



*Checklist for the Concrete  
Pre-Construction  
Conference*



## Introduction

Pre-construction meetings are of prime importance in planning concrete construction work because many potential problems can be avoided at the right time – before the start of the project when the cost impact is relatively low.

In 1999, the National Ready Mixed Concrete Association (NRMCA) and the American Society of Concrete Contractors (ASCC) joined in a partnership to enhance the quality of concrete construction. This checklist is one of the ongoing initiatives of the partnership.

NRMCA and ASCC recognize the benefits resulting from participating in these pre-construction meetings and have prepared this **Checklist for the Concrete Pre-construction Conference** to assist the decision makers and participants on a project - representing the owner, specifier, general contractor, concrete contractor, concrete producer, other material suppliers and testing agency – in planning quality concrete construction work.

The checklist allocates responsibilities and establishes procedures related to concrete construction – subgrade preparation, forming, concrete mixture proportioning (mix design), necessary equipment, ordering and scheduling materials and operations, placing, consolidating, finishing, jointing, curing and protection, testing and acceptance as well safety and environmental issues.

The checklist covers some of the issues that need to be discussed at a pre-construction meeting and is not intended to be all-inclusive.



### Sample Checklist for the Concrete Pre-Construction Conference

#### A. Project Information

- 1. Project name \_\_\_\_\_
- 2. Location \_\_\_\_\_
- 3. Project start date \_\_\_\_\_
- 4. Project completion date \_\_\_\_\_

5. Project participants	Contact
• Owner _____	_____
• Architect _____	_____
• Structural engineer _____	_____
• Construction manager or General contractor _____	_____
• Concrete contractor _____	_____
• Concrete producer _____	_____
• Admixture supplier _____	_____
• Concrete pumping contractor _____	_____
• Concrete finisher _____	_____
• Testing laboratory _____	_____
• Inspection agency _____	_____
• Other _____	_____

6. Background information about the project

\_\_\_\_\_

\_\_\_\_\_

7. Unique features of the project

\_\_\_\_\_

\_\_\_\_\_

8. Distribution of completed checklist
- Project Participants
  - Others: \_\_\_\_\_

**B. Construction Process**

- 1. Review notes and changes on drawings that may affect construction process

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- 2. Sequence of construction and milestones dates

- a. Foundations \_\_\_\_\_
- b. Walls \_\_\_\_\_
- c. Structural slabs \_\_\_\_\_
- d. Slab-on-grade interior \_\_\_\_\_
- e. Slab-on-grade exterior \_\_\_\_\_

- 3. Construction/Acceptance of base/subgrade, compaction, elevation. Responsibility for:

- a. Providing base and subgrade elevations to contractors

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- b. Stability of the base and or subgrade under construction traffic

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- c. Protecting the base and/or subgrade from water damage

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- d. Compacting and final grading of the base and subgrade after all plumbing installations are complete

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- e. Location of electrical lines (conduit)

- In subgrade trenched and backfilled with rock \_\_\_\_\_
- In rock subgrade \_\_\_\_\_
- Protection from truck traffic if required \_\_\_\_\_

- 4. Responsibility for site access roads and their maintenance

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- 5. Responsibility for available space for pumping operations if required

- Access for two trucks to pump, one on each side \_\_\_\_\_
- Staging area for testing and slump adjustment \_\_\_\_\_

- 6. Person responsible for directing trucks to pump or placement area \_\_\_\_\_

- 7. Responsibility for directing/backing up trucks \_\_\_\_\_

- 8. Responsibility for power, lighting, water, and water pressure during placing and finishing

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- 9. Responsibility for controlling the ambient temperatures (subgrade, forms, and air)

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10. Forms

- a. Form sizes, types \_\_\_\_\_
- b. Lifting equipment required \_\_\_\_\_
- c. Form materials, accessories \_\_\_\_\_
- d. Review location of reinforcement, embedded items, waterstops, drains, openings, openings for frames, etc. \_\_\_\_\_  
\_\_\_\_\_
- e. Scheduling form erection and removal correlated to reinforcing and concreting operations \_\_\_\_\_
- f. Responsibility for installation and inspection
  - i. Reinforcement \_\_\_\_\_
  - ii. Embedded items \_\_\_\_\_
  - iii. Waterstops \_\_\_\_\_
  - iv. Drains \_\_\_\_\_
  - v. Opening Frames \_\_\_\_\_
- g. Responsibility for form inspections
  - i. Preliminary – prior to rebar placement \_\_\_\_\_
  - ii. Semifinal – with rebars, embedded items, waterstops and drains: \_\_\_\_\_  
**Note:** Reinforcement inspection must include
    - Location and spacing to allow access for vibration equipment and proper coverage
    - Spacing of reinforcement in relation to aggregate size
  - iii. Final – before placing concrete \_\_\_\_\_

11. Vapor retarder or vapor barrier membrane

- a. Type of membrane \_\_\_\_\_
- b. Location of membrane relative to subgrade \_\_\_\_\_  
\_\_\_\_\_
- c. Effect on curling \_\_\_\_\_
- d. Effect on bonding of applied floor coverings \_\_\_\_\_  
\_\_\_\_\_
- e. Basis of acceptance for installation of moisture sensitive flooring materials (wood, carpet, tiles) on the slab
  - i. Moisture emission requirements for flooring materials to be installed \_\_\_\_\_  
\_\_\_\_\_
  - ii. Responsibility for
    - Testing and reporting of the test results \_\_\_\_\_
    - Acceptance of the slab \_\_\_\_\_

12. Placing Concrete: equipment and procedures

- a. Deposit from truck \_\_\_\_\_  
\_\_\_\_\_
- b. Buggy \_\_\_\_\_  
\_\_\_\_\_
- c. Belt conveyor \_\_\_\_\_  
\_\_\_\_\_
- d. Bucket placement \_\_\_\_\_  
\_\_\_\_\_

e. Pumping \_\_\_\_\_  
\_\_\_\_\_

f. Other \_\_\_\_\_  
\_\_\_\_\_

13. Consolidation of concrete: equipment and procedures

a. Vibrators \_\_\_\_\_  
\_\_\_\_\_

b. Vibratory screeds (surface vibrators) \_\_\_\_\_  
\_\_\_\_\_

c. Back up equipment \_\_\_\_\_

d. Power source \_\_\_\_\_

e. Other \_\_\_\_\_  
\_\_\_\_\_

14. Responsibility for inspection of placing and consolidation of concrete

\_\_\_\_\_

15. Ventilation in enclosed spaces

a. Type of test required \_\_\_\_\_

b. Responsibility for ventilation:

i. During placement \_\_\_\_\_

ii. During finishing \_\_\_\_\_

16. Strike off technique

Hand strike off \_\_\_\_\_

Vibratory screed \_\_\_\_\_

Laser screed \_\_\_\_\_

Other \_\_\_\_\_

17. Finishing

a. Types of finishes

• Area 1 \_\_\_\_\_

• Area 2 \_\_\_\_\_

• Area 3 \_\_\_\_\_

• Area 4 \_\_\_\_\_

b. Special materials for finishes \_\_\_\_\_

Dry-shake hardener

• Rate of application \_\_\_\_\_

• Procedure to install \_\_\_\_\_

c. Tools and equipment required \_\_\_\_\_

d. Back up tools and equipment required \_\_\_\_\_



18. Specified tolerances for

a. Vertical concrete surfaces:

- Plumbness \_\_\_\_\_
- Dimensions \_\_\_\_\_
- Thickness \_\_\_\_\_
- Texture \_\_\_\_\_
- Color \_\_\_\_\_

- Acceptable variances \_\_\_\_\_

- Surface defects \_\_\_\_\_
- Others \_\_\_\_\_

**Note.** Refer to ASCC Guide for Surface Finish of Formed Concrete

b. Slabs-on-grade and floors

- Flatness/levelness \_\_\_\_\_
- Dimensions \_\_\_\_\_
- Thickness \_\_\_\_\_

- How it will be determined \_\_\_\_\_

- Texture \_\_\_\_\_
- Color \_\_\_\_\_

- Acceptable variances \_\_\_\_\_

- Surface defects \_\_\_\_\_
- Joint spacing \_\_\_\_\_
- Others \_\_\_\_\_

c. Elevated slabs

- Flatness/levelness \_\_\_\_\_
- Dimensions \_\_\_\_\_
- Thickness \_\_\_\_\_

- How it will be determined \_\_\_\_\_

- Texture \_\_\_\_\_
- Color \_\_\_\_\_

- Acceptable variances \_\_\_\_\_

- Surface defects \_\_\_\_\_
- Others \_\_\_\_\_

d. Procedures for measuring tolerances (when and how)

\_\_\_\_\_

e. Review specifications for possible conflict between the concrete installer and other trades

\_\_\_\_\_

\_\_\_\_\_

- f. Review specifications for conflict between the surface profile provided by the concrete installer and the surface profile required by installer of finish material

\_\_\_\_\_

\_\_\_\_\_

- g. Responsibility for

- i. Reporting F-numbers to concrete contractor \_\_\_\_\_
- ii. Accepting floors \_\_\_\_\_
- iii. Measuring tolerances \_\_\_\_\_
- iv. Repairing "air or bug holes" in vertical surfaces \_\_\_\_\_
- v. Removing curing compounds prior to application of sealers \_\_\_\_\_

19. Jointing

- a. Review/verification of contraction, isolation, expansion, and construction joint layout plans

- Structures (walls)             Yes    No  
 Comments (number, location, spacing, details) \_\_\_\_\_
- Slabs-on-grade             Yes    No  
 Comments (number, location, spacing, details) \_\_\_\_\_

- b. Type of joints                     contraction         isolation         expansion

- 1. Formed joints \_\_\_\_\_
- 2. Tooled joints \_\_\_\_\_
- 3. Early entry saw-cut
  - Timing \_\_\_\_\_
  - Depth of cut \_\_\_\_\_
  - Joint spacing \_\_\_\_\_
  - Equipment \_\_\_\_\_
- 4. Conventional saw-cut
  - Timing \_\_\_\_\_
  - Depth of cut \_\_\_\_\_
  - Joint spacing \_\_\_\_\_
  - Equipment \_\_\_\_\_

- c. Slabs-on-grade

- i. Joints                             Yes    No
- ii. Reinforcement             Yes    No
  - Position of reinforcement in slab \_\_\_\_\_
  - Method of supporting reinforcement at specified elevation \_\_\_\_\_
  - Termination at joints \_\_\_\_\_

- iii. Load transfer devices (e.g. dowel bars)
  - Type, size, and location \_\_\_\_\_
  - Check for specified alignment \_\_\_\_\_
- iv. Define unacceptable cracks (see surface defects in tolerances) \_\_\_\_\_  
\_\_\_\_\_
- v. Method of repair of unacceptable cracks \_\_\_\_\_
- vi. Responsibility for repair of unacceptable cracks \_\_\_\_\_
- vii. Sealing (Filling) Joints     Yes     No
  - Epoxy joint filler             Yes     No
  - Elastomeric sealant         Yes     No
  - Timing (review product directions and ACI Guidelines) \_\_\_\_\_  
\_\_\_\_\_
  - Depth of filling \_\_\_\_\_
  - Procedure (flush or a slightly crowned for epoxy joint or concave for elastomeric sealant)  
\_\_\_\_\_  
\_\_\_\_\_
  - Responsibility for future touch up \_\_\_\_\_

20. Curing and Sealing

- a. Curing methods \_\_\_\_\_
- b. Curing periods \_\_\_\_\_
- c. Responsibility for curing floors placed prior to erection of roof, walls  
\_\_\_\_\_
- d. Temperature Control             Yes     No
  - Specify \_\_\_\_\_
  - If temporary heaters are used, responsibility for venting to prevent concrete dusting  
\_\_\_\_\_
- e. Excessive evaporation control  
Specify \_\_\_\_\_
- f. Evaporation retarder             Yes     No  
Specify \_\_\_\_\_
- g. Fogging                             Yes     No  
Specify \_\_\_\_\_
- h. Other \_\_\_\_\_
- i. Responsibility for inspection of curing operations/timing  
\_\_\_\_\_
- j. Responsibility for removing curing compounds \_\_\_\_\_  
\_\_\_\_\_
- k. Applying sealers \_\_\_\_\_
  - Types \_\_\_\_\_
  - Locations \_\_\_\_\_

21. Protection of concrete

- a. Roof and Walls  Yes  No

Specify \_\_\_\_\_

- b. Floors coverings  Yes  No

Specify \_\_\_\_\_

- c. Floor Protection  Yes  No

i. Specify age/strength of floor prior to the use of floor by:

- Foot traffic \_\_\_\_\_
- Pneumatic tire traffic \_\_\_\_\_
- Hard wheel traffic \_\_\_\_\_
- Construction traffic \_\_\_\_\_

ii. Specify age/strength of floor when

- Equipment is installed \_\_\_\_\_
- Racks are erected \_\_\_\_\_

22. Responsibility for storage areas and site security

\_\_\_\_\_  
\_\_\_\_\_

23. Form removal

- a. What is the minimum strength requirement for form removal? \_\_\_\_\_ psi.

- b. What formal report is required before form removal? \_\_\_\_\_

- c. Type of field or in-place strength tests if used and evaluation criteria? \_\_\_\_\_

- d. Name(s) of personnel authorized to approve form removal \_\_\_\_\_

24. Procedures for hot weather concreting

\_\_\_\_\_  
\_\_\_\_\_

25. Procedures for cold weather concreting

\_\_\_\_\_  
\_\_\_\_\_

**C. Concrete Materials and Required Mixture Proportioning (Mix Design)**

1. Concrete Mixtures (Mix Design)

List of Mixture (Mix Design) Designations	Mixture (Mix Design) Codes	Location	Approximate Volumes

2. Mixtures (Mix designs) acceptance

a. Have mixtures (mix designs) been approved  Yes  No

b. Responsibility for mixture (mix design) approval \_\_\_\_\_

Comments: \_\_\_\_\_

c. Copies of the approved mixtures (mix designs) provided to

- Owner  Yes  No
- Architect  Yes  No
- Structural engineer  Yes  No
- Construction manager or general contractor  Yes  No
- Concrete contractor  Yes  No
- Concrete pumping contractor  Yes  No
- Concrete finisher  Yes  No
- Testing laboratory  Yes  No
- Inspection agency  Yes  No

3. Additional mixtures (mix designs) required  Yes  No

• Specify \_\_\_\_\_

• Approved  Yes  No

4. Consideration for aggregates

a. Gradation \_\_\_\_\_

b. Sand requirements \_\_\_\_\_

5. Pumped concrete  Yes  No

6. High early strength  Yes  No Strength required \_\_\_\_\_ psi at age \_\_\_\_\_

7. Lightweight concrete  Yes  No

8. Other \_\_\_\_\_  Yes  No

Comments: \_\_\_\_\_

9. Concrete batch plant

Central-mixed  Shrink-mixed  Truck-mixed

a. Primary plant: \_\_\_\_\_ Backup plant: \_\_\_\_\_

b. NRMCA Production Facility Certification Required  Yes  No

c. Inspection requirements

- Full time
- Part time
- Not required

d. Revolutions or time limits for mixing concrete \_\_\_\_\_

**Note:** Refer to ASTM C 94

10. Review project specifications for conflicts in performance requirements (compressive/flexural strength, durability, shrinkage, curling and water-cementitious materials ratio, water content, slump, air content)

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11. Other value-added ingredient materials required

- Mid range water reducing admixture       Yes    No
- High range water reducing admixture       Yes    No
- Non-chloride accelerator                       Yes    No
- Corrosion inhibitors                               Yes    No
- Fly Ash ASTM Class C                            Yes    No
- Fly Ash ASTM Class F                            Yes    No
- GGBF Slag      Yes    No
- Silica fume      Yes    No
- Type K cement                                       Yes    No
- Component expansion admixture            Yes    No
- Fibers      Yes    No
- Color      Yes    No
- Other \_\_\_\_\_  Yes    No

Comments (specify type and quantity of ingredient, etc.) \_\_\_\_\_

**Note 1.** Batching all ingredient materials at the plant ensures best quality control of concrete. Jobsite modifications to mixture should be communicated to the concrete producer.

**Note 2.** Add appendices for requirements of ingredient materials

12. Project specification requirements for air content

- Normal weight air-entrained concrete (not recommended if floors require a machine troweled finish but recommended for all exterior work)

Comments \_\_\_\_\_

- Are adjustments to air content allowed on the jobsite    Yes    No

Comments \_\_\_\_\_

- Air-entrained lightweight concrete for interior slabs

Comments \_\_\_\_\_

- Other requirements: \_\_\_\_\_

Comments \_\_\_\_\_

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13. Project specification requirements for slump limits

- Conventional concrete      Max \_\_\_\_\_ Min \_\_\_\_\_
- Pumped concrete              Max \_\_\_\_\_ Min. \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_

- Plasticized concrete          Max \_\_\_\_\_ Min. \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_

- Other:                              Max \_\_\_\_\_ Min. \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_

14. Jobsite slump adjustments

a. Responsibility for:

- i. Making/Permitting jobsite slump adjustments \_\_\_\_\_
- ii. Recording of adjusted batch \_\_\_\_\_

b. Materials permitted to adjust the slump

- Water \_\_\_\_\_
- Mid-range water reducer \_\_\_\_\_
- High-range water reducer \_\_\_\_\_

c. Procedure to be followed and limitations that apply to jobsite slump adjustment (maximum amount, subsequent mixing, sampling of the load) \_\_\_\_\_  
\_\_\_\_\_

15. Project specification requirements for temperature

a. Required temperature of concrete as delivered: Max \_\_\_\_\_ °C/°F Min \_\_\_\_\_ °C/°F

b. Responsible person for requiring and approving special measures to meet concrete temperatures such as hot water, heated aggregate, cold water, ice, liquid nitrogen \_\_\_\_\_  
\_\_\_\_\_

c. Outline procedure to be followed and limitations that apply for measurement of concrete temperature and acceptance of concrete at the jobsite: \_\_\_\_\_  
\_\_\_\_\_

16. Project specification requirements for concrete delivery time

- ASTM C 94
- Other \_\_\_\_\_

17. Project specification requirements for lightweight concrete

- Maximum unit weight \_\_\_\_\_
- Slump \_\_\_\_\_
- Air content \_\_\_\_\_
- Pumping operations \_\_\_\_\_

\_\_\_\_\_

18. Architectural concrete

a. Finish details

Location

- Exposed aggregate \_\_\_\_\_
- Smooth finish \_\_\_\_\_
- Rubbed finish \_\_\_\_\_
- Colored \_\_\_\_\_
- Imprinted \_\_\_\_\_
- Details (grouted joints, textured) \_\_\_\_\_

b. Special materials

- Cement \_\_\_\_\_
- Aggregates \_\_\_\_\_
- Water \_\_\_\_\_
- Admixtures \_\_\_\_\_
- Sealers \_\_\_\_\_
- Release agents \_\_\_\_\_

c. Architectural samples or mockups

- Location \_\_\_\_\_
- Preservation \_\_\_\_\_
- Responsibility for acceptance \_\_\_\_\_

d. Repair methods \_\_\_\_\_

**D. Ordering and Scheduling Concrete**

1. Person(s) responsible for ordering concrete (Concrete must be ordered by mixture (mix design) code)  
\_\_\_\_\_
2. Minimum time notice required for most placements \_\_\_\_\_
3. Define large and specialty orders \_\_\_\_\_
4. Minimum notice required for large and specialty placements \_\_\_\_\_
5. Procedure for handling will call orders \_\_\_\_\_
6. Procedure for handling revised orders \_\_\_\_\_
7. Contact name(s) and phone number(s) for last-minute cancellations
  - Producer \_\_\_\_\_
  - Concrete contractor \_\_\_\_\_
  - Construction manager or general contractor \_\_\_\_\_



- 8. Person on jobsite responsible for reviewing delivery ticket prior to placement  
\_\_\_\_\_
- 9. Regular hours are between \_\_\_\_\_ A.M. and \_\_\_\_\_ P.M.  
Regular workdays are \_\_\_\_\_ through \_\_\_\_\_ not including designated holidays
- 10. Are there any anticipated holiday and/or overtime placements?     Yes     No  
Comments \_\_\_\_\_
- 11. Delivery schedules
  - a. Location of placement \_\_\_\_\_
  - b. Anticipated placement sizes \_\_\_\_\_ cubic yards
  - c. Minimum load size \_\_\_\_\_ cubic yards
  - d. What are anticipated placement rates \_\_\_\_\_ cubic yards/hour
  - e. Approximate placements dates \_\_\_\_\_
  - f. Inclement weather plant capability \_\_\_\_\_
- 12. Concrete delivery
  - a. Any traffic restrictions at or near the jobsite                     Yes     No  
Comments \_\_\_\_\_
  - b. Any restrictions on entrance to or exits from jobsite     Yes     No  
Comments \_\_\_\_\_
  - c. Other Items \_\_\_\_\_  
Comments \_\_\_\_\_
- 13. Trucks:
  - a. Number of trucks \_\_\_\_\_
  - b. Type of trucks \_\_\_\_\_
  - c. Interval Schedule (Turn around time) \_\_\_\_\_

**E. Environmental Aspects**

- 1. Environmentally sensitive areas around the project             Yes     No  
Comments: \_\_\_\_\_
- 2. Responsibility for providing a concrete wash out area at the jobsite \_\_\_\_\_  
\_\_\_\_\_
- 3. Responsibility for clean up of the wash out areas \_\_\_\_\_
- 4. Person responsible for directing trucks to the wash out area \_\_\_\_\_  
\_\_\_\_\_
- 5. Are spill response kits available on site?                             Yes     No  
Comments \_\_\_\_\_
- 6. On site emergency contact person \_\_\_\_\_  
\_\_\_\_\_

7. Responsibility for disposal of curing compounds \_\_\_\_\_  
\_\_\_\_\_

8. Other Items \_\_\_\_\_  
\_\_\_\_\_

**F. Quality Control/Assurance**

1. Accreditation requirements for laboratory \_\_\_\_\_

2. Certification requirements for

a. Laboratory testing technicians

Name

ACI Concrete Laboratory Testing Technician Grade I \_\_\_\_\_

ACI Concrete Laboratory Testing Technician Grade II \_\_\_\_\_

Equivalent \_\_\_\_\_

b. Field testing technicians

Name

ACI Grade I Certified \_\_\_\_\_

Equivalent \_\_\_\_\_

3. Advance notice for scheduling testing personnel \_\_\_\_\_

4. Procedures for verification of specified requirements

Batch Records

Strength Tests

Other \_\_\_\_\_

**F.1 Concrete Sampling and Testing Requirements**

1. Sampling frequency \_\_\_\_\_

2. Sampling location

Point of discharge

Point of placement

Comments (agreement on sampling location) \_\_\_\_\_  
\_\_\_\_\_

3. Tests performed on each sample

Slump

Temperature

Density (unit weight)

Air content

Compressive strength

Flexural strength

Other \_\_\_\_\_

4. Cylinder size for compressive strength test
  - o 4x8 inch                      o 6x12 inch
5. Beam size for flexural strength test
  - o 6x6 inch                      o Length: refer to ASTM C31
  - Other size \_\_\_\_\_

**Note.** If beam breaks are low, compare acceptable concrete with suspect concrete by coring
6. Number of cylinders per sample \_\_\_\_\_  
(hardened cylinder weight must be recorded on concrete strength reports)
7. Number of beams per sample \_\_\_\_\_
8. Number of cylinders/beams to be cured \_\_\_\_\_ Field? \_\_\_\_\_ Lab? \_\_\_\_\_
9. At what ages are cylinders/beams to be tested? \_\_\_\_\_
10. Number of cylinders/beams per test (minimum 2) \_\_\_\_\_
11. Are reserve cylinders/beams required?    o Yes    o No            How many? \_\_\_\_\_
12. Frequency of yield tests and compliance checks (three-load average of unit weight)  
\_\_\_\_\_

**F.2 Test Cylinder Storage and Transportation:**

1. Initial curing (up to \_\_\_\_\_ hours)
  - Immersed in water-controlled temperature
  - Storage box-controlled temperature - record daily minimum and maximum temperature
  - Exposed to the environment - record daily minimum and maximum temperature

**Note.** In the absence of cylinder storage with daily record of minimum/maximum temperatures, cylinders shall be immersed in water immediately after molding

  - Storage at jobsite under conditions consistent with concrete in structure

**Note:** Field-cured cylinders are used to determine the appropriate time for form removal or post-tensioning
2. Responsibility for providing cylinder storage box \_\_\_\_\_  
**Note:** Refer to ACI 301
3. Responsibility for maintaining temperature in storage box between 60-80°F (16 to 27°C) during first 16-48 hours after molding \_\_\_\_\_  
\_\_\_\_\_
4. Describe how storage box temperature will be maintained \_\_\_\_\_  
\_\_\_\_\_
5. When will cylinders made on days preceding non-work days be transported to the laboratory?  
\_\_\_\_\_
6. Describe arrangements for access to construction site on non-work days  
\_\_\_\_\_
7. Responsibility for final curing as per ASTM C 31 \_\_\_\_\_  
\_\_\_\_\_

**F.3 Acceptance/Rejection of Fresh Concrete:**

1. Who has the authority to reject a concrete delivery? \_\_\_\_\_

**Note:** A second person may be designated as having the authority for FINAL rejection of a concrete delivery

2. What criteria will be used to reject concrete

- Slump \_\_\_\_\_
- Air content \_\_\_\_\_
- Unit weight \_\_\_\_\_
- Temperature \_\_\_\_\_
- Time limit \_\_\_\_\_
- Other \_\_\_\_\_

3. Are re-tests allowed before rejection?     Yes     No

Procedure \_\_\_\_\_  
\_\_\_\_\_

**F.4 Acceptance Criteria for Hardened Concrete**

1. Review Acceptance Criteria

- ACI 301/318
- ASTM C 94
- Other \_\_\_\_\_

2. Distribution of test reports (to all participants)

- Owner \_\_\_\_\_
- Architect \_\_\_\_\_
- Structural engineer \_\_\_\_\_
- Construction manager or  
General contractor \_\_\_\_\_
- Concrete contractor \_\_\_\_\_
- Concrete producer \_\_\_\_\_
- Admixture supplier \_\_\_\_\_
- Concrete pumping contractor \_\_\_\_\_
- Concrete finisher \_\_\_\_\_
- Testing laboratory \_\_\_\_\_
- Inspector \_\_\_\_\_
- Jobsite testing technicians \_\_\_\_\_

**Note.** Concrete producer and concrete contractor must receive reports directly and immediately from the laboratory to allow timely response to any deficiencies.

3. Potential concrete deficiencies

- Target cylinder strength for earlier ages than 28 days (at 3-7 days) \_\_\_\_\_  
\_\_\_\_\_

- Procedure for timely reporting results to concrete producer and concrete contractor before the 28-day strength tests (density, 3-7 day strength, etc.) \_\_\_\_\_  
\_\_\_\_\_

**F.5 Testing of Hardened In-Place Concrete**

1. In what situations will additional (or referee) testing be required?
  - Running average of three consecutive strength tests is less than specified – ACI 318
  - Individual strength test is 500 psi less than specified – ACI 318
  - Other \_\_\_\_\_
2. Procedure(s) to be followed for evaluation of low-strength tests
  - Evaluation of test results and testing procedures – including laboratory operations  
Comments \_\_\_\_\_  
\_\_\_\_\_
  - Non-destructive testing
    - Penetration probe in accordance with ASTM C 803
    - Rebound hammer in accordance with ASTM C 805
    - Other (combined method) \_\_\_\_\_

**Note.** Refer to ACI 228.1R
  - Evaluation of structural adequacy of questionable sections by the structural engineer  
\_\_\_\_\_
  - Core testing and evaluation in accordance with ACI 318
    - Procedure for conditioning cores prior to testing \_\_\_\_\_  
\_\_\_\_\_
  - Load testing in accordance with
    - ACI 318
    - Other \_\_\_\_\_
  - Remove and replace  
Comments: \_\_\_\_\_  
\_\_\_\_\_
3. How do the project specifications handle additional testing? \_\_\_\_\_  
\_\_\_\_\_  
If additional testing is required, \_\_\_\_\_ will notify the following parties \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. What investigative procedures will be used?  
\_\_\_\_\_  
\_\_\_\_\_
5. Who will be employed to conduct additional testing and who employs them?  
\_\_\_\_\_  
\_\_\_\_\_
6. How will the test results be evaluated?  
\_\_\_\_\_  
\_\_\_\_\_

7. Who will pay the costs of additional testing?

- Specified strength confirmed \_\_\_\_\_
- Specified strength not confirmed \_\_\_\_\_

**G. Safety**

1. Personal protective equipment required

- Hard hats
- Safety boots
- Eye protection
- Safety vests
- Specific protective clothing
- Respirators
- Other \_\_\_\_\_

2. Responsibility for:

- a. First aid supplies \_\_\_\_\_
- b. Providing and maintaining Material Safety Data Sheets (MSDS) at the jobsite \_\_\_\_\_
- c. Fall protection \_\_\_\_\_
- d. Safety Inspections \_\_\_\_\_
- e. Safety meetings \_\_\_\_\_

3. Emergency Contacts

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



The National Ready Mixed Concrete Association is a trade association representing producers of ready mixed concrete and those companies that provide materials and support to the industry. The primary goal of NRMCA is to increase the professionalism of the industry. NRMCA provides its members with education, training, product promotion assistance, information on research and technology and representation before Congress and regulatory bodies.

The American Society of Concrete Contractors is a non-profit organization dedicated to enhancing the capabilities of those who build with concrete. Members of ASCC are concrete contractors, material suppliers, equipment manufacturers, and others involved in concrete and decorative concrete construction. ASCC provides a unified voice in the concrete construction industry, and offers many services including: an extensive safety program, problem solving assistance, networking opportunities, and educational materials.



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