



VRMCA Technical Committee Meeting
The Place, Richmond VA
April 19, 2017

Attendees:

George Kuhn, Chandler Concrete
Andy Faulconer, GCP Applied Technologies
Ricardo Valentin, Argos
Darrell Wilson, Boral
Scott Manning, Titan America
Bob Neal, Lehigh
Hank Keiper, The SEFA Group
David Van Wyle, Lynchburg Ready Mix
Derek Imperial, Swope and Associates
Bill Denison, ECS Mid-Atlantic
Patrick Sullivan, BASF

I. – IV. Chairman George Kuhn call the meeting to order at 10:00 AM and read the anti-trust statement.

V. Old Business

a) VDOT Items

Mass Concrete: George Kuhn reported his discussion with Larry Lundy since the recent COOP. WVU is finalizing a study on mass concrete. VDOT hopes to use the WVU study to create a screening tool similar to electrical resistivity to determine if a thermal plan is needed. Larry Lundy reports the December 21, 2016 version of the mass concrete special specification is still in effect. George Kuhn questioned the minimum w/cm requirement, and Larry Lundy is reviewing. VDOT has changed $f'c$ to 56 days for mass concrete unless otherwise stated. Bob Neal reported the current mass concrete work of the ACI Durability committee regarding max T and delta T. Larry Lundy has not stated which thermal plan method is required; he wants it to be open-ended. Bob Neal noted that the excessive overdesign required by VDOT more severely impacts the thermal properties of mass concrete. He suggests this may be a good avenue to address overdesign issues in all mixes. George Kuhn will add as new business.

Patching: Larry Lundy reports the temperature match curing proposal is on the back burner; not Larry Lundy's top priority. This special provision is owned by the Materials Division, but resides within the Pavement Design Section, who must approve changes.

Cold Weather Concrete: Regarding a request from Bristol district to mandate contractors create a weather shelter for concrete testing; Larry Lundy reports this item has been advanced to the VA Construction Alliance for comments.

Low Cracking Concrete: The specification book currently includes lightweight aggregate and shrinkage reducing admixtures (SRA) as the two current methods to reduce bridge deck cracking. George Kuhn reports there are still a myriad of special provisions out in the field. The process has transformed from a 40% reduction to .035 maximum shrinkage, to a proposed prescriptive dosage of SRA. The Technical Committee discussed field vs lab shrinkage testing and verification. The consensus is to encourage VDOT to keep shrinkage testing a laboratory prequalification procedure if it is used. Most believe VDOT is moving towards specifying a minimum SRA dosage rate.

b) Supplier issues-

Aggregates: No aggregate discussions.

Type 1L Cement: Larry Lundy reports that VDOT has expressed concern over potentially higher creep for pre-stressed members made with Type 1L, but not on ready mix concrete. One producer in central VA has 2 plants using approved T1L and is actively shipping to Department projects.

Admixture Approvals: Currently it takes at least one year to get new admixtures approved by VDOT. Larry Lundy reports resistance in the Department to change specifications allowing approval after 6 mos. Larry reports there is talk about a possible 6-month conditional approval but with liability shift from the Department to the contractor.

Retarder set times for deck sequential pours: The Technical Committee requested VDOT establish a standard test method to verify retarder dosage and effectiveness. The purpose is to help contractors when they want to alter the designed deck pour sequence. Larry Lundy reports this issue has been submitted to Research Transportation Council, and it is currently on the CRAC agenda.

Point of sampling: Larry Lundy reports draft language was sent to the VA Construction Alliance on 5 April for review. In progress.

TL 27/28 Forms Proposal: Hank Keiper reviewed the power point presentation given at the recent COOP. He also presented the first draft of changes to both forms for the Technical Committee to review. George Kuhn will email the drafts to members for comment and review. The plan is to have final draft approved by the July Technical Committee meeting so it can be sent to VDOT prior to the August COOP.

RCC: VTRC has posted their final report. The URL to the final report is <http://vtrc.virginia-dot.org/PubDetails.aspx?PubNo=17-R10>

Testing issues on Design/Build Projects: George Kuhn asked The Technical Committee to share problems with testing on D/B jobs to document discrepancies in testing between VDOT standards and D/B projects.

Lightweight Concrete: Larry Lundy has completed a draft special provision to replace the October 2009 version for structural lightweight concrete (not for low shrinkage bridge decks).

The current language is attached to the minutes. George Kuhn will ask Larry Lundy send to a final copy for the Technical Committee to review before publishing.

VDOT schools: George Kuhn says VDOT schools are in the process of moving to outside educational facilities such as community colleges. Both Industry and VDOT report problems getting results, data reporting, and printing certificates.

Pervious: George Kuhn previously shared the special provision published for pilot job in Salem. The testing issues are similar to shotcrete... there is no way to test mix performance at point of discharge, only as a finished assembly. George reports that VDOT is running non-specified testing (7-day LA abrasion, etc.) on the Salem project for informational purposes.

c) Removed:

George reports the following items have been removed from the VDOT agenda: Shotcrete, Permeability Penalties, Contractor Quality Control, and MOI.

d) Virginia Chapter ACI: nothing significant to report

e) VRMCA: no staff report

VI. New Business:

SCC sampling and testing: Patrick Sullivan reports new methods are not approved yet in ASTM; some VDOT inspectors are still following standard ASTM C31 cylinder procedures that are not applicable to SCC. Dereck Imperial reports VDOT requires the J ring test currently for precast prequalification and for field accept along with the slump flow test.

Future meeting topics: submit ideas to George Kuhn

Bob Neal: suggested round robin testing by hosted by The Technical Committee. Darrel Wilson proposed a formal request by The Technical Committee requesting regional Concrete Advisory Councils conduct compressive strength round robin testing. Bob Neal will rough out requirements and recommended procedures for the CAC's. George Kuhn will communicate with the staff (Jason).

VII. Meeting Presentation: Bill Dennison, ECS "Flowable Fill and Thermal Properties"

VIII. Next meeting: July 19, 2017. Next COOP is 3 August at VCTIR

IX. Meeting adjourned at 12:10 pm for lunch and presentation.

Respectfully Submitted,
Hank Keiper, P.E.