ASCC Provides Help with Core and F-number Testing

Many of the ASCC Technical Hotline questions involve low core-strength results or out-of-spec F-numbers for floors. And unfortunately we see too many reports in which core and F-number tests were performed improperly. These test results directly impact the contractor. Faulty core testing may lead to the conclusion that concrete is not strong enough and must be removed and replaced. Improper F-number testing can lead to a request for grinding or patching and also leaves contractors open to claims by floor covering installers for additional work.

There are ASTM Standards for both of these tests as shown below:
- ASTM C 42 “Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete”
- ASTM E1155 “Standard Test Method for Determining F$_n$ Floor Flatness and Levelness Numbers”

Because there are so many Hotline calls concerning these issues, Ward Malisch and I decided we needed a better way to assist contractors before, instead of after, the testing was done. Two Technical Checklists were developed—one for Concrete Core Testing and the other for F-number Testing. The Checklist format includes a box that can be checked off for each ASTM requirement to ensure that it was performed correctly. These can be used when planning and executing the tests. The sections for each Technical Checklist are shown below.

**Technical Checklist for Concrete Core Testing**
- Sampling
- Core Specimens
- Core Measurement
- Core Testing
- Core Report

**Technical Checklist for F-number Testing**
- Record Project Information
- Indicate Equipment Used
- Determine Test Surface
- Determine Test Section
- Determine the Number and Location of All Sample Measurement Lines
- Determine Number of Individual Measurements
- Collect Data
- Provide Complete Report

Members can get a copy of each Technical Checklist off the ASCC website or by calling Ward or me. We encourage everyone to take advantage of these checklists. They can be presented at a pre-construction conference or given to the testing lab to assist or gently remind them, of the ASTM requirements for testing. If you are able to monitor the testing, the Checklists are also a valuable aid for keeping track of every step needed to produce accurate results. Using them in this manner lets the lab personnel know that you know how the tests must be performed. The result: contractors hopefully see fewer faulty test reports that result in rework and job delays.