

Engineering Brief # 9

Date: November 18, 1975

In Reply refer To: AAS-580

Subject: Engineering Brief No. 9
Load Transfer Assembly

From: Acting Chief, Airports Engineering Division, AAS-500
To: All Regions

Attn: Chief Airports Division

Engineering Brief No. 9, Load Transfer Assembly, describes a new product which appears to have merit and you may wish to consider as an alternate to 1-1/4 inch round, smooth dowels. The manufacturer claims to be cost competitive and may be able to reduce the cost of doweled joints. We need more experience with this new product before adopting it in our standards. If the new assembly is used, we would appreciate informal feedback as to its performance and costs.

ORIGINAL SIGNED BY;
E. DONALD BAUER

Enclosure

ENGINEERING BRIEF NO. 9

LOAD TRANSFER ASSEMBLY

We have recently received information on a new load transfer assembly intended to replace conventional smooth round dowels in rigid pavement joints. The new assembly is manufactured by A. H. Harris and Sons, Inc. Concrete Construction Specialties, 321 Ellis Street, New Britain, Connecticut 06050. The primary component of the assembly is a short segment of steel I beam which transfers the load from one slab to another. The device is marketed under the trade name of "Harris I Beam" assembly.

Based on theoretical analysis and some highway pavement experience we feel the I Beam assembly is worthy to consider as an alternate for 1-1/4 inch diameter round smooth dowels. At the present time only one size I Beam is produced and it would be applicable to rigid pavement thicknesses of 13 through 16 inches. A photograph of the assembly is shown as Enclosure 1 to this brief. . Note the special chairs which hold the dowels in position. These chairs are required to be used in conjunction with the I beams as the conventional wire basket will not work.

If a request to use the Harris I Beam assembly is received we suggest approval provided a cost savings over conventional smooth

round dowels can be realized. Some trial installations of this assembly would be valuable in determining whether or not this device should be included in our specifications.

ORIGINAL SIGNED BY:
JOHN L. RICE
Civil Engineer, AAS-580

Enclosure