

June 8, 2004

Refer to: HSA-10/B-88B

Mr. Mats Heinevik
Blue Systems AB
Halleflundregatan 24
426 58 V. Frolunda, Sweden

Dear Mr. Heinevik:

In your April 27 letter to Mr. Richard Powers, you requested acceptance of a modification to the Safence 4-wire rope system that was previously accepted as an National Cooperative Highway Research Program (NCHRP) Report 350 test level 3 (TL-3) bi-directional (median) traffic barrier. Whereas the original design was tested with its steel support posts driven directly into the ground and set on 2.5-m centers, you now requested approval to use posts installed in 200-mm diameter by 600-mm deep concrete footings and set on either 2.0-m or 3.0-m centers.

Computer simulations were conducted on the modified post spacings and embedment design. Results of these simulations indicated design deflections of 1.9-m with the 2-m post spacing and 2.5-m with the 3.0-m spacing. These deflections appear to be consistent with other high-tensioned systems that have been physically tested with different post spacings. When set in precast concrete footings, the support posts are 1230-mm long, with 450 mm embedded in the footings, leaving the above-ground height at 780 mm. The four cables are set as before into a vertical slot cut into the web of each post at heights of 720 mm, 640 mm, 560 mm, and 480 mm above the ground.

Based on staff review of the information provided, I agree that the 4-strand Safence 350, with either of the post spacings noted above and with either post embedment design, can be assumed to meet all evaluation criteria for an NCHRP Report 350 roadside barrier at TL-3 and may be used on the National Highway Safety when such use is proposed by the contracting agency. Since this product is made from steel and is proprietary, the provisions of Sections 635.410 (Buy America) and 635.411 (Use of Proprietary Products) of Title 23 Code of Federal Regulations, copies of which have been previously sent to you, are both applicable to the Safence 350 4RI design.

Sincerely yours,

/Original Signed by R. Powers/

~for~

John R. Baxter, P.E.
Director, Office of Safety Design
Office of Safety