

Flexible Pavement Committee Meeting
July 29, 2026
Florida Turnpike - Orlando
Meeting Minutes

Introduction from Jim Musselman and Amy Miller to the 2026 FPC Meeting

Greg Sholar recognized retiring contractors in the room, Rick Fort and Mike Lindboe.

1. Specification Updates. Previous (July 2025), current (July 2026), and future (July 2027) Specification changes for asphalt. Greg Sholar (10 Minutes)

- a. Visual Lots from 2,000 to 4,000 tons. Dense-graded friction courses with limestone can now have 20% RAP. SP-19 mix below FC-5 is now allowed. MB22-03 adopted into standard specs (More RAP allowed in structural PG 76-22 mixtures). RAP Stockpiles will be evaluated every 3 years. Can move core locations to 2 ft from live traffic edge per Engineer request. New 30-day requirement to submit delineation scope. FC-7 officially went into the specification. Changed CPF for FC-7: more weight on No. 8 and AC content.
- b. Next Summer (FY27/28): All penalties for high density were removed. Binder sample frequency in standard spec. David A: What's the timeframe for binder testing at the SMO. Greg: SMO has set 20 days from the day it was sampled to the day it is reported from the SMO to the District, otherwise the report is not sent, and a new sample is taken. Maybe down the road we have contractors test their own liquid for QC. Greg: for certain instances, we may move forward with 21 days or slightly longer if it is an HP binder on an outside lane (for example).

2. Construction Update. Rich Hewitt (15)

- a. 330&338 added IRI incentive and disincentive. Removed RN spec. 330&334 added roundabout clarifications for straightedge and density testing exceptions. 283: 85% RAP Gmm is the new density target for RAP base on non-emergency use, limited access shoulders, while 95% of that value is new density target for non-limited access shoulders and other non-traffic bearing locations. 234 spread rate tolerance to +/- 10%.
- b. Rich Hewitt and Christopher NeSmith created a VT roadway report which looks just like the QCRR. VT's are not required to track all tonnage like QC does, VT inspection frequencies remain the same, (one spreadrate per lift, per day).

3. Thick-Lift Paving Presentation. FDOT has a Developmental Specification for thick-lift paving. NCAT staff will give a brief presentation on some of the do's and don'ts when paving thicker lifts. Tom Harman (45) **Workshop on thick lift paving will be held in November at the SMO, with staff from NCAT. The workshop was developed through the FHWA's Asphalt/Innovate/Enlighten/Implement (AIEI) Program .**
<https://scholarwolf.unr.edu/server/api/core/bitstreams/077faee5-e97e-40d8-a420-a98905fd8936/content> Question from crowd: Does the spec consider paving in cold weather? Jim M: The spec does not but we need to look into that. Skip P: If we have wash boarding, do we mill a minimum depth and repave? Tom H: On the NCAT test track we did diamond grinding to fix any of those issues with minimum mill/resurface. Howie M: We designed the spec for the thick-lift pavement to have a final surface placed on top, so that the potential issues with smoothness get corrected by that final lift.
4. Update on the CTQP Training Course revisions. The asphalt CTQP courses are currently being updated and revised. Jim Musselman (5) **Courses involved: Asphalt Paving 1,2; Plant 1,2; Mix Designer. Update specs to July 2026. Update pictures, forms, reports. Update exams, No change to delivery method. Paving 1 and 2 will be combined. Two-day lecture + half day exams (proficiency and written). Reduce emphasis on specs and add best QC and VT practices. Mix design later to be updated. Changes will be out this December 2026.**
5. Project level binder testing. Current binder testing frequency and timelines for getting results. Greg Sholar (5) **Already discussed above.**
6. Materials Manual Updates. How should EARs be handled for air void and binder failures? Mohab El-Hakim (10) **Alfredo: Do we have statistics on the failure percent of polymer binder mixtures? Greg: It is not often, but we have some information on that we plan to share later. Crowd: Why do we not delineate the in-place air voids? Jim: Because if we have low air void mix, the compactive effort on the roadway might be less, which results in good in place air voids with a low air void mix.**
7. Mix design verification. How is the process going? Any issues? Jim Musselman (5) **We are doing more paper verification, pulse checking the crowd. Steve M.: Recent Gmb comparison issues. Does that come up a lot. Greg: Glenn Roberts summarized, and since enacting we have only had 6 designs fail.**

8. Increasing binder content in mixtures. What are some Greg Sholar (10) Contract with NCAT on RAP binder availability. Their conclusion was 80% of RAP binder is “available”. Trying to get more binder in the mix to make up the difference. Why are we doing it? Our biggest issue is cracking in Florida. The idea is to implement this for only friction course mixtures. Not going live, only developmental spec for now. Regressed Air voids: Add 0.2% AC to the mix. Lower air void target to 3.5% and MPR to 2.1%. APA requirement. This will most likely mean your revised mix designs will get a new number.
9. APA Testing of asphalt mix designs. Summary of the APA rut test results for mix designs submitted to the SMO. Jim Musselman (10) Jim shared APA data to date. Typically, will see Fine Aggregate Angularity (FAA) fail if the APA fails. Lots of rut resistance that comes from the FAA of the mix. Thurman M: If you are using roadway cores, are you using the same criteria? Jim: Failure limits in Table 1 of the presentation are the limits for roadway cores. Thurman: Is BMD going to be implemented soon and do you expect contractors to need to purchase APA equipment to use in house? Jim: BMD is probably 10 years down the road or so. There is nothing planned at this time. Contractors are always welcome to order the equipment and use it for QC testing during the design phase.
10. Research Update. Updates on FDOT in-house and contracted research, HVS, NCAT Test Track, and Asphalt Test Road projects. Mohab El-Hakim (30) Crowd: Regarding longitudinal grooving, what if the screed leaves grooving (per CAT SDX screed). Rich: No texture from the SDX. SDX provides increased density (typically passing density) behind the screed and contractors are paving smoother with it. These are the first times we are grooving it, on dense grade. Crowd: Any issues with rutting after longitudinal grooving? Rich: No issues with raveling yet or rutting. Johnny B: Question on fiber studies. Jim: We have a number of test sections in place with Aramid fibers, and we are monitoring. Not planning to add additional test sections.
11. Future research needs. Are there any needs that should be included in the FDOT research program? Charles Holzschuher (5) ACAF will solicit ideas from contractors and get a list to Charles by the end of the calendar year.
12. New Crack Relief Mixture. FDOT has a new asphalt mixture to be used to prevent reflective cracking. Mohab El-Hakim (5) If you want to read the full developmental specification: <https://www.fdot.gov/specifications/developmental-specifications> Michael Horst: I have a project right now where the cracks on an existing road are going down to the base material. The current plans are to pave 3” of HP mix, in two 1.5” lifts. Do we know the cost of the CR mix? No real cost data is available yet, but it’ll likely be expensive due to the lower design air voids and increased VMA (high binder content).

13. Pavement Design criteria for FC-5/FC-7. How does a district know when to use FC-5 versus FC-7? Mary Jane Hayden (10) Greg: As we see how it performs over time, will we see it start to be mandatory later? Mary Jane: Yes, if performance shows what we want from it, it could become mandatory.
14. FC-7. What are the experiences with FC-7 to date? Jim Musselman (5) Skip P: Ajax Paving placed an FC-7, it turned out great, it's smooth, looks good, drains well, etc. Solid work and we like it. Clay C: We liked it, not as many polymer balls as FC-5. Guys would rather work with FC-7 than FC-5. Shane W: Still at the mercy of one or two rocks (sieves) and their gradation, but it's doing fine. Julio L: Whole job was FC-5 but we got approval to do FC-7 on some sections. FC-7 rides smooth, better ride numbers, guys like it, looks finer than I thought. Handwork with FC-5 is rough, but FC-7 doesn't show marks as much. Jim: The specification limit for Cantabro loss is 20% max for FC-5 and 12% max for FC-7. FC-7 is much more durable than FC-5 with respect to raveling, as measured by Cantabro loss.
15. FC-5 Only projects. How often will they occur and how are they going so far? Howie Moseley (10) Old projects laid 8-12 years ago. Raveling violently. More maintenance style FC-5 projects have occurred recently. This is the last letting period of the maintenance projects that we were doing to quickly fix some of these bad raveling roads. New ones will be more project based and let normally. Planning FY29. Joe M: 10 years ago, we had issues with placing FC-5 on milled surfaced, but now it sounds like we are good with it? Howie M: Yes, we are seeing this work effectively now, given the milled surface is not chevrons, kept open to traffic to clean, etc. Amy M: D2 has good performing thin lift pavements (2" or so), is this something you are aware of and what will the Dept do when they see the roads don't need to be resurfaced yet. Howie: We have had good success with these thinner lifts when designed right for the right traffic. You may see some of it, and we do not want to remove pavements that are still performing well with good life.
16. Materials Supply and Availability. Are there any binder, aggregate, or other materials supply issues? Amy Miller (5) The Balmoral Group will collect any issues you want to share privately through them.
17. Update on striping removal research. FDOT is working with FTBA on determining the best method(s) of removing errant striping on a project. Charles Holzschuher (10) Jim: Do you see this becoming a spec or CPAM? Charles: Not a lot of info out there in general. I would definitely say guidance documents, maybe some form of spec. Amy: Have you looked to see what other state DOTs are doing? Charles: We have not found really any documents on that. Amy: I will get with the other state associations and get some info compiled.

18. Profiler Demonstration/Workshop at SMO in October. Will include multiple vendors, panel question session, and show case of latest profiler technology Charles Holzschuher (10) See profiler equipment, meet profiler vendors, and meet crew. October 29th at SMO 9-3pm. ACAF will help promote within the industry.
19. King for a Day: What changes need to be made (or should be considered) to the asphalt program in Florida? Amy Miller/Jim Musselman (10) Joe M: Consistency between districts is an issue. I would like to see some renewed effort on consistency. Consistency between CEI firms is also a challenge for us. Down to QCRR filing and others. Another item from Joe M: Closing lots. Much longer time after the Materials Office believes it should close. D2 and TPK allow VT to close a lot. Crowd: VT verify lots and not Pas would be preferred for timing. Sounds like interpretation of the spec. Skip P.: in CPAM it says PA finalizes the LOT. Rich: This would be a good discussion for a future DCE/DMRE Meeting. Shane W: Gradation tolerances from quarries. Wider bands from quarries and asphalt contractors. Julio: Adjusted IRI table for limestone. Calvin Lewis: Eliminate traffic level B. Jim M: Will you pave a parking lot the same as an interstate? Contractors: Yes. Or allow us to swap two traffic levels. Having to produce asphalt for shoulders (TL-B), alongside other TL-C and TL-E ramps and interstates right next to each other. Chris H: Do away with everything we said and do a 5-year warranty. Rick F: Do away with mix design verification system. Go back to old system. Send to SMO, let them verify it. First day of production, need to meet spec anyways. AKA Initial production lot.
20. Open Forum. Steve M: Smoothness class for the projects. How far in advance are those determined before a job is let. Rich: Based on construction acceptance data from last time it was paved, depending on that average IRI, it is put in one of the 5 Non-Limited Access Smoothness Classes. If that data doesn't exist, (rare but happens), then the PCS data from first PCS survey after final acceptance of last time it was paved is used.