



29TH ANNUAL ASPHALT CONFERENCE MINUTES



Welcoming Remarks – Jim Warren

SPONSOR AND EXHIBITOR RECOGNITION

SPONSORS:

ArrMaz Custom Chemicals
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PRI Asphalt Technologies
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G.S. Equipment, Inc.
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2005 ACAF PAVEMENT AWARDS RECOGNITION

- Awards recognition – Slideshow
- Recognition of Project Personnel

- **Statewide A.P. Bolton Award:** Anderson Columbia Company for their SR-30 (US-98) project in Walton County.
- **Statewide Resurfacing Award:** V.E. Whitehurst & Sons, Inc. for their SR-24 (Archer Road) project in Alachua County.
- **Statewide Roads and Streets Award:** APAC-Southeast, Inc.- Southern Florida Division for their project on SR-80 in Hendry County.
- *District 2 Bolton Award:* V.E. Whitehurst & Sons, Inc. for their project on SR-45 (US-41/27) in Alachua County.
- *District 5 Bolton Award:* Anderson Columbia Co., Inc. for their SR-40 project in Marion County.
- *District 1 Resurfacing Award:* APAC-Southeast, Inc. - Southern FL Division for their US-41 project in Manatee County.
- *District 2 Resurfacing Award:* V.E. Whitehurst & Sons, Inc. for their SR-24 project in Alachua County.
- *District 1 Roads and Streets Award:* APAC-Southeast, Inc.- Southern Florida Division for their project on SR-80 in Hendry County.
- *District 2 Roads and Streets Award:* V.E. Whitehurst & Sons, Inc. for their SR-222 (NW 39th Ave.) project in Gainesville, Florida
- *District 3 Roads and Streets Award:* C.W. Roberts Contracting for their SR-368 project in Panama City.
- *District 4 Roads and Streets Award:* Community Asphalt Corporation for their SR-7 project in Broward County.
- *Special Project Award:* APAC-Southeast, Inc. - First Coast Division for their Runway 10-28 Rehabilitation at Gainesville Airport.
- *Special Project Award:* Orlando Paving Company for their Kissimmee Gateway Airport project.

ABOVE AND BEYOND AWARD PRESENTATION:

C.W. Roberts Contracting Company

– Hurricane Dennis Reconstruction of US Highway 98 in Franklin County
Presented by Ananth Prasad, Steve Benak, and Frank Kreis, FDOT

SPECIAL GUEST SPEAKERS:

Kent Lande PE, Chief Engineer, Louis Berger

Rebuilding 389km of War-Torn Roads in 207 Days: The Kabul-Kandahar Road, Afghanistan

Gary Fitts P.E., Senior District Engineer, Asphalt Institute

A Global Perspective on Refining and Asphalt Production

FDOT ASPHALT UPDATES

1. Research update – Greg Sholar, SMO
2. NCAT & HVS Test Track Updates – Greg Sholar, SMO
3. LIMS upload update – Howie Mosely, SMO
4. July 2005 Specification Overview – Jim Musselman, SMO

ASPHALT CONFERENCE PANEL DISCUSSION

CTQP TRAINING ISSUES

1. Changes in the CTQP Asphalt Courses?

Warren.

2. What's going on with the CTQP program?

The CTQP program has switched from a sole source program to a program with a contract administrator and market driven independent training course providers. Provider applications and instructor applications are reviewed by the Department's Technical Review Teams and approved by the SCTA. Providers set the price and schedule for their courses but must use an approved instructor to present a standard set of training materials over an approved course duration. Those approved providers may also offer proctored challenge exams during their regular exam sessions. Where UF had handled course development in the past, the FDOT now handles the

development course updates and new courses directly. This can be done either in house or by consultant contract. (David Sadler)

3. Has the DOT achieved what they wanted out of changing up the system?

The FDOT has achieved what it was looking for with the structural changes to the CTQP program.

On the Teaching function - The program is more flexible and responsive to market forces in presenting classes where negotiations are now possible with individual providers.

On the Administration function - The Administrator is able to handle inquiries and post the results of tests taken after July 1 2005 more rapidly than was previously possible.

On Course Development function - The development of new course contracts and course updates contracts is now done with fixed completion timeframes which will help to avoid the delays experienced in the past. (David Sadler)

4. How about a 1 day refresher program and exam for Level II for those already qualified that are seeking requalification?

As far as a one day refresher course for asphalt re-qualification instead of the current scenario, we are considering it. The current scheme calls for either taking the most recently updated examination cold at a challenge session or sitting through the whole course and then taking the examination. With the added flexibility course providers now have, nothing other than market acceptance prevents Providers today from offering an abbreviated version of the whole course as a refresher, so long as it is not advertised as the whole course, and so long as the Providers are teaching the material not "Teaching the Exam." (David Sadler)

CONSTRUCTION ISSUES

5. What is the Industry's position on requiring the use of MTVs/shuttle buggies on Interstate projects?

A shuttle buggy or MTV is a fairly expensive piece of equipment and it doesn't necessarily guarantee that ride or segregation problems will be corrected. In general there are two ways to resolve a problem: 1) Specify the end result and let it be resolved in the manner the Contractor chooses, or 2) write a method specification that requires the Contractor to use a particular construction method to resolve the problem. In general, FDOT does not like to write method specifications. However, one of the issues with segregation is that it's not easily measured and defined, so it's difficult to write an end result specification. The Department is planning on looking into a method to measure and define segregation and also to determine its affect on performance. Stay tuned. (Jim Musselman)

6. What is the Department's position on PaveSmart and what are the future plans with this sole provider?

Blanchard.

7. What types of mixes are approved for detours?

The type of mix for detours is up to the contractor unless the contract plans stipulate a particular mix. The specification 102-6.3 governs this and states,

102-6.3 Construction Methods: *Select and use construction methods and materials that provide a stable and safe detour facility. Construct the detour facility to have sufficient durability to remain in good condition, supplemented by maintenance, for the entire period that the detour is required.*

The key to this is the contractor selecting methods and materials that will provide a stable, safe detour. The better it is built, the less maintenance that should be required on it. (David Sadler)

8. Lump Sum projects with designs showing minimal overlays are difficult to construct and give the DOT less performance in the long run versus a slight over design, making sure lift thicknesses are above the minimum. With the continued growth of FL and increase in available funding, it makes perfect sense to start over designing some of these resurfacing projects.

Dietrich

9. Temporary asphalt pavement. What specifications apply? Is it supposed to be tested?

As stated in number 7 above, the specs that govern temporary asphalt is 102-6.3. If temporary asphalt payment for the asphalt called for in the plans is under permanent pay items, then the testing would be as per the permanent pay item. (David Sadler)

10. What is the progress of Trackless Tack? Any contractors presently using it?

So far only a few jobs have been constructed using this new material, and some issues are still being worked out. Most recently, the material was used successfully on a subdivision project in south Florida by Community Asphalt. FDOT is looking for potential projects to evaluate this material – if you have one, contact Howie Moseley at the State Materials Office (352) 955-2919. (Jim Musselman)

11. Any issues regarding tacking at night? Switching back and forth between emulsion and Liquid AC has safety and training implications.

Specifications for tack allow RS-1, RS-2 & RA-500 for daytime paving; RA-500 is required for night paving unless it can be demonstrated that the tack material will break at night (in a timely manner) on the project. A comment was made that other emulsions

(CRS-1) can be used successfully at night. FDOT will consider other materials on an evaluation basis – contact Howie Moseley at the State Materials Office (352) 955-2919. (Jim Musselman)

CONTRACT ADMINISTRATION ISSUES

12. How about consideration for an "escalator" in aggregate cost as the FDOT does for AC cost?

FDOT is willing to look into this. Last year, FDOT agreed to add a steel index to existing contracts and projects to be let. Shortly after doing this, industry requested that we take the steel index clause out of future contracts. This is stated to illustrate that we are willing to look into the subject, and if determined necessary, make an adjustment. (David Sadler)

13. What will be the increase in asphalt paving due to new Federal Funding and Florida's pay as you grow funding?

Blanchard

14. Miscellaneous Asphalt - (Material Number 143A) We are having a lot of interpretation issues of who is responsible (if anyone) for reporting the Miscellaneous Asphalt. The Job Guide Schedule refers to 143A as a verification item. DCE Memo 17-04 states that it does not require a QC level II technician to be present during paving operations, which refers to the QC paving technician specification 105-5.6.2. My first question would be; Does Miscellaneous Asphalt need to be reported or are the quantities just turned in with the Contractor's monthly quantities certification? **Yes - Completion of the Asphalt Plant and Roadway - Daily Report of Quality Control (Form Number 675-030-18 / 675-030-20) is required for Miscellaneous Asphalt.** If reporting is required, who is responsible to report? **The Contractor is responsible for completing the Daily Report of Quality Control.** This report would require a qualified technician's TIN number, which would sort of go against Memo 17-04. What ever it is, can we please have something in writing so we are all on the same page and do not have interpretations. **Construction Memo 17-04 states "Paving of miscellaneous asphalt is exempt from the requirement to have a qualified CTQP Asphalt Paving Level II technician on the roadway at all times when placing asphalt mix. The work can be performed by someone under the supervision of a CTQP Paving Level II technician in compliance with the requirements of Specification Section 339".** According to this memo, if the roadway person is not CTQP qualified then the Contractor needs to reflect who is the Qualified CTQP Paving Level II technician in the Comments Section of the Asphalt Roadway - Daily Report of Quality Control (note - this memo does not allow a non-CTQP qualified person at the asphalt plant while placing Miscellaneous Asphalt). (Pat Upshaw)

15. Miscellaneous Asphalt Pavement. What specifications apply? Is it supposed to be tested?

Specification 339 addresses miscellaneous asphalt. Testing for miscellaneous asphalt is covered in section 339-2 and is done as a visual inspection. (David Sadler)

16. Paperwork - can't get things finalized, things taken off estimates, quantities right but not the way they want it formatted. Still need some standardization in and between districts.

FDOT and the Asphalt industry have for the last 3 years been looking at and adjusting (improving) the paperwork requirements and will continue to do so. FDOT SMO has also continued to work towards improving automation of various forms generated for them and will be rolling out those changes as soon as possible.

Also, to help with identifying specific "paperwork" issues, send in specific concerns so that we can address what those are and what if anything needs to be done. (David Sadler)

17. Paperwork - both sides of fence have new people and training is continuous but there seems to be no tolerance for failure on the part of the contractor. DOT had paperwork for years and never was perfect, but the contractor is expected to be perfect all the time, everytime. Rumors of strikes on QC manager for paperwork problems? Unrealistic expectations!

Several things were brought up with this statement/question. Agree that there are new folks handling the paperwork on both sides. We have, and continue to, maintain that FDOT should assist with the learning the how to's of the paperwork but should not do the paperwork. Several contractors have figured out how to do the paperwork that is currently required and have committed the resources necessary to do it. Others have not.

Regarding rumors of strikes against the QC Manager for paperwork problems, the State Construction Office's SCTA is the only person who has the authority to issue strikes to a QC Manager. District personnel can recommend, but the SCTA will act on the recommendation accordingly. (David Sadler)

18. FDOT Asphalt Plant Verification Staffing Status

This concept is being piloted in District 4/6. Basically there is a roving Plant VT covering multiple plants, and there is an increase in the IV sampling and testing. Currently, five plants in the Miami-Dade County area are included in the evaluation (Community, Ranger, Weekly, Brewer, and APAC). So far it's working well. An FHWA Process Review will evaluate these projects in December/January. (Jim Musselman)

19. DDM Form (700-011-01)-Failing IA/IV Samples. We are currently having to fill out a DDM form for failing IA/IV samples and having to certify these samples under the Construction Compliance Specification And Plans Form (700-020-02) as a material exception. I will agree that it may be a material exception for the project, but we as the Prime Contractor just verify and certify the Contractor's testing and sampling

procedures (as per the form). We really have no way to verify or certify the IA procedures or sampling of the defective material.

We all need some written clarification with whose responsibility it is to fill out or start the DDM process. What would constitute a DDM? (actual failure/material under evaluation, individual quality characteristics under .90%, etc...)

Section 334 defines QC failure(s) and IV failures as defective material to be addressed according to 334-9 (334-5.9.5 in the 7/05 version). Because of this, the Contractor should fill out a DDM form for the material represented by the samples and submit it to the Department.

For the Compliance Form, 700-020-02, the outcome of the material disposition should be included once the DDM/EAR process is complete such as remove and replace or left in place at reduced pay. (Musselman/Sadler)

SPECIFICATION ISSUES (CQC/SUPERPAVE/Other)

20. Is blue ink required on FDOT forms or not? What specification says this?

Language addressing blue or colored ink is included in specification section 6-4.3.1 that is in development. Proposed spec change has not been submitted for processing. (David Sadler)

21. FDOT wants to add more flexibility to our asphalt system without sacrificing quality. Any suggestions?

With increased workloads, the Department is looking at ways to increase our flexibility without sacrificing quality. Some ideas being considered are a simplified CQC system for lower traffic levels, and a longer "value added" period with minimal inspection. Any thoughts on this need to be passed on to Jim Musselman at the State Materials Office (352) 955-2905. (Jim Musselman)

22. Local Agency Program (LAP) Specifications. Update on what's going on.

The Project Management Office recently issued a Federal Requirements LAP Checklist and Checklist Guidelines to the Districts, intended for use by Local Agencies and Districts to ensure that Federal Aid Contract Requirements have been satisfied in LAP contract boiler plate language. On the technical end, the State Materials Office and State Specifications Office are also working on stand alone LAP specifications for asphalt, concrete, earthwork and landscaping. The intent of these LAP Specs is to establish minimum specification requirements according to Work Category, that can be used by Local Agencies as a baseline. (Duane Brautigam)

23. What is Industry's position on cities & counties going to Superpave? Can we have one system statewide?

A general concern with local governments going to Superpave is that the local agency will specify a higher traffic level than is necessary, which is not good for the pavement

and has potential to make the aggregate availability issue worse. FDOT has been working with the University of Florida T2 Center on educating local governments about Superpave, especially that they need to use the appropriate traffic level. (Jim Musselman)

24. If a mix design has good properties, meets all volumetrics and density, but goes outside the Master Range on the #8 sieve, why do we have to stop production?

The 334 specification now allows two successive failures on the No. 8 sieve prior to requiring a shutdown. Basically the Department wants the mix to be consistent and reasonably close to the design targets. (Jim Musselman)

25. Engineering Analysis Reports (EAR's) – What's going on? Is it getting better? Are we moving in the right direction? Are the quality of EAR's improving? Feedback from audience?

In general there have been two groups of concerns about EARs – 1) there are too many of them, and 2) they all end up with a recommendation to leave the material in place. In order to address these concerns, the asphalt specifications have been changed (opened up the Master Production Range a little), and an EAR workshop was held back in June with all of the Engineering firms doing asphalt EARs. Early indications are that there are less EARs, and the ones we are getting are of a higher quality. (Jim Musselman)

26. Will mix designers be able to continue to design coarse mixes?

Yes. The 7/05 334 Specification allows either coarse or fine for Traffic Level D & E. (Jim Musselman)

27. Why require an EAR on single core? This system is too complicated for having a one core under the density minimum. It should be simpler – Suggestion: cut an additional core within 5 feet to verify before going any further.

The new 7/05 version of the 334 Specification requires (for coarse mixes only) that if an individual core density is less than 91.00% of G_{mm} , then the Contractor must correct their process. If two cores from the same subplot are less than 91.00% of G_{mm} , then production gets stopped, the Lot gets terminated and the defective material gets removed and replaced or gets evaluated. The Department has a lot of experience with permeable coarse graded mixes, and a density level of 91.00% will be permeable. Two out of five cores represents 40% of the lot, which is unacceptable, regardless of what the density is of the other three cores in the lot. (Jim Musselman)

28. What are the Department's expectations of the QC Manager?

Oversee Contractor's quality control on the project, ensure compliance with specifications, manage Contractor's QC Plan and adjust as needed, oversee inspection of Contractor's work.

Update on where QC Manager CTQP course is going – FDOT, along with industry representatives, is revising the course content to emphasize more on the expectations of what the QC Manager will be responsible for doing and less on specifications. By next year's conference, the new course should be offered. (David Sadler)

29. Any further consideration to raise spread rate for FC-5 following discussion at ACAF Spec Committee meeting?

Dietrich

30. The new 334 specification (July 2005) has been implemented. Any problems with the specification so far?

The new 334 Specification was implemented with the 7/05 Letting. Highlights of the changes are shown previously in the Program. No problems have been noted to date. (Jim Musselman)

MATERIALS (BINDER AND AGGREGATE)

31. Discussion on supply issues regarding all construction materials.

Blanchard

32. PG 76-22. Is it worth the cost to use in Structural Courses and Friction Courses?

Dietrich

33. What is the status of using Asphalt Rubber in Friction Courses?

Dietrich

34. What are the states short and long term forecast for PG 76-22?

The short term forecast is estimated at 32,000-34,000 tons of PG 76-22. Depending on the factors used and specific contracts it could be higher. Long term projection is that the amount of PG 76-22 will increase with increased construction program. At this time there are no significant changes in the policy and practice for using PG 76-22. (Gale Page)

35. What is the current status on PG 76-22 specification requirements? Will phase angle continue to be used?

The phase angle requirement for PG 76-22 is a maximum of 75 degrees. FDOT believes that an elastic recovery test has merit to assure an elastic polymer is used and effective. FDOT is following national efforts to standardize the elastic recovery test and requirements and will consider implementing at that time. (Gale Page)

36. Has there been any thought given to providing training to the contractors on the use of polymer modified asphalts, i.e. temperature limits, handling and storage, hand working? Would this be beneficial?

Warren.

37. Review status of asphalt binder specification with respect to criteria for binder samples recovered from mixtures using RAP?

FDOT has experienced high recovered viscosity values especially with high viscosity PG 64-22 used with RAP. This is reason for changes to Section 916 to require a maximum viscosity for PG 67-22 and PG 64-22. Recent experience with recovered viscosity is improving. (Gale Page)

38. Rumor has it that some contractors are requesting non-FDOT specification asphalt binder for use in "private work". Is this material being kept separate from FDOT spec. binder? How?

One specification for liquid asphalt makes things simple for the HMA producer and the FDOT. Non-specification liquid asphalt cannot be commingled with FDOT Specification liquid asphalt for use on FDOT work. Think of this in terms of aggregate. You cannot commingle certified aggregate with non-certified aggregate even if both are granite for use in FDOT work. (Gale Page)

39. With the latest hurricane, supply of "familiar" asphalt binder may be disrupted. Suppliers may need to look at sources of asphalt not used before. Would FDOT consider suspending the "spot test" requirement?

This has been discussed at previous meetings of the Department's Flexible Pavement Committee. FDOT would consider accepting liquid asphalt with a positive spot if it meets all requirements for the particular grade after 110°C PAV. FDOT could respond rapidly with a joint Construction Memo/ Materials Bulletin if such a material becomes available. Some suppliers are investigating this possibility post hurricane. Subsequently a joint Construction Memo/ Materials Bulletin issued. (Gale Page)

40. Specification reminder: Pretest Numbers for Emulsified Asphalt products (tack, prime) are only good for a maximum of 6 months. Check SMO web site to check for valid Pretest Numbers.

FDOT has been experiencing an increasing number of tack (slippage) failures. Rarely is it related to the specification requirements for the tack with the possible exception of % residue (where tack has been diluted). Generally it is a construction issue of dusty surface, non-uniform application, overlapping shots, or gaps in the tack coat. (Gale Page)

41. Specification changes to 916 (Superpave Asphalt Binder) to be more definitive on QC Plan requirements and add a max viscosity requirement for PG 67-22 and PG 64-22. Any discussion?

Changes to Section 916 have been posted of FDOT Specifications Office web site for review. In summary it includes a max viscosity for PG 67-22 and PG 64-22 binders, and rewording to clarify the requirements for binder suppliers QC Plan. FDOT appreciates constructive comments to the specification. Note positive spot requirements from joint Construction Memo/ Materials Bulletin incorporated into Section 916. (Gale Page)

MIX DESIGN ISSUES

42. Has there been a big influx of fine-graded designs submitted for verification since the change in the specification? Any issues with these designs?

Approximately 60 designs (TL-D and TL-E combined) have been submitted. The most common issue we have had has been not meeting the $N_{initial}$ requirement. About one-third of the designs did not meet this requirement and were rejected. (David Webb)

43. What is the status of performing rut testing on new designs? Where does this data go? Is the contractor notified of the results?

All fine-graded TL-D and TL-E mixes are rut tested. Most of the time, rut testing is performed on the design with both modified and unmodified binders. The results are available on the State Materials Office website at the following link:

<http://www.dot.state.fl.us/statematerialsoffice/laboratory/asphalt/centrallaboratory/mixdesign/rutdata.pdf>

(David Webb)

SMOOTHNESS SPECIFICATION

44. What is the status of the high speed laser profiler acceptance specification, including the Bump finding software, incentive/disincentive?

The formal name of the FHWA bump finder software is "Pavement Profile Viewer and Analyzer Software (ProVAL 2.5)" which was published at the end of November, 2004 and a workshop for this new software was held at SMO on January 28, 2005. After the workshop, the Asphalt Smoothness Committee requested the Pavement Evaluation Section of SMO to study and evaluate the performance of ProVAL 2.5. If the software is feasible to be used together with our laser profiler system, then, the bumps, depressions and other isolated rough spots existed on the pavement can be automatically identified by this software when the laser profiler collects the pavement condition data on the project and the 15 foot rolling straightedge will not be used any more to locate the surface deficiencies for high-speed roadways. Currently, the SMO is evaluating the software on 5 pilot projects (D2-1, D3-2, Turnpike-2).

The smoothness incentive/disincentive test specification was developed and tried on several projects and reviewed by the Asphalt Smoothness Committee. From the evaluation of the performance, it was concluded that some additional information and

study need to be done to modify the acceptance criteria and the dollar amount of bonus/penalty. After the revision the test specification, one milling and resurface project on SR 417 in Turnpike was selected for another trial. The construction of this pilot project is scheduled to be completed at the end of October. Hopefully, the Committee will be able to evaluate the performance of this test specification on the next meeting (January 4, 2006) in order to finalize the pavement smoothness incentive/disincentive specification.

Currently, the smoothness acceptance specification with laser profiler testing method is implemented statewide quite smoothly. When the above two test specifications are finalized, they will be included in the smoothness acceptance specification and the 15 foot rolling straightedge will not be used any more for the smoothness acceptance on high speed roadways. (David Wang)

45. What is the status of the trial Joint smoothness specification?

The joint smoothness incentive test specification was tried on 3 pilot projects on I -95 in D2. The intent of this specification is to upgrade the quality of joint smoothness at the bridge approached, beginning and ending of the project. The Asphalt Smoothness Committee reviewed the test results recently and decided to make several revisions on the specification:

- a. Expand the testing distance from 15 feet to 50 feet measured from the bridge joint.
- b. Revise the bonus acceptance criteria to require the deficiencies at both wheelpaths must $\leq 3/16$ “.

The revised specification was used on the pilot project on SR 417 in Turnpike for another test. (David Wang)

OTHER QUESTIONS

CONFERENCE WRAP-UP

Closing Comments

Drawing for Door Prizes (YOU MUST BE PRESENT IN THE ROOM TO WIN)

Next Year's Meeting