

ARIZONA DEPARTMENT OF TRANSPORTATION
ROADWAY ENGINEERING GROUP
OFFICE MEMO

October 6, 1998

TO: Roadway Design Personnel
ADOT and Consultants

FROM: Terry H. Ottemess
Design Program Manager
Roadway Design Section

RE: Fleet 350 Guard Rail End Terminal

The FLEAT 350 (Flared Energy Absorbing Terminal) is a flared guard rail end terminal meeting NCHRP Report 350 Test Level 3 crash test criteria. This proprietary terminal has been reviewed and approved for use by the ADOT Traffic Product Evaluation Committee and the Maintenance Product Evaluation Committee. The FLEAT 350 is a 37.5' long straight flared system consisting of an impact head which sequentially kinks the standard w-beam rail, a cable anchor and box assembly, wood posts and blocks, steel foundation tubes and a ground strut.

A Detail showing the Layout for FLEAT 350 is attached and should be included in the plans. Note that the straight flare shows an offset of either 2.5' or 4'; the 2.5' flare will be normal design offset and should be adequate for most applications. This is especially true when Type B guardrail is used (See General Note 3). Offsets greater than 2.5' and up to 4' may be specified on the plans if District requests additional offset for snow plowing or if determined by specific site conditions. Stored Specifications for the FLEAT 350 have been prepared by Contracts and Specifications Services and are available upon request.

The FLEAT 350 is a product of Road Systems, Inc. of Frankfort, Illinois and is available through multiple sources. John Durkos of Road Systems may be reached at 815-464-5917.


Copies of the Approved Manufacturer's Drawings, Installation Instructions Booklet, and supplemental information are being sent to the Districts. Additional copies for designers may be obtained by contacting Tom Scheck at 255-8674.

The FLEAT 350 should be selected by the designer and shown on the plans as an alternate for locations where flared guard rail terminals are desired. Presently, the FLEAT 350 and the SRT 350 will be shown as bid alternates on the Barrier Summary Sheet. The Barrier Summary Sheet has been modified to accommodate this option. Flared guard rail terminals will normally be specified when there are shoulders less than 6' in width and where Districts desire flared guard rail terminals in snow plowing areas.

In-house design personnel can obtain the Cadd Detail and Barrier Summary Sheet through the Cadd Support Team.

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Consultants may obtain the Cadd sheets through the Cadd Support Team at 255-7341 or in the near future via the ADOT Web page on the Internet as follows:

Layout for FL EAT 350 Detail-- <http://www.dot.state.az.us/roads/cae/special-details.html> 

Barrier Summary Sheet -- <http://www.dot.state.az.us/roads/cae/standard.html> 

Please implement this alternate on design projects underway whenever possible. The additional option will make bid prices more competitive.

Please distribute copies of this memo to design personnel, project managers and other affected personnel within your Groups.

Please call Tom Scheck or me at 255-7341 if you have any questions regarding this material or if we can be of assistance.

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Roadway Engineering Group

Traffic Group

Statewide Project Management Group

Construction Group

Central Maintenance

Bridge Group

Contracts and Specifications Section

Valley Freeway Group

Local Government Section

Engineering Consultant Services

Regional traffic Engineers

Districts (10)