

# I-459 Rehabilitation


## Why use HiMA?



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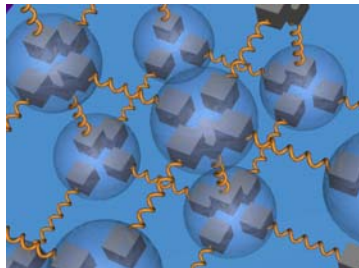
## Talking Points Today

- What is HiMA (Highly Modified Asphalt)?
- General Project Information
- Existing Roadway Conditions
- IM Team Recommendations



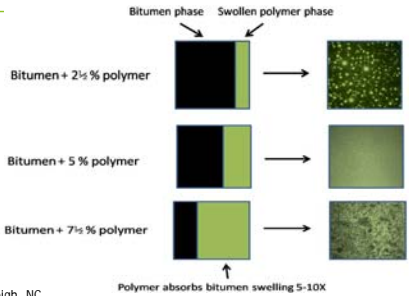
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### SBS in Bitumen



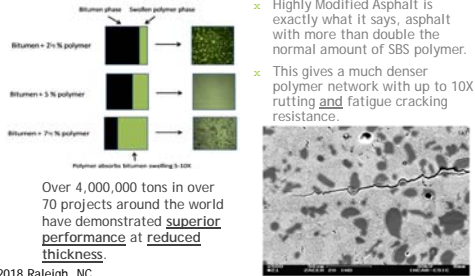
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**KRATON**  
 Courtesy of Bob Klutetz with Kraton

### Phase Morphology



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### What Is Highly Modified Asphalt?




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### Project Info. I-459

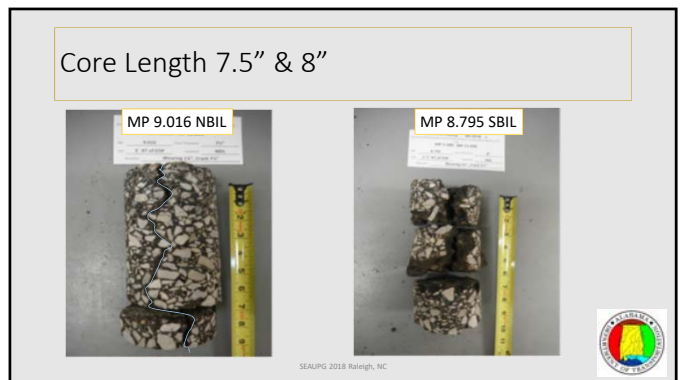
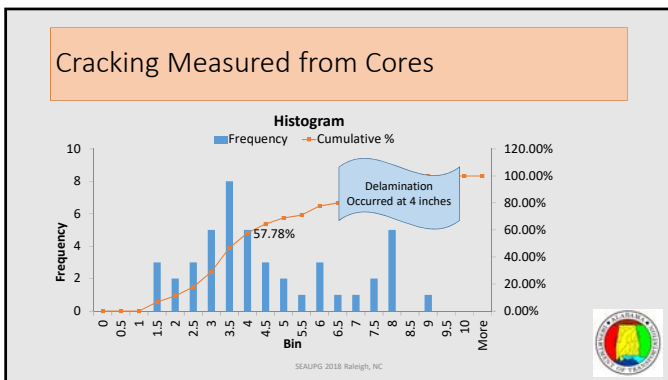
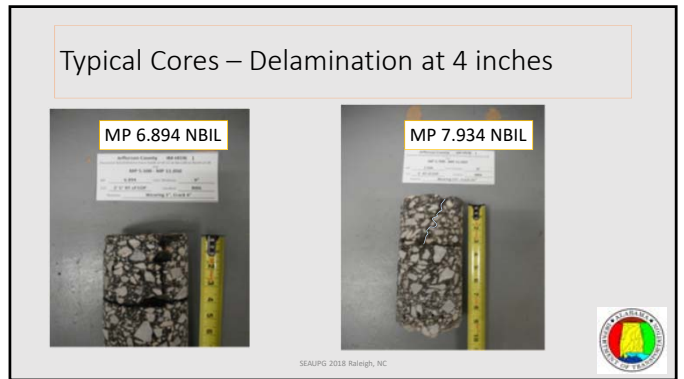
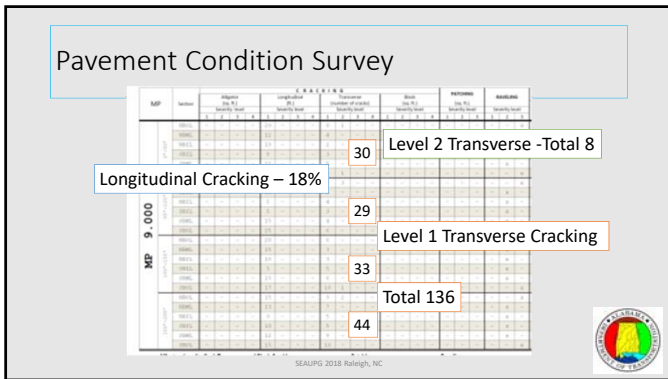
#### TRAFFIC

LOCATION	A	B	C	D
AADT 2017	69,550	75,412	76,893	78,732
AADT 2029	93,538	101,422	103,413	105,887
AADT 2037	113,965	123,670	125,997	129,010
K (%)	19%	19%	19%	19%
D (%)	60%	60%	70%	60%
TDHV (%) 2017	18%	15%	15%	13%
TDHV (%) 2029	18%	16%	16%	14%
TDHV (%) 2037	19%	17%	17%	14%
TADT (%) 2017	22%	20%	20%	17%
TADT (%) 2029	24%	21%	21%	18%
TADT (%) 2037	25%	22%	22%	19%

- MP 5.5 to MP 11.05
- 3 Through Lanes Each Direction
- In 1993 (24 years)
  - 150 lbs/yd<sup>2</sup> 416 Wearing Surface
  - 553-649 lbs/yd<sup>2</sup> 414 Binder Layer
- Anticipated increased traffic due to CBD construction.



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### FWD - Analysis

Falling Weight Deflectometer Analysis Worksheet

3.37

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### So What to do?

Existing Bridges  
Timeline for Work

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## IM Recommendations

- Mill a minimum depth of 4 inches but not to exceed 5 inches.
- Place 80 lbs/sy of Item 424-A, Superpave Bituminous Concrete Wearing Surface layer, 3/8" Maximum Aggregate Size ESAL Range A/B (High Polymer 100% virgin aggregate mix with 2% air voids).
- Place 235 lbs/sy of Item 423-B, SMA, 3/4" MAS
- Place 185 lbs/sy of Item 423-B, SMA, 3/4" MAS
- Place 155 lbs./sy of Item 423-A, SMA WS, 1/2" MAS
- Place 90 lbs./sy. of Item 420-A, OGFC



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## Questions?

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