

October 11, 2002

Tennessee Department of Transportation  
Division of Materials and Tests

Inspection of Pre-cast/Pre-stressed Drainage or Structural Members (SOP 5-1)

- Purpose- The purpose of this document is to establish Guidelines for the inspection of precast drainage and/or structural members for other State DOT's, FHWA, or other Government Entities.
- Background- When in-state fabricators/manufactures produce pre-cast concrete products for Governmental entities located out of state, it may place a burden on that Entity. Likewise, when out-of-state fabricators manufacture products to be used for the TDOT, the inspection and acceptance of these products is burdensome to the TDOT. Recognizing these difficulties, many State DOT's agree to provide inspection services for the other governmental Agencies either complimentary or at nominal fees typically billed for in-state project specific inspection.
- Procedure- The following procedures should be used as basic guidance for inspection services rendered by the TDOT:
- 1- Obtain documentation from Entity requesting TDOT's services and assistance for inspecting precast/prestressed concrete members.
  - 2- TDOT will provide unit bid prices (if not complimentary) to the requesting agency and the requesting Agency will issue an Invoice/Purchase order or agreement for services.
  - 3- TDOT will request copies of Approved Shop drawings for review and Plant Inspectors use.
  - 4- TDOT Plant Inspectors will inspect the manufacture of the product in accordance with the Approved Shop Drawings and the applicable sections of the TDOT Standard Specifications as if the products were to be shipped to a TDOT project. Additional testing or documentation may be required on a case-by-case basis to meet specific needs of the requesting agency.

For Structural members – The manufacture of, concrete placement, curing, etc... of the precast- prestressed members shall be in accordance with Section 615 of the TDOT Standard Specifications, applicable Standard Operating Procedures/Circular Letters, Standard Drawings, and approve shop drawings. Daily reporting will be documented on TDOT form DT-0283, Daily Report of Prestressed Concrete Plant Inspection and final reporting for acceptance will be completed on TDOT form DT-0289, Report on Precast or Prestressed Concrete.

For Drainage Structures- The manufacture of the precast drainage structures and/or pipes shall be in accordance with the Sections 607, 611, or applicable Sections of the TDOT Standard Specifications, applicable Standard Operating Procedures/Circular Letters, Standard Drawings, and Approved Shop Drawings.

Reporting of the acceptance data will be completed on TDOT forms DT-0277, Concrete Pipe Inspection Report, or TDOT form DT-0319, Report on Precast Concrete Manhole Section, or other TDOT forms as applicable.

The TDOT plant inspector must also submit all necessary certifications/test reports for reinforcing steel, prestressing strands, wire, cement/flyash/ggbfs (with verification sample data) aggregate quality, etc... to assure adequate documentation.

If, during inspection and/or acceptance testing, there were to be unacceptable practices or failing test results, the inspector is to immediately notify the Regional Materials and Test Supervisor, who shall notify the TDOT Field Operations Engineer, Division of Materials and Tests. The requesting agency will be consulted for final Acceptance procedures.

- 5- The plant inspectors shall submit all completed forms to the TDOT Field Operations Engineer, Division of Materials and Tests for documentation, distribution, and invoicing, on a weekly basis.
- 6- The Materials and Test Division will retain copies of the completed forms and forward original copies to the appropriate officials at the requesting Agency.
- 7- The Materials and Test Division will invoice the Requesting Agency for all inspection services rendered.