

July 1, 2002

HSA-10/B103

Mr. Douglas T. Nanney  
Chairman/Board of Directors  
Project Back to EDEN  
PO Box 3  
Berlin Twp., MI 48002

Dear Mr. Nanney:

In your June 17 letter to Mr. Richard Powers of my staff, you requested the Federal Highway Administration's acceptance of a guardrail offset block made from recycled tires and Polyurethane for use with strong steel-post Thrie-beam guardrail on the National Highway System (NHS). To support this request, you included a copy of a test report prepared by E-TECH Testing Services, Inc. and a videotape of the pendulum test that was conducted by the testing agency.

Your EDEN block is made from a mix of 95 percent 9.5 mm crumb rubber and 5 percent Polyurethane filler. Each block weighs 16.6 kg. and is nominally 150 mm by 200 mm by 554-mm tall, with a 106-mm wide, 10-mm deep routing on the field side to fit over the flange of a w-beam steel line post. Testing consisted of a pendulum test in which a 795-kg pendulum struck your block mounted between a W150 x 13.5 (W6 x 9) post and a short section of Thrie-beam guardrail. The post and short section of Thrie-beam were severely deformed, but the EDEN block remained intact.

Based on the results of the pendulum test, your product is considered acceptable for use on the National Highway System (NHS) when it conforms to the dimensions noted above and is composed of the same materials as the tested blocks. A shorter block (360-mm tall) having the same cross-section and routing can be used with steel post w-beam guardrail. Both sizes, without the field side routing, may also be used with strong wood post w-beam or Thrie-beam guardrails. As with all recycled material blocks accepted for use on the NHS, this FHWA acceptance is based solely on the reported impact performance in the pendulum test and is not intended to address the long-term performance or durability of the product. Since your block is a proprietary product, its use on Federal-aid projects, except exempt, non-NHS projects, is subject to the conditions listed in Title 23, Code of Federal Regulations, Section 635.411, a copy of which is enclosed for your ready reference. If you have any questions, please call Mr. Powers at (202) 366-1320.

Sincerely yours,

(original signed by Harry W. Taylor)

*for*

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

Enclosure

Sec. 635.411 Material or product selection.

(a) Federal funds shall not participate, directly or indirectly, in payment for any premium or royalty on any patented or proprietary material, specification, or process specifically set forth in the plans and specifications for a project, unless:

(1) Such patented or proprietary item is purchased or obtained through competitive bidding with equally suitable unpatented items; or

(2) The State highway agency certifies either that such patented or proprietary item is essential for synchronization with existing highway facilities, or that no equally suitable alternate exists; or

(3) Such patented or proprietary item is used for research or for a distinctive type of construction on relatively short sections of road for experimental purposes.

(b) When there is available for purchase more than one nonpatented, nonproprietary material, semifinished or finished article or product that will fulfill the requirements for an item of work of a project and these available materials or products are judged to be of satisfactory quality and equally acceptable on the basis of engineering analysis and the anticipated prices for the related item(s) of work are estimated to be approximately the same, the PS&E for the project shall either contain or include by reference the specifications for each such material or product that is considered acceptable for incorporation in the work. If the State highway agency wishes to substitute some other acceptable material or product for the material or product designated by the successful bidder or bid as the lowest alternate, and such substitution results in an increase in costs, there will not be Federal-aid participation in any increase in costs.

(c) A State highway agency may require a specific material or product when there are other acceptable materials and products, when such specific choice is approved by the Division Administrator as being in the public interest. When the Division Administrator's approval is not obtained, the item will be nonparticipating unless bidding procedures are used that establish the unit price of each acceptable alternative. In this case Federal-aid participation will be based on the lowest price so established.

(d) Appendix A sets forth the FHWA requirements regarding (1) the specification of alternative types of culvert pipes, and (2) the number and types of such alternatives which must be set forth in the specifications for various types of drainage installations.

(e) Reference in specifications and on plans to single trade name materials will not be approved on Federal-aid contracts.