

## **DIVISION C700 – MISCELLANEOUS CONSTRUCTION**

### **SECTION C700 – GENERAL INFORMATION**

**C700.01 General.** This Division contains miscellaneous construction items subject to testing and inspection, including: concrete curb and sidewalk; downspouts and splash aprons; drainage inlets; manholes; riprap; perforated pipe underdrains; guardrail and associated components; fences; topsoil; seeding; mulching; sodding; trees and plantings; conduit junction wells; conduit; pole bases; pavement markings; hot-mix bituminous concrete curb; sand; and gray iron castings. Many of these items are certified or guaranteed by the manufacturer. The following paragraphs describe each of these items and the sampling, testing, and inspection procedures used to determine acceptability for use on Department projects.

### **SECTION C701 – CURB AND INTEGRAL CURB AND GUTTER**

**C701.01 Item Description and Acceptance Guidelines.** Materials used in the construction of concrete curb and gutter include Portland cement concrete, expansion joint materials, and joint sealant. Test procedures for these materials are listed in Table B-1.

**C701.02 Tests Performed.** The procedures for acceptance testing of curb and gutter materials are similar to the procedures for acceptance testing of materials used for rigid pavement. Portland cement concrete for both slip-form and fixed-form curb and gutter construction must conform to the requirements for Class B concrete. Concrete strength properties are measured according to the test methods listed in Table C-29.

**C701.03 Test Report Evaluations and Distributions.** Concrete strength, slump, air, and other physical properties are reported on forms LB-11 and LB-59, which are distributed as follows:

- (1) District Construction Engineer
- (1) Lab Contract main file
- (1) Plant file
- (1) Source of Material (only sampled material test results)

### **SECTION C705 – PORTLAND CEMENT CONCRETE SIDEWALK**

**C705.01 Item Description and Acceptance Guidelines.** Materials used in the construction of Portland cement concrete sidewalk include Portland cement concrete, expansion joint materials, and joint sealant. Test procedures for these materials are listed in Table B-1.

**C705.02 Tests Performed.** The procedures for acceptance testing of materials used for Portland cement concrete sidewalk are similar to those used for acceptance testing of rigid pavement materials. Concrete strength properties are measured according to the test methods listed in Table C-29.

**C705.03 Test Report Evaluations and Distributions.** Concrete strength, slump, air, and other physical properties are reported on forms LB-11 and LB-59, which are distributed as follows:

- (1) District Construction Engineer
- (1) Lab Contract main file
- (1) Plant file
- (1) Source of Material (only sampled material test results)

## **SECTION C707 – CORRUGATED STEEL DOWNSPOUTS**

**C707.01 Item Description and Acceptance Guidelines.** Materials incorporated into the construction of downspouts and splash aprons include corrugated steel pipe and Portland cement concrete. These materials are required to conform to the individual standards for each item.

**C707.02 Tests Performed.** Pipe used in the construction of downspouts must conform to the material specifications listed in Table C-30. The specific material specifications that apply depend on the type of pipe that is to be used in the construction. Pipe must be certified and visually inspected prior to use on a project. Three copies of the certification data for the pipe must be submitted to the Department.

Portland cement concrete used in the construction of downspouts and splash aprons must conform to the requirements of Class B concrete. Concrete is tested for strength, slump, and other material properties similar to procedures followed for rigid pavement.

**C707.06 Test Report Evaluations and Distributions.** Pipe certification information is distributed as follows:

- (1) copy            Central Lab Contract File
- (2) copies        District Construction Engineer

Physical properties of the concrete materials are recorded on form LB-7, which is distributed as follows:

- (1) copy            District Construction Engineer/ District Engineer (for random test result of material sampled at the site)
- (1) copy            Lab Contract main office
- (1) copy            Source of material (test results of material sampled at quarry or stockpiles)

## **SECTION C708 – DRAINAGE INLETS AND MANHOLES**

**C708.01 Item Description and Acceptance Guidelines.** Materials used in the construction of drainage inlets include: Portland cement concrete, mortar, bar reinforcement, castings, steps, manholes, and gratings. All materials must conform to the individual component specifications.

Castings for Department projects must be approved prior to use. Acceptance is on the basis of manufacturer's certification and visual inspection either at the foundry or the contractor's yard.

**C708.02 Tests Performed.** Portland cement concrete used in the construction of drainage inlets must conform to the requirements of Class B concrete. The concrete is tested for strength, slump, and other material characteristics. Bar reinforcement is certified by mill analysis of each size and heat from each production mill. Castings are required to meet the following requirements. Castings, gratings, manholes and steps must conform to the material specifications listed in Table C-30.

Prior to the initial shipment of cast iron material, the Department will conduct an inspection of the foundry supplying castings for Department projects. This inspection includes all foundry facilities and work in progress. If the foundry is acceptable, no additional inspections will be made. However, the Department reserves the right to visit the foundry on a random basis. In addition to the inspection, the foundry must provide the Materials & Research Section with three copies of certifications or test results for each heat from which the material is supplied. The certifications or test results shall indicate that the supplied materials conform to the Specifications.

The Materials & Research Section must be notified when castings are ready to ship so that the castings may be inspected. Castings from local foundries will be inspected at the foundry. Castings from out of state suppliers will be inspected at the contractor's yard unless circumstances require otherwise. Upon passing inspection, castings will be stenciled with the standard Department of Highways stencil.

**C708.03 Test Report Evaluations and Distributions.** Physical properties of concrete are recorded on form LB-7, which is distributed as follows:

- (1) copy      Lab main file
- (2) copies     District Construction Engineer

Mill analysis reports for bar reinforcement and certification of casting gratings are distributed as follows:

- (1) copy      Central Lab Contract File
- (2) copies     District Construction Engineer

Inspection reports for gratings (Form LB-100) and copies of material certifications or test results are distributed as follows:

- (2) copies     District Construction Engineer
- (1) copy      Lab Main Contract File

## SECTION C712 – RIPRAP

**C712.01 Item Description and Acceptance Guidelines.** Riprap used on Department projects may be dry, pre-mixed, bagged, or stone riprap.

**C712.02 Tests Performed.** Riprap used on Department projects is visually inspected to ensure that it conforms to material specifications. Bagged riprap must consist of uniformly sized bags constructed of either woven polyester or polypropylene mesh. These bags must not allow material to flow through the bag, while allowing for the passage of water. The contractor must submit a Certificate of Compliance stating that the bagged riprap conforms to the Specifications. The Department reserves the right to inspect the supplier's plant.

Stone riprap is visually inspected to control the gradation of the mixture. Two sample stockpiles of stone, 50 tons each or ½ the project quantity, whichever is smaller, are used for judging the size and gradation of the stone. One sample is supplied at the construction site; the other sample is supplied at the quarry.

All Portland cement concrete used with riprap must conform to Section 812 of the Specifications. The concrete is tested for strength, slump, and other physical properties. A dry mixture of Class B concrete may also be used if deemed acceptable by the Engineer.

Geotextile used in the placement of riprap must be certified by the manufacturer that it conforms to the Specifications and material requirements listed in Table C-30.

**C712.03 Test Report Evaluations and Distributions.** Certificates of Compliance for bagged riprap are distributed as follows:

- |            |                       |
|------------|-----------------------|
| (1) copy   | Contract file         |
| (2) copies | Construction Engineer |

## SECTION C715 – PERFORATED PIPE UNDERDRAINS

**C715.01 Item Description and Acceptance Guidelines.** Pipe underdrains consist of metal pipe or polyethylene tubing, stone, and filter fabrics. The pipe or tubing used in the construction of underdrains must conform to the Specifications.

**C715.02 Tests Performed.** Perforated metal pipe must be certified by the manufacturer to conform to AASHTO M 36/M 36M, Class 1. Polyethylene tubing must be certified by the manufacturer that it conforms to AASHTO M252 and must be 10 feet (3m) or greater in length. Coil pipe is allowed only when it is machine installed and equal to or greater than 4" (10 cm) in diameter.

Filter fabric used in underdrain construction must be certified by the manufacturer that it conforms to AASHTO M288.

Stone used in underdrain construction must conform to the requirements for Delaware No. 8 stone or Delaware No. 57 stone, depending on contract requirements. It is verified by gradation testing.

**C715.03 Test Report Evaluations and Distributions.** Visual inspection reports, form LB-100, and certifications are distributed as follows:

- (1) copy      Contract file
- (2) copies    Construction Engineer

## **SECTION C720 – GALVANIZED STEEL BEAM GUARDRAIL**

**C720.01 Item Description and Acceptance Guidelines.** The construction of guardrail requires many different components including: Portland cement concrete, steel posts, beams, hardware, rods and turnbuckles, reflectorized washers, and timber posts. Each of these items must conform to their individual material specifications.

**C720.02 Tests Performed.** Portland cement concrete used in guardrail construction must conform to the requirements of Class B concrete. The concrete is tested for strength, slump, and other physical properties.

Timber materials are visually inspected. All other items used in guardrail construction must be certified by the manufacturer that they conform to the Specifications. Guardrail is checked for proper gage, adequacy of galvanization, and visual defects.

**C720.06 Test Report Evaluations and Distributions.** Manufacturer’s certifications for materials, galvanization, and treatment of lumber are distributed as follows:

- (1) copy      District Construction Engineer
- (1) copy      Lab Main Contract File

## **SECTION C727 – FENCES AND GATES**

**C727.01 Item Description and Acceptance Guidelines.** Chain link fence, right of way fence, and Portland cement concrete used in the erection of the fence must be approved prior to use.

**C727.02 Tests Performed.** Portland cement concrete used in the construction of fences must conform to the requirements of Class B concrete. The concrete is tested for strength, slump, and other physical properties. Fence materials are tested and certified according to the procedures shown in Table C-30.

**C727.03 Test Report Evaluations and Distributions.** Material certifications are distributed as follows:

- (1) copy      District Construction Engineer
- (1) copy      Lab main Contract file

## SECTION C732 – TOPSOIL

**C732.01 Item Description and Acceptance Guidelines.** Topsoil used on Department projects must be original surface friable loam topsoil of uniform quality. The contractor must provide a 10 day advance notice prior to anticipated placement of the topsoil to allow for Materials & Research testing to occur.

**C732.02 Tests Performed.** Topsoil used on Department projects must have a pH of 6.0 to 7.5 and contain no less than 2% nor more than 30% organic matter. The tests performed to measure these properties are listed in Table C-29.

**C732.03 Test Report Evaluations and Distributions.** Testing results are distributed as follows:

- |            |                                |
|------------|--------------------------------|
| (1) copy   | Central Lab Contract file      |
| (1) copy   | Field Control                  |
| (2) copies | District Construction Engineer |

## SECTION C734 – SEEDING

**C734.01 Item Summary and Description.** Seed used on Department projects must be tested and approved before application. Acceptance is based on Department inspection tags being attached to each bag when delivered to the project. If an inspection tag is not affixed to the bag, the seed is not acceptable and cannot be used on the project.

**C734.02 Tests Performed.** When pre-mixed seed is to be used, the Materials & Research Section must be notified at least 24 hours in advance of all mixing. The acceptance of the pre-mixed seed is based on the Materials & Research Section's observations during the weighing, mixing, and bagging of the seed mixture. The first step in this process is to inspect the analysis tags on each type of seed. Next, the tags are removed from the bags and the various percentages of seed are weighed to make the completed mix. These weights are verified and mixing is observed. As the pre-mixed seed is bagged, a red Department inspection tag indicating the supplier, date, and lot number assigned by the State is attached to each bag. A sample of the inspection tag is provided in Part E. Samples may be taken for testing by the Department of Agriculture.

**C734.03 Test Report Evaluations and Distributions.** An inspection report is written and the producer's analysis is attached to the report. The inspection report and results from the Department of Agriculture are placed in the suppliers' reference file in the Materials & Research Section. An example of the inspection report is shown in Part E.

The inspection reports and Department of Agriculture test results are distributed as follows:

- |           |                               |
|-----------|-------------------------------|
| Originals | Reference File in Central Lab |
| (1) copy  | Supplier                      |

## SECTION C735 – MULCHING

**C735.01 Item Description and Acceptance Guidelines.** Mulching materials are accepted based on certification of material contents. Small grain straw mulch is accepted if it consists of oats, wheat, rye, or any other approved grain crop that is free of weeds, mold, or other objectionable material. When the material is placed, it must be in air-dry condition.

**C735.02 Test Report Evaluations and Distributions.** Material certifications are distributed as follows:

(2) copies	District Construction Engineer
(1) copy	Lab Main Contract File

## SECTION C736 – SODDING

**C736.01 Item Description and Acceptance Guidelines.** Sod materials are accepted based on material certification. Sod materials must consist of high quality seed that is from a known origin and is native to the location of the project. The Department reserves the right to inspect the sod materials prior to granting approval for use on Department projects.

**C736.02 Test Report Evaluations and Distributions.** Material certifications are distributed as follows:

(2) copies	District Construction Engineer
(1) copy	Lab Main Contract File

## SECTION C737 – PLANTINGS

**C737.01 Item Description and Acceptance Guidelines.** Planting materials are certified by the supplying nursery according to species and proposed use.

**C737.02 Test Report Evaluations and Distributions.** Material certifications are distributed as follows:

(2) copies	District Construction Engineer
(1) copy	Lab Main Contract File

## SECTION C744 – CONDUIT JUNCTION WELLS

**C744.01 Item Description.** Materials used for construction of conduit junction wells include brick masonry, castings, and Portland cement concrete.

**C744.02 Tests Performed.** Materials used for conduit junction wells are accepted independently. Portland cement concrete must conform to the requirements of Class B concrete and is tested for strength, slump, and other physical properties. Castings are accepted according to the method described in Section C708.02. Brick masonry is tested according to the methods described in Section C611.

**C744.03 Test Report Evaluations and Distributions.** Material certifications and testing results are distributed as follows:

(2) copies      District Construction Engineer  
(1) copy        Lab Main Contract File

## **SECTION C745 – CONDUITS (NON-METALLIC OR GALVANIZED)**

**C745.01 Item Description and Acceptance Guidelines.** Conduit materials are accepted based on certification by the manufacturer that they conform to the applicable material specifications. All steel conduits and fittings must be hot-dipped galvanized and conform to the requirements of ANSI C80.1, UL-6, and UL-514. Non-metallic conduit must be PVC Schedule 40 pipe that conforms to ANSI C5-272-05.

**C745.02 Test Report Evaluations and Distributions.** Manufacturer certifications are distributed as follows:

(2) copies      District Construction Engineer  
(1) copy        Lab Main Contract File

## **SECTION C746 – POLE BASES**

**C746.01 Item Description and Acceptance Guidelines.** Portland cement concrete materials used in the installation of pole bases must conform to the requirements for Class B concrete. Bar reinforcement is certified by mill analysis of each size and heat from each production mill. Anchor bolts must conform to the requirements of AASHTO M314.

## **SECTION C748 – PAVEMENT MARKINGS**

**C748.01 Item Description and Acceptance Guidelines.** Periodically, the Department conducts tests on various pavement marking materials to determine suitable materials for use in the State. From these tests a list of approved pavement marking materials is compiled.

**C748.02 Test Report Evaluations and Distributions.** Manufacturer certifications are distributed as follows:

(2) copies      District Construction Engineer  
(1) copy        Lab Main Contract File

## **SECTION C755 – HOT-MIX, HOT-LAID BITUMINOUS CONCRETE CURB**

**C755.01 Item Description and Acceptance Guidelines.** Materials used in the construction of hot-mix, hot-laid, bituminous concrete curb must conform to the requirements of Type D hot

mix, described in detail in Section 823 of the Standard Specifications. In addition to meeting the requirements for Type D hot mix, 0.25 to 0.50% of the total mix weight of a synthetic fiber must be added.

**C755.02 Test Report Evaluations and Distributions.** Material certifications are distributed as follows:

(2) copies	District Construction Engineer
(1) copy	Lab Main Contract File

## **SECTION 756 – SAND**

**C756.01 Item Description and Acceptance Guidelines.** Sand materials are tested for their physical properties prior to use on Department projects according to the test methods listed in Table C-29. Sand must conform to the Standard Specifications Section 804.

**C756.02 Test Report Evaluations and Distributions.** Material certifications are distributed as follows:

(2) copies	District Construction Engineer
(1) copy	Lab Main Contract File

<b>Table C-27: Division 700 - Sampling Methods</b>	
<b>Method ID</b>	<b>Method Name</b>
DOH 3	Sampling Soil and Aggregate Base
DOH 5	Sampling Stone, Slag, Gravel, Sand, and Sand Block for Use as Highway Materials
DOH 10	Sampling Fresh Portland Cement Concrete
ASTM C172-90	Practice for Sampling Freshly Mixed Concrete

<b>Table C-28: Division 700 - Sample Identification Numbering</b>
Pipe Sample Ids include the type of pipe inspected, the number of the inspection in order from the first date of pipe inspection, and the year the inspection occurred. The ID is P-No.-Year.
Brick and Cement Block Ids include the number of the inspection in order from the first date of the pipe inspection and the year the inspection occurred. The ID is K-No. -Year for Brick and N-No.-Year for Cement Block
Coarse aggregate samples start with Test # 1 on January 1 and are numbered consecutively until December 31. Example: D-1-02 D = Delaware , 1 = test number, 02 = Year 2002
Fine aggregate samples are numbered consecutively from the start of the fiscal year, July 1, until June 30 the following year
Concrete Cylinders are numbered consecutively from the beginning of testing at this laboratory, the Sample Identification is E#####, where the # sign represents the number of the test

<b>Table C-29: Division 700 - Test Methods</b>	
<b>Test ID</b>	<b>Test Name</b>
DOH 9	pH of Soil and Topsoil
ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C127	Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
ASTM C501	Standard Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile by the Taber Abraser
ASTM D395	Standard Test Methods for Rubber Property - Compression Set
ASTM D638	Standard Test Method for Tensile Properties of Plastics
ASTM D2240	Standard Test Method for Rubber Property - Durometer Hardness
ASTM D4061	Standard Test Method for Retroreflectance of Horizontal Coatings
ASTM E303	Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester
AASHTO T11	Materials Finer Than 75- $\mu$ m (No.200) Sieve in Mineral Aggregates by Washing
AASHTO T19	Bulk Density ("Unit Weight") and Voids in Aggregate
AASHTO T21	Organic Impurities in Fine Aggregates for Concrete
AASHTO T22	Compressive Strength of Cylindrical Concrete Specimens
AASHTO T23	Making and Curing Concrete Test Specimens in the Field
AASHTO T24	Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
AASHTO T26	Quality of Water to be Used in Concrete
AASHTO T27	Sieve Analysis of Fine and Coarse Aggregates
AASHTO T65	Mass (Weight) of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings
AASHTO T85	Specific Gravity and Absorption of Coarse Aggregate
AASHTO T88	Particle Size Analysis of Soils
AASHTO T89	Determining the Liquid Limit of Soils
AASHTO T90	Determining the Plastic Limit and Plasticity Index of Soils
AASHTO T96	Resistance to degradation of Small Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
AASHTO T119	Slump of Hydraulic Cement Concrete
AASHTO T152	Air Content of Freshly Mixed Concrete by the Pressure Method
AASHTO T194	Determination of Organic Matter in Soils by Wet Combustion
AASHTO T196	Air Content of Freshly Mixed Concrete by the Volumetric Method
AASHTO T199	Air Content of Freshly Mixed Concrete by the Chace Indicator
AASHTO T309	Temperature of Freshly Mixed Portland Cement Concrete
AASHTO T250	Thermoplastic Traffic Line Material
Fed. Test #141	Test for Reflectance Relative to a Magnesium Oxide Standard

<b>Table C-30: Division 700 - Certification Test Procedures / Material Standards</b>	
<b>Test ID</b>	<b>Test Name</b>
ASTM A36	Standard Specification for Carbon Structural Steel
ASTM A48	Standard Specification for Gray Iron Castings
ASTM A53	Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
ASTM A116	Standard Specification for Metallic-Coated, Steel Woven Wire Fence Fabric
ASTM A121	Standard Specification for Zinc-Coated (Galvanized) Steel Barbed Wire
ASTM A123	Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A185	Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete
ASTM A262	Standard Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels
ASTM A307	Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength
ASTM A325	Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength
ASTM A446	Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Structural Physical Quality
ASTM A478	Standard Specification for Chromium-Nickel Stainless Steel Weaving and Knitting Wire
ASTM A479	Standard Specification for Stainless Steel Bars and Shapes for Use in Boilers and Other Pressure Vessels
ASTM A497	Standard Specification for Steel Welded Wire Reinforcement, Deformed, for Concrete
ASTM A500	Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes
ASTM A536	Standard Specification for Ductile Iron Castings
ASTM A570	Standard Specification for Structural Steel, Sheet and Strip, Carbon, Hot-Rolled
ASTM A584	Standard Specification for Aluminum-Coated Steel Woven Wire Fence Fabric
ASTM A588	Standard Specification for High-Strength Low-Alloy Structural Steel with 50 ksi [345 MPa] Minimum Yield Point to 4-in. [100 mm] Thick
ASTM A615	Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
ASTM A769	Standard Specification for Carbon and High-Strength Electric Resistance Welded Steel Structural Shapes
ASTM B209	Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate

<b>Table C-30 (cont.): Division 700 - Certification Test Procedures / Material Standards</b>	
<b>Test ID</b>	<b>Test Name</b>
ASTM B221	Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
ASTM C139	Standard Specification for Concrete Masonry Units for Construction of Catch Basins and Manholes
ASTM D1535	Standard Practice for Specifying Color by the Munsell System
ASTM D1777	Standard Test Method for Thickness of Textile Materials
ASTM D1785	Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120
ASTM D3034	Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings
ASTM D3035	Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter
ASTM D3776	Standard Test Methods for Mass Per Unit Area (Weight) of Fabric
ASTM D3786	Standard Test Method for Hydraulic Bursting Strength of Textile Fabrics-Diaphragm Bursting Strength Tester Method
ASTM D4101	Standard Specification for Polypropylene Injection and Extrusion Materials
ASTM D4355	Standard Test Method for Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus)
ASTM D4491	Standard Test Methods for Water Permeability of Geotextiles by Permittivity
ASTM D4533	Standard Test Method for Trapezoid Tearing Strength of Geotextiles
ASTM D4595	Standard Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method
ASTM D4632	Standard Test Method for Grab Breaking Load and Elongation of Geotextiles
ASTM D4751	Standard Test Method for Determining Apparent Opening Size of a Geotextile
ASTM D5035	Standard Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Method)
ASTM D5621	Standard Test Method for Sonic Shear Stability of Hydraulic Fluid
ASTM F568	Standard Specification for Carbon and Alloy Steel Externally Threaded Metric Fasteners
AASHTO M31	Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
AASHTO M36	Corrugated Steel Pipe, Metallic-Coated, for Sewers and Drains
AASHTO M85	Portland Cement
AASHTO M105	Gray Iron Castings
AASHTO M111	Sinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
AASHTO M114	Building Brick (Solid Masonry Units Made from Clay or Shale)
AASHTO M133	Preservatives and Pressure Treatment Processes for Timber

<b>Table C-30 (cont.): Division 700 - Certification Test Procedures / Material Standards</b>	
<b>Test ID</b>	<b>Test Name</b>
AASHTO M168	Wood Products
AASHTO M180	Corrugated Sheet Steel Beams for Highway Guardrail
AASHTO M181	Chain-Link Fence
AASHTO M183	Standard Specification for Structural Steel
AASHTO M232	Zinc Coating (Hot-Dip) on Iron and Steel Hardware
AASHTO M247	Glass Beads Used in Traffic Paints
AASHTO M248	Ready Mixed White and Yellow Traffic Paints
AASHTO M249	White and Yellow Reflective Thermoplastic Striping Material (Solid Form)
AASHTO M268	Retroreflective Sheeting for Traffic Control
AASHTO M270	Carbon and High-Strength Low-Alloy Structural Steel Shapes, Plates, and Bars and Quenched-and-Tempered Alloy Structural Steel Plates for Bridges
AASHTO M279	Zinc-Coated (Galvanized) Steel Woven Wire Fence Fabric
AASHTO M280	Zinc-Coated (Galvanized) Steel Barbed Wire
AASHTO M281	Steel Fence Posts and Assemblies, Hot-Wrought
AASHTO M284	Epoxy-Coated Reinforcing Bars: Materials and Coating Requirements
AASHTO M285	Castings, Iron-Chromium-Nickel, Corrosion Resistant, for Sever Service
AASHTO M288	Geotextile Specification for Highway Applications
AASHTO M294	Corrugated Polyethylene Pipe, 300 to 1200 mm Diameter
AASHTO M298	Coatings of Zinc Mechanically Deposited on Iron and Steel
AASHTO M300	Inorganic Zinc-Rich Primer
AASHTO T250	Thermoplastic Traffic Line Material
AISI 201	Stainless Steel Alloy Standards
AISI 301	Stainless Steel Alloy Standards
AISI 302	Stainless Steel Alloy Standards
AISI 316	Modified Annealed Cold Finish Standards
ANSI C80.1	Specification for Rigid Steel Conduit, Zinc Coated (GRC)
ANSI/AITC A190.1	American National Standard - Structural Glued Laminated Timber - Production Requirements for Glulam
VA DOT VTM51	Filtering Efficiency and Flow Rate of a Filter Fabric