The California Asphalt Pavement Association

Superpave arrives in California

AGC Joint Engineering Committee Meeting
Jan. 22, 2015 - Half Moon Bay, CA
Woo-hoo!

OH GLORIOUS ASPHALT

TELL ME YOUR SECRETS
Woo-hoo!
CalAPA History

- Established in 1953 in Southern California
- Northern California group formed in 1994
- Became statewide association in 2012
- ~200 members
- Producers, refiners, paving contractors, equipment manufacturers, labs, etc.
- The only association focusing exclusively on asphalt issues & promotion in California
Pascal Mascarenhas with Vulcan Materials at a CalAPA conference
Caltrans Director Malcolm Dougherty (seated) at a CalAPA event
Asphalt paving class held for the City of Sacramento
A Hamburg Wheel Track class in Sacramento
State Capitol “Fly-in” in Sacramento
CalAPA in action

Asphalt industry delegation with U.S. Sen. Boxer (D-CA)
CalAPA in action

Lt. Gov. Gavin Newsom (center) at CalAPA’s 2015 Annual Dinner
CalAPA & AGC
CalAPA is about asphalt ONLY
‘Superpave’

- National standard based on AASHTO tests
- Emerged in 1990s
- CA, NV last two states to adopt
- July 1, 2014 Caltrans deadline
- Pilot projects
- Data collection
- New for California: Gyratory Compactor and Hamburg Wheel Track
- Joint industry-agency committee vetted

AASHTO = American Association of State Highway & Transportation Officials
WHERE IS IT? (Section 39)

- New specifications still Superpave oriented
- Now referred to as 2015 Specifications
- Current RSS for 2010 specification IS the 2015 specification
WHAT’S DIFFERENT?
- Gyratory compaction
- Larger samples
- Higher binder content ...sometimes
- Coarser gradations
- More fractured faces
- Verification changes = more sampling
- Sampling locations
- Testing, testing, testing
‘Superpave’
‘Superpave’

CHANGES TO SPECIFICATIONS:

- Tighter Specs
  - Air Voids ±1.5%
  - Binder for HMA: -0.3%, +0.5% TWM
  - Binder for Rubber: -0.4%, +0.5% TWM
- No more VFA
- VMA Design vs. Production

HMA = Hot Mix Asphalt
TWM = Total Weight of Mix
VFA = Voids Filled with Asphalt
VMA = Voids in the Mineral Aggregate
Most jobs are standard
Some jobs are method

With ‘Superpave’ the trend in California continues toward standard (prove you hit the target) and away from method (follow this recipe)
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Continuing problem: Local agencies that specify the Caltrans specification
- Caltrans designs are for heavy traffic
- Coarser mixes
- ‘Type B’ mix going away (nSSP)
- ‘Cut & Paste’ is BAD
- Know how mix design testing & acceptance will impact the construction schedule!

nSSP = Non-Standard Special Provision
QC Nuclear Density Testing:
- Required to perform QC Nuclear Gauge Density (CT375) for all non-minor jobs
- 3 per 250 tons or 3 per paving day (whichever is greater)
- Not used for acceptance, still using cores for acceptance
  - Cores not required if using ‘Method’ Compaction

QC = Quality Control
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Found an extra pair of boots at the worksite. Decided to give my supervisor a heart attack.
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Where can you sample? (QC Samples from anywhere per CTM125)

- Conveyor system on plant
  - Slat conveyor or automatic sampling device between drum discharge and storage silos
- Windrow at plant or job site
- From silo or batch plant discharge to create stockpile
- From truck
- From paver or MTV receiving hopper
- From mat behind the paver

CTM = California Test Method
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Where can you sample?

- QA TSR & Hamburg sampled
  - At the plant
  - From the truck
  - Windrow
- All other QA HMA samples
  - At the plant
  - From the truck
  - Windrow
  - Mat behind the paver

QA = Quality Assurance
TSR = Tensile Strength Ratio
Placement considerations:

- Required use of MTV for all rubberized and OGFC
- Required use of Nuclear Gauge

MTV = Material Transfer Vehicle
OGFC = Open-Graded Friction Course
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Say Hello.

Material Transfer Vehicle (MTV)
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Say Goodbye.

California Profilograph
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Say Hello.

Inertial Profiler
‘Superpave’

- Say Hello.

Gyratory Compactor

Hamburg Wheel Track (HWT)
HWT pucks (foreground = failing test)
Other potential budget-busters

- New smoothness spec & measurement
- Asphalt index going away
- ‘Intelligent Compaction’
- ‘Safety Edge’
- Pavement Preservation & ADA
- New air district scrutiny for plant permits
- Test turnaround times / test results
The **bottom line**

- New equipment ($)
- Larger sample sizes ($)
- More materials to process ($)
- More space ($) to accommodate both new equipment and larger sample sizes
- AASHTO accreditation labs for mix design ($)
- More QC and QA testing ($)
- AASHTO Test Methods and New Mix Design – personnel training ($)
- Profilometer replacing CA Profilograph – new equipment and spec – equipment certification and personnel training ($)

The **bottom line** – get out your checkbook.
Get Smart!
CalAPA Regional Technical Committees: (Joint Industry & Agency Meetings)

- Bay Area
- Central Coast
- Central Valley
- Inland Empire/High Desert
- Los Angeles/Orange County
- Sacramento area
- San Diego
Get Smart

‘Hot Topics in Hot Mix Asphalt’ seminars:

Jan. 28 in Bakersfield (Central Valley)
Feb. 17, Buellton (Central Coast)

Southern California Paving Contractors’ Dinner
Feb. 10 in Pico Rivera
Contact Us

Russell W. Snyder, Executive Director
P.O. Box 981300
West Sacramento, CA 95798
(916) 791-5044 (Main Office)
(925) 548-5409 (Mobile)
rsnyder@calapa.net

Tony Grasso, Deputy Executive Director
(909) 362-9192 (Mobile)
tgrasso@calapa.net

Rita Leahy, Senior Technical Consultant
(916) 239-8315 (Mobile)
rl Leahy@calapa.net

On the web:
www.calapa.net