.
- 3.6.10 Comply with all civil engineering regulations including but not limited to;
 - 3.6.10.1 Public Works Manual for Civil engineering: PW347
 - 3.6.10.2 DPW Guided for Architects concerning drainage, water supply and stormwater drainage.
 - 3.6.10.3 DPW PW 342: Specification of material and methods to be used.
 - 3.6.10.4 Standard specification for domestic, Fire water storage and fire supply for public building: PW345
 - 3.6.10.5 The Neighbourhood Planning and Design Guide: Planning and design guidelines
 - 3.6.10.5.1 Section K Sanitation (Red Book)
 - 3.6.10.5.2 Section J Water (Red Book)
 - 3.6.10.6 SANS 1200 – Civil Engineering
 - 3.6.10.7 Draft TRH 12 (Flexible Pavement Rehabilitation and Design)
 - 3.6.10.8 South African Pavement Engineering Manual (SAPEM)
 - 3.6.10.9 Pavement Design Method for Flexible Pavement, Theyse 2011

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 3.6.10.10 Draft TRH 4: Structural Design of Flexible Pavements for Interurban and Rural Roads
- 3.6.10.11 Draft TRH 13 Cementitious Stabilizers in Road Construction
- 3.6.10.12 Draft TRH 14 Guidelines for Road Construction Materials
- 3.6.10.13 Draft TRH 16 Traffic Loading for Pavement and Rehabilitation Design etc.
- 3.6.10.14 TMH 9: (Standard Visual Assessment Manual for Flexible Pavements)
- 3.6.10.15 Draft TRH 12 (Flexible Pavement Rehabilitation and Design)
- 3.6.10.16 Draft TRH 17: Geometric Design of Rural Roads

3.7 Electrical & ICT Works

The Contractor shall:

- 3.7.1 Complete all outstanding works to achieve a fully functional, compliant health facility aligned to the IUSS, National Building Regulations, SANS Standards, and relevant MDoH requirements.
- 3.7.2 Complete all works as per the Works Information and Site Information (Status-Quo Reports, Specifications and Designs)
- 3.7.3 Supply, install, commission and train (where applicable) on all ICT & electrical reticulation, lighting (including examination and procedure lights), power points, distribution boards, earthing, lightning protection, fire detection and alarm system, CCTV and access control, Nurse call system, ICT cabling, ICT systems, data outlets, server connections and Wi-Fi backbone and public address and emergency sound systems
- 3.7.4 Ensure the connection of permanent power at its cost.
- 3.7.5 Comply with all Electrical and Electronic statutory requirements including but not limited to;
 - 3.7.5.1 SANS 10142-1:2019 Wiring of Premises – Low Voltage
 - 3.7.5.2 SANS 10142-2:2018 Wiring of Premises – Medium Voltage
 - 3.7.5.3 SANS 10142-1:2019 Wiring of Premises – Low Voltage - Allocation of Medical Location Groups
 - 3.7.5.4 SANS 10114-1:2020 Interior Lighting Part 1: Artificial Lighting of Interiors
 - 3.7.5.5 SANS 10114-2:2020 Interior Lighting Part 2: Emergency Lighting
 - 3.7.5.6 SANS 10389-1:2003 Exterior Lighting
 - 3.7.5.7 SANS 10400 XA: Energy Efficiency

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 3.7.5.8 SANS 204:2011: Energy Efficiency in Buildings
- 3.7.5.9 SANS 164 Part 1 & 2: Plug and socket-outlet systems for household and similar purposes for use in South Africa.
- 3.7.5.10 SABS IEC 60614 (1) - General requirements of conduits.
- 3.7.5.11 SABS 1065 Part 1 & 2 - Metal Galvanised Conduits and Accessories.
- 3.7.5.12 SABS 61035 - Installation of Conduit Fittings.
- 3.7.5.13 SABS IEC 61084 - Electrical Installation Ducting & Trunking Systems.
- 3.7.5.14 SABS 1507 & 1574 - PVC Insulated Single Core Voltage Conductors.
- 3.7.5.15 SABS 1464 Parts 1 - 22 and IEC 598-1 - Mounting & Positioning of Luminaries.
- 3.7.5.16 SABS 1765 - Manufacture of DB's.
- 3.7.5.17 SABS 1473, SABS IEC 60947 & SABS 60439 - Low voltage switchgear & control gear.
- 3.7.5.18 SABS 1474:2004 Uninterrupted Power Supplies.
- 3.7.5.19 SANS 61558-2-15 2012: Safety power transformers, reactors, power supply units and combinations thereof Part 2-15: Particular requirements and tests for isolating transformers for the supply of medical locations
- 3.7.5.20 SABS 165 & SABS IEC 60947-2 - Size & Type of Moulded case circuit breakers.
- 3.7.5.21 SABS IEC 60099 - Electrical Surge Arrestors.
- 3.7.5.22 SABS 10313:2018 - Code of Practice for the Protection of Structures against Lightning.
- 3.7.5.23 Occupational Health & Safety Act 85 of 1993.
- 3.7.5.24 Thembisile Hani Local Authority by-laws and any special requirements for the Nkangala district.
- 3.7.5.25 IUSS Building Engineering Services Guideline 2014
- 3.7.5.26 IUSS Inpatient Services Gazette 2014
- 3.7.5.27 IUSS Mental Health Gazette 2014
- 3.7.5.28 IUSS Security Gazette 2014
- 3.7.5.29 SANS 10222-5-1 - Electrical security installations. CCTV installations - CCTV surveillance systems for use in security applications
- 3.7.5.30 SANS 10222-2 - Electrical security installations: Access Control.
- 3.7.5.31 SANS 2220-1 - Electrical security systems – Intruder Alarm systems
- 3.7.5.32 SANS 10389-2:2007 (Ed. 1.01) - Exterior lighting Part 2: Exterior security lighting. Information Communication Technology (ICT) Standards
- 3.7.5.33 SANS 10142-1:2019 Wiring of Premises – Low Voltage
- 3.7.5.34 IEEE 802.3 ethernet standards

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 3.7.5.35 IEEE 802.11 Wi-Fi standards
- 3.7.5.36 IEEE 802.3af – Type 1 Power over Ethernet standard for up to 15.4 W DC output
- 3.7.5.37 IEEE 802.3at – Type 2 Power over Ethernet standard for up to 30 W DC output
- 3.7.5.38 IEEE 802.3bt – Type 3 (60W DC) and Type 4 (100W DC) Power over Ethernet standard
- 3.7.5.39 IEC/ISO 11801 - Information technology - Generic cabling for customer premises
- 3.7.5.40 ANSI/TIA-942-A - Telecommunications Infrastructure Standard for Data Centres
- 3.7.5.41 ANSI/TIA/EIA 568 - Telecommunications standard for commercial buildings cabling for telecommunication products and services.
- 3.7.5.42 ISO/IEC 27031, Information technology – Security techniques – Guidelines for ICT readiness for business continuity.
- 3.7.5.43 TOGAF Architecture Framework – Healthcare Enterprise Reference Architecture
- 3.7.5.44 IUSS Information Technology Infrastructure (ITI) guideline 2014.
- 3.7.5.45 Department of Health Mpumalanga Network Infrastructure Information (latest edition)
- 3.7.5.46 If the Specification conflict in any way with the reference Standards, the Specification shall take precedence. If there are conflicts between different specified standards covering the same materials or equipment, the standard, which shall provide the highest quality and most suitable application, as determined by the Department of Health shall prevail. The latest edition of the standards shall be applicable

3.8 Mechanical & Wet Services

The Contractor shall:

- 3.8.1 Complete all outstanding works to achieve a fully functional, compliant health facility aligned to the IUSS, National Building Regulations, SANS Standards, and relevant MDoH requirements.
- 3.8.2 Complete all works as per the Works Information and Site Information (Status-Quo Reports, Specifications and Designs)
- 3.8.3 Install, supply and commission all plumbing, drainage, and water supply works (first and second fix).
- 3.8.4 Connect works to the municipalities services at its cost.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 3.8.5 Install, supply and commission bulk water storage tanks, pumps, and plinths.
- 3.8.6 Install, supply and commission all HVAC systems (VRF air conditioning, ventilation, and exhaust).
- 3.8.7 Install, supply and commission medical gas systems (oxygen, vacuum, air) in compliance with SAQCC and SACGA.
- 3.8.8 Install, supply and commission an autoclave (160L) with associated services according to the provided spec.
- 3.8.9 Provide connections and supports for dental chair installations by the National Treasury-appointed supplier. The cost should be as per the BoQ and included in the Activity Schedule.
- 3.8.10 Install, supply and commission heat pumps and hot water systems.
- 3.8.11 Comply with all Mechanical HVAC engineering regulations including but not limited to
 - 3.8.11.1 SANS 10400:2011 PART O Building regulations pertaining to ventilation
 - 3.8.11.2 Where the regulation remains silent the following guidelines shall be used:
 - 3.8.11.2.1 ASHRAE – 170:2017
 - 3.8.11.2.2 ASHRAE - HVAC Design Manual for Hospital and Clinics
 - 3.8.11.2.3 ASHRAE - Handbook Fundamentals.
 - 3.8.11.2.4 ASHRAE - Handbook HVAC Systems and Equipment.
 - 3.8.11.2.5 ASHRAE - Handbook Refrigeration.
 - 3.8.11.2.6 ASHRAE - Standard 62 Ventilation for Acceptable Indoor Air Quality.
 - 3.8.11.2.7 HTM 03 - Heating & Ventilation Systems Specialised Ventilation for Healthcare premises
 - 3.8.11.2.8 SMACNA
- 3.8.12 Comply with all Mechanical medical gas engineering works regulations including but not limited to
 - 3.8.12.1 SANS 7396:2009
 - 3.8.12.2 Where the regulation remains silent the following guidelines shall be used:
 - 3.8.12.2.1 HTM 02-01 Health Technical Memoranda: Medical gas pipeline systems Part A: Design and

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

validation

- 3.8.13 Comply with all Wet Services works regulations including but not limited to
 - 3.8.13.1 The S.A. National Building Regulations and Building Standards Act. (Act 103 of 1977);
 - 3.8.13.2 (SANS 10400: Edition 2.0).
 - 3.8.13.3 SANS and Codes of Practice, as published by the South
 - 3.8.13.4 African Bureau of Standards;
 - 3.8.13.5 IEC Standards and Recommendations;
 - 3.8.13.6 International Standards and Codes – ISO, DIN, BS, ASME, ASCE, ANSI, ASTM, EU;
 - 3.8.13.7 Local Authority codes, by-laws and regulations.
 - 3.8.13.8 GBCSA requirements
 - 3.8.13.9 SANS 10252-1 : Water Supply and Drainage for Buildings: Part 1 - Water Supply
 - 3.8.13.10 Installations for Buildings

- 3.8.14 SANS 10252-2 : Water Supply and Drainage for Buildings: Part 2 – Drainage Installations for Buildings
 - 3.8.14.1 SANS 10400-P : The Application of the National Building Regulations: Part P – Drainage
 - 3.8.14.2 SANS 10400-A : General Principles and Requirements
 - 3.8.14.3 SANS 10400 Part T, S, & W: Fire Installations for Buildings

3.9 Fire Protection

The Contractor Shall

- 3.9.1 Complete all outstanding works to achieve a fully functional, compliant health facility aligned to the IUSS, National Building Regulations, SANS Standards, and relevant MDoH requirements.

- 3.9.2 Complete all works as per the Works Information and Site Information (Status-Quo Reports, Specifications and Designs)

- 3.9.3 Install, supply and commission hose reels, hydrants, booster connections, and extinguishers.

- 3.9.4 Install, supply and commission fire pumps, tanks, and controls.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 3.9.5 Install, supply and commission fire detection systems, alarms, and emergency communication devices.
- 3.9.6 Install, supply and commission fire-rated doors, penetration seals, panic hardware, and signage.
- 3.9.7 Install, supply and commission emergency lighting.
- 3.9.8 Install, supply and commission obtain statutory Fire Department approvals.
- 3.9.9 Comply with fire protection norms and statutory requirements including but not limited to;
 - 3.9.9.1 MLM local codes and by-laws
 - 3.9.9.2 Codes of Practice: SABS and British Standards.
 - 3.9.9.3 SANS 10400 - The Application of the National Building Regulations – (As amended)
 - 3.9.9.3.1 Part A: General principles and requirements.
 - 3.9.9.3.2 Part B: Structural design.
 - 3.9.9.3.3 Part C: Dimensions.
 - 3.9.9.3.4 Part D: Public safety.
 - 3.9.9.3.5 Part F: Site operations.
 - 3.9.9.3.6 Part G: Excavations.
 - 3.9.9.3.7 Part H: Foundations.
 - 3.9.9.3.8 Part J: Floors.
 - 3.9.9.3.9 Part K: Walls.
 - 3.9.9.3.10 Part L: Roofs.
 - 3.9.9.3.11 Part M: Stairways.
 - 3.9.9.3.12 Part N: Glazing.
 - 3.9.9.3.13 Part O: Lighting and ventilation.
 - 3.9.9.3.14 Part P: Drainage.
 - 3.9.9.3.15 Part Q: Non-water-borne means of sanitary disposal.
 - 3.9.9.3.16 Part R: Stormwater disposal.
 - 3.9.9.3.17 Part S: Facilities for persons with disabilities.
 - 3.9.9.3.18 Part T: Fire protection.
 - 3.9.9.3.19 Part V: Space heating.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

3.9.9.3.20 Part W: Fire installation.

- 3.9.9.4 SANS 10087-I - The handling, storage, distribution and maintenance of liquefied petroleum gas in domestic, commercial, and industrial installations. Part 1: Liquefied petroleum gas installations involving gas storage containers of individual water capacity not exceeding 500 L and a combined water capacity not exceeding 3 000 L per installation.
- 3.9.9.5 SANS 10087-II - The handling, storage, and distribution of liquefied petroleum gas in domestic, commercial, and industrial installations Part 2: Installations in mobile units and small non-permanent buildings
- 3.9.9.6 Document number 1001827-ZUT-00-REP-FI-001, Revision A, Date 2023/09/05 7
- 3.9.9.7 SANS 10087-III - The handling, storage and distribution of liquefied petroleum gas in domestic, commercial, and industrial installations Part 3: Liquefied petroleum gas installations involving storage vessels of individual water capacity exceeding 500 L
- 3.9.9.8 SANS 10087-IV - The handling, storage, and distribution of liquefied petroleum gas in domestic, commercial, and industrial installations Part 4: Transportation of LPG in bulk by road
- 3.9.9.9 SANS 10090 - Community protection against fire
- 3.9.9.10 SANS 10100-I - The structural use of concrete Part 1: Design
- 3.9.9.11 SANS 10104 - Hand railing and balustrading (safety aspects)
- 3.9.9.12 SANS 10105-I - The use and control of fire-fighting equipment Part 1: Portable and Wheeled (mobile) fire extinguishers
- 3.9.9.13 SANS 10105-II - The use and control of fire-fighting equipment Part 2: Fire hose reels, hydrants and booster connections
- 3.9.9.14 SANS 10108 - The classification of hazardous locations and the selection of apparatus for use in such locations
- 3.9.9.15 SANS 10114-I - Interior lighting Part 1: Artificial lighting of interiors
- 3.9.9.16 SANS 10114-II - Interior lighting Part 2: Emergency lighting
- 3.9.9.17 SANS 10131 - Above-ground storage tanks for petroleum products
- 3.9.9.18 SANS 10139 - Fire detection and alarm systems for buildings - System design, installation and servicing
- 3.9.9.19 SANS 10145 - Concrete masonry construction
- 3.9.9.20 SANS 10177-I - Fire testing of materials, components and elements used in buildings
- 3.9.9.21 Part 1: General introduction to the methods of test – SABS 0177-II - Fire testing of materials, components and elements used in buildings

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

3.9.9.22 Part 2:

3.9.9.22.1 Fire resistance test for building elements

3.9.9.23 SANS 10177-III - Fire-testing of materials, components and elements used in buildings Part

3.9.9.24 Surface fire index of finishing materials

3.9.9.24.1 SANS 10177-IV- Fire testing of materials, components and elements used in buildings Part

3.9.9.25 Surface fire index of floor coverings

3.9.9.25.1 SANS 10177-V - Fire testing of materials, components and elements used in buildings Part

3.9.9.26 Non-combustibility at 750 °C of building materials

3.9.9.26.1 SANS 10177-VI - Fire testing of materials, components and elements used in buildings Part

3.9.9.27 Non-combustibility at 300 °C of electrical insulation materials

3.9.9.27.1 SANS 10177-VII - Fire testing of materials, components and elements used in buildings Part

3.9.9.28 Fire test for fire-check properties of building elements

3.9.9.28.1 SANS 193 - Fire dampers

3.9.9.28.2 SANS 246 - Code of practice for fire protection for electronic equipment installations

3.9.9.28.3 SANS 10287 – Code of Practise - Automatic sprinkler installations for firefighting purposes

3.9.9.28.4 SANS 306-IV - Fire extinguishing installations and equipment on premises Part 4:

3.9.10 Specification for carbon dioxide systems

3.9.10.1 Document number 1001827-ZUT-00-REP-FI-001, Revision A, Date 2023/09/05 8

3.9.10.2 SANS 369-I - Code of practice for the operation of fire protection measures Part 1: Electrical actuation of gaseous total flooding extinguishing systems

3.9.10.3 SANS 369-II - Code of practice for the operation of fire protection measures Part 2: Mechanical actuation of gaseous total flooding and local application extinguishing systems

3.9.10.4 SANS 543 _ - Fire hose reels (with semi-rigid hose)

3.9.10.5 SANS 951 _ - Fire-resistant record protection equipment

3.9.10.6 SANS 1015 - Fire resisting door units for record rooms

3.9.10.7 SANS 1128-I - Firefighting Equipment Part 1: Components of underground and aboveground hydrant systems

3.9.10.8 SANS 1128-II - Firefighting Equipment Part 2: Hose couplings, connectors and branch pipe and nozzle connections

3.9.10.9 SANS 1151 - Portable rechargeable fire extinguishers - Halogenated hydrocarbon type extinguishers

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 3.9.10.10 SANS 1186-I - Symbolic safety signs Part 1: Standard signs and general requirements
- 3.9.10.11 SANS 1186-II - Symbolic safety signs Part 2: Self-luminous (radio luminescent) signs
- 3.9.10.12 SANS 1186-III - Symbolic safety signs Part 3: Internally illuminated signs
- 3.9.10.13 SANS 1186-IV - Symbolic safety signs Part 4: Retro-reflective signs
- 3.9.10.14 SANS 1186-V - Symbolic safety signs Part 5: Photoluminescent signs
- 3.9.10.15 SANS 1253 - Fire-doors and fire-shutters
- 3.9.10.16 SANS 1322 - Portable, non-refillable fire extinguishers (general purpose type)
- 3.9.10.17 SANS 1522 - Fire extinguishing powders
- 3.9.10.18 SANS 1545-IX - Safety rules for the construction and installation of lifts Part 9: Lift landing doors
- Fire resistance testing
- 3.9.10.19 SANS 1567 - Portable rechargeable fire extinguishers - CO2 type extinguishers
- 3.9.10.20 SANS 1739 - Low pressure welded steel cylinders for fire extinguishers
- 3.9.10.21 SANS 1910 - Portable refillable fire extinguishers
- 3.9.10.22 SANS 14520 - Parts 1 to 15: Gaseous fire-extinguishing systems – Physical properties and system design
- 3.9.10.23 SANS 50054-I - Components of automatic fire detection systems Part 1: Introduction
- 3.9.10.24 SANS 50054-II - Fire detection and fire alarm systems Part 2: Control and indicating equipment
- 3.9.10.25 SANS 50054-III - Fire detection and fire alarm systems Part 3: Fire alarm devices - Sounders
- 3.9.10.26 SANS 50054-IV - Fire detection and fire alarm systems Part 4: Power supply equipment
- 3.9.10.27 SANS 50054-V - Fire detection and fire alarm systems Part 5: Heat detectors - Point detectors
- 3.9.10.28 SANS 50054-VII - Fire detection and fire alarm systems Part 7: Smoke detectors – Point detectors using scattered light, transmitted light or ionization.
- 3.9.10.29 SANS 50054-XI - Fire detection and fire alarm systems Part 11: Manual call points
- 3.9.10.30 SANS 50081-70 - Safety rules for the construction and installation of lifts – Particular applications for passenger and goods lifts Part 70: Accessibility to lifts for persons including persons with disability.
- 3.9.10.31 SANS 50081-72 - Safety rules for the construction and installation of lifts – Particular applications for passenger and goods lifts Part 72: Fire fighters lifts
- 3.9.10.32 Document number 1001827-ZUT-00-REP-FI-001, Revision A, Date 2023/09/05 9
- 3.9.10.33 SANS 60849 - Sound systems for emergency purposes
- 3.9.10.34 SFPE - Handbook of Fire Protection Engineering, 2nd edition.
- 3.9.10.35 CIBSE Guide E - Fire Engineering – 2nd Edition September 2003

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 3.9.10.36 BS 7346-4:2003 - Components for smoke and heat control systems — Part 4: Functional recommendations and calculation methods for smoke and heat exhaust ventilation systems, employing steady-state design fires — Code of practice
- 3.9.10.37 BS EN 12101- Smoke and Heat Control systems:
 - 3.9.10.37.1 Part 1: Specification for smoke barriers.
 - 3.9.10.37.2 Part 2: Specification for natural smoke and heat exhaust ventilators.
 - 3.9.10.37.3 Part 3: Specification for powered smoke and heat exhaust ventilators.
 - 3.9.10.37.4 Part 4: Fire and smoke control installations — Kits.
 - 3.9.10.37.5 Part 5: Guidelines on functional recommendations and calculation methods for smoke and heat exhaust ventilation systems (published as CR 12101-5)
 - 3.9.10.37.6 Part 6: Specification for pressure differential systems — Kits.
 - 3.9.10.37.7 Part 7: Smoke control ducts.
 - 3.9.10.37.8 Part 8: Specification for smoke control dampers.
 - 3.9.10.37.9 Part 9: Control panels.
 - 3.9.10.37.10 Part 10: Specification for power supplies
- 3.9.10.38 PD 7974-6 2004 - Part 6: Human factors: Life Safety strategies – Occupant evacuation, behaviour and condition (Sub-system 6)
- 3.9.10.39 BS 9999: 2017 - Code of Practice for Fire Safety in the Design, Management and use of buildings

3.10 External Works & Landscaping

The Contractor shall:

- 3.10.1 Complete all outstanding works to achieve a fully functional, compliant health facility aligned to the IUSS, National Building Regulations, SANS Standards, and relevant MDoH requirements.
- 3.10.2 Complete all works as per the Works Information and Site Information (Status-Quo Reports, Specifications and Designs)
- 3.10.3 Construct carports, paved walkways, and external public seating.
- 3.10.4 Complete boundary fencing and gates, including rectification/replacement as per the fencing report.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

3.10.5 Install external lighting and security infrastructure.

3.10.6 Provide full landscaping, including topsoiling, planting, grassing, and erosion control.

3.11 Health Technology

3.11.1 Complete all outstanding works to achieve a fully functional, compliant health facility aligned to the IUSS, National Building Regulations, SANS Standards, and relevant MDoH requirements.

3.11.2 Complete all works as per the Works Information and Site Information (Status-Quo Reports, Specifications and Designs)

3.11.3 The Contractor Shall provide the Client with a Health Technology Consultant. Who shall amongst other services provide the below services;

3.11.3.1 Planning and Coordination

3.11.3.1.1 Overall management, coordination, and implementation of health technology (HT) for the Msukaligwa CHC project, including equipping and furnishing the facility as per the approved HT list.

3.11.3.1.2 Continuous consultations with the Client (NDoH, Mpumalanga Department of Health; provincial and district) on HT and project-related matters.

3.11.3.1.3 Coordination with the PSP team and Contractor on all HT that impacts the building; provide specifications where required (e.g., examination lights, procedure lights, etc.).

3.11.3.1.4 Review of room data sheets and building plans to ensure all required services are catered for in the installation and commissioning of HT.

3.11.3.1.5 Review the BOQ and scope of work of other PSPs to prevent duplication in the provision of HT.

3.11.3.1.6 Attendance at site visits, building progress meetings, and ad hoc meetings related to the project.

3.11.3.1.7 Biweekly meetings with the Client to discuss progress on HT planning, procurement, and overall HT activities.

3.11.3.1.8 Provide support to the Contractor and/or PSP on clinical matters relating to HT.

3.11.3.1.9 Align all HT activities as per the Contractor's program, to complete and handover the facility as per the agreed upon dates.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

3.11.3.2 Specifications and Procurement

- 3.11.3.2.1 Compile specifications for all HT; furniture, linen, appliances, surgical instruments, and tools suitable for the level of service to be presented to and approved by the end user.
- 3.11.3.2.2 Prepare RFQ documentation for HT items not covered under transversal contracts.
- 3.11.3.2.3 Liaise with suppliers, send out RFQs, prepare evaluation documentation, present options to end users and Client, provide recommendations, and compile purchase order requests.
- 3.11.3.2.4 Conduct product evaluations of HT available on the transversal contracts of the National Treasury site and provide recommendations to end users.
- 3.11.3.2.5 Arrange equipment demonstrations during evaluation, where necessary.
- 3.11.3.2.6 Compile a procurement and delivery schedule.

3.11.3.3 Delivery and Commissioning

- 3.11.3.3.1 Coordinate HT deliveries: certify acceptance, verify items delivered against purchase orders, and ensure compliance before payment.
- 3.11.3.3.2 Facilitate and manage HT installations with relevant suppliers; ensure all HT is placed in designated areas, tested, and commissioned prior to handover.
- 3.11.3.3.3 Compile the HT commissioning plan.
- 3.11.3.3.4 Prepare documentation required for payments (e.g., order, quotation, contract, acceptance/appointment letters, delivery note, invoice).

3.11.3.4 Reporting

- 3.11.3.4.1 Provide monthly reports on HT procurement progress (format and requirements to be specified by the Client).

3.11.3.5 Training

- 3.11.3.5.1 Compile a training plan and facilitate end-user training with HT suppliers.
- 3.11.3.5.2 Maintain all relevant documentation about HT, including training registers, end-user manuals, and technical manuals.

3.11.3.6 Asset Management and Maintenance

- 3.11.3.6.1 Ensure coordination between the NDoH, provincial, and district asset departments.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 3.11.3.6.2 Compile a services and maintenance plan, clearly stating warranties for procured HT, aligned to the Client's specific requirements.
- 3.11.3.7 Project Close-Out
- 3.11.3.7.1 Verify that all HT has been delivered and installed in every section as per the approved HT list.
- 3.11.3.7.2 Ensure all documentation (procurement files, acceptance certificates, manuals – both hard and soft copies) is available for all procured HT.
- 3.11.3.7.3 Provide the end user with a signed-off list of HT per section, with copies retained for records.
- 3.11.3.7.4 Ensure readiness for the exit strategy in line with the Province/NDoH and District requirements (Client to provide template).
- 3.11.3.7.5 Compile a customer care plan listing all HT suppliers used in the project, including contact details for post-occupation support.
- 3.11.3.7.6 Finalize and complete the asset register with all relevant information, including barcodes assigned by the asset department.
- 3.11.4 The Contractor as part of the Client's Programme will be required to mount several miscellaneous items, such as clocks, drug cabinets, etc., where installation is not specified for the supplier. where installation is not specified for the supplier, the Contractor is expected to supervisor and make good.
- 3.11.5 If required, the Contractor will be responsible to store and keep record of the Client's Assets in the Client's HT Stores. If required, the Contractor will need to assist in the procurement of the store at the Client's expense, therefore the Contractor is not to price this item.
- 3.11.6 The contractor is required to appoint three (3) general workers to assist the HT Consultants and Suppliers.
- 3.11.7 The following are to be performed under the Health Technologist's supervision:
- 3.11.7.1 Supervise the process and make good in all instances.
- 3.11.7.2 Assist during deliveries and moving HT to storage.
- 3.11.7.3 Receiving and unboxing HT.
- 3.11.7.4 Placement of HT in their designated spaces

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 3.11.7.5 Discard of all boxes and provide on-going cleaning services, until site handover to the Employer.
- 3.11.7.6 Assist with cleaning and removal of protective material (bubble wrap, polyethylene film) on some items, such as beds, bedside lockers, overbed trolleys, general trolleys, stainless steel tables, etc.
- 3.11.7.7 Assist the HT consultant with packing certain items like files, linen, and small consumables in their designated spaces where required.

3.12 Occupational Health and Safety Consultant

- 3.12.1 In accordance with the Occupational Health and Safety Act, 85 of 1993 and the Construction Regulations, 2014, the Contractor is required to appoint a competent Occupational Health and Safety (OHS) Consultant to assist in the development, implementation, and monitoring of the project's health and safety management system.
- 3.12.2 Competence and Appointment
 - 3.12.2.1 The appointed OHS Consultant must be a competent person as defined in the Construction Regulations and possess relevant qualifications, experience, and registration with a recognised professional body (e.g., SACPCMP as a Construction Health and Safety Agent (CHSA) or Officer (CHSO)).
 - 3.12.2.2 A formal Letter of Appointment signed by the Contractor and the Consultant must be submitted to the Employer's Representative before commencement of site activities.
- 3.12.3 The OHS Consultant shall:
 - 3.12.3.1 Develop, review, and maintain the project-specific Health and Safety Plan in line with the Construction Regulations, including risk assessments and method statements for all construction activities.
 - 3.12.3.2 Ensure compliance with all applicable legal and contractual OHS requirements.
 - 3.12.3.3 Conduct regular site inspections and audits to monitor compliance by the Contractor and subcontractors.
 - 3.12.3.4 Facilitate toolbox talks, safety induction training, and incident investigations.
 - 3.12.3.5 Provide monthly OHS performance reports, including non-conformance findings and corrective actions.
 - 3.12.3.6 Liaise with the Client's Representative and Department of Employment and Labour where

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

required.

3.12.4 The Contractor shall submit the following prior to site mobilisation:

3.12.4.1 Appointment letter of the OHS Consultant.

3.12.4.2 Copy of the Consultant's professional registration certificate and curriculum vitae.

3.12.4.3 A draft Project Health and Safety Plan, signed and approved by the OHS Consultant.

3.12.4.4 Schedule of planned OHS audits, inspections, and training.

3.12.4.5 Evidence of registration with the Compensation Fund (COIDA).

3.12.5 Compliance

3.12.5.1 No site works shall commence until the Employer has reviewed and accepted the OHS Consultant appointment and the associated Health and Safety Plan.

3.12.5.2 The Employer reserves the right to request replacement of the OHS Consultant if competence or performance is deemed unsatisfactory.

3.13 Services

3.13.1 Before any work commences, the Contractor shall contact all private owners or public authorities controlling services that they may, either protect, move or relocate any service as required, or confirm that all such work has been completed.

3.13.2 Payment will not be made for any inconvenience caused to the Contractor in regard to any services crossing the site or any authority working on or relocating any such services, nor will any delays caused by such work or relocation be accepted as a basis for claiming an extension of time for completing the works.

3.13.3 All known existing services and those services which require relocation and protection, are shown on the engineering services plans. The Contractor's attention is drawn to the fact that such services information is based on information supplied by others, and the accuracy and completeness of this information has not been confirmed. The Contractor will therefore be required to proceed with extreme caution to avoid damage to existing services. Before commencing any work in the vicinity of services, the Contractor shall contact the relevant service authorities for assistance in locating the exact position of the services and where necessary the

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

Contractor shall accurately locate the services by careful hand excavation.

3.13.4 The Contractor is responsible for all temporary and permanent bulk service connections.

3.14 Handover Deliverables

The Contractor shall provide:

3.14.1 Approved shop drawings for all disciplines.

3.14.2 Updated as-built drawings (AutoCAD/Revit).

3.14.3 Quality management file.

3.14.4 Commissioning Reports (All Disciplines, where applicable)

3.14.5 Test certificates (All Disciplines, where applicable)

3.14.6 O&M manuals.

3.14.7 Statutory approvals (Fire, Occupancy, Electrical COC, Health).

3.14.8 A defect-free facility at Completion.

3.14.9 A comprehensive Maintenance Plan developed for the all works. The development of the plan must include the active involvement of the OEM, clear identification of all required spares, definition of both primary and secondary maintenance tactics, and the preparation of a detailed maintenance schedule to ensure sustained functionality and compliance with operational standards.

3.14.10 Proof of staff training on all systems and the maintenance plan.

3.14.11 Health Technology Close-out report with supporting documentation

3.14.11.1 Asset register

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

3.14.11.2 HT list per section – signed off by the end user

3.14.12 Customer care plan

3.14.13 Services and maintenance plan indicating estimated cost for maintenance, to enable the Client to plan for future maintenance requirements.

3.14.14 Copies of training records, end-user and technical manuals, both soft and hard copies.

3.14.15 Final procurement and commissioning report.

3.15 Completion Definitions

3.15.1 Completion: Facility is safe, functional, compliant, all statutory approvals issued, handover deliverables issued, defects resolved, All HT is delivered and the facility is fully operational.

4 COMPLIANCE WITH LEGISLATION

4.1 Other Statutory Requirements

4.1.1 This section applies to other legislation emanating from national and provincial governments as well as that of any local authorities in whose area of jurisdiction the subject of the appointment falls, and which has a bearing on the activities and facilities under this appointment.

4.1.2 All the applicable areas of legislation, which do not specifically allow discretion in respect of compliance by the State, shall be followed exactly as intended by such legislation regardless of any instructions, verbal or in writing, to the contrary. (Refer *inter alia* to Section 41 of the Occupational Health and Safety Act, 1993 (Act 85 of 1993)).

4.1.3 Should any applicable legislation allow discretion in respect of compliance by the State, it shall be followed exactly as intended by the relevant legislation as if no discretion is allowed until such time as specific instructions in writing are issued under the contract by authorised person(s)

4.1.4 The acceptance of an appointment, means that that the Contractor undertakes to ensure that

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

their actions and outcome thereof, including but not limited to, the facilities to be constructed by the intended appointment shall be in complete accordance with all relevant legislation and regulations and upon delivery, will function as required by said relevant legislation/regulations.

4.1.5 The Contractor's actions and the outcome thereof will in no way be detrimental to the health and safety of the occupants or persons present therein or in the vicinity thereof. Similarly, it will not be detrimental to any aspects of the environment. The relevant legislation/regulations meant herein, as amended, consist of *inter alia* the following, but not limited to:

- 4.1.5.1 Public Finance Management Act
- 4.1.5.2 Infrastructure Unit Systems Support (IUSS)
- 4.1.5.3 Atmospheric Pollution Prevention Act, 1965 (Act 45 of 1965);
- 4.1.5.4 Environmental Conservation Act, 1989 (Act 73 of 1989);
- 4.1.5.5 Occupational Health and Safety Act, 1993 (Act 85 of 1993);
- 4.1.5.6 National Building Regulations and Standards Act, 1977 (Act 103 of 1977);
- 4.1.5.7 Electricity Act, 1996 (Act 88 of 1996);
- 4.1.5.8 National Water Act, 1998 (Act 36 of 1998);
- 4.1.5.9 National Environmental Management Act, 1998 (Act 107 of 1998);
- 4.1.5.10 Post Office Act, 1998 (Act 124 of 1998) (telephone installations);
- 4.1.5.11 National Heritage Resources Act, 1999 (Act 25 of 1999);
- 4.1.5.12 Fire Brigade Services Act, 2000 (Act 14 of 2000);
- 4.1.5.13 Local Government Ordinance 1939 (Ordinance 17 of 1939);
- 4.1.5.14 the latest issue of SABS 0142: "Code of Practice for the Wiring of Premises";
- 4.1.5.15 the Regulations of the local Gas Board, where applicable and
- 4.1.5.16 all regulations promulgated under the above Acts.

4.1.6 Adherence to the above and any other relevant legislation will be a continuous process throughout the project, which will manifest itself during the following phases:

- 4.1.6.1 development of plans and documentation;
- 4.1.6.2 supervision of any Contractors under the appointment;
- 4.1.6.3 ensuring compliance of the end product;
- 4.1.6.4 compiling and issuing of Instruction/Operational Manuals indicating *inter alia* what the legal and safety requirements entail for the user(s)/operator(s) of the facilities;

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

4.1.6.5 providing instruction to the intended users/operators.

4.1.7 In compliance with Section 37 (2) of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) it is agreed that, by virtue of the acceptance of this appointment, the Contractor shall accept full and complete responsibility (both criminally and civilly) for its acts and omissions as intended in Section 37 of the Act and indemnify the employer against any legal action in this regard.

4.1.8 The Contractor undertakes to ensure that Section 37 (2) of the Occupational Health and Safety Act, 1993 will similarly apply to the agreement with any subcontractor(s) inclusive of indemnifying the employer against any legal action regarding the actions and/or omissions by Contractor.

4.2 General construction standards

4.2.1 The following parts of SANS 2001 Construction works standards and associated specification data are applicable to the works:

- 4.2.1.1 SANS 2001BE1 – Earthworks
- 4.2.1.2 SANS 2001BS1 - Site Clearance
- 4.2.1.3 SANS 2001CC2 - Concrete works
- 4.2.1.4 SANS 2001CG1 - Glazing works
- 4.2.1.5 SANS 2001CM1 - Masonry works
- 4.2.1.6 SANS 2001CS1- Structural steel works
- 4.2.1.7 SANS 2001CT2 – Structural timber works
- 4.2.1.8 SANS 2001DP1 - Earthworks for buried pipelines and prefabricated culverts
- 4.2.1.9 SANS 2001DP2 – Medium pressure pipes
- 4.2.1.10 SANS 2001DP3 – Cable ducts
- 4.2.1.11 SANS 2001DP4 – Sewers
- 4.2.1.12 SANS 2001DP5 – Storm water drainage
- 4.2.1.13 SANS 2001DP6 – Belowground water installations
- 4.2.1.14 SANS 2001EM1 – Cement plaster

4.2.2 The abovementioned SANS make several references to the Specification Data for data, provisions

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

and variations that make these standards applicable to this contract. The Specification Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and these standards.

4.3 Other Prescripts

- 4.3.1 Applicable national and international standards
- 4.3.2 Standardized Specifications for Civil Engineering Construction SANS 1200
- 4.3.3 The National Building Regulations SABS0400
- 4.3.4 Construction and Management Requirements for Works Contracts SANS1921-1
- 4.3.5 Targeted Construction Procurement SANS1914-4 4.

4.4 Occupational Health and Safety

- 4.4.1 The Contractor needs to comply with the following legal requirements:
 - 4.4.1.1 Occupational Health and Safety Act, 1993 – Construction Regulations, 2014
 - 4.4.1.2 Section 27 (2) of the Disaster Management Act, 2002 Regulations as amended
 - 4.4.1.3 COVID-19 Consolidated Directions on Occupational Health and Safety at Certain work places
 - 4.4.1.4 Safety, Health, Environment and Quality Policies of the employer – if applicable.

5 RISK ALLOCATION AND PRICING UNDER NEC OPTION A

5.1 Contractor's Duty to Assess and Price Risks

- 5.1.1 In accordance with NEC Option A, the Contractor acknowledges that the Contract is based on a fixed and firm Activity Schedule, which determines the price and payments.
- 5.1.2 The Contractor has been afforded full and reasonable opportunity, from the onset of the tender process, to investigate, query, identify, record, assess, and incorporate into its pricing all risks associated with the execution of the Works. The Contractor is afforded the opportunity to complete and amend the attached risk register, without shifting any risk to the Employer.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

5.1.3 Such risks include, but are not limited to:

- 5.1.3.1 errors, omissions, ambiguities, or inconsistencies in the Employer's documents that an experienced Contractor could reasonably have identified;
- 5.1.3.2 latent site conditions, ground conditions, and access arrangements;
- 5.1.3.3 the adequacy, completeness, or coordination of designs, specifications, and information available at tender stage;
- 5.1.3.4 availability, cost, quality, and performance of labour, subcontractors, suppliers, plant, and equipment;
- 5.1.3.5 statutory, regulatory, or approval requirements and changes;
- 5.1.3.6 external influences including adverse weather conditions, community or security issues, and environmental restrictions; and
- 5.1.3.7 any other risks which an experienced Contractor ought reasonably to have foreseen at the time of preparing its tender.

5.2 Bill of Quantities

- 5.2.1 The BoQ issued by the Employer is provided strictly for reference purposes only. It shall not be priced, nor shall it form part of the basis for valuation or adjustment of the Contract Price. The Contractor is required to submit a detailed Activity Schedule, which shall govern payment, and the assessment of the Contract Price for Work Done to Date.

5.3 Fixed and Firm Nature of the Contract

- 5.3.1 The Contractor warrants that the Contract Price and Activity Schedule duly incorporate allowance for all risks. The Prices are not subject to remeasurement, revaluation, or adjustment on account of the occurrence of all risks.

5.4 Exclusion from Compensation Events (NEC Clause 60.1)

- 5.4.1 Any failure by the Contractor to identify, record, consider, or price for the risks referred to above does **not** constitute a Compensation Event under Clause 60.1. Such matters shall remain entirely for the Contractor's risk, account, and management, and shall not entitle the Contractor to:
 - 5.4.1.1 an adjustment to the Prices (Contract Price for Work Done to Date);
 - 5.4.1.2 an extension to the Completion Date; or

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

5.4.1.3 any other relief or entitlement under this Contract.

5.5 Employer's Risks (Clause 80)

5.5.1 The Employer bears no risks, including those identified in Core Clause 80.1 of the NEC ECC, except for the following:

5.5.1.1 Free-issued materials or movable assets purchased by the Employer post-appointment remain at the Employer's risk until formally handed over to, and receipted by, the Contractor. From the time of handover, the Contractor assumes custody and protection obligations (including storage, security, and incorporation into the Works) and is liable for loss or damage arising from failure to discharge those obligations.

5.5.1.2 Use or occupation of any part of the Works by the Employer prior to Completion is at the Employer's risk to the extent provided for under Core Clause 80.1.

5.5.1.3 Scope deviations instructed by the Employer or Project Manager that change the Works Information. The Contractor's professional team remains responsible for the adequacy of any design solutions implemented as part of such deviations.

5.6 Current Risk Register

5.6.1 The following matters will be included in the Risk Register (See links below)

5.7 Contractor's Acknowledgement

5.7.1 The Contractor expressly acknowledges and accepts that it bears full and exclusive responsibility for the management, pricing, and mitigation of all risks other than those specifically defined as Employer's risks as per the Works Information and Clause 80.

5.8 Approval procedures for any deviations

5.8.1 No change or deviation shall be made to the designs and specifications as contained in the employer's Works Information and site information without the explicit formal approval by the Project Manager.

5.8.2 Any deviations arising out of the execution of the works shall be communicated to the Project Manager and require formal approval. A detailed process with applicable timelines shall be determined as per the contract.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

6 PROGRAMME REQUIREMENTS

6.1 Submission Needs

- 6.1.1 In accordance with Clause 31 of the NEC3 Engineering and Construction Contract (Option A – Priced Contract with Activity Schedule), each Tenderer shall submit with its bid a detailed programme for acceptance. The programme must:
- 6.1.1.1 Be developed to at least Level 3 detail, showing activities by discipline, work package, or functional area, with logical sequencing and interdependencies clearly defined.
 - 6.1.1.2 Cover the full scope of the Works, including design (where applicable), procurement, construction, installation, testing, and commissioning, and be consistent with the Activity Schedule.
 - 6.1.1.3 incorporate all identified Client's Activities into both the Programme and the Activity Schedule to ensure full visibility of all dependencies that may influence the Works. These Client's Activities—such as site access, approvals, provision of free-issue materials, or inspections—must be shown on the Programme in logical sequence with the Contractor's activities and included in the Activity Schedule as non-priced items to reflect their impact on the overall timing of the project. This integration is required in accordance with NEC3 ECC Clauses 31.2 and 31.3 to promote transparency, enable proper coordination between the parties, and provide a single integrated plan against which progress can be monitored. The Client will require two month's after the completion to equip the facility with the Contractor's Health Technology Consultant.
 - 6.1.1.4 Demonstrate a clear and practical sequence of activities, including float and critical path, to allow assessment of progress and impact of events.
 - 6.1.1.5 Show the start and finish dates of all activities, with the programme reflecting Site Handover on End March 2026 and completion aligned to the Completion Date.
 - 6.1.1.6 Identify Completion, and all Key Dates required under the Contract.
 - 6.1.1.7 Include time risk allowances for each activity to demonstrate consideration of uncertainties and potential risks.
 - 6.1.1.8 Format of Submission:
 - 6.1.1.8.1 A hard copy (minimum A3 size) for contractual records.
 - 6.1.1.8.2 An editable electronic version in MS Project (or other software accepted by the Project Manager).

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 6.1.2 Align fully with the Activity Schedule, as payments under Option A are made against completed activities. Front-loading of costs is not permitted.
- 6.1.3 Be capable of being updated in accordance with Clause 32 to reflect actual progress, early warnings, compensation events, and changes to Employer's Activities.
- 6.1.4 Failure to submit a compliant programme with the bid may render the submission non-responsive and may affect evaluation.

7 ACTIVITY SCHEDULE

7.1 Activity Schedule Requirements

- 7.1.1 This section outlines the requirements for the Activity Schedule under NEC3 contract conditions. It defines what is considered an acceptable Activity Schedule and what is not, and it explicitly prohibits front-loaded pricing. All contractors are expected to adhere to these guidelines in preparing and updating their Activity Schedules, in accordance with NEC3 provisions and best practices.

7.2 Acceptable Activity Schedule

- 7.2.1 An acceptable Activity Schedule must meet the following criteria:
 - 7.2.1.1 It includes all defined and necessary activities required by the Scope of Work, arranged in a logical order that reflects the actual construction methodology. Every significant task (including overheads, professional fees, enabling works, construction activities, etc.) is identified. The schedule should align with the project programme and method statements submitted with the bid and NEC3 ECC Option A, for example, clause 31.4 requires that each activity in the Activity Schedule relates to an operation on the accepted programme. This alignment ensures the sequence of activities is realistic and mirrors the planned workflow.
 - 7.2.1.2 The activities are broken down to a sufficient level of detail. Each listed activity should be a distinct, measurable piece of work (a defined deliverable) rather than an overly broad phase or a vague percentage of work. NEC3 guidance recommends using tangible, verifiable outputs for activities instead of subjective percentages. Breaking the work into appropriately sized activities is crucial because under the NEC3 Option A payment mechanism, the Contractor is paid only

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

for completed activities there is no part-payment for partially completed items. Therefore, the Activity Schedule should be detailed enough that each activity can be completed (and thus paid) within a reasonable timeframe, facilitating steady cash flow.

- 7.2.1.3 The Activity Schedule must assign realistic durations and timing to each activity, consistent with the complexity of the work and logical sequencing. Unreasonably short durations (over-optimistic scheduling) or excessively long durations without justification are not acceptable. The schedule should be practicable, NEC3 requires that the programme (to which the Activity Schedule is tied) be realistic and achievable, and the Employer may reject a programme or any revisions that are not practicable or not credible. In essence, the timeline in the Activity Schedule should be achievable and aligned with the project's constraints, so that it can serve as a reliable plan for execution and progress monitoring.
- 7.2.1.4 The costs assigned to each activity must accurately reflect the scope and effort of that activity, resulting in a payment profile that tracks the actual progress of the work. The sum of all activity prices must equal the total Contract Price (tender sum), no missing costs or mysterious overallocations. Each activity's price should be proportionate to the amount of work or resources involved in that activity. The pricing should follow a normal cash-flow curve for the project, not skewed artificially. In other words, the distribution of the contract sum across the activities should be reasonable and representative of the work done at each stage. The client's team will check that the Activity Schedule's pricing is not unduly front-loaded and that it fairly reflects the true value of work as it progresses. Aligning cost with actual work ensures that interim payments correspond to genuine progress, and it upholds the NEC3 principle that payment is made for completed work items.
- 7.2.1.5 Each activity in the schedule should clearly tie back to the project's scope and (if applicable) the contractor's method statements. There should be a direct correlation between what is described in the Activity Schedule and what is described in the Works Information (scope of work) and the execution plan. This means the Activity Schedule should not introduce activities that are not in the scope, nor should it omit tasks that are in the scope. Ensuring this one-to-one mapping to the scope/methodology will make the schedule a useful management tool and is in line with NEC3 requirements to maintain consistency between the schedule and the planned work (as noted, each Activity Schedule item must relate to actual operations in the programme). An acceptable schedule thereby provides a complete and accurate roadmap of the project's work, both in description and in financial allocation.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 7.2.1.6 For clarity, the Activity Schedule might include activities like “Excavate foundations”, “Pour concrete for foundations”, “Erect structural steel frame”, “Install roofing”, etc., each with a price and duration. The activities can be broken down by block or any other method that the Contractor deems to be in line with their methodology. Ancillary or preliminary activities (such as site setup, temporary facilities, supervision costs) should either be included as separate, clearly defined activities or their costs should be appropriately distributed among the relevant work activities. It is good practice to avoid listing a vague lump sum item like “Preliminaries” without detail; instead, break it into concrete components (e.g. “Site establishment – setup”, “Site establishment – maintenance”, “Site de-establishment”) or allocate those costs into the physical work items. This level of detail and clarity would meet the criteria of an acceptable Activity Schedule under the contract.
- 7.2.1.7 Format of Submission:
- 7.2.1.7.1 A hard copy (minimum A3 size) for contractual records.
- 7.2.1.7.2 An editable electronic version in Excel.

7.3 Unacceptable Activity Schedule

- 7.3.1 Conversely, an unacceptable Activity Schedule is one that fails to meet the above standards. The following characteristics are not acceptable and will lead to rejection or require correction of the Activity Schedule:
- 7.3.1.1 Leaving out important tasks or deliverables required by the project scope is a serious flaw. All contractually required work must be represented in the Activity Schedule. If any scope item is missing, the schedule does not truly reflect the work and cannot be trusted for progress or payment. Under NEC3 Option A, the Project Manager is entitled to reject a proposed Activity Schedule (or a revision) if the listed items do not align with or relate to the operations on the programme . An omission of a key task means the schedule is not in line with the actual work plan, violating that principle. Therefore, an Activity Schedule that fails to include all defined activities (as per the Works Information and programme) will be deemed unacceptable.
- 7.3.1.2 Activities that are described in imprecise or catch-all terms, or that cover an excessive scope without clear definition, are not acceptable. Every activity should be clearly defined so that there is no ambiguity about what work is included. For example, using one broad item like “Complete Building Works” for a multitude of subtasks, or listing activities as percentages (e.g. “50% of design completed” or “Project 25% complete”), would be improper. Such vague or

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

generalised entries make it impossible to objectively measure completion. If the Activity Schedule contains entries that are too broad or unclear (e.g. a single line item covering an entire month's work without detail, or terms like "Miscellaneous works"), it will not be accepted. The schedule must enable the Project Manager to verify when an activity is finished, so vague descriptions defeat that purpose.

- 7.3.1.3 An Activity Schedule that proposes unrealistic durations or sequencing for activities is not acceptable. This includes schedules that are overly optimistic (compressing tasks into improbably short periods) or conversely those that show excessive float or delays without basis. The timing for each activity should be grounded in a logical plan and sound construction practice. NEC3 contract provisions require the programme (which the Activity Schedule supports) to be practicable and realistic; indeed, the Project Manager can refuse to accept a programme that is not feasible or that lacks credibility ². If the Activity Schedule's timeline is unreasonable – for instance, showing a complex task being completed in an impossibly short time, or scheduling critical activities too late to meet key dates – it indicates a lack of a viable plan. Such a schedule would likely be rejected or sent back for revision, because it does not provide a reliable basis for managing time or assessing progress.
- 7.3.1.4 Any skewed distribution of the Prices across activities is unacceptable, in particular, front-loading (loading excessive costs into early activities) is prohibited. An Activity Schedule where the early tasks are assigned a disproportionately large share of the contract sum (without genuine justification in terms of value of work) will not be accepted. This practice results in the contractor receiving a large payment early for relatively little work, which is not aligned with the principle of payment for work done. If the Project Manager observes that the Activity Schedule is not reasonably distributed, for example, if preliminary activities or initial milestones carry an abnormally high price, they have grounds to reject it. The schedule's cost loading should reflect a normal progression of work; any attempt to game the schedule by front-loading costs is considered a serious irregularity and will be disallowed. (Front-loading is further addressed in its own section below.)
- 7.3.1.5 Lack of Correlation with Project Scope/Methodology: An Activity Schedule must correspond to the scope of work and the contractor's planned method of working. If there is a clear lack of correlation, for instance, activities are listed that do not tie to any work in the scope or method statements, or the breakdown deviates significantly from how the work is actually intended to be carried out, then the schedule is flawed. Essentially, the Activity Schedule should be a

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

financial reflection of the scope and plan; if it isn't, it cannot serve its purpose. NEC3 emphasises maintaining consistency between the Activity Schedule and the actual programme of work (again, Clause 31.4 ties activities to operations on the programme). Therefore, any Activity Schedule that does not match the project scope or agreed construction methodology will be considered incorrect and unacceptable. For example, if the method statement calls for a specific sequence of building elements, but the Activity Schedule is arranged in a completely different order or groups unrelated tasks together, it indicates a disconnect that must be resolved. The schedule should be revised to align with the actual plan of work before it can be accepted.

7.4 Other Matters

- 7.4.1 It is important to note that interim payments in this NEC3 contract are made for completed activities only (per the Activity Schedule payment mechanism). This means the Contractor is paid the full amount for an activity once it is finished, and nothing for that activity until completion. Given this rule, front-loading would create a situation where the Contractor is paid large sums for finishing early tasks, leaving little value in later tasks, a scenario that undermines the intent of the contract and the equitable cash flow over the project.
- 7.4.2 This guidance is in accordance with NEC3 Engineering and Construction Contract (ECC) principles. Relevant clauses include NEC3 ECC Clause 31.4, which links Activity Schedule items to the programme, and Clause 11.2, which defines a completed activity (implying activities should be tangible units of work). The payment provisions of Option A (e.g. Clause 50.2) underpin the requirement for accurate activity costing (payment for completed activities only).

8 ADVANCE PAYMENT

8.1 Purpose of Advance Payment

- 8.1.1 The Employer may provide an advance payment to the Contractor to facilitate mobilisation, procurement of key resources, and early execution of the Works. The advance payment is a financial support mechanism, not an entitlement, and is strictly subject to compliance with the PFMA, Treasury Regulations, and all other applicable legislative requirements.

8.2 Quantum and Draw-Down

- 8.2.1 The maximum advance payment permissible shall not exceed twenty percent (20%) of the total

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

Accepted Contract Price.

- 8.2.2 The advance payment shall be drawn down in instalments against certified payment certificates, proportionate to actual progress and in line with the Activity Schedule. As such its recovery should be included in the Activity Schedule or a milestone payment schedule which includes the drawdown/recoupment of any advances made.
- 8.2.3 Deductions for repayment of the advance payment shall commence from the first interim payment following disbursement of the advance payment and shall be structured such that the full advance payment is repaid based on the Contractor's proposal within a reasonable period, but within the contract period, or as otherwise prescribed by Treasury Regulation 15.10.3.

8.3 Advance Payment Guarantee

- 8.3.1 Prior to disbursement of the advance payment, the Contractor shall furnish an Advance Payment Guarantee to the Employer.
- 8.3.2 The Guarantee shall be equal to the total value of the advance payment and shall remain valid until the advance payment has been fully liquidated.

8.4 Repayment and Security

- 8.4.1 The Contractor shall submit, together with its advance payment proposal, a detailed repayment plan, indicating the draw-down schedule and method of offset against interim payments with its bid.
- 8.4.2 The advance payment shall be recovered by pro-rata deductions from interim payment certificates, in accordance with the agreed repayment plan, until the advance amount is fully amortised.
- 8.4.3 Failure to comply with the repayment terms will constitute a breach under the Contract Data and may result in recovery action under the PFMA.

8.5 Legislative Compliance

- 8.5.1 All processes relating to the advance payment shall be undertaken in accordance with:
- 8.5.2 PFMA, 1999 (Act No. 1 of 1999), particularly Sections 38 and 45, regarding effective, efficient, economical, and transparent use of resources.
- 8.5.3 Treasury Regulations, including 15.10.3 (advance payments).
- 8.5.4 Construction Industry Development Board (CIDB) Regulations and other applicable statutory

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

requirements.

- 8.5.5 No advance payment shall be made until all guarantees, proposals, and approvals are in place, and the Employer has confirmed compliance with legislative requirements.

9 QUALITY ASSURANCE AND CONTROL

9.1 Description

- 9.1.1 This section outlines the procedures for monitoring and controlling quality on the project. The responsibility for producing work and workmanship; and for supplying materials conforming in all respects to the specified requirements shall be that of the Contractor.
- 9.1.2 The Contractor as part of construction will be required to regularly conduct inspections and provide feedback to the Project Manager and Supervisor regarding the quality of the works.

9.2 Quality Assurance

- 9.2.1 Under quality assurance the intention shall be to ensure that regular audits of the works and quality control tests are being conducted. This will be carried out as follows:
- 9.2.1.1 The Contractor is required to carry out the works, conduct their own tests and call for scheduled inspections.
- 9.2.1.2 The Contractor's personnel are required to regularly conduct inspections and record and report any work which is or not in compliance with quality specification and standards to the Supervisor. The reports will be conducted using the relevant Quality Audit form provided by the Contractor or the Project Manager.
- 9.2.1.3 The populated Quality Audit form will be forwarded to the Contractor (if provided by the Project Manager) following inspections; and the content of the Quality Audit will be discussed in bi-weekly Site Progress / Technical Meetings.
- 9.2.1.4 The Contractor is expected to regularly submit copies of the results of quality control tests or inspections regularly and as soon as they become available to ensure no backlog. The tests will be audited and approved thereafter, if found to comply with all specifications.
- 9.2.1.5 It is the sole responsibility of the Contractor to formally invite the Project Manager to undertake any pre-casting or trench closing inspections where required. Sufficient notice of 2 working days must be provided to the Project Manager prior to any required inspections.
- 9.2.2 The acceptance and sign off of any section of the works by the Contractor's personnel shall not

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

necessarily mean that the design consultant has inspected and approved all aspects of work; and any defects discovered after acceptance shall be rectified by the Contractor.

9.3 Quality control

- 9.3.1 The systematic control by the Contractor of the properties and quality of materials and workmanship produced under this Contract, in order to ensure that such will comply with the requirements specified.
- 9.3.2 The Contractor will ensure regular testing of materials and workmanship where necessary and allowed for in the bid documentation
- 9.3.3 The Contractor shall provide proof of tests and the respective results to the Project Manager.
- 9.3.4 The Contractor will ensure that all parties are clear on the quality control tests and inspections and the acceptance limits to be applied when auditing the test results.
- 9.3.5 Quality control file – The Contractor shall maintain their own quality control file on site; and ensure proper and satisfactory implementation of their Quality Assurance Policy.
- 9.3.6 Quality Assurance Meetings
 - 9.3.6.1 Dedicated quality assurance meetings may be scheduled as and when it may be deemed by the Principal Agent that more in-depth discussions are required for resolution of quality issues on the project. Or if the Contractor is found to be lagging on addressing quality issues.
 - 9.3.6.2 Any work or materials not conforming to the Specifications shall be removed and replaced with work or materials conforming to the Specifications; or be improved by such remedial measures as the Contractor and where required, the employer's authorised representative may approve so that such work will conform to the Specifications

9.4 The Quality Management Plan

- 9.4.1 The Quality Management Plan (QMP) sets out the strategies, standards, procedures, and responsibilities required to ensure that all aspects of the Msukaligwa CHC are delivered to the highest quality standards.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

9.4.2 The Contractor is fully responsible for design, procurement, construction, testing, equipping, commissioning, and handover and therefore the Quality Management Plan. The Contractor is to submit an update Quality Management Plan with their Tender, as part of methodology.

9.4.3 Quality Scope

9.4.3.1 The QMP applies to all project activities including:

9.4.3.1.1 Design development (architectural, structural, civil, MEP, ICT, medical gases, fire, wet services and HT).

9.4.3.1.2 Procurement & supply chain (all equipment, materials, subcontractors).

9.4.3.1.3 Construction (earthworks, superstructure, finishes, services).

9.4.3.1.4 Testing & commissioning (HVAC, medical gases, electrical, fire, ICT).

9.4.3.1.5 Training & O&M manuals.

9.4.3.1.6 Close-out (as-builts, statutory approvals, warranties, defects liability).

9.4.4 Quality Planning

9.4.4.1 Project Quality Plan (PQP)

9.4.4.1.1 Contractor to prepare a PQP within 21 days of appointment.

9.4.4.1.2 PQP must include quality objectives, org structure, inspection/test plans, NCR procedures, audit plans, etc.

9.4.4.2 Quality Control Plan (QCP)

9.4.4.2.1 QCPs per discipline: civil, structural, electrical, HVAC, medical gases, fire, ICT. Must specify inspection hold points, witness points, acceptance criteria and testing methods.

9.4.4.3 Roles & Responsibilities

9.4.4.3.1 Employer (NDoH) – Owner and approver of final handover.

9.4.4.3.2 Consultium Architects – Employer’s Representative, reviews PQP/QCPs, approves quality deviation submissions, issues instructions, chairs QA meetings, approves all payments requiring quality.

9.4.4.3.3 Contractor – Full accountability for quality delivery, prepares PQP/QCPs, maintains records, procures approved materials, trains end-users.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

9.4.4.3.4 Independent 3rd Party QA/QC – Provides surveillance, verifies compliance, final authority on inspections/tests.

9.4.4.4 Subcontractor & Supplier Management

9.4.4.4.1 Contractor submits list of subcontractors for approval.

9.4.4.4.2 Competency certificates required (CSD, CIDB, SACPCMP, ECSA).

9.4.4.4.3 Subcontractors bound by same QA/QC obligations.

9.4.4.4.4 Materials must have traceability and compliance certificates.

9.4.4.4.5 OEMs must be disclosed for operational reasons and are considered parties to the project.

9.4.4.5 Inspection, Testing & Commissioning

9.4.4.5.1 Inspection Requests – to be detailed by the Contractor.

9.4.4.5.2 Testing Requirements – to be detailed by the Contractor and to be approved by the Employer's Representative.

9.4.4.5.3 Commissioning & Handover – System-by-system commissioning, training, O&M manuals, close-out pack before PC.

9.4.4.6 Non-Conformance & Corrective Action

9.4.4.6.1 NCRs raised for any type of deviation.

9.4.4.6.2 Contractor investigates, proposes corrective action.

9.4.4.6.3 Repeat issues may trigger a Quality Stop Note halting works until resolved.

9.4.4.6.4 Quality Stop Notes are to be issued by the Supervisor and/or the Contractor.

9.4.4.7 Documentation & Records

9.4.4.7.1 All documents logged in a Quality Register.

9.4.4.7.2 Records: inspection reports, test results, material certs, NCR logs, as-builts, commissioning sheets, O&M manuals.

9.4.4.7.3 Contractor is to Retain Quality Information for 5 years after handover.

9.4.4.8 Deliverables & Schedule

9.4.4.8.1 PQP: within 21 days.

9.4.4.8.2 Monthly QA/QC reports: Contractor to submit to Consultium.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 9.4.4.8.3 NCR register: continuous.
- 9.4.4.8.4 As-builts & O&M: 14 days before PC.
- 9.4.4.8.5 Final close-out pack: before handover.

- 9.4.4.9 Health, Safety, and Environment (HSE)
- 9.4.4.9.1 Contractor must integrate OHS, environmental, and quality systems.
- 9.4.4.9.2 Compliance with OHS Act (Construction Regulations 2014).
- 9.4.4.9.3 Any breach may result in stop-work.

10 CONTRACTOR'S KEY PERFORMANCE INDICATORS (KPIs)

10.1 Introduction

- 10.1.1 The following shall comprise the key performance indicators to be monitored by the Supervisor and Project Manager. The Contractor agrees that the below KPIs are those that an experienced contractor should be able to attain.

10.2 Time / Programme

- 10.2.1 Adherence to Programme – Percentage (%) of activities completed on or before the planned completion date. *(Target: $\geq 90\%$)*
- 10.2.2 Programme Updates – Frequency and accuracy of programme submissions in compliance with NEC requirements. *(Target: bi-weekly, on time)*

10.3 Cost / Commercial

- 10.3.1 Payment Applications – Accuracy and timeliness of Contractor's payment applications against the Activity Schedule. *(Target: 90% accurate & on time)*
- 10.3.2 Advance Payment Recovery – Accuracy and timeliness of repayment of the advance payment in accordance with the agreed recovery schedule linked to certified works. *(Target: 100% recovered by the agreed milestone dates with no arrears)*

10.4 Quality

- 10.4.1 Defect Rate – Number of defects identified at completion versus total activities. *(Target: $\leq 2\%$ of activities defective at completion)*

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

10.4.2 Compliance with Standards – Percentage (%) of inspections/tests passed on first attempt. *(Target: $\geq 100\%$)*

10.4.3 As-Builts & Close-Out Documents – Submission of complete and accurate O&M manuals, warranties, and as-built drawings at handover. *(Target: 100%)*

10.5 Health, Safety & Environment (HSE)

- HSE Compliance – Percentage (%) % of planned HSE audits completed with no major findings. (Target: $\geq 90\%$)
- Environmental Compliance – Number of reportable environmental incidents. (Target: 0)

10.6 Stakeholder & Communication

10.6.1 Progress Reporting – Timeliness and completeness of bi-weekly/monthly reports. *(Target: 100% on time)*

10.6.2 Meeting Attendance – Attendance of Contractor's key personnel at site and progress meetings as per tender or otherwise approved. *(Target: 100%)*

10.6.3 Community Engagement – % of agreed social facilitation/local labour commitments achieved. *(Target: $\geq 100\%$)*

11 SOCIAL FACILITATION AND LOCAL EMPLOYMENT GENERATION

11.1 Introduction

11.1.1 The employer has identified job creation and access to procurement opportunities by Start-ups, Small and Micro Enterprises (SMMEs) as an essential requirement towards building an economically viable country and in particular locations where it executes projects.

11.2 General Labour minimum targets

11.2.1 It is mandatory that Contractors employ the minimum stipulated personnel on the contracts from the local community where the project is being implemented. This employment is outside the existing employees of the Contractor.

11.2.2 For the general labour force, the minimum number of people to be employed for the duration of the Project will be calculated from the formula as provided in the bid documents.

11.2.3 Contractors are to-note that it is an explicit condition of this contract that all unskilled labourers on the project are to be employed from the local community. The Contractor is therefore

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

expected in general to maximise the involvement of the local community.

- 11.2.4 Note must be taken that the local labour employed must not be paid lower than the minimum approved Municipal rates in that district or area.
- 11.2.5 The Contractor shall be required to submit employment data monthly to the employers authorised representative.
- 11.2.6 Should the Contractor at works Completion, be in default by non-attainment of the above mentioned labour intensive targets, the employer shall have the right to, without prejudice of any other rights, apply a penalty of not exceeding 5% of the contract sum.

11.3 Small Micro & Medium Enterprises (SMME)

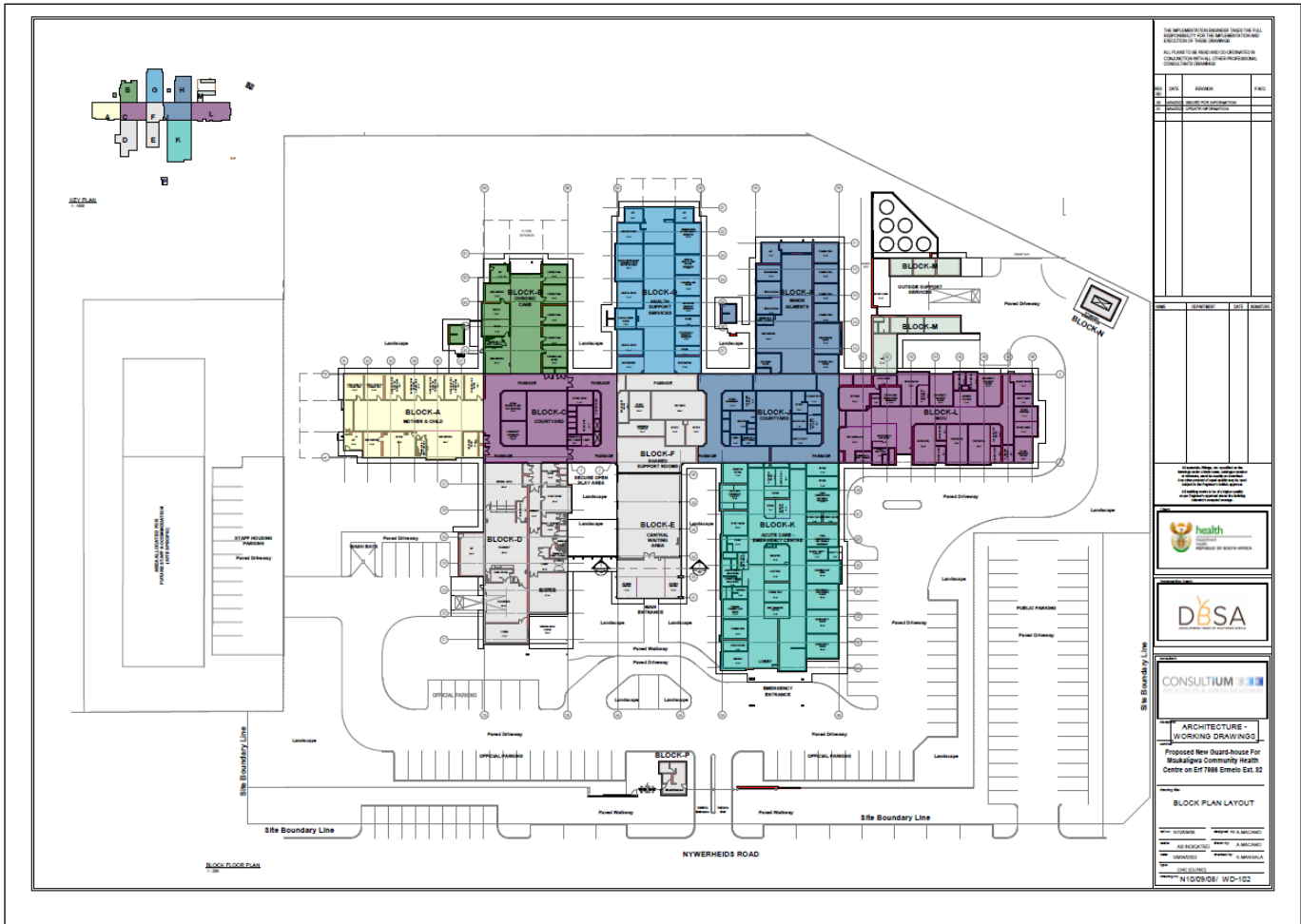
- 11.3.1 Where SMMEs are sufficiently resourced, a minimum of 10% of the value of the work must be subcontracted. Where SMMEs are insufficient resources to execute the proposed works as a complete package the Contractor may conclude contracts on a management/labour basis in which event a minimum of 5% of the value the works is to be subcontracted. The onus is on the Contractor to prove to the employer that not fully fledged SMMES are active in the project.
- 11.3.2 Regarding procurement of materials, local is hereby defined as the district in which the project is located. The minimum target for materials sourced locally is 20% of the contract value, where practical. Where materials are not available within the local area as defined above, the Contractor shall provide sufficient proof thereof prior to procuring outside of the local area.

12 ARCHITECTURAL STATUS QUO

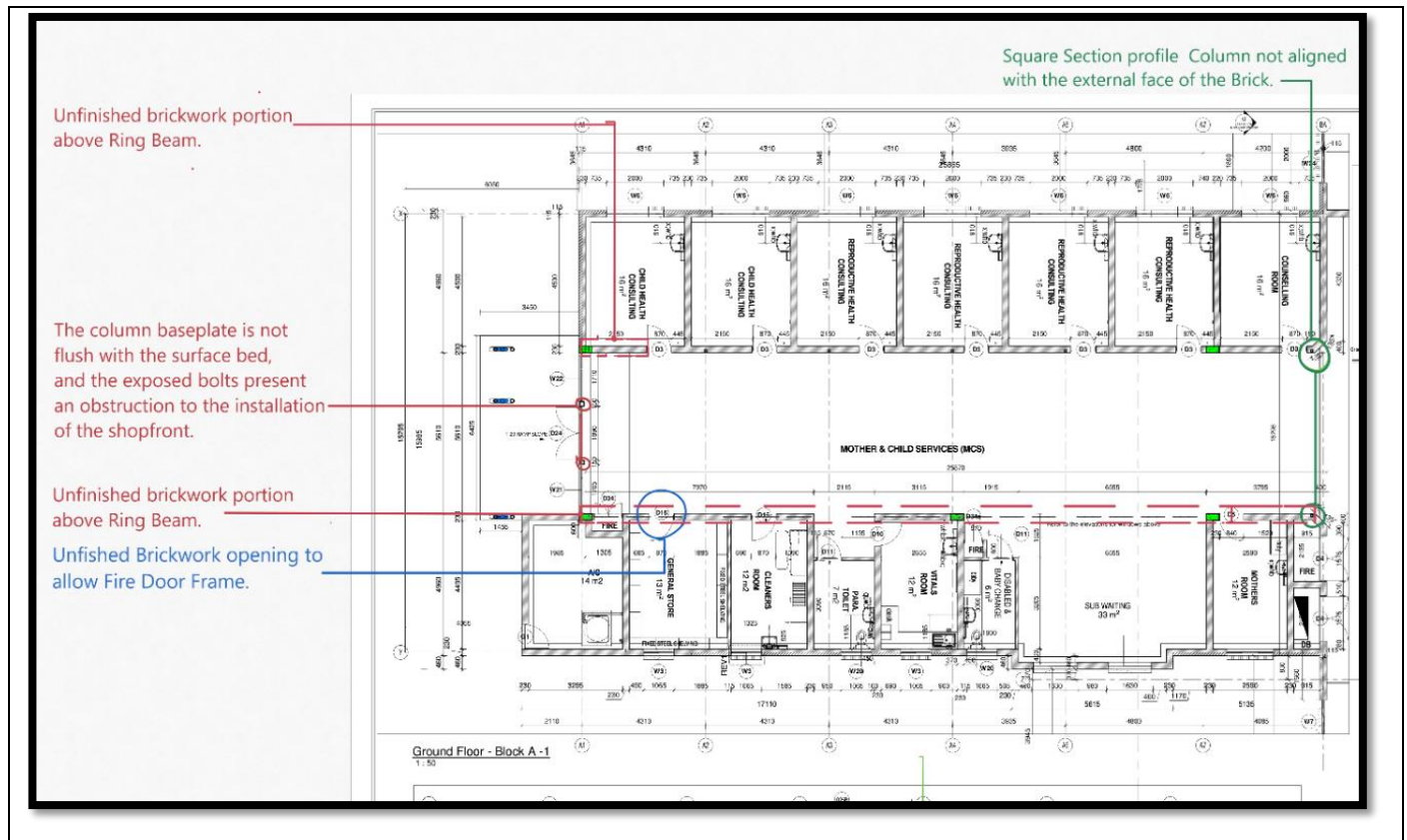
12.1 Layout Arrangement

12.1.1 At the inception of the project, a strategic decision was made to divide the various departments into clearly defined Blocks, labelled A through P (Excluding I & O). This arrangement was implemented to ensure clarity in understanding the overall building layout and to streamline the detailing process during the preparation of construction drawings. By adopting this block-based approach, the designers aimed to minimize the risk of confusion during construction. This same structure has been consistently applied in the preparation of quality reports and should serve as the basis for presenting the status of and required building works.

12.1.2 The blocks are itemised as below



12.2 Block A – Plan Layout



| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

12.3 Block A Status of Works

| No | Element | Status | Comments |
|----------|----------------------|---------------|--|
| INTERNAL | | | |
| 1 | Surface Bed | Completed | Well compacted, not well levelled some portion |
| 2 | Brick Work | Not | The brickwork has been completed; however, in certain areas, the type of brick used is inconsistent. Some sections feature plaster bricks of a different colour, which may potentially compromise the structural integrity of the wall. |
| | Under Ring Beam | Completed | |
| 3 | Brick Work | Not | As shown in the attached image, the brickwork above the ring beam in Block A has not been completed in approximately 90% of the beam section. |
| | Above Ring Beam | Completed | |
| 4 | Window Opening | Completed | Several windows exhibit poor workmanship and require realignment. All affected units should be thoroughly cleaned to remove rust and residual concrete mortar. |
| 5 | Door Frame | Installed | Several door frames were found to be damaged, misaligned (not plumb), and inadequately secured. |
| 6 | Ring Beam | Completed | The ring beam has been completed; however, the quality of the off-shutter finish is substandard. |
| 7 | Lintels | Completed | The Lintel position is inconsistent with certain areas not placed correctly as shown here which the lintel is placed above one row of brick above Door Frame instead of placed below the brickwork to hold the vertical load of the brickwork. |
| ROOF | | | |
| 8 | Steel Roof Structure | Installed | Certain areas the Rafter Column Baseplates are not flashed against the Concrete Ring Beams. |
| 9 | Steel Columns | Installed | The steel column baseplates are misaligned with the surface bed level, and the anchor bolts remain exposed, creating a safety hazard for site personnel in all areas of Block where columns have been erected, as evidenced in the attached image. |
| EXTERNAL | | | |
| 10 | Face brick | Completed | The Face brick is done preciously in some areas in Block A. However, the brickwork appears untidy and requires cleaning, as shown in the attached image. |
| 11 | Plastering | Not Completed | On Block A, only 5–10 percent of the beam has been plastered, and the work shows uneven edges and rough patches. Additionally, the windowsill finish is inconsistent. |

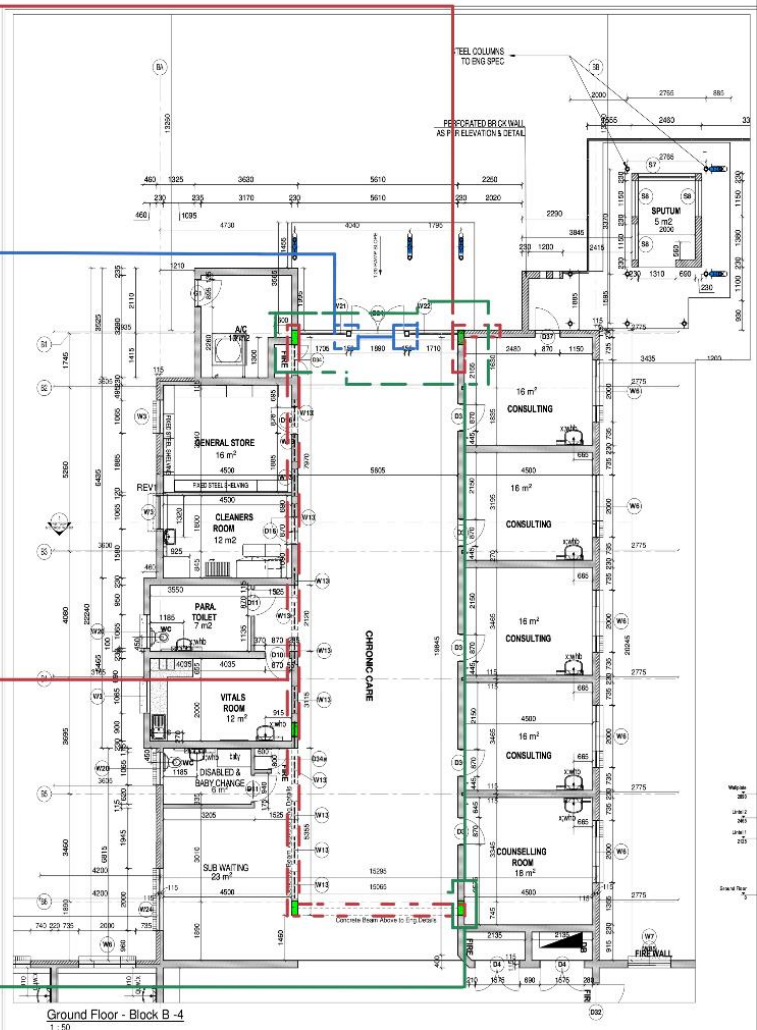
12.4 Block B - Plan Layout

Unfinished brickwork portion
above Ring Beam.

The column baseplate is not
flush with the surface bed,
and the exposed bolts present
an obstruction to the installation
of the shopfront.

Unfinished brickwork portion
above Ring Beam.

Square Section profile Column not aligned
with the external face of the Brick.

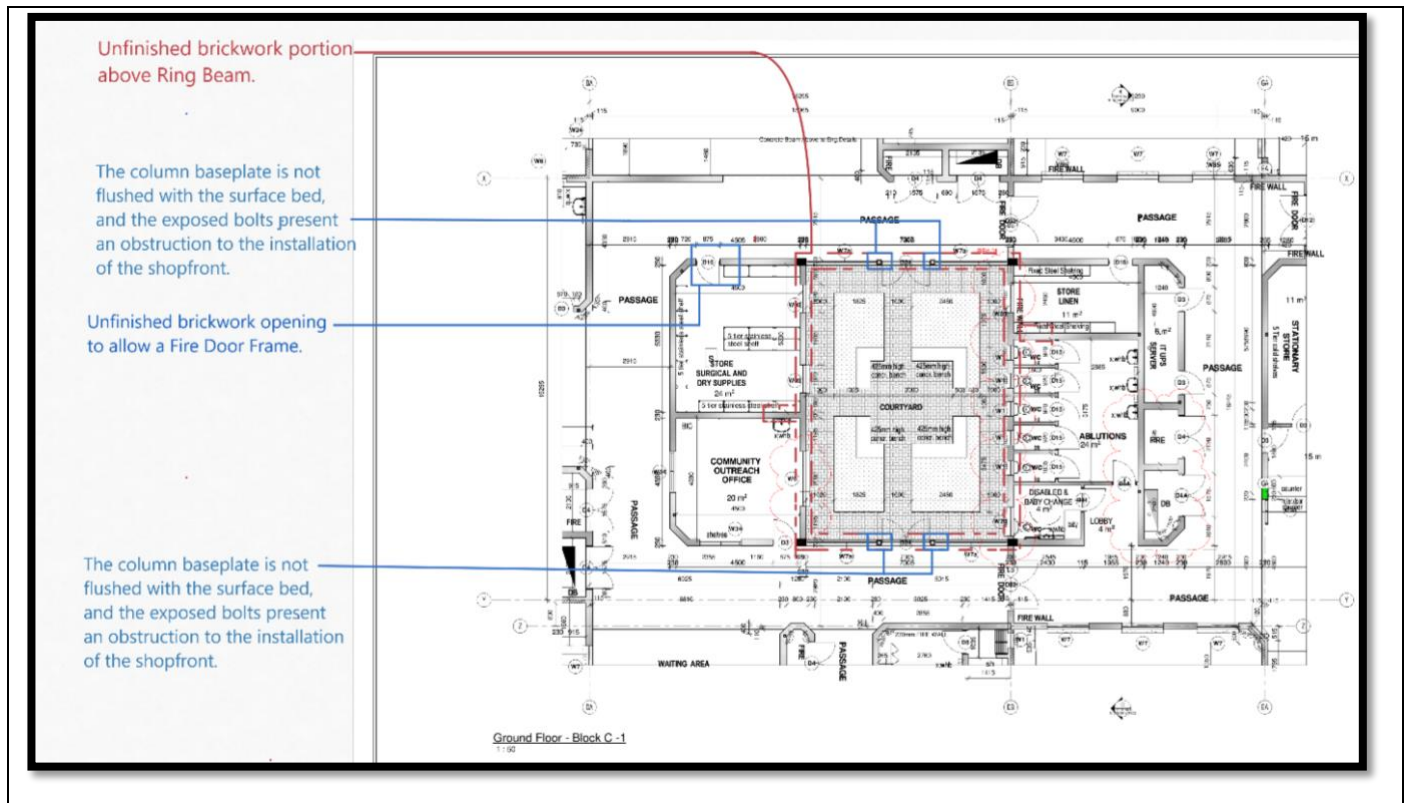


| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

12.5 Block B Status of Works

| No | Element | Status | Comments |
|----------|----------------------------|---------------|--|
| INTERNAL | | | |
| 1 | Surface Bed | Completed | The surface is well compacted but not properly levelled, as indicated by the uneven, dried portions visible across the passage in the attached images. |
| 2 | Brick Work Under Ring Beam | Completed | The brickwork has been completed; however, in certain areas, the type of brick used is inconsistent. Some sections feature plaster bricks of a different colour, as visible in the red portion in the attached image, which may potentially compromise the structural integrity of the wall. The Brickwork lacks uniformity, has irregular joints in the passages and waiting area as shown in the image. |
| 3 | Brick Work Above Ring Beam | Not Completed | As shown in the attached images, the brickwork above the ring beam in Block B has not been completed on approximately 90% of the beam section. So, it cannot be approved |
| 4 | Window Opening | Completed | Several windows show signs of poor workmanship, particularly at the windowsills. Additionally, the steel frames are rusting, likely due to inadequate protection during construction. Proper covering with plastic sheeting should have been provided to shield the windows from rain exposure. |
| 5 | Door Frame | Installed | Several door frames were found to be damaged, not plumb, and inadequately secured at the bottom as shown in the image. |
| 6 | Ring Beam | Completed | The ring beam has been completed; however, the quality of the off-shutter finish is substandard. The beam is not aligned with the concrete columns as shown in the 2 nd attached image. |
| 7 | Lintels | Completed | The lintel placement is inconsistent, with some areas incorrectly positioned, as seen on the left side of the attached image. These should match the correct placement shown on the right side. |
| ROOF | | | |
| 8 | Steel Roof Structure | Installed | Certain areas the Rafter Column Baseplates are not flushed against the Concrete Ring Beams. |
| 9 | Steel Columns | Installed | Steel Column baseplate not aligned with the Surface Bed Level. |
| EXTERNAL | | | |
| 10 | Face brick | Completed | The Face brick is done preciously in some areas. But the brickwork is not clean as visible in the attached image. |
| 11 | Plastering | Not Completed | On Block B, only 5–10 percent of the beam has been plastered, and the work shows uneven edges and rough patches. |

12.6 Block C - Plan Layout



| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

12.7 Block C Status of Works

| No. | Element | Status | Comments |
|----------|----------------------------------|------------------|---|
| INTERNAL | | | |
| 1 | Surface Bed | Completed | The surface is well compacted but not properly levelled, as indicated by the uneven, dried portions visible across the passage in the attached images. |
| 2 | Brick Work Under Ring Beam | Not completed | The brickwork has not been completed; however, in certain areas the that bricks are missing as shown in the attached image on the right. Some sections feature plaster bricks of a different colour, as visible in the blue portion in the attached image, bellow and above the Lintel. The brickwork in Block C passage lacks uniformity, with irregular joints observed above the door frames. |
| 3 | Brick Work Above Ring Beam | Not Completed | As shown in the attached images, the brickwork above the ring beam along the internal courtyard in Block C has not been done. |
| 4 | Window Opening | Completed | The Steel window frames are not clean; the edges have concrete patches. And the steel frames are rusting, likely due to inadequate protection during construction. Proper covering with plastic sheeting should have been provided to shield the windows from rain exposure. |
| 5 | Door Frame | Installed | Several door frames were found to be damaged, segueing, because of wrong position of the Lintel as shown in the attached image. |
| 6 | Ring Beam | Completed | The ring beam has been completed; however, the quality of the off-shutter finish is substandard. |
| 7 | Lintels | Completed | The lintel placement is inconsistent, with some areas incorrectly positioned, as seen on the attached image. The Lintel must be position bellow the brickwork above the Door frame. This mistake is repeatedly done through the building. |
| ROOF | | | |
| 8 | Steel Roof Structure | Not Installed | |
| 9 | Steel Columns | Installed | The steel column baseplates are misaligned with the surface bed level, and the anchor bolts remain exposed, creating a safety hazard for site personnel in all areas of Block where columns have been erected, as evidenced in the attached images. |
| EXTERNAL | | | |
| 10 | Face brick | Completed | The Face brick is done preciously below the windows in the courtyards of Blocks C. However, the brickwork appears untidy and requires cleaning, as shown in the attached image. |
| 11 | Plastering | Not complete | Plastering was not done in this block. |

12.8 Block D - Plan Layout

Square Section profile Column not aligned with the external face of the Brick.

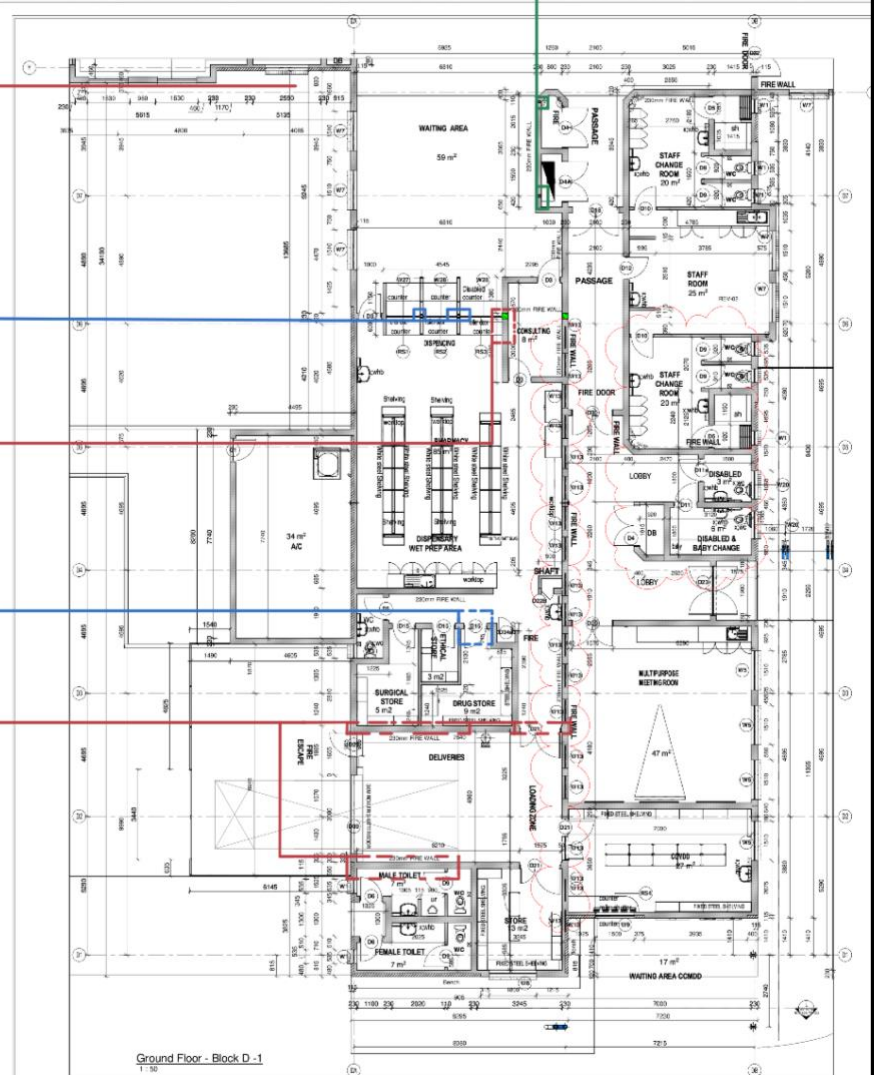
Unfinished brickwork portion above Ring Beam.

The column baseplate is not flush with the surface bed, and the exposed bolts present an obstruction to the installation of the shopfront.

Unfinished brickwork portion above Ring Beam.

Unfinished Brickwork opening to allow Fire Door Frame.

Unfinished brickwork portion above Ring Beam.

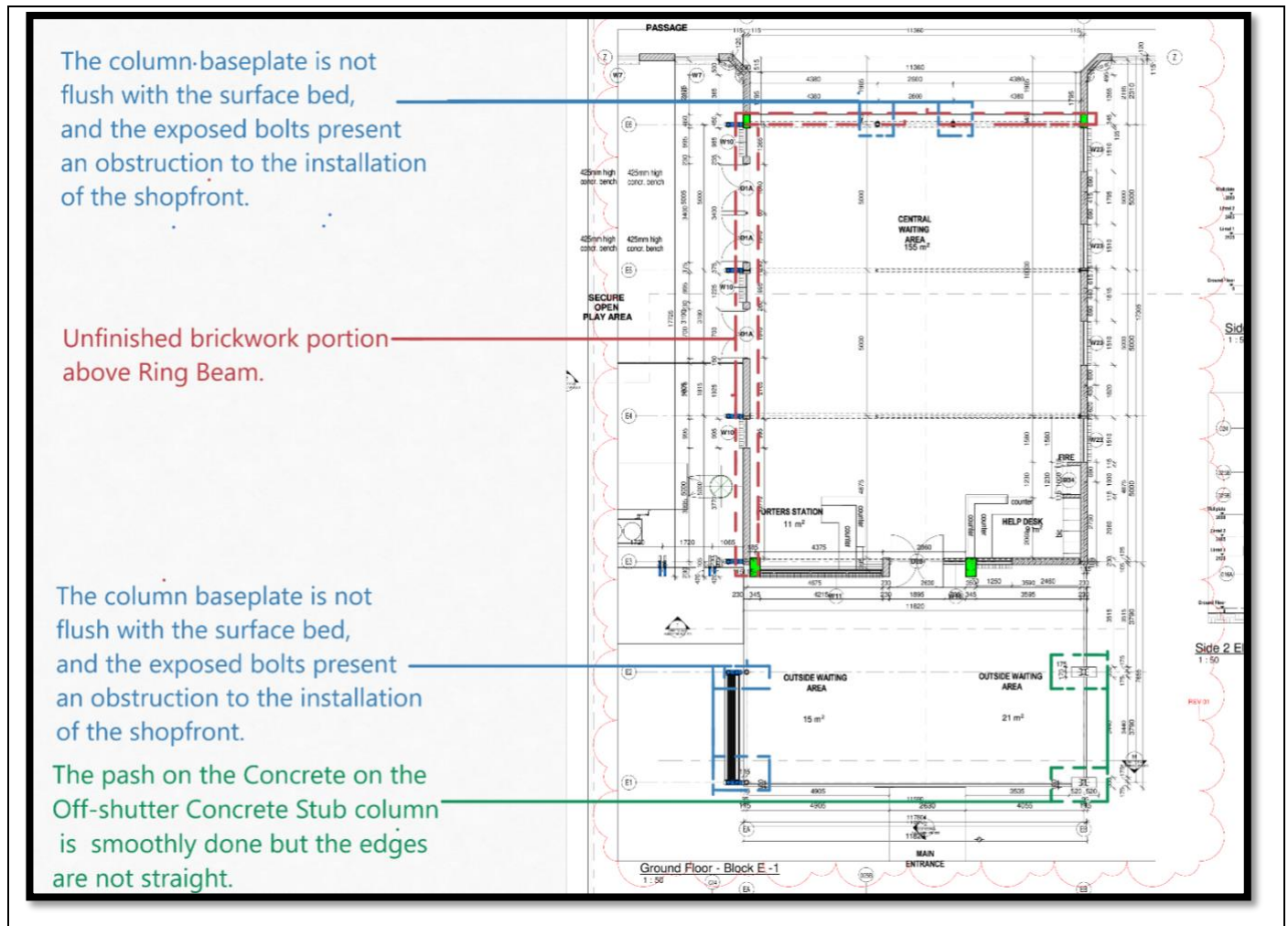


| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

12.9 Block D Status of Works

| No | Element | Status | Comments |
|----------|----------------|---------------|--|
| INTERNAL | | | |
| 1 | Surface Bed | Completed | Well compacted, not well levelled some portion |
| 2 | Brick Work | Not | The brickwork has been completed; however, the Brickwork lacks uniformity, has irregular joints in the pharmacy sub waiting area as shown in the attached image. Other areas where chasing for service pipe has not been closed as shown in the attached image. |
| | Under Ring | Completed | |
| | Beam | | |
| 3 | Brick Work | Not | The brickwork above the ring beam in Block A has not been completed in approximately 95% of the Block. Only a portion of Fire Walls in the Delivery Room have been erected close to the underside of the Roof as shown in the attached images. The Brickwork was not complete above the Steel Beam Level on Block E and only a portion is visible in front of the Entrance. |
| | Above Ring | Completed | |
| | Beam Level | | |
| 4 | Window Opening | Completed | The Steel window frames are not clean; the edges have concrete patches. And the steel frames are rusting, likely due to inadequate protection during construction. Proper covering with plastic sheeting should have been provided to shield the windows from rain exposure. |
| 5 | Door Frame | Installed | The fire door frame has not been installed as per the design specifications, as shown in the attached image. Additionally, Improper door frame installation and incorrect lintel positioning have resulted in door sagging, observed across other blocks. |
| 6 | Ring Beam | Completed | The ring beam has been completed; however, the off-shutter finish is uneven and inconsistent, with visible surface anomalies as shown in the attach images. |
| 7 | Lintels | Completed | The lintel placement is inconsistent in some areas, where it has been installed above a row of bricks over the door frame, rather than directly beneath the brickwork to properly support the vertical load. |
| ROOF | | | |
| 9 | Steel Columns | Installed | The steel column baseplates are misaligned with the surface bed level, and the anchor bolts remain exposed, creating a safety hazard for site personnel in all areas of Block where columns have been erected, as evidenced in the attached image. |
| EXTERNAL | | | |
| 10 | Face brick | Completed | The Face brick is done preciously in some areas in Block D. However, the brickwork requires cleaning, as shown in the attached image. |
| 11 | Plastering | Not Completed | Block D: Only a small section of the beam has been completed, as illustrated in the attached image. |

12.10 Block E - Plan Layout



| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

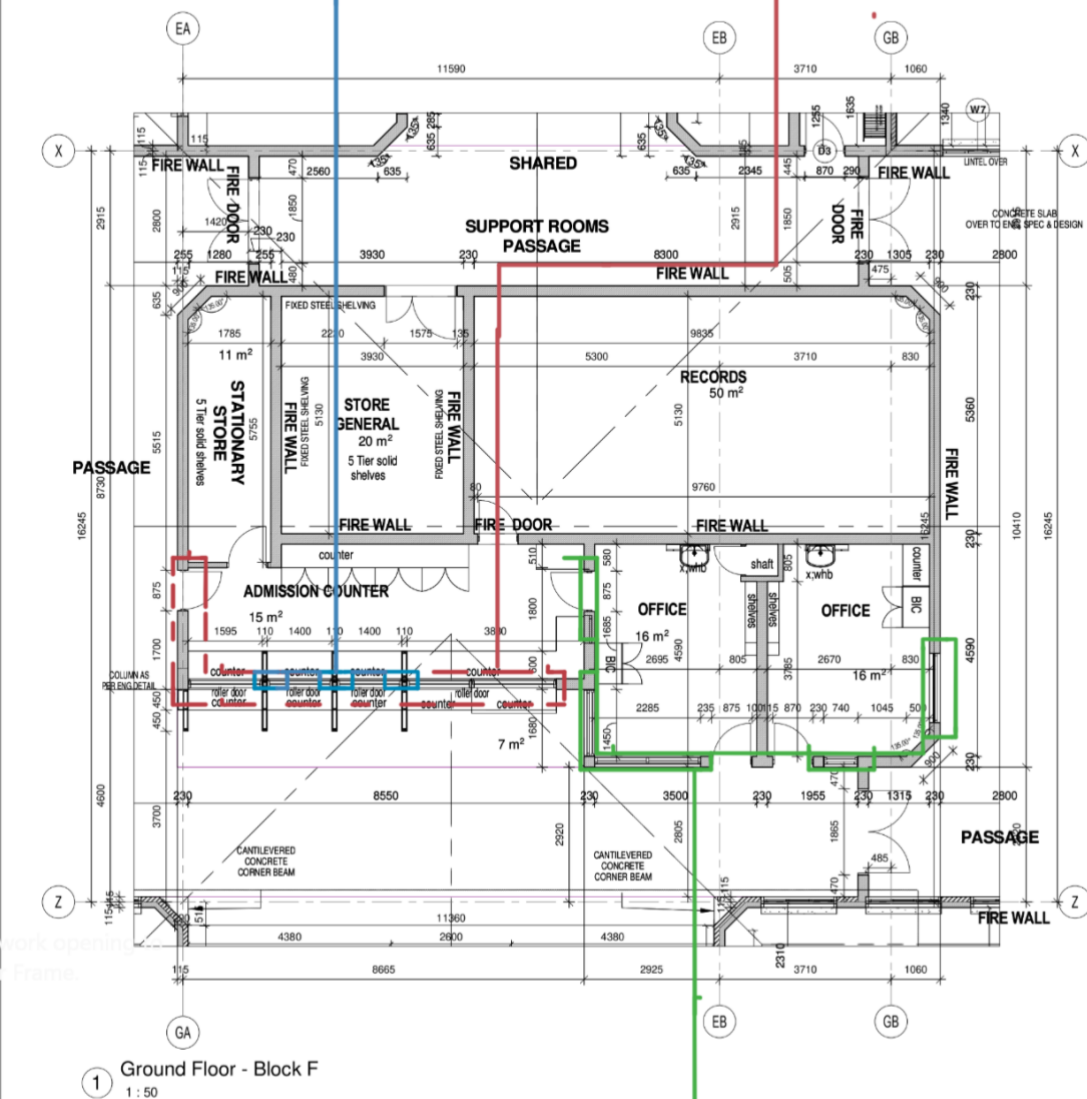
12.11 Block E Status of Works

| No. | Element | Status | Comments |
|----------|----------------------|----------------------|--|
| INTERNAL | | | |
| ROOF | | | |
| 8 | Steel Roof Structure | Completed in Block E | The steel rafters and purlins are visible; structural input is required from the engineers. |
| 9 | Steel Columns | Installed | The steel column baseplates are misaligned with the surface bed level, and the anchor bolts remain exposed, creating a safety hazard for site personnel in all areas of Block where columns have been erected, as evidenced in the attached image. |
| EXTERNAL | | | |
| 10 | Face brick | Completed | The Face brick is done preciously in some areas in Block E. However, the brickwork requires cleaning, as shown in the attached image. |
| 11 | Plastering | Not Completed | Block E: Plastering work has not yet been carried out. |

12.12 Block F - Plan Layout

The column baseplate is not level with the surface bed, and the exposed bolts obstruct the installation of the shopfront.

Unfinished brickwork portion above Ring Beam.



Brickwork opening done but no Steel Frame Windows installed.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

12.13 Block F Status of Works

| No | Element | Status | Comments |
|----------|--|------------------|---|
| INTERNAL | | | |
| 1 | Surface Bed | Completed | The surface is well compacted but not properly levelled, as indicated by the uneven, dried portions visible across the passage in the attached images. |
| 2 | Brick Work Under Ring Beam | Not completed | The brickwork has not been completed; however, in certain areas the that bricks are missing as shown in the attached image on the right. Some sections feature plaster bricks of a different colour, as visible in the blue portion in the attached image, bellow and above the Lintel. The brickwork in Block C passage lacks uniformity, with irregular joints observed above the door frames. |
| 3 | Brick Work Above Ring Beam Level | Not Completed | As shown in the attached images, the brickwork above the ring beam along the internal courtyard in Block F has not been done. |
| 4 | Window Opening | Not Installed | |
| 5 | Door Frame | Installed | Several door frames are segueing, because of wrong position of the Lintel as shown in the attached image. |
| 7 | Lintels | Completed | The lintel placement is inconsistent, with some areas incorrectly positioned, as seen on the attached image. The Lintel must be position bellow the brickwork above the Door frame. This mistake is repeatedly done through the building. |
| ROOF | | | |
| 8 | Steel Roof Structure | Not Installed | |
| 9 | Steel Columns | Installed | The steel column baseplates are misaligned with the surface bed level, and the anchor bolts remain exposed, creating a safety hazard for site personnel in all areas of Block where columns have been erected, as evidenced in the attached images. |

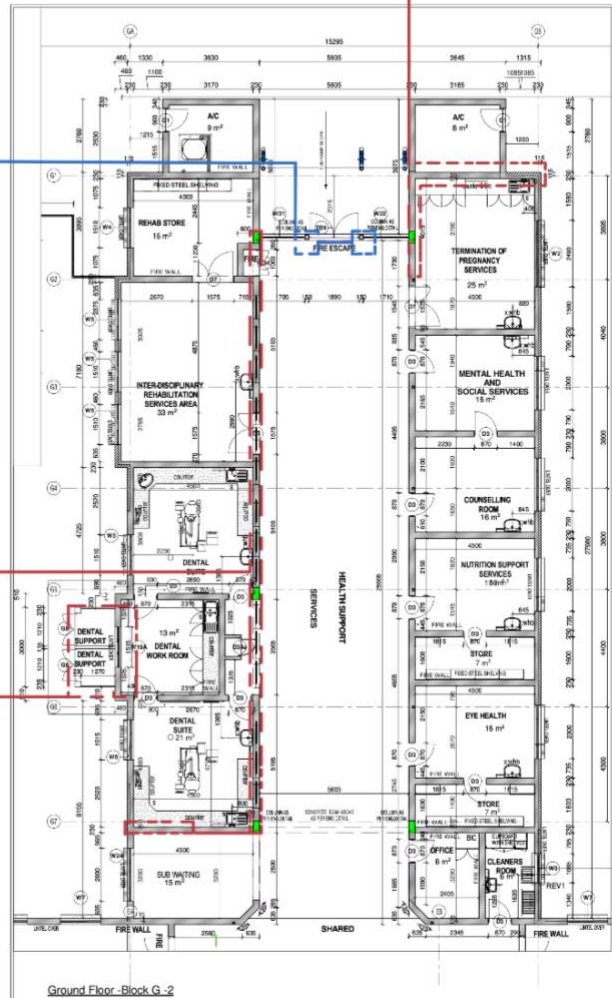
12.14 Block G - Plan Layout

Unfinished brickwork portion
above Ring Beam.

The column baseplate is not
flush with the surface bed,
and the exposed bolts present
an obstruction to the installation
of the shopfront.

Unfinished brickwork portion
above Ring Beam.

Unfinished brickwork portion
above Ring Beam. The Surface
Bed constructed at a wrong
level below Finish ground Level.
Civil and Mechanical Engineer
to provide input.



| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

12.15 Block G Status of Works

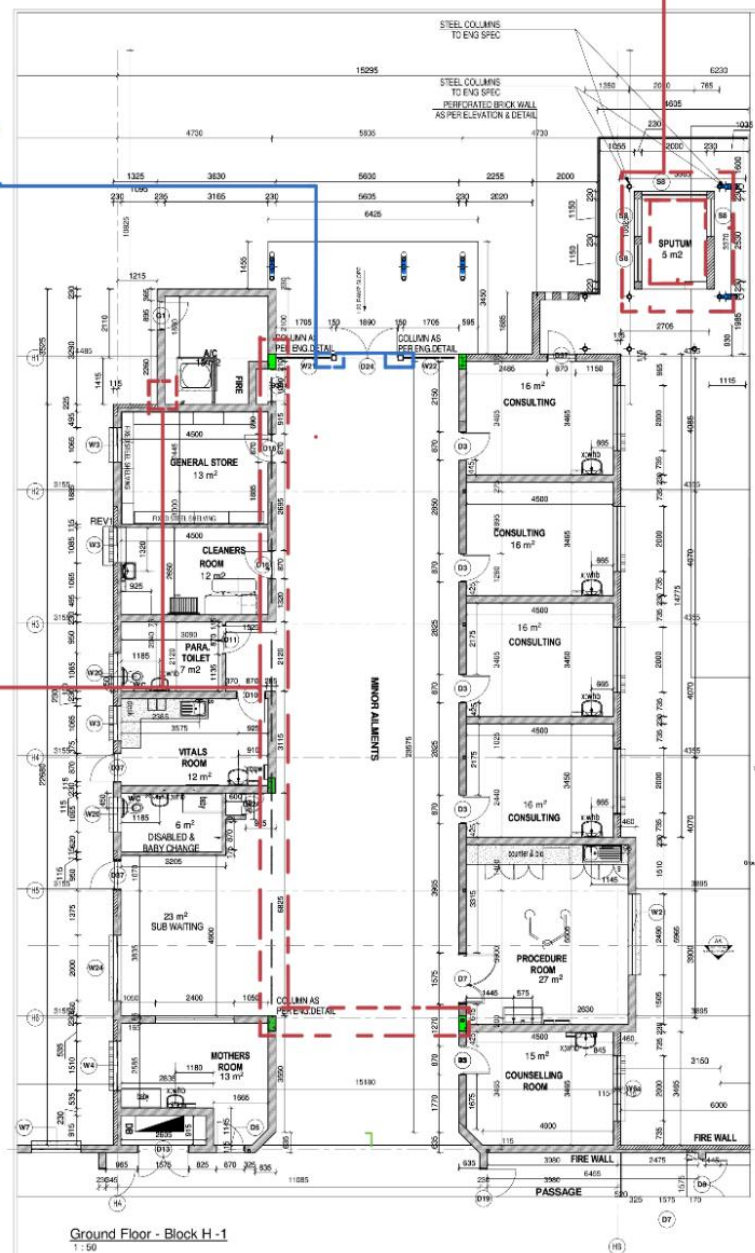
| No. | Element | Status | Comments |
|----------|----------------------------------|-------------------|--|
| INTERNAL | | | |
| 1 | Surface Bed | Completed | Well compacted, Not well levelled some portion The Floor started showing signs of cracking |
| 2 | Brick Work Under Ring Beam | Not Completed | The brickwork has been completed; however, in certain areas, the type of brick used is inconsistent. Some sections feature plaster bricks of a different colour, which may potentially compromise the structural integrity of the wall. |
| 3 | Brick Work Above Ring Beam | Not Completed | As shown in the attached image, the brickwork above the ring beam in Block G has not been completed in approximately 90% of the beam section. |
| 4 | Window Opening | Completed | Several windows exhibit poor workmanship and require realignment. All affected units should be thoroughly cleaned to remove rust and residual concrete mortar. |
| 5 | Door Frame | Not completed. | Improper door frame installation and incorrect lintel positioning have resulted in door sagging, observed across other blocks. |
| 6 | Ring Beam | Completed | The ring beam has been completed; however, the quality of the off-shutter finish is substandard. |
| 7 | Lintels | Completed | The lintel placement is inconsistent in certain areas, with some installed incorrectly above a course of bricks rather than directly below the brickwork. This misplacement fails to adequately support the vertical load of the brickwork above the door frame. |
| ROOF | | | |
| 8 | Steel Roof Structure | Installed | In certain areas, the rafter column baseplates have not been properly flashed against the concrete ring beams. |
| 9 | Steel Columns | Installed | The steel column baseplates are misaligned with the surface bed level, and the anchor bolts remain exposed, creating a safety hazard for site personnel in all areas of Block where columns have been erected, as evidenced in the attached image. |
| EXTERNAL | | | |
| 10 | Face brick | Completed | The Face brick is done preciously in some areas in Block . However, the brickwork appears untidy and requires cleaning, as shown in the attached image. |
| 11 | Plastering | Not Done | |

12.16 Block H - Plan Layout

SPUTUM not Built.

The column baseplate is not flush with the surface bed, and the exposed bolts present an obstruction to the installation of the shopfront.

Unfinished brickwork portion above Ring Beam.



| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

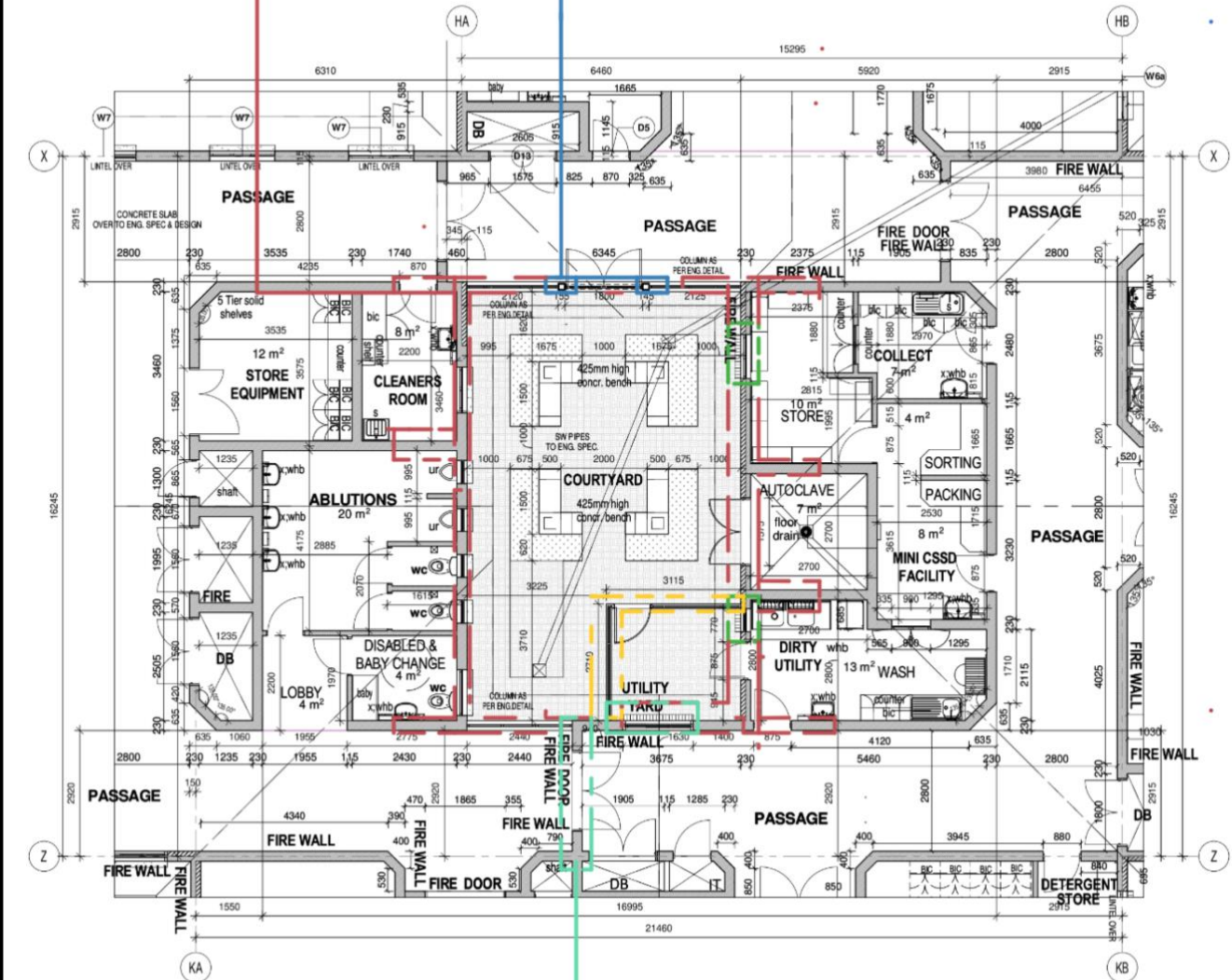
12.17 Block H Status of Works

| No. | Element | Status | Comments |
|----------|----------------------------|----------------|--|
| INTERNAL | | | |
| 1 | Surface Bed | Completed | The area appears to be well compacted; however, some portions are uneven and not properly levelled. Additionally, the floor has started showing early signs of cracking. |
| 2 | Brick Work Under Ring Beam | Not Completed | The brickwork has been completed; however, in certain areas, the type of brick used is inconsistent. Some sections feature plaster bricks of a different colour, which may potentially compromise the structural integrity of the wall. |
| 3 | Brick Work Above Ring Beam | Not Completed | As shown in the attached image, the brickwork above the ring beam in Block H has not been completed in approximately 90% of the beam section. |
| 4 | Window Opening | Completed | Several windows exhibit poor workmanship and require realignment. All affected units should be thoroughly cleaned to remove rust and residual concrete mortar. |
| 5 | Door Frame | Not completed. | Improper door frame installation and incorrect lintel positioning have resulted in door sagging, observed across other blocks. |
| 6 | Ring Beam | Completed | The ring beam has been completed; however, the quality of the off-shutter finish is substandard. |
| 7 | Lintels | Completed | The lintel placement is inconsistent in certain areas, with some installed incorrectly above a course of bricks rather than directly below the brickwork. This misplacement fails to adequately support the vertical load of the brickwork above the door frame. |
| ROOF | | | |
| 8 | Steel Roof Structure | Installed | In certain areas, the rafter column baseplates have not been properly flashed against the concrete ring beams. |
| 9 | Steel Columns | Installed | The steel column baseplates are misaligned with the surface bed level, and the anchor bolts remain exposed, creating a safety hazard for site personnel in all areas of Block where columns have been erected, as evidenced in the attached image. |
| EXTERNAL | | | |
| 10 | Face brick | Completed | The Face brick is done preciously in some areas in Block . However, the brickwork appears untidy and requires cleaning, as shown in the attached image. |
| 11 | Plastering | Not Done | |

12.18 Block J - Plan Layout

Unfinished brickwork portion
above Ring Beam.

The column baseplate is not
level with the surface bed,
and the exposed bolts
obstruct the installation of the
shopfront.



② Ground Floor - Block J
1 : 50

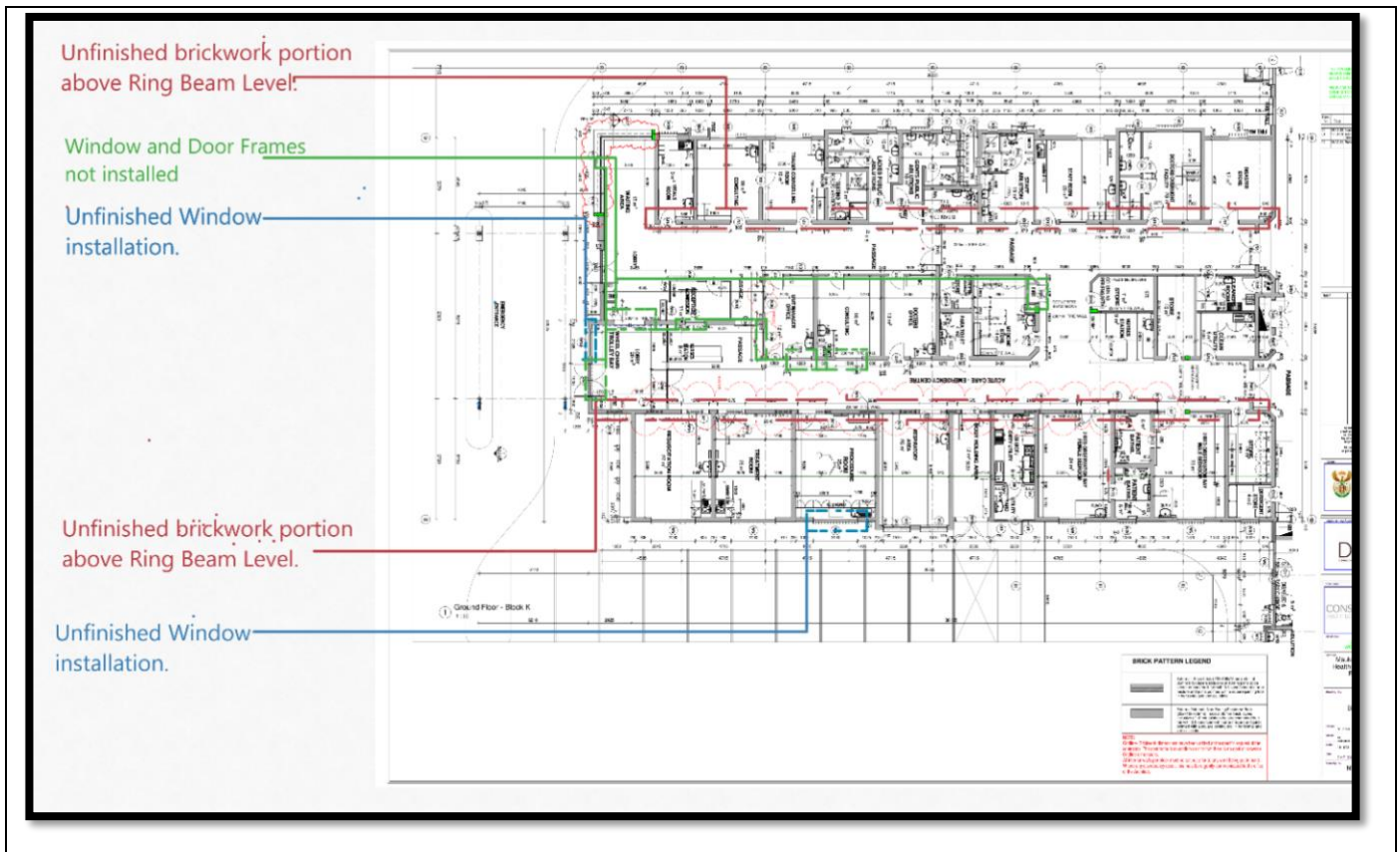
Wall not Built on Site and unfinished
built wall under the window to
allow a window Cill.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

12.19 Block J Status of Works

| No | Element | Status | Comments |
|----------|----------------------------------|------------------|---|
| INTERNAL | | | |
| 1 | Surface Bed | Completed | The surface is well compacted but not properly levelled, as indicated by the uneven, dried portions visible across the passage in the attached images. |
| 2 | Brick Work Under Ring Beam | Not completed | The brickwork has not been completed; however, in certain areas the that bricks are missing as shown in the attached image on the right. Some sections feature plaster bricks of a different colour, as visible in the blue portion in the attached image, bellow and above the Lintel. The brickwork in Block J passage lacks uniformity, with irregular joints observed above the door frames. |
| 3 | Brick Work Above Ring Beam | Not Completed | As shown in the attached images, the brickwork above the ring beam along the internal courtyard in Block J has not been done. |
| 4 | Window Opening | Completed | The Steel window frames are not clean; the edges have concrete patches. And the steel frames are rusting, likely due to inadequate protection during construction. Proper covering with plastic sheeting should have been provided to shield the windows from rain exposure. |
| 5 | Door Frame | Installed | Several door frames were found to be damaged, segueing, because of wrong position of the Lintel as shown in the attached image. |
| 6 | Ring Beam | Completed | The ring beam has been completed; however, the quality of the off-shutter finish is substandard. |
| 7 | Lintels | Completed | The lintel placement is inconsistent, with some areas incorrectly positioned, as seen on the attached image. The Lintel must be position bellow the brickwork above the Door frame. This mistake is repeatedly done through the building. |
| ROOF | | | |
| 8 | Steel Roof | Not Installed | |
| 9 | Steel Columns | Installed | The steel column baseplates are misaligned with the surface bed level, and the anchor bolts remain exposed, creating a safety hazard for site personnel in all areas of Block where columns have been erected, as evidenced in the attached images. |
| EXTERNAL | | | |
| 10 | Face brick | Completed | The Face brick is done preciously below the windows in the courtyards of Blocks C and J. However, the brickwork appears untidy and requires cleaning, as shown in the attached image. |
| 11 | Plastering | Not complete | Plastering was not done in this block. |

12.20 Block K - Plan Layout



| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

12.21 Block K Status of Works

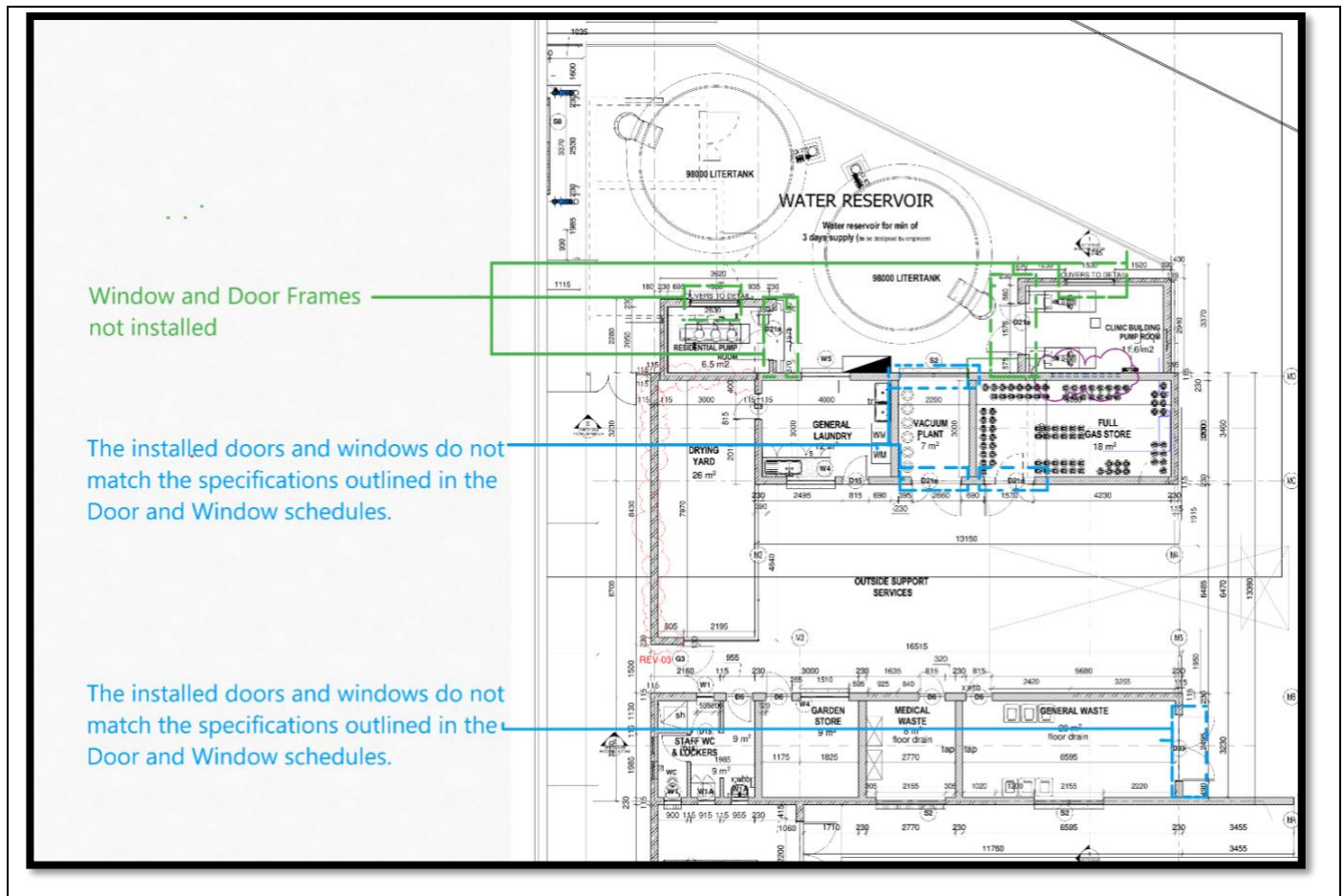
| No | Element | Status | Comments |
|----------|----------------------|----------------|--|
| INTERNAL | | | |
| 1 | Surface Bed | Completed | The area appears to be well compacted; however, some portions are uneven and not properly levelled. |
| 2 | Brick Work | Not | The brickwork has been completed; however, in certain areas, the type of brick used is inconsistent. Some sections feature plaster bricks of a different colour, which may potentially compromise the structural integrity of the wall. |
| | Under Ring Beam | Completed | |
| 3 | Brick Work | Not | As shown in the attached image, the brickwork above the ring beam in Block K has not been completed in approximately 90% of the beam section. |
| | Above Ring Beam | Completed | |
| 4 | Window Opening | Completed | Several windows exhibit poor workmanship and unfinished work. All affected units should be thoroughly cleaned to remove rust and residual concrete mortar. |
| 5 | Door Frame | Not completed. | Improper door frame installation and incorrect lintel positioning have resulted in door sagging, observed here and across other blocks. |
| 6 | Ring Beam | Completed | The ring beam has been completed; however, the quality of the off-shutter finish is substandard. |
| 7 | Lintels | Completed | The lintel placement is inconsistent in certain areas, with some installed incorrectly above a course of bricks rather than directly below the brickwork. This misplacement fails to adequately support the vertical load of the brickwork above the door frame. |
| ROOF | | | |
| 8 | Steel Roof Structure | Not installed | |
| 9 | Steel Columns | Installed | The steel column baseplates are misaligned with the surface bed level. The Steel Columns embedded in the walls are not flush against the wall consistently through the Building. |
| EXTERNAL | | | |
| 10 | Face brick | Completed | The Face brick is done preciously better in Block K and L than other Blocks. However, requires cleaning, as shown in the attached image. |
| 11 | Plastering | Not Completed | Plaster is noticeable done on the Ring Beam however, the quality of the off-shutter finish is substandard. The V joints are not linear and consistent. |

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

12.23 Block L Status of Works

| No | Element | Status | Comments |
|----------|-----------------|----------------|--|
| INTERNAL | | | |
| 1 | Surface Bed | Completed | The area appears to be well compacted; however, some portions are uneven and not properly levelled. |
| 2 | Brick Work | Not | The brickwork has been completed; however, in certain areas, the type of brick used is inconsistent. Some sections feature plaster bricks of a different colour, which may potentially compromise the structural integrity of the wall. |
| | Under Ring Beam | Completed | |
| 3 | Brick Work | Not | As shown in the attached image, the brickwork above the ring beam in Block L has not been completed in approximately 90% of the beam section. |
| | Above Ring Beam | Completed | |
| 4 | Window Opening | Completed | Several windows exhibit poor workmanship and unfinished work. All affected units should be thoroughly cleaned to remove rust and residual concrete mortar. |
| 5 | Door Frame | Not completed. | Improper door frame installation and incorrect lintel positioning have resulted in door sagging, observed here and across other blocks. |
| 6 | Ring Beam | Completed | The ring beam has been completed; however, the quality of the off-shutter finish is substandard. |
| 7 | Lintels | Completed | The lintel placement is inconsistent in certain areas, with some installed incorrectly above a course of bricks rather than directly below the brickwork. This misplacement fails to adequately support the vertical load of the brickwork above the door frame. |
| ROOF | | | |
| 8 | Steel Roof | Not installed | |
| 9 | Steel Columns | Installed | The steel column baseplates are misaligned with the surface bed level ,the anchor bolts remain exposed, creating a safety hazard for site personnel in all areas of Block where columns have been erected, as evidenced in the attached images. The Steel Columns embedded in the walls are not flushed against the wall consistently through the Building. |
| EXTERNAL | | | |
| 10 | Face brick | Completed | The Face brick is done preciously better in Block and L than other Blocks. However, requires cleaning, as shown in the attached image. |
| 11 | Plastering | Not Completed | Plaster is noticeable done on the Ring Beam however, the quality of the off-shutter finish is substandard. The V joints are not linear and consistent. The plaster band detail edging is not consistent and straight. |

12.24 Block M1 & M2 - Plan Layout

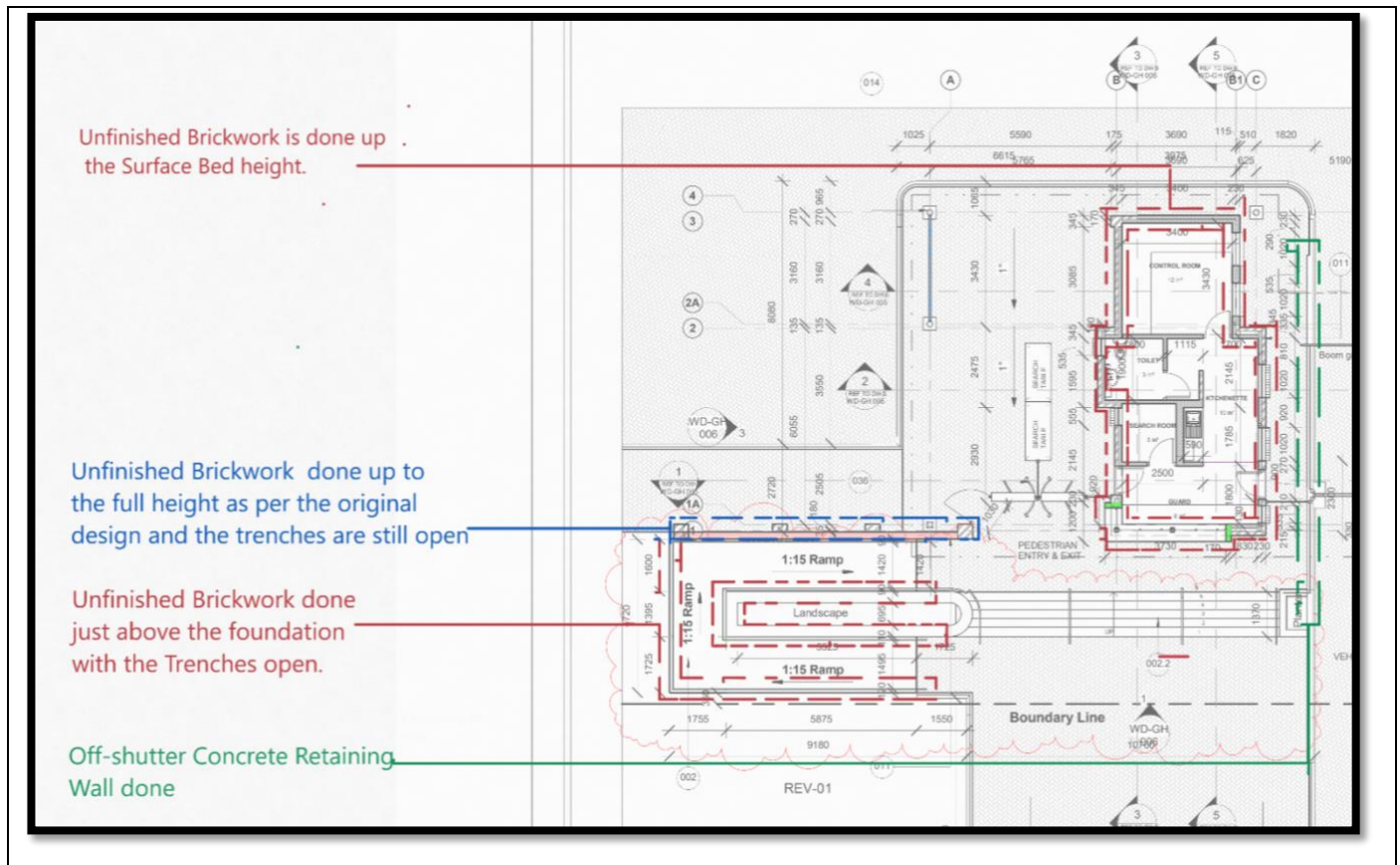


| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

12.25 Block M1 & M2 Status of Works

| No | Element | Status | Comments |
|----------|----------------|---------------|---|
| INTERNAL | | | |
| 1 | Surface Bed | Completed | The surface appears well compacted; however, it could not be tested to verify the levelness of the finished floor. |
| 2 | Brick Work | Not Completed | The Brickwork quality is much improved across Block M1 and M2 |
| 4 | Window Opening | Completed | Window internal Sill not done. |
| 5 | Door Frame | Installed | The fire door frame has not been installed as per the design specifications, as shown in the attached image. Additionally, Improper door frame installation and incorrect lintel positioning have resulted in door sagging, observed across other blocks. |
| ROOF | | | |
| 8 | Roof Structure | Completed | Timber Trusses do not have a Wall plate. Structural Engineer to provide input. |
| EXTERNAL | | | |
| 10 | Face brick | Completed | The Face brick is done preciously in some areas in Block M1 and M2. However, the brickwork requires cleaning, as shown in the attached image. |
| 11 | Plastering | Completed | The plaster is done preciously in some areas in Block M1 & M2, However the Edges on the Cills and the plaster band are not straight. |

12.26 Block P Plan Layout



| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

12.27 Block P Status of Works

| No | Element | Status | Comments |
|----------|------------------------|-----------|--|
| INTERNAL | | | |
| 3 | Brick Work | Not | Guardhouse |
| | Below Wallplate Height | Completed | As illustrated in the attached images, the brickwork remains incomplete and currently terminates at surface bed level. |
| | | | Ramp |
| | | | The brickwork on the ramp is unfinished and uneven, with construction progressing only up to 5–6 brick courses. Trenches surrounding the area remain open and unbarricaded, posing potential safety hazards. Additionally, the trenches are waterlogged. |
| | | | Boundary Wall |
| | | | The boundary wall is currently a freestanding, unfinished structure. Open trenches adjacent to the wall further compromise its stability and present safety concerns. |

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

13 CIVIL ENGINEERING STATUS QUO

13.1 Introduction

- 13.1.1 All civil works including installation of external services, internal roads and the main retaining wall are at varying degrees of completion. The below briefly gives a picture of works that would have been encompassed in the Civil engineering scope.
- 13.1.2 The information supplied below is not necessarily fully conclusive and would require a detailed inspection by the bidder. All completion percentages must be treated as estimates only

13.2 General Quality of Work

- 13.2.1 Quality inspections took place over periods of months during construction activities. Below is a summary of items that were identified by the civil engineers. Image examples may be found in the Civil Engineer's close out reports.
- 13.2.2 Items identified as concerns included -
- 13.2.2.1 Testing of Soil for Classification.
 - 13.2.2.2 Testing of Soil Compaction
 - 13.2.2.3 External Fire reticulation.
 - 13.2.2.4 Quality and quantity of Building Material (G7&G5)
 - 13.2.2.5 Building platform
 - 13.2.2.6 Roads and Parking Platform
 - 13.2.2.7 Sewer Reticulation
 - 13.2.2.8 Main water & Stormwater Reticulation
- 13.2.3 The status quo of the work situation at the project site as of the last (April 2025) site visit is as indicated below
- 13.2.3.1 Bulk Earthworks Platforms
 - 13.2.3.2 Excavations for Raft Foundation
 - 13.2.3.3 External Sewer Reticulation
 - 13.2.3.4 External Water Reticulation for Fire and Domestic purposes.
 - 13.2.3.5 Stormwater drainage

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

13.2.3.6 Roadworks (Excluding parking areas)

13.2.3.7 Anchor Block Retaining wall

13.2.3.8 DCP Test Results

13.2.3.9 G5 & G7 Compaction Test Results

13.3 Vegetation Removal and Bulk Earthworks Platforms



13.3.1 The removal of vegetation as per given instructions, and the work on bulk earthwork Platforms were completed as instructed and can be deemed to have been completed to instructions issued (Near complete.).

13.3.2 Post the end of the previous contract, the site would have experienced certain deterioration including the need for new clearing and grubbing of vegetation.

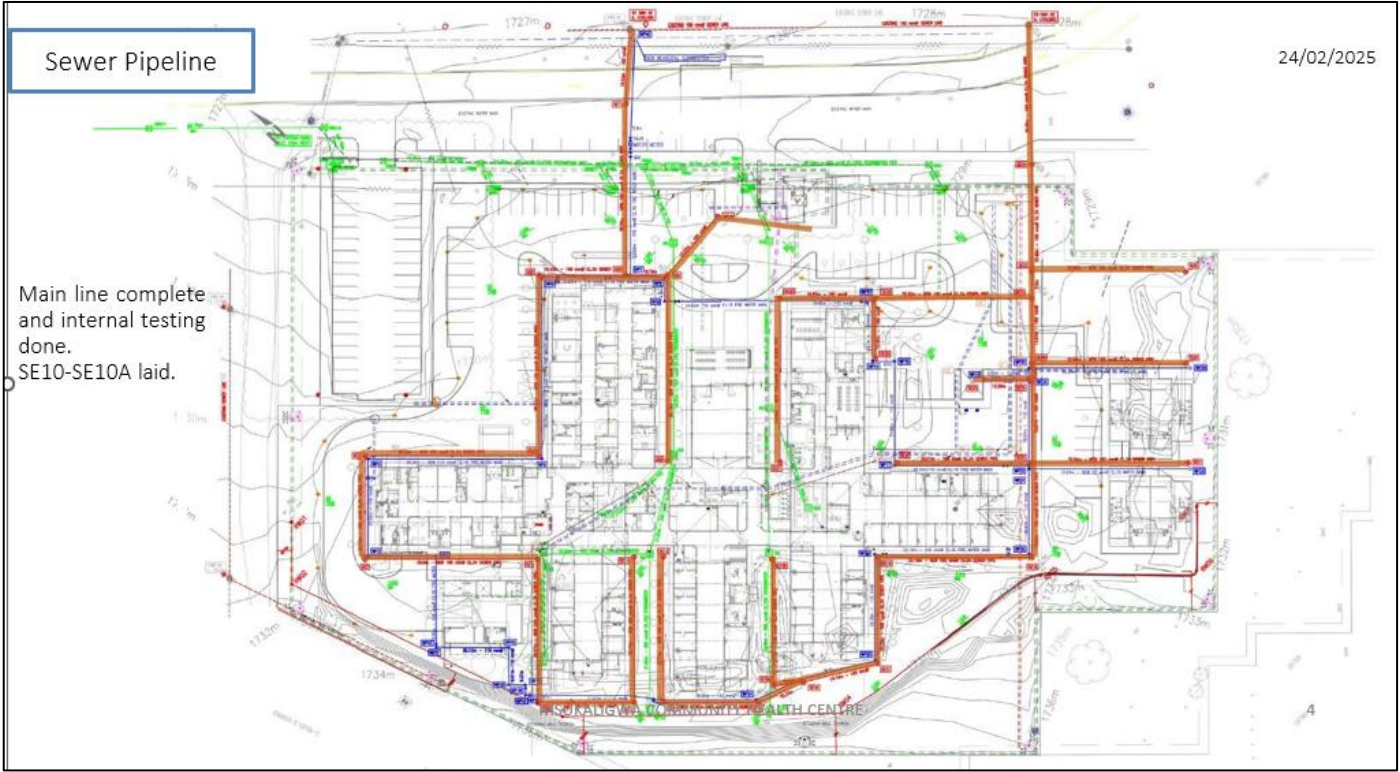
13.4 Excavations for Raft Foundations

13.4.1 The excavation for Raft Foundations as per given instructions was done, and the work was completed as instructed, and can now be deemed to have been completed to instructions issued (Near complete.).

13.5 Casting of Raft Foundations

13.5.1 The casting of Raft Foundation as per given instructions was done, and the work was completed as instructed, and can now be deemed to have been completed to instructions issued (Near complete.).

13.6 Sewer Reticulation



13.6.1 Completed and ongoing works

| Description | Progress |
|--|---------------|
| All 160mm main sewer pipework has been laid and tested. | Near complete |
| Manholes have been constructed however will need cover adjustments once roadways and landscaping have been shaped. | 75% |
| As built levels were surveyed. | Near complete |

13.6.2 The civil engineer’s close out report talks to the fact that, all sewers were pressure tested. This testing is not evidenced.

13.6.3 Two sewer lines will need to be relayed as the gradients are either too flat or gravitate “uphill” which is not acceptable. A final sewer survey is required by the Contractor of all installations to

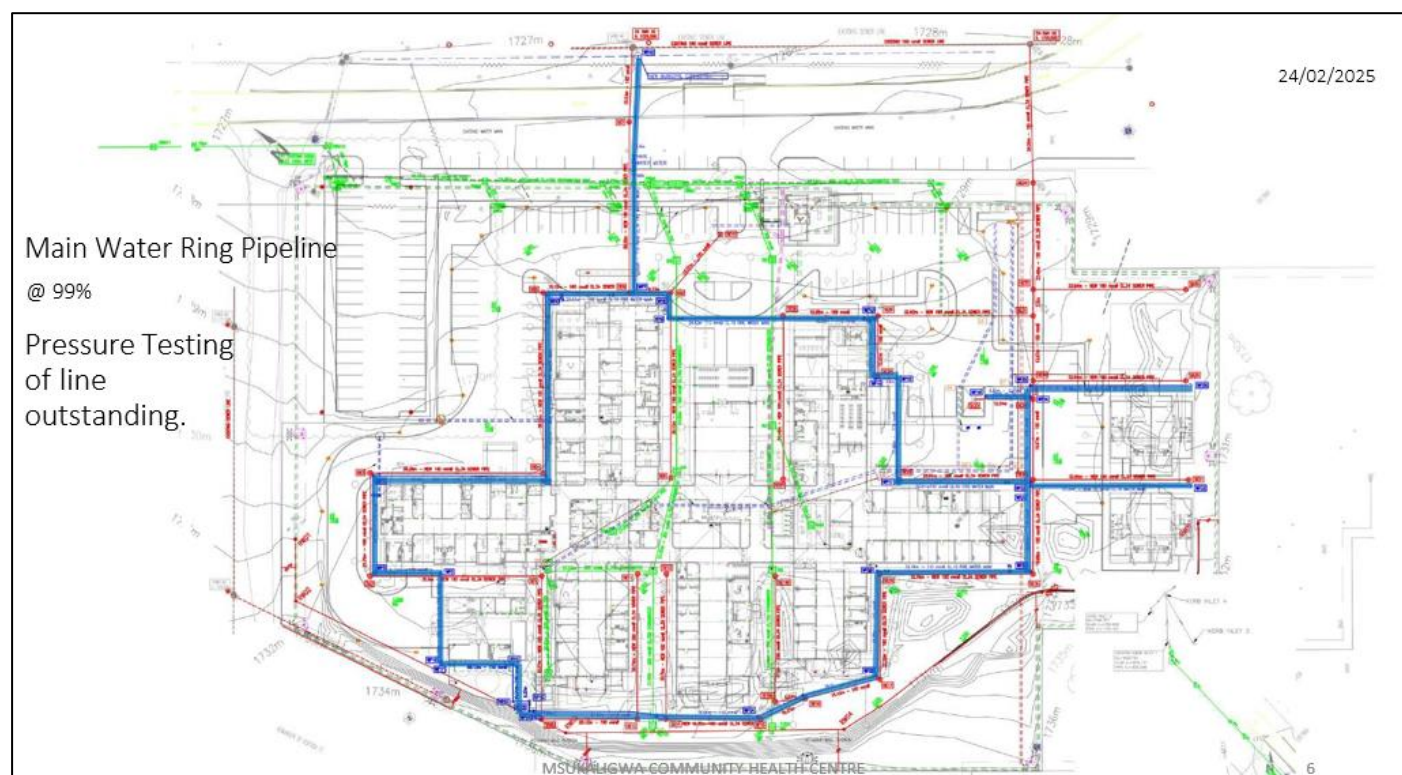
| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

ensure compliance.

13.6.4 Structures remain incomplete on stormwater and sewer manholes which will need to be adjusted to suit final road and landscaping levels.

13.6.5 Imported materials stockpiled on site will require sampling and testing to confirm grading.

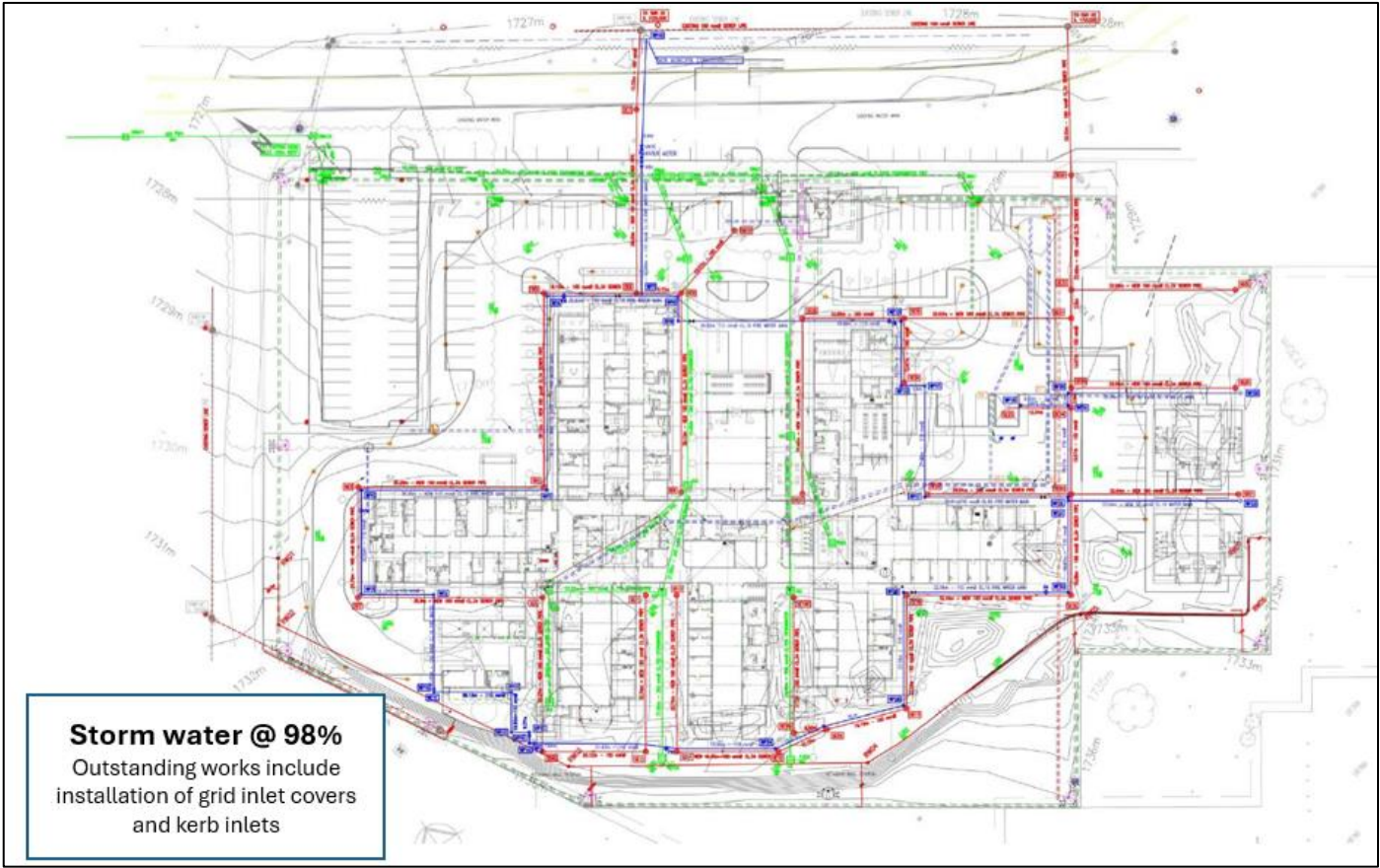
13.7 Water Reticulation



13.7.1 Completed and ongoing works

| Description | Progress |
|--|---------------|
| All pipework for fire main has been installed. | Near complete |
| Municipal connection complete. | Near complete |
| Pressure testing outstanding. | 0% |

13.8 Stormwater drainage



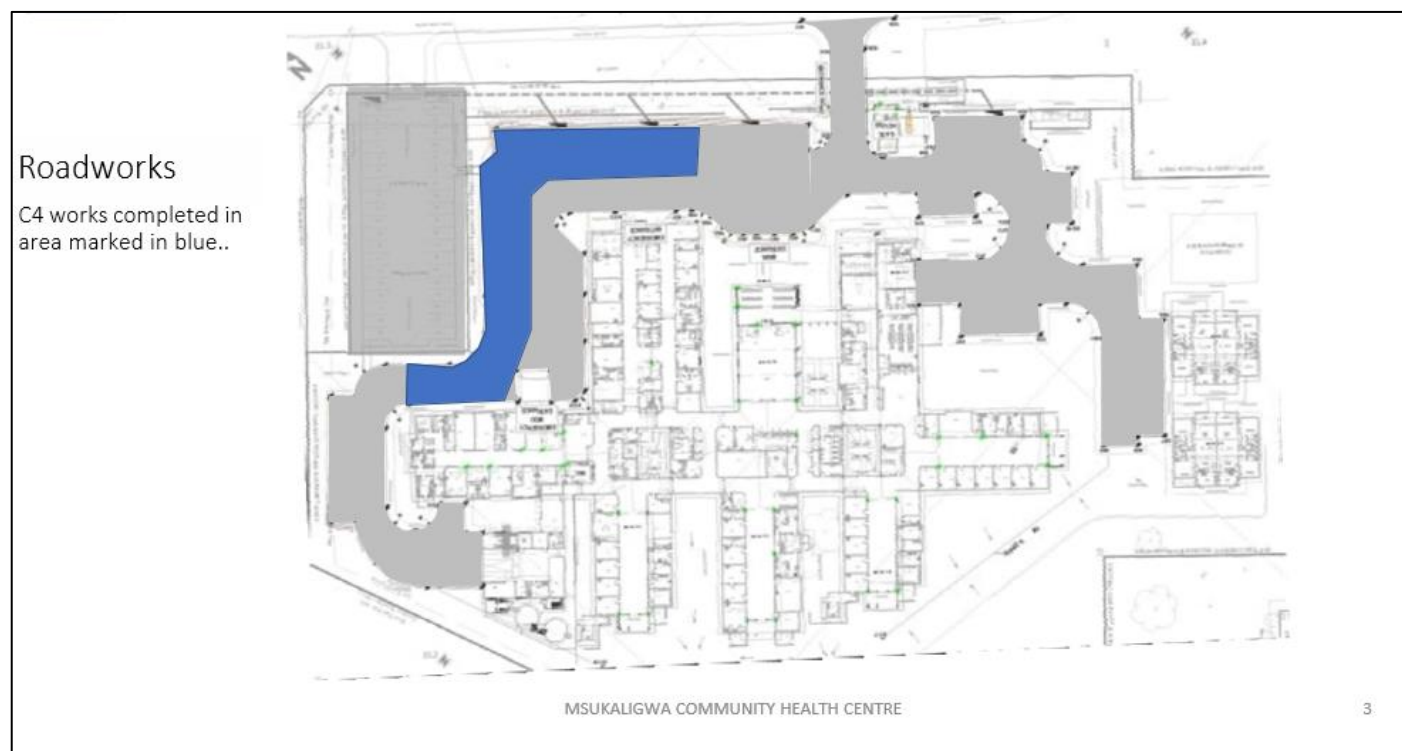
13.8.1 Completed and ongoing works

| Description | Progress |
|----------------------------|---------------|
| All pipework has been laid | Near complete |
| Manholes / grid inlets | 50% |
| kerb inlets constructed | 0% |

13.8.2 The Contractor must re-check and ensure compliance of all storm water runoff gradients A final sewer survey is required by the Contractor of all installations to ensure compliance.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

13.9 Roadworks



13.9.1 Completed and ongoing works

| Description | Progress |
|--------------------------------|---------------|
| Roadbed levels were excavated. | Near complete |
| Roadbed compaction done. | Near complete |
| G5 subgrade constructed. | Near complete |
| C4 Subbase | 20% |

13.9.2 Outstanding work required on the internal and entrance roads

| Description | Progress |
|--|----------|
| Completion of road layer works and kerbing. | Pending |
| Road markings and signage. | Pending |
| External parking on Nywerheids road 80m x 3m | Pending |
| Embankment shaping from front parking towards new fence position. | Pending |
| Palisade fence alongside Nywerheids road. | Pending |
| Kerbing | Pending |
| Paving | Pending |
| External parking | Pending |
| Shaping of landscaping to back of kerbs at minimum gradient of 1:200 to manage stormwater surface drainage | Pending |

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

13.9.3 There are additional remedial works required on the roads and parking platform. The primary option is to introduce a retaining wall 1m high with a guardrail / balustrade from Emergency entrance (Block K) towards MOU (Block L) to accommodate the level differences across the site.

13.9.4 The engineer's report confirms that testing to date of roadbed and layer works is acceptable. The C4 layer is only 20 % complete.

13.10 Anchor Block Retaining Wall

| Description | Progress |
|--------------------------------------|---------------|
| Construction completes of blockwork. | Near complete |
| V-drain on top of wall | 90% |
| Planting for erosion protection | 0% |

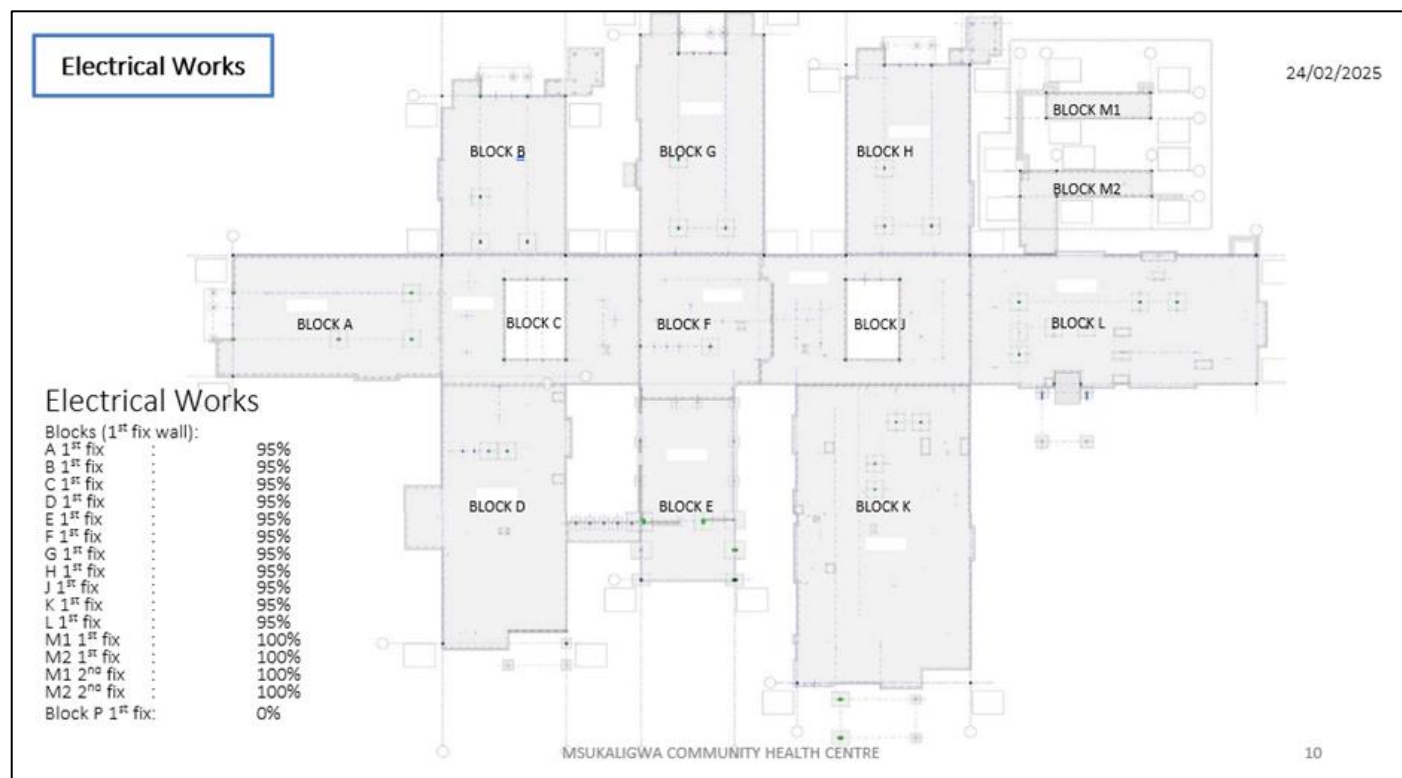
14 ELECTRICAL ENGINEERING

14.1 Introduction

14.1.1 The information supplied below is not necessarily fully conclusive and would require a detailed inspection by the bidder. All completion percentages must be treated as estimates only



| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |



14.2 Status of Electrical works

| Block | Block Name | Chasing of PVC in Conducts | First fix items |
|-------|----------------------------|----------------------------|-----------------|
| A | Mother & Child | Near complete | 80% |
| B | Chronic Care | Near complete | 80% |
| C | Shared Support & Courtyard | Near complete | 80% |
| D | Pharmacy | Near complete | 80% |
| E | Central Waiting Area | Near complete | 80% |
| F | Shared Support Rooms | Near complete | 40% |
| G | Health Support Services | Near complete | 80% |
| H | Health Minor Ailments | Near complete | 80% |
| J | Shared Support & Courtyard | Near complete | 80% |
| K | Acute Emergency Care | Near complete | 80% |
| M&N | Outdoor Buildings | Near complete | 80% |
| P | Guardhouse | Near complete | 80% |

14.2.1 Applicable to all blocks – Outstanding items

- 14.2.1.1 100x100mm Galvanised wall box (sockets)
- 14.2.1.2 100x100mm Galvanised wall box (Data)
- 14.2.1.3 100x50mm Galvanised wall box (light switches)

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

14.2.1.4 50mm Diameter round wall box (external lighting)

14.2.1.5 50mm Diameter round wall box (electronics)

14.2.1.6 50mm Diameter round wall box (HVAC controllers)

14.2.2 Electronics

14.2.2.1 The Electrical engineer's close out report for electronics indicates that first fix items stand at 80% as they were completed under the electrical contract. The remaining 20% would be items related to installations above the ceiling, for which there is no ceiling on site

14.3 Scope of electrical work

14.3.1 The scope of the contract includes the design, configuration, supply, installation, commissioning, 12-month maintenance and other work to deliver complete integrated systems. The persons performing the work shall be competent and suitably trained.

14.3.2 The scope includes but is not limited to the following:

14.3.2.1 Electronic access control system

14.3.2.2 CCTV monitoring system

14.3.2.3 Fire Detection System

14.3.2.4 Video surveillance system

14.3.2.5 Nurse call system

14.3.2.6 Manuals, training, maintenance, user support, etc.

14.3.2.7 Supply and installation of ceiling mounted procedure lights. The specification of these
14.3.2.8 need to be coordinated with HT before the lights are procured

14.3.2.9 Supply and installation of wall mounted examination lights The specification of these
14.3.2.10 need to be coordinated with HT before the lights are procured

14.3.3 Shop drawings – Before commencing work submit shop drawings showing at least the following:

14.3.3.1 Schematic diagram of all systems.

14.3.3.2 Panel layouts and dimensions.

14.3.3.3 Power supply requirements.

14.3.3.4 Wiring access necessary for door frames.

14.3.3.5 Cut-out dimensions.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

14.3.3.6 Fixing provisions for readers, intercoms, cameras, monitors, etc.

14.3.3.7 Cable route requirements.

14.3.4 Maintenance and support - The installer needs to provide comprehensive maintenance, training and user support after hand over of the systems for a period of 12 months. At least the following shall be included, and a complete written record shall be kept of all activities:

14.3.4.1 Attend to Breakdown call outs on site within 24 hours of notification.

14.3.4.2 Rectify faults and replace faulty materials and equipment.

14.3.4.3 Do regular routine site visits every 2 months.

14.3.4.4 These visits shall include:

14.3.4.4.1 user training

14.3.4.4.2 user support

14.3.4.4.3 confirmation that all systems perform as expected

14.3.4.4.4 resolve technical issues

14.3.4.4.5 configure systems according to user requirements

14.3.4.4.6 confirm siting or aiming of devices

15 STRUCTURAL ENGINEERING

15.1 Introduction

15.1.1 The information supplied below is not necessarily fully conclusive and would require a detailed inspection by the bidder. All completion percentages must be treated as estimates only

15.2 Foundations & Rafts:

15.2.1 The structural engineers were tasked with the design of a founding solution for the main building as well as all annexure buildings. The chosen solution was a raft slab with an edge thickening that has a ledge/shelf to support one skin of brickwork that goes down below the natural ground level. There are 10mm expansion joints, which separate the different blocks from one another.

15.2.2 Pad footings and strip footings were also utilised for isolated columns & walls outside of the raft footprint.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

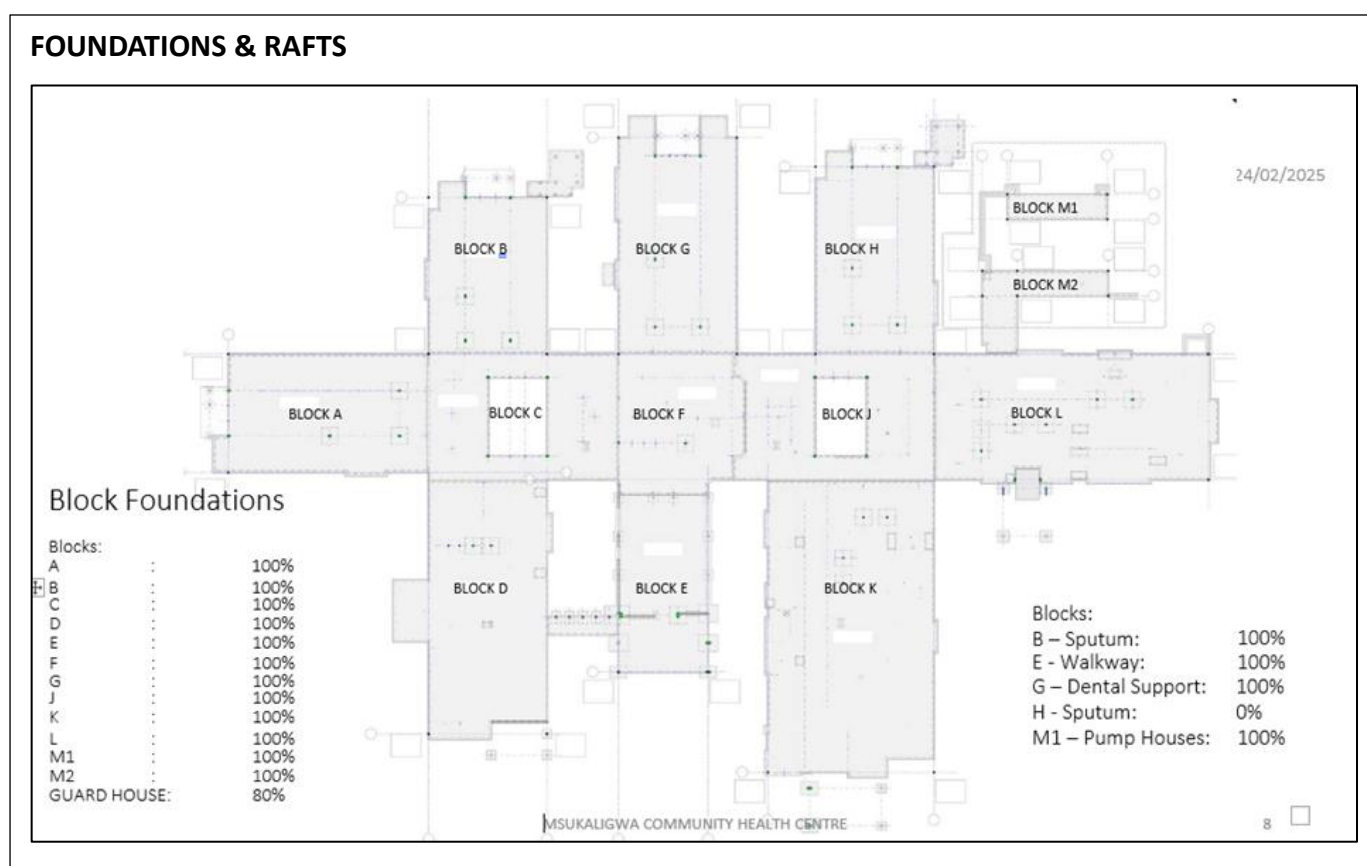
15.3 Ring beams:

15.3.1 To support the steel roof structure, it was decided to utilise a reinforced concrete ring beam system which has been constructed on loadbearing brickwork and internal columns.

15.4 Steel Roof:

15.4.1 In accordance with fire regulations & codes it was decided to make use of a steel roof structure as opposed to a timber structure. This structure is primarily made up of rafters which are fixed to the RC ring beams by means of holding down bolts/cast-in anchors & have intermediate posts for support where required.

15.5 Scope of Works Status



15.5.1 The rafts for the main building (Blocks A, B, C, D, E, F, G, H, J, K, L & M) have been cast with the wet services sleeves installed. The pre-cast generator plinth Block N has not been installed – but is on site.

15.5.2 The gate house strip footings and pad footings have been cast; however, the surface bed slab has

not been cast. Mesh reinforcement remains exposed to the elements.



- 15.5.3 The structural engineer’s close out report states that most, if not all, the ring beams for the main building have been cast.
- 15.5.4 The ring beams for Blocks A, B, D, G & some of H were cast without holding down bolts/cast-in anchors in place, although these bolts were clearly shown on the structural drawings. These ring beams will require remedial chemical anchor solutions to be designed to rectify the error in construction.
- 15.5.5 Where chemical anchors were installed, the length of the anchors and the depths of embedment were not recorded, and the main Contractor could not confirm that they were installed according to the remedial design.
- 15.5.6 The tops of the ring beams were not always cast flat and at the correct level.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 15.5.7 This has complicated the installation of steel roof structure and made it difficult to get the levels of all the blocks to match.
- 15.5.8 Some beams were later flattened/levelled by removing excess concrete above the specified top of concrete level thus the unknown embedment of the chemical anchors was reduced.
- 15.5.9 In order to make a decision on a way forward, it will be required to perform structural scans to confirm the embedment of the chemical anchors where excess concrete was removed as well as to confirm that the cover to the reinforcement remains sufficient. No scans are at this point done.
- 15.5.10 On Block D (Pharmacy) the RC ring beam was cast at the incorrect level and not according to the specified level (indicated on the structural drawings). As a result, remedial works had to be done on the RC ring beam at the delivery area to raise the RC beam over the delivery area in order for delivery vehicles to enter the delivery area inside the building.
- 15.5.11 A number of the services sleeves were not cast into the RC ring beam and as such had to be rerouted into final position by chasing into the load bearing walls. This has compromised the integrity of the load bearing walls.

STEEL ROOF



- 15.5.12 All the structural steel shop drawings have been approved for fabrication.
- 15.5.13 Blocks A, B, E, G & H have been erected and require written approval by a structural engineer before sheeting can commence.
- 15.5.14 Before the structural engineer can provide written approval, there is a need to confirm that where there are chemical anchors, they have the specified embedment depth (hence the request for scanning to be done).
- 15.5.15 The remedial chemical anchor designs must be strictly adhered to due to the limited tolerance available in the design. If the results of the scan do not meet the detailed design, the anchors will need to be removed and new anchors installed, or an alternative solution will need to be explored.

15.6 Concrete cube results

- 15.6.1 Generally, the concrete cube results submitted achieve the specified strengths.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 15.6.2 The foundations in Blocks A and B are lightly loaded and considering that the concrete will gain strength over time, the results can be accepted.
- 15.6.3 The surface bed in Block E should have been cast with 30 MPa concrete in accordance with the General Notes on structural drawing but was cast with 25 MPa concrete.
- 15.6.4 Since the concrete results are still reasonable and this concrete will also gain strength over time, the surface bed results can be accepted
- 15.6.5 The concrete strengths for the Block E strip footings are too low. Although these will gain strength, it is still recommended that the walls above these footings be monitored during the next construction period before any remedial work, if any, is decided on.
- 15.6.6 Where results were not made available. As a last resort, coring and/or rebound hammer testing can be considered.

15.7 Structural works key focal items

- 15.7.1 Scanning of reinforcement for all beams where excess concrete has been removed is required.
- 15.7.2 Cover to reinforcement and the embedment of anchors at each base plate needs to be confirmed to determine if the structural engineer can proceed with structural steel approvals or if further remedial action is needed.
- 15.7.3 Provision should be made to rectify areas with honeycombing, spalling and damaged concrete. Cover to reinforcement is to be checked with a cover meter and a repair epoxy applied to areas where concrete cover is less than specified.
- 15.7.4 Furthermore, a competent Contractor with a proven track record be appointed to rectify and complete this structural work on the project.
- 15.7.5 Provision is to be made to ensure the completeness of concrete cube test results.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

16 MECHANICAL ENGINEERING

16.1 Introduction

- 16.1.1 The following provides information on the status of the HVAC (Heating Ventilation and Air Conditioning), Medical Gas (MGAS), Autoclave and Dental chair installation progress of works to date. All completion percentages must be treated as estimates only
- 16.1.2 The information supplied below is not necessarily fully conclusive and would require a detailed inspection by the bidder and a detailed review of the engineer's specifications
- 16.1.3 Design documentation and specifications of the above-mentioned works were all completed, however there is no site progress to report on any of the above-mentioned services. The reason for this was that the HVAC and Medical gas Contractors have not been appointed and the autoclave and dental chair installations were not tendered yet.

16.2 Wet services engineering

- 16.2.1 The extent of the wet services work to date has primarily been limited to concealed pipework installation and first fix plumbing activities. The plumbing work completed so far has been documented per block in accordance with the Orientation Block Plan.
- 16.2.2 No pressure testing records or QCPs were provided by the Contractor to verify that their installations meet the engineer's design specification

16.3 Drainage Installation

- 16.3.1 Main Underground Services: Near complete in all blocks except Block P (0%)
- 16.3.2 Internal Drainage – First Fix: Progress ranges from 60% to 95%, average approximately 80%
- 16.3.3 Internal Drainage – Second Fix: 0% across all blocks

16.4 Water Supply

- 16.4.1 Main Water Supply in Ceiling Void: 0% in all blocks
- 16.4.2 Water Supply – First Fix: Mostly at 30%, with Block L slightly ahead at 35%, and Block P at 0%

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

16.5 In terms of the bulk storage tanks

| | | |
|--------|--------------------------------------|---------------|
| 16.5.1 | Water tank installation | 0% |
| 16.5.2 | Site pipe connections to tank | 0% |
| 16.5.3 | Plinths casted for pump sets | Near complete |
| 16.5.4 | Pump installation | 0% |
| 16.5.5 | Pipe installation from tank to pumps | 0% |

16.6 Fire Services Engineering

- 16.6.1 The purpose of this section is to provide information on the current fire services installation and progress of works to date that were completed.
- 16.6.2 The full engineers report also provides a summary of materials that have been installed on site. A Fire installation sub-Contractor had not yet been appointed under the main Contractor

16.7 Fire Services Installation Progress

- 16.7.1 To date, no physical installation works have commenced for the fire services. The scope remains at the pre-installation stage, with no concealed pipework or first fix activities carried out.
- 16.7.2 Documentation and coordination were aligned on a block-by-block basis in accordance with the Orientation block plan.
- 16.7.3 The design engineers confirms no (0%) progress has been made on any aspect of the fire-services scope across Blocks A through P or the Bulk Plant area. The fire-services scope for the blocks comprises:
- 16.7.3.1 Fire protection: hose-reel systems, external & internal hydrants, portable extinguishers
 - 16.7.3.2 Fire sealing: penetration sealing of all service openings through fire-rated element
 - 16.7.3.3 Fire doors: supply, installation, hardware fitting, and certification
 - 16.7.3.4 Panic hardware: emergency exit devices to doors on escape routes
 - 16.7.3.5 Fire signage: statutory and directional signage, photoluminescent wayfinding
- 16.7.4 For the Bulk Plant, the fire-services scope includes:

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 16.7.4.1 Fire-water storage tanks (main and reserve)
- 16.7.4.2 Fire pumps (duty, standby, and jockey), complete with controllers, pipework, and valves
- 16.7.4.3 No equipment, materials, preparatory works, or installation activities have commenced.

16.8 HVAC Engineering

- 16.8.1 The Heating, Ventilation and Air Conditioning (HVAC) system was designed to provide a safe, maintainable comfortable environment for its occupants.
- 16.8.2 The HVAC system shall consist of:
 - 16.8.2.1 Air conditioning to be provided via a Variable Refrigerant Flow (VRF) heat recovery
 - 16.8.2.2 system consisting of central outdoor units serving multiple indoor hide-away fan coil units and diffusers.
 - 16.8.2.3 Procedure rooms, delivery rooms, resuscitation, and clean utility shall be provided by
 - 16.8.2.4 filtered, pre-treated Near complete outside air packaged units.
 - 16.8.2.5 Temperature control to be provided by VRF hideaway units connected directly to the
 - 16.8.2.6 outside air system (i.e. no return).
 - 16.8.2.7 Clean utility to receive outside air directly.
 - 16.8.2.8 All other areas to be provided by a number of fan filter units with primary filtration.
 - 16.8.2.9 Separate exhaust air systems shall be provided for sluices, kitchens/pause areas, toilets and waiting areas.

16.9 Medical Gas

- 16.9.1 The medical gas system has been designed to provide a safe and maintainable system.
- 16.9.2 The medical gas installation shall comprise of the following:
 - 16.9.2.1 Oxygen shall be provided by 3 banks of cylinders (forming 3 sources of supply) with automatic change over between the first two and a third reserve bank with manual switch over.
 - 16.9.2.2 Medical air shall be provided by 3 banks of cylinders (forming 3 sources of supply) with automatic change over between the first two and a third reserve bank with manual switch over. Due to the low demand i.e. small number of medical air outlets no compressors shall be

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

provided.

- 16.9.2.3 Three vacuum (oil lubricated) pumps complete with receiver, bacterial filters, in packaged format. The vacuum pump controllers shall be per SANS regulation.
- 16.9.2.4 Master alarm to be located in the plant room with slave located in the emergency room nurses station.
- 16.9.2.5 Local area alarms to be incorporated with the shut of valve boxes complete with pressure gauges.
- 16.9.2.6 Isolating valve boxes.
- 16.9.2.7 Vacuum bottle traps.
- 16.9.2.8 Oxygen, vacuum and LP air reticulation.
- 16.9.2.9 The minimum number of outlet points shall be per Employer / end user requirements as per design drawings

16.9.3 Selection of Contractors

- 16.9.3.1 Since medical gas is a life safety system and a pharmaceutical it is essential to only consider authorised medical gas Contractors able to produce a certificate of compliance from the SAQCC and SACGA.

16.10 Supply & Installation of Dental Chairs

- 16.10.1 This works will be concluded by a National Treasury appointed Contractor and therefore should be handled as a Direct Contractor. The name of the contractor will be shared with the successful Bidder.

16.11 Supply & Installation of Autoclave

- 16.11.1 This scope covers the contract engineering, manufacture, supply, delivery, erection, wiring, commissioning, testing, training, handing over in complete working order ready for immediate use and the subsequent maintenance and guarantee for a period of twenty-four (24) months of all plant and equipment necessary for the complete autoclave installation.
- 16.11.2 Any reference to SABS includes latest revisions on applicable SANS.

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

- 16.11.3 Principle items of work include the following items, in addition to any other items that may be required to make this a complete, working installation:
- 16.11.3.1 One new 160-liter horizontal autoclave with built-in electrical steam generator, 18kw.
 - 16.11.3.2 One new internal trolley and rack set.
 - 16.11.3.3 One new external trolley.
 - 16.11.3.4 Water softener complete
 - 16.11.3.5 Water and drainage installation.
 - 16.11.3.6 Electrical installation.
 - 16.11.3.7 Onsite pressure test and Initial testing and commissioning.
 - 16.11.3.8 Engineering Project Management and Quality Control for the execution of this sub-contract.
 - 16.11.3.9 Overheads, profit, financing, insurance, and guarantee.
 - 16.11.3.10 All Tenderers must base their tender on this specification and the drawings.
 - 16.11.3.11 Clearing of Site.
 - 16.11.3.12 As-built drawings.
 - 16.11.3.13 Detailed Operating and Maintenance Manuals in English.
 - 16.11.3.14 Spares and tools as specified and where applicable, as provided with the equipment.
 - 16.11.3.15 Maintenance comprehensive warranty and guarantee for twenty-four months after handing over and acceptance of the completed installations, in addition to any other requirements as detailed hereinafter.

17 KNOWN DESIGNS REQUIRED BY THE CONTRACTOR

List of Working Drawing to be done

Rectification Of Concrete Fence

Re-Route Waterline

Completion Of Built Retaining Wall

Correcting Of External Sewer Reticulation

Correction Of External Stormwater Reticulation

Rectification Of Roadworks Levels.

Completion of Coordination of Internal Services

Coordinated Roof Void Services Designs

Completion Structural Steel & Roof workshop Drawings

Detailing of Vertical Moving Joints

| | | | |
|--------------|------------------------------|---------------------------------|------------|
| Ref no.: | 2025.09.23 Works Information | Date of Initial Implementation: | 2025/09/30 |
| Version no.: | 000 | Date of Last Amendment: | 2025/12/15 |

List of Working Drawing to be done

Detailing of Main Passage Access Shopfront Doors

Completion of rectification of Roof Steel Structure holding down & anchor bolts.

Autoclave Installation

Dental Chair Installation

Kitchen Installation

18 LINKED STATUS QUO REPORTS, AS BUILTS, CONSTRUCTION DRAWINGS AND OTHER RELEVANT REFERENCES

| Discipline | Close Report / Status Quo Report/As-built/ Construction Drawings |
|--|--|
| Architecture | Link |
| Architecture (Signage) | Link |
| Civil Engineering | Link |
| Client's Risk Register | Link |
| Electrical Engineering (Electrical & Electronics) | Link |
| Mechanical Engineering (Autoclave) | Link |
| Mechanical Engineering (Dental Chairs) | Link |
| Mechanical Engineering (Fire) | Link |
| Mechanical Engineering (HVAC) | Link |
| Mechanical Engineering (Medical Gas) | Link |
| Mechanical Engineering (Wet Services) | Link |
| Procedure and Examination Light Specification | Link |
| Quantity Surveyor (Reference Bill) | Link |
| Structural Engineering | Link |
| Occupational Health and Safety Specification and Baseline Risk Assessment | Link |