

HR-303 Field Evaluation of Cold In-Place Recycling of Asphalt Concrete

KEY WORDS: Cold recycling, Milling, ACC, Rehabilitation

ABSTRACT

The average thickness of the existing asphalt cement concrete (ACC) along route E66 in Tama County was 156 mm (6.13 in.). The rehabilitation strategy called for widening the base using the top 75 mm (3 in.) of the existing ACC by a recycling process involving cold milling and mixing with additional emulsion/rejuvenator. The material was then placed into a widening trench and compacted to match the level of the milled surface.

The project had the following results:

- Premature cracking of the ACC in the widened pavement area was caused by compaction of the mix over a saturated subgrade.
- Considerably less transverse and longitudinal cracking with 75 mm (3 in.) of cold recycled ACC and a 50 mm (2 in.) hot mix ACC overlay than a conventional hot mix overlay with no cold recycling.