Regional Engineers

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Special Provision for Manholes, Valve Vaults, and Flat Slab Tops

January 11, 2019

This special provision was developed in conjunction with the revised Highway Standards for manholes, valve vaults and flat slab tops which took effect January 1, 2018. It has been revised to coordinate with further changes to the Highway Standards which will take effect March 1, 2019. This special provision also continues the acceptance of products manufactured prior to March 1, 2019, in accordance with previous standards.

The standards which will take effect March 1, 2019, have been revised to move the reinforcement to the center of the wall to remove lifting restrictions on certain base slab joint configurations and alleviate handling concerns after the segments are cast.

This special provision should be inserted into all contracts requiring manholes, valve vaults, and flat slab tops.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the March 8, 2019 and subsequent lettings. The Project Coordination and Implementation Section will include a copy in the contract.

This special provision will be available on the transfer directory   
January 11, 2019.

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# manholes, valve vaults, and flat slab tops (bde)

Effective: January 1, 2018

Revised: March 1, 2019

Description. In addition to those manufactured according to the current standards included in this contract, manholes, valve vaults, and flat slab tops manufactured prior to March 1, 2019, according to the previous Highway Standards listed below will be accepted on this contract:

Product Previous Standards

Precast Manhole Type A, 4’ (1.22 m) Diameter 602401-05 602401-04 602401-03

Precast Manhole Type A, 5’ (1.52 m) Diameter 602402-01 602402 602401-03

Precast Manhole Type A, 6’ (1.83 m) Diameter 602406-09 602406-08 602406-07

Precast Manhole Type A, 7’ (2.13 m) Diameter 602411-07 602411-06 602411-05

Precast Manhole Type A, 8’ (2.44 m) Diameter 602416-07 602416-06 602416-05

Precast Manhole Type A, 9’ (2.74 m) Diameter 602421-07 602421-06 602421-05

Precast Manhole Type A, 10’ (3.05 m) Diameter 602426-01 602426

Precast Valve Vault Type A, 4’ (1.22 m) Diameter 602501-04 602501-03 602501-02

Precast Valve Vault Type A, 5’ (1.52 m) Diameter 602506-01 602506 602501-02

Precast Reinforced Concrete Flat Slab Top 602601-05 602601-04

The following revisions to the Standard Specifications shall apply to manholes, valve vaults, and flat slab tops manufactured according to the current standards included in this contract:

Revise Article 602.02(g) of the Standard Specifications to read:

“ (g) Structural Steel (Note 4) 1006.04

Note 4. All components of the manhole joint splice shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable.”

Add the following to Article 602.02 of the Standard Specifications:

“ (s) Anchor Bolts and Rods (Note 5) 1006.09

Note 5. The threaded rods for the manhole joint splice shall be according to the requirements of ASTM F 1554, Grade 55, (Grade 380).”

Revise the second paragraph of Article 1042.10 of the Standard Specifications to read:

“ Catch basin Types A, B, C, and D; Manhole Type A; Inlet Types A and B; Drainage Structures Types 1, 2, 3, 4, 5, and 6; Valve Vault Type A; and reinforced concrete flat slab top (Highway Standard 602601) shall be manufactured according to AASHTO M 199 (M 199M), except as shown on the plans. Additionally, catch basins, inlets, and drainage structures shall have a minimum concrete compressive strength of 4500 psi (31,000 kPa) at 28 days and manholes, valve vaults, and reinforced concrete flat slab tops shall have a minimum concrete compressive strength of 5000 psi (34,500 kPa) at 28 days.”

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