

CONCRETE PRE-CONSTRUCTION CHECKLIST

4th Edition – Updated 8/12/2008

Developed by
The Georgia Concrete & Products Association (GC&PA)
in Association with
American Consulting Engineers Council of Georgia (ACEC)

CONCRETE PRE-CONSTRUCTION CHECKLIST

Project:	_____	Date:	_____
Project Start Date:	_____	Completion Date:	_____
Yards in Project:	_____	Location:	_____
Contractor:	_____	Testing Lab:	_____
Concrete Producer:	_____	Structural Engineer:	_____
Primary Plant:	_____	Owner:	_____
Backup Plant:	_____	Architect:	_____
		Pump Contractor:	_____

1. Mix Designs & Specifications

A. Have mixes been approved? Yes ☐ No ☐

Comments: _____

B. Does jobsite have copies of approved mix designs? Yes ☐ No ☐

Does testing lab have copies of approved mix designs? Yes ☐ No ☐

Does concrete contractor have copies of approved mix designs? Yes ☐ No ☐

C. Additional mixes required?

a) Pump? Yes ☐ No ☐ Approved: Yes ☐ No ☐

b) Small Line Pump? Yes ☐ No ☐ Approved: Yes ☐ No ☐

c) High Early? Yes ☐ No ☐ Approved: Yes ☐ No ☐

Required Strength: _____ at what age? _____

d) Lightweight? Yes ☐ No ☐ Approved: Yes ☐ No ☐

e) Self Consolidating? Yes ☐ No ☐ Approved: Yes ☐ No ☐

f) Pervious? Yes ☐ No ☐ Approved: Yes ☐ No ☐

g) Curb? Yes ☐ No ☐ Approved: Yes ☐ No ☐

h) Blockfill? Yes ☐ No ☐ Approved: Yes ☐ No ☐

i) Other? Yes ☐ No ☐ Approved: Yes ☐ No ☐

Comments: _____

D. Will specialty material be required?

a) Non-Chloride Accelerator (NCA) Yes ☐ No ☐

b) Mid-Range Yes ☐ No ☐

c) Color Yes ☐ No ☐

- | | | |
|---|------------------------------|-----------------------------|
| d) High Range Water Reducer (Super P) | Yes ☐ | No ☐ |
| e) Synthetic Fibers (Type_____/Dosage_____) | Yes ☐ | No ☐ |
| f) Macro/Steel Fibers (Type_____/Dosage_____) | Yes ☐ | No ☐ |
| g) Waterproofing | Yes ☐ | No ☐ |
| h) Corrosion Inhibitor | Yes ☐ | No ☐ |
| i) Shrinkage Reduction Admixture | Yes ☐ | No ☐ |
| j) Expansive Cement/Component | Yes ☐ | No ☐ |
| k) Architectural Aggregates | Yes ☐ | No ☐ |
| l) Other _____ | Yes ☐ | No ☐ |

E. Specification requirements? Slump Limits:

- | | | |
|--|------------|------------|
| a) Conventional Concrete (inches): | Max: _____ | Min: _____ |
| b) Pumped Concrete (inches): | Max: _____ | Min: _____ |
| Measured at the Pump: ☐ <u>Inlet</u> (back of truck) or ☐ <u>Exit</u> (end of hose) | | |
| c) Plasticized Concrete (inches): | Max: _____ | Min: _____ |
| d) Self Consolidating (spread in inches): | Max: _____ | Min: _____ |
| e) High Strength/Performance Concrete: | Max: _____ | Min: _____ |
| <ul style="list-style-type: none"> o Acceptance strength: _____ at _____ days of age o Minimum load size? _____ o Curing requirements? Cylinders: _____ Structure: _____ o Test cylinder size? ☐ 4 x 8 ☐ 6 x 12 o Lab testing procedures (specimen storage, capping & compression) | | |
| _____ | | |
| f) Other: _____ | Max: _____ | Min: _____ |
| Comments: _____ | | |
| _____ | | |

F. Specification requirements? Air Content:

- | | | |
|---|------------------------------|-----------------------------|
| a) Are air limits acceptable? | Yes ☐ | No ☐ |
| b) Are air adjustments allowed on-site? | Yes ☐ | No ☐ |
| c) Who is responsible for concrete after truck discharge? | _____ | |
| _____ | | |
| d) No air in interior slabs? | Yes ☐ | No ☐ |
| Comments: _____ | | |

G. Water addition at the jobsite?

- a) Will water addition be allowed on the job site? Yes ☐ No ☐
- b) Who is authorized to add water? _____
- c) Briefly outline water addition procedures and list any limitations that may apply (C 94);

- d) Will addition of HRWR or Mid-Range be allowed for slump adjustment: Yes ☐ No ☐

H. Concrete temperature (as delivered)?

Note: ACI 305.1-06 *Standard Specification for Hot Weather Concreting*; allows maximum concrete temperatures of 95°F unless higher temperatures are acceptable to Architect/Engineer.

- a) Temperature Limits on delivered concrete: Max: _____ Min: _____
- b) If special measures are required to meet max./min. temperature requirements; who is responsible for ordering them, since these are extra cost items (i.e. hot or chilled water, ice)? _____
- c) Briefly outline temperature measurement procedures and list any limitations on concrete acceptance at the job site: _____

I. Time Limits?

- a) Maximum concrete age from time of batching for:
- o Placement: _____
 - o Testing: _____

J. Light Weight Specification Limits?

- a) Maximum weight: Plastic _____ Dry _____
- b) Slump: Max: _____ Min: _____
- c) Air Content: Max: _____ Min: _____

2. Ordering Procedures

Note: Mixes must be ordered by mix code according to use and location.

- A. Person(s) responsible for ordering concrete: _____

- B. Minimum noticed required for most placements: _____
- C. Minimum noticed required for “specialty” placements: _____

- D. What is “Will Call” vs. “On the Job” order? _____
- E. On-site person responsible for reviewing delivery ticket prior to placement? _____
- F. Hours of operation:
- a) Are there any anticipated holiday and/or overtime placements? Yes ☐ No ☐
 - b) Regular work hours are: _____ AM to _____ PM
 - c) Regular work days are: Monday thru _____; excluding designated holidays
 - d) First placement date: _____
- G. Normal placement size?
- a) Anticipated placement size: _____ cubic yards.
 - b) Minimum load size: _____ cubic yards.
- H. Anticipated placement rates? _____
- I. Inclement weather placement capacity?
- J. Job site traffic flow?
- a) Are there any traffic restrictions on or near the job site? Yes ☐ No ☐
 - b) Are there any restrictions on project entrance or exit? Yes ☐ No ☐
 - c) Where is the designated washout area? _____
 - d) What is the primary method of concrete conveyance and/or placement? _____
 - e) Who is responsible person for directing delivery traffic and placement equipment set-up? _____

3. Testing

A. Concrete test report distribution:

Company Address:	Contact Person:
<u>Concrete Supplier</u>	
<u>General Contractor</u>	

<u>Architect</u>	
<u>Engineer</u>	
<u>Owner</u>	

B. Job site sampling and test specimen control?

- a) Site access provided for specimen pick-up? Yes ☐ No ☐
- b) Sampling frequency? _____
- c) Number of cylinders per sample? _____
- d) Extra cylinders for special mixes? _____
- e) Air test required on all mixes? Yes ☐ No ☐
- f) Test specimen size? ☐ 4 x 8 ☐ 6 x 12
- g) Strength Requirements?
- h) Unit weight requirement? Yes ☐ No ☐
- i) Field cured specimens? Yes ☐ No ☐
- Field curing procedures? ☐ in-box ☐ out-box ☐ point of placement
- j) Flexural specimens? Yes ☐ No ☐
- k) Batch Plant Inspection? Yes ☐ No ☐
- l) Sampling location? ☐ truck discharge ☐ point of placement
- m) Special placement concerns? _____

Note: cooperation is required from all parties for proper sampling and testing.

- n) Compressive strength requirements?

Mix Code	Location / Item	Strength Required	At what age?

- o) Who should be notified of “low test results” _____
- p) Supplementary cementitious materials used? Yes ☐ No ☐
 - o Early strength requirements? _____
 - o Special curing methods? _____
 - o Special testing requirements? _____

C. Concrete sampling and testing?

- a) Sampling & testing provided by ACI Certified Personnel or equivalent? Yes ☐ No ☐
- b) Testing Laboratory certified in accordance with ASTM C 1077? Yes ☐ No ☐

D. Test Specimen Storage and Transportation?

Note: To be a valid test, the following procedures and others as stated by ASTM C-31 must be adhered to. Specimens will be stored on-site for initial curing at 60°-80° (68-78° for 6000 psi+) with protection from moisture loss. Specimen will be transported to lab with protection from moisture loss. The area for conducting testing and storage of specimens must be a stable, secure area protected from construction traffic, vibrations and individuals not responsible for testing. This area must be accessible to testing personnel at all times. Specimen will be removed from molds with 30 minutes of arrival at the lab. Specimens will be cured until specified test age with proper temperature and moisture condition.

- a) Initial curing, up to (_____) hours.
 - o Immersed _____ in _____ temperature _____ controlled _____ water? _____
 - o Placed in temperature controlled curing box w/ Max/Min recorder? _____
 - o No controlled environment w/ record of site Max/Min temperature? _____

Note: In the absence of cylinder storage with max/min temp. recorder, cylinders shall be immersed in water immediately after molding.
 - o Field cured under same conditions as concrete structure?

Note: Field cured cylinders to be used for early form removal and/or post-tensioning information only, not for mixture acceptance.
- b) Person responsible for providing & maintaining curing box? _____

Note: ACI 301 Specification on contractor responsibilities.
- c) Person responsible for maintaining initial curing temperature? _____
- d) How will initial temperature be maintained? _____
- e) When will cylinders made on days preceding “non-work” days be picked-up? _____

- f) Describe site access on 'non-work' days

- g) Describe transportation means & methods to prevent cylinder damage and/or moisture loss. _____

- h) Responsibility for curing in accordance ASTM C 31? _____

E. Testing of hardened and/or in-place concrete?

- a) In what situations will additional and/or referee testing be required?
- Running average of three consecutive strength tests is less than specified (ACI 318)
 - Individual strength test is less than 500 psi less (10% less for 5000 psi and above) than specified (ACI 318).
 - Other _____
- b) Procedure(s) to be followed for evaluation of "low strength" test results:
- Evaluation of test results & testing procedures, including laboratory operations _____

 - Non-Destructive Testing
 - a. Penetration Probe (ASTM C 803)
 - b. Rebound Hammer (ASTM C 805)
 - c. Other (ACI 228.1R) _____

 - Evaluation of structural adequacy by engineer of record?

 - Core testing and evaluation (ASTM C 42 & ACI 318), core conditioning? _____

 - Load tests and evaluation (ACI 318 or other)? _____

 - Removal & Replacement? _____

- c) How do project specs. Handle additional testing? _____
- If additional testing is required, _____ will notify the following:
- d) What investigative procedures will be used? _____
- e) Who will be employed to conduct additional testing and who contacts them? _____

- f) How will the test results be evaluated? _____
- g) Who pays additional testing costs?
 - o Within specification? _____
 - o Does not meet specification? _____

F. Safety

a) Personal protective equipment required:

- o Hard Hat
- o Safety Boots
- o Eye Protection
- o Safety Vest
- o Special Protective Clothing
- o Respirators
- o Other _____

Persons Attending Meeting:

[illegible]