Design Standards Letter

Letter Number: **G-1962-16**

Letter Date: **06/21/1962**

Effective Date: **06/21/1962**

Section/Plan No.: **None**

Subject: **Standard Drawings**

Body

ALL DIVISION , DISTRICT AND URBAN ENGINEERS:

We are furnishing you, under separate cover, with several 8 1/2" x 11" copies of the following new and revised Standard Drawings.

Standards 21.50 and 21.51, Standard Approaches, have been revised to change the shoulder radius for side road approaches to 30 feet, which is in accordance with the advance copy of a future Design Manual change submitted with General Letter No. 10, 1962. The note "Shoulder radius shall be as indicated, unless otherwise shown on the plans" was also added to permit the use of a radius other than that shown on the standards when necessary. Lengths of pipe, surfacing quantities and examples were revised to agree with the 30-foot radius. On Standard 21.50, the length and the grade shown on the section for side road approaches was revised to 15' and 1' in 15' respectively. Revised Standards 21.50 and 21.51 will be included in all future plans beginning with the October, 1962 Letting. Where it is not practical to revise completed or partially completed pans, the radius of the side road approach as designed should be shown on the plans and no other changes would be necessary.

Standard Drawing 52.01. Precast and Prestressed concrete Pile, has been revised to include new Sheet 2 of 2 which provides for 16" Prestressed Concrete Pile. Sheet 1 of 2 was revised to provide for buildups used for driving precast pile.

Standard Drawing 52.02. Cast-in-Place Concrete Pile, was revised to require that the splice at the top of the tapered section of the fluted type pile for trestles be at least 10' below the ground line and to specify a heavy-duty splice for all fluted type pile.

Standard Drawing 72.01. Dimensional Data for Cut-Out Reflectorized Letters. Sheet 1 of 5 was revised to include spacing formula and tabulations of quantities of reflectors formerly shown on Sheet 2. The method for attachment of cut-out letters and appurtenances to sign panels was also added. On Sheet 2 of 5 the tabulation of quantities of reflectors was deleted and additional cut-out arrows meeting new AASHO requirements were added.

Standards 72.02. Interstate Highway Signing, wee completely revised to be in accordance with the 1961 Manual for Signing and Pavement Marking for Interstate Highways and the 1961 MUTCD. The following changes were made:

Sheet 1 - Arrows on "Through Traffic" and "Exit" signs were revised to new MUTCD standards.

Sheet 1 - Notes were added to make reference to other Standard Drawings associated with this standard.

Sheet 2 - Deleted all cut-out arrows that are now shown on Sheet 2 of Standard 72.01.

Sheet 3 - The height of the destination mileage sign for Intestate highways and the directional mileage sign for Interstate "off" ramps has been increased to 5' 6". The Federal, State, and Supplementary route markers for use on advance guide signs were also revised. The typical advance guide sign was revised by placing the top of the direction level with the top of the shield.

Sheet 4 and 5 - of the old Standards 72.02 covering standard shields have been deleted. The revised shields are now shown on Sheets 7, 8, and 9.

Sheet 4 - of the new standard replaces old Sheet 7. The "Speed Zone" sign has been deleted and the standard pole spacing for all 4' by 5' signs is now shown in its place. The sign "Signals Ahead" was changed to "Signal Ahead". The clearance for warning and regulatory signs was reduced from 7' to 6' which will reduce the post lengths by one foot. Added note modifying "Keep Right" sign from 4' by 5' to 4' by 4'.

Sheet 5 - Sheet 5 replaces old Sheet 8 and no revisions were made.

Sheet 6 - Revised 6" arrow detail to comply with new standard.

Sheet 7 - Included new designs for Interstate and U. S. Shields.

Sheet 8 - Included new designs for Missouri Shields.

Sheet 9 - Revised Missouri Shield, U. S. Shield, and Supplementary Shields.

Sheet 10 - Replaces old Sheet 9. The 18' by 9' junction cardinal directional markers and directional arrows have been increased in size to 21' by 15'. This change was authorized on June 4, 1962, by the Special Committee on Interstate Signing and Marking. The minimum vertical clearance for Route Marker Assemblies was changed from 7' to bottom of lowest shield, to 6' to the bottom of the lowest item in the assembly.

Sheet 11 - This is a new sheet showing typical Route Marker Assemblies.

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Standard 72.03. Highway Signing. Sheet 3 of 5 was revised to change the panel bolt spacing to a maximum of 2' and the distance of bolts from the vertical edge of signs to a maximum of 1'. The following details were revised on Sheet 4 of 5 to provide for improved design of sheet increment aluminum sign panels and appurtenances that are now available: Hook Bolt Assembly, Post Clamp, Locking Tab, Vertical Stiffeners, Backing Strip and Clip, and an additional view of the End Support for Lower Sign was added. Mounting details for the Type A Delineator were revised on Sheet 5 of 5 to prevent crimping of the delineator during installation.

Standard Drawing 72.09. Sign Lighting. On Sheet 1 of 2 both right and left brackets were included. Sheet 2 of 2 deleted the reference in the "General Notes: Conduit System" to the use of the raceway for carrying electrical cable.

Standard Drawing 72.10. (8 Sheets). Overhead Sign Trusses, Aluminum, are new standards to provide for aluminum trusses. We are furnishing under separate cover a few copies of the sheet for Design Details for Aluminum Overhead Trusses. This sheet will be included in the Design Manual in the near future. Each District is also being furnished reproducible copies of the design Data Sheet for aluminum trusses.

Standard Drawing 72.60 (7 Sheets). Overhead Sign Trusses, ASTM-A36, Structural Steel, are revised standards to replace present Standards 72.60 through 72.66. These standards were completely revised to provide for a steel truss of a design comparable to the new aluminum truss design. We are furnishing under separate cover, a few copies of the new sheet for Design Details of Steel Trusses that supersedes Figure 15.24 in the Design Manual. Each District is also being furnished reproducible copies of the Design Data Sheet for the new steel truss design.

Optional bids will be permitted on aluminum and steel overhead sign trusses in all except a few selected future contracts, until criteria for the use of aluminum or steel can be established. This will require that both the steel and aluminum designs for overhead sign trusses be included in future plans. The Contractor will be required to specify in the bid proposal the type (aluminum or steel) of truss he proposes to furnish. We have attached a copy of the Special Provision that will be included in applicable contracts by this office. The District will be advised by this office of those projects where the type of truss will be specified.

All of the above Standards, with the exception of 21.50 and 21.51 will be included in future contracts where applicable, beginning with the July letting. Additional copies of these Standards or Data Sheets will be furnished upon request.

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