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Memorandum

To: Rudy Warnock, P.E.
Warnock & Associates, LLC

From: Kevin Williams, P.E. *KW*

Date: October 28, 2013

Subject: Lost Rabbit
Pavement Conditions
Madison, Mississippi

BCD Project No. 130537

This memorandum is submitted to document the pavement conditions observed on October 25, 2013. On October 25, Kevin Williams (BCD) met representatives of Warnock & Associates in the Town of Lost Rabbit development in Madison, Mississippi to observe the asphalt pavement conditions.

At the time of our observations, the pavement structure consisted of an asphalt base course layer placed on treated subgrade soils. In general, the asphalt pavement is in good to fair condition and is performing as intended. However, random, isolated high severity cracking was observed on about three streets within the development that will require repair. The high severity cracks were approximately three to four inches wide and varied in length. The cracks extended through the asphalt pavement and treated subgrade soil. The cracks appear to be caused by changes in moisture content (drying) of the underlying soils. No differential movement of the pavement was observed.

The high severity cracks allow water to penetrate the pavement structure which could lead to a loss of subgrade support and isolated pavement failures. We suggest Warnock & Associates explore various methods of filling the high severity cracks (those greater than 2 in. wide extending through the subgrade soils). We recommend considering materials such as, but not limited to, high density expanding polymer and flowable fill. We also recommend sealing cracks in the asphalt pavement greater than $\frac{3}{4}$ in. that do not extend through the subgrade soil with a bituminous sealant.