

# Design Standards Letter

**Letter Number: G-1970-14**

**Letter Date: 03/12/1970**

**Effective Date: 03/12/1970**

**Section/Plan No.: None**

**Subject: Design Manual Section XIII, Computer**

## Body

-----  
ALL DIVISION AND DISTRICT ENGINEERS

Attached are the following revised pages and figures for your Design Manual.

Page i Revised Table of Contents

Page ii Revised Table of Contents

Page iii Revised Table of Contents

Page 13.7 Forms SP-277-C, D, and E added to Sec. 13.4.4.2.9 Text.

Page 13.8 Retyped due to page 13.7 revision.

Page 13.9 Retyped due to page 13.7 revision.

Page 13.10 Sec. 13.4.5 (Rock Data) text revised

page 13.10.1 Retyped due to page 13.10 revision.

Page 13.11 Retyped due to page 13.10 revision.

Page 13.12 Sec. 13.4.16 (Seeding and Mulching) added.

Page 13.12.1 New page - Sec. 13.4.17 (Contours) added.

Page 13.13 Retyped due to Sec. 13.4.16 and 13.4.17 additions.

Page 13.14 Retyped due to Sec. 13.4.16 and 13.4.17 additions.

Figure 13.1 A note has been added, and BEGIN and END stations have been carried out to two decimals

Figure 13.2 (a) Columns 52 and 53. Plot Cross Section Scale and Length has been moved from Column 73 to allow more options.

(b) Column 59. A profile plot is now available.

(c) Columns 61 and 62. Generate Design Roadbed and Section Code has been moved from SP-271-B to SP-277-A (MASTER SECTION CODES).

(d) Column 62. A listing of rock slopes is available.

(e) Column 78. In addition to Cross Section Plots when this option is used, end areas for Class A, Class C and Fill are given.

Figure 13.2.1 This form is the back side of SP-271-B and describes the options available.

Figure 13.3 New format, no change.

Figure 13.4 Roadbed is Column 3 only

Figure 13.6 Card number, Columns 2-3 corrected.

Figure 13.9.1 No Change (Moved to back of Figure 13.9).

Figure 13.9.3 New Form SP-277-D, PRORATE STATION °L SHIFT, SHOULDER WIDENING, ADJOIN CODE.

Figure 13.9.4 New Form SP-277-E, PRORATE STATION DITCH DESIGN.

Figure 13.11 Decimal corrected for PROFILE.

Figure 13.11.2 Decimal corrected for PROFILE.

Figure 13.12.2 New Format, Column SP-282 added.

Figure 13.18 Codes 17 and 18 added for computing curves with given tangent lines and degree of curvature by arc and chord definition.

Figure 13.26.2 Code 50; note indicating additional output of overall delta, tangent and PI Co-ordinates.

Figure 13.27 Additional line of output for Code 50.

Figure 13.30 Code 88 added for plotting curve segments.

Figure 13.31 Sketch for new Code 88.

Figure 13.32 Code 90-91 reworded, and Code 91 LENGTH recoded to show proper decimal alignment

Figure 13.34 (a) Code 93 note indicating additional lengths given on output.  
(b) Code 95: A 2 in LENGTHS field scales 1" = 50'.  
(c) Code 95 nto4e suggesting this code precede any other plot codes.

Figure 13.35 (a) Additions to Code 93 Output.  
(b) Code 95 note on sheet size.

Leland D. Fletcher  
Division Engineer  
Surveys and Plans