EXPERIENCE WITH THIN OVERLAY MIXTURES

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Austin District Thin Surface Mix (TSM) Guidelines:
- Background: Evolution of TSMs
- Pavement Considerations:
  The Do’s and Don’ts
  • Distress & Pavement Considerations
  • Good Applications for Thin Overlay Mix
  • Good Applications for Ultra-Thin Mix
- Mix Design and Material Properties
  • Performance based requirements
- Keys to Successful Construction of TSMs
  • Underseals vs. Bonding Course (New SS)
  • Milling (New SS – Micromilling)
  • Placement Temperatures/Compaction
  • Acceptance
US 84 Mills County
- Rural 2 lane roadway with passing lanes provided at various locations
- ADT=1900
- Contractor: Angel Bros.
- Supplier: Century Asphalt
- Length: 8 miles
- Project Cost: $1.4 million
- 3/4" Ultra-Thin SAC B PG 76-22
- Trackless tack supplier: Ergon

Final cost for TOM mix $5.41/SY
- Comparable Ty D at 1 ½” BWD AVG Price $7.52/SY
Eric Lykins – BWD: US 84 – ¾” Ultra Thin (UT) Mixture
Before
Before
After
What is the line

Rumble strips
Slight dragging here
Roller on Crown
Roller Pass 1
Roller Pass 2
Roller Pass 3
The use of thin surface mixes has resulted in a 30% cost savings per sq. yard over traditional dense graded surfacings in the Austin District

Only use on structurally solid highways (See Table 2)

TOM’s recommended when a crack resistant highway is required

Compromising any of the listed materials properties will not provide the expected performance

RAP and RAS are not permitted

TSM’s must pass stringent performance tests

Bonding is the most critical construction issue

Air temp should be greater than 70F
Questions?