

# Concrete in Practice

What, why & how?



## CIP 32 - Concrete Pre-Construction Conference

### WHAT is a Pre-Construction Conference?

Prior to the start of a job, especially for a major project, a concrete pre-construction conference (some times called a pre-pour meeting) should be held to define and allocate responsibilities of the entire construction team. It is imperative that all members of the team meet to establish the responsibilities of the ready mixed concrete supplier, owner, architect, structural engineer, general contractor, sub contractors, testing agencies, and inspectors. This meeting should be held well in advance of the project to ensure there is sufficient time for all parties to be absolutely clear on what their responsibilities would entail.

### WHY Have a Pre-Construction Conference?

Every construction project brings together different companies, personnel and procedures, who may or may not have worked together before. Two jobs are never the same, even when working with the same companies, as personnel changes can realign the perception of individual responsibilities. Pre-construction conferences are needed to sort out the details of how a job will be executed, identify the authorized contacts for various aspects, and what should be done if some things do not go as planned. In far too many cases, projects are started without a clear understanding of assigned responsibilities resulting in extra work, lost time and major expenses. In some cases a simple pre-construction conference could have prevented some, if not all these problems from occurring. Having this meeting serves to document the chain of responsibilities, which can be referenced when needed.

### HOW to Conduct a Pre-Construction Conference?

The pre-construction conference agenda should contain the following to ensure that all details are addressed prior concrete placement.

**Purpose:** To define and allocate individual responsibilities of the concrete construction team

**Subject:** Pre-construction agenda, concrete mix designs, placement, inspection and testing

**Project Name and Location:** Establish the project name and address.



**Personnel to Attend:** Contractor's project manager, owner's representative, concrete subcontractor, architect, engineer, testing lab supervisor, pumping contractor, concrete producer's quality control director, inspector and construction manager, if applicable, and anyone else with the need to know.

**Minutes of the Meeting:** Assign someone to take minutes. Establish a meeting distribution list.

**Concrete Mix Design and Specifications:** Have the mix designs been approved and what is the approval process? Are there any special concrete performance requirements or conditions? Are value-added admixtures approved for use and who can authorize them?

**Ordering Concrete and Scheduling Deliveries:** Ensure that concrete delivery schedules are in place. Establish the lead-time needed to place the order, especially for large placements or special concrete, and establish links of communication for last minute cancellations. Establish who has the authority to place and cancel concrete orders. Establish truck staging areas and location to wash out trucks and disposing of excess concrete.

**Plant Inspections:** Are plant inspections required? If so who will do the inspections and what will it entail. Will an NRMCA certification be accepted?

**Job Inspections:** Who is responsible for inspection and approval of forms and rebar prior to concrete placement? Who is responsible for approving adequacy of subgrade preparation for concrete slabs on grade? Who is responsible for placing and consolidation of concrete? Who will ensure that proper

methods of finishing and curing are employed? What method will be used and for how long will concrete be cured? What is the minimum concrete strength required for stripping form? Will there be a formal report form for stripping forms? Will there be any in-place strength testing? Who is responsible to authorize form removal? Where will field-cured cylinders be stored and for what purpose will they be tested?

**Sampling and Testing:** What procedure will be followed for acceptance samples? What is the frequency for sampling and testing concrete? Will concrete be sampled as it is discharged from the truck mixer or at another location? What tests will be performed? Who will conduct the testing and who will verify that the technicians are certified? How many test cylinders will be made, how will they be cured, and at what ages will they be tested? What procedure is followed for non-conformance to specification?

**Acceptance and Rejection Responsibilities for Fresh Concrete:** Who has the authority to add water to the concrete on site? Who has the authority to reject concrete delivery? For what reasons can concrete be rejected? What are the tolerances for slump, air content, unit weight, and temperature? Establish re-test procedures for concrete prior to rejection.

**Specimen Handling:** How will cylinders be stored at the jobsite? Who is required to provide the initial curing environment for the test cylinders and how will controlled temperature and moisture be maintained? How will test cylinders be transported on weekends or non-workdays and who will arrange for access on to the site? What curing procedure is used at the testing facility? Verify that cylinders will be handled, transported and cured in accordance with ASTM C 31, or other applicable standards.

**Report Distribution and Acceptance Criteria:** Define the time frame for the report distribution and who will get copies of test reports. What will be on the reports and what will be the strength acceptance criteria: ACI 318, ASTM C 94 or other?

**Testing of In-Place Concrete:** The meeting should address what situations will require additional testing. How will the test results be evaluated, and by whom? Who incurs the expense for additional evaluations?

The items listed above are examples of some of the issues that should be discussed at a pre-construction conference. It also provides the opportunity for all involved parties to thoroughly review the specification and contract documents and if necessary make changes and improvements to them. It will also provide an understanding of responsibilities, which should be documented, for future reference.

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### References

1. *Ready Mixed Concrete Quality Control Checklist*, Quality Control Manual - Section 1, NRMCA, Silver Spring, MD.
  2. *Concrete Pre-Construction Checklist*, Georgia Concrete & Products Association, 1st Edition.
  3. *NRMCA-ASCC Checklist for the Concrete Pre-Construction Conference*, NRMCA, Silver Spring, MD.
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### SUGGESTED PRE-CONSTRUCTION CONFERENCE AGENDA ITEMS

- Project information and schedule
- Project participants
- Construction sequence and processes
- Base/subgrade construction and acceptance
- Site access
- Power, lighting, water
- Formwork and removal
- Placing concrete - equipment and procedures
- Vapor retarders/barriers
- Consolidation
- Finishing
- Requirements for surface finishes
- Jointing
- Curing and sealing
- Protection of concrete
- Hot and cold weather precautions
- Concrete materials and mixtures
- Specification requirements for concrete
- Jobsite adjustments
- Special materials
- Ordering and scheduling concrete delivery
- Quality control / Quality assurance
- Report distribution
- Corrective actions
- Test specimen storage, transportation and testing
- Acceptance/rejection of fresh and hardened concrete
- In-place concrete strength evaluation
- Dispute resolution and cost assignment
- Jobsite environmental management
- Jobsite safety

