



Bruce's Pet Peeves/Back to Basics

2024 NEAUPG
Springfield, MA

October 17, 2024: 9:00 am to 9:30 am

Bruce Barkevich, Vice President
New York Construction Materials Association



Thanks to Buzz Powell for
proposing this talk

Also, Thank you to the Members of
NYMaterials for all their Support

This program was born from a talk Buzz, and I
gave together about cold weather paving



Today's & The Last Few Year's Theme

Giving our pavements the
best chance for success!

Do Not Walk on the Final Course (Top Course)



Some of Bruce's Pet Peeves





Potholes

- Take pothole back to sound material
- Square Edges
- Clean & Dry hole
- Tack all edges
- Place quality material in hole and compact well
- If deeper than 4" do in multiple lifts
- Let's repair our potholes right the first time



Google is not our friend: Here is a better tool! NAPA & AI ("Hey NAPA")

NY MATERIALS

AROUND THE ASPHALT INDUSTRY

By Bruce Barkevich, Vice President
New York Construction Materials Association

"Hey NAPA" Gets Introduced to the Asphalt Industry in Kansas City

WHAT IS "HEY NAPA"?

"Hey NAPA" is a virtual assistant designed to answer questions related to asphalt paving and pavements, including the technical, business, and environmental aspects of this industry. It was created by XBE in partnership with the National Asphalt Pavement Association (NAPA).

Think of it like a digital expert committee that you can access anytime, anywhere. It's like having a team of asphalt professionals at your fingertips, ready to provide you with detailed, up-to-date information about asphalt

paving, whether you're an industry insider or a curious individual.

For instance, if you want to know about the sustainability of asphalt, or how to increase the usage of reclaimed asphalt pavement or learn about the business aspects of the asphalt industry, you just ask "Hey NAPA". It will provide you with answers based on the combined knowledge of expert committee members.

However, just to be clear, "Hey NAPA" is focused solely on asphalt paving and pavements. It won't be able to provide information

outside of this specific area. But within this field, it's a valuable resource that offers quick, reliable, and professional responses.

To access "Hey NAPA" go to www.asphaltpavement.org/news/resources/hey-napa. All you need to do is create a username and password and you are good to go. We would like to thank XBE for bringing the world of Artificial Intelligence (AI) to the Asphalt Industry. "Hey NAPA" was built as a gift from XBE to the industry. It will continue to be populated with the latest and greatest information to ensure it can meet the needs of the asphalt industry and its customers. ○



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NAPA Answers 3 Frequently Asked Questions About Hey NAPA:

Q: WHERE DO HEY NAPA ANSWERS COME FROM?

A: While ChatGPT-4 has access to the vast internet, Hey NAPA primarily sources vetted documents provided by NAPA. Hey NAPA answers are succinct summaries of information from any number of those documents, which are displayed in a list of references with each answer.

Q: CAN I ASK HEY NAPA MORE THAN ONE QUESTION?

A: Yes! Ask as many unique questions as you like. Or, have a "conversation" with Hey NAPA. Ask follow-up questions to obtain additional information or to refine the answers you receive. In most cases, Hey NAPA is responsive to your directions and clarifications.

Q: HOW CAN I ACCESS THE REFERENCE DOCUMENTS PUBLISHED WITH MY HEY NAPA RESPONSE?

A: Most reference publications are freely available by clicking on the links provided in the references generated with each answer. Those documents—as well as supplemental documents available for additional learning—are also available for download via the NAPA online store: <https://member.asphaltpavement.org/Shop/Products/Catalog>.

Q&A information courtesy of NAPA. Learn more and see all Q&As at www.asphaltpavement.org/news/resources/hey-napa.





McAdam's Comments

1. **Proper Design:**
2. **Quality Materials:**
3. **Compaction:**
4. **Drainage:**
5. **Surface Treatments:**
6. **Timely Maintenance:**
7. **Load Management:**
8. **Temperature Management:**
9. **Construction Techniques:**

Employ best construction practices, including proper pavement laying techniques and equipment use, to ensure a smooth, uniform surface that resists common issues like shoving and corrugation.





Bad Specs

- Specs are built to protect all parties involved: owner, engineer contractor, producer
- If too owner focused, it will add cost
- If too contractor/producer focused, it will enhance risk
- Consultants are notorious for bad specs



DATA is Power!!



THE POWER OF DATA





What Mix and What Thickness

- Every 1" of Asphalt has a Structural Layer Coefficient of .44
It doesn't matter what mix and what NMAS

What Mix Should I use for Each Thickness – 3X to 4X NMAS – FHWA

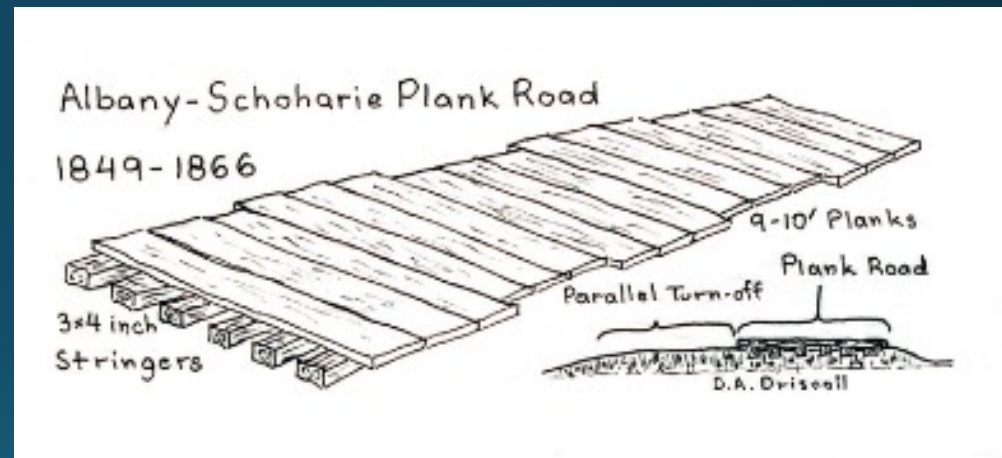
6.3 mm	¾" to 1"	1" Recommended
9.5 mm	1" to 1 ½"	1 ½" Recommended
12.5 mm	1 ½" to 2"	2" Recommended
19.5 mm	2 ½" to 3"	3" Recommended
25 mm	3" to 4"	4" Recommended
37.5 mm	4" to 6"	5" Recommended



What do I do first?

- Drive the Job
- Visual Inspection
- Sit and Watch Traffic
- Talk to anyone with knowledge
- History

Plank Road



Do Your Homework

Liquid Asphalt Handling Best Practices

- Many plants have multiple tanks which helps with managing liquid asphalt – varying grades
- It also can create issues in managing the liquids and ensuring the proper liquid is used in the right mix
- Dilution – loading different liquids on top of existing liquids
- Sampling, labeling, handling & storage



Clean Equipment/Painted
=
Professional Company





Mixture Documentation All Work



- When a job goes bad, it becomes a finger pointing effort.
- Was it the contractor (workmanship) or the producer (mixture)
- Getting paid is everyone's goal. When owner isn't happy, this becomes a challenge.
- Commercial/Residential Jobs need paperwork as much as agency work
- Coring becomes our next best option



Diesel Fuel & Asphalt – Don't

- Diesel Fuel is a Solvent
- Will strip the asphalt from the rock
- Puddles of diesel in paver or truck bodies will deteriorate your pavement
- Use a proper release agent – many suppliers carry them





Minimize handwork

- Plan your pulls to cut down on pick up and set downs – paint out the plan
- Maximize your widths to eliminate raking
- Half screeding is better than wheel barrowing and raking
- Pull shoulder with mainline when available





Pave in Good Weather



- You can have success paving in poor weather, but everything gets magnified
- Compaction timing is critical
- Pavement bonding can be an issue
- Warm Mix can help



Good tarps can make a difference

Tarpping Loads





Quality can mean a lot of things

Smoothness can
improve by at least
10% with every course
you put down.





Milling & Filling: Quality starts with the Milling

What equipment is needed for the job?

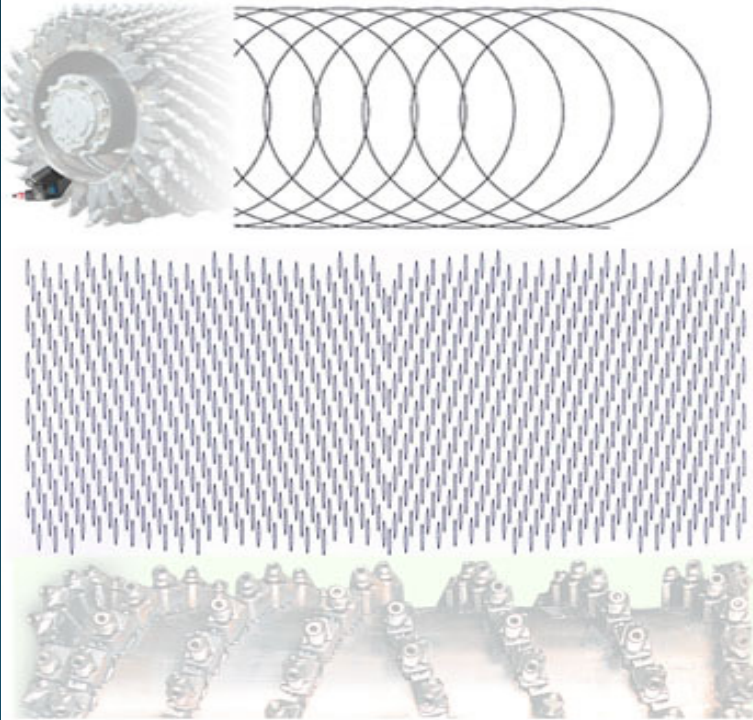




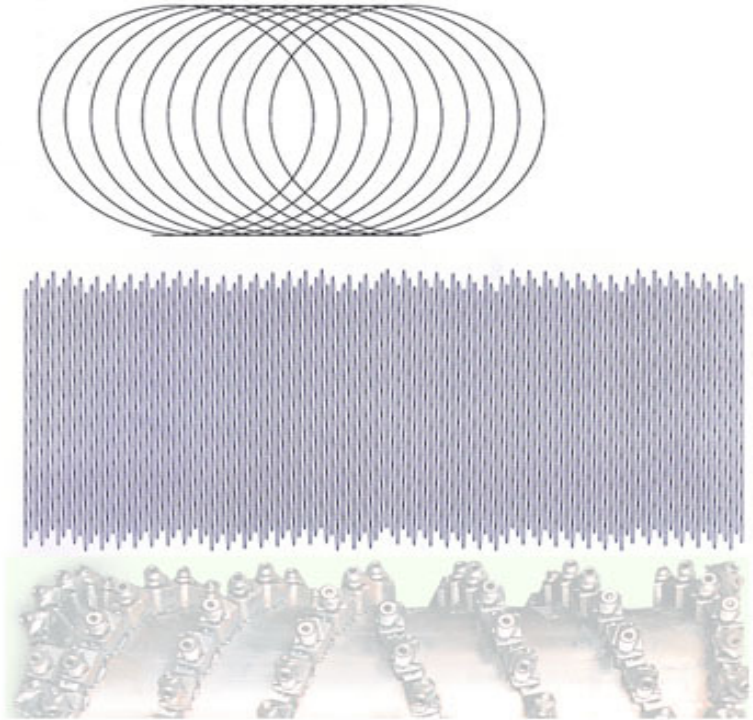
52 FPM

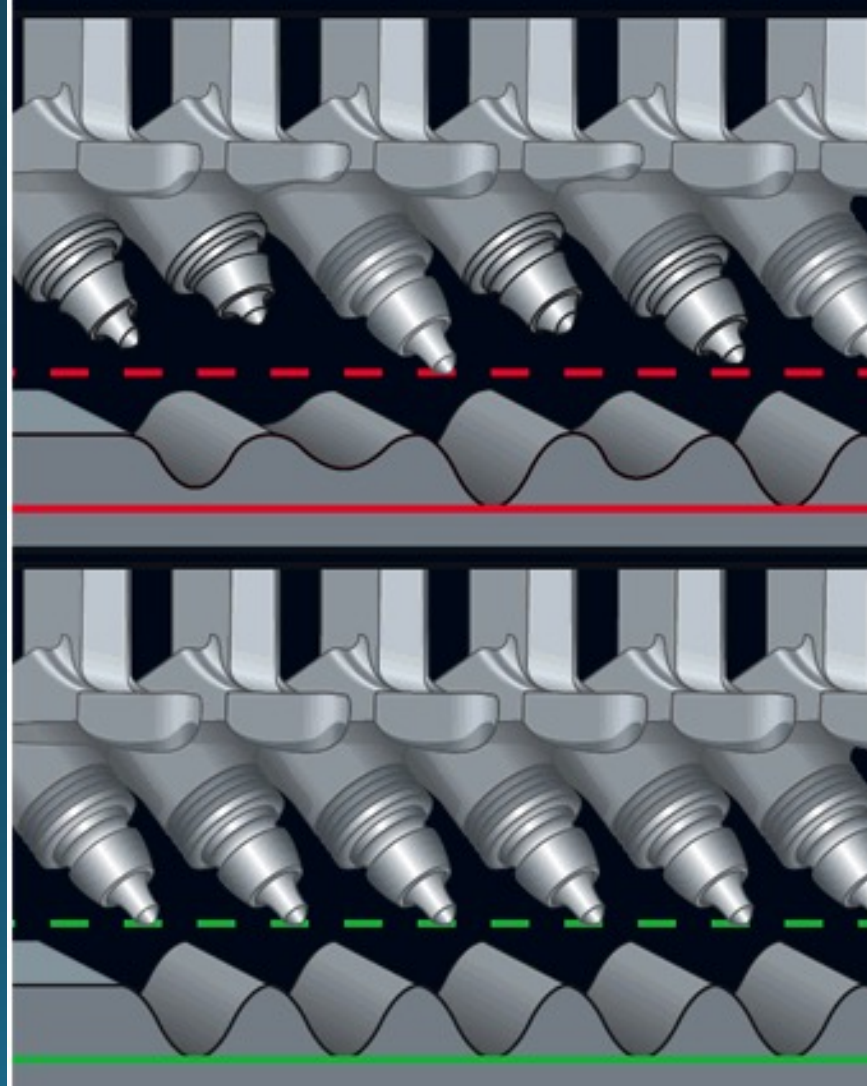
26 FPM

Standard milling drum FB 2000_LA 15
Advance speed: 16 m/min



Standard milling drum FB 2000_LA 15
Advance speed: 8 m/min









When should I empty the Hopper?

When you limit the amount of times you empty the hopper, you will have a much better Mat quality.

Stop the paver before the material drops below flow gate

Set and keep the conveyor deck covered with a minimum of 6 to 10 inches of material. (152-254mm)





What are the causes of segregation?

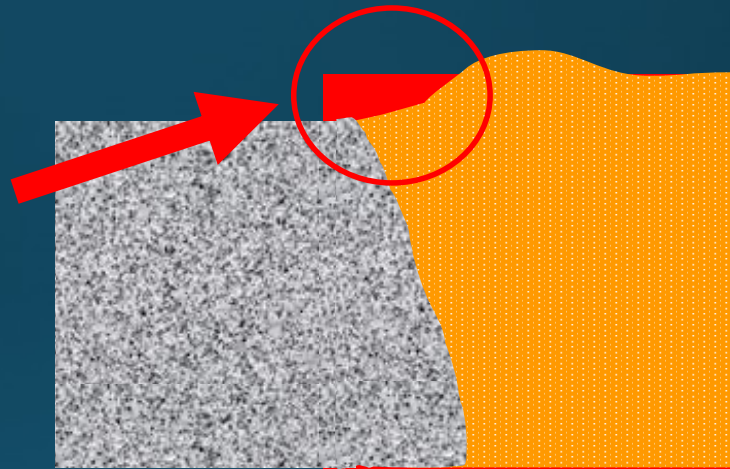
At every stage of handling for materials there are opportunities for segregation from the Plant, the Storage of the material, the loading and hauling and finally the placement of the Mix.



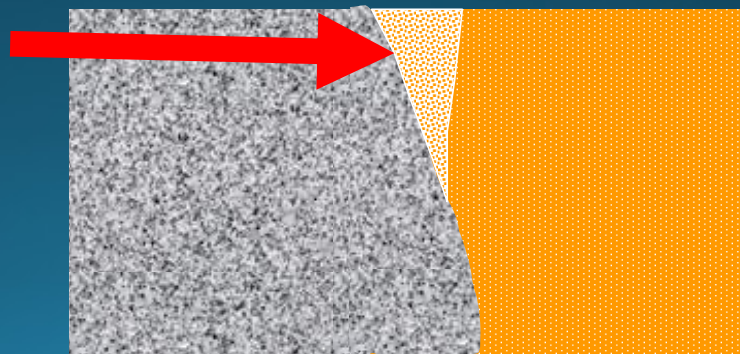


Do Not Lute Joint

- Moves material away from joint



- Results in low-density zone at joint





1" to 1.5" Overlap





Lock and Compact the Material





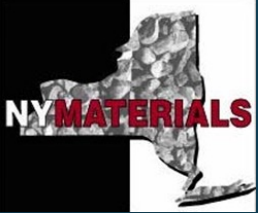
The Resulting Joint



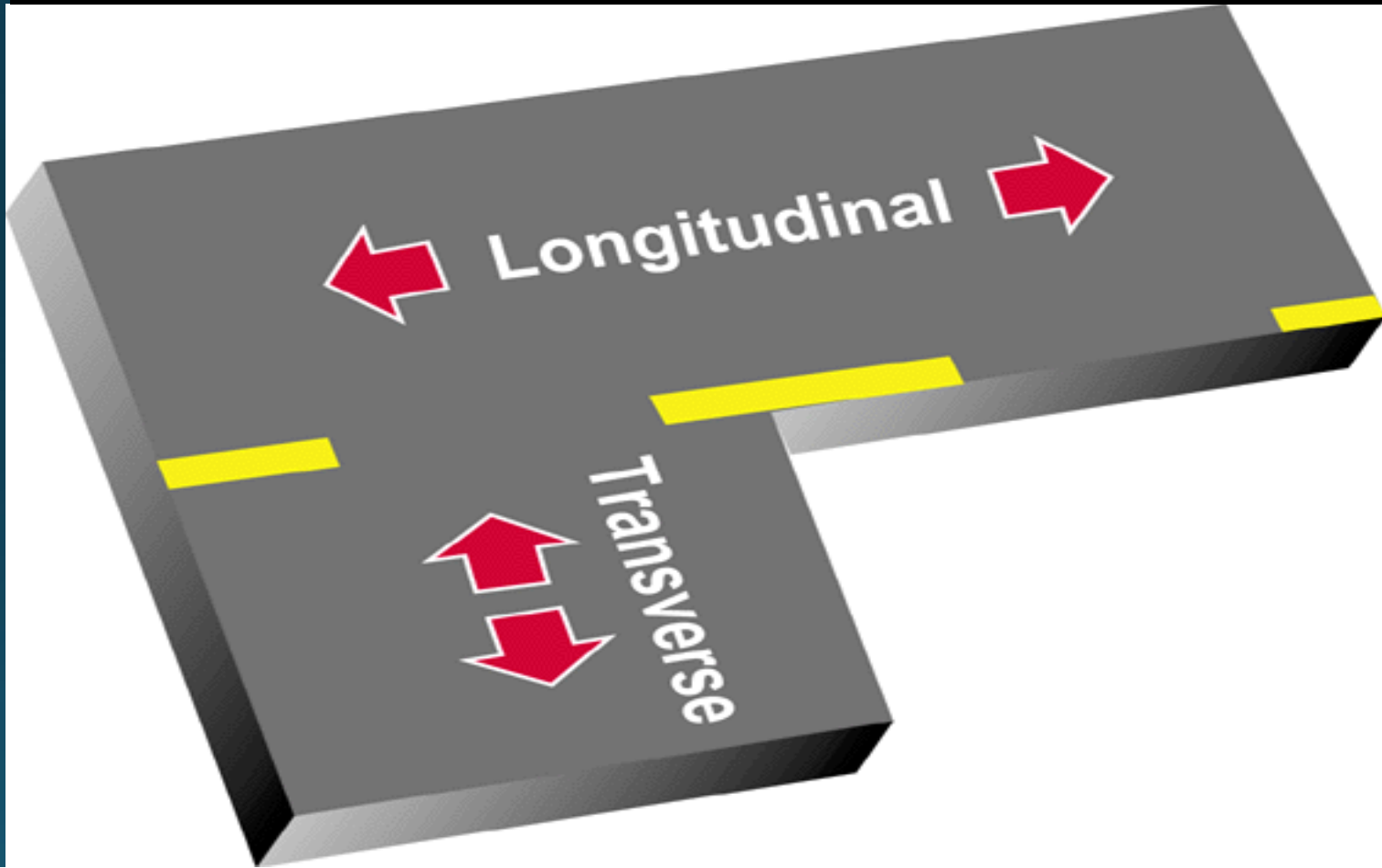
Understanding your application

- The Wegman's Joint Test



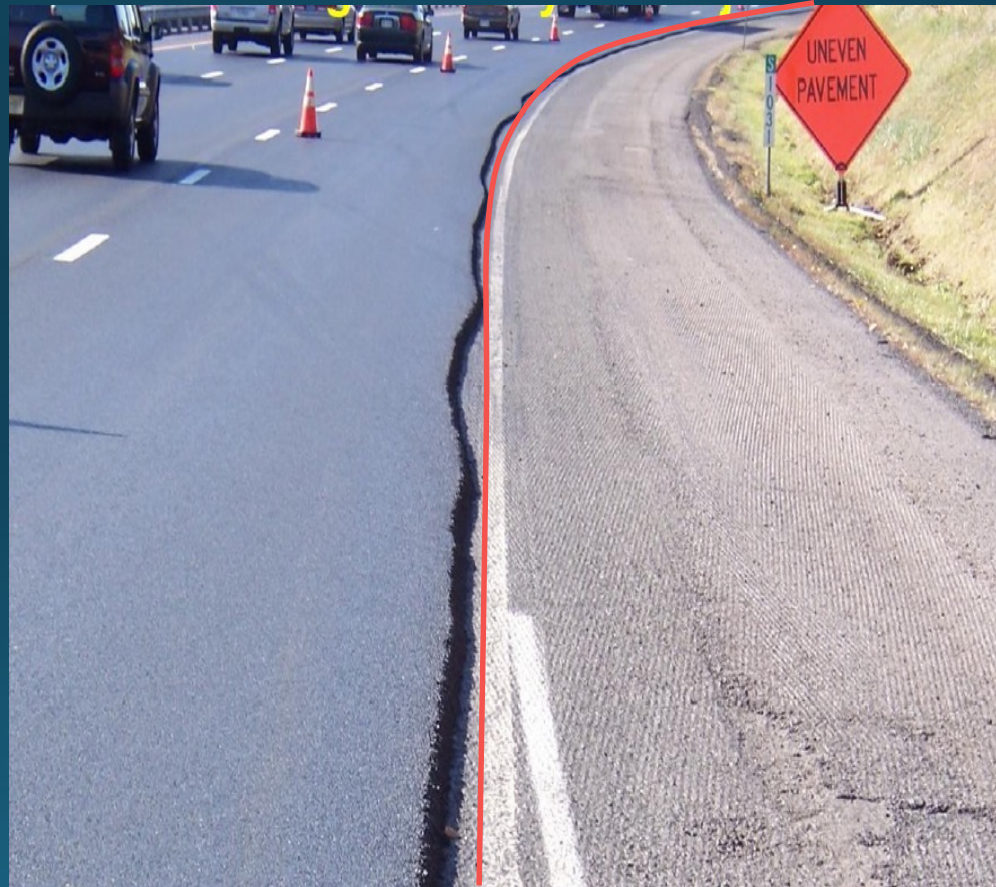


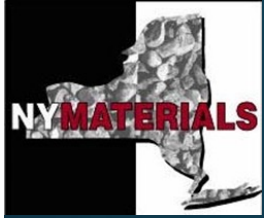
Two Basic Types of Joints



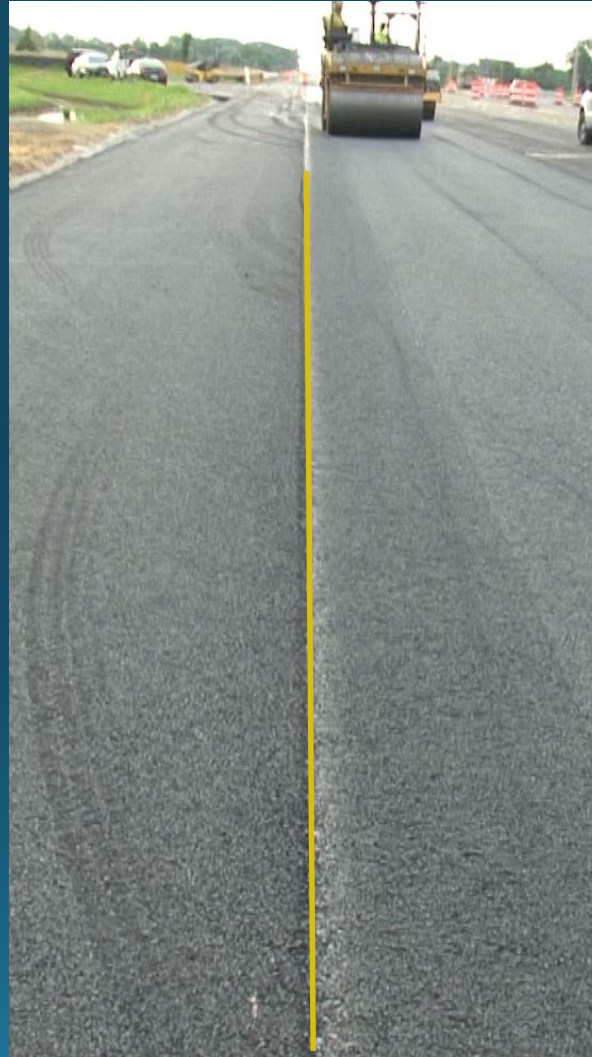


Not Smooth At All





Keep it
Straight





String Lines or Some Form of Reference is Necessary!





Bonding Demonstration

$\frac{1}{2}$ " Deflection,
60# Load



Unbonded

$\frac{1}{4}$ " Deflection,
160# Load



Fully Bonded



Just some other items

- Good paving principles are critical!!
- Minimize paver stops
- Paver can go too fast
- Bumping the paver is bad
- Milling can affect final pavement quality
- Free floating screed!! Or Automation
- Paver depth is critical
- Polymer is worthy of consideration
- Be a leader with your decision making – RAP, WMA, Rejuvenators, Fibers, SMA, Performance Testing, etc.
- Proper material in the proper situation
- 6.3mm is a great option for preservation
- Dollars are short - Spend the dollars as wisely as we can
- **Pre-paving meetings are very important**



Pay Attention to the Details



- Dollars are short - Spend the dollars as wisely as we can
- Don't let the unknown trip us up
- **Pre-paving meetings matter**
- Prior preparation prevents pitifully poor performance
- Proper paving practices matter
- Pave in Good Weather – Many defects I see are because of late season paving or cold weather

Do Not Walk on the Final Course (Top Course)



Our Challenge Industry

Speak Positively about our products!!!

We can be our own worst enemy when we highlight issues and not emphasize how **price competitive**, **versatile**, **sustainable**, **resilient**, and **valuable** our products are!!!

Just because we are the leader doesn't mean we should be on the defensive!!! We can promote our product without bashing others!!!





Our Challenge Another Great Quote

Russ Thielke

NYSDOT, Director of Technical Services

“The most sustainable thing we can do is make pavements which last longer”

Final exam: 7F or 9.5MM?





THANK YOU!!!

Questions?????

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