

# Design Standards Letter

**Letter Number: G-1968-12**

**Letter Date: 05/06/1968**

**Effective Date: 05/06/1968**

**Section/Plan No.: None**

**Subject: Instructions for Implementing Safety Features on Existing Interstate Highways**

## Body

-----  
ALL DIVISION AND DISTRICT ENGINEERS AND CHIEF COUNSEL:

This work embraces those projects that are programmed as safety projects on the existing Interstate system. It will consist primarily of modifying existing median drainage structures, extending and modifying guard rail, providing guard cable, fencing, and modifying or relocating sign posts and light poles to conform with present safety concepts. Delineators will not be a part of this work.

Aerial photography plan sheets will be used with a scale of 1" - 200' prepared on full-size 22" x 36" plan sheets which will be supplied by the main office. The basic plan sheets will be supplemented with special sheets where necessary. Flying can begin immediately after the district submits county flight maps showing the extent of project limits for work that is programmed for the 1968-69 Fiscal Year. When crossroad coverage is needed further than 700 feet from the centerline, the limits of coverage needed should be indicated on the flight map.

Improvements will be noted on the plan sheets with an approximate station identification. Title sheets will be necessary. Standard symbols for this work are noted on the title sheet. Included with these instructions is a sample project that is for your use as a guide to the procedure to be used for this work.

It is suggested that the projects be let by counties, including all items of the work in rural areas. In some of the urban areas it might be preferable to let shorter segments and some of the specialty items, such as lighting, as separate contracts due to the magnitude of the work in these areas.

The order of preference for handling obstructions are as follows:

1. Remove if not necessary.
2. Relocate to safer area if possible

3. Provide breakaway feature.
4. Protect with guard rail.

Fencing and guard cable should be provided according to the approved policy established on pages 97 and 98 of the Manual of Procedure for the 1968 Estimate of the Cost of Completing the Interstate System".

Median drop inlets should be revised in accordance with General Letter No. 30, 1967. Headwalls presently located in the median will be removed and replaced with Type S drop inlet, if possible, or Type S headwall, if conditions will not permit the use of the drop inlet. There will be some locations where the existing drop inlet will be protected by guard rail for other reasons, such as bridge ends and bridge piers. In such case, modification is not necessary. There will be cases where existing structures cannot be modified according to our present standards. Special drawings must be inserted in these special cases.

Obstructions presently located in the gore area of interchanges must be removed, or in the case of exit signs, provided with the breakaway feature. Butterfly and cantilever overhead trusses and light poles are obstructions. Curbs at the freeway-ramp terminal area should be removed, where practical.

Concrete light poles will be replaced with metal poles and frangible transformer base unless they are protected with guard rail. Existing metal poles will be modified to provide the frangible transformer base unless they are protected by guard rail. A special provision should be inserted by the district which provides for the correct bolt circle adapter on the existing "shoe base on concrete" installation. A sketch is provided with these instructions for modifying the existing "butt base" installations.

The previously noted safety features shall be provided on outer roadways of the Interstate System with over 400 ADT.

Areas disturbed by the construction of the various items of drop inlet construction, modifying flow-lines and sign removal shall be sodded. A sample special provision for sodding is included in these instructions. The sod estimate will be shown at each location. Sod is to be specified only for locations affected by construction of contract items and will not be specified for maintenance reasons.

Included with these instructions are the following items:

1. Sample Project.
2. Guard Rail Instructions with Special Provision.
3. Signing Instructions with Special Provisions.
4. Sodding Disturbed Areas Special Provision.
5. Constructing Type S Headwalls Special Provision
6. Modifying Drip Inlets Special Provision.
7. Shoulder Repair.

8. Sketch for modifying existing butt base poles for transformer base.
9. Modification of Highway Lighting Special Provision.

Appropriate standard special provisions should be included, when applicable.

You have been previously notified of the project numbers for this work.

L.V. McLaughlin  
Division Engineer  
Surveys and Plans