

## PART 1

# **Concrete Information Sample**

Selected pages (not the complete section)

- Applicable Regulatory Codes and Concrete Industry Standards
- Concrete Inspection and Test Plan Example
- Personnel Certifications and Licenses
- Concrete Inspection Form Examples
- List of Available Concrete Inspection Forms

# Division 03 Concrete Applicable Regulatory Codes and Industry Standards

Contract Number		Project Name			Mile		
				Co			
Contract Specification Reference #	Schedule Activity #	Description	Reference Standard Number	Reference Standard Title	Kemarks	Tested By	Date Completed
		Construction and placement of forms, shoring and scaffolding	ACI MCP-2	Manual of Concrete Practice Part 2			
		Reinforcement fabrication shapes and dimensions	ACI 318M	Building Code Requirements for Structural Concrete and Commentary			
		Reinforcement Placement	ACI 318M	un			
		Reinforcement Splices	ACI 318M	un			

Division 03 Concrete  Quality Inspection and Test Plan							
Contract Number	Contract Number Project Name						
				,			
Contract Activity/ Specification Reference #	Description	Reference Standard Number	Reference Standard Title	Remarks	Trigger Event/ Frequency	Responsible Person/ Organization(s)	Test Report Date
	Subgrade compaction	ASTM D 1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort	Jued Select			
	Make concrete slump test specimen	ASTM C 143 C 143M	Standard Test Method for Slump of Hydraulic	Perform a slump test for each 150 cu yd of			

	Division 03 Concrete Personnel Certifications and Licenses						
Contract Number Project Name				Complete			
Contract Activity/ Specification Reference #	Certification or License Title	Reference Standard Number	Reference Standard Title	nce Trigger Event/		Responsible Person/ Organization(s)	Test Report Date
	Welders of concrete reinforcing steel	AWS D1.4/D1.4M	Structural Welding Code - Reinforcing Steel	Welders shall be qualified			
	Copyright Fire	at Time Quality.	C. All Rights Re				
Version August 31, 2011 Copyright							

## LIST OF INCLUDED INSPECTION FORMS FOR CONCRETE

- Cast Decks and Underlayment
- Concrete Finishing
- Concrete Forming
- Concrete Reinforcing
- Grouting
- Precast Concrete
- Structural Concrete

FIRST TIME Concrete-Cast	Decks	an	d Underla	ayment <u>03.50.00</u>		Sep2011
Project: Phase:	Contract#	<b>#</b> :		Organization: 9101 Field Operations		Crew:
Compliance Verification  ☐ Compliance with initial job-ready requirements ☐ Compliance with material inspection and tests ☐ Compliance with work in process first article inspection requirements ☐ Compliance with work in process inspection requirements ☐ Compliance with Task completion inspection requirements ☐ Compliance with inspection and test plan ☐ Compliance with safety policies and procedures  Reported Nonconformances and incomplete items:	FTQ	2TQ	Construction 1050 Underground damage from Overhead Land along the Decking for Reinforcing location in pure Long dimer corrugation Concrete To Finished sure 1057 Openings s	Awareness Checkpoins In benchmark placement of Facilities located at me placement equipment of the placement	ent is stab and marked ent 1051 ed and ma d and sup d to ensur ment is pe onded to s sloped an	to prevent  arked in work area  ported 1053  e proper final  erpendicular to form  substrate 1056  d sloped to drains
				deriayment material o as per manufacturer's		
FTQ Score	s and	Со	mpletion	Sign-off		
Field MgmtSuperintendent Inspection 91.45.0  Quality 5 4 3 2 1 Notes:	1	20				
On-Time 5 4 3 2 1 Notes:						
Safety 5 4 3 2 1 Notes:		 				
Sign and date*: Cell # / ID #::  Task has been has been verified complete and in compliance with contract drawings and specification.	_ Signed:		informances and inco	Date:		
Field MgmtQA Inspection 91.45.02						
Quality 5 4 3 2 1 Notes:						
Sign and date*: Cell # / ID #::  Task has been has been verified complete and in compliance with contract drawings and specificat	_ Signed:		onformances and inco	Date:		
Quality Score         5 = 100% NO problems         4 = 1 minor problems           On-Time Score         5 = On Time         4 = Late           Safety Score         5 = 100% NO problems         4 = 1 minor problem	3 =	Late by	t or 2-3 minor 1 day t or 2-3 minor	2 = 6+ or major problems 2 = Late by 2 days 2= 4+ or major problem	1 = Excessive p 1 = Late more 1= Injury	

## **Industry-Specific Information Available by Division** 08 Openings 03 Concrete 27 Communications 28 Electronic Safety and 04 Masonry 09 Finishes Security 21 Fire Suppression 05 Metals 31 Earthwork **06 Wood Plastic** 22 Plumbing 32 Exterior Composite **Improvements** 07 Thermal and 23 HVAC 33 Utilities **Moisture Protection** 26 Electrical

# PART 2 QA/QC Plan Sample

## 15 Selected pages out of 200 (not the complete plan)

## ☐ Project-Specific Quality Plan

- QA/QC Plan Cover Page
- Table of Contents
- Qualification of Subcontractors and Suppliers
- Project Subcontractor and Supplier List
- Testing Plan
- Work Task Quality Inspections
- Quality Inspection and Test Plan Form

## ■ Quality Manual

- Table of Contents
- Key Elements of the Quality System
- Process Controls
- Nonconformances and Corrective Actions

### ☐ Submittal Forms & Procedures for your library

- List of included submittal forms
- Procedure for Recording Nonconformances
- Nonconformance Form



# **Quality Assurance/Quality Control Plan**

[ProjectName]
[ProjectNumber]

Version Date: March 29, 2012

## PROJECT-SPECIFIC QUALITY PLAN

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# F. QUALIFICATION OF SUBCONTRACTORS AND SUPPLIERS

[CompanyName] evaluates outside organizations to ensure that the quality of their materials or services will meet contract requirements, and that they have the capacity and equipment to carrying out the contract on schedule.

Our Subcontractors meet the project requirements by either 1) working under the [CompanyName] Quality System or 2) operating their own quality program as long as it meets [CompanyName] Quality System requirements.

Ongoing monitoring of performance continually validates qualifications of each subcontractor and supplier.

the Solutifications of the Solution of the Sol Key outside organizations that will be used on this project are listed on the Source of Supply form. A Source of Supply form exhibit is included in this subsection. The qualifications of listed suppliers have

## [CompanyName] **Project Subcontractor and Supplier List** ☐ Version March 29, 2012 Preparer/ Date **Project ID Project Name** [ProjectNumber] [ProjectName] ☐ Quality Control Method **Description of Materials /** Subcontractor/Supplier (Not Applicable/ Subcontractor QC/ **Work Tasks** Name **Services Remarks** [CompanyName] QC)

## K. TESTING PLAN

The Quality Inspection and Test Plan form lists inspections and tests (other than work task inspections) that will be performed on this project.

Results of inspections and tests will be recorded on the Inspection and Test Form.

Inspection, measuring, and test equipment that will be controlled, calibrated, and maintained.

A list of controlled and calibrated test equipment is listed on the Test Equipment Calibratic included as an exhibit in this subsection. Copyright First Time Quality, I.C., All Rights Reserved. Salected Passes

									016
[CompanyName] Quality Inspection and Test Plan									
CONTRACT NUMBER			PROJECT NAME				40,10	CONTRACTOR	
[ProjectNumber]			[ProjectName]				SIN	[CompanyName]	
SPECIFICATION SECTION AND PARAGRAPH NUMBER	SCHEDULE ACTIVITY ID	TEST REQUIRED	ACCREDITED/ APPROVED LAB YES /NO	SAMPLED BY	TESTED BY	LOCATION  OF TEST  ON/OFF  SITE/SITE	DATE COMPLETED	DATE FORWARDED TO CUSTOMER	REMARKS
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				die					
				AllPis					
			,C						
			dity.						
		Je O							

## L. WORK TASK QUALITY INSPECTIONS

[CompanyName] identifies a list of work tasks, phases of production, which will be quality controlled. Each work task is subject to a series of inspections; before, during, and after the work is complete. Each inspection verifies compliance with full scope of the relevant specifications; not limited to checkpoints for heightened awareness.

The initial task-ready inspection occurs when crews are ready to start work and ensures that work begins only when it does not adversely impact quality results.

Incoming material inspections verify that materials are as specified and meet all requirements necessary to assure quality results. Copylight First Time Quality, LLC, All Rights Reserved, salected Pages,

## QUALITY MANUAL

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Please keep in mind that quality materials provided b	

## **KEY ELEMENTS OF THE QUALITY SYSTEM**

Key elements of the [CompanyName] Quality Assurance/Quality Control Plan include:

**Quality Management and Responsibilities.** [CompanyName] fully integrates its quality management system into the organizational structure and performance management systems for each project. We:

- Maintain a documented quality system consisting of a quality manual with policies and procedures.
- Tightly control exceptions to the quality system so company standards are applied uniformly to every project
- Systematically maintains quality system documents and records.

**Quality Control Personnel.** [CompanyName] fully integrates its quality management system into the organizational structure and performance management systems for each project. We:

- Appoint a Quality Manager, Superintendent, and Project Manager to each project, each with well-defined quality responsibilities and the authority to carry their out.
- Have well-defined quality responsibilities for every employee with specific quality responsibilities for key job positions.
- Plan project quality records and documentation that will be maintained.
- Tightly control exceptions to the quality system so company standards are applied uniformly to every project
- Enforce policies that monitor work conditions before and during work so that quality results are assured.

**Project Quality Coordination and Communication.** [CompanyName] tightly controls the Construction process to ensure quality esults. We:

- Plan quality communications through meetings, reporting requirements, and points of contact.
- Have a project startup meeting to communicate project goals and expectations.
- Conduct preparatory meetings in advance of each scheduled work task to communicate requirement details and coordinate work activities.

**Quality Assurance Surveillance.** [CompanyName] audits the quality system to assure it is operating effectively. We:

- Audit the operation of the quality system on each project for conformance to the Project Quality Assurance/Quality Control Plan and the [CompanyName] Quality System requirements.
- System and improve its operation.

## 7. PROCESS CONTROLS

#### HOW WORK IS CARRIED OUT

#### 7.1. OVERVIEW

The construction process plan defines how project work is to be done and approved for the overall project. The construction process plan is communicated to all key personnel, subcontractors and suppliers in a startup meeting. As the project proceeds, work task plans provide additional details of how each individual work task is carried out. Work tasks planning meetings are used to communicate expectations of the work task plan to key personnel responsible for carrying out the work task.

#### 7.2. PROJECT STARTUP AND QUALITY CONTROL COORDINATION MEETING

Prior to the commencement of work, the Project Manager holds a meeting to discuss and coordinate how project work will be performed and controlled. Key personnel from [CompanyName], subcontractors, and suppliers meet to review expectations for project quality results as well as quality assurance and quality control policies and procedures including:

- Key requirements of the project
- The Project Quality Assurance/Quality Control Plan
- Required quality inspections and tests
- The project submittal schedule
- Quality policies and heightened awareness of critical quality requirements
- Project organization chart and job responsibilities
- Methods of communication and contact information
- Location of project documents and records

#### 7.3. PREPARATORY PROJECT QUALITY ASSURANCE/QUALITY CONTROL PLAN PLANNING

#### 7.3.1. WORK TASK REQUIREMENTS REVIEW

In preparation for the stan of an upcoming work task, the Superintendent reviews an integrated and coordinated set of documents that collectively define quality requirements for the work task including:

- Objectives and acceptance criteria of the work task
- Quality standards that apply to the work task
- Work instructions, process steps, and product installation instructions that apply to the work task
   Shop drawings
- Submittals
- Tools and equipment necessary to perform the work
- · License, certification, or other qualification requirements of personnel assigned to work
- Required records of the process and resulting product
- The subcontractor contracted to perform the work, if applicable
- Customer contract requirements
- Required quality inspections and tests
- Method for clearly marking nonconformances to prevent inadvertent use
- Location of quality system records and documents
- Personnel training

#### 7.3.2. PREPARATORY SITE INSPECTION

The Superintendent also performs a quality inspection of the work area and:

- Assesses completion of required prior work
- Verifies field measurements
- Assures availability and receiving quality inspection status of required materials
- Identifies any nonconformances to the requirements for the work task to begin
- Identifies potential problems

#### 7.3.3. WORK TASK PREPARATORY QUALITY PLANNING MEETINGS

Prior to the start of a work task, the Superintendent conducts a meeting with key company, subcontractor personnel responsible for carrying out, supervising, or inspecting the work, and interested customer representatives.

During the meeting, the Superintendent communicates the work task quality requirements and reinforces heightened awareness for critical requirements. Topics for a work task quality plan meeting include:

- Work tasks quality requirements as identified in section 7.3.1
- Findings of the work task preparatory quality inspection in section 7.3.2
- Conflicts that need resolution
- Required quality documents and a verification of availability to personnel carrying out, supervising, or inspecting the work task
- Record keeping requirements and the availability of necessary forms
- Review methods and sequences of installation
- Special details and conditions
- Standards of workmanship
- Heightened awareness of critical quality requirements
- Quality risks
- Work tasks quality inspection form

#### 7.4. WEEKLY QUALITY PLANNING AND COORDINATION MEETINGS

The Superintendent conducts a meeting with key company, supplier, and subcontractor personnel responsible for carrying out, supervising, or inspecting the work, and interested customer representatives.

The meeting is held on a nominal weekly schedule. During the meeting, the Superintendent facilitates coordination among the participants, communication among the participants, and reinforces heightened awareness for critical requirements.

## 9. Nonconformances and Corrective Actions

#### 9.1. OVERVIEW

Jot a Complete Sampl Should a nonconformance be identified by an inspection there is a systematic method to control the item, correct it, and ensure that project quality is not adversely impacted by the event.

A nonconformance is any item that does not meet project specifications or [CompanyName] Quality System requirements.

#### 9.2. Nonconformances

#### 9.2.1. MARKING OF NONCONFORMANCES AND OBSERVATIONS

When the Quality Manager, Superintendent, inspector, or customer identifies a nonconformance or an observation, the item is quickly and clearly marked by paint, tape, tag, or other easily observable signal to prevent inadvertent cover-up.

#### 9.2.2. CONTROL THE CONTINUATION OF WORK

After the item is marked, the Superintendent determines if work can continue in the affected area:

CONTINUE WORK: When continuing work does not adversely affect quality or hide the defect, work may continue in the affected area while the disposition of the fem is resolved. The Superintendent may place limitations on the continuation of work.

STOP WORK ORDER: When continuing work can adversely affect quality or hide the defect, work must stop in the affected area until the disposition of the item resolved. The Superintendent identifies the limits of the affected area. The Superintercent quickly and clearly marks the stop work area.

#### 9.2.3. NONCONFORMANCE REPORT

#### 9.2.3.1. RECORDING OF NONCONFORMANCES

If nonconformances or observed items exist by the work task completion inspection, the Superintendent or inspector records the nonconformances on a nonconformance report.

The Superintendent sends the nonconformance report to the Quality Manager.

#### 9.2.3.2. QUALITY MANAGER DISPOSITION OF NONCONFORMANCE REPORTS

When the Quality Manager receives a Nonconformance Report, he or she makes an assessment of the affect the reported nonconformance has on form, fit, and function. The Quality Manager may assign a disposition of either:

REPLACE: The nonconformance can be brought into conformance with the original specification requirements by replacing the nonconforming product or material with a conforming product or material.

#### **List of Included Forms**

#### **Military Forms:**

- Preparatory Phase Checklist
- Initial Phase Checklist Form
- Contractor Production Report
- Contractor Quality Control Report
- Testing Plan and Log

#### **Standard Forms:**

- Project Organization Chart Form
- Quality Manager Appointment Form
- Project Manager Appointment Form
- Project Superintendent Appointment Form
- Project Design Manager Appointment Form
- Project Personnel Qualification Form
- Personnel Certifications and Licenses Form
- Quality Controlled Task List Form
- Quality Inspection and Test Plan Form
- Project Quality Communications Plan Form
- Point Of Contact List Form
- Project Quality Training Plan Form
- Task Training Plan and Log Form
- Project Quality Records Plan Form
- Project Submittal Form
- Change Order Form
- Project Design Process Plan Form
- Design Review Meeting Participant Form
- Design Review Form
- Project Regulatory Building Codes Form
- Test Equipment Calibration Form
- Lot Controlled Materials Form
- Project Subcontractor or Supplier Qualification Form
- Subcontractor and Supplier Certifications and Licenses Form
- Source of Supply Form
- Preconstruction Meeting Form
- Task Project Quality Control Plan Form
- Task Project Quality Control Planning Meeting Form

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- Daily Quality Control Report Form
- Monthly Quality Control Report Form
- Task Inspection Form
- Project Completion Inspection Form
- Inspection and Test Report Form
- Nonconformance Report Form
- Nonconformance Report Control Log Form
- Training Record Form
- Project Quality System Audit Form
- Quality System Audit Form
- Project Document Control Form

QUALITY SYSTEM SOP 9.2.3.1RECORDING OF NONCONFORMANCE	s
Version	Approved by:
March 29, 2012	Quality Manager

To clearly document a nonconformance found by test or work task completion quality inspection, monitor the disposition status, and to record its disposition.

Scope:

All projects tests and work task completion quality inspections

Definitions:

None:

Responsible Person(s):

Superintendent reports nonconformance on a Nonconformance Report Form

Superintendent reports nonconformance on a Nonconformance Report Form

Quality Manager assigns disposition of the nonconformance

Superintendent stores the completed forms

#### References:

Quality Manual Section 9.2.3.1Recording of Nonconformances

Quality Manual Section 12.4.2 Project Records Control

#### **Procedure:**

- Use the Nonconformance Report Form and Nonconformance Report Control Log contained in this procedure unless the costomer contract or Project Quality Assurance/Quality Control Plan specifies the use of a modified or customer supplied form. In that case, the specified form replaces the standard form for that contract.
- 2. The Responsible Person records nonconformances as required by the Quality Manual on the Nonconformance Report Form and records the nonconformance report on the Nonconformance Report Log
- The Responsible Person records disposition of nonconformances as required by the Quality Manual on the Nonconformance Report Form.
- The Responsible Person records the disposition on the Nonconformance Report Log.
  - When the corrective actions and/or preventive actions have been completed, the Responsible Person records the action on the Nonconformance Report Form, updates the status on the Nonconformance Report Log.
- The Responsible Person stores the completed form in the field office as required by Quality Manual Section 12.4.2 Project Records Control

[CompanyName] Nonconformance Report							
Version March 29, 2012							
Nonconformance Report Control ID	Project ID	Project	t Name				
	[ProjectNumber]	[ProjectName]	Sall				
Preparer Signatu	re/ Submit Date	Quality Manager Signa	ture / Disposition Date				
			MPle				
Description of the requirement or specification			Cot				
Description of the nonconformance, location, affected area, and marking		,	70,				
	☐Replace ☐ Repair ☐ Rework ☐ Use As-is						
Disposition	ad Pros						
	Approval of disposition required by customer representative? Yes 🗌 No 🗍						
	Customer approval signature /date: _	So.					
Corrective Actions	☐ Corrective actions completed Name/Date:  Customer acceptance of corrective actions required? Yes ☐ No ☐						
	Name/Date:						
Preventive Actions	6 /						
Time							
(~)							



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