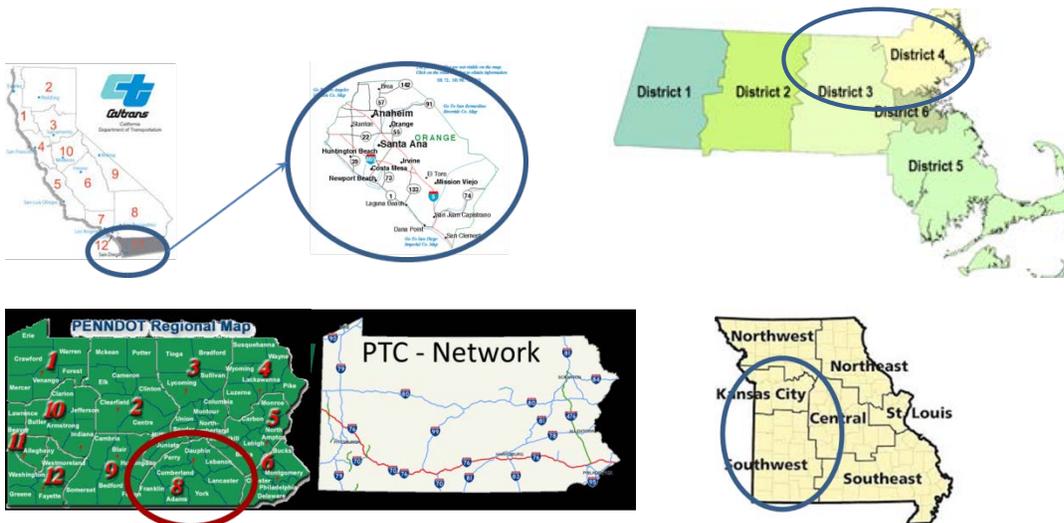


FHWA Pilot In-Service Performance Evaluation of Guardrail End Treatments

The FHWA Office of Safety Research and Development is conducting a pilot in-service performance evaluation (ISPE) of the most widely used energy absorbing guardrail end terminals (GETs) in the United States, specifically: ET-Plus, ET-2000, Flared Energy Absorbing End Terminal (FLEAT), Slotted Kinking Terminal (SKT), X-Lite, X-Tension, and Soft Stop. For each device, the evaluation will address:

1. Crash performance in terms of vehicle occupant risk.
2. The sensitivity to varying effects such as environmental conditions, site characteristics, and impact conditions.
3. The degree of sensitivity to improper installation, maintenance and repair.

Data are being collected at test sites in four states that have agreed to participate in this pilot study: Massachusetts, Pennsylvania, California, and Missouri. This work is being done in cooperation with NHTSA, the Resource Center - Safety TST, the Office of Safety and the division offices in each of the data collection states.



Detailed on-site investigations are being performed for fatal and serious injury producing crashes, generally within 24 hours of receiving notification of the crash, by NHTSA's Special Crash Investigation teams. The Division Offices, in cooperation with their state DOT partners, are collecting data for the minor and property-damage-only (PDO) crashes.

Data collection is currently scheduled to run through 2018. Based on the number of crashes expected and based on historic trends, the current two-year timeframe for completion will likely be insufficient to collect enough data to draw statistically significant conclusions about the safety performance of the devices. However, the study will identify current challenges to conducting effective in-service performance evaluations and recommend best practices for 1) the collection of real-time data on crashes involving roadside safety hardware, 2) interagency communication at the state level regarding crash reporting, and 3) data management regarding hardware maintenance and inventory.

Photography forms the basis for data collection. A complete photo suite can aid subject matter experts to code a basic case, with information suitable for analysis.

