

# THE ROAD AHEAD



FALL 2015

**A supplement to Colorado Public Works Journal  
Fall/Winter 2015**

**Concrete Out, Asphalt In...Parts 1, 2, & 3**

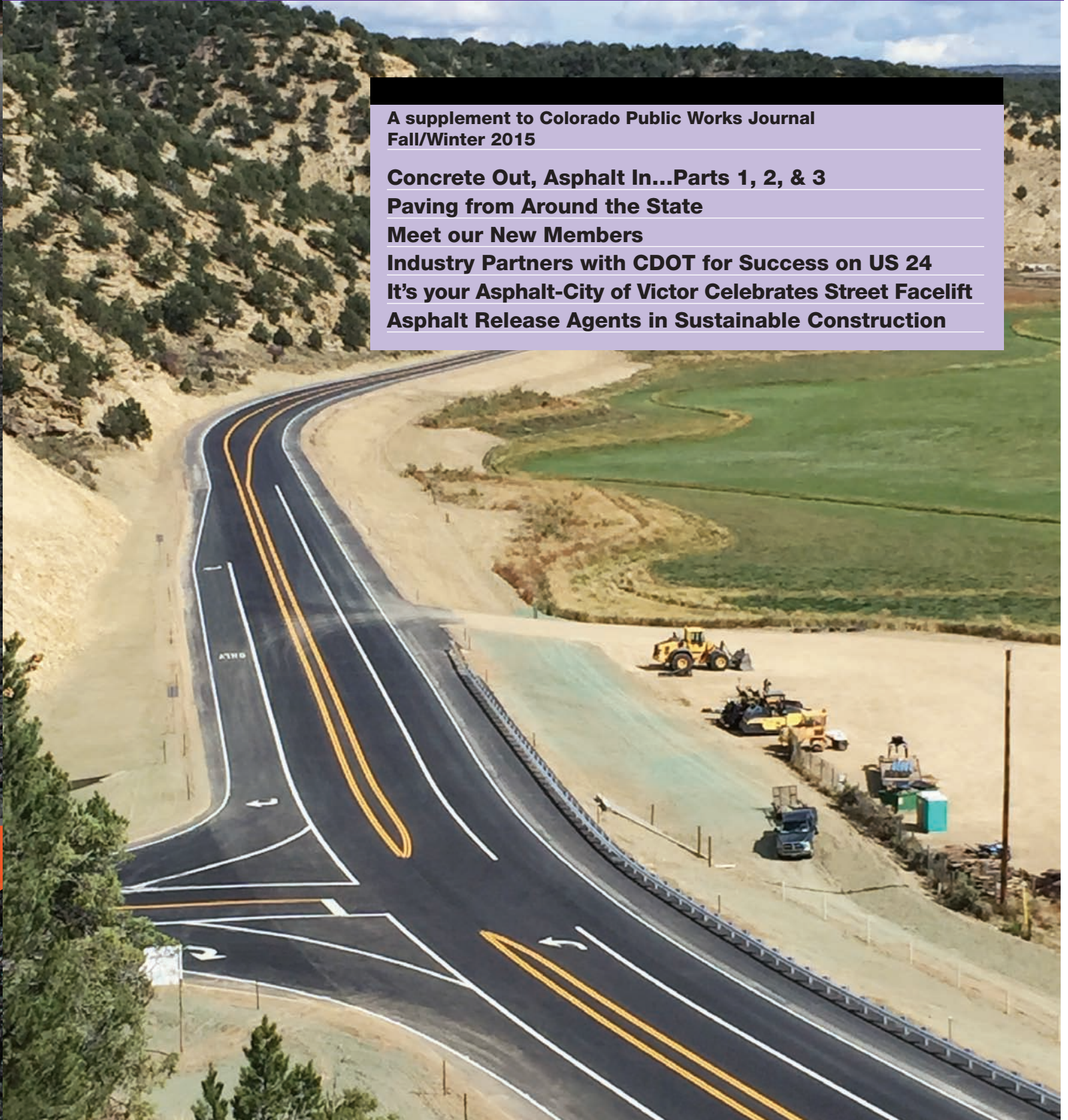
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# Introduction



Tom Peterson

## Welcome to the 1st issue of *THE Road Ahead!*

*THE Road Ahead* is CAPA's news magazine published twice each year (Spring & Fall) by Golden Bell Press that highlights asphalt industry news and views from throughout the industry.

We include information on trends, project successes, new technology, etc. The magazine is published as an insert in the Colorado Public Works Journal and distributed throughout the state to municipal engineers, public works representatives,

consultants, contractors, and industry service and product providers. With all of the negative impacts of legalized marijuana in Colorado and the jokes and humor surrounding its recreational use, we felt a change was needed from our old magazine title *The High Road*.

We feel the new title fits well with our mission of advancing the use and quality of asphalt pavements in Colorado. We thank our associate members that make this publication possible through advertisements, and editor of Colorado Public Works Journal, Jo Taylor.

Hope you enjoy the first issue of *THE Road Ahead!*

Thomas Peterson, P.E.  
Executive Director  
Colorado Asphalt Pavement Association

### SAVE THE DATE: New Member Luncheon

Thursday, December 10, 2015

Gathering at 11:30 am. Luncheon at Noon Sponsored by Westest. Followed by the Annual CAPA Christmas Reception. Sponsored by The CAPA Binder & Emulsion Suppliers. To RSVP: [info@co-asphalt.com](mailto:info@co-asphalt.com). Location: Baldoria, 146 Van Gordon Street, Lakewood, 80228



## The CAPA Lunch & Learn Series

The CAPA Lunch & Learn Series is a "No Cost Service" that provides training on the latest information, technology, and applications for asphalt pavements. Presentations are tailored to meet your needs.

Generally, sessions last 1 to 1.5 hours depending on the information requested. Sessions can take place at any time of day – whatever is convenient for you and your colleagues. Review the list of topics we offer, contact us and we will schedule your session. PDH/CEU's are available.

If you find yourself asking these or any other questions related to asphalt, the Colorado Asphalt Pavement Association has just what you and your organization need - CAPA's Lunch & Learn Series.

### ASPHALT PAVEMENT TOPICS

- Design Considerations
- Mix Specs, Methods & Quality Control
- Maintenance and Pavement Preservation
- Inspection
- Warm-Mix Asphalt

- Thin Overlays
- Rubblization
- Porous Asphalt
- Life Cycle Cost Analysis
- Pavement Management
- Question/Answer Forum



### KEEPING UP WITH ASPHALT PAVEMENTS

- What is Warm Mix Asphalt?
- What 'best practices' should be followed for contracting and bid document requirements?
- Is there information on the performance of asphalt?
- What specs should I use?
- What's new in asphalt technology?
- What are the current rehabilitation options?

Contact Tom Clayton, CAPA Director of Training at (303) 741-6150 x151 or via e-mail at [tomclayton@co-asphalt.com](mailto:tomclayton@co-asphalt.com) to schedule a session or to learn more information about this program. Personal Development Hours (PDHs) will be issued upon completion of seminar.

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Affiliate Agency Members – CAPA has an Affiliate-Agency Member List that includes 68 city, county, town and other government agencies (including the E-470 Public Highway Authority and the Northwest Parkway Public Highway Authority) that have joined to benefit from training and education, technical assistance, and specification development.

# Concrete Out.....Asphalt In – A Look at 2015



**ASPHALT**  
THE SMOOTH QUIET RIDE

## Part 1 – Major Arterial Reconstruction in the Town of Parker

Mainstreet runs the length of downtown Parker, lined with shops and parks, it is a main corridor to the Town. West of downtown, Mainstreet serves as a major arterial providing access to residential subdivisions built in the 1980's, 1990's, 2000's and continuing today. It carries some of the higher Average Daily Traffic (ADT) in the town's 180 centerline mile network, upwards of 26,000 vehicles per day, hence its critical importance to the roadway network.

Constructed in 1984 with 8-inches of full depth concrete over slightly expansive subgrade, this 31 year old roadway was experiencing significant perpetual maintenance issues. *"It got to the point where we did around 25% panel replacement and seeing major faulting at the joints. However, our biggest complaint from the traveling public, hands down, was the noise from the deteriorating and faulted panels"* stated Chris Hudson, Parker's Traffic & Capital Improvement Program Manager. *"We were spending so much on maintenance and impacting the traveling public with no improvement, it got to a point where we had to break the cycle."*



Existing concrete pavement to be removed along Mainstreet

In response, Public Works took a proposed action plan to the Town Council for approval. They suggested to leadership that they wanted to stop funding short-term maintenance until a reconstruction budget could be pulled together, in short..... letting it go, knowing it would get worse. Council agreed and ultimately approved a multi-year phased approach for



New asphalt construction along westbound lanes of Mainstreet

reconstruction. Phase I of the project was awarded in April 2015 and included reconstruction of the westbound portion of Mainstreet between N. Molsenburger Road, and Jordan Road (approximately 2,200ft) at a cost of \$1.2M. The contractor began removing the concrete panels by mid-summer, and Schmidt Construction placed the new asphalt in September. Phase II of the project will include the east bound lanes in 2016 at an estimated cost of \$1.2M.

Public Works made the decision to reconstruct with asphalt primarily because of 1) speed of the construction allowing the contractor to get in and out quickly and 2) the favorable cost for asphalt. The reconstructed section consists of 9-inches of asphalt over 12-inches of aggregate base (recycled concrete) on prepared subgrade. Hudson commented on the use of aggregate base course indicating *"Over the last 10 years the Town has seen better performance of our roads that were constructed on a composite pavement section as opposed to full depth pavements on conditioned or chemically stabilized (lime) subgrade."*

To reduce the impact to the citizens and the adjacent residents, an incentive clause was put into the contract allowing for a \$5,000/day bonus for early completion (up to maximum of ten days). As a result, the contractor completed the 60 day project in just 50 days, maximizing the incentive. The Town received many compliments from citizens on the speed of the work being completed.

# Concrete Out.....Asphalt In – A Look at 2015

***“Public Works made the decision to reconstruct with asphalt primarily because of 1) speed of construction allowing the contractor to get in and out quickly and 2) the favorable cost of asphalt.”***

Other agencies in Douglas County are having similar success with their concrete removal and reconstruction projects. In 2015 the City of Lone Tree awarded a \$1.2M project to reconstruct Parkway Drive (County Line to Acres Green) with asphalt due to poor performance of the existing concrete. Douglas County is also moving forward with a major rehabilitation project to a section of poorly performing concrete along Village Drive (Hilltop to Betts Ranch). In order to maintain traffic, instead of rubblizing the concrete in-place, the County has elected to place a glass grid over the concrete to distribute stresses and slow the reflective cracking and then overlay with 6-inches of asphalt. The Village Road project will start in 2016.



## Part II – Expensive Maintenance in Castle Rock and Problems in Arapahoe County

In the Town of Castle Rock, Plum Creek Boulevard is a 4-lane divided arterial road and an integral part of the 600 lane-mile roadway network serving all of the residential subdivisions south of downtown. Constructed in the early 1980's with 7-inches of concrete on prepared subgrade, by 2006 the road had reached the end of its original design life. Carl Armijo, PE, the Town's Engineering Manager stated *“Public Works was having to budget significant maintenance dollars to keep the road serviceable and had to make a cost decision on future maintenance spending vs. reconstruction. We ultimately made the decision to reconstruct the road in phased segments, and started the program in 2006. The first phase was reconstructed from Mango to Emerald. The second phase was reconstructed in 2012 from Mango to Plum Creek Parkway.”*



Removal of distressed concrete along Plum Creek Boulevard

The first phase was reconstructed with asphalt. The decision was made that each following phases would also be reconstructed with asphalt to stay consistent along the length of the 2-mile road. The last segment to be reconstructed (Emerald to Mount Royal Drive, approximately 3,600ft) was awarded to Schmidt Construction and completed this summer with 6-inches of asphalt over an 8-inch aggregate base course.



New asphalt pavement on Plum Creek Boulevard

The reconstruction of Plum Creek Boulevard is helping to boost the Overall Condition Index (OCI measured from 0-100) of the Town's roadway network by replacing the low OCI score of the removed deteriorated concrete panels with a high OCI for the new asphalt reconstruction. Castle Rock started tracking their street network performance using the OCI

## Concrete Out.....Asphalt In – A Look at 2015

***“The first phase was reconstructed with asphalt. The decision was made that each following phase also be reconstructed with asphalt to stay consistent along the length of the 2-mile road.”***

metric in 2011 with the Cartêgraph system (an operations and asset management software program). Since then, the town council has supported the overall target OCI goals for the network of OCI > 75 for primary streets and OCI > 70 for secondary streets. With a \$6M Pavement Maintenance Program (PMP) budget in 2015 (up from \$3.2 M in 2014) and slightly increased for 2016, Castle Rock is making progress towards their road performance goals.

Long-term performance issues with concrete have also been identified in Arapahoe and Douglas Counties. In 2010 and 2011 concrete slabs along SH 83 (Parker Road) buckled north and south of the Town of Parker respectively, creating major traffic impacts to a key commuter route in that portion of the Denver Metro area. In August 2015 concrete slabs along Buckley Road (a major arterial roadway for Arapahoe County) buckled at the start of the afternoon rush hour shutting down a portion of the road and requiring emergency repairs. The 11-inch thick concrete panels constructed in the early 2000's buckled under the summer heat, creating a +24-inch height differential along the roadway causing damage to vehicles.



Buckeled concrete panels in Arapahoe County

The Arapahoe County Sheriff responded by diverting traffic and commented that other panels along that same stretch of Buckley Road have also buckled in the past. In response, Arapahoe County Road & Bridge Department stated that, due to maintenance issues, they may consider not allowing the construction of concrete pavements in the future, and they are exploring the matter further.



### Part III – Maximizing Airport Construction Funds with Asphalt Paving

The Colorado Department of Transportation Division of Aeronautics is responsible for administering the Discretionary Grant Program for the 55 General Aviation (GA) airports across the state, many of them supporting rural and remote regions of Colorado. Each GA airport receives Federal Entitlement Grant funding up to \$150,000 annually for projects. As a rule of thumb, one year's funding will generally cover crack sealing, fog sealing, restriping and consultant services for a 1-mile GA runway. Most GA airports elect to bank the funds for 2 to 4 years to allow for larger projects with higher budgets ranging from \$300,000 to \$600,000.

Many of the GA airports on Colorado's Eastern Plains were constructed with concrete in the 1970's or 1980's and are reaching the end of the initial design life.

- In 2005 the Burlington-Kit Carson County Airport was eligible for runway reconstruction funds. Armstrong Consultants (Airport Planning and Engineering) bid the reconstruction

project for both concrete and asphalt. The asphalt option was selected because it had a significantly lower up front construction cost, allowing the project to move forward.

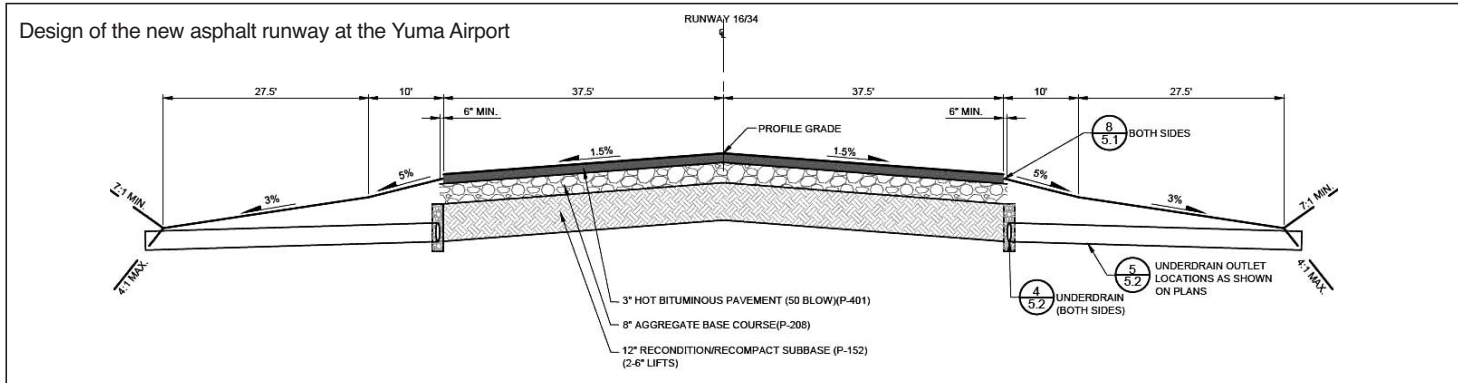
- In 2010, the Sterling Municipal Airport was also eligible for runway reconstruction funds. To maximize the scope of the project, the existing concrete was rubblized in-place and overlaid with 5-inches of asphalt (P-401).

- In 2014, the runway at the Ft. Morgan Municipal Airport had to be reconstructed due to drainage issues and was then extended. Asphalt again provided a lower up front cost allowing the project to begin.

The Yuma Municipal Airport, located on US 34 east of Brush, in Northeast Colorado has a 4,200ft concrete runway (16/34). The existing concrete is exhibiting significant distress from thermal expansion, resulting in four to five inches of horizontal and vertical differential movement in the slabs. In 2011-2012



# Concrete Out.....Asphalt In – A Look at 2015



Distressed concrete pavement at the Yuma Municipal Airport

the airport and Armstrong consultants replaced select panels to keep the runway serviceable, however, the projects were limited in scope due to the annual \$150,000 budget.

In 2015 the Yuma Municipal Airport became eligible for runway reconstruction funds. According to Jake Hoban, PE, Armstrong Consultants Project Manager *“Unlike the runway rehabilitation in Sterling, where the concrete was rubblized and used as base course beneath the new asphalt, Yuma was unable to rubblize their panels and leave in-place due to a thin concrete section and poor subgrade conditions. Instead, the concrete will be removed, crushed and used to stabilize the subgrade.”* The proposed runway pavement section consists of three inches of asphalt over eight inches of crushed aggregate base course (P-208) over twelve inches of reconditioned subgrade (P-154) utilizing crushed concrete in areas of unsuitable subgrade. The awarded construction cost is \$4.9M.

## 16 ORGANIZATIONS WELCOMED INTO CAPA MEMBERSHIP IN 2015

The Colorado Asphalt Pavement Association (CAPA) continues to grow. We are pleased to welcome 16 organizations to membership in 2015. Welcome to CAPA!!!!

Come and celebrate our New Members with us on Thursday, December 10, 2015 at the New Member Luncheon. See page 2 for more details and to register.

If you would like to learn more about becoming a CAPA member, visit the CAPA web site at: [www.co-asphalt.com](http://www.co-asphalt.com) or contact Tom Clayton at (303) 741-6150 x 151.

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*“The strength of the CAPA organization is our membership. We greatly appreciate the support of each of these organizations and look forward together to advance the use and quality of asphalt pavements in Colorado.”*  
 CAPA President Gregg Rippy [President, Grand River Construction – Glenwood Springs, Colorado]

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## Industry News

# MGPEC Creates a Transportation Asset Management Task Force to Help Local Agencies



When the Metropolitan Government Pavement Engineer's Council (MGPEC) was originally created in 1993, the mission of the organization had several goals, including:

- 1) Standardizing pavement designs, materials and maintenance recommendations, and 2) Standardizing pavement management programs for local agencies.

New Federal mandates from the Federal Highway Administration, in the form of Map 21, require local Municipal Planning Organizations (MPOs) to have Transportation Asset Management Plans in place for local agency road segments and bridges that belong to the National Highway System (NHS). MGPEC started the TAM task force in the summer of 2015 to help with the new implementation.

With local agencies continually being tasked to do more with less, implementing a Transportation Asset Management program leads to more informed decision making while maximizing the value of available budget dollars. Transportation asset management is an inventory and cross asset prioritization of agency pavements, hardscapes, bridges, signage and ADA compliance helping to manage risk, deliver sustainable solutions to the community and provide a framework to improve performance on a long-term basis. Sharing knowledge is a critical component of advancing asset

management practice so the task force is consulting with other MPO's and local agencies across the nation that have successfully implemented Transportation Asset Management Programs. The Metropolitan Transportation Commission (MTC) in the San Francisco Bay area serves as a model for successful TAM implementation and is providing a framework for implementation by other agencies, including the Denver Regional Council of Governments MPO (DRCOG). The TAM task force has two goals, including:

- Develop Transportation Asset Management Policies and Procedures for MGPEC, and
- Help DRCOG implement a TAM and become compliant with MAP 21.

Participation on the TAM task force is well represented by local agencies (Arapahoe County, Boulder, Boulder County, Denver, Littleton, Parker and Thornton), the asphalt and concrete industries, Denver Regional Council of Governments (DRCOG), the Colorado Division office of the FHWA and CDOT. If you are involved with infrastructure or transportation asset management at your agency and would like to participate on the task force, contact Mike Skinner (Director of Pavement Engineering for the Colorado Asphalt Pavement Association and chairman of the TAM task force) at [mikeskinner@co-asphalt.com](mailto:mikeskinner@co-asphalt.com)

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## Partnership between the Asphalt Industry and CDOT Yields Successful Results on 10 Year US 24 Warranty Project



In the Fall of 2004, Colorado's asphalt industry entered into a groundbreaking partnership with the Colorado Department of Transportation (CDOT), when a major corridor project in El Paso County included a ten-year warranty for the asphalt pavement, the first time CDOT had included a long-term warranty provision for an asphalt pavement project.

Rocky Mountain Materials & Asphalt of Colorado Springs was the low bidder on the \$5.2 million project, which added 5.3 miles of two new lanes along US 24, east of Colorado Springs. In 2004, Rob Mangone, Vice President of Rocky Mountain Materials stated *"Including a 10-year warranty provides a strong indication of the confidence of our industry in the use of asphalt for similar new alignment or reconstruction projects on the Interstate and other major corridors in Colorado's Front Range."*

A maximum liability of \$750,000 was established for the long-term warranty project to cover the contractor's cost to perform warranty work, potential lane rental fees, and the cost of a warranty bond from the surety company.

Then CDOT Executive Director, Tom Norton added, *"Offering an extended warranty provides an added level of assurance that the asphalt industry can provide the quality products needed on this type of project."*

During the ten year warranty period, CDOT measured the performance of the project annually using their pavement management system's automated data collection van. Performance thresholds were developed and implemented into CDOT's Standard Specifications for Road and Bridge Specifications (Section 403-3) and established distress threshold values for warranted projects, including:

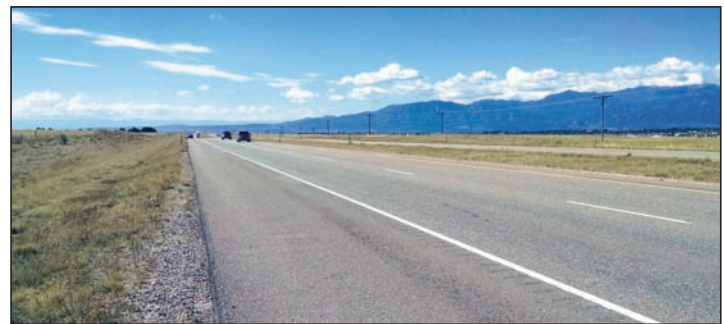
- Permanent Deformation (Rutting)
- Longitudinal Cracking
- Transverse Cracking
- Load Associated Longitudinal Cracking
- Bleeding
- Raveling

Fast forward to September 2015 when representatives from CAPA, Rocky Mountain Materials, CDOT Materials Branch and CDOT Region 2, visited the site to perform the final warranty inspection prior to project closeout. CDOT provided

their most current pavement management data which indicated that the length of the project never exceeded the permanent deformation threshold of 0.5" per tenth mile. Additionally, CDOT PMS data identified only two out of the fifty three tenth mile segments along project with distresses above the performance thresholds (one segment for transverse cracking and the other for fatigue cracking). The inspection team reviewed the distressed segments and were in agreement with the final warranty maintenance recommendations proposed by CDOT and Rocky Mountain Materials.

In closing, the inspection team felt that the project was very successful with no major problems or issues. CDOT previously stated that the greatest benefit of using long-term warranties may be realized on projects that require innovative design and construction solutions and/or outstanding workmanship to provide good long-term performance. CAPA and the asphalt industry is looking forward to continuing to foster this innovative partnership with CDOT for major corridor projects.

Mike Skinner, PE  
Director of Pavement Engineering  
Colorado Asphalt Pavement Association



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## Industry News

# Role of Release Agents in Sustainable Asphalt Operations

by Mike Scardina



Hopefully, we can all agree that sustainability is a big part of asphalt today and will help shape the future of construction. In 1987 the World Commission on Environment and Development (WCED, often referred to as the Brundtland Commission) set the sustainability standard; *“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”* In asphalt, efforts are focused on best practices for design, manufacture and placement of plant mix asphalt as well as continuing efforts with FRAP, RAS, safety and environmental stewardship. Economic realities dictate doing more with less, while producing higher quality pavements, while we all strive to be good neighbors within our communities. For those publicly traded, sustainability is very important to your investors. Running safe, sustainable operations plays a significant role in the asphalt industry in Colorado. As the CRH sustainability plan states, *“CRH is committed to safeguarding its employees, enhancing the environment, ensuring strong governance and risk management, and supporting and benefitting the communities in which it operates.”* How can a good release agent program help?

As long as we have used machines in paving, diesel fuel has been the available and reliable option for cleaning and lubricating hand tools, haul trucks, paving equipment and drag slats. However, one by-product of diesel cleaning is waste sludge that can be potentially dangerous as surface run-off. Diesel

use in truckbeds and with paving crews can dilute mix binder and adversely affect performance. Also, environmental risk exists every time diesel is transported, stored or used for anything other than fuel. Low flash points and general health risk issues make widespread diesel usage a dangerous option for asphalt operations. Numerous CDOT and EPA regulations and guidelines now make diesel use a serious risk. However, plant mix asphalt will always be hot, heavy and sticky, so an asphalt release agent will always be needed to keep operations running smoothly.

As a responsible way to keep tools, trucks and machines clean and functional, Asphalt Release Agents are critical to environmental compliance and sustainability efforts. Wiki defines a release agent as *“a chemical used to prevent other materials from bonding to surfaces.”* Asphalt Release Agents are typically liquid chemicals designed to replace diesel and other solvents in asphalt operations as mandated by numerous legislative and regulatory actions. CDOT follows a national testing protocol requiring water based barrier chemicals. Applied as liquid, and frequently reacting with the heat of the mix, barrier release agents form a physical film preventing the binder from bonding to the surfaces at the plant, in the trucks and out with the crews. To meet spec, barrier products cannot react with asphalt binder, helping to promote good quality control and mix performance.

Often, release agent programs involve not just chemicals, but industry specific spray equipment. After years of field refinement, effective product options are available to cover all applications of the paving train, and economy with performance can be achieved. In addition addressing environmental liability, a good release agent program helps producers and pavers reach their sustainability goals.

Looking at the three main ‘legs’ of sustainability, release agents can help to responsibly save money while running best practices at the plant and laydown crew:

**Environmental Stewardship** – Choosing non-hazardous products whenever possible helps to protect your employees, your customers and your community. While moving away from petro chemicals, Jeremy Havens, Kiewit Infrastructure, Colorado Springs Plant Manager found out the hard way not all diesel alternatives are a good idea. *“In the past we tried several chemicals and vendors to address our cleaning and lubrication needs on our slat and double drum. In one case, a vendor presented a product that turned out to be caustic. Once the hazard was discovered, we immediately moved to a different vendor whose release agents were much safer.”*



## Industry News



In addition to guidance provided by many state DOTs, national testing protocol does exist for asphalt release agents. The National Transportation Product Evaluation Program publishes tests and shares results for release agent products recommended for asphalt operations (<http://data.ntpep.org/>). Using an approved release agent chemical helps to assure safety and performance. Plants and construction sites also struggle to maintain good storm water compliance, often at great expense. Storm water compliant release agent products that pass state and national tests bring obvious benefits versus risking diesel contamination.

**Social Benefit** – Many Colorado companies recognize their responsibility in the community and run environmentally friendly programs, but more can be done. Eliminating hazardous chemicals from plants and construction sites help to make us good neighbors. Keeping employees safe and reducing sources of site liability are prime goals for most operations. A good release agent program featuring auto spray systems helps eliminate liability from truck spray down racks. Jeremy Havens again, *“We felt we needed a release agent spray down option for our numerous outside customers, but were very concerned about truck drivers climbing up and down racks. Keeping truck drivers off racks does save time, but our biggest concern is site safety and the auto spray system ends up being a great option.”*

**Economics** –The newest generation of release agents has emerged offering a cost per ton below diesel with strong performance against modified binder mixes. A good release agent today can cost as little as pennies per truck, and still

see clean beds. Also, the time required for a driver to spray down a truck by hand is often a cost to project productivity. Automatic truck bed spray systems can save 5-10 minutes per truck each round in spray time. Given that trucking continues to be a scarce commodity in many markets, saving an hour or so of haul time per day for each truck on the job can be significant. In the experience of Darren Koch, Plants Manager for Martin Marietta Materials in Colorado Springs, *“We often are feeding mix to our own crews, so being safe and efficient is critical to profitability. Our auto spray system helps get the trucks into load out as quickly as possible, and definitely adds to plant safety during night operations. We continue to get value from our release agent and use the same product for commercial and modified mixes.”*

Out with the laydown crew, on board spray systems with a release agent tank can reduce clean up time dramatically, while achieving better performance and lubricating critical equipment. Release agent spray systems with tanks are standard on most new pavers, MTVs and shuttle buggies. Older models without on board systems can easily be accommodated with an aftermarket spray system.

As we fight to do more with less, remember that building a good release agent program can help achieve your goals of sustainable and profitable operations, while increasing regulatory and environmental compliance.

**Guest Writer: Mike Scardina,  
Regional Sales Manager, BG Chemical LP**

# Industry News



## “It’s Your Asphalt” City of Victor Celebrates Street Facelift



The ‘It’s Your Asphalt’ ribbon cutting ceremony took place in October of 2015

Congratulations to the City of Victor on the newly improved roadway and streetscape through town. The 4 city block downtown section (formerly State Highway 67) was reconstructed with new underground storm utilities, asphalt pavement, curb and gutter, sidewalks, and decorative street lighting. Funds were provided by CDOT through a highway devolution program, a Colorado Department of Local Affairs’ CDBG Grant and contributions from the Cripple Creek and Victor Gold Mining Company and the City of Victor. Kiewit Infrastructure was the prime contractor on the \$1.1 million contract.

*“The improvements to Main Street are critical for the economic future of our City and the 1st step to turning our community around”,* stated Debra Downs, City Administrator. Downs went on to add, *“We wanted to make our city inviting, where people get out of their cars and shop with the safety of sidewalks and spur businesses to reopen.”* The project turned out very well according to Dan Leone, Kiewit Project Manager. *“The City and the engineer (Obering, Wurth & Associates) were great to work with and we partnered to handle all of the unforeseen issues in the old roadway.”*

In celebration of the project completion, a ‘It’s Your Asphalt’ Ribbon Cutting & Community Potluck was held on October 2, 2015. The celebration was attended by State and City representatives, CC&V Gold Mining Company officials, contractors



Main Street in Victor has undergone an extensive re-development

and citizens. The highlight was the unveiling of a beautiful ‘It’s Your Asphalt’ cake complete with model construction equipment. *“We couldn’t be more pleased with how the project turned out and we invite everyone to come up to Victor and take a look,”* stated City Administrator Debra Downs.

Victor is a Statutory City located in Teller County, Colorado - 10,000 feet above sea level and southwest of Pikes Peak. Gold was discovered in Victor in the late 19th century. Victor, along with Cripple Creek, became the second largest gold mining district in the United States, realizing over \$10 billion of mined gold (adjusted to current dollars). It reached the peak around the turn of the century when there were approximately 18,000 residents in the town. Depleted ore in mines, labor strife and the exodus of miners during WWI caused a steep decline in the city’s economy.

The population of Victor was 397 at the 2010 census. There is a resumed mining effort on Battle Mountain and a growing tourism-based economy. Known as the City of Gold Mines, Victor is a well-preserved mining town in a unique setting of 1890’s structures and turn-of-the-century architecture. Victor experiences clean, cool mountain air and over 300 days of sunshine.

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For more information contact Mike Skinner, PE, Director of Pavement Engineering at 303 741 6150 Ex155 or [mikeskinner@co-asphalt.com](mailto:mikeskinner@co-asphalt.com)



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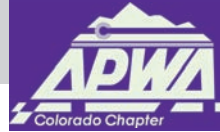


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# APWA AWARD UPDATE



## CAPA Congratulates the 2015 APWA Award Recipients

The recipients of the 2015 Colorado APWA Awards were announced at the APWA Annual Conference in Breckenridge on October 26. All award recipients are highlighted in the Fall 2015 issue of the Colorado Public Works Journal. We would like to congratulate all of the nominees and we're especially proud of the numerous projects involving asphalt pavement, a few of which we have shown here.

### Individual Awards were given to:

Young Leader

**Scott Murphy**

City Engineer, City of Montrose

Professional Manager of the Year - Engineer

**Brian R. Love**

CIP Manager, Arapahoe County

Outstanding Public Works Employee

**Ralph Mason**

City of Cherry Hills Village

Professional Manager of the Year

**Jay Goldie**

Deputy City Manager/Public Works Director

### PARKS & TRAILS SMALL COMMUNITY

Town of New Castle - Flat Tops Bridge and Talbott Trail

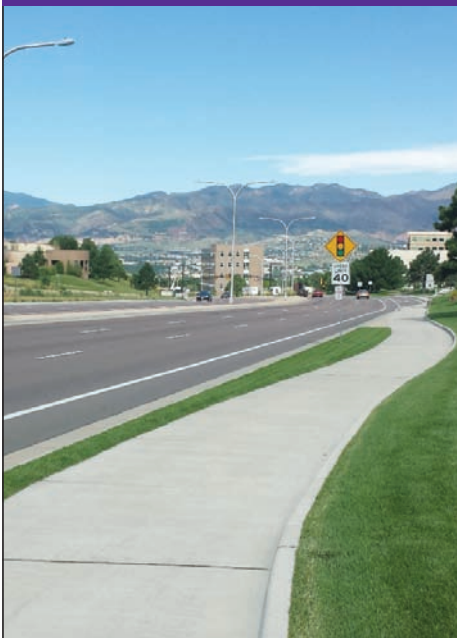


### TRANSPORTATION LARGE COMMUNITY

City of Boulder - 63rd Street Bridge Replacement

### TRANSPORTATION LARGE COMMUNITY

City of Colorado Springs - Austin Bluffs Parkway Corridor



### TRANSPORTATION LARGE COMMUNITY

City of Fort Collins - 2014 Hot in Place Recycling Project



### PARKS & TRAILS SMALL COMMUNITY

City of Cherry Hills Village  
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# INDUSTRY UPDATES



## New Board of Directors at CAPA

Congratulations to Russ Larsen, Chief Operating Officer, of Grand Junction based Elam Construction Co. Inc., on his election to the CAPA Board of Directors. Russ was elected at the June 25 Board meeting and comes to Colorado after spending many years with Elam sister company Kilgore Companies of Utah. (970) 242-5370 Russ.larsen@elamconstruction.com

Brenda Shuler, GM Asphalt & Contracting at Aggregate Industries, has been elected to the CAPA Board of Directors. Brenda was a longtime employee of Lafarge Inc. and most recently was with Hamon Infrastructure Inc. Brenda can be contacted at (303) 716-5296 or at [brenda.shuler@aggregate-us.com](mailto:brenda.shuler@aggregate-us.com)

## E-470 Moves Forward with next phase of widening to 3 lanes

The E-470 Public Highway Authority is moving forward with plans to widen the section between Parker Road and Quincy Avenue. The current 4-lane divided highway will be widened to 3 lanes in each direction. The CM/GC delivery process is being used and Kraemer North America will be the general contractor and FHU is designing the project. The \$80 million project consists of 8 miles of highway widening, and widening of 9 bridges, 1 M CY of dirt and 150,000 tons of asphalt materials (HBP). Construction is expected to start in the spring of 2016 and be complete by January, 2018. Traffic volumes have increased by approximately 13% per year over the past 3 years.

## CAPA Adds Director of Pavement Engineering

CAPA is pleased to announce the addition of Mike Skinner, P.E., as their new Director of Pavement Engineering. Mike has 22 years of pavement engineering experience and will be responsible for supporting design engineers and public works officials in developing pavement improvement plans and understanding the benefit of pavement management systems and asset management. Prior to joining to CAPA, Mike worked in private industry and has extensive experience in pavement design, updating municipal pavement criteria manuals and specifications, and transportation infrastructure management. Mike can be contacted on (303) 741-6150x155 or at [mikeskinner@co-asphalt.com](mailto:mikeskinner@co-asphalt.com)



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# 25<sup>th</sup> Annual Golf Tournament & Scholarship Fundraiser



## 25<sup>th</sup> Annual CAPA Scholarship Fund Raiser Golf Tournament

CAPA and the APWA Colorado Chapter would like to thank all who attended and supported the 25th Annual CAPA Scholarship Fund Raiser Golf Tournament. Through the support of our sponsors, we were successful in raising funds to send recipients to the NCAT Technology Program at Auburn University in early in 2016. The funds support other educational opportunities as well. CAPA and APWA are excited and thankful to be able to continue to participate in helping promote increased knowledge in asphalt technologies. Your continued support is what makes this possible. In these times we congratulate you and acknowledge your sacrifice for continuing to contribute to this program.


Congratulations to the Cup Champions for 2015. Phil Hull, Bill Scheuerman, Ty Ortiz and Calvin Yeh of Yeh and Associates took home the trophies (see opposite page).

**Over \$10,000  
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**Colorado Asphalt Pavement Association Scholarship**



**Graham McInerney**

*"This scholarship will help me focus more on my course work and the extra activities I am involved with in the CM program at CSU."*



**Parker Stokke**

*"Being awarded this scholarship is an investment in continuing and furthering my education in the construction field. I believe in obtaining as much education as possible to become a new leader in my chosen field."*

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CAPA's Tom Peterson with CAPA Scholarship winners Parker Stokke (left) and Graham McInerney (right) from CSU.

### Contest Hole Sponsors

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- Co-Ed Longest Putt - Sponsored by: MWV and Western Infrastructure
- Men's and Women's Longest Drive - Sponsored by: A-1 Chipseal and Power Motive, OSCS
- Hole in One - Par 3's Sponsored by: Wagner Equipment C6, M7, L8
- Beverage Carts: Sponsored by: Sakai, Martin Marietta (Metro), Yeh and Associates, Acorn Petroleum, OSCS Calibration Serv.

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# 25<sup>th</sup> Annual Golf Tournament & Scholarship Fundraiser

## CAPA Golf Tournament Fox Hollow Golf Club - Lakewood. September 18.

Title Sponsor:



Tournament winners Phil Hull, Bill Scheuerman, Ty Ortiz and Calvin Yeh of Yeh and Associates took home the trophies for 2015.

CAPA welcomed 180 golfers to the tournament this year.



John Wilkins and Jim Hazell of Suncor, Charlie Atherton of Road Science, and Stan "The Man" Opperman of APC Construction.

We thank the Golf Tournament planning committee!



Master of Ceremonies Tom Clayton thanks our sponsors under the Pavilion at Fox Hollow golf course.

A fun time was had by all!



Allan Peterson, Arapahoe County and Russ Higgins, City of Wheatridge.

We thank our many volunteers including Tammy Buck of Yeh Associates and Andrea Hebard of CDOT.





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