VDOT – VTCA Aggregate Cooperative Partnership

VTCA 2019 Spring Conference Update

April 12, 2019
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Purpose

• Update the audience on many of the successful results and continuing efforts of the Aggregate Industry and VDOT working together to solve challenges.

• Promulgate best practices of our efforts to not only VDOT and Producers but designers, contractors, and maintenance for cost savings.

• Receive input from the audience on increasing the value of our partnering efforts.
Highlights of the Year

• Implementing a more strategic vision for the cooperative

• Large-stone base

• Bonded Weigh and E-Ticketing

• CTA Task Force

• No. 10 Screenings (Fines) Joint Task Force – Largest challenge for quarries statewide being solved – research project
Highlights of the Year

• Continuing 2 more research projects

• MITS/PLAID Aggregate and HMA Database Automation and Analysis Tool – Task Force & continuing

• CMA Cert School / Sample Puller Cert

• Re-examining frequency and use of Atterberg Limits testing on aggregate.

• Bioretention Soil Media – Complete overhaul of this stormwater BMP – better, rigorous material, best in region
The VDOT-VTCA Aggregate Cooperative has drafted a charter statement of vision, mission and business.  

- Seeks to continue true partnership.  
- Sets a core membership, while still being open to friends of the committee, get right people together.  
- Avoid, solve challenges together.
Large-Stone Base Initiative

VDOT considering an initiative to use large-stone base under interstates and some primaries.

Large-stone base will be #1, 2, or 3 stone or combination thereof. Gradation otherwise not to be specified.

The large-stone base product is for stability and drainage under heavy truck loading. CMA base course still to be used on top of it. Thickness varies by topography, generally at least 8”.

Standard drawings and Special Provision still in progress for executive decision-making.
Bonding and e-ticketing

- Working to allow modern technologies for certifying weights.

- Piloting e-ticketing with Special Provision and Industry software. Will try first on maintenance orders of VDOT direct purchase.

- Will not generate automated payment at this time.
Published Special Provision August 2018 and put into use. Must be incorporated into job by designer.

Strength-based SP using plant data for acceptance. Later phases intended to move to field data for acceptance.

Few CTA jobs to date.

Phase-in challenging due to old 4% cement design vs new Producer-determined %.
No. 10 Screenings

• Remains large source of materials in need of use for many Producers.

• VTRC has kicked off a research project for using Screenings for subgrade improvement to try to get larger volume uses for the material.

• Technical review panel of VDOT and Industry.
2 continuing research projects

VTRC/George Mason University

Crushed Hydraulic Cement Concrete (CHCC or recycled concrete) as aggregate in base course – pilot field trial being constructed on VDOT maintenance yard in NoVA.

Reclaimed Asphalt Pavement (RAP) as aggregate. Lab study done, field study underway in NoVA District. Instrumented, trafficked actual road.

Both a year+ from completion.
MITS/PLAID

Materials Information Tracking System / Producer Laboratory Analysis and Information Details
(VDOT / Quarries)

Started in 2011: Went through 3 development phases (including HMA): In Maintenance phase now (continuing upgrades).

Very well received project to date. Many benefits: sample turn-around times; electronic reports include TL-52 and TL-102; reduced data entry errors; real-time data; flags for actionable information
Have annual MITS users group meetings for VDOT, and training classes for Producers as requested.

Communicating updates at VDOT-VTCA Aggregate Cooperative meetings – CO and Districts.
Example of Results:

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MITS/PLAID

- **Completed upgrade items**
  - Added New Status of “Corrected” on TL 102 List
  - Added New Check Box of “Cannot Be Determined” for LL and PL on TL 52 form
  - Added UPC number on Point Adjustment Report

- **Upcoming upgrade items**
  - Adding Automated Submission and Automated Upload (via email) on TL 52
  - Adding a new report for corrected +4 maximum dry density and OMC on TL 127 form
  - Adding sample number and lot number on Investigation Details form
  - Replacing “Mix type” with “Size Aggregate” on the TL 127/102 list form
CCWA has taken over all VDOT cert school instruction and proficiency exams.

Due to doubling of cost for certification, Industry asked for exploration of way to make a separate sample puller certification.

Industry and VDOT working together on this, will not be a new certification program, likely handled by District review and OK
Atterberg Limits

Have found very few impacts (quantity and quality) due to Atterberg Limits flags in MITS/PLAID.

Much effort on Atterberg Limits testing. A lot of flags.

Still working in Task Force together to see if we can reduce testing frequency for aggregate.
Bioretention Soil Media

- Popular Stormwater Pollutant Removal BMP – dual credit.

- A lot being used…but

- VDOT working on DEQ permission to trial new Special Provision the Cooperative worked on – improves on Spec 9 – still no movement since last year.

- Need to ensure likely producers can meet this suggested SP

- Will then have SP, Approved List, and material checks.
Thank you!
Questions?