

NCHRP 350:

Review of Barriers and Terminals

COURSE OBJECTIVES:

Develop a better knowledge base and understanding of the characteristics of NCHRP Report 350 qualified roadside safety hardware and how these characteristics can be applied in a more cost effective manner to improve the overall safety of the road system. This is intended to clear much of the confusion that exists regarding the classifications of systems.

COURSE DESCRIPTION:

- Review of the definitions for and classifications of barriers, transitions, crash cushions and end terminals. Suggestions on how to apply these characteristics to the roadway (construction/work zones and permanent locations) in a cost effective manner to maximize safety with a limited budget.
- Review how roadside safety features are tested and evaluated, describe what makes some systems work well or not, and apply these characteristics to specific types of sites on the roadway.
- Review many crash tests of various types of hardware and discuss failures and successes as well as the reasons for these results.
- Review of numerous example sites and evaluate what type of systems should be considered for use to cost effectively maximize safety.

TARGET AUDIENCE:

The workshop is directed primarily to practitioners that are involved with the design, construction and maintenance of roadside safety hardware.

INSTRUCTOR:

Owen S. Denman, P. E.

1999 – Present

Barrier Systems, Inc.

Rio Vista, CA

President and Director

Managed the development of the company into a multi-product competitor in the roadside safety features marketplace. Developed and acquired new products including crash cushions, portable barrier systems and barrier closure systems and made several improvements to moveable barrier technology products. Developed an independent subsidiary (Safe Technologies, Inc.) to conduct full-scale impact testing in accordance with National Cooperative Research Program Report 350 (NCHRP 350) that is approved by the Federal Highway Administration for testing roadside safety features and certified to ISO Guide 17025 for Testing Laboratories for testing to NCHRP 350 and EN 1317 (European Norms). Qualified all products being offered to NCHRP 350 guidelines.

1978 -1998

Energy Absorption Systems, Inc.

Chicago, IL

Senior Executive

Developed and marketed numerous roadside safety products including crash cushions, barrier end terminals, truck mounted attenuators, portable and permanent longitudinal barrier systems, breakaway support mechanisms, changeable message signs and delineation systems. Also developed and managed a Federal Highway Administration approved full scale impact testing facilities and conducted over 1500 impact tests and over 100 live drive impact tests into roadside safety features.

Registration Procedure

Please contact Gail Ikeda at 956-8367, 956-8851 (FAX) or gail@eng.hawaii.edu by Wednesday, **November 5, 2003** and indicate which session you prefer to attend (**8:00-12:00** or **1:00-5:00**).

Cancellations

Please contact us if you must cancel your registration or if someone will be substituting for you.

Parking

Parking for the East West Center is \$4. If you would like a parking pass please contact us by **November 5, 2003**. Make checks payable to "**RCUH**" and mail to:

Hawaii LTAP
University of Hawaii
Dept. of Civil & Environmental Engineering
2540 Dole St, Holmes Hall 383
Honolulu, HI 96822
Attn: Gail Ikeda

NCHRP 350: Review of Barriers and Terminals

November 12, 2003

University of Hawaii
East West Center, Jefferson Hall,
Pacific Room

8:00am – 12:00pm
1:00pm – 5:00pm
(2 Separate Sessions)

Workshop sponsored by
Safety Systems Hawaii Inc.
and
**Hawaii Local Technical Assistance
Program (LTAP)**
in cooperation with the
*Hawaii State Department of Transportation,
University of Hawaii's Department of Civil & Environmental
Engineering and the Federal Highway Administration*

Hawaii Local Technical Assistance Program

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Department of Civil and Environmental Engineering
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