Ohio Roads and Value, An Update

FPO Annual Meeting
3/09/11
Discuss:

- Value
- Value Update
- New Requirements Coming
What is Value?

- Product met all specifications.
- You get what you paid for.
- You are proud of the product you provide your customers.
- Your customers are happy with the service you provide.
What is Value?

What a deal!!?
What is Value?

You know it when you see it!
What makes this car valuable?

- Authenticity
- Job well done
- Personal time spent on planning and labor
- Money
- Goal
- Bottom line- he wanted it!
What makes good roads valuable?
- Authenticity - met specs!
- Personal time spent on planning and labor
- Money - Taxpayer
- Goal - Good Roads!
- Bottom line - everyone wants it!
So how are we doing?
So how are we doing?

Maybe we are tempted to say we can have added value like this road!
So how are we doing?

▶ In reality ODOT sees a lot of variability in what kind of value is being constructed into our roads. Sometimes great, sometimes very poor.

▶ Sometimes this is strictly due to design or unknown conditions such as this:

This overlay is 1.5 years old.
So how are we doing?

But frequently lack of value is due to construction practice:
So how are we doing?

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This:
So how are we doing?

Leads to this:
So how are we doing?

- But frequently lack of value is due to construction practice:
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- But frequently lack of value is due to construction practice:
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But frequently lack of value is due to construction practice:
So how are we doing?

👍 Value?

👍 So once again, value is in the eye of the beholder!
Value Update

Density Specifications

446 Joint Density Spec- 2007

FQCS Program- Watch Out!
Value Update

Density Specifications

- Improved 446 to 94% min was a needed change.
- Average of 10 cores needs to be addressed as we see large variability (often 2% swings)
- 448 change two years ago has been good but too often district personnel do not know how to check and contractors have played games with it.
- 448 may be being used where 446 should be
Value Update

446 Joint Density Specifications

- 2007 first full year
- No incentive if any one joint core below 91.0%
- Have seen issues with core swapping
- MOP updated with specific procedures and districts being brought up to speed
Value Update

FQCS

What is it? Field Quality Control Supervisor. Who is responsible for all quality issues at placement, just like the Level 2 tech is for the plant.

Positives- Seeing many folks stepping up, taking their duties very seriously.

Negatives- Districts really do not understand it or know it exists.

Negatives- Still have the issues of response.

Plan to address thru Districts in greater detail this season, including enforcement.
New Items 2011

- RAP
- RAS
- WMA
New Items 2011

- RAP
- RAS
- WMA
New Items 2011

RAP

- Method 2 started 2 seasons back
- Allows for increased RAP use but with increased processing and control
  - Fractionation and/or
  - 9/16 processing
  - Pile uniformity
- So far most contractors have been judicious and attentive when deciding to go to Method 2
New Items 2011

- **RAS** (reclaimed asphalt shingles)
  - Have allowed manufacture waste since 1997
  - Tearoffs new for 2011
  - Committee of ODOT, Industry, EPA and FHWA developed requirements

**Specification:**
- **Processing requirements**
  - 100% passing the $\frac{1}{2}$ in sieve, 85% No. 4
  - deleterious
  - asbestos

- **Processor requirements**
  - certifications, QCPs, testing etc
  - hauler certifications

- **Contractor requirements**
  - mix design limitations
  - material certifications
New Items 2011

- RAS (reclaimed asphalt shingles)
New Items 2011

🚀 RAS (reclaimed asphalt shingles)

Not this:
New Items 2011

RAS (reclaimed asphalt shingles)

This:
New Items 2011

RAS (reclaimed asphalt shingles)

- **Knowns:**
  - Increase rut resistance
  - Increase high temperature PG grade
  - Increase low temperature PG grade

- **Unknowns:**
  - Long term durability in surfaces
    - Minnesota studies
    - Cracking and raveling - ABCD
    - Virginia study shows blending with virgin binder decreases with WMA
New Items 2011

WMA

- Real ramp up in 2009.

Ohio DOT WMA Usage and Timeline

<table>
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<th>Year</th>
<th>Total Tons*</th>
<th>WMA tons</th>
<th>%WMA of total</th>
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<tr>
<td>2006</td>
<td>4,173,618</td>
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<tr>
<td>2007</td>
<td>4,677,966</td>
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<td>0</td>
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<tr>
<td>2008</td>
<td>5,130,600</td>
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<td>3,573,764</td>
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- Foaming only
- Issues
  - Sheen
  - Over density
  - End of season – cool area dragging, open texture?
New Items 2011

WMA

- Long term durability - 10 years?
- Rutting?
- Moisture Damage?
- Joints
- Virgin and RAP binder blending
New Items 2011

WMA

So far so good!

No reported failures!
Thanks for your attention,

Questions??