

HR-291 Performance of a Nongrouted Thin Bonded PCC Overlay

KEY WORDS: Grout, PCC Overlay

ABSTRACT

The use of a thin bonded concrete overlay atop an older surface has been widely incorporated for pavement rehabilitation in Iowa since the early 70's. Two test sections were constructed in 1985 on county road T61 on the Monroe-Wapello County line without the use of grout as a bonding agent to determine if adequate bond could be achieved without compromising structural capacity.

Both test sections have performed well with one section having higher bond strengths, lower roughness values, higher structural capacity, and less debonding at the joints than the other section. Overall, both ungrouted sections have performed well under substantial truck traffic with minimal surface distress. More attention should be given, however, to rectifying apparent debonding at the joints when no grout is used as a bonding agent.