

EXPECTED IMPLEMENTATION JANUARY 2020

407 THREE-SIDED PRECAST CONCRETE CULVERT. (REV 4-15-19) (FA 6-17-9) (1-20)

SUBARTICLE 407-4.3 is deleted and the following substituted:

407-4.3 Special Requirements for Dry-Cast Concrete: Dry-cast concrete is defined as a very low slump concrete that requires continuous and intense vibration to compact the concrete, enabling immediate removal of the side forms without detrimental effects to the concrete when used in a dry-cast manufacturing process.

The target slump, air content ranges, and the plastic property tolerances in Section 346 are not applicable to dry-cast concrete.

Perform absorption tests on specimens from each LOT of dry-cast production in accordance with the test methods in ASTM C497. The absorption of each specimen must not exceed 9.0% of the dry mass for Test Method A procedure or 8.5% for Test Method B procedure. All specimens must be free of visible cracks and must represent the full thickness of the product. Test specimens after 28 days of standard curing or prior to the date of shipping if the precast concrete culvert sections are to be shipped before the completion of the 28-day curing period.

Core three specimens for Test Method B in accordance with ASTM C42 and meet the sampling location and size requirements of ASTM C497. Prepare or core a minimum of one specimen for Test Method A in accordance with the test cylinder requirements of ASTM C497. When the initial absorption specimen from a concrete culvert section fails to conform to the requirements of this Section, the absorption test may be made on another specimen from the same culvert section and the results of the retest may be substituted for the original test results for acceptance of the LOT. The manufacturer may test each concrete culvert section within a LOT and cull the culvert sections not meeting absorption requirements marking them as deficient with waterproof paint or other approved means. Deficient culvert sections must not be shipped to the project site. Reduce the frequency of absorption tests to one test every five LOTs when the results of five consecutive LOTs meet the specified limit.