SECTION I-5 SAFETY/MAINTENANCE PROJECTS

For additional guidance refer to Traffic Engineering Memos TE-366 and TE-367.

When developing details for a Safety or Maintenance project, care must be taken to ensure proper barrier installation/maintenance/replacement to upgrade any outdated locations. There may be locations on a project where the guardrail has not been hit, but the installation may not be the safest that can currently be provided if an errant vehicle impacted the guardrail. Attention should be given to the following factors in evaluating these locations:

(1)   Location of barrier:
- relative to hazard
- relative to pavement
- relative to shoulder break point
- relative to fixed objects (such as bridges); face of guardrail should be aligned with bridge rail, not closer to the roadway

(2)   Type of guardrail used (Strong Post or Weak Post):
- no longer use Weak Post guardrail adjacent to curb
- cable guardrail normally used only on Limited Access facility with recoverable area exceeding 14 feet
- sufficient space for maximum deflection for type used

(3)   Terminals (need, type, proper installation, etc.):
- end treatment needed on both ends of a run of barrier
- terminals used with strong post guardrail
- terminals used for run-on treatment with weak post guardrail
- terminal treatment used as anchor for run-off end of weak post guardrail when not subject to two-way traffic
- proper flare, anchor, post placement for terminal to effectively decrease damage caused to impacting vehicle
- substandard terminals such as GR-5 (old turndown terminal), old standard GR-7 (those with 2' diameter concrete footings for first two posts), etc., should be replaced with approved terminals.
- at bridges/walls, guardrail terminals should not be located closer to the roadway than the bridge rail or wall (fixed object attachment should be installed instead of separate units)

(4)   Shoulder width and site preparation:
- provide sufficient width for site preparation
- provide additional fill if necessary for proper flare installation
- provide clear run-out area behind terminal installation