PCI Erector Certification Program
Field Quality Audit Report (FQAR) – Part 1

Precast/Prestressed Concrete Institute

FIELD QUALTIY AUDIT FORM – PART 1

Certified Erector's Company Name

Forman's Name

CFA's Name | CFA's Cert. #

CFA's Employer

Audit Date | Weather during Audit (e.g. temperature, sunny/cloudy/rain, etc.)

Precast Concrete Producer's Name and Location

Project Description

Description of Work in Progress

Approximate Percentage of Completion | No. of Primary Crew Members

Was the Foreman's Previous Audit Reviewed? ☐ Yes ☐ No | Date of Previous Audit _____

If No, Expain

Recommended Structure Category ☐ S1 ☐ S2 ☐ A

Legend – Audit Evaluation Marks

In Part 2, the following are used to mark each item from the checklist that is observed during the audit:

1 – Conforms to or exceeds the Standard
2 – Incomplete conformance, needs improvement (auditor comment required)
3 – Does not conform to the Standard (auditor comment required)
n/o – Not observed by auditor during this audit
n/a – Not applicable (not being done by erector on this project at this time)

Distribution (email within 7 calendar days):

☐ Audit@pci.org ☐ Precast Concrete Producer ☐ Certified Erector

To verify Certified Erector status, visit at https://www.pci.org/PCI/Directories/PCI_Certified_Erector_Search.aspx

PCI Field Qualification Audit
Field Quality Audit Report – Part 2

PCI Precast/Prestressed Concrete Institute

Mark appropriate box for each standard listed.
Refer to *Erectors' Manual* (MNL 127) for detailed Standards.
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1	2	3	n/o	n/a	Section Number and Title, with Standard Summary
					Division 1 – Preconstruction Planning
					1.1 – Purpose
					1.1.1 – Responsibility of the General Contractor
					1.2 – Determining Erection Direction and Sequencing
					1.2.1 – General
☐	☐	☐	☐	☐	a. Erection sequence determined early for bracing analysis
					1.2.2 – Direction of the Work
☐	☐	☐	☐	☐	a. Erector and GC/CM determine direction of the work
					1.2.2.1 – Site Access
☐	☐	☐	☐	☐	a. Access for erection and delivery equipment considered
					1.2.3 – Determining and Following Sequence
☐	☐	☐	☐	☐	a. Erection sequence agreed to by GC/CM, precaster, and erector
☐	☐	☐	☐	☐	b. Sequence followed unless parties agree to changes
☐	☐	☐	☐	☐	c. Sequence considered when selecting the crane size
					1.3 – Identifying Hazards
☐	☐	☐	☐	☐	a. Jobsite review made to identify equipment obstructions
☐	☐	☐	☐	☐	b. Overhead obstructions considered in planning
☐	☐	☐	☐	☐	c. Existing property to be protected is clearly identified
					1.4 – Precast Size and Weight Considerations
☐	☐	☐	☐	☐	a. Precast concrete engineer and erector determine requirements
					1.5 – Erection Planning
					1.6 – Equipment Selection
☐	☐	☐	☐	☐	a. Maximum hoisting weight correctly identified
☐	☐	☐	☐	☐	b. Vertical obstructions above and below boom travel identified
☐	☐	☐	☐	☐	c. Maximum reach and travel plotted to determine boom angle limitations
☐	☐	☐	☐	☐	d. Maximum pick and angle used to determine safe lift
					1.7 – Developing an Erection Safety Plan
☐	☐	☐	☐	☐	a. Specific jobsite Erection Safety Plan developed

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1	2	3	n/o	n/a	Section Number and Title, with Standard Summary
					1.8 through 1.9.5 – Field Verification and Layout (See MNL 127 Sections 1.8 thru 1.9.5 for details.)
					1.9 – Types of Layouts
					1.9.1 – Floor and Roof Systems
					1.9.2 – Single-Story Panels, Columns and Beams
					1.9.3 – Multi-Story Total Precast Structures
					1.9.4 – Multi-Story Cladding and Bearing Walls
					1.9.5 – Complex Structures
☐	☐	☐	☐	☐	a. Layout completed with care and accuracy prior to and during erection
☐	☐	☐	☐	☐	b. Dimensions and details checked with erection drawings
☐	☐	☐	☐	☐	d. Discrepancies exceeding tolerances noted in writing and sent to precast producer
☐	☐	☐	☐	☐	e. Elevator shaft layout checked at every lift
☐	☐	☐	☐	☐	f. Layout includes horizontal and vertical control within tolerances
☐	☐	☐	☐	☐	g. Accurate column layout including grid lines and elevations
☐	☐	☐	☐	☐	h. Critical elevation (primary control surface) maintained
					1.10 – Lifting Devices and Handling Considerations
☐	☐	☐	☐	☐	a. Exact information obtained for all nontypical sizes and shapes
					Division 2 – Practices and Procedures
					2.1 – Transportation and Unloading
					2.1.1 – General
☐	☐	☐	☐	☐	a. Latest revision of drawings available at jobsite
					2.1.2 – Sequencing
☐	☐	☐	☐	☐	a. Structural stability considered in planning sequence
☐	☐	☐	☐	☐	b. Connection completion sequence considered to maintain stability of the structure
☐	☐	☐	☐	☐	c. Erector has furnished list of special requirements to precaster
					2.1.3 – Access at the Jobsite
☐	☐	☐	☐	☐	a. Coordinate truck and crane access items with GC/CM
☐	☐	☐	☐	☐	b. Coordinate with GC to identify, move, and/or de-energize overhead obstructions
☐	☐	☐	☐	☐	c. Crane locations and ramps firm and large enough
☐	☐	☐	☐	☐	d. Ramps and inside access provided as planned
					2.1.4 – Loading and Delivery
☐	☐	☐	☐	☐	a. Obtain weights of the units and the types of lifting devices within the units from the precast producer

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					2.1.5 – Unloading
					a. Visual inspection of units on trailer prior to unloading
					b. Report products with negative camber to precast engineer
					c. Notify precaster of defects and irregularities
					d. Handle pieces correctly and with approved devices
					e. Keep prestressed products upright, and support near ends, unless erection drawings dictate otherwise
					f. Evaluate for unbalanced loads, and ensure stability before removing chains, straps, and edge protection
					g. Multiple units not handled simultaneously, except pallets
					h. Employees stand and remain clear of suspended loads during unloading and piece not swung over employees – all conditions
					i. Units remain under control and are handled with care during hoisting/placement to prevent soiling or damage
					j. Exterior unit unloaded first, middle units not slid out
					k. Units rotated in air, not on truck or ground unless approved
					l. Unloading methods avoid soiling, cracking, chipping, etc.
					2.1.6 – Site Storage
					a. Trailer parked on firm level ground, dunnage under dollies
					b. Proper dunnage for products stored on the ground
					c. Panels stored against building correctly
					d. No overstress in units during temporary storage
					e. Proper blocking for panels in temporary on-site storage
					f. Dunnage in vertical plane, clear of lifting devices, and not continuous over more than one stack
					g. Lifting devices accessible and undamaged
					h. Upper components in stack not used for storage
					2.2 – Rigging
					2.2.1 – Training Programs
					a. Erector has rigging training programs with testing
					b. Rigging training includes all of the required items listed in MNL 127
					2.2.2 – Rigging Selection
					a. Erector determined rigging requirements and uses properly sized rigging for precast concrete units
					b. Custom/special rigging/lifting components designed by qualified person, clearly labeled for its safe capacity, and tested

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1	2	3	n/o	n/a	Section Number and Title, with Standard Summary
					2.2.3 – Load Block Selection
☐	☐	☐	☐	☐	a. Load block capacity determined by the erector
					2.2.4 – Sling and Spreader Selection
☐	☐	☐	☐	☐	a. Capacity charts used with care and capacities not exceeded
☐	☐	☐	☐	☐	b. Eyes properly sized to move freely on hooks
☐	☐	☐	☐	☐	c. Hook capacity compatible with slings and angles
☐	☐	☐	☐	☐	d. Sling angle never less than 45 degrees unless approved
					2.2.5 – Lifting Anchors and Hardware
☐	☐	☐	☐	☐	a. Erector notifies precaster of problems with embedded lifting hardware and anchors
					2.2.6 – Engineered Lifting Devices
☐	☐	☐	☐	☐	a. Swivel and bolt diameter are the same size
☐	☐	☐	☐	☐	b. Thread engagement more than 2.5 times the bolt diameter
☐	☐	☐	☐	☐	c. Coil bolts not overtightened
☐	☐	☐	☐	☐	d. Foreign materials removed from inserts
☐	☐	☐	☐	☐	e. Minimum of two coil inserts used to prevent spinning
☐	☐	☐	☐	☐	f. Proper coil bolt length to prevent excessive shimming
					2.2.7 – Two- and Four-Point Picks
☐	☐	☐	☐	☐	a. Vertical length exceeds width by 25% for rolling block use
					2.2.8 – Rotation of Members
☐	☐	☐	☐	☐	a. Chain fall has proper capacity and sufficient overhaul
☐	☐	☐	☐	☐	b. Turning cradle provides proper structural support of unit
☐	☐	☐	☐	☐	c. Turning cradle designed not to rotate while being loaded
					2.2.9 – Lifting with Two Cranes
☐	☐	☐	☐	☐	a. Competent person directs two-crane lifts
					2.2.10 – Rigging of Typical Precast Units
					2.3 – Guying and Bracing
					2.3.1 – General
☐	☐	☐	☐	☐	a. Temporary and standard guying, bracing, and/or temporary connections used until sufficient stability provided and for stability problems – all component types
					2.3.2 – Description of Methods
☐	☐	☐	☐	☐	a. Pipe braces used per manufacturer's specifications
☐	☐	☐	☐	☐	b. Location and capacity of insert and deadman considered
☐	☐	☐	☐	☐	c. Bracing and shores not removed until authorized

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					2.3.3 – Responsibility
☐	☐	☐	☐	☐	a. Responsibility for erection stability clearly established
☐	☐	☐	☐	☐	b. Bracing analysis and shop drawings consider sequence
☐	☐	☐	☐	☐	c. Shoring and bracing are installed as designed
☐	☐	☐	☐	☐	d. Erection and bracing drawings reviewed for requirements
☐	☐	☐	☐	☐	e. Method for guying and bracing joists approved
☐	☐	☐	☐	☐	f. Guying and bracing plan approved and followed – all component types
☐	☐	☐	☐	☐	g. Units stable, safely in position prior to releasing the load, and never left in an unsafe condition
					2.4 – Field Considerations for Connections
					2.4.1 – General Considerations
☐	☐	☐	☐	☐	a. Erector aware that connection capacity can decrease
☐	☐	☐	☐	☐	b. Each unit securely fastened as indicated on drawings
☐	☐	☐	☐	☐	c. Field checks performed for connection installation
☐	☐	☐	☐	☐	d. Erector has corrected misalignment due to dead load movement
☐	☐	☐	☐	☐	e. Connection changes resulting in additional stresses shall be approved by the precast specialty engineer
☐	☐	☐	☐	☐	f. No damage when adjustments made to move units
☐	☐	☐	☐	☐	g. More stable connection requested if needed for stability
☐	☐	☐	☐	☐	h. Temporary torsional restraint provided during erection when required
☐	☐	☐	☐	☐	i. Temporary stability provided for lateral loads
☐	☐	☐	☐	☐	j. Temporary moment connections released when required
☐	☐	☐	☐	☐	k. Number of floors erected with temporary connections determined
☐	☐	☐	☐	☐	l. Damaging chemicals do not contact connections
					2.4.2 – Types of Connections
					2.4.2.1 – Bolted Connections
☐	☐	☐	☐	☐	a. Bolting is in accordance with erection drawings
☐	☐	☐	☐	☐	b. Periodic verification of bolt strength, length, and size
☐	☐	☐	☐	☐	c. Thread engagement is verified
☐	☐	☐	☐	☐	d. Excess length bolts are shimmed for proper fit
☐	☐	☐	☐	☐	e. Short length bolts are replaced with proper length bolt
☐	☐	☐	☐	☐	f. Bolt position and tightness checked at slotted connections
☐	☐	☐	☐	☐	g. Sliding connection bolts are secured, but not too tight
☐	☐	☐	☐	☐	h. Steel washers for slotted connections are proper size
☐	☐	☐	☐	☐	i. Slide connections are coated to prevent rusting
☐	☐	☐	☐	☐	j. Specified bolt torque applied for friction connections
☐	☐	☐	☐	☐	k. Alternative connections were developed and approved

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1	2	3	n/o	n/a	Section Number and Title, with Standard Summary
					2.4.2.1 – Bolted Connections (continued)
					l. Edge distance and spacing based on anchor requirements
■					m. Expansion anchors with stress reversals are approved
					n. Chemical anchors installed as required per code
					2.4.2.2 – Welded Connections
					a. Connections installed exactly as shown on drawings
					b. Weld information obtained if not shown on drawings
					c. Test agency established requirements & certified welder(s) utilized
					d. Welders certified for each welding procedure specification (WPS) in use, certifications obtained and available on site
					e. All welds, including critical welds, visually checked by erector
					f. Materials adjacent to weld are protected from spatter
					g. Care used during fueling, and fire extinguisher available
					2.4.2.3 – Post-Tensioned Connections
					a. Tendons protected and undamaged during use
					b. Anchorage devices aligned with tendon and concrete
					c. Couplers are free to move during stressing
					d. Shoring and bracing in place until tensioning complete
					e. Tensioning personnel are properly qualified
					f. Concrete/grout above required strength for tensioning
					g. No one permitted to stand behind jack
					h. All personnel aware that tensioning is in progress
					i. Audible and visible signals used during tensioning
					j. Uninvolved personnel cleared from designated area
					k. Grout fills all voids in and around tendon
					l. Grouting procedures follow PTI recommended practice
					m. Tendons greased and wrapped if grouted before tensioning
					n. Nuts and couplers protected if grouted before tensioning
					o. Vent tubes for conduits used if grouted after tensioning
					2.4.2.4 – Dowel/Anchor Bolt Connections
					a. Placement procedure ensures complete grout fill
					b. Preblended and packaged grout mixtures are used
					c. Proper/proprietary/special grout mixed and used per manufacturer's recommendations/instructions
					d. Subfreezing precast concrete warmed before grouting
					e. Cutting torches not used to heat tube or sleeve area
					f. Grout mixture kept below 80°F in hot weather

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					2.4.2.4 – Dowel/Anchor Bolt Connections (continued)
☐	☐	☐	☐	☐	g. Pieces are grouted in sequence as erected
☐	☐	☐	☐	☐	h. Horizontal holes sealed and pressure injected
☐	☐	☐	☐	☐	i. Grout completely fills joint void spaces
					2.4.2.5 – Grout, Mortar, and Drypack
☐	☐	☐	☐	☐	a. Proper/proprietary/special grout mixed and used per manufacturer's recommendations/instructions
☐	☐	☐	☐	☐	b. Ferrous expanding agents not used in exposed joints
☐	☐	☐	☐	☐	c. Concrete cleaned and wetted before grouting
☐	☐	☐	☐	☐	d. Precast concrete components aligned prior to grouting
☐	☐	☐	☐	☐	e. Joints with flowable grout formed
☐	☐	☐	☐	☐	f. Initial set time of grout determined and appropriate
☐	☐	☐	☐	☐	g. Dowels aligned in pockets or sleeves prior to initial set
☐	☐	☐	☐	☐	h. Determine maximum number of panels on shims only
☐	☐	☐	☐	☐	i. Slabs leveled and prepared prior to grouting
☐	☐	☐	☐	☐	j. Calcium chloride not used in grout contacting metal
☐	☐	☐	☐	☐	k. Areas that trap water protected before grouting
					2.5 – Installation
					2.5.1 – General
☐	☐	☐	☐	☐	a. All required materials and equipment available
☐	☐	☐	☐	☐	b. Temporary fasteners and devices properly evaluated
☐	☐	☐	☐	☐	c. Temporary bearing and loading responsibility of erector
☐	☐	☐	☐	☐	d. Rigid temporary shims removed before sealant applied
☐	☐	☐	☐	☐	e. Unspecified or excessive shims authorized by engineer
☐	☐	☐	☐	☐	f. Bearing pads properly placed and position monitored
☐	☐	☐	☐	☐	g. Precast concrete units erected at locations shown within tolerance
☐	☐	☐	☐	☐	h. Horizontal and vertical joints aligned with uniform width
					2.5.2 – Loadbearing Members
					2.5.2.1 – General
					2.5.2.2 – Columns
☐	☐	☐	☐	☐	a. Sufficient shims used if columns to be loaded immediately
☐	☐	☐	☐	☐	b. Column unloading and turning follows precaster's direction
☐	☐	☐	☐	☐	c. Column plumbness checked after eccentric loads applied
					2.5.2.3 – Beams
☐	☐	☐	☐	☐	a. Inverted T and L beams checked after eccentric loading
☐	☐	☐	☐	☐	b. Horizontal restraint provided at beam supports as needed
☐	☐	☐	☐	☐	c. Proper length spreaders used for long, slender beams

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					2.5.2.4 – Wall Panels
☐	☐	☐	☐	☐	a. Bases grouted or shimmed prior to vertical post-tensioning
☐	☐	☐	☐	☐	b. Panels plumbed with bracing or temporary connections
					2.5.3 – Floor or Roof Members
					2.5.3.1 – General
☐	☐	☐	☐	☐	a. Openings larger than 2 in. created in field are covered
☐	☐	☐	☐	☐	b. Openings in stemmed components not cut through stems
☐	☐	☐	☐	☐	c. Written permission received before cutting openings
					2.5.3.2 – Hollow-Core Slabs
☐	☐	☐	☐	☐	a. Supporting structure bearing dimensions checked
☐	☐	☐	☐	☐	b. Bearing surfaces clean, smooth, level, and at grade
☐	☐	☐	☐	☐	c. Bearing material placed as required by erection drawings
☐	☐	☐	☐	☐	d. Each plank has at least the minimum required bearing
☐	☐	☐	☐	☐	e. All joints uniform in size
☐	☐	☐	☐	☐	f. Grout key cleaned of debris and moistened
☐	☐	☐	☐	☐	g. All shear keys between hollow-core slabs filled
☐	☐	☐	☐	☐	h. Planks grouted before leveling material or topping placed
					2.5.3.3 – Stemmed Members
☐	☐	☐	☐	☐	a. Supporting structure dimensions inspected before erection
☐	☐	☐	☐	☐	b. Supporting structure smooth and level before erection
☐	☐	☐	☐	☐	c. Precaster's handling instructions followed
☐	☐	☐	☐	☐	d. Single tees handled upright to prevent buckling and rolling
☐	☐	☐	☐	☐	e. Single tees braced until permanently connected
☐	☐	☐	☐	☐	f. Long tee orientation considered
☐	☐	☐	☐	☐	g. Sufficient welded connections between units made daily
☐	☐	☐	☐	☐	h. Flanges connected using edge connectors as shown on the erection drawings
☐	☐	☐	☐	☐	i. Significant differential camber corrected before welding
☐	☐	☐	☐	☐	j. Pretopped tee erection hardware below top surface
☐	☐	☐	☐	☐	k. Lifting loops removed after units set in final position
					2.5.3.4 – Flat Slabs
					2.5.3.5 – Joists
☐	☐	☐	☐	☐	a. Joists always handled in upright position
					2.5.4 – Cladding
					2.5.4.1 – General
☐	☐	☐	☐	☐	a. GC and engineer notified of excessive deflection and rotation

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1	2	3	n/o	n/a	Section Number and Title, with Standard Summary
					2.5.4.2 – Wall Panels
					2.5.4.3 – Spandrels
☐	☐	☐	☐	☐	a. Dead load deflection and rotation corrected by erector
☐	☐	☐	☐	☐	b. Field-modified connections approved by precast specialty engineer
☐	☐	☐	☐	☐	c. Units not damaged during final alignment
					2.5.4.4 – Column Covers and Mullions
☐	☐	☐	☐	☐	a. Column covers secured prior to release of load and rigging
					2.5.4.5 – Soffits
					2.5.5 – Bridge Members
					2.5.5.1 – General
					2.5.5.2 – Deck Panels
					2.6 – Post-Installation Considerations
					2.6.1 – Protection of Work
☐	☐	☐	☐	☐	a. GC/CM and/or precaster notified of damaging conditions
					2.6.2 – Repairs at the Jobsite
☐	☐	☐	☐	☐	a. Temporary holes patched by erector if required
☐	☐	☐	☐	☐	b. Precast concrete engineer evaluated major repairs and methods
☐	☐	☐	☐	☐	c. Erector inspected repairs or patching to see if they are aesthetically acceptable
☐	☐	☐	☐	☐	d. All patching and repairs completed as required
					2.6.3 – Cleaning
					2.6.4 – Acceptance
					Division 3 – Equipment
					3.1 – General
					3.2 – Operator Training and Qualification
☐	☐	☐	☐	☐	a. Operators are competent, fit, and trained for equipment
☐	☐	☐	☐	☐	b. Operators fully understand equipment characteristics
☐	☐	☐	☐	☐	c. Operators demonstrate skill in operation of equipment
☐	☐	☐	☐	☐	d. Equipment operators know the required items listed in MNL 127
					3.3 – Selection of Handling Equipment
☐	☐	☐	☐	☐	a. Equipment, including rigging, is safe and in good working order
☐	☐	☐	☐	☐	b. Wire ropes adequately sized and maintained
☐	☐	☐	☐	☐	c. Lifting beams, etc., marked for capacity with a minimum safety factor of 5
☐	☐	☐	☐	☐	d. Consideration given to crane setup for large pieces
☐	☐	☐	☐	☐	e. All required items listed in MNL 127 for crane selection have been considered

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PCI Field Qualification Audit
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1	2	3	n/o	n/a	Section Number and Title, with Standard Summary
					3.4 – Safety Devices
☐	☐	☐	☐	☐	a. Weights checked to ensure equipment is not overloaded
☐	☐	☐	☐	☐	b. Anti-two-block devices as needed for personnel platforms
					3.5 - Cranes
					3.5.1 – Mobile Cranes
					3.5.1.1 – Conventional Cranes
☐	☐	☐	☐	☐	a. Strict adherence to load-capacity charts
					3.5.1.2 – Telescoping (Hydraulic) Boom Cranes
					3.5.1.3 – Mobile Luffing Jib Cranes
					3.5.1.4 – Mobile Tower Cranes
					3.5.1.5 – Stationary Crawler Cranes
					3.5.2 – Tower Cranes
☐	☐	☐	☐	☐	a. Erector reads and understands load charts
☐	☐	☐	☐	☐	b. Manufacturer's instructions followed
					3.5.3 – Monorails
					3.5.4 - Derricks
					3.6 – Miscellaneous Specialized Equipment
☐	☐	☐	☐	☐	a. Safety precautions for helicopter operation enforced
					3.7 – Operating Equipment
					3.7.1 – Welding Machines
☐	☐	☐	☐	☐	a. Gasoline or diesel welders used only in well-ventilated areas
					3.7.2 – Torches
☐	☐	☐	☐	☐	a. Proper cutting tip used with propane gas
					3.7.3 – Concrete Saws
☐	☐	☐	☐	☐	a. Handheld cutoff saws used only by trained personnel
☐	☐	☐	☐	☐	b. Saw operator has sufficient safety protective gear
					3.7.4 – Suggested Tool List
					3.8 – Personnel Access Equipment
					3.8.1 – General
☐	☐	☐	☐	☐	a. Access methods considered safety, site, and equipment
					3.8.2 – Portable Ladders
					3.8.3 – Scaffolds

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1	2	3	n/o	n/a	Section Number and Title, with Standard Summary
					3.8.3.1 – General
☐	☐	☐	☐	☐	a. Scaffold use: all required items listed in MNL 127 have been considered
☐	☐	☐	☐	☐	b. Scaffold training: all required items listed in MNL 127 have been considered
☐	☐	☐	☐	☐	c. Scaffold erection: all required items listed in MNL 127 have been considered
☐	☐	☐	☐	☐	d. Scaffold erectors are retrained when necessary
					3.8.3.2 – Swinging (Suspended) Scaffolds
☐	☐	☐	☐	☐	a. Swinging scaffolds: all required items listed in MNL 127 have been considered
					3.8.3.3 – Supported Scaffolds
☐	☐	☐	☐	☐	a. Supported scaffolds: all required items listed in MNL 127 have been considered
					3.8.3.4 – Mobile (Rolling) Scaffolds
☐	☐	☐	☐	☐	a. Rolling scaffolds: all required items listed in MNL 127 have been considered
					3.8.4 – Mobile Elevating Work Platforms (MWEP)
☐	☐	☐	☐	☐	a. MWEP: all required items listed in MNL 127 have been considered
					3.8.4.1 – Telescoping Boom Platforms
					3.8.4.2 – Self-Propelled Vertical Aerial Platforms
					3.8.4.3 – Manually Propelled Vertical Aerial Platforms
					Division 4 - Safety
					4.1 – General
☐	☐	☐	☐	☐	a. Erector has developed OSHA-/industry-required written safety training programs applicable to the scope of their work, including, but not limited to, HAZCOM, fall protection, rigging, post-tensioning equipment/ tool operation, and scaffolding erection/use
☐	☐	☐	☐	☐	b. Company committed to achieving zero-accident culture
☐	☐	☐	☐	☐	c. Strong management commitment to safety program
☐	☐	☐	☐	☐	d. All injury or damage accidents investigated and reported
☐	☐	☐	☐	☐	e. Near misses investigated and reported
☐	☐	☐	☐	☐	f. Review accident causes with employees
☐	☐	☐	☐	☐	g. Competent person makes surveys of site for hazards
☐	☐	☐	☐	☐	h. Practice good housekeeping, remove hazardous debris
☐	☐	☐	☐	☐	i. Minimize employee exposure to hazards
☐	☐	☐	☐	☐	j. Understand and comply with safety laws and regulations
☐	☐	☐	☐	☐	k. Provide qualified and trained workforce
☐	☐	☐	☐	☐	l. Provide appropriate tools, equipment, and supervision

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1	2	3	n/o	n/a	Section Number and Title, with Standard Summary
					4.2 – Employee Training
					a. Supervisors trained to recognize and correct hazards/behavior
					b. Workers trained in proper practices, rules, etc.
					c. Employees signed acknowledgment that they read company safety policies
					d. Jobsite safety meeting held at beginning of project
					e. Documented weekly toolbox safety meetings
					f. Employees made familiar with all required items listed in MNL 127
					g. Each work shift has a certified person for CPR and first aid
					h. Erector has a written hazard communications program present on the jobsite
					i. Personnel use proper tools and safety equipment
					j. Personnel wear respiratory protection, when required to avoid silica dust
					4.3 – Equipment Safety Programs
					a. Unsafe equipment tagged, locked out, or removed
					4.3.1 – Crane Safety and Maintenance
					a. Maintenance schedule and inspection record on crane
					b. Only designated individuals signal crane
					c. Radio or relay person used if operator cannot see signaler
					d. Load chart is on the crane
					e. Crane is level and stable with outriggers cribbed
					4.3.2 – Electrical Equipment
					a. Wire, cords, and equipment – UL: Installation complies with the National Electric Code NFPA-70
					b. Circuits properly grounded, polarized, and protected
					c. Cords in good condition and not frayed
					d. Cords placed to minimize tripping hazard
					4.3.3 – Lifting Devices
					a. Lifting hardware compatible with lifting inserts
					b. Lifting bolts have proper thread engagement
					c. Lifting hardware and rigging take load in proper direction
					d. Lifting loops have capacity for use as fall arrest system
					4.3.4 – Rigging
					a. Center of gravity information obtained if necessary
					b. Spreader cables adequately sized
					c. Rings, shackles, and hooks adequately sized (five times the maximum intended load)
					d. Hardware and rigging not overstressed with angle of pull

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					4.3.4 – Rigging (continued)
☐	☐	☐	☐	☐	e. Safe seating of cable chokers in hooks
☐	☐	☐	☐	☐	f. Proper angle for chokers on spreaders
☐	☐	☐	☐	☐	g. Initial rigging setup check and daily visual inspection
					4.3.5 – Welding Equipment
☐	☐	☐	☐	☐	a. Welding areas properly ventilated
☐	☐	☐	☐	☐	b. No welding or cutting close to combustibles
☐	☐	☐	☐	☐	c. Oxygen/acetylene cylinders stored separated and upright
☐	☐	☐	☐	☐	d. Gas or diesel welding machines shut down for fueling and operated in ventilated areas
☐	☐	☐	☐	☐	e. No breaks in welding lead insulation 10 ft from ends
☐	☐	☐	☐	☐	f. All insulation breaks repaired
					4.3.6 – Ladders and Scaffolds
☐	☐	☐	☐	☐	a. Ladders and scaffolds meet OSHA requirements
☐	☐	☐	☐	☐	b. Ladders checked daily for proper use and defects
☐	☐	☐	☐	☐	c. In-depth check of initial scaffolding/staging installations
☐	☐	☐	☐	☐	d. Daily checks of scaffolding/staging installations
					4.4 – Building and Jobsite Safety
☐	☐	☐	☐	☐	a. Review precast concrete erection sequence with GC/CM
☐	☐	☐	☐	☐	b. Cranes and trucks can safely move on site
☐	☐	☐	☐	☐	c. Access available without jeopardizing public safety
☐	☐	☐	☐	☐	d. Overhead power lines do not limit crane use
					4.4.1 – Guying and Bracing
☐	☐	☐	☐	☐	a. Review overall configuration to ensure stability during the construction phase
☐	☐	☐	☐	☐	b. Competent person determines day-to-day guying and bracing
☐	☐	☐	☐	☐	c. No interference with guys or braces during erection
					4.4.2 – Erection Connections
☐	☐	☐	☐	☐	a. Minimum connections made prior to releasing each component
☐	☐	☐	☐	☐	b. Connections needed as erection work progresses
☐	☐	☐	☐	☐	c. Minimum grouting or drypacking requirement met under columns or wall panels prior to erecting each succeeding level
					4.4.3 – Fall Protection
☐	☐	☐	☐	☐	a. Competent person selected designated erectors
☐	☐	☐	☐	☐	b. All personnel received fall protection training
☐	☐	☐	☐	☐	c. Fall protection equipment available and used
☐	☐	☐	☐	☐	d. Barricades, hole covers, etc. checked

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					4.4.4 – Protection of Personnel on Lower Floors
☐	☐	☐	☐	☐	a. No erection work over another operation
☐	☐	☐	☐	☐	b. Products not erected or swung over other work areas
					Division 5 – Tolerances
					5.1 – General
					5.1.1 – Bowing and Warping
☐	☐	☐	☐	☐	a. Maximum warpage and bowing meet tolerance limits
					5.2 – Product Tolerances
☐	☐	☐	☐	☐	a. Erector notified precaster of out-of-tolerance units
					5.3 – Erection Tolerances
☐	☐	☐	☐	☐	a. Tolerances verified and agreed upon in writing
☐	☐	☐	☐	☐	b. In-place structure dimensions checked before erection
☐	☐	☐	☐	☐	c. Precast concrete unit location verified after erection
☐	☐	☐	☐	☐	d. Erection tolerances control location of precast concrete components
☐	☐	☐	☐	☐	e. Primary control surfaces in conformance with tolerances
☐	☐	☐	☐	☐	f. Product tolerances not additive to erection tolerances
☐	☐	☐	☐	☐	g. Precast concrete units located in center of theoretical position
☐	☐	☐	☐	☐	h. Caution exercised when leveling thin-flanged components
					5.4 – Clearances
					5.5 – Connection and Hardware Tolerances
☐	☐	☐	☐	☐	a. Connections redesigned as necessary to address tolerance problems
☐	☐	☐	☐	☐	b. Adjustments affecting structural performance approved by precast specialty engineer
☐	☐	☐	☐	☐	c. Units not forced into place which would induce or impose undue stress or overload on the structure
					5.6 – Interface Tolerances
					Division 6 – Quality Control
					6.1 – Philosophy
					6.2 – What to Inspect
☐	☐	☐	☐	☐	a. Sequence/load lists
☐	☐	☐	☐	☐	b. All approved changes
☐	☐	☐	☐	☐	c. Applicable survey and layout data
☐	☐	☐	☐	☐	d. Product weights and load-lifting diagrams, as required
☐	☐	☐	☐	☐	e. OSHA 300 Forms
☐	☐	☐	☐	☐	f. SDS sheets
☐	☐	☐	☐	☐	g. Fall protection plan, and silica exposure control plan when required, is followed

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PCI Field Qualification Audit
Field Quality Audit Report – Part 2

PCI
Precast/Prestressed Concrete Institute

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1	2	3	n/o	n/a	Section Number and Title, with Standard Summary
					6.2 – What To Inspect (continued)
☐	☐	☐	☐	☐	h. Procedures observed and deviations corrected
☐	☐	☐	☐	☐	i. All other applicable safety requirements are applied
☐	☐	☐	☐	☐	j. Loose erection materials stored properly
☐	☐	☐	☐	☐	k. Grout and welding rods kept dry
☐	☐	☐	☐	☐	l. Grout stored at proper temperature and not out of date
☐	☐	☐	☐	☐	m. Bracing and guywire loads within their rated capacities
☐	☐	☐	☐	☐	n. Connections inspected for conformance to drawings
☐	☐	☐	☐	☐	o. Bearing conditions inspected and shim sizes verified
☐	☐	☐	☐	☐	p. Materials not substituted without approval of engineer
☐	☐	☐	☐	☐	q. Welding techniques follow ANSI/AWS requirements
☐	☐	☐	☐	☐	r. Amount of mix water monitored and cube samples made, when required
☐	☐	☐	☐	☐	s. Post-tensioning jacks and gages calibrated
☐	☐	☐	☐	☐	t. Post-tensioning connections inspected per engineer's requirements
☐	☐	☐	☐	☐	u. Precast concrete units erected within PCI or project tolerances
☐	☐	☐	☐	☐	v. Cracks and major damage reported to precaster
☐	☐	☐	☐	☐	w. Pry-bar use does not spall or damage concrete surfaces
☐	☐	☐	☐	☐	x. Jobsite changes to connections approved by precast concrete engineer
☐	☐	☐	☐	☐	y. Erector prevents jobsite soiling and maintains clean work area
					6.3 – Records
					6.3.1 – Recordkeeping
☐	☐	☐	☐	☐	a. Recordkeeping system to document precast concrete erection
☐	☐	☐	☐	☐	b. Records designed for a minimum of writing
☐	☐	☐	☐	☐	c. Jobsite recordkeeping the responsibility of supervisor
☐	☐	☐	☐	☐	d. Records kept for a minimum of 5 years after acceptance
					6.3.2 – Records to Be Kept at Jobsite
☐	☐	☐	☐	☐	a. Daily project erection report (may be at office)
☐	☐	☐	☐	☐	b. Name of "competent person" on site
☐	☐	☐	☐	☐	c. Job-specific written "hazard analysis"
☐	☐	☐	☐	☐	d. Safety policy manual
☐	☐	☐	☐	☐	e. OSHA 300 Forms (may be at office)
☐	☐	☐	☐	☐	f. Crane certification document
☐	☐	☐	☐	☐	g. Crane inspection logs
☐	☐	☐	☐	☐	h. Erection safety plan, fall protection plan, and silica exposure control plan

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					6.3.2 – Records to Be Kept at Jobsite (continued)
☐	☐	☐	☐	☐	i. Grouted sleeve reports, if required
☐	☐	☐	☐	☐	j. Bolt torque records, if required
☐	☐	☐	☐	☐	k. Post-tensioning records, including documentation of jacking force and net tendon elongation
					6.3.3 – Product Damage and Repair Reports
☐	☐	☐	☐	☐	a. Repair records kept with the "as-built" documents
					6.3.4 – Inspector Checklist

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PCI Field Qualification Audit
Field Quality Audit Report – Part 3

Precast/Prestressed Concrete Institute

AUDIT SUMMARY COMMENTS

Certified Erector's Company Name

Forman's Name

Project Name and Location

Section Number	Auditor Comments for All Items Evaluated as 2 or 3 on the Field Quality Audit Checklist