

August 28, 2002

HSA-10/B85B

**Mr. Rodney A. Boyd**  
**Trinity Highway Safety Products Division**  
**Box 568887**  
**Dallas, Texas 75356-9619**

**Dear Mr. Boyd:**

**Mr. Don Johnson's July 5 letter to Mr. Richard Powers of my staff requested the Federal Highway Administration's (FHWA) formal concurrence that raising the original King offset block 2 inches or 4 inches above the top of the steel support posts would not change the Test Level 3 status of the w-beam rail. He also requested acceptance of a modified block with an open face design for standard use and with the same height adjustment options.**

**It remains the FHWA's position that a height adjustment up to 4 inches is not likely to change a barrier's crash performance, but two bolts must be used for the maximum 4-inch adjustment – one through the rail and block and a second one (to the left or right of the first) through the block alone. The double-bolt attachment is deemed necessary to hold the block in place during a typical impact.**

**Regarding your request to modify the original design by eliminating the solid face, I agree that this modified block may be used in its normal position (flush with the top of the post), but a full-scale test would be needed for any height adjustment to this design. A pendulum test is not considered a reasonable surrogate for a full-scale test for the combination of a narrow, non-solid block installed above the top of the post because it does not replicate the post bending and twisting that occurs in an actual crash.**

**Sincerely yours,**

**(original signed by Carol H. Jacoby)**

**Carol H. Jacoby, P.E.**  
**Director, Office of Safety Design**