

# **EXPECTED IMPLEMENTATION JULY 2016**

## **D 108 MONITOR EXISTING STRUCTURES. (REV 10-14-15) (FA 1-11-16) (7-16)**

SUBARTICLE 108-2.1.4 is deleted and the following substituted:

**108-2.1.4 Inspection and Documentation Requirements:** Inspect and document the condition of the existing structures and all existing cracks with descriptions and pictures using a qualified Specialty Engineer. Prepare two reports documenting the condition of the structures: one report before beginning the construction operations that may affect the existing structures such as but not limited to foundation construction, excavations, vibratory compaction, dewatering and retaining wall construction, and a second report after completing such construction operations. Include in the reports the Specialty Engineer's assessment of any damage present, and in the event of damage, the Specialty Engineer's assessment of whether the observed damage is the result of the construction operations. Submit both reports to the Engineer. Inspecting and documenting the condition of bridges, sign, signal, lighting and ITS structures owned by the Department is not required except when shown in the Contract Documents.

The Department will make the necessary arrangements to provide right of way entry to the existing structures.

SUBARTICLE 108-2.1.5 is deleted and the following substituted:

**108-2.1.5 Settlement Surveying and Monitoring Requirements:** Obtain the Engineer's approval for the number and location of monitoring points. Survey and monitor the settlement of structures, recording elevations to 0.001 foot:

1. before beginning construction
2. daily, during the driving of any casings, piling, or sheeting,
3. daily, during compaction
4. daily, during foundation drilling
5. weekly, for two weeks after stopping pile driving
6. during excavation
7. during blasting
8. or, as directed by the Engineer

Upon either detecting movement of 0.005 feet or damage to the structure, immediately stop the construction operations affecting the structure, backfill any open excavations, notify the Engineer and submit a corrective action plan for acceptance by the Engineer.

SUBARTICLE 108-2.2 is deleted and the following substituted:

**108-2.2 Vibration Monitoring:** When shown in the Contract Documents, employ a qualified Specialty Engineer to continuously monitor and record vibration levels at the structures shown in the Plans during the operation of any equipment causing vibrations or during blasting operations. Submit the vibration records to the Engineer within 24 hours of performing the

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monitoring activity. Provide vibration monitoring equipment capable of detecting velocities of 0.01 inches per second or less. Obtain the Engineer's approval of the number and locations of the monitoring points.

Upon either detecting vibration levels reaching 0.5 inches per second or damage to the structure, immediately stop the source of vibrations, backfill any open excavations, notify the Engineer and submit a corrective action plan for acceptance by the Engineer.

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