Parking Lot Pre-Construction Checklist
INTRODUCTION

This Parking Lot Pre-Construction Checklist was developed by the American Society of Concrete Contractors (ASCC) and the National Ready Mixed Concrete Association (NRMCA) to identify details of parking lot construction prior to the start of placement so that all impacted parties are aware of the issues related to the construction specification, equipment and schedules, responsible persons and jobsite safety. The presumption is that on larger projects the concrete construction team has been through a pre-construction conference and has addressed the pertinent items in the NRMCA/ASCC Checklist for Concrete Pre-Construction Conference and those items are excluded from this document. This document may be included in a broader preconstruction conference agenda.

This Checklist is not intended to be all inclusive of the items that need to be considered. Depending on a specific project, items regarding specification requirements, testing details, construction logistics and jobsite safety may need to be addressed in greater detail than outlined herein. Many of these items will be critical to the success of the project and should be discussed and agreed upon prior to the placement of concrete with appropriate notification to the owner and his representative.

Cover photo courtesy of Vee-Jay Cement Contr. Co., St. Louis, MO
Parking Lot Pre-Construction Checklist

A. Safety

1. Personal protective equipment required. Site safety person: __________________________
   - First aid supplies
   - Providing and maintaining Safety Data Sheets (SDSs) at the jobsite
   - Safety Inspections
   - Safety meetings

B. Project Information

1. Project name: __________________________
2. Location: __________________________
3. Project start date: __________________________
4. Project completion date: __________________________

5. Project participants
   - Owner __________________________
   - Architect __________________________
   - Civil/Geotechnical engineer __________________________
   - Construction manager or General Contractor __________________________
   - Concrete contractor __________________________
   - Concrete producer __________________________
   - Admixture supplier __________________________
   - Concrete pumping contractor __________________________
   - Testing laboratory __________________________
   - ACI Concrete Laboratory Testing Technician Grade I or II
   - Equivalent __________________________

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

1. Concrete Mixtures (Mixes)

<table>
<thead>
<tr>
<th>Mix Designations</th>
<th>Mix Codes</th>
<th>Location/Function</th>
<th>Approximate Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Mix Acceptance
   i. Mixes approved
      o Yes  o No
   ii. Copies of the approved mixes to:
      - Owner’s Representative  o Yes  o No
      - Architect  o Yes  o No
      - Engineers  o Yes  o No
      - General Contractor  o Yes  o No
      - Concrete Contractor  o Yes  o No
      - Concrete Pumping Contractor  o Yes  o No
      - Concrete Finisher  o Yes  o No
      - Testing Laboratory  o Yes  o No
      - Inspection Agency  o Yes  o No

3. Pumped Concrete  o Yes  o No

4. Target Strength (PSI)  o Yes  o No  Strength required ______ psi at age ______

5. Water to Cement Ratio  o Yes  o No  W/C Target_________

6. Concrete Batch Plant
   a. Primary Plant: ___________________   Backup Plant: ___________________  
   b. NRMCA Plant Certification Required  o Yes  o No
   c. Inspection Requirement
      - Full Time
      - Part Time
      - Not Required

7. Other mix ingredients:
   - Mid range water reducing admixture  o Yes  o No
   - High range water reducing admixture  o Yes  o No
   - Non-chloride accelerator  o Yes  o No
   - Corrosion inhibitors  o Yes  o No
   - Fly Ash ASTM Class C  o Yes  o No
   - Fly Ash ASTM Class F  o Yes  o No
   - GGBF Slag  o Yes  o No
   - Silica fume  o Yes  o No
   - Shrinkage reduction admixture  o Yes  o No
   - Accelerator/Retarder  o Yes  o No
   - Fibers  o Yes  o No
   - Color  o Yes  o No
   - Air Entrainment  o Yes  o No  Conventional _____% +/- _____%
      Pumped _____% +/- _____%

Note: Batching all ingredient materials at the plant ensures the best quality control of concrete.
Jobsite modifications to a mixture must be communicated to the concrete producer and recorded.
D. **Construction Process**

1. Responsible for construction/acceptance of base/subgrade, compaction, elevation including buried utilities: ____________________________

2. Placing Concrete: Equipment, procedures and subcontractors. List all that apply:
   a. Placement __________________________________________________________
   b. Method ___________________________________________________________

3. Placement and Finishing

<table>
<thead>
<tr>
<th>Area</th>
<th>Finish Sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Variances reference: Refer to the ASCC Guide for Surface Finish of Formed Concrete

4. Joint Layout
   a. Review/verification of control/contraction, isolation, and construction joint layout plans
      - Jointing Plan provided o Yes o No
      - Engineered Plan o Yes o No
      - Contractor Supplied o Yes o No
      Accepted and approved by ____________________________

5. Reinforcement required o Yes o No
   - Position of reinforcement in slab ____________________________
   - Method of supporting reinforcement at specified elevation ____________________________
   - Termination at joints ____________________________
   - Load transfer devices if required by design (e.g. dowel bars)
   - Type, size, and location ____________________________
   - Check for specified alignment ____________________________

6. Curing and Sealing
   - Methods ____________________________
   - Curing periods ____________________________
   - Temperature Control o Yes o No
   - Excessive evaporation control method ____________________________
   - Other ____________________________
• Responsibility for removing curing compounds for striping/sealer

• Sealers
  o Types
  o Locations

7. Materials permitted to adjust slump
   - Water
   - Mid-range water reducer
   - High-range water reducer

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

8. Project specification requirements for temperature
   a. Required temperature of concrete as delivered: Max ________ °F Min ________ °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

9. Project specification requirements for concrete delivery time
   - ASTM C 94
   - Other

E. Ordering and Scheduling Concrete

1. Person(s) responsible for ordering concrete (concrete must be ordered by mixture (mix) code)

2. Minimum time notice required for go/no 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. Name(s) and phone number(s) of concrete producer, concrete contractor, and general contractor for last-minute cancellations

8. Person on jobsite responsible for reviewing delivery ticket prior to placement

9. Regular workday hours M_F are between__________A.M. and__________P.M. Other ________________
   a. Location of placement on site
   b. Anticipated placement sizes ________ cubic yards
   c. Minimum load size ________ cubic yards
   d. Anticipated placement rates ________ cubic yards/hour
   e. Approximate placements dates ____________ ____________ ________
   f. Inclement weather plant capability
10. Concrete delivery
   a. Directions to site _____________________________________________________________

   b. Traffic restrictions at or near the jobsite  o Yes  o No
      Comments _________________________________________________________________

   c. Restrictions on entrance to or exits from jobsite  o Yes  o No
      Comments _________________________________________________________________

   d. Other _________________________________________________________________
      Comments _________________________________________________________________

11. Trucks:
   a. Number of trucks __________________________
   b. Type of trucks ____________________________
   c. Interval Schedule (Turnaround time) ________________

F. Environmental Aspects

1. Environmentally sensitive areas around the project  o Yes  o No
   Comments: ________________________________________________________________

2. Responsibility for providing a concrete wash out area at the jobsite _________________

3. Responsibility for clean up of the wash out area __________________________________________

4. Are spill response kits available on site?  o Yes  o No
   Comments _________________________________________________________________

5. On site emergency contact person ___________________________________________

6. Responsibility for disposal of curing compounds _______________________________________

7. Other _________________________________________________________________
   Comments _________________________________________________________________

G. Quality Control/Accuracy

1. Accreditation requirements for laboratory ___________________________________________

2. Certification requirements for testing personnel
   □ Field personnel ____________________________
   □ Lab personnel ____________________________

3. Advanced notice for scheduling testing personnel _______________________________________

4. Procedures for verification of specified requirements
   □ Batch Records
   □ Strength Tests
   □ Other ____________________________
H. **Concrete Sampling and Testing Requirements**

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

1. Sampling frequency ____________________________________________
2. Sampling location
   - Point of discharge as per ASTM C94
   - Point of placement, if specified
   - Comments (agreement on sampling location) ____________________________________________
3. Tests performed on each sample (Check each test required)
   - Slump
   - Temperature
   - Density (unit weight)
   - Air content
   - Compressive strength
   - Flexural strength
   - Other ____________________________________________
4. Cylinder size for compressive strength test
   - 4x8 inch  o  6x12 inch
5. Beam size for flexural strength test
   - 6x6 inch  o  Other __________________
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 to be cured _________ Field _________ Lab ________________
9. At what ages are cylinders to be tested? ________________________________
10. Are reserve cylinders required?  o Yes  o No  How many? __________________________
11. Frequency of yield tests and compliance checks (three-load average of unit weight) ________________
12. Distribution of reports ____________________________________________

H.2 **Test Cylinder Storage and Transportation**

1. Initial curing (up to ________ hours)
   - Immersed in water-controlled temperature
   - Storage box-controlled temperature
   - Exposed to environment spaces - record daily minimum and maximum temperatures
2. Responsibility for providing cylinder storage box ____________________________________________
   **Note:** Refer to ACI 301
3. Responsibility for maintaining temperature in storage box after molding ____________________________________________
4. Responsibility for final curing as per ASTM C31 ____________________________________________
   **Note:** Cylinders made and field-cured can be used to determine the time the structure is put in service.
H.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. Criteria used to reject concrete
   - Slump ____________________________________________________________
   - Air content ______________________________________________________
   - Unit weight _______________________________________________________
   - Temperature ______________________________________________________
   - Time limit _________________________________________________________
   - Other ___________________________________________________________

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

H.4  Acceptance Criteria for Hardened Concrete

1. Review Acceptance Criteria
   - ACI 330
   - Project Specifications
   - Other _________________

I.  Cracks

1. Define unacceptable cracks (see surface defects in tolerances) __________________________________________

2. Method of repair of unacceptable cracks _______________________________________________________

3. Responsibility for repair of unacceptable cracks __________________________________________________

4. Sealing (Filling) Joints  o Yes  o No
   - Epoxy joint filler  o Yes  o No
   - Elastomeric sealant  o Yes  o No
   - Timing (review product directions and ACI Guidelines)_________________________________________

   ____________________________________________________________
   - Depth of filling _____________________________________________________
   - Procedure - as per sealant manufacturer instruction.

J.  Responsibility for protection of concrete slab before transferring to owner:

________________________________________________________________________
Notes: ____________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

_______________________________________________________________

Sketch:
The National Ready Mixed Concrete Association (NRMCA) 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 (ASCC) 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.