Life on the Edge

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FHWA
Deteriorated Joint
How many years?
How many years?
Unconfined edge
Density Across the Mat
Permeability

Project 1
Project 4
Project 9
Project 10

\[ y = 0.0481x^{3.7756} \]

\[ R^2 = 0.7662 \]

**FIGURE 6** Field permeability-density relationship for 12.5-mm NMAS mixtures.
Conclusion
Mill and Fill to Confine Edge

- Opportunity to significantly improve joint
- Middle of mat density throughout
- Eliminates weak link
- Significantly extend life
Mill and Fill to Confine Edge

• Objective is confine edge whenever possible
• Not possible or appropriate in all cases
• Logistics, costs, project design
• Specification, procedures, practice
Mill and Fill to Confine Edge

• Replacement for BDE PM 15-02
• Designer should consider sequence

• How can we further integrate into practice?
Summary Quiz

1. Life on the edge to an engineer is:
   - Going without a pocket protector
   - Paying attention obscure details

2. The only good joint on a hot mix job is:
   - A beer joint
   - A confined joint

3. Confined joints are a technique to:
   - Make designers & contractors life complicated
   - Allow a high level of density at the joint

4. This presentation is timely because:
   - Mill and fill is more common
   - It’s over
Mill and Fill to Confine Edge
How Many Years?