

**GRAND CONTRACTING & SUPPLIES  
COMPANY**



Contracting and Supplies  
جراند للمقاولات العامة والتوريدات

***QUALITY ASSURANCE***

***And***

***QUALITY CONTROL***

***MANUAL***

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## Section 1

# QUALITY POLICY

AND

AUTHORITY

# QUALITY POLICY

The Quality policy was prepared by QMS committee, reviewed by management representative and approved by the Managing Director, and distributed to all departments of the company.

The Quality Policy of **GRAND CONTRACTING & SUPPLIES COMPANY** is based on three basic concepts:

- 1- Commitment to providing suitable quality of products and services to meet our clients' requirements and exceed their expectations.
- 2- Implementation and continual Improvement of the Quality Management System according to the standards, to ensure client satisfaction. & reviewing of quality objectives.
- 3- Compliance with local statutory and regulatory legislation related with company work.

# AUTHORITY

Full authority for the implementation and administration of the quality controls described in this manual has been delegated to the Quality Control Manager "QCM". The QCM has the responsibility and organizational freedom to identify quality control problems, stop work, recommend solutions and verify resolution of such problems.

The QCM shall also have the responsibility of documenting the established Quality Assurance / Quality Control Programs in a manner that strives to comply with applicable Quality Systems. The ultimate objective of this company's QA/QC program is to comply fully or surpass the quality standards established by applicable Quality System.

Project Managers are responsible for their assigned project's QA/QC activities. They may delegate the performance of their assigned duties to qualified individuals, but they shall retain full responsibility for completing their projects in strict accordance with established quality control policies and the client's specifications.

The quality of all subcontractors and vendors shall be the joint responsibility of the QCM and the applicable Project Manager.

All projects will be executed in a manner that emphasizes safety, quality, schedule and maximum cost effectiveness.

Any commitment, conflicts, or non-conformance issues not resolved using current established Quality Assurance / Quality Control Procedures shall be brought to the attention of the under signed for final resolution.

## Section 2

**MANAGEMENT**

**RESPONSIBILITY**

# MANAGEMENT RESPONSIBILITY

## 2.1 RESPONSIBILITY:

Management has the responsibility to define and document its policy and objectives for, and commitment to, quality. Management will ensure that its policy is understood, implemented, and maintained at all levels of the organization.

All employees have the responsibility and authority for implementation of established QA/QC activities.

Resolution of conflicts in QA/QC policies shall flow through the organizational chain of command as follows:

1. Field Employees
2. Craft Leaders
3. General Foreman
4. Field Engineer
5. Field Manager
6. Project QA/QC Manager
7. Project Manager
8. Quality Control Manager
9. President

It is the responsibility of any employee that manages, performs, or verifies work affecting quality to:

- a. Initiate action to prevent the occurrence of work or service nonconformity;
- b. Identify and record any quality problems;
- c. Initiate, recommend, or provide solutions through designated channels;
- d. Verify the implementation of solutions;
- e. Control further processing, delivery, or installation of non-conforming work until the deficiency or unsatisfactory condition has been corrected.

## 2.2 ALLOCATION OF RESOURCES AND PERSONNEL:

Management shall identify in-house requirements and provide adequate resources and trained personnel as needed to support required QA/QC verification activities. Verification activities shall include inspection, testing and monitoring of the construction / Installation processes and audits of the quality systems. These activities shall be carried out by personnel independent of those having direct responsibility for the project being executed.

### **2.3 MANAGEMENT REVIEW:**

The established QA/QC policies and procedures shall be reviewed at appropriate intervals by management to ensure continuing suitability and effectiveness. These reviews will include assessment of the results of internal audits and shall assess overall conformance to client's requirements and expectations. Records of such reviews and audits shall be maintained.

## Section 3

# QUALITY SYSTEMS



# QUALITY SYSTEMS

**GRAND CONTRACTING & SUPPLIES COMPANY** staff has established and shall maintain and document this QA/QC system as a means of ensuring that the services we provide our clients conform to specified requirements.

This QA/QC system shall include:

- a) Documented quality system procedures and instructions to ensure that all activities are performed in accordance with established requirements;
- b) Effective management support to ensure compliance and the use of the QA/QC procedures and instructions.

All employees of **GRAND CONTRACTING & SUPPLIES COMPANY** shall strive to improve the quality of our services to our clients. The QA/QC program is a process of continuous improvement which requires input from everyone in our organization. Everyone in our organization shall comply and endeavor to improve the process where possible.

An effective QA/QC program consists of the following key components:

- a) Established QA/QC procedures and instructions that comply with generally accepted industry standards, and Local regulating authorities, and the project specifications and standards established by the client;
- b) The identification and timely issuance to the project team any required controls, processes, inspection equipment, fixtures, tools, materials and labor skills needed to properly execute the project;
- c) Updating, as necessary, of quality control, inspection, and testing techniques, including the development of new methods and procedures;
- d) Identification of any commitments made which exceeds available resources in sufficient time to properly acquire the required resources;
- e) Clarification of the standards of acceptability as required to support the overall QA/QC program and our client's objectives;
- f) Review of the project process, construction, installation, inspection, and test procedures to ensure that applicable documentation reflects how activities are actually performed;

- g) Effective maintenance of quality records to document and track performance and improvement.

The QA/QC manual is not a controlled document. A copy is available to all employees through their immediate supervisor. **The QA/QC manual is designed to convey basic QA/QC procedures and instructions that must be followed by all employees and subcontractors of GRAND CONTRACTING & SUPPLIES COMPANY.**

Specific QA/QC procedures and instructions for individual activities are maintained by the QCM and issued to Project Managers as controlled documents. It is the Project Manager's responsibility to ensure specific activity QA/QC procedures and instructions are conveyed to the individuals or subcontractors performing the specified activities.

## Section 4

# PROJECT REVIEW

AND

SETUP

# PROJECT REVIEW and SETUP

## 4.1 PROPOSAL SUBMISSION AND RESPONSIBILITY ASSIGNMENT:

Upon receipt of a Request for Proposal (RFQ) from a client, management will review the requirements of the RFQ and determine if a proposal will be submitted to perform the work. If management decides to submit a proposal for the work, a Project Manager is assigned the responsibility of generating the proposal to perform the work. The proposal must include all costs related to completing the work in accordance with the client's specifications.

## 4.2 RFQ and CONTRACTUAL REVIEW:

The Project Manager shall review the contract documents contained in the RFQ and establish and maintain procedures to ensure that:

- a) The requirements and acceptance specifications of the client are adequately defined and documented;
- b) Any requirements differing from those included in the proposal are resolved or clarified in the proposal;
- c) That **GRAND CONTRACTING & SUPPLIES COMPANY** has the capability to meet all contractual requirements of the RFQ and any ensuing contract;
- d) Records of such contract reviews shall be maintained for future reference.

The RFQ and contract review activities, interfaces, and communication shall be coordinated with the client as required to clarify all issues and to ensure that the responsibilities of both parties are well defined and documented.

## 4.3 PROPOSAL PREPARATION:

The Project Manager shall set up the project structure as the proposal for the work is generated. It is the responsibility of the Project Manager to ensure that all costs related to executing the work in accordance with established QA/QC procedures and the contract requirements are included.

The process of identifying all material and contractor requirements shall be in accordance with established QA/QC procedures. Proper sourcing during the proposal stage will make actual purchasing and contracting activities much more efficient after award of the work.

Once all costs have been identified and an execution/staffing plan has been developed, the Project Manager shall schedule a meeting with management to review the proposal's risks and contingencies. Final decisions concerning proposal pricing and clarifications shall be management's responsibility.

#### **4.4 PROJECT SETUP:**

Upon award, the Project Manager shall immediately setup the project in accordance with the execution and staffing plan established during the proposal. All key staff members shall be notified and sent as much information concerning their responsibilities to the project as soon as possible.

The Project Manager shall develop a project QA/QC file containing the basic QA/QC manual and all related specific activities' QA/QC procedures and instructions. The project QA/QC manual shall be reviewed and approved by the QCM.

## Section 5

# DOCUMENT CONTROL

# DOCUMENT CONTROL

## 5.1 CONTROL OF QA/QC MANUALS, PROCEDURES and INSTRUCTIONS:

Specific QA/QC procedures and instructions for individual activities are maintained by the QCM and issued to Project Managers as controlled documents. It is the Project Manager's responsibility to ensure specific activity QA/QC procedures and instructions are conveyed to the individuals or subcontractors performing the specific activities.

Revisions to the QA/QC documents shall be by section and approved for adequacy by authorized personnel prior to issue. A revised table of contents indicating the newly issued approved and accepted revision shall accompany the revised sections. In the case of sample forms a revised "Listing of Exhibits" shall indicate the latest exhibit revisions.

The QCM shall ensure that:

- a) All pertinent issues of appropriate QA/QC documents are available at all locations where operations essential to the effective functioning of the quality system are performed;
- b) All obsolete documents are promptly removed from all points of issue or use.

A master list or equivalent document control procedure shall be established to identify the current revision of documents in order to preclude the use of non-applicable documents. Documents shall be re-issued after a practical number of changes have been made.

## 5.2 CONTROL OF PROJECT RELATED DOCUMENTS:

Upon award, each project is assigned a project number and the Project Manager establishes a "Project Job File". This file shall contain a complete set of all project related contract documents, specifications, drawings, etc. All information generated during the life of the project shall be maintained in this job file.

A listing shall be made of all drawings, specifications, vendor data, etc. that are to be submitted to the client for review and approval. A copy of all documents returned by the client approved, or approved as noted, shall be maintained in the job file.

Any revisions to the contract documents shall be date stamped on the date received and reviewed by the Project Manager for any possible impact to the project. All changes after contract award shall be properly documented and any associated addition or deduction to the contract price shall be immediately identified and submitted to the client for review and approval.

A complete set of all documents required for proper execution of the work shall be maintained at the project site. Any revisions received shall be immediately forwarded to the project site for use while executing the project. Any field changes to the work shall be properly noted on the project site set of the drawings. The project site set of the drawings shall show the work exactly as the work was built. (Hereinafter referred to as the "As-Built" set of drawings.).



## Section 6

**PURCHASING**

**AND**

**MATERIAL CONTROL**

# PURCHASING and MATERIAL CONTROL

## 6.1 GENERAL PURCHASING REQUIREMENTS:

The Project Manager has the overall responsibility to ensure that all materials and services purchased are in accordance with the established QA/QC procedures, the project specifications, and drawings.

## 6.2 MAINTENANCE OF PURCHASING DATA:

All purchasing documents shall contain data clearly describing the material or service ordered, including, where applicable:

- a) The type, class, style, grade, or other precise identification of items purchased;
- b) The title or other positive identification, and applicable issue dates of specifications, drawings, process requirements, inspection instructions, and other relevant technical data, including requirements for approval or qualification of product, procedures, process equipment, and personnel;
- c) The title, number, and issue of the quality system standard to be applied to the product.

## Section 7

**MATERIAL CERTIFICATION**

**AND**

**TRACEABILITY**

# MATERIAL CERTIFICATION and TRACEABILITY

## 7.1 CLIENT SUPPLIED MATERIALS and EQUIPMENT:

The Project Manager shall ensure that all materials and equipment furnished by the client are verified, stored, and maintained until incorporation into the work. Any such items that are damaged or otherwise unsuitable for use shall be recorded and reported to the client immediately. Proper notification to the client of receipt of any unusable materials or equipment must be made in order to ensure that the client retains the responsibility for providing useable materials or equipment.

## 7.2 PRODUCT IDENTIFICATION AND TRACEABILITY:

Where appropriate, the Project Manager shall establish and maintain procedures for identifying materials and equipment from applicable drawings, specifications, or other documents, during all stages of production, delivery, and installation.

Where, and to the extent that, traceability is a specified requirement of the contract, individual products or product batches shall have a unique identification. This identification shall be recorded in the Job File and issued to the client with specified "As- Built" data.

## Section 8

# PROCESS CONTROLS

# PROCESS CONTROLS

## 8.1 MANAGEMENT OF PROCESS CONTROLS:

During project setup the Project Manager develops the project QA/QC plan covering all construction activities and applicable processes which directly affect quality. The Project Manager shall ensure that these processes are carried out under controlled conditions.

The controlled conditions shall include the following:

- a) Documented work instructions defining the manner of executing the work to ensure that an acceptable level of quality is maintained at all times. The instructions shall also specify equipment, materials, skills and working environments required to comply with applicable standards, codes, and quality plans;
- b) Monitoring and control of suitable process and work characteristics during execution of the work;
- c) Clear identification of the required approval of processes;
- d) Criteria for workmanship which shall be stipulated, to the greatest practicable extent, in written standards or by means of representative samples.

## 8.2 SPECIFIC ACTIVITY PROCESS CONTROLS:

Specific Activity Process Controls are for activities where the results cannot be fully verified by subsequent inspection and testing. Accordingly, continuous monitoring and / or compliance with documented procedures are required to ensure that the specified requirements are met.

Management shall continue review of established QA/QC procedures to ensure ongoing suitability and effectiveness. As the need for new activity QA/QC process procedures is identified they will be created and implemented. Records shall be maintained for qualified processes, equipment, and personnel, as appropriate.

The following Specific Activity QA/QC Procedures shall be followed when performing applicable activities:

- a. Business Acquisition, Estimating and Proposal Preparation
- b. Purchasing, Material Control and Subcontracting
- c. Project Management and Cost\Document Control
- d. Field Test Reports Piping QA/QC form
- e. Columns, Structures & Vessels QA/QC form
- f. Compressor, Blowers, And Fans QA/QC form

- g. TANKAGE QA/QC form
- h. Pumps & Vacuum Equipment QA/QC form
- i. Mechanical & Electric Equipment alignment and installation QA/QC form
- j. Fabrication & installation overall check, Dimension, & measuring QA/QC form
- k. NDT QA/QC form
- l. concrete pour approval QA/QC form
- m. Equipment grout release QA/QC form
- n. painting Applying DFT QA/QC form
- o. Final release check list QA/QC form

## Section 9

# INSPECTION & TESTING



# INSPECTION and TESTING

## 9.1 INSPECTION AND TESTING OF PURCHASED MATERIALS AND EQUIPMENT:

All materials and equipment shall be inspected and tested to ensure conformance with the project requirements before it is released for use. Verification that all items conform to specified requirements of the quality plan shall be documented and filed in the project QA/QC file. In determining the amount and nature of inspections, consideration should be given to the control exercised at the manufacturing source and documented evidence of quality conformance provided from the supplier.

Where incoming materials are released for urgent construction purposes, it shall be positively identified and recorded in order to permit immediate recall and replacement in the event of nonconformance to specified requirements.

## 9.2 INSPECTION AND TESTING DURING CONSTRUCTION:

During actual construction of a project, the Project Manager shall ensure that:

- a) All inspection and testing activities are performed in accordance with the quality plan and documented procedures;
- b) Ensure specification and drawing conformance by the use of established process monitoring and control methods;
- c) Ensure that all required inspections and tests have been completed and necessary reports have been received and verified before the finished work is released to the client.
- d) Identify and correct any nonconforming work.

## 9.3 FINAL INSPECTION AND TESTING:

The quality plan or documented procedures for final inspection and testing require that all specified inspection and tests, including those specified either by established quality procedures or the client, are carried out and that the work meets specified requirements.

The Project Manager shall ensure that all final inspections and testing activities are in accordance with the quality plan and documented procedures. Upon completion, all associated data and documentation shall be properly filed in the project QA/QC file and submitted to the client as required.

#### **9.4 INSPECTION AND TEST RECORDS:**

The Project Manager shall ensure that all records which give evidence that the work has passed specified inspection and / or testing acceptance criteria are maintained in the project QA/QC file for future reference.

#### **9.5 INSPECTION AND TEST STATUS:**

The inspection and test status of the work shall be identified by using markings, authorized stamps, tags, labels, routing cards, inspection records, test software, physical location, or other suitable means, which indicate the conformance or nonconformance of work with regard to inspections and tests performed. The identification of inspection and test status shall be maintained, as necessary, throughout the project to ensure that all work has passed the required inspections and testing specified.

Records shall identify the inspection authority responsible for the release of conforming work.

## Section 10

# INSPECTION, MEASURING AND TEST EQUIPMENT

# INSPECTION, MEASURING, and TEST EQUIPMENT

The QCM shall ensure that all inspection, measuring, and test equipment is controlled, calibrated, and maintained, whether owned by **GRAND CONTRACTING & SUPPLIES COMPANY** on loan, or provided by the client. Equipment shall be used in a manner which ensures that measurement uncertainty is known and is consistent with the required measurement capability.

The QCM shall:

- a) Identify the measurements to be made, the accuracy required, and select the appropriate inspection, measuring, and test equipment.
- b) Identify, calibrate, and adjust all inspection, measuring, and test equipment and devices that can affect work quality at set intervals to ensure that certified equipment having a known valid relationship to nationally recognized standards - where no such standards exist, the basis used for calibration shall be documented.

## Section 11

# CONTROL OF NONCONFORMING ACTIONS AND CORRECTIVE ACTIONS

## NONCONFORMING ITEMS

1. Non-conforming items are those conditions that deviate from the requirements detailed in the specifications, plans and /or shop drawings. The Quality Control Manager is responsible for the control and documentation of non-conforming items.
2. The Quality Control Manager prevents non-conforming items from being installed.
3. Minor non-conforming items, which are corrected in the same day, are documented in the Contractor's "Weekly Report."
4. All other non-conformances are documented on a Non-Conformance Report prepared by the Quality Control Manager, sequentially numbered and dated and include the following information, as appropriate:
  - a. Description of the non-conformance including relevant details of the occurrence.
  - b. Identification of material, component or system by part number, plan, shop drawing and/or specification number and intended installation location.
  - c. Source of material or item (name of supplier, owner or subcontractor).
  - d. Current status or item in shop, warehouse, lay-down yard or structure.
  - e. Individual and organization which detected the non-conformance.
  - f. Recommendation for corrective action including sketches, test data and/or repair procedures necessary to substantiate the recommendation.
  - g. Cause of the non-conformance and steps taken to prevent reoccurrence indicating action(s) taken, positions or titles of persons contacted, letters written and/or procedural changes proposed.
5. The Quality Control Manager signs and forwards the Non-Conformance Report to MSDGC Document Control.
6. Each Non-Conformance Report is recorded on the Non-Conformance Report Log by the Quality Control Manager.
7. Actions to be taken are entered on the Non-Conformance Report Log. The Engineer of Record initiates the disposition(s) necessary to clear the item.
8. Verification of "Corrective Action" (eg, completion of repair) by Quality Control after the work in question has been re-inspected and re-tested. Entries are made in the Non-Conformance Report (NCR) log documenting the Final Disposition of each NCR.
9. Non-Conformance Reports, logs and documents are filed and maintained. Reports and Records are submitted to MSDGC Document Control.

## INITIAL PUNCH LIST

The QC Report reports Punch List items (deficiencies) throughout the life of the project and demonstrates that the QC Staff is correcting the deficiency(ies) in a timely manner. **An Initial Punch List is developed as a result of initial inspections and then maintained throughout the life of the project. The Punch List is consistently updated and submitted to the Project Manager for corrective actions. Corrections are**

accomplished within the time stated. The QC Manager performs Follow-Up Inspections to ensure the deficiencies have been corrected before notifying MSDGC of a Pre-Final Inspection.

## PRE-FINAL INSPECTION

After the completion of the Initial Punch List Inspection, the Quality Control Manager and CLIENT Representative conduct a Pre-Final Inspection and develop a joint “Punch List” of noted deficiencies. The Punch List is formally documented along with the estimated date by which the deficiencies will be corrected. The Quality Control Manager conducts Follow-Up Inspections to ensure that all deficiencies have been corrected before requesting a Final Inspection by CLIENT.

## FINAL INSPECTION

Upon completion of the items listed in the Pre-Final Inspection “Punch List,” the QC Manager notifies CLIENT 5 days prior to the Final Inspection (or as agreed to) with the assurance that all items listed in the Pre-Final Inspection and all other remaining work has been completed and will be acceptable by the date of the Final Inspection.

## Section 12

# SUBMITTALS



# SUBMITTALS

All submittals shall be reviewed, certified and managed by the Quality Control Manager. Copies of the manufacturers' data (material, equipment, etc.), including catalogue cut-sheets showing dimensions, performance characteristics, capacities, wiring diagrams, schedules, operation and maintenance manuals and any other relevant information are reviewed by the Quality Control Manager. The Quality Control Manager is an authorized submittal reviewer and testing lab report reviewer. One (1) copy of the submittal remains with the Contractor and one (1) copy is retained by CLAINT Document Control.

## Filing of Submittals

Submittals (material, design, data, samples, shop drawings, etc) are filed according to the specification section and paragraph number in a secure place for reference and coordination. Color and mock-up samples are maintained in a secure place at the job site for comparison with the finished product. A tag or sticker identifying the submittal number and the date of approval is attached to the sample. When a color or mock-up sample is not approved, it is labeled as "Rejected" and removed from the job site (if requested). The record is maintained along with a photograph of the disapproved item *with a copy submitted to* CLAINT Document Control.

## SUBMITTAL REGISTER

The Submittal Register is maintained by the Project Manager. Revised copies of the Submittal Register are provided to CLAINT Document Control on a monthly basis.

# QUALITY CONTROL MANAGER REVIEW AND APPROVAL

Prior to submittal, all items are checked and approved by the Quality Control Manager. If found to be in strict conformance with the contract requirements, each item is stamped, signed and dated by the Quality Control Manager. Copies of review comments indicating action(s) taken are included within each submittal.

## QUALITY CONTROL MANAGER GUIDELINES FOR PREPARING AND REVIEWING SUBMITTALS

1. Be familiar with the submittal procedures.
2. Review all of the information attached to the submittal.
3. Ensure that all of the pages associated with the enclosures are attached to the submittal.
4. Thoroughly review the applicable design documents.
5. Ensure the attachments are legible.
6. Direct all questions to the Project Manager.
7. Submit a detailed written report pertaining to the review of the submittal in a timely manner to the Project Manager.
8. Ensure that the sample received and/or material received complies with the submittal.
9. Notify the Project Manager if material is installed without a submittal; then request a submittal.
10. Maintain and file submittals so they are readily retrievable.

# STAMPS

Stamps are used by the Contractor to certify the submittal meets contract requirements and are similar to the following:

Contractor (Firm Name): \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Number: \_\_\_\_\_

I certify that this submittal is accurate, is in strict conformance with all contract requirements, has been thoroughly coordinated and cross-checked against all other applicable disciplines to prevent the omission of vital information, that all conflicts have been resolved, that repetition has been avoided, and that it is complete and in sufficient detail to allow ready determination of compliance with contract requirements by the Contracting Officer.

Printed Name of the Quality Control Manager: \_\_\_\_\_

Signature of the Quality Control Manager: \_\_\_\_\_

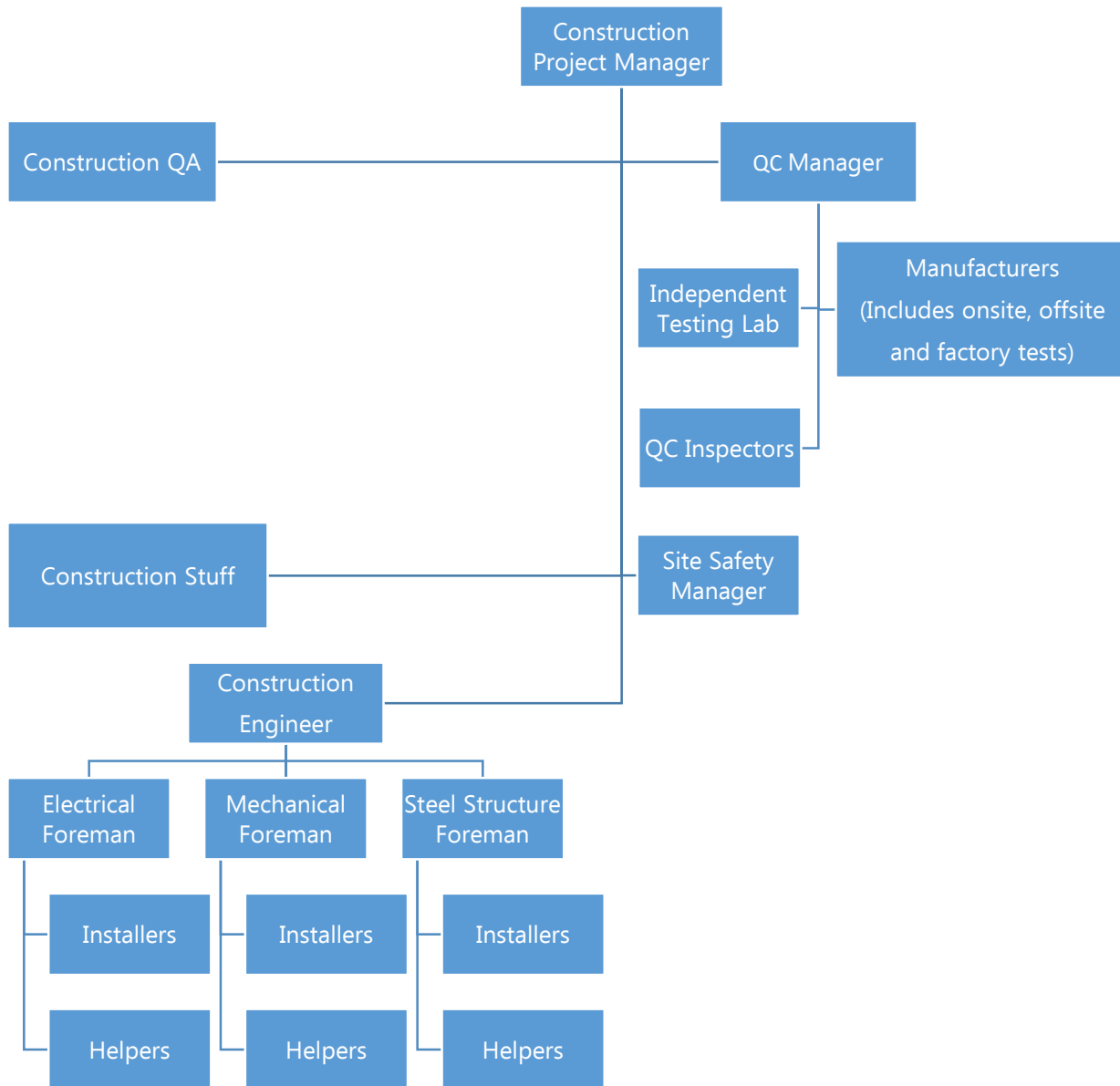
Date: \_\_\_\_\_

## Section 13

# ORGANIZATION CHART

# Organizational Chart

This is a recommended organizational chart. It may be modified provided the responsibilities are covered in the positions presented.



## Section 14

## FORMS

# Quality Control Manager Responsibility Form

The Quality Control (QC) Manager, \_\_\_\_\_, is responsible for overseeing the overall implementation of the Quality Control Plan and coordinates all project testing, inspections and reporting matters directly with the Project Manager. The QC Manager has the authority to intercede directly and stop unsatisfactory work and control further processing, delivery or installation of non-conforming material.

**Duties:**

- Preparation, approval and implementation of the CQC Plan
- Verification of materials as per project plans and specifications
- Development of means and methods to store and protect materials
- Maintain documentation of inspection status of materials
- Maintain documentation for material and administrative approvals
- Ensure that all materials and construction are in accordance with the requirements for the completeness, accuracy and constructability in accordance with applicable building codes
- Carry out and participate in weekly progress and QC meetings
- Maintain documentation of inspection of work executed by subcontractors

## CQCR (weekly)

<b>CONTRACTOR'S QUALITY CONTROL REPORT (CQCR)</b> <b>WEEKLY LOG OF CONSTRUCTION</b>	Report Number: Page <u>1</u> of <u>2</u>
	Date:
Project Name:	Project Number:
Contractor:	Weather:
1 – Were there any delays in work progress? Response:	
2 – Verbal instructions given by MSDGC: Response:	
3 – Did anything develop that may lead to a change order/claim? Response:	
4 – Activities in process: Response:	
5 – General comments: Response:	
6 – Safety Inspection/Safety Meetings: Response:	
7 – Prep/Initial Dates (Preparatory and initial dates held and advance notice) Response:	



<b>CONTRACTOR'S QUALITY CONTROL REPORT (CQCR)</b> <b>WEEKLY LOG OF CONSTRUCTION</b>	Report Number: Page <u>2</u> of <u>2</u>
	Date:
Project Name:	Project Number:
Activity Start/Finish:	
QC Requirements:	
QA/QC Punch List:	
Contractors/Visitors on Site:	
Equipment Hours (Total Operating Hours to Date):	
Accident Reporting (Describe Accident):	

# NCR

Non-Conformance Report			
<Project Name>			<Project Number>
Structural <input type="checkbox"/>	Mechanical <input type="checkbox"/>	Electrical <input type="checkbox"/>	Civil <input type="checkbox"/>
Date:	Location:	Spec. Section:	Spec. Paragraph:
Non-Conforming Condition:			
Reported By (Quality Control Representative):			Date:
Disposition:			
Dispositioned By (Project Engineer):			Date:
Re-Inspected By (Quality Control Representative):			Date:
Accepted By (Quality Control Manager):			Date:





# MEETING CHECK LIST

Preparatory Meeting Checklist			
Project Name:		Project Number:	
Date:	Sheet:	Spec. Section:	Page: <u>1</u> of <u>3</u>

<b>PERSONNEL PRESENT</b>	CLAIMT Representative Notified? YES <input type="checkbox"/> NO <input type="checkbox"/>		Hours in Advance
	<b>Name</b>	<b>Position</b>	<b>Company/Government</b>
<b>SUBMITTALS</b>	Review submittals and/or submittal register. Have all submittals been approved? YES <input type="checkbox"/> NO <input type="checkbox"/>		
	If no, what items have not been submitted?		
	Are all materials on hand? YES <input type="checkbox"/> NO <input type="checkbox"/>		
	If no, what items are missing?		
<b>MATERIAL STORAGE</b>	Check approved submittals against delivered material. (This should be done as material arrives)		
	Comments:		

<b>Preparatory Meeting Checklist</b>			
<b>Project Name:</b>		<b>Project Number:</b>	
<b>Date:</b>	<b>Sheet:</b>	<b>Spec. Section:</b>	<b>Page: <u>2</u> of <u>3</u></b>

<b>SPECIFICATIONS</b>	Review each paragraph of specifications.
	Discuss procedure for accomplishing the work.
	Clarify any differences.
<b>PRELIMINARY WORK &amp; PERMITS</b>	Ensure preliminary work is correct and permits area on file.
	If no, what action is taken?
<b>TESTING</b>	Identify test to be performed, frequency and by whom.
	When required?
	Review testing plan.
	Have test facilities been approved?

<b>Preparatory Meeting Checklist</b>			
Project Name:		Project Number:	
Date:	Sheet:	Spec. Section:	Page: <u>3</u> of <u>3</u>

<b>SAFETY</b>	Site Safety Plan Approved? YES <input type="checkbox"/> NO <input type="checkbox"/>	
	Review Site Safety Plan:	
<b>MEETING COMMENTS</b>	Comments during meeting:	
<b>WORKSHEETS</b>	Worksheets:	
<b>OTHER ITEMS OR REMARKS</b>	Other items or remarks:	
Reported By:	Reviewed By:	Reviewed By:
(Quality Control Inspector)	(Quality Control Manager)	(CLAINT QA Representative)

# INSPECTION CHECK LIST

Initial Inspection Checklist			
Project Name:		Project Number:	
Date:	Sheet:	Spec. Section:	Page: ___ of ___

No.	Item	Yes	No	N/A
1	Was the production foreman present?			
2	Material			
	a) Were materials inspected for compliance?			
	b) Were corrective actions taken for defective material?			
	c) Were corrective actions appropriate?			
	d) Were any deviations accepted?			
3	Installation Requirements			
	a) Did work comply with specifications or plans?			
	b) Was workmanship satisfactory?			
	c) Were corrective actions appropriate?			
	d) Were any deviations accepted?			
4	Tests			
	a) Were tests being performed?			
	b) Was testing frequency satisfactory?			
	c) Were test samples or locations appropriate?			
	d) Was testing quality coordinated with Mechanical/Electrical technicians?			
5	Inspections			
	a) Was inspection done by the QC Inspector in the Prep. meeting?			
	b) Was the inspection frequency as established in the Prep. Meeting?			
	c) Were critical inspections satisfactory?			
	d) Was the inspection satisfactory?			
6	Safety			
	a) Was the safety officer present?			
	b) Were the safety requirements followed?			
	c) Were the safety requirements modified?			

Remarks (explanations required for "No" responses and if deviations were accepted):

Reported By:  (Quality Control Inspector)	Reviewed By:  (Quality Control Manager)	Reviewed By:  (Quality Assurance Representative)
---	---	--



# MRR

## Receiving Material Inspection Report

Project Name:

Project Number:

Date Received:

Order Number:

Date Inspected:

Inspected By:

Ref No.	Item Description	Quantity	Partial or Full?	Okay or Damaged?	Special Storage?

Remarks (explanations required for partial and damaged material):

# IR

## INSPECTION REQUEST

<b>PROJECT:</b>		<b>IR No.</b>
<b>Construction Activity</b>		
<b>Location</b>		
<b>Drawing No</b>		
The following work has been completed		
And will be ready for inspection as form : _____ (am/pm) on date / /		
We wish to execute the next operation, namely :		
At _____ [am/pm] on date _____		
<b>Checked by:</b>	<b>Sign :</b>	<b>Date : / /</b>
<small>(Reserved for the Engineer)</small>		
<b>Checked by:</b>	<b>Sign :</b>	<b>Date : / /</b>
<b>Comments</b>		<b>Date: / /</b>
Having inspected the above work, you are authorized to proceed with the next operation subject to the comments:		
<b>Checked by:</b>		
<b>Name</b>	<b>Sign:</b>	<b>Date:</b>

# CQCR (Daily)

<b>CONTRACTORS QUALITY CONTROL REPORT (QCR). DAILY LOG OF CONSTRUCTION</b>		<b>REPORT NO/</b>
<b>PROJECT NAME/</b>		<b>DATE / /</b> <span style="float: right; font-size: small;">page 1 of 2</span>
<b>CONTRACTOR/</b>		<b>CONTRACT NO</b>
<b>WEATHER CONDITION:</b>		
<b>Activities in progress:</b> ----- ----- ----- -----		
<b>Material Delivered:</b> ----- ----- -----		
<b>General comments:</b> ----- -----		
<b>Prep Meeting:</b> ----- -----		
<b>Initial Inspection:</b> ----- -----		
<b>Safety Inspection/Safety Meeting:</b> ----- -----		
<b>Hold Activities/Reasons:</b> ----- ----- -----		
<b>Activity start/finish:</b> <b>This following activity was started today:</b> <b>Activity No:</b> <b>Description:</b> ----- ----- ----- -----  <b>This following activity was finished today:</b> <b>Activity No:</b> <b>Description:</b> ----- ----- ----- -----		
<b>Qc Requirements:</b> -----		

<b>CONTRACTORS QUALITY CONTROL REPORT (QCR). DAILY LOG OF CONSTRUCTION</b>		<b>REPORT NO/</b>																					
		<b>DATE / /</b> <span style="float: right;">page 2 of 2</span>																					
<b>PROJECT NAME/</b>		<b>CONTRACT NO</b>																					
<p><b>LABOR HOURS:</b> The following labor hours were reported today:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Employer</th> <th style="width: 25%;">Labor Classification</th> <th style="width: 25%;">No. of Employees</th> <th style="width: 25%;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>-----</td> <td>-----</td> <td>-----</td> <td>-----</td> </tr> <tr> <td>-----</td> <td>-----</td> <td>-----</td> <td>-----</td> </tr> <tr> <td>-----</td> <td>-----</td> <td>-----</td> <td>-----</td> </tr> <tr> <td colspan="2">Total hours worked to date</td> <td>Total -----</td> <td>-----</td> </tr> </tbody> </table>				Employer	Labor Classification	No. of Employees	Hours Worked	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Total hours worked to date		Total -----	-----
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Total hours worked to date		Total -----	-----																				
<p><b>EQUIPMENT HOURS:</b> The following Equipment hours were reported today:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Serial No</th> <th style="width: 25%;">Description</th> <th style="width: 25%;">Ideal Hours</th> <th style="width: 25%;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>-----</td> <td>-----</td> <td>-----</td> <td>-----</td> </tr> <tr> <td>-----</td> <td>-----</td> <td>-----</td> <td>-----</td> </tr> <tr> <td colspan="2">Total operating hours to date</td> <td>Total -----</td> <td>-----</td> </tr> </tbody> </table>				Serial No	Description	Ideal Hours	Operating Hours	-----	-----	-----	-----	-----	-----	-----	-----	Total operating hours to date		Total -----	-----				
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Total operating hours to date		Total -----	-----																				
<p><b>ACCIDENT REPORTING:</b> (Describe accidents)</p> <p>-----</p> <p>-----</p> <p>-----</p>																							
<p><b>CONTRACTOR CERTIFICATION:</b> On behalf of contractor, I certify that this report is complete and correct and all equipment and material used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</p>																							
QC Signature:	DATE: / /	PRJ MNG Signature:	DATE: / /																				

## Section 15

**GENERAL**

**AND**

**SPECIFIC POINTS**

### **15.1 Shop Drawings:**

**GRAND** QCM & AC will utilize the following Quality Control checklist for shop drawings  
The QCM & AC shall:

1. Prepare submittal register for plans, and specifications. Check submittal register for inclusion of all shop drawings required including layouts of equipment, equipment rooms, etc.
2. Ensure that the QCM enters data onto the submittal register and submits it to the Quality Control Officer. Compare this submittal with the checklist.
3. Ensure that the QCM periodically updates the submittal register
4. Make continual checks of the submittal register to avoid untimely and omitted submittals so as to avoid delay of constructions.
5. Compare the shop drawings to the contract requirements and report apparent differences to the Design Office Manager and Project Manager (Approved shop drawings do not constitute a waiver of a contract requirement.)
6. Make sure each detail on the shop drawings is clearly understood by the constructions contract requirements.
7. Ensure that the QCM makes note on his submittal of items that deviate from contract requirements.
8. Check materials being installed against the approved shop drawing. (if the construction stuff installs unapproved material, inform him in writing that the material, if not subsequently approved, will be removed at this expense.)

### **15.2 Storage of the materials:**

1. Ensure that adequate space is available for the contractor's operations and storage areas,
2. Ensure that approval has been obtained for temporary sheds, buildings, etc. which the contractor proposes to install.
3. Ensure that materials and equipment's are properly stored and protected.
4. Ensure that safety requirements, especially in the storage of flammable or explosive materials, are adhered to.
5. Ensure temporary structures are secured against wind damage.
6. Ensure the necessary heating and ventilating systems are provided.

### 15.3 Payment Estimates:

GRAND checklist for payment estimates:

1. Confirm specifications for method of measurement and payment for each item of work to be accomplished.
2. Be familiar with schedules of prices and methods of measurement and payment.
3. Assist in preparation of partial pay estimates.
  - Make timely measurements of work completed and work accomplished each pay period.
  - Keep orderly, neat and accurate records of measurements.
4. Checklist material on hand for which payment is being made for:
  - Fair market value of materials;
  - Conformance with contract requirements (see submittal)
  - Proper storage and protection; and
  - Reduction in quantity by amount of material placed in the work.
5. Be alert to all increases or decreases in quantity of work shown on the unit price schedules.
  - Make as accurate an estimate as possible of variations in quantities.
  - Report these variations in quantities promptly to the supervisor.

### 15.4 Design Team Quality Control Assurance:

The Design Team is responsible for Quality Assurance, which they provide through the services. The purpose and goals of Quality Assurance services is to verify and ensure that levels of workmanship and quality of materials stipulated in contract specifications are met for each building project by the GRAND Quality Control Plan is being satisfactorily followed on site by the appointed construction staff.

### 15.5 Responsibilities and Authorities of Key Personnel:

Key personnel involved in the project and their Quality Control roles and responsibilities are described below in Section Since personnel assignments are subject to change over time, the GRAND Project Manager will maintain Quality Control Staffing List of personnel assignments including the description of each position, along with information on the responsible organization. When personnel changes occur, GRAND PM will revise the Quality Control Staffing List accordingly.

### 15.5.1 GRAND Quality Control Personnel:

The following key quality control personnel will be identified prior to the start of any construction works. A list of all quality control personnel will be provided to the (*Authority*), including the following details for each personnel: name, main responsibilities, qualifications and years of work experience in the same field.

#### A. GRAND Project Manager

GRAND Project Manager is the primary point of contact for (*Authority*) on all construction management issues. The Project Manager is responsible for the overall management of activities related to the construction program, including the implementation of the Quality Control Plan and the health and safety program. As such, the Project Manager will exercise approval authority over contract submittals including the Quality Control Plan.

#### B. GRAND Site Monitoring Engineer

GRAND Site Monitoring Engineers manage the field implementation of the Quality Control Plan at the project sites under control of Quality Control Manager. GRAND Site Monitoring Engineers will monitor the day-to-day activities of the construction staff. This includes ensuring that sites comply with the plans and specifications, applicable construction codes, good workmanship, and the Quality Control requirements of the contract.

As part of this effort, GRAND Site Monitoring Engineers will:

- Conduct independent inspections to verify the quality of the work;
- Review test and inspection reports; and
- Ensure that the required documentation is submitted.

GRAND Site Monitoring Engineers shall be alert to detecting, recording, and reporting any deviation from the contract documents, including calling any deficient item to the attention of the site manager, and/or other representative. GRAND Site Monitoring Engineers shall keep accurate and detailed records of the construction staff performance and progress, delivery of materials, and other pertinent matters, including the daily inspection report.

#### C. GRAND Quality Control Manager

The GRAND Quality Control Manager is consultant engaged by GRAND. The Quality Control Manager shall have a minimum of three years' experience in related construction and prior Quality Control experience on a project of comparable size and scope to this project.

The Quality Control Manager reports directly to the Project Manager. The Quality Control Manager will have full authority delegated by the Engineer and GRAND to institute actions necessary for the successful implementation of the QC program to ensure compliance with the contract plans and technical specifications (including stop-work authority). The Quality Control Manager is assigned to the program full time.



The Quality Control Manager works with Project Manager to administer and implement the Quality Control Plan. This includes controlling this Quality Control Plan, making revisions as necessary, and implementing systematic actions to ensure compliance with the plan. The Quality Control Manager coordinates oversees the Site Monitoring Engineers to ensure that inspection staff, third party inspection and testing carry out the requirements of the Quality Control Plan.

The Quality Control Manager Tracks and reports non-conformances to the Project Manager. Reviewing and inspection results. Ensuring that Quality Control personnel conducting inspections, including Site Monitoring Engineers, are adequately trained and understand assignment limits and time frames.

## **Section 16**

**ENVIROMENTAL**

**AND**

**PROTECTION PLAN**

# Environmental Protection Plan

Environmental Protection Plan (EPP) outlines the steps that contractor will follow to minimize any adverse impact upon the environment in accordance with client requirements for the implementation of this project to realizes that there are threats to the environment from the project operations that must be eliminated or minimized. It is the contractor intention to spare no effort to prevent environmental pollution during and as a result of construction operations under this contract. Contractor will comply with all local, regional government laws, rules, regulations or standards concerning environmental pollution control, abatement and all applicable provisions of the Safety.

Contractor will respond immediately to all inquiries and / or notifications made by any of the EGYPT authorities or by the Client representatives. This plan is focused on environmental pollution due to the presence of chemical, physical, or biological elements, which can adversely affect human health or welfare. The control of environmental pollution requires direct attention to wildlife, air, water, and land resources and includes the management of visual aesthetics; noise, solid, chemical, and liquid waste; radiant energy; and other pollutants.

## 16.1 Contractor's Responsibilities:

- Implement all environmental and social protection/mitigation activities as specified in the contract documents.
- Safeguard all workers from any hazards associated with the construction activities and ensure protection of their Health and Safety.
- Ensure protection of the Health, Safety and Welfare of project side communities by minimizing nuisance (including traffic disruption and pollution), friction and by establishing effective channels of communications.
- Observe the National Environmental Laws and other existing regulations of EGYPT.
- Liaise with statutory undertakers for smooth and efficient operation and completion of projects.

## 16.2 Duties and Responsibilities of the Contractor's Monitoring Team:

The Head of the Contractor's Monitoring Team (CMT) and his support staff will carry day-to-day monitoring of social and environmental protection measures. Based on the field observations, environmental compliance sheets will be prepared by the Head through the Project Manager for submission to the CLIENT QA/QC. Photographic reports will, as practical as possible, be used to support such reports. Any noncompliance with the environmental and social protection measures that is observed shall be immediately reported and then monitored until further corrective actions have been carried out and completed.