COLORADO DEPARTMENT OF TRANSPORTATION

PRE-APPROVED PRODUCT EVALUATION REQUEST & SUMMARY

APL Reference No. 2241-11

Product Evaluation Coordinator
Colorado Department of Transportation
4670 North Holly Street, Unit A
Denver, Colorado 80216

Material code: 614.07.02.00

FOR INTERNAL CDOT USE

Material code description full name: Impact Attenuator

PART 1

Product name: QuadGuard Elite	Product category: Roadway Safety\Crash Cushion\Impact Attenuator, Permanent
Product representative (name & address): Attn: Roger N. Egan Interwest Safety Supply, Inc. 195 South Navajo Street Denver, CO 80223 Phone: (303) 733-8447 FAX: (303) 733-8664	Manufacturer (name & address): Attn: Energy Absorption Systems, Inc. 35 East Wacker Drive Chicago, IL 60601 Phone: (312) 467-6750 FAX: (312) 467-9625
Web-site address: www.energyabsorption.com	Web-site address: www.energyabsorption.com

Description of the product: (Include specific quantifiable details from tech data sheet. Advertising generalities are not appropriate.)
The QuadGuard Elite System is designed for permanent applications where multiple impacts per year are anticipated. It is 100% reusable after a design impact. Its HDPE cylinders can withstand multiple impacts before they need to be replaced. QuadGuard Elite is available in 5 widths and 5 lengths depending on the size and type of hazard being protected. The 5 and 7-bay units are Test Level 2 compliant, and the 8 and 11-bay units are Test Level 3 compliant.

Restrictions, (installation and/or use):

Use of the product, (be specific to CDOT highway activities only):
QuadGuard Elite is a redirective, non-gating attenuator for use in median, gore, and roadside applications to protect hazard widths of 24", 30", 36", 69", 90".

Benefits to CDOT, (how will your product enhance quality, improve safety, save money, be a better value then other manufacturer's products):
The very high reusability of the QuadGuard Elite provides maximum safety coupled with very favorable life cycle cost benefits. Its high reusability also provides for low maintenance repair cost after an impact.

Specifications, (listing those applicable is required) **& Certificate of Compliance** (required to certify compliance with listed specifications):

- ☐ CDOT :
- ☐ ASTM :
- ☐ AASHTO :
- ☒ FHWA : NCHRP 350, TL-3
- ☐ other :

Product testing, (from national/independent laboratories or universities) **& Certified Test Report** (CTR required to validate all claims):

- ☐ NTPEP-AASHTO :
- ☐ FHWA :
- ☒ other : FHWA Letter of Acceptance HMHS (June 17, 1999); HSSD/CC-57B (August 14, 2007); HSSD/CC-57C (11-14-08)
- ☒ other : E-TECH Testing Services, Inc. (December 2006)

State DOT Approvals, (current documentation required):

Sample submitted: ☐ yes ☒ no ☐ n/a | Materials Safety Data Sheets (MSDS): ☐ yes ☒ no ☐ n/a

Notes/Additional Comments
A sample QuadGuard Elite could be made available if CDOT requires it to evaluate the product completely.