Quality Management Plan

for

C1203 Deception Bay Social Housing

COMPANY REVISION

Rev	Date	Revision Description	Prepared	Reviewed	Approved
1	09/05/2014	Reformat	Fiona O'Dea	Jeremy Clay	John Martinkovic
2	11/12/2015	Revised based on current company structure	Jeremy Clay	Jeremy Clay	John Martinkovic
3	22/09/2016	Revised ITP section based on operational review	Jeremy Clay	Jeremy Clay	John Martinkovic
4	06/08/2018	Quality Policy added and ISO references updated	Kim Halliwell		Michelle Rooney
5	24/09/2019	Updated organisation chart and amended corporate details	Kim Halliwell		Michelle Rooney
6	22/07/2020	Full review of content	Kim Halliwell	Toby Clarke	Michelle Rooney
7	17/06/2021	General review and incorporation of Part B & C	Matt Dickens	Kim Halliwell	Lucy Ward
8	8/11/2021	Part C references removed and sign on table added	Kim Halliwell	Murray Aitken	Lucy Ward
9	8/11/2022	Full annual review including Part C reference reinstatement	Kim Halliwell	Matt Dickens/ Murray Aitken	Lucy Brant
10	29/02/2024	Complete review of content	Matt Dickens	Toby Clarke	Nick Economidis
11	26/08/2024	Refinement of QMP Parts and removal of appendices	Jarrod Tenamu	Murray Aitken	Nick Economidis

SITE REVISION

Rev	Date	Revision Description	Prepared	Reviewed	Approved
1	25/11/24	Initial Plan	Levi Carsburg	Adrain Wyatt	Murray Aitken
2					
3					
4					
5					

Contents

PART A – QUALITY MANAGEMENT PLAN

1. Quality Plan Details

1.1. McNab Overview

At McNab, it's all about building relationships for the longer term. Our team are flexible, collaborative, and committed to delivering a caring, easy and certain experience on every project we undertake. Combine this with outstanding HSEQ performance and it's easy to understand why we're increasingly chosen as the flexible alternative to Tier One Contractors in General Construction and Civil.

McNab is certified to International Standards for Quality, Environment and Safety.

1.2. Purpose of the Project Quality Management Plan (QMP)

McNab's Quality Management Plan details the way in which McNab intends to build a quality product. This plan details controls from the overarching Quality Management Systems Manual and outlines project specific details that are unique to the project. Where there are differences in process or procedure between the Project Quality Management Plan and the McNab Quality Management System Manual, the Project Quality Management Plan shall take precedence on this particular project.

This Plan is instrument in providing a Quality Management Framework for the project as well as an operational framework. It seeks to minimise and control risk, consequence and contributing factors to project non-conformances, incidents, and injuries.

The Quality Management Plan is made up of two parts;

- **Part A** – Controls from overarching Quality Management System Manual (edited to reflect any project specific requirements)
- **Part B** – Planning for Quality - Assessment of any project specific quality considerations, and plan for addressing and ongoing review.

The Plan may be read in conjunction with the other McNab documents including:

- McNab Quality Management Systems Manual
- McNab Health and Safety Management Systems Manual
- McNab Environmental Management Systems Manual
- Project Health and Safety Management Plan (Parts A, B and C)
- Project Environmental Management Plan
- Safe Work Method Statements
- Project Inspection and Testing Plans

This Plan is a controlled document; please refer to the Document Control Procedure for further information.

1.3. Access to the Quality Management Plan

The Project Manager shall:

- Ensure the McNab Project Team have read and understood this plan and acknowledge by signing off in section 5.7;
- Ensure the Quality Management Plan is available for Subcontractors during site induction;
- Ensure that when the Quality Management Plan is updated, the McNab Project Team are advised and Subcontractors are given appropriate and timely advice as to what has changed and why it has changed;
- Allow anyone working at the workplace access to a copy of the Quality Management Plan.

1.4. Approval procedure for changes to this document

This Quality Management Plan is a Controlled Document. The Project Manager with assistance from the Quality Business Partner shall enter project details to make it project specific.

The controlled document is stored electronically within the Job File. The printed copy should be checked to see that the revision number is the same as the electronic version. The person in possession of the physical copy is responsible for ensuring their copy is up to date.

The Project Manager shall consult with the Quality Business Partner for advice on how to manage the changes and the best way to implement new processes.

1.5. Review procedure for the Quality Management Plan

This Quality Management Plan shall be reviewed ANNUALLY with any changes referenced in the Company Revision table.

1.6. Quality Management Plan – objectives

Objectives of the Quality Management Plan are to:

- Document the Quality Controls and Inputs
- Ensure that requirements are set to meet or exceed the standards for Quality Management Systems (ISO 9001:2015)
- Address any particular client, contractual requirements or special requirements for the Project
- Identify the quality outcome/s being sought by the Client
- Address the General and Special Conditions of Contract
- Identify how McNab intends to achieve these outcomes and control the risks (i.e. mitigation measures)
- Identify the risks which might prevent McNab from achieving the Project outcome/s and objectives
- Identify how McNab measures its performance against the Contract specifications, outcomes and objectives
- Identify performance measures, monitoring systems, and reporting requirements for the Project
- Identify how to deal with non-conformances, complaints and issues.
- Provide documented processes for:
  - Risk prevention/internal control measures
  - Monitoring, measuring, verification and validation systems (where applicable)
  - Reviewing requirements, responsibilities and accountabilities and communication linkages for achieving the Project outcomes and objectives

1.7. Project specific quality objectives

The specific quality objectives for this project are:

- Demonstrate the ability of McNab to provide building and construction services that consistently meet applicable regulatory requirements and Client's needs.
- Address Client satisfaction through the effective application of a Quality Management System, including processes for continual improvement and prevention of problems and complaints
- Minimal defects at hand over and contract delivered on time
- Represented in this Plan and 03-DOC-009 QMP PART B Planning for Quality as project specific details.

2. Scope of Works

2.1. Client details and contacts

Client	Aboriginal and Torres Straight Islander Community Health Service Brisbane Limited (ATSICHS)
Contact Number	0426 266 697
Date of letter of offer	24/10/24
Contract Description	Lump Sum
Client Rep or Superintendent	Bluebird - Jonathan Miers
Phone	0434 892 085
Email	jonathan.miers@bluebirdproperty.com.au

2.2. Project description

Project address	643-651 Deception Bay Road, Deception Bay
Design start date	n/a - construct only
Construction start date	25/11/24
Planned construction duration	10/04/24

2.3. Extent of work

75x units to be constructed over 2 separate buildings. One 5x storey and one 4x storey with a carpark over both ground floors

3. Organisational Chart

3.1. Personnel organisation chart

For the McNab Organisational Structure please refer to 22-DOC-001.

3.2. Contact details

Project Manager	Levi Carsburg Phone: 0468 567 374 Email: levi.carsburg@mcnab.net.au
HSEQ Manager	Phone: 07 3252 6900 Email: quality@mcnab.net.au>
Site Manager/Foreman	Adrian Wyatt Phone: 0421 618 310 Email: adrian.wyatt@mcnab.net.au
Contract Administrator	Jackson Woollett Phone: 0432 854 602 Email: jackson.woollett@mcnab.net.au

4. Corporate Details:

Company:	McNab Developments Pty Ltd
ABN:	118 748 548
QBCC Number:	1094350
Email:	info@mcnab.net.au
Website	www.mcnab.net.au

4.1. Toowoomba

Location	Level 1, 12 Neil St, Toowoomba Q 4350
Postal	PO Box 2304, Toowoomba Q 4350
Phone:	07 4620 0700
Fax:	07 4638 7376

4.2. Brisbane

Location	Level 2, SW1, 32 Cordelia Street, SOUTH BRISBANE, Q 4101
Postal	PO Box 5054, WEST END, Q 4101
Phone:	07 3252 6900
Fax:	07 3846 7555

4.3. Gold Coast

Location	Suite E312, Level 3, Oracle East Building, 4-6 Charles Avenue, BROADBEACH, Q 4218
Postal	PO Box 2304, Toowoomba Q 4350
Phone:	07 5629 0400
Fax:	07 3846 7555

4.4. Sunshine Coast

Location	Level 5, Tower 2 Suite 509-511 Kon-Tiki Building, 55-59 Plaza Parade, MAROOCHYDORE, Q 4558
Postal	PO Box 2304, Toowoomba Q 4350
Phone:	07 5408 2300
Fax:	07 3846 7555

5. Responsibilities

5.1. Design Manager

The duties and responsibilities of the Design Manager include:

- Ensuring the processes and objectives of the Design elements of the McNab Quality Management System and this Quality Management Plan are implemented and monitored throughout the design phase of this project
- Pre-populating the 03-DOC-009 QMP PART B Planning for Quality with information relevant to the delivery of the project. Set up a handover meeting with Project Manager and Quality Business Partner
- Being responsible to the Construction Manager and Project Manager for efficient and timely performance, in fulfilment of the contract outcomes
- Establishing design objectives with the Client Representative and ensuring the requirements of the Contract are understood by and communicated to all parties
- Managing the development of specifications, drawings and all associated design documentation by consultants and ensuring compliance with McNab and Client requirements
- Maintain communication and consultation throughout the design phase with relevant stakeholders,
- Review, evaluate and record any proposed changes to design, seek approval and authorisation and communicate change to relevant stakeholders
- Validation and verification activities in relation to design of the Project
- Ensuring all safety, environmental and quality assurance considerations are met and addressed practicably throughout the design phase
- Ensuring a timely and thorough handover with the Project Manager for seamless progression into construction phase of the Project

5.2. Project Manager

The duties and responsibilities of the Project Manager include:

- Ensuring the processes and objectives of the McNab Quality Management System and this Quality Management Plan are implemented and monitored throughout this project
- Implementation of the 03-DOC-009 QMP PART B Planning for Quality and 03.03 Site Team Quality Risk Review Agenda with scheduled monthly reviews
- Being responsible to the Construction Manager for efficient and timely performance, in fulfilment of the contract outcomes
- Establishing contract objectives with the Client Representative and ensuring the requirements of the Contract are understood by and communicated to all parties
- Review of specification and drawings prior to works commencing
- Preparation of mandatory McNab Inspection Test Plans, and all other Client required documentation, and submittal and achievement of approval from Client as required
- Ensure ITPs are prepared, approved and completed in accordance with:
    - Contract
    - Specifications
    - Australian Standards/Authority requirements
    - McNab Standard Details
    - McNab Mandatory Scopes of Works
- Planning, acquiring and managing of all resources and applicable approvals required to complete the works in time and to the specified quality, including staff, subcontractors, suppliers and service providers
- Ensuring the processes and objectives of the McNab Quality Management System and this Quality Management Plan are implemented and monitored throughout this project,

- Liaising with the Client Representative to ensure timely submission of all administrative requirements including progress payment schedules, variations, quality records, etc.
- Preparing and organising handover
- Ensure all services, equipment, motors, pumps, mechanical etc. are started and operationally tested prior to handover
- Document all necessary certificates and warranties
- Provide a structural building certificate
- Maintaining project records as defined in the Attachment to this Quality Management Plan
- Providing an Operation and Maintenance Manual at the completion of the project
- Implementation of a detailed handover to the Client covering off all maintenance and serviceability requirements for the ongoing operation of the facility
- Complete management of the DLP period with handover to Customer Care at DLP completion, if applicable

5.3. HSEQ Manager

The McNab HSEQ Manager shall oversee the Quality Team and shall hold ultimate responsibility and authority for the quality system to that defined in McNab Quality Management System Manual i.e.:

- Maintains and controls all documents and data concerning the Quality System
- Coordinates the application and maintenance of the system throughout the organisation, ensuring all staff are aware of their roles in the functioning of the System
- Continually monitors the effectiveness of the system and plans and conducts audits and reviews to establish that the requirements of the System are being met
- Together with the Project Manager & Quality Business Partner, ensures QMP is drawn up for each project
- Reports all quality issues to the Operations Manager either at management review meetings or on an individual basis

5.4. Site Manager/Foreman

The duties and responsibilities of the Site Manager/Foreman are:

- Being responsible to the Project Manager for efficient and timely performance, in fulfilment of the contract outcomes
- Assist the Project Manager with implementation and scheduled reviews of the 03-DOC-009 QMP PART B Planning for Quality and 03.03 Site Team Quality Risk Review Agenda
- Review of specification and drawings prior to works commencing
- Implement, maintain and complete Inspection Test Plans Records on behalf of McNab
- Supervise Subcontractors' completion of the ITPs
- Ensuring day-to-day control of labour and subcontractors for the completion of the works, including supply co-ordination and inspections (as stated in contract and specification), subcontractor's control and maintaining Quality in the construction/installation process
- Ensuring all certifications are completed in accordance with the relevant work processes
- Maintaining Project records in accordance with this Quality Management Plan and the McNab Quality Management system.

5.5. McNab employees

All McNab employees are responsible for:

- Maintaining a positive attitude to quality work standards
- Actively participating in training and Site Induction

- Bringing to the attention of the Site Manager/Foreman any sub-standard work carried out by any personnel, suppliers or Subcontractors
- Promptly reporting any new hazards to the Site Manager/Foreman
- Initiating action to prevent the occurrence of non-conformances
- Identifying and reporting to the Site Manager/Foreman quality, safety or environmental problems/issues
- Initiating, recommending and providing answers to quality, safety or environmental problems/issues

5.6. McNab suppliers and subcontractors

Subcontractors performing work on behalf of McNab throughout the duration of this project shall:

- Be required to prepare and submit inspection and test plans for all required activities to McNab
- Be audited to ensure continued compliance with statutory requirements, contractual obligations, and safe work practices
- Provide certificates, warranties and operational manuals as outlined in contract/specification or as instructed by McNab
- Work with McNab to produce and implement Inspection Test Plans, certification of tested systems and product compliance information.

May be requested to submit details of their workplace health and safety, quality and environmental systems to McNab for review.

5.7. Acceptance of Responsibilities

Each member of the McNab site team agree to perform the above responsibilities on this project and are required to complete the following acknowledgement of understanding.

I have read and understand the responsibilities for my position on the project and confirm that I shall undertake this role and associated responsibilities.

Name	Signature	Role	Date	Site Revision

6. Quality Management System

Steps to deliver a quality construction project include:

- Planning
- Design
- Internal Handover
- Procurement and commencement
- Construction
- Practical Completion
- External Handover
- Defect liability

6.1. Handover from Estimating & Design to Operations Project Management

6.1.1. Internal Handover Process

This includes the passing of information from the Estimating & Design (E&D) Departments through to the Operational Component of the Business in preparation for commencement on site.

The McNab E&D Manager is responsible for managing the Design Team to achieve a safe, high-quality design that adheres to McNab, Statutory and Client requirements. Throughout the Design phase there is ongoing involvement by the nominated Operations Project Management team and Quality Team to ensure a thorough and detailed knowledge of the project prior to commencement of construction activities on site.

Communication from the E&D teams is critical to the successful project commencement. Key E&D staff lead a handover of information to the Operations Project Management team, including the establishment of the 03-DOC-009 QMP PART B Planning for Quality. This communication of information also involves Finance, Infrastructure, Plant and Equipment, Administration, Health and Safety and Quality to ensure all departments understand the project and the Client specific requirements.

6.2. Procurement and Commencement

6.2.1. Dilapidation Report

A dilapidation report documents the existing condition of the construction site and neighbouring properties and infrastructure prior to construction commencing. After the report has been finalised, McNab shall submit a copy to the Client and Superintendent if requested and also retain a copy on site.

6.2.2. Construction Methodology

Construction Methodology is defined as the series of activities undertaken in a methodical sequence in order to deliver a construction job.

The Project Manager shall define a project specific construction program. The program identifies critical path trades as being the key activities throughout the construction process. This program shall also factor in time frames to achieve the highest Quality outcomes achievable (Curing of products) and be submitted to the Client prior to commencement.

6.2.3. Procurement/Letting Schedule

The Procurement (or Letting) Schedule shall be set by the Project Manager. This Schedule identifies critical trades and lead times and determines the milestones and timeframes for all letting on the Project to ensure high-quality Subcontractors are engaged in a timely manner. This Schedule shall be submitted to the Client prior to commencement.

6.2.4. Construction Budget

The Construction Budget is defined as the detailed cost breakdown and budget prepared to deliver a quality construction job.

The relevant Construction Manager shall support the Project Manager to define a project-specific construction budget based on the estimate. This budget shall be reviewed and approved by the Construction Manager prior to project commencement.

6.3. **Construction**

6.3.1. Program, Cost and Quality Control

Program

- The approved Construction Program developed in the initial phase is made available to the Client and Project Management Team.
- Daily planning and monitoring of activities, progress and procurement via Daily Pre-Start Meetings [Form 06.17].
- Every week a detailed fortnightly program is prepared on site and measured against the overall Construction Program.
- Key Subcontractors submit detailed programs at the formal weekly Subcontractor Meetings and report on man-hours and milestones as applicable.
- These programs are read in conjunction with the Lead Time Schedule and Procurement Schedules for the project.

Cost

- The approved Construction Budget developed in the Initiate phase is monitored frequently with formal fortnightly and monthly cost and cash-flow reporting and projections.
- Procurement and contract letting is submitted for approval to the Client as required.
- Key Subcontractors submit procurement and lead time schedules for approval prior to commencement on site, specific to trade and scope of works. Daily Pre-Start Meetings and weekly Subcontractor Meetings ensure progress against these schedules is closely monitored.

Quality Control

- Monthly quality inspections reports [Procore documents 03.13 QA Monthly Site Review Checklist & 03.03 Site Team Quality Risk Review Agenda] summarising results of evaluations, inspections and testing and identifying any key issues,
- Continual monitoring of Subcontractor product and workmanship via formal and informal means, including:
    - Inspection and Test Plans,
    - Inspections,
    - Audits,
    - Weekly/fortnightly/monthly reporting and meetings,
    - Maintaining frequent communication with Clients and consultants to review expectations and monitor progress against Project Quality Objectives and Targets,
    - Subcontractor management (refer 6.3.7).

6.3.2. Construction Method Statements

Construction method statements shall be prepared by the Project Manager and submitted to the Client as required. The method statements shall be documented within the Construction Management Plan.

6.3.3. *Communication*

Communication is key to the success of the Project to facilitate a quality, efficient and compliant building process. McNab has developed a documented procedure to outline project-specific communication strategies, refer to McN-QP-101 Project Communication and Correspondence.

6.3.4. *Requests for Information (RFI)*

The RFI form is to be used when requesting information. McNab shall submit RFIs to the Client and maintain a register of RFIs throughout the project.

Refer documented McNab procedure McN-QP-108 Requests for Information.

6.3.5. *Variations*

The Variation process is used when requesting a deviation from the Contract specifications. McNab shall submit Variations to the Client in accordance with the contract and maintain a register of Variations throughout the project.

6.3.6. *Internal Compliance Audit of Project and Site*

Internal compliance, auditing and monitoring shall be undertaken in accordance with the McNab procedure McN-QP-112 Compliance and Monitoring and Section 17 of this Quality Management Plan.

6.3.7. *Subcontractor Management and Compliance*

Once suppliers and Subcontractors are found to be acceptable McNab undertakes the following:

- Preparation of detailed scopes of work and contract
- In-depth kick-off meetings outlining clear expectations on safety, quality of workmanship, program, resources, Client requirements, procurement, progress schedules etc
- Unscheduled Subcontractor Performance Assessments if deemed part of required preventative action to address a non-conformance are captured in Procore
- Preparation of pre-approved Inspection & Test Plans to form part of each subcontract and implemented throughout construction
- Project Manager and Subcontractors liaising regularly to monitor ordered product, product in transit and product delivered to ensure just-in-time scheduling as best as practicable
- Continual monitoring in accordance with applicable Inspection and Test Plans throughout construction
- Formal weekly meetings and progress reporting with all Subcontractors throughout construction.

6.4. **Defect Completion / Defect Punch List**

McNab continually monitors the quality of the work produced daily.

Prior to the planned handover of the Project, McNab shall commence an internal defect management process in Procore and identify potential defects and rectifying whilst trades are still on site.

Prior to Performance Testing of the Project, the Client and McNab Project Management team shall identify and document any defects in Procore.

McNab shall co-ordinate a final inspection by the Client to manage all identified defects and achieve Final Acceptance.

6.5. **Practical Completion / Close Out**

6.5.1. *Project Commissioning and Handover Plan*

A Project Commissioning and Handover Plan details:

- The planned testing and commissioning required,
- Building Awareness Training Requirements,
- Deliverables from all Subcontractors for inclusion in the Operational & Maintenance Manual, and
- The Quality Assurance Records that McNab is to provide to the Principal confirming compliance.

McNab shall compile a Project Specific Project Commissioning and Handover Plan for this project. Refer to the documented McNab procedure McN-QP-122 Project Commissioning and Handover.

6.5.2. Operational & Maintenance Manual

An Operational & Maintenance Manual is a document containing all certificates, warranties, operational Manuals and Commissioning and Test Results. Upon completion of the Project and receipt of acceptance for the Plant, the Master Operational & Maintenance Manual shall be submitted to the Client Representative to achieve Final Acceptance.

6.5.3. Commissioning and Commissioning Results

Commissioning is a quality checking process of verifying and documenting that the performance and maintainability of the building and its services fulfil the functional and operational needs of the Client and Owner of the building.

McNab shall hand over all documentation summarising the predefined inspection, checks and testing that has been performed and signed-off as acceptable in the form of an Operational & Maintenance Manual.

Throughout the construction phase McNab shall compile all documentation for the Handover; this ‘live’ documentation shall be made available for review throughout the Project if required by the Client Representative.

Refer to the McNab procedure McN-QP-122 Project Commissioning and Handover.

6.5.4. Acceptance and Completion

<u>Pre-operational Completion and Performance Testing</u>

- McNab shall advise the Client of Completion for the Project prior to commencing Performance Testing
- McNab Subcontractors, under McNab supervision, are responsible for the performance testing of the equipment installed as part of their subcontract
- This is done by completing the mandatory ITP: Functional Area Closeout 03.19 located on Procore.

6.5.5. Certifying the Works

McNab shall provide certification of the works upon completion of the contract in the form of an Operational & Maintenance Manual and certificate of classification for the Project.

6.5.6. Building Awareness Training

Building awareness training is carried out by the project delivery team with the end user who shall be responsible for operation and maintenance of the facility.

- Building awareness training ensures end users are adequately trained in the purpose, function, operation and maintenance of the building and its installed components.
- Building Awareness Training is identified and documented in the Project Handover and Commissioning Plan.
- Records shall be maintained of delivery of Building Awareness Training.

6.6. Defect Liability Period

6.6.1. Building maintenance during defect liability period

A detailed maintenance schedule shall be provided as part of the Operational & Maintenance Manual. Records of maintenance activities undertaken shall be maintained. Refer to the documented McNab procedure McN-QP-122 Project Commissioning and Handover.

Refer Section 20 *Defect Liability Period* for further information.

7. Design Control

7.1. Design Management

Upon award of the Contract, McNab shall commence the Design Management Process. Design stages include Concept Design, Preliminary Design and Final Design, and each stage involves the following steps: review, verification and validation, in accordance with McNab procedure McN-QP-104 Design Management Plan.

Design shall incorporate all relevant McNab standard details into the project documentation. Any variance away from these standard details shall be reviewed and approved by the Quality Team.

7.2. Design Change Management

McNab shall register all design change requests and maintain records of approvals.

8. Document and Data Control

8.1. McNab Document Management System

The documented McNab procedure McN-QP-102 Control of Documents details the approval, review, update, identification and availability of controlled documents, and the removal of superseded or voided documentation.

8.2. Documentation Authorisation and Approval

McNab designs, drawings, specifications, samples, certificates and data shall be submitted in accordance with Client requirements.

8.2.1. Design, Drawings, Specifications

All drawings shall be submitted in PDF, stamped by the relevant Consultant, named in accordance with the Client naming conventions and submitted to the Client for review allowing required days for review.

8.2.2. Certificates and Data

All certificates shall be clearly identifiable and submitted to the Client for review allowing required days for review.

8.2.3. Workshop Drawings

All workshop drawings shall be submitted in PDF from the relevant Subcontractor to McNab. Workshop drawings shall be submitted to the Client for review if required.

8.2.4. As-built Drawings and Specifications

Progress As-Built Drawings and Progress As-Built Specifications shall be retained on site and available for review by the Client Representative throughout the construction phase if required.

Final As-Built Drawings and Final As-Built Specifications shall be submitted as part of the Operational & Maintenance Manual to the Client prior to Final Acceptance (refer Section 6.5.2).

8.2.5. Subcontractor Provided Documentation

As required, calculations, procedures, data sheets and engineering drawings prepared by suppliers and subcontractors shall be reviewed by the McNab team for consistency and compliance to the engineering design and standards.

8.2.6. Project Documentation

All McNab Project-related “Controlled” documents, such as this Quality Management Plan, the Work Health and Safety Management Plan and the Environmental Management Plan are to be reviewed and authorised by the Project Manager and then as applicable, reviewed by the Client’s Representative.

9. Control of Quality Records

9.1. Record Control

The Project Manager shall ensure that Quality Records required by the Client’s Representative, shall be legible and clear and stored in such a way that they are easily retrievable.

The McNab Construction Manager shall ensure that the full Quality Records for the Contract, both for McNab and all Subcontractors, are safely and securely filed and stored for a minimum period of ten (10) years from the date of Completion of the Contract to comply with legislation.

9.2. Project Management and Control

The works under the Contract shall be undertaken by McNab in accordance with:

- The Contract specifications
- This Quality Management Plan
- McNab Quality Management System Procedures
- McNab Construction and Technical Procedures
- Contract Documents and Drawings
- Approved Consultants’ drawings

The Quality System Manual, Quality Management System Procedures, AS Compliance Documents, Inspection and Test Plans also form part of this Quality Management Plan.

The Project Manager shall ensure that copies of the Contract Specifications and any construction and technical procedures, material samples, manufacturer’s brochures, Safety Data Sheets, charts, diagrams, etc. are available at the Site Office and at Contract workplaces - to ensure all personnel are aware of the process requirements of each activity.

10. Product Identification

10.1. HVAC Product Traceability

All major electrical and mechanical (HVAC) equipment shall be traceable to supplier, testing history, installation history and final acceptance.

10.2. Concrete

For every concrete pour, positive identification is via the batch records. McNab keeps detailed records of the pour on a Concrete Placement Register and corresponding Inspection and Test Plan. The key information from this project is uploaded onto a Concrete Pour Register which forms part of the material and construction report at the completion of the project.

10.3. Tilt Panels

For every tilt panel, details of the panel are retained on the corresponding Inspection and Test Records. These Panel records form part of the material and construction report at the completion of the project.

11. Inspections

11.1. Inspection and Test Plan (ITP)

An Inspection Test Plan (ITP) records the inspection and testing requirements for specific work or activity to verify conformance of product or service provided to the specified requirements. An ITP shows the verification measures to be taken during the construction process and the criteria for acceptance for each inspection or test.

Process:

- ITPs shall be prepared, reviewed and approved prior to the start of each activity.
- McNab Site Management team in conjunction with the McNab and Subcontractor team shall manage and cing all itpsofacilitate the completion of ITP records.

As a minimum, McNab shall use company templates for ITPs relating to:

- Waterproofing
- Tiling
- Resilient Flooring
- Passive Fire
- Concreting, all concrete including inground
- Roofing, one for each zone or independent roof, determined by QBP
- Glazing including Testing, As determined with your QBP
- Functional Area close outs
- PWD and Ambulant
- Civil, Pads, Pits & Pipes
- Structural Steel Fabrication / Installation.

These templates are to be added with any project specific requirements.

11.2. Third Party Inspections

McNab shall engage an independent third-party consultant to inspect Building and Fire Protection Systems dependent on the project specific requirements, to ensure the work is compliant and performing and to support the engagement and education of employees, suppliers and subcontractors. This will be determined by the site team and QBP at the initial QMP Part B review.

12. Inspection, Measuring and Testing Equipment

12.1. Survey Equipment

Inspection, measuring and test equipment (IM&TE) used by McNab employees include lasers, dumpy levels, theodolites and total stations.

McNab shall obtain calibration certification from Subcontractors using survey equipment on this Project to verify the accuracy of the equipment.

All IM&TE shall be clearly labelled and maintained in accordance with the documented McNab procedure McN-QP-115 Calibration.

12.2. Testing Equipment

McNab shall obtain calibration certification from Subcontractors using testing equipment on this Project to verify the accuracy of the equipment.

Refer to the documented McNab procedure McN-QP-115 Calibration.

12.3. Monitoring and Measuring Equipment

McNab shall maintain current calibration records of all monitoring and measuring equipment supplied by McNab for use on site, which may include gas monitors, alcohol breathalysers and audio-metric testing equipment. All records shall be maintained in accordance with the documented McNab procedure McN-QP-115 Calibration.

12.4. Inspection and Test Status

The inspection and test status of products and works shall be clearly identifiable throughout the inspection and testing process. All relevant records shall form part of the Operational & Maintenance Manual at the completion of the Project.

Inspection and test records shall have full traceability to the equipment, material or service that was inspected or tested. Records shall identify equipment tag or area of work where inspection or test was conducted.

12.5. On Site

All product, plant and equipment on site shall be stored in a defined area and marked to prevent accidental use until compliance has been verified. Works shall be undertaken in accordance with the approved ITP and where a Hold Point is nominated, works shall not continue until the acceptance criteria are released by nominated personnel. Any non-conforming product, plant or equipment shall be segregated and marked in a practical way, such as 'Tagged Out' or 'Do Not Use' and tracked through Procore.

13. Control of Non-conformances

13.1. Non-conformances

McNab shall ensure that materials, items, processes or products containing a non-conformance are promptly detected, identified, segregated and documented in accordance with Client requirements and McNab requirements.

All non-conformances shall be recorded in Procore.

The Site Management team shall review procedures and Subcontractor checklists and shall revise and reissue, as necessary, any document required to prevent future re-occurrences of nonconforming processes, Works or products.

13.2. Corrective and Preventative Action

Corrective and Preventative Action shall be managed as follows:

- Review non-conformance reports
- Determine the cause of non-conformances
- Evaluate the need for action to ensure non-conformances do not reoccur
- Determine and implement the action needed
- Record and review the results of corrective action taken
- Determine potential non-conformances and their causes
- Evaluate the need for action to prevent non-conformances

- Determine and implement action needed
- Record and review the results of action taken.

McNab shall undertake both scheduled and unscheduled audits of the works in the course of corrective and preventative action throughout the construction phase.

14. Training

14.1. Competence, Training and Awareness

McNab determines the necessary competence for personnel performing work affecting conformity to product requirements through selection of appropriately training people for the task at hand.

McNab has an extensive learning and development training program than undertakes to provide employees with the opportunity to achieve the necessary competence. This is documented via a Training Matrix and the McNab procedure McN-QP-111 Orientation, Training & Competence.

Subcontractors shall be required to submit details of their employees and employee qualifications prior to commencing on site. Copies of licences, tickets and relevant qualifications may be taken on site.

Prior to arrival on site, all personnel shall undertake the required inductions, as outlined in the Project Health and Safety Management Plan. This shall include all required verification of competency for their tasks.

Throughout the duration of the construction phase, McNab shall continually provide training and development to personnel on site on a range of health, safety, environmental, quality, procedural and technical topics.

McNab shall review the Training Program at regular intervals to verify its effectiveness and relevance.

14.2. Maintenance of Training Records

All training performed shall be documented and records retained throughout the construction phase by the McNab HR team in conjunction with the HSEQ teams.

14.3. Alerts and Tips

To share critical information and support learning, McNab shall issue Alerts and Tips, which are shared with employees and relevant parties via toolbox talks and signed onto to record attendance.

15. Compliance and Monitoring

15.1. Audit Schedule

The McNab HSEQ Manager shall maintain an audit schedule. The schedule shall delineate audit activities for this Project according to risk, and detail audit requirements and relevant references.

15.2. Internal Audit of Works

The McNab Site Manager/Foreman shall continually monitor the quality of the workmanship of the Subcontractors on site through informal visual inspections as well as via formal Inspection Test Plans.

Site audits shall be undertaken at key milestones identified by the HSEQ Manager and/or the Site Management Team. Audit reports shall be issued to the Client as requested.

Specific audit criteria shall be prepared from approved Specifications and Construction-Issue drawings.

15.3. Internal Compliance Audit of Project and Site

Internal compliance, auditing and monitoring shall be undertaken in accordance with the documented McNab procedure McN-QP-112 Compliance and Monitoring.

Should a deficiency be identified through the audit process, it shall be documented via Procore and addressed accordingly. Refer Section 13.

15.4. Client Audits

Client attendance to audits and audit reports are at the option of the client.

16. Receipt, Handling and Preservation of Materials

16.1. Delivery Considerations

The McNab Project Manager shall direct Subcontractors and suppliers to plan and undertake deliveries to the Project site.

The delivery of materials to site by Subcontractors and suppliers shall be carried out in accordance with the regulatory requirements including the Chain of Responsibility, Client requirements and McNab approved procedures.

16.2. Storage of Materials

Storage and maintenance of permanent plant, equipment and materials shall be in accordance with manufacturers' recommendation and documented in the handover documentation. McNab shall ensure that storage and performance of maintenance activities are maintained. Maintenance records shall be maintained.

17. Quality Records (Material Documents)

17.1. Concrete

McNab shall maintain records of every concrete pour via a Concrete Pour Record and accompanying Inspection and Test Plans. This documentation shall be accompanied by records of all batch receipts and applicable test reports.

Submission of material documents shall be in accordance with technical specifications provided by the Client and the IFC McNab specifications.

17.2. Reinforcing Steel

McNab shall adhere to the requirements of the technical specifications provided by the Client and the IFC McNab specifications. Where a requirement in the Specifications is greater than the Australian Standard, the Specification shall take precedence.

17.2.1. Reinforcement Processing to Australian Standards

McNab shall maintain reinforcement processing records in accordance with AS/NZA 4671, AS 5100 and AS/NZS 2870.

17.2.2. Reinforcement Mesh Manufacturer

McNab shall maintain records from the manufacture of reinforcement mesh certifying compliance with AS/NZA 4671.

17.3. Structural and Cast in Steel

McNab shall adhere to the requirements of the technical specifications provided by the Client and the IFC McNab specifications. Where a requirement in the Specifications is greater than the Australian Standard, the Specification shall take precedence.

17.3.1. Structural Steel Product Certification

McNab shall maintain records of all structural steel production. A mill certificate shall be supplied on completion of the structural steel being fabricated certifying compliance has met the relevant building codes and Australian Standards.

18. Quality Submission Requirements

18.1. Test Reports

18.1.1. Concrete Strength Test Reports

Submission of test reports shall be in accordance with technical specifications provided by the Client and the IFC McNab specifications. McNab shall provide concrete strength reports at the completion of the Project in the Operational & Maintenance Manual in accordance with AS 3600 and the project specifications.

18.1.2. Hydraulics

Submission of test reports shall be in accordance with technical specifications provided by the Client and the IFC McNab specifications.

18.1.3. Electrical

Submission of test reports shall be in accordance with technical specifications provided by the Client and the IFC McNab specifications.

18.1.4. Structural steel

Submission of test reports shall be in accordance with technical specifications provided by the Client and the IFC McNab specifications.

18.2. Certificates

Upon completion of the project McNab shall provide in the form of an Operational & Maintenance Manual all applicable Form 15s and Form 12s for certification.

18.3. As Constructed Drawings

McNab shall provide As Constructed Drawing/Documents for all trades in accordance with the Client Requirements. These shall be provided to the Client at the completion of the project in the form of the Operational & Maintenance Manual.

19. Risk Management and Quality Control

19.1. Material Supply

Whilst McNab intend to source locally where possible, there may be occurrences where sourcing products from offshore suppliers is required. McNab shall comply with all requirements for offshore procurement in this instance.

19.2. Structural Steel

All structural steel frame elements shall be shop-drawn and manufactured off-site. Manufacture shall commence immediately upon receipt of approval of shop drawings. All elements shall be fabricated in advance of the required dates to meet the construction program.

19.3. Structural Framing

McNab shall explore in design where possible prefabricated structural steel framing systems for the main buildings. The structural framing system would consist of internal wall, external walls and roof trusses. The fabrication of these elements would occur off site in various locations by several Clients. All elements can be made well in advance of programmed dates for installation.

19.4. Prefabrication of Joinery / Cabinets

McNab intends to prefabricate cabinets and joinery items for the Project off-site, well in advance of the required timeframes. Containerised delivery shall ensure delivery times are met and maintained.

The lay down areas designated by McNab shall be sufficient to store prefabricated elements as required, reducing erection times and potential for delivery delays.

19.5. Concrete Supply

Strategies relating to specific size and timing of pours, concrete temperature controls and curing shall be prepared in conjunction with the local plants throughout the construction of the Project.

20. Defect Liability Period

The Defect Liability Period (DLP) for this project is 12 months from date of Practical Completion, as outlined in the Head Contract.

Throughout the Defect Liability Period, McNab Delivery Team (led by the PM) is responsible for ensuring all defects identified are rectified.

Defects are registered on a defect register in Procore which shall be controlled by McNab with access for the Superintendent where applicable.

20.1. Defect Notification Process – post Handover

Should the end user or Client identify a problem with the building, they are to follow the defect notification process as detailed in the Defects Fact Sheet in the 05.77 Handover Manual (HOM).

21. McNab Minimum Standards

(Mandatory technical requirements outside or above NCC/Australian Standards)

It is MANDATORY to implement the following on all McNab projects, (unless discussed and an alternative approved by your Operations Manager in collaboration with your Construction Manager and Quality Business Partner). **These items must be represented in ITPs (where applicable). This is in response to costly, high-risk issues that we have experienced even when compliance is achieved.**

Please speak to a member of the Quality team if you need support to achieve the below or wish to discuss the implications for your project.

General

- ***Prototype Unit –*** as far as practicable, complete a prototype unit to identify any lead time, product, installation, compatibility or constructability issues, and have the prototype reviewed by the client to confirm it meets their and our expectations.
- ***Concrete waterproofing additives*** are to be included as a secondary measure in all ***lift pit walls and bases*** irrespective of whether an externally applied membrane is installed.
- ***McNab person to walk the roof and produce a photo or video compilation of entire roof system*** and attach to ITP.
- ***"Functional Area Close Out"*** required to be conducted and signed off by McNab. Checks that all items are in good working order, from entry door self-closing/locking to operating everything that turns on and off (i.e. Aircon, dishwasher etc.)

Waterproofing

- ***Internal Hydraulic Cabinets containing water meters*** to have a drain, 100mm bund across door threshold and the base waterproofed with a minimum 100mm turn up to remainder perimeter *unless otherwise advised by local authority.*
- All ***Waterstop angles*** are required to be fitted to the structural substrate, not the bedding.
- ***Waterstop angles*** to be installed to sill of all glazed openings and membraned before sub-sill installation.
- ***Rebates on structural slabs*** are required for all external blockwork onto habitable spaces.
- ***Water flood testing*** needs to be completed on the below areas when membraned (before tiling or covering) and must be checked by McNab;
    - All Planter Boxes
    - All Internal wet areas
    - All Balconies over habitable space

    Check for ponding on:

    - Roof decks
    - Parapet capping
- ***Hose testing*** for facades / Glazing shall be conducted when the first lot of windows are installed, and on a selection of windows per floor prior to scaffold removal. Must be conducted by a trained McNab person.

Passive Fire

- ***Prototype boards*** must be created prior to any passive fire installation has commenced.
- ***Inspection by Manufacturers technical representative*** must be undertaken at first installation.