

# WAPA/WSDOT JOINT TASK FORCE

## Superpave Implementation Task Group Meeting

Meeting notes for the November 16, 2004, meeting

The task group is co-chaired by Jim Spaid of WSDOT HQ Construction, assisted by Dave Erickson of WSDOT HQ Construction, and WAPA member, Bill Hammett of Superior Asphalt. The meeting was held South Central Region Maintenance Facility at Cle Elum (Bullfrog).

### ATTENDEES:

X	<b>Jim Spaid – Co-Chair</b>	WSDOT State Construction Office
X	Dave Erickson	WSDOT State Construction Office
	Tom Baker	WSDOT State Materials Lab
	Linda Pierce	WSDOT State Materials Lab
X	Jim Walter	WSDOT State Materials Lab
X	Joe DeVol	WSDOT State Materials Lab
X	Phil Nickson	WSDOT South Central Region
X	Ralph Robertson	WSDOT Eastern Region
X	Jeff Uhlmeyer	WSDOT State Materials Lab
X	<b>Bill Hammett – Co-Chair</b>	Superior Asphalt
X	Bill Dempsey	Lakeside Industries
X	Bill Whitfield	Icon Materials
	Keith Howard	Wilder Construction
X	Tim Shearer	Woodworth
X	T. J. Morgan	Inland Asphalt
X	Dave Bell	Lakeside Industries

### DISCUSSION TOPICS:

1. Mix Design Submittal Form – Joe DeVol provided copies of a proposed HMA Mix Design Submittal Form. The form was made up to assist in determining that all of the required information and samples have been brought together for submittal to the State Materials Lab for verification. Joe indicated that the form would be made up as an electronic form for availability and ease of use.
2. Mechanical Splitting Comparison – Joe DeVol and Tim Shearer collaborated on a report that compared the results of a mechanical splitter called the Quartermaster and the conventional WSDOT HMA sample reduction methods. 800 pounds of two different HMA classes were sampled. The report concluded that the Quartermaster sample splitting device should be approved for use as an acceptable option for reduction of HMA samples. WSDOT will amend WSDOT Test Method 712 to allow this device.

3. Challenge Sample Challenges – Joe DeVol presented a proposal to increase the tolerances that trigger whether the results of the challenge sample testing will replace the original sample test results, and whether the state or the contractor will bear the cost of the test. Joe also provided an analysis of tolerances for the various test screens and binder percentages.

Some of the industry members felt that they paid for half of the challenge samples. Using the results of the challenge samples often resulted in increased penalties. When contractors were doing their own quality control, they would not typically challenge samples unless their results differed from WSDOT test results.

To consider a change to this provision, there was a question as to the origin of the tolerances. There was no one that could recall how the tolerances had been developed, but there was sense that they may have evolved from negotiations and risk sharing. No action will be taken on the proposal pending a search of past files on the original specification.

4. Commercial HMA Mix Designs – This was a general discussion on Commercial HMA. The Standard Specification requires that the contractor submit a mix design that has been developed from using a class of HMA and ESAL level “appropriate for the required use.” WSDOT will not verify the mix design. There has been confusion on what the contractor is to submit for a mix design.

It was the intent of the specification on Commercial HMA that the contractor would develop a mix design for commercial use based on the principles of Superpave. The contractor would have the freedom to select the class of mix (aggregate size and PG binder grade) and the ESAL level that was appropriate for the intended use. Not all contractors have adopted the Superpave techniques to the design of their commercial HMA.

Suggestions were to adapt the HMA Mix Design Submittal Form to reflect the information that is needed for commercial mixes. It was also suggested that WSDOT look at the terminology used in the spec to see if there could be some clarification of the information that the contractor is expected to submit.

5. Non-Nuclear Density Devices – WSDOT has been doing comparison testing of various brands of non-nuclear density testing devices. The brands being compared with the nuclear gage are Pave Tracker and Trans Tech. The State Materials Lab has been compiling data and a report is in the works.
6. Weighting Factors for Volumetrics – WAPA presented a proposal for changing the weighting factors of the various individual pay factors used in computing the combined pay factor for volumetric acceptance projects. The proposal would lower the emphasis placed on air voids (Va), drop voids in mineral aggregate (VMA), and increase the emphasis on the binder content.

WSDOT prefers to place the heavier weight on volumetrics rather than lighter. At the same time, WSDOT is looking at ways to improve the determination of Va and VMA.

One consideration is to widen the tolerance band for Va and VMA, based on an evaluation of test data on file.

A sticking point on determining VMA is the determination of the bulk specific gravity (Gsb). The contractor makes a determination of the Gsb as a part of the mix design process. The State Materials Lab also makes a determination of the Gsb during the verification of the mix design. The Materials Lab determination of Gsb is used for VMA calculations throughout the life of the project. Because of questions on tester qualification, WSDOT is reluctant to accept the contractor's value for Gsb. There is recognition that Gsb changes during the project due to changes in JMF, variation in aggregate, introduction of RAP in the mix, and other factors.

Ideas under consideration to resolve these issues include: use of replicate samples; split samples of material collected for the contractors mix design and send half to WSDOT.

7. Fine Aggregate Angularity – It was noted that the test method for determining the uncompacted void content of fine aggregate (or fine aggregate angularity) was developed as an indicator of concrete workability. NCAT research has indicated that FAA is a test that is an indicator of HMA performance. As such, it is a substitute for a performance test for HMA. It was noted that Dennis Duffy is researching what other states are doing with respect to the FAA test. A “white paper” should be available for the next SPIT meeting.
8. SMA Moses Lake Project – A report is in the works on the SMA project done on I-90 earlier in the 2004 paving season.
9. Washington Asphalt Conference Recap – As a result of the Washington Asphalt Conference there is increasing familiarity among consultants and local agencies with Superpave. There was an interesting presentation on the 400,000 ton paver done for the Port of Tacoma

### **Next Meeting**

Jim Spaid and Bill Hammett will coordinate a date and time for the next meeting. (Currently set for May 20, 2005, at the Kent Maintenance facility located at 26620 68th Avenue South, Kent, WA 98032)

**Superpave  
Implementation  
Task Group**

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