STRUCTURES MANUAL INTRODUCTION - REVISION HISTORY

I.6 ..... Adopted latest edition of the AASHTO/AWS D1.5 Bridge Welding Code.

VOLUME 1 - REVISION HISTORY

1.1.5 ..... Compliance with the Build America, Buy America (BABA) Act.

1.3.1 ..... Updated to reflect current practice.

1.4.1 ..... Updated policy on use of lightweight concrete for structural applications.

1.4.3 ..... Clarification that splash zone is applicable to marine structures.

Table 1.4.3-1 .... Class V (Special) has been eliminated in coordination with Section 346 of the Specifications (July 2023). Class V (Special) concrete behaves similarly to Class V which resulted in unnecessary redundancy.

Table 1.4.3-1 .... Class III (Seal) has been renamed Class I (Seal) in coordination with Section 346 of the Specifications (July 2023). The Class I (Seal) designation is more in line with its specified compressive strength.

Table 1.4.3-2 .... See revision history for Table 1.4.3-1.

Table 1.4.3-2 .... See revision history for Table 1.4.3-1.

1.6.2 ..... Updates made to design policy for adhesive-bonded anchor and dowel systems.

1.6.3 ..... Companion change with SDG 1.6.2, and provided additional design guidance for undercut anchor systems.

1.9 ..... Added cross reference.

1.11.2 ..... Prohibit epoxy coated strands for corrosion protection.

1.11.5 ..... Top continuity tendons can be bonded or unbonded since the purpose is to provide compression across the closure.

2.1.2 ..... Points of contraflexure are based on permanent load.

2.5 ..... Included required design document in Modification for Non-Conventional Projects.

2.10 ..... Updated section for consistency with SDG 4.1.A and SDG 5.1.D. Updated Table 1 for consistency with AASHTO Manual for Bridge Evaluation (floor systems). Updated Table 2 for consistency with the FDOT Bridge Load Rating Manual (system factor for 6 webs). Prohibited box girder top flange spacing greater than 14-feet. Other editorial changes.

3.1 ..... Consolidated pile embedment criteria and provided cross references to SDM. Some SDM cross references require updates due to section renumbering.

3.2 ..... Updated to reflect current practice.

3.3 ..... Criteria is applicable to mudline footings.

3.5 ..... Table 1: Correction from Spec 933 to Spec 931 for spiral and bar in Extremely Agggressive environment.

3.5.1 ..... Removed outdated reference to SDM.

3.5.1 ..... Companion change with SDG 3.1.

3.5.7 ..... Implementation of Goble Pile Check for dynamic pile monitoring. See Structures Design Bulletin 22-01.

3.5.13 ..... Table 1 is only applicable to prestressed concrete piles.

3.5.19 ..... Added continuous reinforcing bar for verification load test. Added Developmental Specification Dev455MP. Reformatted for consistency with other SDG sections on piling.

3.6.1 ..... Editorial Change.

3.6.7 ..... Removed duplicate information provided in the SDM.

3.6.8 ..... Updated for consistency with SDG 3.5.16 and removed duplicate information provided in the SDM.

3.6.10 ..... Companion change with SDG 3.6.8.

3.7 ..... Seal concrete thickness design based on maximum differential water head. Flow net analysis removed.

3.11.2 ..... Addressed footing depth for widenings and provided cross reference to SDG Chapter 7.

3.13.2 ..... Updated to reflect current practice of how the design of MSE wall acute corners (aka bin walls) are handled through shop drawings.

3.17.1 ..... Updated FDM 300-Series references to 900-Series.

4.1.9 ..... Clarification of existing policy.

4.2.4 ..... Clarified that cross-frames or diaphragms at the supports (end diaphragms) are not a condition for using empirical deck design.

4.2.11 ..... Clarified that criteria applies to phased construction decks only and not widenings.

4.6.3 ..... Added bonded top continuity tendons for balanced cantilever segmental bridges. Top continuity tendons can be bonded or unbonded since the purpose is to provide compression across the closure. Added requirements for bottom slab continuity tendons and anchorage/blister locations.

4.6.4 ..... Updated to include tapered deviator diaphragms for precast segmental box girders.

4.6.6 ..... Added requirements for time dependent analysis.

5.1 ..... Specified that cross-frames in the closure pour bay must be detailed for TDLF.

5.1 ..... Clarification on Truss/Arch bridges. Removed D.5 in Modification for Non-Conventional Projects.

5.1.2 ..... Editorial change.

5.3.2 ..... Updated policy for designation of primary and secondary members.

5.7 ..... Diaphragms and cross-frames are required for widening construction of steel I-girder bridges.

5.9 ..... Criteria to consider width of bearing stiffeners on exterior steel I-girders to allow for connection of diaphragms for future bridge widening.

5.11 ..... Added reference to Appendix 5A - Bolted Field Splice Flowchart.

6.7.1 ..... Updated policy for conduits in traffic railings.

6.7.2 ..... Editorial changes.

6.7.7 ..... Editorial change.

6.7.9 ..... Editorial correction.

6.10 ..... Paragraph C rewritten to reinforce and emphasize the intent of the requirements.

7.1.1 ..... Commentary added.

7.1.7 ..... Added new section for existing bridge mounted support structures and signs.

7.3.1 ..... Added new section to clarify intent of existing criteria.

7.3.4 ..... Updated cross reference.

7.3.5 ..... Editorial change.

7.3.6 ..... Section rewritten to reflect current Department policy and practices.

7.3.7 ..... Criteria appropriately relocated from SDG 7.3.8.

7.6 ..... Documentation must be provided confirming that the widening design is based on actual field conditions from survey. Changes to address steel I-girder widenings.

7.8 ..... Criteria added for using existing MSE walls on construction projects.

8.1.9 ..... Separate pedestrians gates are required for movable bridges with a sidewalk or shared use path.

10.3 ..... Design qualifications were moved to FDM 266.

10.5 ..... Editorial change.

11.3 ..... Companion change with SDG 1.6.2.

VOLUME 2 - REVISION HISTORY

I.4 .....Updates needed to reflect correct terminology and process.

I.5 .....Updated section title and FDM 300-Series references to 900-Series.

2.2 .....Added structures supporting tolling equipment.

3.1 .....Updated FDM 300-Series references to 900-Series.

3.7 .....Updated FDM 300-Series references to 900-Series.

4.3.10 .....Removed requirement duplicated in SDM 2.11.3.

5.2 .....Removed Class V Special. See Volume 1 SDG revision history for explanation.

11.4 .....Correction to cross reference.

11.6.1 .....New section added to address pile cut-off elevations and detailing for pile embedment.

11.7 .....Added reference to Specifications Section 455 for detailing top of shaft elevations. Updated Figure 1.

12.3 .....Added Modification for Non-Conventional Projects. Cost of furnishing and installing the soil reinforcement is not applicable to Non-Conventional Projects.

12.5 .....Added reference to Specifications Section 455 for sizing and detailing bent caps.

13.5 .....Detailing requirements for seal slabs relocated from SDG.

13.7 .....Added reference to Specifications Section 455 for detailing footings.

15.2 .....The commonly understood convention is to number girders left to right looking ahead station. This has been the practice for decades.

Figure 15.5-4 Correction - removed shear key detail

15.10 .....Added metalized to masonry plate and sole plate notes for consistency with the Specifications Section 461.

16.3 .....The commonly understood convention is to number girders left to right looking ahead station. This has been the practice for decades.

19.6 .....Updated to reflect current practice of how the design of MSE bin walls are handled through shop drawings. Added cross reference to new SDG section for MSE wall widenings.

VOLUME 3 - REVISION HISTORY

2.6.1 .....Added policy for treatment of existing bridge mounted support structures and signs.

5.13 .....Added maximum demand/capacity ratio consistent with existing policy for mast arms.

5.16.3 .....Correction in commentary.

7.4.2.1 .....Eliminated Class V Special concrete. See Volume 1 SDG for explanation.

7.6.1 .....Added maximum demand/capacity ratio consistent with existing policy for mast arms.

13.6 .....Added cross-reference. Updated commentary for consistency with Specifications.

18 .....Companion changes with FDM 261.

18.1 .....Added support structures for traffic signals, ITS and tolling. Moved last bullet item to main paragraph of section for clarity.

18.2 .....Added new section to address policy on existing bridge mounted support structures and signs.

VOLUME 4 - REVISION HISTORY

2.1 ..... Usage of BFRP reinforcing bars updated based on research.