

WARM MIX ASPHALT THE TEXAS EXPERIENCE

Asphalt Pavement Association
Of Oregon

Eugene, OR – February 24, 2009

TxAPA Philosophies



Dedicated To Quality ★

★ ***Partners In Quality***

TRENDS FOR HMA

- Increasing energy costs
- Higher mix temperatures
- Discussion of alternate bid projects
- Growing demand for green technology
 - Regulations, Politicians, HOA, Environmental Groups, Neighbors
- IARC Decision
- Need to change TxDOT's RAP specification

ADVANTAGES OF WMA'S LOWER TEMPERATURES

- **Lower Fumes and Emissions (30% - 90%)**
- **Improved working conditions**
- **Lower energy consumption (30%)**
- **Decreased binder aging**
- **Early site opening**
- **Cool weather paving**
- **Compaction aid for stiff mixes**
- **Increased plant production**
- **Longer storage**
- **Longer haul distance**
- **Increased RAP Usage**

Developed Supportive Role

- Formal discussions with suppliers concerning the importance of being successful
- Understanding of how the technology works and the true benefits
- Need a commitment of resources and technology transfer to be successful
- Maintain open and honest communication

Partners In Quality

- **Begin Dialogue With TxDOT Flexible Pavements Branch**
- **Meetings with TxDOT Management**
- **Initial discussions with TxDOT Districts**
- **Positions accepted on National WMA Technical Working Group**
 - Dale Rand, TxDOT
 - Harry Bush, Vulcan Materials Co.

TxAPA WMA Task Force

Approached this effort with a can do attitude
in the partnering spirit

- How can we make WMA work, not what can we find wrong with it

- Focus on technical and education items

- Specifications

- Test procedures

- Education, internal and external customers

- Develop more WMA projects

TxAPA WMA Task Force

- Specifications

- Make WMA work with our current specifications that we are familiar with and have confidence in
- For greater acceptance make it work with our current HMA specifications

TxAPA WMA Task Force

- **Education for industry and awarding agencies**
 - Partners In Quality Meetings
 - HMA Technology Update Seminars
 - Annual Meeting Technical Sessions
 - Mid-Year Meeting, dedicated to WMA
 - Awards Program Recognition Meetings
 - HMAQC QC/QA Certification Classes

TxAPA WMA Task Force

- **Education for industry and awarding agencies**
 - **Texas Asphalt Magazine**
 - **eTxAPA newsletter**
 - **Hot Mix News monthly newsletter**
 - **TxAPA Web Page**
 - **Associate Member Technology Showcase**

Top 10 Reasons for our attitude

- Has worked in Europe for 10 years with successful results
- NCAT Test Track has and is proving it works
- FHWA supports it
- NAPA brought it to us, believes in it and supports it
- Demonstration projects around the country has worked

Top 10 Reasons for our attitude

- Our own WMA demo projects have worked
- It will reduce our emissions and overall carbon footprint
- Cut fuel cost / making us more competitive
- It cannot hurt when IARC decision made
- And it can be used under our current specifications that we have confidence in, giving us a quality product...

RESULTS OF OUR WMA PARTNERING PROCESS

- 2008 More than 500,000 tons of WMA used statewide
- Finding ways to be more competitive
 - Fuel cost, compaction effort/densities, better ride numbers, better production
- Customers wanting to talk about the green asphalt
- Improving performance of asphalt pavements
- Positive change made to TxDOT specifications with WMA and RAP