

GOOD AFTERNOON !!!

- 2012 FDOT / FTBA Conference

- Dave Drehmer

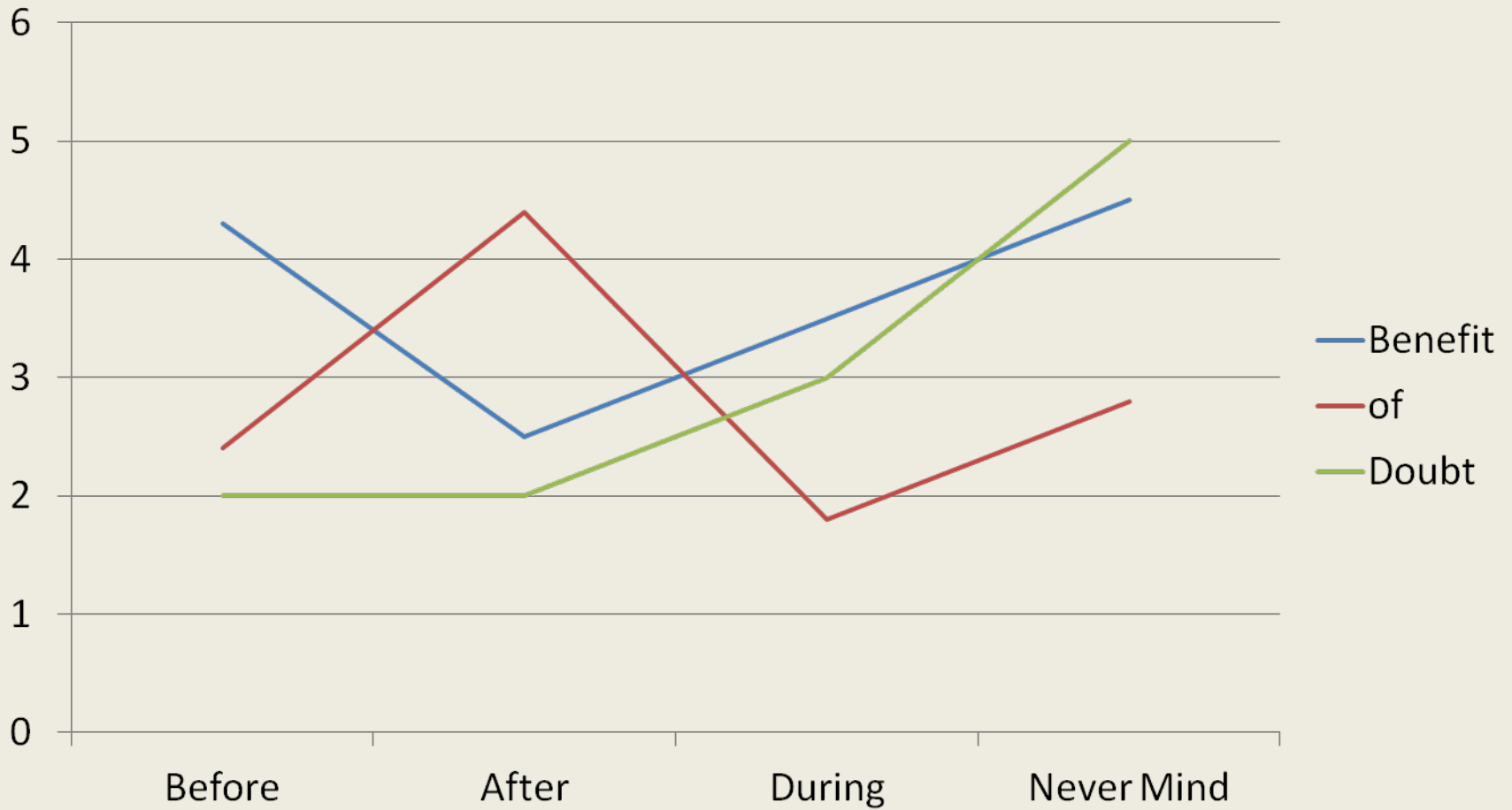
- **Mariani Asphalt** – an Associated Asphalt Company

TO TACK OR NOT TO TACK



That ain't the question.....

Proof Positive



TACK

- Is it real fun.....?
- Is it real exciting.....?

- It doesn't cost much stored, handled and applied "right"
- It can cost a bunch of both headaches and dollars if not.....

What's Required?

- 3000804
- All Jobs
- **300 APPLICATION OF TACK COAT – RATE OF APPLICATION.**
- **(REV 6-1 09) (FA 8-11-09) (1-10)**
- SUBARTICLE 300-8.4 (Page 240) is deleted and the following substituted:
- **300-8.4 Rate of Application:** Use a rate of application as defined in Table 300-1. Control the rate of application to be within ± 0.01 gal/yd² of the target application rate. The target application rate may be adjusted by the Engineer to meet specific field conditions. Determine the rate of application at the beginning of each day's production and as needed to control the operation, with a minimum of twice per day. When using RA-500, multiply the target rate of application by 0.6.
- Table 300-1
- Tack Coat Application Rates
- Asphalt Mixture Type Underlying Pavement Surface Target Tack Rate (gal/yd²)
- Base Course, Structural Course,
- Dense Graded Friction Course
- Newly Constructed Asphalt Layers 0.02 minimum
- 0.08 maximum
- Milled Surface or Oxidized and
- Cracked Pavement 0.06
- Concrete Pavement 0.08
- Open Graded Friction Course Newly Constructed Asphalt Layers 0.05
- Milled Surface 0.07

Doctor Dave's Top Ten Tack List

- Things we all know.....
- And you may wish to remind folks of
- After all, we haven't all been doing this since dirt was "new"
- (Not necessarily in order of anxiety or glee)

Common TACK Types

- RS-1 h

- CRS-1h

AC-5...hot

- NTSS-1hm

- SS-1

AND OBVIOUSLY OTHERS

- SP MS

- SS-1h

- RC 70

#10 So “Pick your poison”

- Commonly thought of “prime” products will work fine as tack coats (in non-DOT settings)
- Not necessarily vice versa
- Do your folks really know what’s expected of them ...and will they ask.....
- Give them the tools

#9

- Cleanliness is next to.....

- CLEAN, CLEAN, CLEAN

A broom core less \$ than a sliding pavement and a
“little” dust hurts us more than a little moisture

- Funny thing about good tack. It'll stick to asphalt layers, but also dirt, straw and dust

Clean not Covered



OUCH !!



Not a good day.....



#8 Storage

- My dream tank is vertical, with a very slow moving controllable agitator paddle
- In North Florida with ability to heat to maintain 90 – 100 F (Not 150) for most tacks
- Large enough to ensure buffer for next delivery but you don't need a 15,000 gallon tank full if you're using 2,000 gallons a month

#7 Dilution of some is fine.....BUT

- IF you're using products that can be diluted (SS-1h, SP MS, etc) they're fine and shoot well diluted at proper rate....for a while
- Don't get in "habit", like don't, put your diluted product back in storage with undiluted
- You'll lose your place in the book and shorten the shelf life of the works

#6 Temps / Weather

- Except for extremes this won't be drastic but the effective of performance affected by this
- It's important to keep the pavement in place,
- Affects your density obtained, etal so
- Challenge your guys / gals to recognize and react to what are best temps to shoot at at varied ambient temperatures, break times to expect, etc

Different Florida Weather

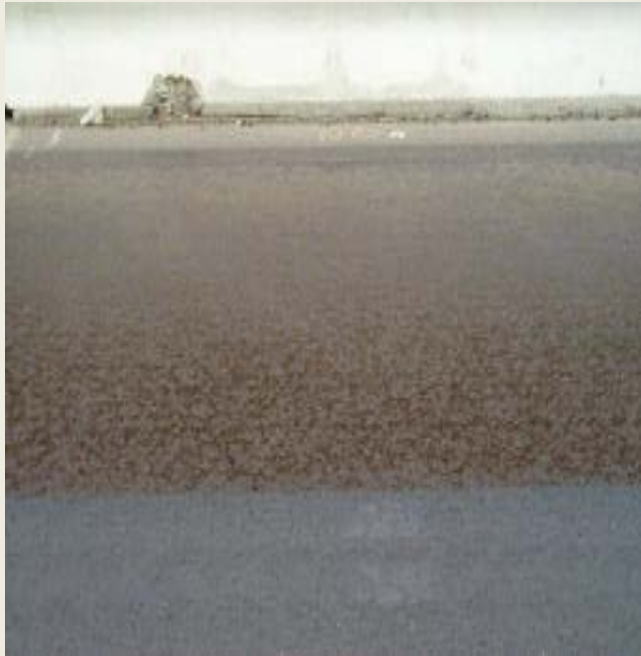


- ***Factors Affecting Break***

- Ambient air temperature
- Relative humidity
- Wind speed
- Temperature of the pavement surface
- Temperature of the tack coat material
- Application rate of the tack coat material
- Dilution rate of an asphalt emulsion (if diluted)
- Type of emulsifying agent (controls break > set)

- ***Example of Emulsion Break***

- Unbroken Emulsion



After Breaking



#5 That's a good shot man

- Your folks will respond to those simple words from da boss or the technician for sure
- Your tack person sometimes feels like he or she is on an island and can anybody see him
- You folks know how to show it and a well placed complement comes back to you threefold in attention needed to perform this important task

Tell them so!



#4 Solution to pollution maybe

- But not to tack in the truck
- That is dilution....not proper water, the other
- Pump free in the winter, bars as well but...
- A “little bit” of flushback goes a long way
- A little more goes a long way down the road!

SAME Day



Same??? 4 Days later



#3 The Doctor says don't mix your prescriptions!!

- With different products being more widely used these days for tack recognize that
- If anionic is the chocolate and cationic is the peanut butter, both taste good alone but..
- You don't get a Reese cup when you mix.... you get a slobular MESS!
- Some require a little different treatment

#2 It's not how much you got it's how you use it!

- When is .04 / sy more than .06 / sy?
- When it's even, full coverage shot that's when
- .06 strings and puddles don't give you the best bond, best density throughout, etc but can give you pick up on MTV tires and track off etal
- Not saying to shoot the Interstate with the hand wand, but best temps, pressures, nozzles etal will pay you dividends and savings

- ***Uniformity of Tack Coat Application***
- Tack coat must be applied uniformly to ensure that a consistent bond is achieved
 - Poor uniformity can be due to several factors:
Nozzles too large for low tack coat application rate
 - One or more spray nozzles may be set at an improper angle to the axis of the spray bar
 - One or more nozzles can be of a different size compared to the other nozzles

- ***Uniformity of Tack Coat Application***
- When properly applying tack coat, all nozzles on the spray bar are open and functioning correctly
- All nozzles are the proper size for tack coat
- All nozzles are set at same angle to axis of spray bar
- Height of the spray bar is adjusted to provide a triple-overlap of spray from adjacent nozzles

More....but better?



We're getting' closer



00000H.....



YEAHHHH!!



#1 Did I say Clean, Clean, Clean?

- Guess I already did so let's say COMMUNICATE
- With your people involved closest to this part of your paving effort. They appreciate your insight and knowledge and being able to “bump stuff off you”
- With your supplier and distributor manufacturer – AS SUPPLIERS WE WANT TO BE PART OF YOUR SUCCESS, not a necessary evil. Need to know, have answers, can get others, want to hear you.

- ***Remember...*** It costs nothing extra to properly apply a tack coat.
- Attention to the few basic issues mentioned in the past few minutes will result in an asphaltic concrete overlay that performs as expected under traffic.
 - IT COSTS NOTHING TO DO IT RIGHT
 - AND
- DO IT RIGHT THE FIRST TIME!

INFORMATION

- I would offer that every facility should have a copy of
- **A Basic Emulsion Manual**- Latest Volume available for reference – Published jointly by the Asphalt Institute and the Asphalt Emulsion Manufacturers Association

www.aema.org

www.asphaltinstitute.org emulsion manual in “search”

Paving Paradise- One Piece at a Time



The View from 5,000 feet.....

Grant me this if you will

- Accept my thanks for your attention !!

–then

- Stand up and look around the room
- You've been sitting long enough