



# THE HIGH ROAD

SPRING 2015

**BEST IN COLORADO**

**ASPHALT PAVEMENT AWARDS**

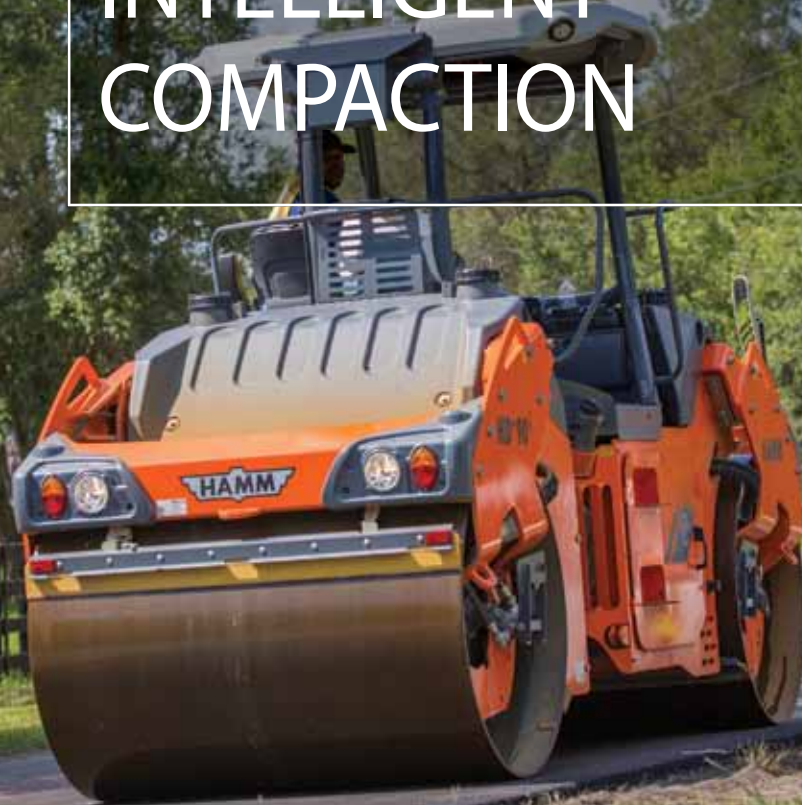
**2014 CDOT Quality Awards**

- **RAP USAGE CLIMBS IN 2014**
- **NEARLY A THIRD OF ALL MIXES MADE WITH WARM MIX**

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## CDOT REGION 3 WINS COVETED DIRECTORS CUP!!

Congratulations to CDOT Region 3 for winning the 2014 Director's Cup. The Award was presented at the February 19, 2015, Transportation Commission Meeting. Dave Eller, Region 3 Transportation Director, received the award on behalf of the region. The Directors Cup is given annually to the CDOT Region 3 based on a number of performance criteria.

*Photo: (from left), Josh Laipply - Chief Engineer, Dave Eller - Region 3 Director, Shailen Bhatt - Executive Director*



*Photo courtesy of Dennis VanPatter, CDOT*



## RAP USAGE CLIMBS FROM PREVIOUS YEAR

The 2014 CDOT RAP Usage Report has been finalized and indicates that RAP usage is up from 2013. In 2014, CDOT placed 1,370,184 tons of asphalt materials and 205,295 tons of RAP. This equates to an average of 14.98% as compared to 13.10% in 2013. Regions 1, 2, and 3 were all around 15% - 16%, Region 4 around 21% and Region 5 at 9%. For more information contact Michael Stanford, CDOT Asphalt Pavement Program Engineer at (303) 398-6576 or michael.stanford@state.co.us



## WEBSITE ANSWERS QUESTIONS ON ASPHALT PLANT EMISSIONS

A new website Safe Asphalt for Everyone (SAFE) at [www.safeasphalt.org](http://www.safeasphalt.org) is now LIVE!! The site is a great source of information on asphalt plants and emissions in Colorado. Check it out and understand how asphalt plants can be a good neighbor and operate in a people environment.



*I-25 Pinon North Project*

## PAVING SMOOTH WITH ASPHALT - 2014 CDOT ROADWAY SMOOTHNESS REPORT

CDOT has released the HRI roadway smoothness data from 2014 projects and asphalt contractors continue to achieve significant incentive payment for paving smooth.

The report indicates that asphalt contractors received 63% incentive (\$2,973,333) for 27 projects in HRI Category I; 41% incentive (\$412,107) for 16 projects in HRI Category II; and 14% incentive (\$81,506) for 6 projects in HRI Category III.

For concrete paving projects, the report

indicates a **21% disincentive (-\$127,318) for 6 projects in HRI Category I & II.** The report is available from the CAPA website on the CDOT tab.

The project (shown in photo at left) was the recipient of the Best in Colorado Smoothest Pavement Category I. It was constructed by Martin Marietta Materials Southern in CDOT Region 2 in 2014, had an average HRI of 32.9 and received 97% of available smoothness incentive for 40.9 lane miles of paving. This amounted to \$357,640 of an available \$368,549.

## NEARLY A THIRD OF ALL ASPHALT MIXES MADE WITH WARM MIX

The latest NAPA/FHWA survey of asphalt producers' use of recycled materials and warm-mix asphalt finds that almost a third of all asphalt produced during the 2013 construction season was produced using warm-mix asphalt technologies.



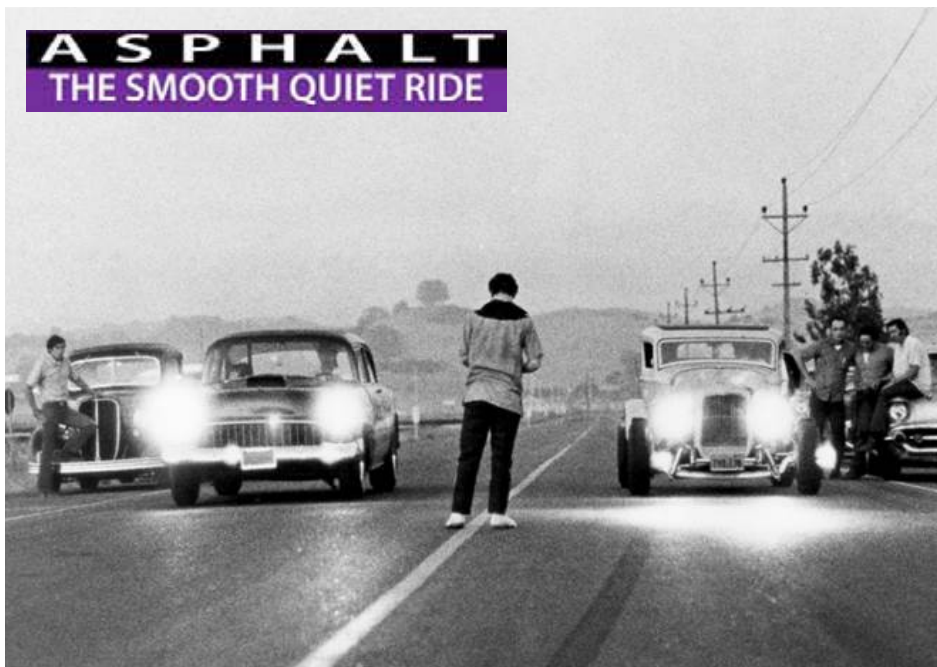
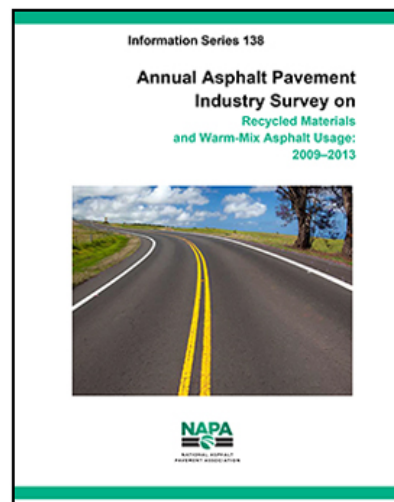
The survey, conducted by NAPA under contract to FHWA, found that 106.4 million tons of WMA was produced in 2013. This is a 23 percent increase from 2012 and greater than 533 percent increase in the use of warm mix since the survey was first conducted in 2009. In the 2009 survey less than 5 percent of asphalt pavement mix tonnage was produced using warm-mix technologies; in 2013, it was more than 30.3 percent.

The survey also found that about 73.5 million tons of reclaimed asphalt pavement (RAP) were used in new asphalt pavement mixes in the United States during in 2013. The tons of asphalt pavement mixtures

produced using recycled and reclaimed materials was predominately flat from 2012 to 2013, despite a 2.5 percent drop in total tons of asphalt produced during 2013 compared to 2012.

However, the percentage of tons produced using these materials was slightly greater in 2013 than 2012.

The survey was conducted in mid-2014. Results from 249 companies with 1,281 plants in all 50 states, the District of Columbia, and Puerto Rico, along with data from State Asphalt Pavement Associations for 38 states, were used to compile the report. A full copy of the survey, including state-by-state appendixes can be downloaded from [www.AsphaltPavement.org/recycling](http://www.AsphaltPavement.org/recycling).



American Graffiti, 55 Chevy



Have any asphalt related humor to share?? Please send it our way! [office@co-asphalt.com](mailto:office@co-asphalt.com)

## ASPHALT Q & A:

*Do you have an asphalt related question? Ask Asphalt Man!*



Recent questions now posted on the CAPA website (Resources Section) [www.co-asphalt.com](http://www.co-asphalt.com)

## ASPHALT FACT OF THE MONTH

### FACT #83: COST EFFECTIVENESS

ASPHALT PAVEMENTS CAN BE BUILT QUICKLY, REDUCING TRAFFIC DELAYS FOR BOTH COMMUTERS AND LONG-HAUL TRUCKERS.

· Visit [www.asphaltfacts.com](http://www.asphaltfacts.com) for more information

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THE TRUTH ABOUT ASPHALT PAVEMENT

## MIKE COTE - 2015 NAPA CHAIRMAN



Congratulations to NAPA 2015 Chairman Mike Cote of Lane Construction. Mike was inducted chairman at the NAPA Annual Meeting in January.



Mike assumes leadership of the national organization with members in all 50 states and an industry that produces 350 million tons of asphalt materials annually.

CAPA Executive Director Tom Peterson (shown in photo) was with the FHWA from 1988 – 1997 and worked on a committee with Mike from 1995 – 1997 to help establish the New England Transportation Technician Certification Program (NETTCP).

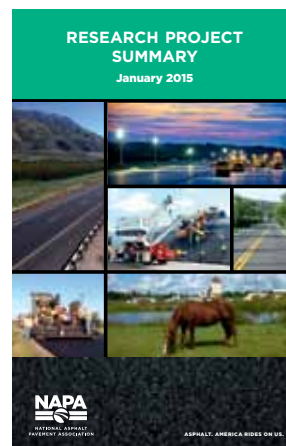
NETTCP is a program that continues to thrive and serve the northeastern states. In his Chairman's acceptance speech, Mike cast a very bold vision for the industry and an aggressive charge for innovation and quality. Go Big Mike!!

## CONSTRUCTION MANAGEMENT TEAMS COMPETE IN STUDENT COMPETITIONS



Congratulations to Construction Management Teams from Colorado State University, CSU- Pueblo, and Colorado Mesa University for their efforts at the recent Student Competitions in Nevada. Teams compete on bidding projects under a very tight time period and that are judged by industry representatives. CAPA provides support to each of these three universities.

## NCAT & NAPA COMBINE TO LEAD NATIONAL RESEARCH EFFORTS ON ASPHALT PAVEMENTS



One of the highlights of the recent NAPA Annual Meeting was the unveiling of the industry's new coordinated national research and customer focus efforts. The program builds on a wide range of scientific and engineering research, and a solid understanding of what drivers want from a pavement. The end focus is on the high performance attributes of asphalt pavements that ensure a consistent level of drivability. These research efforts include optimizing flexible pavement design, warm mix asphalt, speed of construction, thin lift overlays, and sustainability.

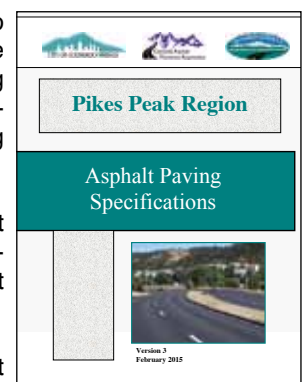
## PIKES PEAK REGIONAL ASPHALT SPECIFICATION UPDATED TO IMPROVE PERFORMANCE

CAPA worked with the City of Colorado Springs and El Paso County to update the Pikes Peak Region Asphalt Paving Specification. The updated version includes a number of changes, including the following:

Reducing the design air voids in asphalt mixes from 4.0% to 3.5%. This is expected to increase the amount of asphalt binder in the mixes.

Adding a provision for warm mix asphalt (WMA). WMA is allowed provided all material requirements are met and subject to approval by the Engineer.

Increasing the preference of PG 58-28 for low volume roads instead of PG 64-22.



## CSU CONSTRUCTION MANAGEMENT HEAVY CIVIL ENDOWED POSITION



Jeff Wilkes has been selected as the Interim Heavy Civil Endowed professor at CSU Construction Management. Jeff has a master's degree in CM from CSU and has worked for several top ENR-ranked construction companies focusing on heavy civil work. He returned to CSU to teach full time in January, 2014. He also maintains a

small construction consulting firm, Virtual Construction Management Solutions, which specializes in CPM scheduling, project controls, generating survey layout coordinates, and simple 3D modeling for estimating and coordination. Mr. Wilkes replaces Cam McNair in this position.

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# NCAT NEWS

## NCAT RECEIVES CAPA'S 2014 PARTNERSHIP OF THE YEAR AWARD

The National Center for Asphalt Technology (NCAT) at Auburn University in Auburn, Alabama, is the recipient of the CAPA 2014 Partnership of the Year Award.

The award was presented at the CAPA Asphalt Awards Dinner and Program held on February 25, 2015, and in recognition of NCAT's support and efforts to work with CAPA to advance the use and quality of asphalt pavements in Colorado. Dr. Mary Robbins, Assistant Professor of Asphalt Research was on hand to receive the award on behalf of NCAT.

A delegation of Colorado asphalt contractors and the CDOT Chief Engineer traveled to NCAT several years ago to become better

acquainted with NCAT. This delegation included CAPA Board Members Jeff Keller, Ken Coulson, Scott Davis, and Tom Peterson.

CDOT continues to support NCAT through the Superpave Center. NCAT continues to support us in Colorado, with research and technical support on new and emerging technologies.

Dr. Robbins was a presenter on two topics at the Conference and 6 representatives from Colorado attended the Short Course in Asphalt Technology at NCAT held the last week in February. Since 2002, 110 representatives from Colorado have attended over the years.



*Dr. Mary Robbins, NCAT, receiving the CAPA 2014 Partnership of the Year Award on behalf of the entire NCAT Team.*

## APWA/CAPA/NCAT ASPHALT TECHNOLOGY SCHOLARSHIP RECIPIENTS



**Asphalt Technology Course**

February 23-27, 2015

**Front (L-R):** Don Watson (Instructor), Abdel Mekhhal, Kyle Beck, Deb Mitchelmore, Brett Ruppel, Brian Goliber, Michael Heitzman (Instructor)

**Middle (L-R):** Carolina Rodezno (Instructor), Manuel Tapia, Ted Billadeau, Alden Jenkins, Jeff Dewey, Dawn D'Angelo, Brickram Kowchai, Jason Waddell, Erin MacCord, Cory Bramlett, Adam Taylor (Instructor)

**Back (L-R):** David Heinrich, Hojong Lee, James Ripple, Peter Hargadine, Perry Borom, Russ Parker, Jeremy McDonald, Jason Latiolais, Chris Cowan

Congratulations to the 2014 Scholarship Recipients:

Alden Jenkins - City of Longmont, David Heinrich -Town of Superior, Josh English -City of Cherry Hills Village, Peter Hargadine - Aggregate Industries, Kyle Beck - City of Lakewood, Jeffrey Dewey - Ground Engineering Consultants

The attendees traveled to Auburn University in Alabama the last week of February for one of the finest educational opportunities available to those interested in a broader knowledge of asphalt technology, the Asphalt Technology Short Course at the National Center for Asphalt Technology (NCAT).

### CONTACT US FOR:



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## NCAT TEST TRACK REAPING VALUABLE TEST RESULTS

The National Center for Asphalt Technology (NCAT) presented the findings of the fifth cycle of the Pavement Test Track, unveiling results from projects constructed in 2012. The NCAT Test Track Conference held on March 3-5, 2015, drew some 220 contractors, agency representatives and international researchers to NCAT's Auburn, Ala., facility. Attendees, including CDOT Staff Materials Engineer Bill Schiebel, were given an overview of results from the current testing cycle, the four previous research cycles, and tours of both the 1.7-mile NCAT Test Track and the segment of Lee County Road 159 used for pavement preservation tests.

Fifth test cycle experiments focused on pavements with high levels of reclaimed asphalt pavement (RAP), Thinlays, ground rubber tire (GTR), tack coats, cold central plant recycling (CCPR), Perpetual Pavement designs, highly modified polymer binders, open-graded friction courses (OGFC), multi-lift pavements, and pavement preservation.

Auburn University Civil Engineering Professor Dr. David Timm discussed the Green Group experimental sections. His findings

*"This was by far the most compelling technical conference I have participated in since starting in materials back in '99. NCAT and the track research are impressive and the Lee Road preservation study is yielding data that will truly deepen our understanding of pavement treatment. The new collaboration with MnROAD should be seen as a huge opportunity for colder climate states to share in the serious value that our southern friends have derived from their NCAT track pavement test sections."*

Bill Schiebel, Staff Materials and Geotechnical Branch Manager, Colorado DOT, following the recent NCAT Test Track Conference at Auburn University in Alabama.

included that RAP, recycled asphalt shingle (RAS), and GTR could benefit Perpetual Pavements when used in base mixes. He also found that CCPR segments had no cracking, little rutting, and a steady degree of smoothness in terms of IRI values over time. He concluded that CCPR behaves similarly to traditional asphalt concrete pavements.

NCAT Lead Researcher Dr. Richard Willis shared results from the high polymer test sections. Using a PG 88-22 binder, the test section showed less rutting. In a test section studying Perpetual Pavement, the use of high polymer binder mitigated a fatigue cracking problem and a life-cycle cost analysis of the perpetual pavement showed a 26 percent cost savings.

NCAT Lead Researcher Dr. Nam Tran (at right in picture) discussed OGFC and an experiment to reduce raveling and cracking in OGFCs. Tran reviewed the benefits of different tack coat thicknesses and the resulting durability. He concluded that the single most important factor in OGFC durability was the use of more tack coat.

NCAT Director Dr. Randy West discussed the Group Experiment, sections of the Test Track sponsored by multiple agencies since the 2009 cycle. The experiment included 7-inch structural sections with virgin mixes, 50 percent RAP sections with and without warm-mix asphalt technologies, and an OGFC surface in one section. West found that all sections outperformed model predictions with the 50 percent RAP sections having the best performance.

Pavement preservation experiments on Lee County Road 159 showed that pavement preservation treatments, when compared to the untouched control sections, extend the life of the pavement by reducing cracking and rutting. Assistant Research Professor Dr. Mary Robbins pointed out that pavement preservation techniques will play an important role in meeting MAP-21 performance management requirements.

Further pavement preservation experiments are planned for the sixth test cycle on Lee County Road 280, where test sections will be expanded to tenth-mile segments of the higher traffic volume roadway. The sixth cycle will also include more experiments with recycled mixes and will include test sections on the Minnesota Department of Transportation's MnROAD Test Track in Maplewood, Minn.



Bill Schiebel, CDOT Staff Materials and Geotechnical Branch Manager, with NCAT's Dr. Nam Tran at the NCAT Test Track.

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**AGGREGATE**



## LabCAT Goes on the Road to Durango



Left to Right: Mario Montano CDOT, Jesse Velasquez CDOT, Robert Byrd CDOT, Russ Ebel CDOT, Jessica Ebel CDOT, Jason Voorhees CDOT, Craig Campbell Trautner Geotech, Robert Sanchez CDOT

CAPA Director of Training Tom Clayton and LabCAT Instructor Cincy Rutkoski took LabCAT Certification on the road to CDOT Region 3 during the week of March 9 – 13. LabCAT partnered with CDOT Region 3 Materials to conduct LabCAT Asphalt Certification Courses at the Region 3 Materials Facility on US Highway 160, west of Durango.

The trip was an action packed week as certification courses were held for Level A, B, C – 19 attendees; Level E (Aggregates) – 5 attendees; Level A, B, C, E

(streamline) – 13 attendees; and Level I (Inspector) – 46 attendees.

The course is held every third year in Durango so as to coincide with the 3 year renewals and to reduce the travel cost of attendees from the four corners area to the LabCAT facility in Centennial. We thank CDOT Region 3 Materials including Tim Webb and Pat Murphy for their assistance on this partnership. A similar trip is planned in 2016 to Grand Junction and to the CDOT Region 3 Materials Facility.

LABCAT CERTIFIED



*"It is such a good thing you brought the LabCAT Certification Program to Durango. We were able to get more people certified that we otherwise would have if they had to go to Denver," stated Gina Denton, of Trautner Geotech, Durango.*

## Pine G2 Compactor Donated to Rocky Mt. Asphalt Education Center



The Rocky Mt. Asphalt Education Center (RMAEC) received an early Christmas present with the delivery of a new Pine G2 Gyro Compactor.

The Pine G2 is the latest Pine model of compactor and was donated by manufacturer Pine Instruments and through CAPA Affiliate member Instrotek. The G2 has the ability to test both 100 mm and 150 mm samples. 150 mm samples are the standard AASHTO sample, however, the Colorado DOT uses the 100 mm samples.

The machine was displayed at the 42nd Annual Rocky Mt. Asphalt Conference & Equipment Show and delivered to the RMAEC following the conference. CDOT currently has two of the Pine G2 compactors – one in Region 2 Pueblo and one at the CDOT Central Lab.

Much thanks to Dave Savage of Pine Instruments and Steven James (shown in photo) of Instrotek Inc. for this donation.

A one day introduction class is planned for May 5. For more information, contact Diane at [rmaec@co-asphalt.com](mailto:rmaec@co-asphalt.com)



# CONTRACTOR LESSONS LEARNED DISCUSSED AT MEETING WITH THE FAA



The annual CAPA/FAA/CAOA Asphalt & Airport Pavement meeting was held on March 12, 2015. The meeting was hosted by Aviation and attended by contractors, airport design consultants and FAA representatives. The meeting provided a forum for Cindy Hirsch, FAA – Seattle, to discuss updates and changes to the P-401 and P-403 specifications and for FAA – Denver ADO representatives to discuss upcoming projects in Colorado and Wyoming. A couple of meeting highlights were asphalt contractors explaining lessons learned from 2014 projects and Mike O’Leary of MWV- Evotherm presenting information on the use of warm mix asphalt on airport projects throughout the country.



Pavement improvements at the Colorado Springs Airport, Summer 2014. Contractor: Schmidt Construction



Left to Right: Cindy Hirsch, FAA – Seattle; Chris Schaffer – FAA – Denver; Jim Fluhr – Jviation; Mike O’Leary – MWV Evotherm; Tom Peterson – CAPA



Steven Hoit, PE., Rocky Mt. Materials & Asphalt of Colorado Springs explains some factors that led to success at the Fremont County Airport Project.

## CONTRACTOR SUGGESTIONS FOR AIRPORT PROJECTS:

1. Schedule a constructability review with contractors before design is complete. This would allow the design consultant to have contractor input into time frames, phases and processes to construct the project. It would also help to know that a project is coming to help get the word out to the subcontractors that would be interested. This way, more prices and interest may help the award and value of the project.
2. Paying for stockpile material of aggregates if project is expected to be delayed but planned to be awarded. This would allow the contractor to be ready with materials when given the notice to proceed.
3. Reduction in retention when project is finished and just waiting on final paper work.
4. Closing out projects quicker.
5. Retain the surveyor who did the preliminary (design) survey for construction.
6. Communicating concerns between all parties. For example, a contractor was focused on placing only one test strip. The schedule was tight and they couldn’t afford to fail a test strip. They were able to discuss this with the engineer and they came up with an area to place some P-401 mix and make sure they had everything dialed in. The project went well due to communication and planning among all parties.
7. Develop a common goal of completing the job successfully. This means working with each other through issues to come to a solution and not trying to make each issue the other parties problem.
8. Success is helped by the Engineer allowing and accommodating design or phasing changes suggested by the contractor that made more sense in the field then originally did on paper.
9. If a pavement has paving fabric and it is to be milled, it is recommended to mill below the fabric so as to avoid delamination.
10. Projects involving dirt work and subgrades should have soil bore logs taken to validate the structural design and avoid field problems.

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tomclayton@co-asphalt.com



## CAPA/CDOT REGION 3 RAP MEETING

A productive meeting was held on March 16 regarding the use of recycled asphalt pavement (RAP) in Region 3. CDOT Region 3 Materials Engineer Jeremy Lucero (front, far right in photo) facilitated the meeting and explained the CDOT RAP Specification Section



401 standards and the quality control requirements to be followed. RAP constituted approximately 16% of asphalt materials used in Region 3 in 2014 (45,000 tons of 281,000 tons total).



## TRAINING OPPORTUNITIES:

*Grand River Construction Co. Inc. paving a trail in Garfield County.*



### Asphalt Lunch and Learn

- The Colorado Asphalt Pavement Association (CAPA) provides a free service called "Asphalt Lunch & Learn Seminar" to provide training on the latest information, technology, and applications for asphalt pavement. Presentations are tailored to meet your needs. Generally, sessions last between 60 and 90 minutes depending on the information requested. Sessions can take place at any time of day - whatever is convenient for you and your colleagues.

### Short Courses in Asphalt Paving Best Practices

- Tom Clayton, SET, Director of Training and Member Services supports our member companies and agencies with instruction in Asphalt Paving Best Practices.

Choose from a selection of topics or customize an employee training day.

## New on YouTube



- A new video about **Asphalt Perpetual Pavement** designed to create roads that last indefinitely.
- **Finding Potholes Before they Start** Smart scanners that can identify the sites of potholes before they form are being developed by academics at Nottingham Trent University.
- **Advocacy for Better Roads** A town in New York produced a video about a bad road. It ended up getting the Governors attention and got the road moved up on the priority list.
- A video sponsored by Transportation California, that advocates for the transportation funding.

Check out the CAPA website to view these and other videos.  
[www.co-asphalt.com](http://www.co-asphalt.com)

# 21<sup>st</sup> Annual CAPA Awards Dinner & Program – February 25, 2015

## Event Sponsor: Wagner Equipment



Scott McDaniel, CDOT Director of Product Support Division presenting the Quality in Asphalt Production Awards and the Smoothness Awards.



CAPA President Gregg Rippe (left) presents Mike Horn of Foothills Paving & Maintenance Inc. with the 2014 CAPA Member of the Year Award.



CAPA President Gregg Rippe with Vince Egan of Roadtec Inc.



Representatives of CAPA member company Schmidt Construction



CDOT Region 3 Director Dave Eller with Jeff Keller and Jim MacDonald of APC Southern Construction Co.



Dinner Entertainment.



# 42<sup>nd</sup> Annual Rocky Mt. Asphalt Conference & Equipment Show





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# 2014 BEST IN COLORADO

## 2014 CDOT QUALITY IN ASPHALT PRODUCTION AWARDS

In 2002, CDOT began to monitor the quality of plant-produced asphalt paving mix from each supplier. The goal of this effort was to identify and acknowledge the asphalt producer who most consistently meets specification requirements.



It is for those producing more than 100,000 tons of asphalt for CDOT projects.

There are two categories for the award and the awards were presented at the CAPA Awards Dinner on February 25, 2015, by Scott McDaniel, Director of the Product Support Division.

In 2014, there was approximately 1.3 million tons of asphalt materials placed by contractors on state highways. 7 producers were evaluated in the 20,000 to 100,000 tons category. 9 producers were evaluated in the greater than 100,000 tons category.

Category I is for those contractors who produced between 20,000 and 100,000 tons of asphalt for CDOT projects in 2014. Category

CDOT evaluates project test results and ranks all producers. Results are reviewed for the tests of asphalt binder content, air voids, VMA, Stability, and TSR. The suppliers with the highest percentage of passing test results receive our highest rating.

### CATEGORY I – 20,000 TONS TO 100,000 TONS COULSON EXCAVATING CO. INC. LOVELAND, COLORADO



Left to Right: Tyler Marr, Plant Operator and Glen Forbes, Superintendent

### CATEGORY II – GREATER THAN 100,000 TONS A&S CONSTRUCTION CO. INC. CANON CITY, COLORADO



Left to Right: David Tafoya – Paving Superintendent; Chris Robinette – Quality Control Manager



### CATEGORY I RUNNER UP

McATEE PAVING  
STERLING, COLORADO

### CATEGORY II RUNNER UP



# 2014 BEST IN COLORADO

## 2014 SMOOTHEST PAVEMENT AWARDS

The “Best in Colorado” Smoothest Asphalt Paving Awards recognize the smoothest paving project in each of CDOT’s three roadway smoothness specification categories.

The awards are based on CDOT’s measured roadway smoothness profile using our HRI specification requirements and all paving projects are considered for the award.

The awards were presented at the CAPA Awards Dinner & Program on February 25, 2015, by Scott McDaniel, Director of Product Support Division, CDOT.

### SMOOTHEST PAVEMENT CATEGORY I – URBAN RECONSTRUCTION

**WINNER: INTERSTATE I-25, PINON NORTH TO MIDWAY**  
**CONTRACTOR: MARTIN MARIETTA MATERIALS, SOUTHERN**  
**OWNER: CDOT REGION 2**



The I-25 Pinon North project is located in both El Paso and Pueblo counties and consisted of 10.3 miles of 4 lane divided Interstate paving at night. The paving consisted of 2.5” mill and 2.5” HMA overlay on I-25 from M.P. 108.46 to 119.30. Approximately 78,000 tons of SX 100 PG 76-28 asphalt mix was placed.



*Left to Right: James Wolfe – MMM-Southern Assist. Project Supt.; Rueben Medina – MMM-Southern, Paving Foreman Brian Berrera – CDOT R-2, Project Engineer; Dave Smith – MMM Southern, Project Supt., Dan Dahlke – CDOT R-2, Resident Engineer, Leo Alzate – MMM- Southern, Lead Man*

The project had an average HRI of 32.9 and received 97% of available smoothness incentive for 40.9 lane miles of paving. This amounted to \$357,640 of an available \$368,549. There were 27 projects considered in this category.

### SMOOTHEST PAVEMENT CATEGORY II – NEW CONSTRUCTION

**WINNER: US HIGHWAY 160, HESPERUS TO DURANGO PAVING**  
**CONTRACTOR: FOUR CORNERS MATERIALS**  
**OWNER: CDOT REGION 5**



*Left to Right: Stoney Nez – Four Corners Materials, Paving Crew Lead Man; Tremayne James – Four Corners Materials, Paving Crew Lead Man; Orand Olin – CDOT Region 5.*

This project located in southwestern Colorado on US 160, west of Durango, consisted of resurfacing 10.2 miles of three lane roadway. An ST 3/4” leveling course and a 1-1/2” SX top mat was placed. This amounted to 52,000 total tons of asphalt with 20% RAP. This project had an average HRI of 34.8.

In the project nomination form it is noted, the contractor elected to perform diamond grinding at their own direction on the leveling course to mitigate diamond grinding on the top mat and improve final smoothness. Once complete the 31.39 lane miles of paving contained NO MUST GRINDS. There were 16 projects evaluated for this award.



# 2014 BEST IN COLORADO

## 2014 SMOOTHEST PAVEMENT AWARDS

### SMOOTHEST PAVEMENT CATEGORY III – ONE LAYER PAVING

**WINNER: US HIGHWAY 50, WHITEWATER EAST**  
**PAVING CONTRACTOR: UNITED COMPANIES**  
**OF MESA COUNTY**  
**OWNER: CDOT REGION 3**

This project is located on US 50 and consisted of a 1-1/2" overlay for approximately 4 miles of a 4-lane highway. This project had an average HRI of 52.4 for the 18.82 lane-miles of paving. It received 48.3% of the incentive - \$81,843 of an available \$169,600. There were 6 projects evaluated in this category.



Left to Right: Trevor Wooley – CDOT R-3, Project Inspector; Victor Pennington – CDOT R-3, Project Engineer, Saul Valdez – United Co. of Mesa County, Lead Man Paving Crew; Scott McDaniel – CDOT Director of Product Support; Raul Fonseca – United Co. of Mesa County, Paving Foreman; David Fife – United Co. of Mesa County, Quality Control Mgr.; Mike Termentozzi – United Co. of Mesa County, Project Mgr.



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# Best in Colorado Asphalt Pavements

## CATEGORY: SPECIAL USE/COMMERCIAL



**PROJECT: ENTERPRISE BUSINESS CENTER**  
**PAVING CONTRACTOR: BRANNAN SAND AND GRAVEL CO.**  
**GENERAL CONTRACTOR: MURRAY AND STAFFORD**  
**OWNER/AGENCY: UNITED PROPERTIES LLC.**

This project consisted of the placement of 15,400 tons of asphalt at a new Coca Cola distribution Center in north Denver on 40th Avenue. Before paving in the Spring of 2014, the pavement design had to be amended due to the Flood of 2013 and saturated soils. Import and base course material was added and the asphalt section

adjusted. This was the highest rated project of all submittals in 2014 receiving a score of 336. The project received perfect 10's in overall appearance, longitudinal joints, and transverse joints. Material quality levels were excellent. The judges' comments were very brief but profound. A spectacular looking project.

**HIGHEST  
RATED  
PROJECT**



*Left to Right: Jimmy Nalow – Commercial Superintendent, Abe Perez Jr – Paving Superintendent, Garrett Olsen – Paving Superintendent, Jordan Marvel – Project Manager – all with Brannan Sand and Gravel*

## CATEGORY: AIRPORT



**PROJECT: FREMONT COUNTY AIRPORT**  
**CONTRACTOR: ROCKY MOUNTAIN MATERIALS & ASPHALT, COLORADO SPRINGS**  
**OWNER/AGENCY: FREMONT COUNTY AIRPORT**  
**CONSULTANT: ARMSTRONG CONSULTANTS**

This project consisted of earthwork, drainage, 5,000 tons of asphalt materials, signs and striping to construct a parallel and several perpendicular connector taxiways to the runway at Fremont County.

An accelerated construction schedule was used so as to avoid impacts on scheduled events, airport shutdown and cold late season weather. All quality assurance test results met FAA specifications, 100% payment and the judges noted an excellent appearance and a project that “looks outstanding.”



*Left to Right: Richard Baker – Fremont Co., Airport Mgr.; Bill Weber – Rocky Mt. Materials & Asphalt, Superintendent; Jason Dody – Rocky Mt. Materials & Asphalt, Paving Superintendent*

# Best in Colorado Asphalt Pavements

## CATEGORY: RESIDENTIAL SUBDIVISION



**PROJECT: CONGRESS PARK SPEER NEIGHBORHOODS**  
**PAVING CONTRACTOR: CUTLER REPAVING, INC.**  
**OWNER/AGENCY: CITY AND COUNTY OF DENVER**

The project involved the hot in-place recycling and paving on city streets. This consisted of a 1" recycle and a 1" overlay. This included Butt joints and edge milling in advance of HIPR process. Approximately 44,000 tons of asphalt materials were placed.

Contractor provided milling, trucking, HIPR, manhole and water valve adjustments during paving, traffic control, flagging, and striping. Other key project contributors included Chacon Trucking and Traffic control from Roadsafe. The judges noted the following: Nice project. No visible transverse joints, longitudinal joints tight and straight.



*Left to Right: Doug James – Alpha Milling; Nick Ware – Alpha Milling; Todd Gonser – Cutler Repaving, Colorado/Utah Area Mgr.; Pat Kennedy – City & County of Denver, Street Supervisor*

## CATEGORY: CITY STREET NEW OR RECONSTRUCTION



**PROJECT: 11TH AVENUE RECONSTRUCTION,  
O TO 20TH STREET, GREELEY, COLORADO**  
**CONTRACTOR: MARTIN MARIETTA MATERIALS, NORTHERN**  
**OWNER/AGENCY: CITY OF GREELEY**

This project consisted of the placement of approximately 14,000 tons of asphalt materials. The work included a 2.5" milling, placement of a fiberglass paving fabric, followed by a 1.5" leveling course and a 2" surface course. All mix furnished met or exceeded-



*Left to Right: Pat Hill – City of Greeley, Pavement Management Coordinator; Randy Walrath – City of Greeley, Construction Inspector; Santiago (Greg) Martinez – MMM, Paving Foreman; Mike Maestas – MMM, Operator*

ed specification requirements. Significant project contributors included TMT – milling and Roadsafe for striping. The project received a perfect 10 for transverse joints and high marks for overall appearance, segregation, longitudinal joints and ride quality.

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# Best in Colorado Asphalt Pavements

## CATEGORY: PROJECT DELIVERY (CO-WINNER)



**PROJECT: INTERSTATE 70, VAIL PASS, STRAIGHT CREEK, EISENHOWER JOHNSON MEMORIAL TUNNEL**  
**PAVING CONTRACTOR: APC SOUTHERN CONSTRUCTION CO.**  
**OWNER/AGENCY: CDOT REGION 3**

This project consisted of the placement of approximately 37,300 tons asphalt materials. This included approximately 10,000 tons of stone matrix asphalt paved full width inside the Eisenhower-Johnson Memorial Tunnel. All paving in the Tunnel was done at night to reduce traffic impact and to minimize construction related

congestion. The tunnel night work was coordinated so that each lane – from one end to the other - was done in one night – 4 nights total. With another night for the work around the Silverthorne Interchange. All milling and paving in the tunnel went smoothly and work was completed over a month ahead of the fixed project completion date. The project team was recognized by local citizens and motorists for minimizing construction duration and work zone impacts.



*Left to Right: Ray Leon – LS Gallegos, Lead Inspector; Jim Shea – HDR, Project Engineer; Steve Hammond – APC Southern Construction Co., Superintendent; Jim McDonald – APC Southern Construction Co., Vice President; Grant Anderson – CDOT R-3, Resident Engineer*

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# Best in Colorado Asphalt Pavements

**CATEGORY: PROJECT DELIVERY (CO-WINNER)**



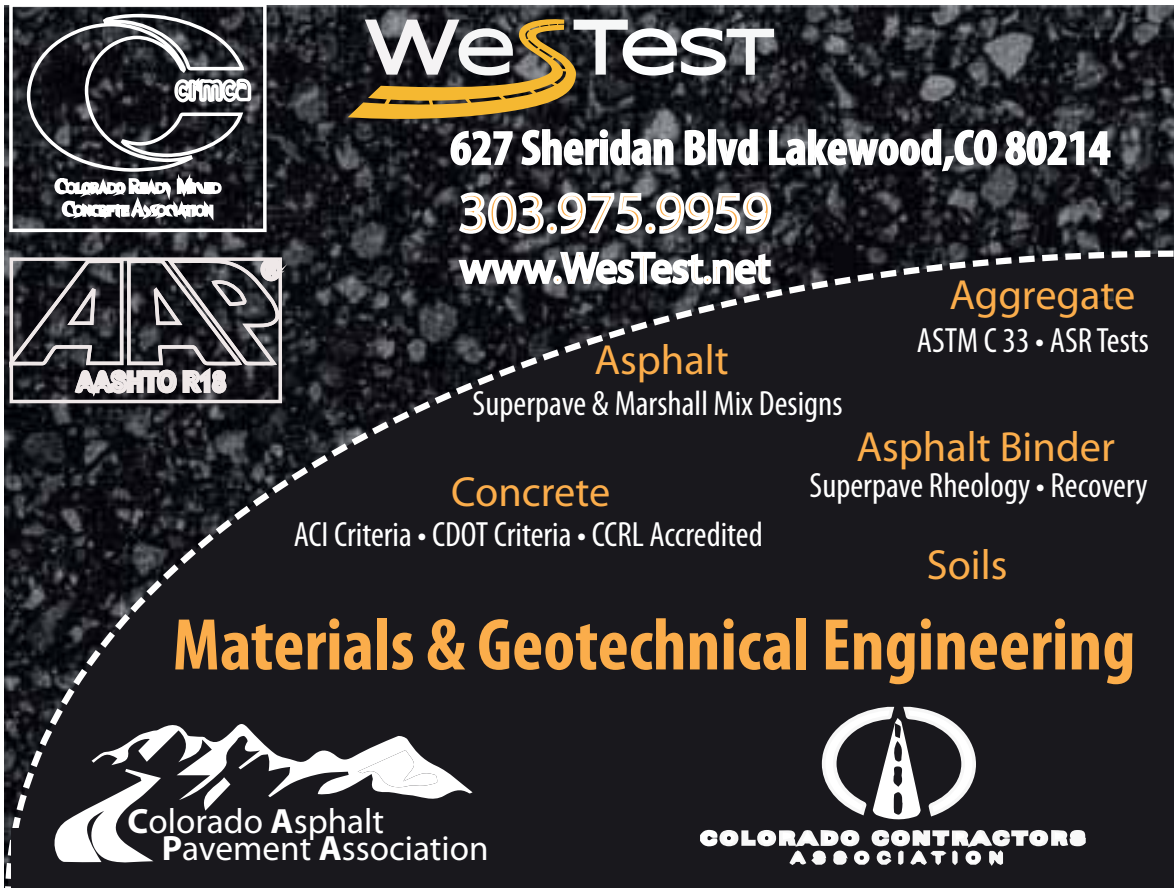
**PROJECT: US HIGHWAY 6 GAP PROJECT,  
INTERSTATE 25 ALAMEDA TO 6TH AVENUE  
PAVING CONTRACTOR: BRANNAN SAND & GRAVEL  
GENERAL CONTRACTOR: EDWARD KRAEMER AND SONS  
OWNER/AGENCY: CDOT REGION 1**

Brannan Sand and Gravel completed in one weekend what was first considered to take 3 to 4 weeks of night work – working 5 nights per week. This project was designed to add a lane for northbound I-25 traffic by narrowing lanes and shifting the median barrier wall to the west. Once the barrier was moved, the existing roadway was milled and repaved to the new alignment. 8,300 tons of stone matrix asphalt was placed in a 2.5" lift using a round the clock weekend

closure. 2 crews were used allowing paving in echelon. Mix was produced out of one plant. Edward Kraemer and Sons was the prime contractor for the project. They coordinated Brannan's work as well as the milling subcontractor. Alpha Milling and the traffic control and pavement marking subcontractor Roadsafte. EK's planning and leadership led to the success of the project. Paving was completed 12 hours ahead of schedule and in plenty of time to avoid any impacts to the Monday morning rush hour. for overall appearance, segregation, longitudinal joints and ride quality.



*Left to Right: Jon Joesten – Brannan Sand & Gravel, Quality Control Mgr.; Pablo Gonzales – CDOT R-1, Head Tester; Kevin Sullivan – CDOT R-1, Project Engineer; Bob Gindro – Brannan Sand & Gravel, Project Supt.; Abe Perez – Brannan Sand & Gravel, General Paving Supt.; Donald Perez – Brannan Sand & Gravel, Paving Supt.; Cody Taylor – Brannan Sand & Gravel, Paving Supt.*



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# Best in Colorado Asphalt Pavements

## CATEGORY: RURAL HIGHWAY RESURFACING



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PROJECT: US HIGHWAY 160, HESPERUS TO DURANGO  
 CONTRACTOR: FOUR CORNERS MATERIALS  
 OWNER/AGENCY: CDOT REGION 5

## CATEGORY: RURAL HIGHWAY RESURFACING



PROJECT: STATE HIGHWAY 64, RANGELY EAST  
 CONTRACTOR: UNITED COMPANIES OF MESA COUNTY  
 OWNER/AGENCY: CDOT REGION 3

The project consisted of asphalt overlay, shouldering and bridge work on State Highway 64 from milepost 28 to milepost 38, east of Rangely in northwestern Colorado. Approximately 24,000 tons of asphalt materials were placed. This included 3,900 tons for a ¾" to 1" leveling course that was added to the project to address areas of heavy amounts of existing crack fill in order to shield this

material from pushing through the overlay. Due to mix tenderness issues, the top mat was placed in 2 – 1" lifts that improved final ride quality. Notes from the Judges: This project was very impressive. There were only a couple of transverse joints noticeable on roughly 20 miles of roadway. All longitudinal joints were very straight and tight. All asphalt shoulder edges likewise were very straight, all of the tie-ins from ranch driveways and side roads were very tight and smooth.



Left to Right: Austin Gilbert – CDOT R-3, Design Engineer; Saul Valdez – United Co., Lead Man, Paving Crew; David Fife – United Co., Quality Control Mgr; Raul Fonseca – United Co., Paving Foreman; Devin Ray – Atkins, Project Engineer; Clint Moyer – CDOT R-3, Resident Engineer - Craig Residency; Mike Termentozzi – United Co., Project Mgr.

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# Best in Colorado Asphalt Pavements

## CATEGORY: PREVENTIVE MAINTENANCE SURFACE TREATMENT



**PROJECT: STATE HIGHWAY 40, DEER TRAIL TO BYERS**  
**CONTRACTOR: BRANNAN SAND AND GRAVEL CO.**  
**OWNER/AGENCY: CDOT REGION 1**

This project consisted of 1.5" asphalt overlay. Due to long haul and cold paving temps in November, 2013 Brannan submitted and used a warm mix asphalt using Evotherm 3G. Densities ex-

ceeded the project requirements, despite paving in sub 40 degree temperatures. Additionally, the road was very smooth and did not require any grinding, despite the fact that there was no milling. The Award Judges rated the longitudinal joints, mat quality and the ride quality as very high.



*Left to Right: Brian Kelly Project Engineer – CDOT; Grant Cruseturner, Estimator/Project Manager; Donald Perez Paving Superintendent*

## CATEGORY: RURAL HIGHWAY RECONSTRUCTION



**PROJECT: I-25, COLORADO SPRINGS TO MONUMENT**  
**CONTRACTOR: KIEWIT INFRASTRUCTURE**  
**OWNER/AGENCY: CDOT REGION 2**

This \$51.5 million dollar design/build project consisted of major highway widening, mill and overlay on 11 miles of I-25 north of Colorado Springs, between Woodman Rd. and Monument. Asphalt paving quantities included 160,000 tons of lower lift HMA, 40,000 tons of top mat shoulder HMA and 46,000 tons of top mat stone matrix asphalt (SMA). Approximately 35,000 tons of both HMA and SMA included the Evotherm warm mix asphalt additive to aid compaction compliance to density requirements in colder weather conditions.

All paving was completed while maintaining at least two lanes of traffic in each direction and a good portion of paving was done at night. The judges scored the project very high for project size, complexity and difficulty and the challenge of the high traffic volume and multiple phases. The final project appearance, and overall ride quality, were deemed by the judges as worthy of recognition as a "Best in Colorado."



*Left to Right: Paul Jacobson - Kiewit, Jeff Moore - Kiewit, Dan Leone - Kiewit, Pete Remington - Kiewit, Wayne Pittman – CDOT, Dan Hunt – CDOT, Jim Watson – Western Milling*

# Best in Colorado Asphalt Pavements

## CATEGORY: URBAN HIGHWAY/CITY STREET RESURFACING



**PROJECT:** STATE HIGHWAY 88 (ARAPAHOE ROAD),  
DAYTON TO JORDAN  
**CONTRACTOR:** MARTIN MARIETTA MATERIALS, METRO  
**OWNER/AGENCY:** CDOT REGION 1

This project consisted of milling and 32,000 tons of 2.5" of SMA overlay, 1,600 tons of HMA reconstruction and 1500 tons of HMA

patching on a very busy section of urban highway. The judges rated the project very high for complexity due to the requirement of night paving, traffic handling, intersections, and utilities. Judges' comments include the following: Transverse joints not noticeable – a perfect 10 rating, longitudinal joints very clean and tight, raised utilities look great! Overall a Great Project.



Left to Right: Eric Lee – CDOT R-1, Project Engineer; Steve Walsh – MMM, Estimator/Project Mgr; Jorge Semental – MMM Supt.

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