LANE ENTERPRISES, INC.

STANDARDS & SPECIFICATIONS

The following pages are an index of standards and specifications associated with Lane products. For quick reference purposes, Lane products are shown below along with the product's key specification.

Steel Structural Plate

AASHTO M167 (ASTM A761)

Aluminum Structural Plate

AASHTO M219 (ASTM B746)

Corrugated Steel Pipe (Metallic Coated)

AASHTO M36 (ASTM A760)

Corrugated Steel Pipe (Polymer Coated)

AASHTO M245 (ASTM A762)

Corrugated Aluminum Alloy Pipe

AASHTO M196 (ASTM B745)

Open-Top Slotted Drains

AASHTO M36 (ASTM A760)

Welded Wire Mesh Gabions

ASTM A974

Corrugated HDPE Pipe

AASHTO M294/M252 (ASTM F2306)

Corrugated HDPE Water Quality Units

ASTM F2737

Steel End Sections

Miscellaneous Steel Fabrications

ASTM A998

Aluminum Structural Plate

ASTM A307*	Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength
ASTM A449*	Specification for Hex Cap Screws, Bolts and Studs, Steel, Heat Treated, 120/105/90 ksi Minimum Tensile Strength, General Use
ASTM A563*	Specification for Carbons and Alloy Steel Nuts
ASTM B209	Specification for Aluminum and Aluminum-Alloy Sheet and Plate
ASTM B746	Specification for Corrugated Aluminum Alloy Structural Plate for Field-Bolted Pipe, Pipe-Arches, and Arches
ASTM B789	Practice for Installing Corrugated Aluminum Structural Plate Pipe for Culverts and Sewers
ASTM B790	Practice for Structural Design of Corrugated Aluminum Pipe, Pipe-Arches, and Arches for Culverts, Storm Sewers, and Other Buried Conduits
ASTM B864	Specification for Corrugated Aluminum Box Culverts
AASHTO M 219	Corrugated Aluminum Alloy Structural Plate for Field-Bolted Pipe, Pipe-Arches, and Arches

Steel Structural Plate

ASTM A123	Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A307*	Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength
ASTM A449*	Specification for Hex Cap Screws, Bolts and Studs, Steel, Heat Treated, 120/105/90 ksi Minimum Tensile Strength, General Use
ASTM A563*	Specification for Carbons and Alloy Steel Nuts
ASTM A761	Specification for Corrugated Steel Structural Plate, Zinc-Coated, for Field-Bolted Pipe, Pipe-Arches, and Arches
ASTM A796	Practice for Structural Design of Corrugated Steel Pipe, Pipe-Arches, and Arches for Storm and Sanitary Sewers and Other Buried Applications
ASTM A807	Practice for Installing Corrugated Steel Structural Plate Pipe for Sewers and Other Applications
ASTM A849	Specification for Post-Applied Coatings, Pavings, and Linings for Corrugated Steel Sewer and Drainage Pipe
ASTM A964	Specification for Corrugated Steel Box Culverts
AASHTO M167	Corrugated Steel Structural Plate, Zinc-Coated, for Field-Bolted Pipe, Pipe-Arches, and Arches
AASHTO M190	Bituminous-Coated Corrugated Metal Culvert Pipe and Pipe Arches
AASHTO M243	Field-Applied Coating of Corrugated Metal Structural Plate for Pipe, Pipe-Arches, and Arches

Gabion Baskets

ASTM A974	Specification for Welded Wire Fabric Gabions and Gabion Mattresses (Metallic Coated or Polyvinyl Chloride (PVC) Coated)
ASTM A975*	Specification for Double-Twisted Hexagonal Mesh Gabions and Revet Mattresses (Metallic-Coated Steel Wire or Metallic-Coated Steel Wire With Poly(Vinyl Chloride) (PVC) Coating)
ASTM D6711*	Practice for Specifying Rock to Fill Gabions, Revet Mattresses, and Gabion Mattresses
ASTM D7014*	Practice for Assembly and Placement of Double-Twisted Wire Mesh Gabions and Revet Mattresses

*** Specification listed for references purposes only**

Corrugated Metal Pipe

ASTM A742	Specification for Steel Sheet, Metallic Coated and Polymer Precoated for Corrugated Steel Pipe
ASTM A760	Specification for Corrugated Steel Pipe, Metallic-Coated for Sewers and Drains
ASTM A762	Specification for Corrugated Steel Pipe, Polymer Precoated for Sewers and Drains
ASTM A780	Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
ASTM A796	Practice for Structural Design of Corrugated Steel Pipe, Pipe-Arches, and Arches for Storm and Sanitary Sewers and Other Buried Applications
ASTM A798	Practice for Installing Factory-Made Corrugated Steel Pipe for Sewers and Other Applications
ASTM A849	Specification for Post-Applied Coatings, Pavings, and Linings for Corrugated Steel Sewer and Drainage Pipe
ASTM A862	Practice for Application of Asphalt Coatings to Corrugated Steel Sewer and Drainage Pipe
ASTM A926	Test Method for Comparing the Abrasion Resistance of Coating Materials for Corrugated Metal Pipe
ASTM A929	Specification for Steel Sheet, Metallic-Coated by the Hot-Dip Process for Corrugated Steel Pipe
ASTM A978	Specification for Composite Ribbed Steel Pipe, Precoated and Polyethylene Lined for Gravity Flow Sanitary Sewers, Storm Sewers, and Other Special Applications
ASTM A979	Specification for Concrete Pavements and Linings Installed in Corrugated Steel Structures in the Field
ASTM A998	Practice for Structural Design of Reinforcements for Fittings in Factory–Made Corrugated Steel Pipe for Sewers and Other Applications
ASTM B209	Specification for Aluminum and Aluminum-Alloy Sheet and Plate
ASTM B744	Specification for Aluminum Alloy Sheet for Corrugated Aluminum Pipe
ASTM B745	Specification for Corrugated Aluminum Pipe for Sewers and Drains
ASTM B788	Practice for Installing Factory-Made Corrugated Aluminum Culverts and Storm Sewer Pipe
ASTM B790	Practice for Structural Design of Corrugated Aluminum Pipe, Pipe-Arches, and Arches for Culverts, Storm Sewers, and Other Buried Conduits
ASTM D1056	Specification for Flexible Cellular Materials - Sponge or Expanded Rubber
AASHTO M36	Corrugated Steel Pipe, Metallic-Coated, for Sewers and Drains
AASHTO M190	Bituminous-Coated Corrugated Metal Culvert Pipe and Pipe Arches
AASHTO M196	Corrugated Aluminum Pipe for Sewers and Drains
AASHTO M197	Aluminum Alloy Sheet for Corrugated Aluminum Pipe
AASHTO M218	Steel Sheet, Zinc-Coated (Galvanized), for Corrugated Steel Pipe
AASHTO M245	Corrugated Steel Pipe, Polymer-Precoated, for Sewers and Drains
AASHTO M246	Steel Sheet, Metallic-Coated and Polymer-Precoated, for Corrugated Steel Pipe
AASHTO M274	Steel Sheet, Aluminum-Coated (Type 2), for Corrugated Steel Pipe
AASHTO T249	Test Method for Helical Lock Seam Corrugated Pipe

HDPE Pipe

ASTM F405	Specification for Corrugated Polyethylene (PE) Pipe and Fittings
ASTM F412	Terminology Relating to Plastic Piping Systems
ASTM F477	Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe
ASTM F667	Specification for Large Diameter Corrugated Polyethylene Pipe and Fittings
ASTM F1417	Test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air
ASTM F2136	Test Method for Notched, Constant Ligament-Stress (NCLS) Test to Determine Slow-Crack-Growth Resistance of HDPE Resins or HDPE Corrugated Pipe
ASTM F2306	Specification for 12 to 60 in. [300 to 1500 mm] Annular Corrugated Profile-Wall Polyethylene (PE) Pipe and Fittings for Gravity-Flow Storm Sewer and Subsurface Drainage Applications
ASTM F2487	Practice for Infiltration and Exfiltration Acceptance Testing of Installed Corrugated High Density Polyethylene Pipelines
ASTM F2648	Specification for 2 to 60 inch Annular Corrugated Profile Wall Polyethylene (PE) Pipe and Fittings for Land Drainage Applications
ASTM F2737	Specification for Corrugated High Density Polyethylene (HDPE) Water Quality Units
ASTM D618	Practice for Conditioning Plastics for Testing
ASTM D638	Test Method for Tensile Properties of Plastics
ASTM D790	Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
ASTM D883	Terminology Relating to Plastics
ASTM D1238	Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer
ASTM D1505	Test Method for Density of Plastics by the Density-Gradient Technique
ASTM D1693	Test Method for Environmental Stress-Cracking of Ethylene Plastics
ASTM D2122	Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings
ASTM D2321	Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications
ASTM D2412	Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading
ASTM D2444	Test Method for Determination of the Impact Resistance of Thermoplastic Pipe and Fittings by Means of a Tup (Falling Weight)
ASTM D3212	Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
ASTM D3350	Specification for Polyethylene Plastics Pipe and Fittings Materials
ASTM D3895	Test Method for Oxidative-Induction Time of Polyolefins by Differential Scanning Calorimetry
ASTM D4218	Test Method for Determination of Carbon Black Content in Polyethylene Compounds By the Muffle-Furnace Technique
ASTM D7209	Guide for Waste Reduction, Resource Recovery, and Use of Recycled Polymeric Materials and Products
AASHTO M252	Corrugated Polyethylene Drainage Pipe (3" through 10")
AASHTO M294	Corrugated Polyethylene Pipe (12" through 60")

The American Association of State Highway Transportation Officials (AASHTO) provides Load Resistance Factor Design (LRFD) specifications for the design and construction installation of culverts, pipe and buried structures. Related specifications are published in two separate documents: (1) AASHTO LRFD Bridge Construction Specifications, and (2) AASHTO LRFD Bridge Design Specifications.

AASHTO LRFD Bridge Construction Specifications

Section 26 Metal Culverts (includes structural plate)

Section 30 Thermoplastic Pipe

AASHTO LRFD Bridge Design Specifications

Section 12 Burried Structures and Tunnel Liners

AASHTO also publishes a Standard Practice for Pipe Joint Selection for Highway Culvert and Strom Drains (PP63). This practice provides clear definitions of joint performance terms, rational design methodology to determine appropriate joint performance requirements, and uniform criteria for manufacturer's joint qualification and contractors post-installation pipe joint testing.

AASHTO PP63 Standard Practice for Pipe Joint Selection for Highway Culvert and Storm Drains