



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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SECRETARY

MEMORANDUM TO: Project Engineers
Project Design Engineers

FROM: D.N. Snoke, P. E.
State Structures Engineer

DATE: October 15, 2026

SUBJECT: DESIGN MANUAL REVISIONS

The following sections in Chapters 1, 4, 5, 9, & 10 of the Design Manual have been revised to provide clarification and/or guidance on current design practice:

Section	Summary of Revision(s)
1.3.4	Clarified where to detail integral abutment diaphragms and wingwalls for
1.3.5	plan production.
4.1.1	Updated link to Figure 4-2.
4.1.2.1	Updated location of horizontal and vertical scales on General Drawing.
4.1.2.2	Updated reference to figure showing the skew angle convention from Figure 1-5 to Figure 1-4.
4.1.2.6	Updated note referencing <i>AASHTO LRFD Bridge Design Specifications</i> to match current note lineup.
4.1.3.1	Updated "Base Discharge" to "Basic Discharge" for consistency with current Bridge Survey & Hydraulics Design Report terminology.
4.1.3.3	Updated terms for hydraulic data for consistency with current Bridge Survey & Hydraulic Design Report terminology.
4.3.1	Removed reference to the Project Development and Environmental Analysis Unit.
5.2.1	Removed redundant note pertaining to the <i>AASHTO LRFD Bridge Design Specifications</i> .

Updated note on sampling reinforcing steel to reference the Materials and Test Unit's *Acceptance Guidance for Concrete Reinforcement*.

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Updated note on *Maintenance and Protection of Traffic Beneath Proposed Structure at Station* to match the title of the project special provision.

Added new note for an asbestos assessment when applicable.

Added new note for anti-graffiti *Application of Bridge Coating*.

5.2.2	Revised note pertaining to weathering steel and non-weathering steel to reference the NCDOT <i>Structural Steel Shop Coatings Program</i> .
5.2.3	Updated note on the use of calcium nitrite corrosion inhibitor to reference the NCDOT <i>Standard Specifications</i> .
5.2.5	Updated the reference on <i>Temporary Shoring</i> to reference roadway special provisions for clarity.
5.2.7	Updated guidance for removal of existing structures to ensure the need for and engineered demolition plan is evaluated.
9.3.3	Updated reference to the special provision for <i>Precast Reinforced Concrete Box Culvert at Station</i> .
9.4.2	Updated reference to Basic Discharge for consistency with current Bridge Survey & Hydraulics Design Report terminology.
9.8.4	Updated section to reference section 5.2.1.
10.4.1	Modified reference of Figure 1-4 to Figure 1-3 to match current List of Figures.
10.4.3	Updated development length guidance to align with the <i>AASHTO LRFD Bridge Design Specifications, 10th Ed.</i>
10.4.6	Updated section to reference section 5.2.1.

Figure	Summary of Revision(s)
4-1	Updated location of horizontal and vertical scales.
4-8	Renamed figure 4-8 to 4-3 and revised sequentially numbered figures accordingly.
5-1	Updated location of horizontal and vertical scales.
5-5	Revised sample bar note and bar replacement table.
9-4	Updated splice length tables to be in accordance with updated development length guidance in the <i>AASHTO LRFD Bridge Design Specifications 10th Ed.</i>

Updated sample bar note and bar replacement table.

Updated Hydraulic Data terminology.

10-3	Updated splice length tables to be in accordance with updated development length guidance in the <i>AASHTO LRFD Bridge Design Specifications 10th Ed.</i>
10-4	

10-6

10-7

10-8	Updated the example for splice length to align with updates to Figure 10-4.
10-12	Updated the sample bar replacement chart to be in accordance with the Materials and Test Unit's <i>Acceptance Guidance for Concrete Reinforcement</i> and updated development length guidance in the <i>AASHTO LRFD Bridge Design Specifications 10th Ed.</i>
10-13	Updated splice length tables to be in accordance with updated development length guidance in the <i>AASHTO LRFD Bridge Design Specifications 10th Ed.</i>

The updated chapters as well as the Design Manual figures have been incorporated into the Design Manual and are available on the Structures Management Unit website. The Standard General Drawing notes have been updated for concurrence to the note updates in the Design Manual and are available on both the network drive and Structures Management Unit web page.

The following standard drawings reference splice tables are being revised and will be distributed when revisions are completed:

- BAS 1
- BAS 2
- BAS 3
- BAS 5
- BAS 6
- BOM 1
- BOM 2

In the interim, when using these standards during plan development, the user is responsible for replacing the splice length tables with those found in the updated Design Manual Figures referenced above.

These revisions are effective as soon as possible but no later than February 2027 letting.

DNS/NAP/AYG

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