

intervals and actively used to maintain the quality of the concrete within the specified requirements.

541.05. INSPECTION. Materials furnished and the work performed under this Section shall be inspected by the Agency or their approved representative. The Engineer shall have the authority to reject any material or work which does not meet the requirements of these specifications. Advance notification of at least three weeks must be provided by the Fabricator to the Agency concerning his/her intention to commence work.

541.06. CONCRETE TESTING.

General. Precast manholes and handholes shall be manufactured in a plant which maintains a quality control laboratory complete with equipment for measuring the properties of fresh and hardened concrete. As a minimum, the laboratory shall be equipped with a compression testing machine, curing room or chamber, apparatus for measuring slump and air entrainment, and a complete sets of aggregate sieves and sieve shakers. The compression testing machine shall be calibrated yearly by an independent laboratory using equipment which is certified by the National Bureau of Standards.

Testing of Compressive Strength. Specimens shall be six inch by twelve inch standard cylinders, made by the Fabricator in accordance with AASHTO T23. Fabrication of test specimens shall conform to AASHTO M20S and shall be supplied by the Fabricator. For each member the Fabricator shall make for the Agency the following minimum number of specimens:

Four specimens to determine compliance with the 28-day strength requirement. The specimens shall be cured under the same conditions as the member from the time of casting until member is removed from the form. At that time, the specimens shall be moved to storage where curing shall continue under standard conditions in accordance with AASHTO T23. These specimens shall be retained by the Fabricator for testing by the Agency.

The average of the compressive strength of each of two specimens shall constitute a test result. Specimens shall be tested either at the Materials and Research Division Central Laboratory, or at the manufacturer's plant laboratory. An Agency representative shall witness all tests.

541.07. CURING. The precast vaults shall be cured for sufficient length of time so that the concrete will develop 5000psi strength in 28 days or less. Anyone of the following methods of curing or combinations thereof may be used;

Steam Curing. The vaults may be low pressure, steam-cured by a system that will maintain a moist atmosphere.

Water Curing. The vaults may be water-cured by any method that will keep the sections moist.

Membrane Curing. A sealing membrane conforming to the requirements of AASHTO M48 may be applied and shall be left intact until the required concrete compressive strength is attained. The concrete temperature at the time of application shall be within 10°F of the atmospheric temperature. All surfaces shall be kept moist prior to the application of the compounds and shall be damp when the compound is applied.

541.08. HANDLING AND INSTALLATION. Care shall be taken during storage, hoisting, and handling of the precast units to prevent cracking or damage. No units shall be shipped until a