



Vince Aurilio, Executive Director
Ontario Hot Mix Producers Association
Spring Operations Seminar
April 20, 2016

WoA Stats

- Almost 9000 attendees
- 18 % more than 2015; about 38 % more than 2013
- Largest exhibit floor – 157,000 sq. ft.
- More exhibitors than past years
- Excellent technical program
- ~ 15-20 OHMPA Members

Lots of Equipment Featured



OHMPA Members



From an exhibitors perspective, this was the best ever WOA...

Plants



Pavers



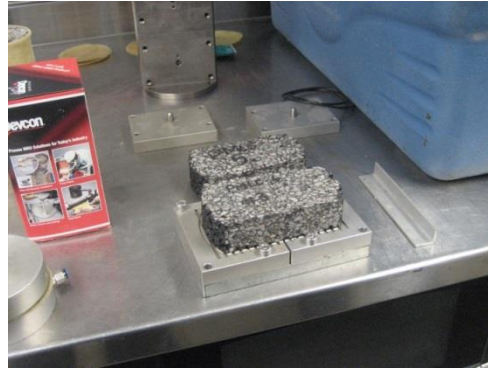


Material Transfer

Rollers



Some Different Stuff



Old Friends



Technical Program

World of Asphalt 2016
SHOW & CONFERENCE

NSSGA AGG1
AGGREGATES ACADEMY & EXPO

Education Session Schedule

Monday, March 21st

ARTBA Safety Seminar
Room 202 B – Free of Charge

Night Work (see Roadway Safety+)
1:00 – 2:00 p.m.

Paving Runners & Backovers*
2:30 – 3:00 p.m.

Tuesday, March 22nd

Preventing Falls in Roadway Construction
9:00 – 10:30 a.m.

People, Plants & Paving Training Program

Tuesday, March 22nd

7:30 – 9:00 a.m.

T11 – Leadership in the 21st Century
Room: 208 A&B

T12 – Taking the High Road – Good Community Relations for the Asphalt Industry
Room: 209 A

T13 – Key Metrics for Monitoring Performance at Asphalt Plants
Room: 203 A&B

T14 – Mix Design: Changing the Recipe Book
Room: 204

T15 – State-of-the-Practice for Porous Pavements
Room: 202 A

T16 – Best Practices for Milling and Profiling
Room: 201 A&B

T17 – Choosing the Right Pavement Preservation Treatment
Room: 207 A

T18 – Positioning Asphalt Plants for Upcoming Environmental Regulations: China, India and US Waters Definition
Room: 207 B

9:30 – 11:00 a.m.

T21 – What You See, Determines What You Do
Room: 201 A&B

T22 – Plant Preventative Maintenance to Reduce Operating Costs
Room: 209 A

T23 – Using Technology to Stay Ahead in the Asphalt Industry
Room: 204

T24 – A Practical Approach to Managing Density
Room: 201 A&B

T25 – Machine Control Technology in Paving and Milling
Room: 205 A&B

T26 – Asphalt Applications for Sports Facilities
Room: 206 A

T27 – Where in-Place Recycling Fits into Pavement Maintenance
Room: 207 A

T28 – Effective Community Outreach and Communication
Room: 207 B

2:00 – 3:30 p.m.

T31 – Baghouse Operation and Maintenance
Room: 204

T32 – Energy Efficiency Through Best Practices at the Plant
Room: 205 A&B

T33 – Paving Smoother – Understanding and Troubleshooting IRI
Room: 202 A

T34 – Best Practices for Pavement Patching
Room: 201 A&B

T35 – Shrink and Microsurfacing Systems for Pavement Preservation
Room: 203 A

T36 – High Performance Uses of Asphalt Rubber
Room: 207 B

T37 – Lower Net Costs and Air Green
Room: 209 A

T38 – Working on Track with Trucking Issues of Service
Room: 205 A&B

Wednesday, March 23rd

7:30 – 9:00 a.m.

W11 – New and Traditional Marketing to Get Business NOW in the Asphalt Industry
Room: 209 A

W12 – Troubleshooting Plant Operations – Part 1: Gradation (excluding Baghouses Finest)
Room: 204

W13 – Introduction to Modified Asphalt Binders (Part 1)
Room: 205 A&B

W14 – Best Practices for Construction of Longitudinal Joints
Room: 208 A&B

W15 – Using Thinlay Asphalt Pavements
Room: 202 A

W16 – Best Practices for Application of Tack Coats
Room: 201 A&B

W17 – Combination Treatments for Pavement Preservation
Room: 207 A

W18 – Complying with CSMA's Silica Rule
Room: 207 B

9:30 – 11:00 a.m.

W21 – Essential Selling Principles to Win New Customers and Keep Them Coming Back
Room: 209 A

W22 – Troubleshooting Plant Operations – Part 2: Asphalt Content
Room: 204

W23 – Introduction to Modified Asphalt Binders (Part 2)
Room: 205 A&B

W24 – Best Practices for Material Transfer Operations
Room: 202 A

W25 – Laydown Best Practices (session will be repeated at 2:00 p.m.)
Room: 201 A&B

2:00 – 3:30 p.m.

W27 – Everything You Need to Know about Chip Seals and Fog Seals
Room: 208 A&B

W28 – Asphalt Plant Safety: The Basics
Room: 207 B

W31 – Leveraging Workforce Development as Part of Organizational Strategy for Sustainability
Room: 207 A

W32 – Increasing the Use of RAP at Your Plant
Room: 208 A&B

W33 – Asphalt Emulsions 101: Proper Handling, Storage, and Sampling of Emulsions
Room: 204

W34 – How to Use Intelligent Compaction Effectively
Room: 205 A&B

W35 – Laydown Best Practices (repeat session)
Room: 201 A&B

W36 – Paving Smoother – Using IRI to Evaluate Paving Operations
Room: 202 A

W37 – Full-Depth Reclamation and Hot-In-Place Recycling Best Practices
Room: 209 A

W38 – Environmental Product Declarations: What They Are and How Do They Benefit Your Business?
Room: 207 B

Thursday, March 24th

7:30 – 9:00 a.m.

TH11 – The New Workforce
Room: 207 A

TH12 – Mix Optimization Fundamentals
Room: 205 A&B

TH13 – The Factors that Affect Compaction of Asphalt Pavements
Room: 208 A&B

TH14 – Best Practices for Residential and Commercial Paving (session repeats at 9:30)
Room: 201 A&B

TH15 – Best Practices for Crack Treatments
Room: 209 A

TH16 – Green Rating System and Codes: Show Me the Credits
Room: 207B

TH17 – Increase Productivity and Safety Through Effective Use of Power Sweeping Equipment
Room: 204

9:30 – 11:00 a.m.

TH21 – Communicating with the Media and the Public
Room: 201A

TH22 – What You Need to Know about FMA P401
Room: 204

TH23 – Best Practices for Residential and Commercial Paving (repeat session)
Room: 201 A&B

TH24 – Not Everything is Flat: Paving Up, Down and Around
Room: 205 A&B

TH25 – Best Practices for Safety Operations and Maintenance of Asphalt Distributors
Room: 208 A

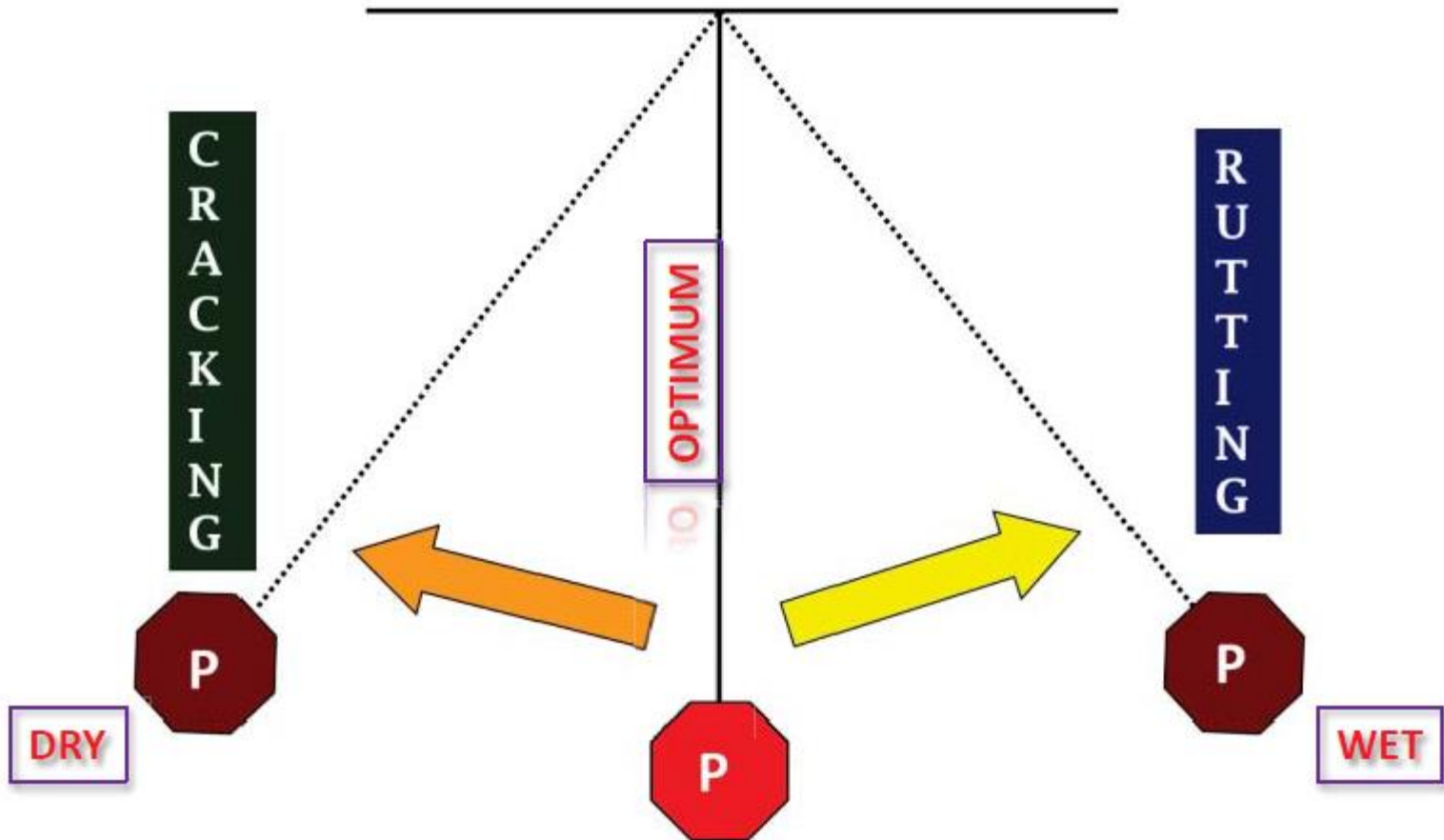
TH26 – Cold-In-Place and Cold Central Plant Recycling Best Practices
Room: 201 A&B

TH27 – Work Zone Safety: Traffic Control Plans and Instructors Presentation
Room: 207 B

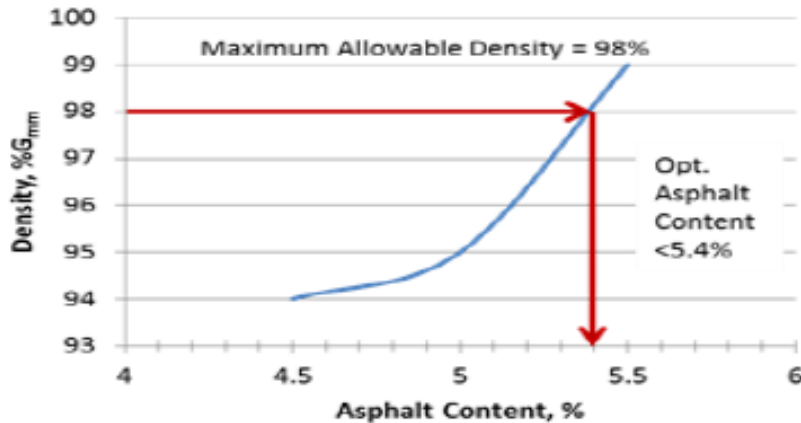
Excellent Sessions!

1. Mix Design – Changing the Recipe Book,
D. Newcomb
2. Effective Community Outreach &
Communication, B. Beyke
3. Trouble-Shooting AC Content Problems
(Part 2), TJ Young
4. HMA Plant Maintenance & Energy Efficiency,
D. Garrett

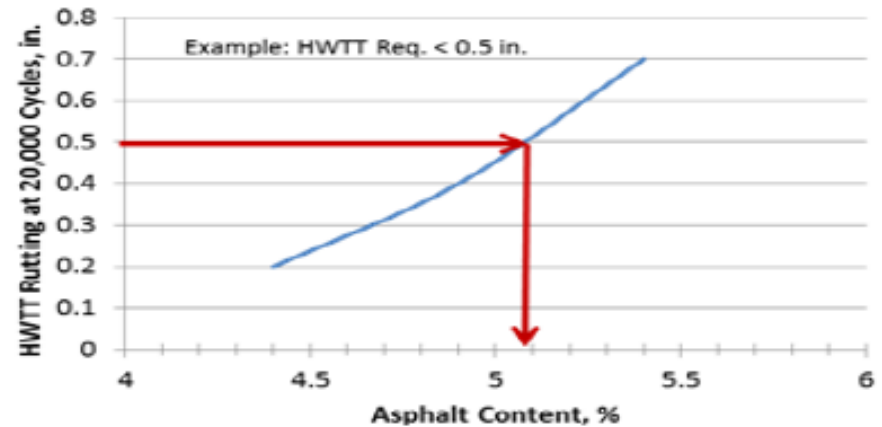
New Challenges?



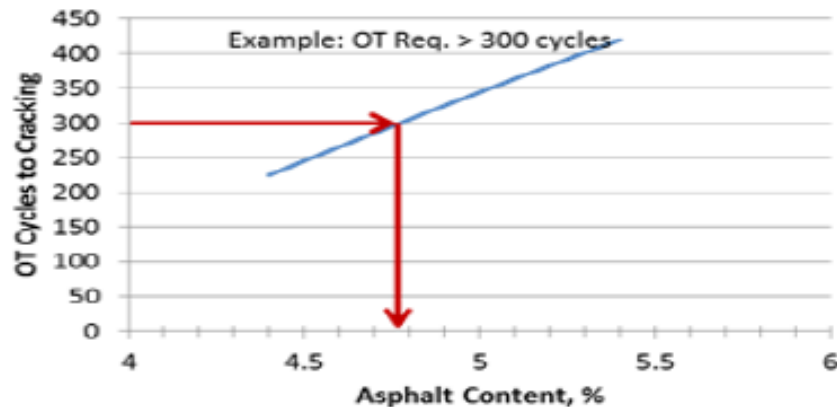
Balanced Mix Design



a. Volumetric Analysis to Set Max. Asphalt Content



c. HWTT Results



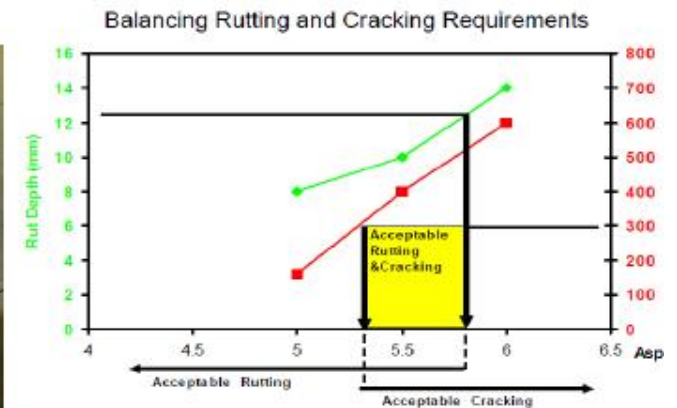
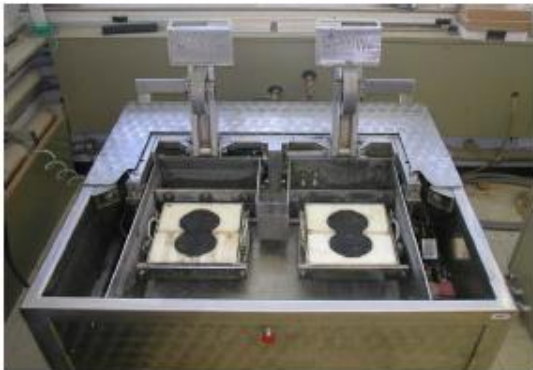
b. Overlay Tester Results

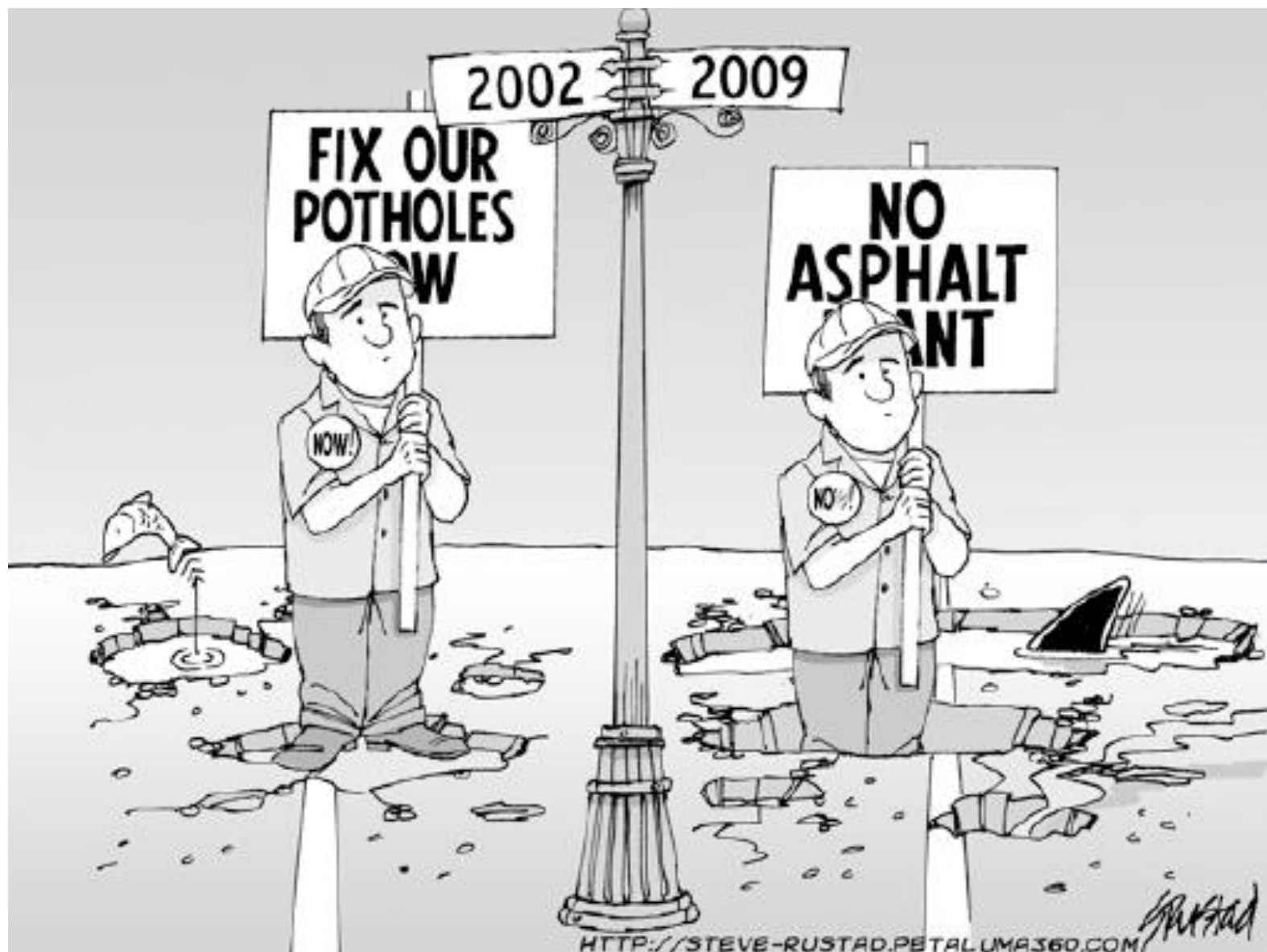
- Maximum Asphalt Content = 5.4%
- Opt. Asphalt Content (OAC) = Lowest Asphalt Content for Cracking Resistance or Highest Asphalt Content for Rutting Resistance
- OAC = 5.1%

d. Summary of Results

Balanced RAP/RAS Mix Design

- Hamburg test for rutting/moisture damage
- Overlay test for cracking
- OT requirement determined by Overlay program
- Max. density-98% for controlling potential bleeding





Common Complaints

- ✓ Noise
- ✓ Odor
- ✓ Visible air emissions
- ✓ Traffic
- ✓ Dust
- ✓ Is it toxic?



What Should You Do?

- ❑ State position clearly, succinctly, without overwhelming technical information.
- ❑ Offer facility tour, if appropriate.
- ❑ Document that you are a good, corporate citizen in community.
- ❑ Get them to contact you instead of calling regulatory agency.

Conclusion

- Environmental activist groups are gaining ground across the country.
- Better to be proactive.
- Establish and implement company program.
- Build community relations and trust.
- Stay cool, listen, respond appropriately.

Trouble-Shooting Problems

Trouble-Shooting Asphalt Content Problems in Drum-Mix Plants

AC Content High	<p>Belt scale is reading artificially high due to calibration problem, rock in pivot point, accumulated fines on belt, wind effect on belt, or drastic ambient temperature variations.</p> <p>Asphalt meter reading artificially low, due to incorrect specific gravity of the asphalt cement, incorrect calibration factor with the liquid asphalt cement being run, temperature swings to the liquid asphalt cement that impact metering accuracy.</p> <p>AC% in reclaimed materials higher than entered.</p> <p>Incorrect moisture setting in automation (to low).</p> <p>Ignition oven used for testing & moisture in mix.</p> <p>Mix segregation – also check extracted gradations.</p>
AC Content Low	<p>Belt scale is reading artificially low due to calibration problem, rock in pivot point, wind effect on belt, or drastic ambient temperature changes.</p> <p>Asphalt meter reading artificially high, due to incorrect specific gravity of the asphalt cement, incorrect calibration factor with the liquid asphalt cement being run, temperature swings to the liquid asphalt cement that impact metering accuracy.</p> <p>AC% in reclaimed materials lower than entered.</p> <p>Incorrect moisture setting in automation (too high).</p> <p>Mix segregation – also check extracted gradations.</p>
AC Content Varies	<p>Unstable asphalt flow control device – automation cannot control.</p> <p>Erratic belt scale signals causing AC flow to vary.</p> <p>Temperature fluctuations in metered asphalt cement with ACs that are temperature sensitive.</p> <p>Ambient temperature fluctuations affecting belt scale accuracy.</p> <p>Fluctuations in AC content in reclaimed materials.</p> <p>Changing material moistures not being entered.</p> <p>Ignition oven testing & moisture sometimes in mix.</p> <p>Mix segregation – also check extracted gradations.</p>

Drum-Mix Plants (gradations larger than the -200 mesh / 75 micron "dust sieve")

Extracted Gradation	Combined Gradation	Individual Gradations	Investigate
Incorrect	Incorrect	Incorrect	Gradation change in individual material Segregation of stockpiled material
Incorrect	Incorrect	Correct	Feed bin out of calibration Plugged feed bin Wrong mix recipe
Incorrect	Correct	Correct	Mix segregation

Drum-Mix Plants (for percent passing the -200 mesh / 75 micron "dust sieve")

Extracted Gradation	Combined Gradation	Individual Gradations	Investigate
Incorrect	Incorrect	Incorrect	Gradation change in individual material Segregation of stockpiled material
Incorrect	Incorrect	Correct	Feed bin out of calibration Plugged feed bin Wrong mix recipe
Incorrect	Correct	Correct	Production rate changes if 100% baghouse dust return Draft level at time if dust wasted, partial return, or silo return Return equip out of calibration if partial return or silo return Inclined dust screw with start & stop Mix segregation

WE CANNOT SOLVE OUR PROBLEMS
WITH THE SAME THINKING
WE USED WHEN WE
CREATED THEM

- Albert Einstein

