

# Design Standards Letter

Letter Number: **D-1994-16**

Letter Date: **11/29/1994**

Effective Date: **11/16/1994**

Section/Plan No.: **D6-04, D6-05, D2-01, D4-04, D6-03, Typical Section**

**Subject: English and Metric Design Manual Revisions - Sections 6-04 & 6-05. Revised Figures 2-01.8, 4-04.1, 4-04.1A, 6-03.9 & 6-04.1 New Figures 6-04.3, 6-04.4, & 6-04.5 English Design Revised Typical Section Drawings D-61B-NPD, D-62A-NPD, -63B-NPD, D-64A-NPD, D-65-NPD, D-66A-NPD, D-70G, AND D-71E**

## Body

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Attached are copies of revisions to the Design Division's Policy, Procedure and Design Manual. Following is a summary of the revisions.

**Figure 2-01.8, Location Study Report. Revision date changed to 11-16-94.**  
Under the "Existing Facility" section, and asterisk has been added to the heading "Index Ratings" with a note that these are for safety, level of service (LOS) and sufficiency index. Under the "Proposed Traffic & Design Criteria" section, the heading "Design Bracket" has been moved to the second column and renamed "Design ADT."

**Figure 4-04.1, General Design Data. Revision date changed to 11-16-94.**  
The typical section drawing numbers have been revised to their current designations.

**Figure 4-04.1A, General Design Data Notes. Revision date changed to 11-16-94**  
The drawing number in Note (16) has been changed to D62A-NPD.

**Contents, Volume II. Revision date changed to 11-16-94.**

**The revision date for Sections 6-04 and 6-05 have been revised to 11-16-94.**

**Table of Contents, Chapter VI. New date shown as 11-16-94.**

**Figures 6-04.3, 6-04.4, and 6-04.5 have been added to the list of figures.**

**Figure 6-03.9, Corridor Designation for Pavement Design.**

**Revision date changed to 11-16-94.**

**Under "Heavy Duty Pavement", Route 54 from Route 63 to Route 50 has been added. The descriptions of the termini for routes 61, 65, and 71 have been revised to refer to definite points.**

**Under "Medium Duty Pavement" the following revisions have been made:**

**The three segments of Route 24 have been removed and all of Route 24 is now included.**

**The "All of Route 54" has been revised by including in parenthesis the note "except as noted above" which refers to one section of Route 54 which is now included under "Heavy Duty Pavement."**

**The termini for Route 65 have been revised to definite points.**

**The following sections of routes have been added:**

**Route 69 from Route I-35 to Route 10**

**Route 92 from Kansas State Line to Spur 45**

**Route 367 from Route 67 to Route I-270**

**Route AB from Route I-55 to Mississippi River, Scott County**

**Proposed Route from Bethany to Trenton**

**Section 6-04, Shoulders. Revision date changed to 11-16-94. Under Subsections 6-04.2(1)(c) and (d), a sentence has been added to omit the Type 5 base on the high side of superelevated curves.**

**In the first paragraph of Subsection 6-04.4, reference to Figures 6-03.1 through 6-03.4 has been deleted. Also in Subsection 6-04.4, the paragraphs designations have been changed from (a) through (e) to (1) through (6) as follows:**

**Previous section (a) has been changed to (1)**

**Previous section (b) has been broken into two sections, (2) and (3).**

**The first paragraph has now been designated as (2) and is for projects with 10-year traffic volumes of 400 to 750 ADT. Reference to Figure 6-03.1 has been added.**

**The second paragraph has now been designated as (3) and is for 3R resurfacing projects having a traffic volume of 750 to 1700 ADT. Type D shoulders are to be provided on these projects.**

**Previous section (c) is now designated as (4). Reference to Figure 6-03.1 has been added after the first sentence. The second sentence has been revised to begin "If the 3R criteria requires the travel lanes to be widened...". Also, reference to Figure 6-03.2 has been deleted.**

**Previous section (d) is now designated as (5). This section has been extensively revised to address different shoulder thicknesses. Also, the proper preparation of subgrade is addressed. Reference to Figure 6-04.3 has been added and reference to**

**Figure 6-03.4 has been deleted. Please review this section thoroughly to insure current procedures are followed.**

**Previous section (e) is now designated as (6). Reference to "asphalt" has been revised to "bituminous." Reference to "(c) and (d)" have been revised to "(4) and (5)" in keeping with the new designations.**

**Subsection 6-04.5 RUMBLE STRIPS has had the subsection number corrected to Subsection 6-04.6. This section has been extensively revised and should be thoroughly reviewed to insure that current practices are used in rumble strip design.**

**Figure 6-04.1, Types of Shoulder Stabilization.**

**Revision date changed to 11-16-94.**

**The ADT volume has been corrected to read "20,000."**

**Figure 6-04.3, Types of Shoulder Stabilization (Resurfacing Projects).**

**Date shown as 11-16-94.**

**This is a new figure showing shoulder stabilization details for resurfacing projects.**

**Figure 6-04.4 Details of Concrete Shoulder Rumble Strips.**

**Date shown as 11-16-94.**

**This is a new figure and shows rumble strip details for concrete shoulders.**

**Figure 6-04.5 Details of Bituminous Shoulder Rumble Strips.**

**Date shown as 11-16-94.**

**This is a new figure and shows rumble strip details for bituminous shoulders.**

**Section 6-05, 3R/4R Projects. Revision date changed to 11-16-94.**

**Subsection 6-05.6 has been revised with regard to thickness of shoulders.**

**Please review this subsection to assure current design standards are used.**

**Typical Sections D-61B-NPD, D-62A-NPD, D-63B-NPD, D-64A-NPD, D-65A-NPD, and D-66A-NPD. Date shown as 11-16-94.**

**These drawings have been revised to show proper cross slopes on pavements and shoulders.**

**Typical Sections D-70G, and D-71E. Date shown as 11-16-94.**

**These drawings have been revised to show proper cross slopes on pavements and shoulders. The thickness of the base widening is now shown as "T" with a note to refer to Section 6-05.6 of the Design Manual for determining the depth.**

**Your attention is directed to the fact that this note is to be removed prior to including it in the plans with specific dimensions.**

**Copies of all of these typical sections are included for your information.**

**They are available on CADD and can be copied and then modified with details which are specific to each project.**

**bh/kd**

**Attachment**

