

Design Standards Letter

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Section/Plan No.: D4-03, D4-07, D6-03, D6-04, D6-05, D8-04, D9-10

**Subject: Revisions to Sections 4-03, 4-07, 6-03, 6-04, 6-05, 8-04 and 9-10 (English only)
Revisions to Figures 4-03.7, 4-03.8, 6-03.1, 6-03.2, 6-03.13, 6-05.1, 8-04.2, 8-04.3 and 8-04.10
New Figures 6-03.14 and 8-04.14 Delete Figures 6-04.4, 6-04.5, 8-04.14 and 8-04.15**

Body

Enclosed are English and Metric revisions and additions to the Design Division's Policy, Procedure and Design Manual for the above noted sections and figures. Revisions are summarized as follows:

Contents, Volume I. Revision date changed to 10-1-96 for the Contents sheet and for Sections 4-03 and 4-07.

Table of Contents, Chapter IV. Revision date changed to 10-1-96.

Deleted 4-03.1 (1) and renumbered accordingly.

Removed reference to the Form D-14 in 4-03.13 (2).

Section 4-03. Plans-Specifications-Estimates. Revision date changed to 10-1-96.

In Subsection 4-03.8, removed Pavement Edge Treatment, Pore Pressure Measuring Device and Temporary Erosion and Sediment Control From the list of standard special sheets. These are now standard plans.

In Subsection 4-03.13, removed reference to the district submitting a D-14 form, table of contents for general special provisions. The general special provisions and revised standard specifications will be inserted in every job by the division, thereby eliminating the need

**for
the D-14 form.**

In Subsection 4-03.13 (1) (a), added paragraph describing the method of accessing the standardized job special provisions through Ami Pro.

In Subsection 4-03.13 (1) (b), removed Compaction and Commercial Mixture For Plant Mix Bituminous Base Course And Pavement from the list of required job special provisions.

In Subsection 4-03.13 (2), deleted everything which pertained to the D-14 form.

Figure 4-03.7. Revision date changed to 10-1-96.

Removed reference to MHTD and replaced with MoDOT.

Figure 4-03.8 Revision date changed to 10-1-96.

Removed "& Posts" from No Center Stripe Signs. The posts for these signs will be covered in a special provision to be released in the near future.

Section 4-07. Urban Projects. Revision date changed to 10-1-96.

In Subsection 4-07.3 (1) (f), added sentence stated that curb ramps differing from the standard plans shall be detailed on the plans. Added paragraph explaining how to pay for curb ramps and how to show on 2B sheet(s). Added paragraph explaining retrofitting a curb ramp.

Contents, Volume II. Revision date changed to 10-1-96 for Contents sheet and for Sections 6-03, 6-04, 6-05 and 8-04.

Table of Contents, Chapter VI. Revision date changed to 10-1-96.

Changed title of 6-03.3 (2) to Bituminous Mixtures and Asphalt Cements.

Added Figure 6-03.14, Bituminous Mixture and Asphalt Cement Guide for Pavement Design

Removed Figures 6-04.4 and 6-04.5.

Section 6-03. Pavements. Revision date changed to 10-1-96.

In Subsection 6-03.1, re-phrased paragraph to stress the preference of a 2' rock base on a compacted subgrade.

In Subsection 6-03.1 (4), added a sentence noting that ESALs provided by the OTMS is a bi-directional quantity. This quantity should be split in half for determination of the pavement thickness.

In Subsection 6-03.3 (2) changed title of the subsection. Selection of bituminous mixtures and asphalt cements shall now adhere to the criteria designated in the new Figure 6-03.14.

In Subsection 6-03.7, revised to explain ramp pavement thickness selection criteria.

Figures 6-03.1 and 6-03.2. Revision date changed to 10-1-96.

These two figures have had extensive revisions to the shoulders. Review carefully.

Figure 6-03.13 Revision date changed to 10-1-96.

Added Route 210, with it's respective corridors, to the Heavy-Duty and Medium Duty Pavements.

Figure 6-03.14. New date is 10-1-96.

Added this figure for designers to use for selection of bituminous mixture and asphalt cement for pavement design.

Section 6-04. Shoulders. Revision date changed to 10-1-93.

In Subsection 6-04.2 (1) (c), revised to reflect the revisions made to Figure 6-03.1.

In Subsection 6-04.2 (1) (d), revised to reflect the revision made to Figure 6-03.2.

In Subsection 6-04.4, fourth, and fifth paragraphs, changed Type D stabilized shoulders to Type C.

Figure 6-04.3. Revision date unchanged.

This figure is re-issued since Figures 6-04.4 and 6-04.5 have been deleted. Those figures

are now Standard Plan 203.75.

Section 6-05, 3R/4R Projects. Revision date changed to 10-1-96.

In Subsection 6-05.5, added sentence to last paragraph explaining spot wedge and leveling course bituminous mixture selection.

In Subsection 6-05.6, added sentence to first paragraph referring designers to Subsection 6-03.3 and Figure 6-03.14 for selection of bituminous mixtures and asphalt cements on widening and resurfacings.

In Subsection 6-05.10, added paragraph explaining policy when crashworthy end terminals are installed.

In Subsection 6-05.11, added sentence and paragraph at the end of this subsection on handling of coldmilling. Review carefully.

Figure 6-05.1 Revision date changed to 10-1-96.

Changed reference to Main Office to Support Center.

Table of Contents, Chapter VIII. Revision date changed to 10-1-96

Revised Figure 8-04.10 to match title on figure. Deleted Figures 8-04.14 and 8-04.15 and replaced with a new Figure 8-04.14. Renumbered succeeding figures accordingly.

Section 8-04, Traffic Control Plans. Revision date changed to 10-1-96.

In Subsections 8-04.2 (3) and (5), changed references to "Road Construction" signs to "Road Work" signs.

In Subsection 8-04.2 (5), removed reference to D-14 Form.

In Subsection 8-04.5, changed reference to D-39 to Standard Plan 620.00.

In Subsection 8-04.12, changed reference to Figure 8-04.15 to Standard Plan 619.10 and removed sentences which referred pavement edge treatment as special sheets.

Figures 8-04.2 and 8-04.3. Revision date changed to 10-1-96.

Corrected "Road Construction Next XX Miles", "Road Construction Ahead", and "End Construction" signs to read "Road Work Next XX Miles", "Road Work Ahead", and "End Road Work" respectively.

Figure 8-04.10. Revision date changed to 10-1-96.

Removed bottom half of figure, which is now the new Figure 8-01.14.

Figure 8-01.14. New date is 10-1-96.

This new figure diagrams traffic control for a crossover on a divided highway.

Contents, Volume III (English version). Revision date changed to 10-1-96 for Contents sheet and for Section 9-10.

Table of Contents, Chapter IX (English version). Revision date changed to 10-1-96.

Changed title of 9-10.2 (1) and (2) and deleted 9-01.2 (3) and renumbered accordingly.

Changed title of 9-10.3 (1) and (2).

Deleted 9-10.14 (1) and renumbered accordingly.

Added 9-10.17.

Section 9-10. Non-Hydraulic Aspects of Drainage Design (English version). Revision date changed to 10-1-96.

Revised Subsections 9-10.2 (1) and (2) extensively. Review carefully Deleted Subsection 9-10.2 (3) and renumbered accordingly.

Added Subsection 9-10.6, Beveled End Sections, which explains the use of beveled end sections on corrugated metallic-coated steel pipes and corrugated polyethylene pipes. Subsections were renumbered accordingly.

Added Subsection 9-10.18. This new subsection details information necessary estimating culvert cleanout items.

At this time, there are no bid items available if specifying corrugated polyethylene pipe.

Until such time that these bid items can be added, use the following:

**730.99-XX 1.0 LIN FT XX IN. CORRUGATED POLYETHYLENE
PIPE, TYPE S**

Where XX equals pipe diameter in inches.

With regard to beveled pipe end treatment, the Design Development Section is in the process of updating Standard Plan 732.05 to allow for the use of beveled pipe end treatment on pipes up to 60" in diameter. Since the current bid items only allow for beveled pipe end treatment up to 54", a new bid item for 60" will be added.

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