

MATERIALS ACCEPTANCE REQUIREMENTS

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.I. Quantity	Remarks (QPL Reference)
401-SP Culverts, Class B (CPE)	QPL	-	-	-	Must be a Qualified Product
402-SP Storm Sewers, Class B (CPE & CPVC)	QPL	-	-	-	Must be a Qualified Product
401.03G End Section Grate for Culverts	VI	-	-	-	See Standard Plans for Sizes
404 Precast Concrete End Rings	VI	-	-	-	
502-SP Protective Polymer Coating For HMA Pavement at Snowmobile Trail Crossing	QPL	None	-	-	Must be a Qualified Product
603.02B Adhesive Systems for Grouting Dowel Bars and Tie Bars for Full-Depth Concrete Pavement Repairs	QPL	-	-	-	Must be a Qualified Product (712.03J)
NOTE: Use for grouting to existing concrete in the same direction of traffic in the same lane as the repair. For grouting lane ties (deformed bars positioned transverse to the direction of traffic located between traffic lanes) select from Adhesive Anchor Systems (for Structural Anchors and Lane Ties).					
603.03B12 Bond Breaker Tape	VI	-	-	-	
702.02A Standard Mortars and Grouts	VI	-	-	-	
702.02B Non-Shrinking Mortar and Grout, Type H-1(Non-Metallic) Pre Mixed	QPL	-	-	-	Must be a Qualified Product
702.02C Admixture for Expansive Grout, Type E-1	Gen Cert	-	-	-	
NOTE: Certification to include manufacturers recommended dosage per sack of cement. Include all General Certification documentation and sample of the cement with which it is being used with CV samples.					
703.02B-SP Prepackaged Hydraulic Fast Set Mortar	QPL	-	-	-	Must be a Qualified Product
704 Steel Sheet Piling	VI	-	-	-	
706.03K.4-SP Expansion Joint Devices for Bridges	See Remark	-	-	-	Approved devices are in Special Provision. Contractor must supply list of those used and provide shop drawings

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706.03S Penetrating Water Repellent (Protective Coating for Concrete)	QPL	-	-	-	Must be a Qualified Product (706.03S)
707.02 Bushings for Pins and Link Plates	QPL	-	-	-	Must be a Qualified Product (707.02)
708.03A Prestressed Concrete Bridge Beams	Fabrication Inspection	-	-	-	QA Manual Section D8
710.02 Asphalt Cement (WOA)	Test or Tested Stock	1 per batch	1 qt	5 gal.	Water-proofing Agent
710.03D Waterproofing Shotcrete	VI	-	-	-	
712.03A1c Abrasive, Low Dusting (See 715.02)					
712.03J Adhesive Anchor Systems for Structural Anchors and Lane Ties	QPL	-	-	-	Must be a Qualified Product (712.03J)
712.03L Mechanical Reinforcement Splicing, Other Types of Splices, Swaged	Test QPL	1 per proj. 1 per proj.	5 splices 2 splices	-	See Note. Must be a Qualified Product (712.03L)
NOTE: The contractor must make test splices, witnessed by the Engineer, on the smallest and largest bar sizes that are to be spliced. Test splice consists of 2 pieces of reinforcing bar joined by the coupler with a minimum of 12 inches of bar exposed on each end of the coupler.					
712.03X Grout Under Masonry Plates	VI	-	-	-	
712.03Y Embedded Galvanic Anodes	QPL See Remark	-	-	-	Must be a Qualified Product. See SP for Construction Process
713.02B Sealant for Perimeter of Beam Repairs	QPL	-	-	-	Must be a Qualified Product (713.02B)
715.02 Coating Systems for New Hanger Assemblies	QPL See Remark	-	-	-	Must be a Qualified Product (915.01)
715.02 Abrasive, Low Dusting	QPL	-	-	-	Must be a Qualified Product (715.02)
716.02 Abrasive, Low Dusting (See 715.02)					

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803.02 Pipe Railing for Steps (Galvanized)	VI	-	-	-	
803.02-SP Detectable Warning Surfaces	QPL	-	-	-	Must be a Qualified Product
804.01 Glare Screen	VI	-	-	-	Included in Concrete Spec.
808.03B Temporary Fence Materials	VI	-	-	-	
901 Cement	Appr Mfr *	See Remark	10 lb	45 ton	See Special Instructions, Test Data Certification to C&T
901.06 Ground Granular Blast-Furnace Slag (GGBFS)	Appr Mfr * With Cement Sample	See Remark for Cement	10 lb		See Special Instructions for Cement and Fly Ash note. Test Data Certification to C&T
901.07 Fly Ash, Pozzolanic Admixtures for Concrete	Appr Mfr * With Cement Sample	-	10 lb	-	Test Data Certification to C&T. See Note.
NOTE: The fly ash sample is to be accompanied by a sample of the cement with which it is being used. MDOT-furnished plastic-lined cement sample bags will hold 4540 g when FULL.					
902 Coarse Aggregates	Test See Remark	1 per 1000 ton	60 lb	100 ton	If Prequalified Supplier, see QA Manual Section C-6 Part 7 for sample frequency
902 Dense-Graded Aggregates	Test See Remark	1 per 1000 ton	60 lb	500 ton	If Prequalified Supplier, see QA Manual Section C-6 Part 7 for sample frequency
902 Open-Graded Aggregates	Test See Remark	1 per 1000 ton	60 lb	100 ton	If Prequalified Supplier, see QA Manual Section C-6 Part 7 for sample frequency
902 Granular Material Class I	Test See Remark	1 per 1000 ton	60 lb	100 ton	If Prequalified Supplier, see QA Manual Section C-6 Part 7 for sample frequency
902 Granular Material Class II (Subbase) and Class IIA	Test See Remark	1 per 3000 cyd	60 lb	500 cyd	If Prequalified Supplier, see QA Manual Section C-6 Part 7 for sample frequency
902 Class II (Abutment B. F.)	Test See Remark	1 per structure	60 lb	100 cyd	If Prequalified Supplier, see QA Manual Section C-6 Part 7 for sample frequency

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.l. Quantity	Remarks (QPL Reference)
902 Granular Material Class III	Test See Remark	1 per 10,000 cyd	60 lb	500 cyd	If Prequalified Supplier, see QA Manual Section C-6 Part 7 for sample frequency
902 Granular Material Class IIIA	Test See Remark	1 per 1000 cyd	25 lb	100 cyd	If Prequalified Supplier, see QA Manual Section C-6 Part 7 for sample frequency
902 Fine Aggregate	Test See Remark	1 per 1000 tons	25 lb	100 ton	If Prequalified Supplier, see QA Manual Section C-6 Part 7 for sample frequency
902 Mineral Filler for HMA Mixtures	Appr Mfr * See Remark	1 per proj.	1 qt	10 ton	Refer to Asphalt Binder Procedures Manual, General Certification to C&T
903.01 Air Entraining Admixtures	QPL	-	-	-	Must be a Qualified Product (903.01)
903.02 Concrete Accelerators 1. Calcium Chloride 2. All Others	VI QPL	-	-	-	For calcium chloride note the chemical composition. Other accelerators must be Qualified Products (903.02).
903.03 Water Reducing and Water Reducing Retarding Admixtures for Concrete	QPL	-	-	-	Must be a Qualified Product (903.03)
903.04 Latex Admixture for Concrete	Appr Mfr *	1 per lot	1 qt		General Certification to C&T
903.05 Membrane Curing Compound	Test Data Cert	1 per lot or batch	1 qt	200 gal.	
NOTE: Curing compounds must not be used after ONE year from manufacture. Date of manufacture must be clearly printed on the outside of containers.					
903.06B Interim Curing (Linseed Oil Based)	Test Data Cert	1 per lot or batch	1 qt	50 gal.	See Note for 903.05 above
903.06C Insulating Blanket	Test Data Cert	-	-	10 sheets	
903.06D Polystyrene Insulation	Test Data Cert	-	-	-	
904.03A Asphalt Binder for HMA Mixtures	Appr Mfr *	1 per day's production of mix	1 pint	5 ton per day or 27 tons per proj.	Refer to <i>Procedure Manual for Certification of Hot Mix Asphalt Plants</i> for additional requirements.

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.l. Quantity	Remarks (QPL Reference)
904.03B Liquid Asphalt (MC)	Test or Tested Stock	1 per batch	See Remark		1 gal. from the top and 1 gal. from the bottom of tank
904.03B Liquid Asphalt (RC-250)	Test or Tested Stock	1 per batch	2 qt	5 gal.	
904.03C Emulsified Asphalt	Appr Mfr *	1 per batch	See Remark	1000 gal.	1 gal. from the top and 1 gal. from the bottom of the tank. Submit sample in plastic or glass containers only.
904.03D Polymer Modified Asphalt Cement for Overband Crack Fill	Gen Cert See Remark	-	-	-	Contractor Certified or Supplier Certified
904.03E Polyester Fibers for Overband Crack Fill	Gen Cert	-	-	-	
905.03 Bar Reinforcement (Uncoated)	Appr Mfr *	1 per proj. per mfr.	See Remark	500 lb	2 pcs. One 24 in. min. & one 36 in. min. Second piece must be 48 in. min. for #9, #10, #11 bars. Test Data Cert to C&T.
905.03 Bar Reinforcement (Epoxy Coated Spiral) 1. Bar 2. Epoxy Coating Companies 3. Epoxy Coating Material	Appr Mfr * Appr Mfr * QPL	1 per proj. per mfr.	See Note	500 lb	Test Data Cert to C&T Test Data Cert to C&T (905.03C1)
NOTE: Sample ID to include name of epoxy coating company, epoxy resin trade name and lot number, bar manufacturer and heat number. Sample size, 3 pieces, 1 of which is 24 in. min. and 2 of 36 in. min. A third piece shall be 48 in. min. for #9, #10, and #11 bars.					
905.03C Bar Reinforcement (Epoxy Coated) 1. Bar 2. Epoxy Coating Companies 3. Epoxy Coating Material	Appr Mfr * Appr Mfr * QPL	1 per proj. per mfr.	See Note	500 lb	Test Data Cert to C&T Test Data Cert to C&T (905.03C1)
NOTE: Sample ID to include name of epoxy coating company, epoxy resin trade name and lot number, bar manufacturer and heat number. Sample size, 3 pieces, 1 of which is 24 in. min. and 2 of 36 in. min. A third piece shall be 48 in. min. for #9, #10, and #11 bars.					
905.06 Welded Steel Wire Reinforcement (Mesh)	Appr Mfr *	1 per proj. per mfr.	See Remark	500 syd	Test Data Cert. to C&T. See Note.
NOTE: One piece, full width of fabric with two transverse wires. Longitudinal wires must extend 6 in. to 8 in. either side of transverse wires. Sampling not required when larger wire is less than 0.13 in. (w1.5) in dia. Include on sample ID the size that the wires are supposed to be. Sample may be folded or cut into approx. 3 ft. sections. If cut, pieces should be wired together and identified.					
905.07 Strand for Prestressed Concrete	Appr Mfr *	1 per heat	2 pcs. each 80 in. long		Obtain sample 5 ft. from end of reel. Test Data Cert. to C&T

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.I. Quantity	Remarks (QPL Reference)
905.08 Tendons for Post Tensioning of Box Beams - Prestressing Strand	Appr Mfr * See Remark	1 per heat	2 pcs. each 80 in. long		Sampling and testing may be waived if strand from same reel is tested for beam fabrication. Test Data Cert. to C&T. Obtain sample at least 5 ft from end of reel.
905.08 Tendons for Post Tensioning of Box Beams - Bar	Test	1 per heat per proj.	15 in.		Test Data certification must be attached to Sample Identification form for lab testing.
906 Structural Steel	Fabrication Inspection	-	-	-	QA Manual Section D-10
906.05 Foundation Piles: H Piling, Steel Shells and Pile Points	Test Data Cert	-	-	-	
906.05 Pile Cutoffs	Gen Cert	-	-	-	
906.06 High Strength Steel Bolts	Test	1 per dia per length per heat per proj.	3 each bolts, nuts & washers		Bolt, nut & washer Test Data Cert must identify the manufacturer and must be attached to the Sample ID
906.08 Shear Developers (Studs)	QPL or Test Data Cert See Remark	-	-	-	(906.08) Other stud shear developers may be used provided the supplier certifies that the studs meet the requirements of AWS D1.5-96, All section 7.
907.03 Woven Wire Fencing Materials A. Woven Wire B. Barbed Wire C. Smooth Line Wire	VI	1 per proj. per mfr.	Full width of roll 5 ft 6 ft 4 ft		
907.03 D. Steel Posts	VI	1 per proj. per mfr.	See Remark	See Remark	See Special Instructions
NOTE: An alternative zinc/clear coat system will be allowed for pipe sections only. This alternative coating system shall comply with subsection 907.03D of the Standard Specifications for Construction.					
907.03 E. Treated Wood Posts	Appr Mfr * or Tested Stock	Each charge	22 cores	25 posts	General Certification to C&T
907.03 F. Gates G. Fence Fittings and Hardware	VI	-	-	-	
907.04 Steel Chain Link Fence Materials A. Fabric	Test or Tested Stock	See Remark	5 ft full width of roll	250 ft	1 per height and/or mesh size, per project and 1 per mfr. per proj.

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.I. Quantity	Remarks (QPL Reference)
907.04 B. Tension Wire	Gen Cert	1 per proj. per mfr.	5 ft	500 ft	
907.04 C. Post for Fence and Gates (Steel)	Gen Cert	1 per proj. per mfr.	See Remark	See Remark	See Special Instructions
NOTE: An alternative zinc/clear coat system will be allowed for pipe sections only. This alternative coating system shall comply with subsection 907.03D of the Standard Specifications for Construction.					
907.04 D. Gates E. Fence Fitting and Hardware	VI	-	-	-	
907.04 F. Top Rail (Horz. Rail)	Test	1 per proj. per mfr. See Remark	5 ft	250 ft	Weigh 5 rails to determine the average weight per foot and include the weight info on Sample ID.
NOTE: An alternative zinc/clear coat system will be allowed for pipe sections only. This alternative coating system shall comply with subsection 907.03D of the Standard Specifications for Construction.					
907.04 G. Post for Chain Link Pedestrian Fence (Structure Fencing)	Test	1 per proj. per mfr. See Remark	5 ft straight piece	25 post	Weigh 5 posts to determine the average weight per foot and include the weight info on Sample ID.
NOTE: An alternative zinc/clear coat system will be allowed for pipe sections only. This alternative coating system shall comply with subsection 907.03D of the Standard Specifications for Construction.					
907.04 H. Rail for Braces for Chain Link Pedestrian Fence	Test	1 per proj. and 1 per mfr.	5 ft	250 ft	Weigh 5 rails to determine the average weight per foot and include the weight info on Sample ID.
NOTE: An alternative zinc/clear coat system will be allowed for pipe sections only. This alternative coating system shall comply with subsection 907.03D of the Standard Specifications for Construction.					
907.05 High Tensile Wire Fence A. Wire	Test	1 per proj. per mfr.	6 ft	250 ft	
907.05 B. Treated Wood Posts for High Tensile Wire Fence	Appr Mfr * or Tested Stock	Each charge	22 cores	25 posts	See Note, General Cert to C&T
NOTE: All post must be treated including Northern White Cedar. General Certification document required for Northern White Cedar in lieu of approved manufacturer.					
907.05 C. Hardware	VI	-	-	-	
907.06 Protective Fence	VI	-	-	-	
908.03 Malleable Iron, Steel, and Gray Iron Casting and Manhole Casting	VI	-	-	-	

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908.05 Alternate, Adjustable Gray Iron Castings for Manholes, Drainage Structures, and Covers	QPL	-	-	-	
908.07 Sheet Lead	Gen Cert	-	-	25 sft	
908.08 Sheet Copper	Test	1 per consignment	13 in. square or equivalent area	25 sft	May be accepted in field if weight requirements can be documented
908.09 Aluminum Bridge Railing	See Note	-	-	-	
NOTE: Test Data Certification, requires a mill certification and a visual inspection of the material. The project engineer is to arrange for this inspection which should include dimensional and thorough visual checks on all material especially for blowholes on posts and caps.					
908.09 Cast Aluminum Alloy Posts	Test Data Cert	-	-	-	
908.10 Tubing, Steel Railing (Galvanized) A. Base Plate and Post Elements	Test or Tested Stock See Remark	1 per heat per proj.	1 base plate, 1 post min. 15 in. length		Test Data Cert. Document must be attached to the sample ID. Test report to P.E.
908.10 B. Rail Elements (Tube)	Test or Tested Stock See Remark	1 per heat per proj.	48 in. long, galv.		Chemical analysis must include silicon. Test Data Cert. Document must be attached to the sample ID. Test Report to P.E.
908.10 C. Hardware (Anchor Studs)	Test	1 per heat per diameter per project	A bolt, nut, washer, coupling and base plate, if applicable		
908.11 Hardware for Timber Construction	VI	-	-	-	
908.12 Guardrail, Steel Beam Elements, End Sections	Appr Mfr *	1 per proj. per mfr.	1 piece at least 3 ft length	125 ft	Including Anchorage, Bridge, Shoes, Departing End Terminals. Test Data Cert to C&T
908.12A Guardrail Approach Terminals	Appr Mfr *	-	-	-	Test Data Cert. to C&T
908.12 B. Hardware C. Steel Sleeves, Soil Plates, Bearing Plates, Backup Plates	VI	-	-	-	Item supplied by guardrail supplier
908.12 Wire Rope	Gen Cert	-	-	-	
908.13 Steel Posts for Beam Guardrail	Appr Mfr *	-	1 post	25 posts	Test Data Cert. to C&T

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908.14 Reflective Washers	VI See Remark	-	-	-	Inspect galvanizing, dimensions and type of sheeting
908.15 Anchor Bolts, Anchor Studs, Anchor Rods and Anchor Base Plates	Test **See Remark	1 per heat per diameter per project	1 bolt, nut, washer, coupling and base plate if applicable	-	Non MDOT Standard Plan Bolts require Shop Drawings along with the Test Data Cert Document. ** For cantilever foundations: 1 per heat per dia. per foundation, max 3 per project.
909.01 Adjusting Rings for Manholes and Drainage Castings, (Alternative Materials and Recycled Rubber)	QPL	-	-	-	
909.03 Watertight Joint Systems	QPL	-	-	-	
909.03 Gasket, Compression (O-Rings)	VI	-	-	-	Part of Watertight Joint System
909.04A Reinforced Concrete Pipe	Appr Mfr *	1% of number of pcs. of each size	See Remark	5 pieces of 42 in. or smaller	See Special Instructions General Cert. to C&T
909.04B Reinforced Concrete Elliptical Pipe	Appr Mfr *	1% of number of pcs. of each size	See Remark	5 pieces of 42 in. or smaller	See Special Instructions General Cert. to C&T
909.04C Non-Reinforced Concrete Pipe	Appr Mfr *	See Remark	See Remark	10 pcs.	See Special Instructions General Cert. to C&T
909.04D Precast Concrete Box Sections	Appr Mfr *	-	-	-	General Cert. to C&T Box = 4 sided
909.04E Precast Concrete End Section for Culverts and Sewers	Appr Mfr *	1% of number of pcs.	Full size units	10 pcs.	Strength test by coring or cylinders, VI dimensions and conditions. Test for air content. Test Data Cert. to C&T.
909.04G Precast Concrete Three-Sided or Arch Culverts	Appr Mfr See Remark	-	-	-	For span lengths up to 12 ft, General Cert. to C&T. Spans from 12-20 ft, QA inspection may be required. Spans greater than 20 ft. require QA inspection.
909.05A Corrugated Steel Pipe	Appr Mfr *		See Remark		See Special Instructions General Cert. to C&T
909.05A Gasket, External Rubber Type	VI	1 per lot or shipment	18 in. length full width of gasket		Part of Watertight Joint System

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909.05A1 Corrugated Steel Sheets (Galvanized)	Gen Cert	See Remark	See Remark		See Special Instructions
909.05A Polymer Coated, Galvanized Corrugated Steel Pipe	QPL	-	-	-	Coating must be from Qualified Products List (909.05-SP)
909.05A4 Coupling Bands	Gen Cert	-	-	5 pcs.	
909.05B Corrugated Aluminum Alloy Sheet	Gen Cert	See Remark	See Remark	25 sheets	See Special Instructions
909.05B Corrugated Aluminum Alloy Pipe	Gen Cert	1 per 1000 ft	See Remark	250 ft	Sample Size: A 6 in. by 3 in. (minimum) section cut from the end of the pipe avoiding the seams. Do not damage coating.
909.05C Metal End Section	Gen Cert	-	-	4 pcs.	
909.05D Steel Pipe (Jacked-in-Place)	VI	-	-	-	
909.06A Corrugated Polyethylene Pipe (CPE), (Smooth Lined Type S or Corrugated Type C)	Test or Tested Stock if ≥ 12 in. dia.	≥ 12 in. dia. 1 per 1000 ft straight lengths	See Remark	12 in. dia and over, 100 ft	Over 12 in. dia.- one 10 ft. length and one 6 ft. length plus coupling See special instruction No. 909.06
NOTE: For Class B Plastic Pipe, see 401 and 402-SP (CPE) pipe. Water Tight Joint Systems (909.03) must be approved prior.					
909.06B 1. Corrugated Polyvinyl Chloride (PVC) Pipe (Smooth Lined Type S or Corrugated Type C)	Test	≥ 12 in. dia 1 per 1000 ft straight lengths	See Remark	12 in. dia. and over, 100 ft	Over 12 in. dia.- one 10 ft. and one 6 ft. length plus coupling
NOTE: For Class B Plastic Pipe, see 402-SP (PVC) pipe. Water Tight Joint Systems (909.03) must be approved prior.					
909.06B 2. Smooth Polyvinyl Chloride Pipe for Sanitary Sewer Pipe	Test	1 per 6000 ft	1 piece, 5 ft in. length	600 ft	If bell and spigot joint, sample from bell end
909.06B 3. Corrugated Polyvinyl Chloride (PVC) Pipe (Smooth Lined Type S) for Sanitary Sewer Pipe	Test	1 per 1000 ft	See Remark	12 in. dia. and over, 100 ft	Over 12 in. dia.- one 10 ft. length and one 6 ft. length plus coupling
909.07 Pipe for Underdrains 1. Corrugated Steel Pipe	Appr Mfr *	See Remark	See Remark		See Special Instructions for 909.05A, Test Data Cert. to C&T
909.07 Pipe for Underdrains 2. Corrugated Aluminum Alloy Pipe	Gen Cert	1 for 1000 ft	6 in. x 3 in.	250 ft	

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909.07A Pipe for Underdrains 3. Smooth Plastic Pipe (Outlet Pipe)	Test	1 per 2500 ft or fraction thereof	5 ft length	250 ft	
909.07B Pipe for Underdrains 4. Corrugated Plastic Tubing (Perforated and Non-Perforated) (Wrapped and Non-Wrapped)	Appr Mfr * 4-, 6-, or 8-in. dia.	1 per 5000 ft sample from coils	See Remark	250 ft	Sample Size, one 10 ft length plus coupling. For perforated tubing wrapped in fabric, tie fabric securely in place before cutting sample.
909.07 Pipe for Underdrains 5. Porous Concrete Pipe	VI	-	-	-	
909.07 Pipe for Underdrains 6. Perforated Concrete Pipe	VI	-	-	-	
909.07 Pipe for Underdrains 7. Perforated Clay Pipe	VI	-	-	-	
909.07C Outlet Endings (For Underdrains)	VI	-	-	-	
909.08A Bridge Decks Downspouts 1. Polyethylene (PE) Plastic Pipe	VI				
909.08B Other Downspouts 1. Corrugated Steel Pipe	Appr Mfr *	See Remark	See Remark		See Spec. 909.07 Corrugated Steel Pipe. Test Data Cert. to C&T
909.08B Other Downspouts 2. Corrugated Aluminum Alloy Pipe	Gen Cert	1 per 1000 ft	6 in. x 3 in.	250 ft	
909.08B Other Downspouts 3. Corrugated or Smooth Lined Corrugated Polyethylene Pipe	Test or Tested Stock	See Remark	See Remark	<12 in. dia. up to 250 ft >12 in. dia. up to 100 ft	See Spec. 909.06A
909.08C Bridge Deck Drain Extensions (Fiberglass)	QPL	-	-	-	Must be a Qualified Product (909.08C)
909.09 Cold Applied Pipe Joint Sealer (Mastic)	Test	1 per shipment from a single container	1 qt	10 gal.	
909.10 Drainage Marker Post	See Delineator Posts	-	-	-	

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910.03A Geotextiles 1. Blankets	Test Data Cert	See Remark	See Remark	See Remark	See Special Instruction 910.03
910.03A Knitted Sock Pipe Wrap	See Remark	-	-	-	See 909.07 Certified with Corrugated Plastic Tubing.
910.03B Liner for Rip-Rap	Test Data Cert	See Remark	See Remark	See Remark	See Special Instruction 910.03
910.03B Liner for Heavy Rip-Rap	Test Data Cert	See Remark	See Remark	See Remark	See Special Instruction 910.03
910.03C Separator/Stabilization Geotextile	Test Data Cert	See Remark	See Remark	See Remark	See Special Instruction 910.03
910.03D Geogrids	Test	1 per type per proj.	1 pc. 6 ft long full roll width	-	Sample must be <u>rolled</u> not folded
910.04 Silt Fence Geotextile	QPL	-	-	-	Must be a Qualified Product
910.05A Prefabricated Drainage System	Appr Mfr *	1 per 10,000 ft or less	1 pc. 6 ft long plus 3 syd filter-wrap	-	Test Data Cert must be attached to sample ID Form
910.05B Wall Drain	Test	1 per 1000 ft or less	1 pc. 6 ft. long plus 3 syd filter-wrap	100 sft	
911 Water	Test See Remark	1 per source	1 qt		Water approved for drinking by the Michigan Dept. of Public Health may be used without sampling and testing.
912.06 Structural Timber and Lumber	Appr Mfr *	Each Charge	22 cores See Remark		48 cores if treatment is creosote General Cert. to C&T
912.07 Timber Piles	VI	-	-	-	
912.08 Treated Wood Fence Posts	Appr Mfr * or Tested Stock	Each Charge	22 cores	25 posts	See Note. General Cert to C&T
NOTE: All post must be treated including Northern White Cedar. General Certification document required for Northern White Cedar in lieu of approved manufacturer.					
912.08B Guide Posts, Guard and Mail Box Posts	Appr Mfr *	Each Charge	22 cores	25 posts	Cedar post need not be treated. General Cert. to C&T
NOTE: All post must be treated except Northern White Cedar. General Certification document required for Northern White Cedar in lieu of approved manufacturer.					

MATERIALS ACCEPTANCE REQUIREMENTS

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.I. Quantity	Remarks (QPL Reference)
912.09 Wood Guardrail Post and Blocks (Dimension Sawed)	Appr Mfr * or Tested Stock	Each Charge	22 cores		
912.09Q Recycled Plastic or Rubber Guardrail Offset Blocks	QPL	-	-	-	Must be a Qualified Product. May only be used on Steel Posts (912.09Q)
912.10 Timber for Rustic Construction	Gen Cert	-	-	-	
913.03 Clay and Sand Lime Brick and Block	Test	1 per 250,000 or fraction thereof	6 pcs.	1000 pcs.	
913.03B Concrete Brick	Appr Mfr *	See Remark	6 pcs.	1000 pcs.	1 from each 10,000 bricks or fraction thereof; 2 from lots more than 10,000 to 100,000; 3 from each lot over 100,000. General Cert. to C&T
913.05 Concrete Block	Appr Mfr *	See Remark	4 pcs.	1000 pcs.	One from lot of 10,000 or fraction thereof; 2 from lots more than 10,000. General Cert. to C&T
913.06 Precast Reinforced Concrete Units for Drainage	Appr Mfr *	1% per size	See Remark	10 pcs. total	Submit QA cylinder test results and core samples. Submit sample 1-3 sq.in. from wall of unit if absorption is required. General Cert. to C&T
913.07 Precast Concrete Bases, Sumps	Appr Mfr *	5% of total		10 pcs. total	General Cert. to C&T
913.08 Structural Tile	Test	1 per proj.	6 tiles	1000 tiles	
913.09 Slope Pavement Blocks	Appr Mfr *	1 per 25,000	6 blocks	1000 pcs.	General Cert. to C&T
914.03 Bituminized Fiber Joint Filler	Appr Mfr *	1 per 1000 sft or fraction thereof	2 ft See Remark	150 sft	Sample for structure to be at least 5 in. wide. ¼ in. filler need not be sampled. General Cert. to C&T
914.03B Recycled Rubber Joint Filler	QPL	-	-	-	Must be a Qualified Product
914.04A Hot-Poured Joint Sealant	Test or Tested Stock	1 per batch from a single container	5 lb.	100 lb	Do not submit melted samples
914.04B Backer Rod for Use with Hot-Poured Joint Sealant	VI	-	-	-	

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.l. Quantity	Remarks (QPL Reference)
914.04C Neoprene Joint Seals	Appr Mfr * or Tested Stock	1 per size per lot	See Remark	100 ft	See Special Instructions. General Cert. to C&T
914.04D Lubricant Adhesive for Neoprene Joint Seals	Gen Cert	-	-	-	
914.05 Epoxy Binder, For Joint Spall Repair	Test or Tested Stock	1 per lot or batch number	See Remark	5 gal.	See Special Instructions
914.06 Epoxy Resin Adhesive and Temporary Seal (Crack Injection)	QPL	-	-	-	Must be a Qualified Product (914.06)
914.07 Transverse Pavement Joints 1. Dowel Bars 2. Epoxy Coating Companies	Appr Mfr * Appr Mfr *	1 per proj. per mfr.	1 bar	240 bars	Test Data Cert. to C&T Coating must be Qualified Product (905.03c)
914.07A Transverse Pavement Joints 3. Epoxy Coating Material	QPL	1 per proj. per mfr.	1 bar	240 bars	Test Data Cert. to C&T. Coating must be Qualified Product (905.03c)
914.07 Dowel Bar Expansion Caps	VI	-	-	-	Caps must conform to Standard Plan R-40 Series
914.07 1. Load Transfer 2. Assemblies/Dowel Baskets	Appr Mfr VI Fabrication Inspection	1 per 3000 assemblies or fraction thereof	Full size unit	20 assemblies	QA Manual Section D12
914.07A Bond Release	QPL or VI See Remark	-	-	20 gal max	Must be a Qualified Products or meet Standard Spec 914.07A
914.08 End-of-Pour Joint Devices A. Hook Bolts	VI	-	-	-	See 914.09C
914.08 B. Deformed Bars Bars Epoxy Coating	Appr Mfr * QPL	1 per proj. per mfr.		500 lb	Test Data Cert. to C&T Epoxy Coating must be Qualified Product (905.03C)
914.09 Straight and Bent Tie Bars for Longitudinal Pavement Joints (Lane Ties) Bars Epoxy Coating	Appr Mfr * QPL	1 per proj. per mfr.	See Remark	500 lb	Test Data Cert. to C&T. 1 pc. 24 in. and 2 pcs. 36 in. Coating must be a Qualified Product (905.03C). See Note.
NOTE: Epoxy Coating must be a Qualified Product. Sample ID to include name of Coater, Bar manufacturer, Resin manufacturer, and Resin trade name.					
914.09C Hook Bolts	VI	-	-	-	

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.I. Quantity	Remarks (QPL Reference)
914.10 Structure Expansion Anchors (Mechanical Expansion Anchors)	QPL See Remark	-	-	-	Must be a Qualified Product (712.03K). Pull-out testing is required per QA Manual Sec. D6
914.10 Bolts for Structure Expansion Anchors	Test	1 per 5000 pcs. or fraction thereof	1 bolt	250 units	
914.11 Preformed Waterproofing Membrane and Joint Waterproofing Membrane	QPL See Remark	-	-	-	Must be a Qualified Product (710.02). Do not use on Treated Wood Materials
914.12 Elastomeric Bearing Pads	Gen Cert See Remark	-	-	-	Show Test Result for Shear Modulus, ASTM D4014
915 Coating Systems for Steel Structures, Hanger Assemblies and End Diaphragms	QPL	-	-	-	Must be a Qualified Product (915.01)
916.01A Cobblestone	VI	-	-	-	
916.01C Riprap	VI	-	-	-	
916.02 Silt Fence Fabricated fence Fabric	Appr Mfr * QPL	See Remark	See Remark	500 ft	General Certification to C&T 1 sample for the first 3000 ft or fraction thereof; 1 sample for each additional 10,000 feet or fraction thereof; 1 piece 8 ft long by full fence height include 2 attached posts and lath. As per 910.04 of Standard Specifications, fabric must be from the Qualified Product List (910.04).
NOTE: Sample to include identifying markings of fabricator. Indicate on sample ID description of markings. Note where markings were found.					
917.03 Nursery Stock	VI	-	-	-	
917.04 Tree Wrapping Material	VI	-	-	-	
917.05 Balling Material	VI	-	-	-	
917.06A Wire for Bracing and Guying	VI	-	-	-	
917.06B Hose for Bracing and Guying	VI	-	-	-	
917.06C Stakes for Bracing and Guying	VI	-	-	-	

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.l. Quantity	Remarks (QPL Reference)
917.10 Chemical Fertilizer for Grass Seed	VI See Remark	-	-	-	Provide the bag label, showing the guaranteed analysis.
917.12 Seeding Mixtures Seed Varieties	Appr Mfr * QPL	1 per lot per shipment	¼ lb	100 lbs	General Cert. to C&T. Varieties of seed must be Qualified Product (917.12)
917.13 Sod	VI	-	-	-	
917.13A Pegs for Sodding	VI	-	-	-	
917.14 Mulching Materials for Nursery Stock	VI	-	-	-	Only shredded bark, wood chips not allowed.
917.15B High Velocity Mulch Blankets and Standard Mulch Blanket	QPL	-	-	-	Must be a Qualified Product (917.15B). High velocity - netting 2 sides. Standard - netting 1 side
917.15C5 Mulch Anchoring - Latex, Recycled Newsprint, Wood Fiber, Guar Gum, Other Tackifiers	QPL	-	-	-	Must be a Qualified Product (917.15C5)
917.16 Weed Control (Herbicides)	Test Data Cert	-	-	-	
918.01 Flexible Metal Conduit	VI	-	-	-	
918.01A Electrical Conduit, Rigid (Galvanized Steel)	Test or Tested Stock	See Remark	6 ft, include coupling, if applicable	400 ft	1 sample for 2500 ft or fraction thereof; 2 samples over 2500 to 10,000 ft; 1 sample for each additional 10,000 ft
918.01B & C Electrical Conduit (Polyvinyl Chloride) Schedule 40 and 80	Gen Cert	See Remark	6 ft sample w/ bell end incl. coupling	400 ft	1 sample for 2500 ft or fraction thereof; 2 samples over 2500 to 10,000 ft; 1 sample for each additional 10,000 ft
918.01D Electrical Conduit (Polyethylene) Schedule 40 and 80	Gen Cert	See Remark	See Remark	400 ft	1 sample for 2500 ft or fraction thereof; 2 samples over 2500 to 10,000 ft; 1 sample for each addi- tional 10,000 ft; 6 ft plus a sepa- rate section consisting of 2- 18 in. long pcs. connected by the joint
918.01F Electrical Conduit (Rigid Fiberglass)	Gen Cert	See Remark	6 ft sample w/ bell end incl. coupling	400 ft	1 sample for 2500 ft or fraction thereof; 2 samples over 2500 to 10,000 ft; 1 sample for each additional 10,000 ft

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.I. Quantity	Remarks (QPL Reference)
918.02 Grounding System	VI	-	-	-	
918.02C Grounding Rods	VI	-	-	-	
918.03 Electrical Cable	See Note	-	-	-	
NOTE: Suitability and compliance with specifications will be determined by the agency responsible for maintaining the system. This agency shall provide the project engineer with a memo or other appropriate form indicating that the inspection (including review of Test Data Cert) has been made and that the material is acceptable.					
918.06 Precast Concrete Handholes and Manholes for Electrical and Telephone Connections	Appr Mfr *	1% per size	-	10 pcs.	General Cert. to C&T
918.06E Light Weight Composite Handholes	QPL	-	-	-	Must be a Qualified Product (918.06)
918.08 Light Standards	VI Test Data Cert	-	-	-	
918.08C Light Standards, Frangible Transformer Bases	QPL	-	-	-	
918.09 Luminaries	Gen Cert	-	-	-	
918.10A Tower Lighting Units	Fabrication Inspection	-	-	-	QA Manual Section D15
918.11E Guy Wire	Test	1 per size	10 ft	-	
919 Steel Sleeves for Wood Posts	Gen Cert	-	-	-	
919.02 Signs (Permanent)	See Remark	-	-	-	See Joint Construction IM 1997-B and IM 1997-C. General Cert. must be attached and inspected at project site.
919.02A1 Metal Sections (Extruded Aluminum)	Tested Stock See Remark	1 from each width in shipment	12 in. long and full width of section		A Test Data Cert must be attached to Sample ID form
919.02A2 Plywood	See Remark	-	-	-	Grade mark on materials serves as certification
919.02A3 Aluminum Sheet	Tested Stock See Remark	1 per lot or shipment	Min. of 12 in. square	100 sft	See C&T Instructional Memo 1997-B. Tested Stock, Test Data Certification must be included

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.I. Quantity	Remarks (QPL Reference)
919.02B1 Reflective Sheeting	QPL See Remark	1 per run or lot	See Remark	1 roll, for less than 3 in. in width	Must be A Qualified Product (919.02B) 4 pcs. each 12 in. square. For rolls less than 12 in. width, at least 7.5 ft.
919.02C Sign Hardware	Gen Cert See Remark	-	-	-	Identifying marks on items may serve as certification
919.03A Delineators 1. Plastic Reflectors	Gen Cert	1 per shipment per color	21 pcs.	25 pcs. each color	
919.03B Delineators 2. Reflective Sheeting Reflectors	Gen Cert	1 per shipment per color	2 pcs. each color	25 pcs. each color	
919.03D Delineator Posts 1. Steel	Gen Cert	1 per proj. per mfr.	1 post	80 post	
919.03D 2. Plastic	QPL	-	-	-	Must be Qualified Product (919.03D)
919.04 Steel, Galvanized Sign Posts	Test Data Cert	1 per proj, per mfr.	See Remark	20 posts	Sample 30 in. length min. weigh 5 posts to determine weight per foot. Put on ID; Posts for Temporary signs may be painted
919.05 Wood Sign Posts	Aprr Mfr * or Tested Stock	Each charge	22 cores	20 posts	General Cert. to C&T
919.06 Break-Away Column Sign Supports	Fabrication Inspection See Remark	-	-	-	QA Manual Section D11 and Subsection 919.07 of Standard Specifications
919.07 Sign Support Structures	Fabrication Inspection See Remark	-	-	-	QA Manual Section D11
920.01 Cold Plastic Tape, Permanent (Long Line, Legends and Crosswalks)	QPL	-	-	-	Must be a Qualified Product (920.01i)
920.01B Glass Beads	Gen Cert	1 from each lot	2 lb	500 lbs	
920.01B2a Waterborn, Liquid Pavement Marking Materials	QPL	-	-	-	Must be a Qualified Product (920.01ii)
920.01B2b Regular (Solvent), Liquid Pavement Marking Materials	QPL	-	-	-	Must be a Qualified Product (920.01ii)

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.l. Quantity	Remarks (QPL Reference)
920.01B2c Epoxy, Liquid Pavement Marking Materials	QPL	-	-	-	Must be a Qualified Product (920.01ii)
920.01B2c Polyurea, Liquid Pavement Marking Materials	QPL	-	-	-	Must be a Qualified Product (920.01ii)
920.01B2d Thermoplastic, Liquid Pavement Marking Materials	QPL	-	-	-	Must be a Qualified Product (920.01ii)
920.01B2e Thermoplastic, Sprayable, Liquid Pavement Marking Materials	QPL	-	-	-	Must be a Qualified Product (920.01ii)
920.01C Raised Pavement Markers	QPL	-	-	-	Must be a Qualified Product (920.01ii)
921.02 Span Wire	Gen Cert	1 per size	6 ft		
921.03 Traffic Signals and Mounting Assemblies	See Note	-	-	-	
NOTE: Compliance with specifications will be determined by the agency responsible for maintaining the system. Agency must provide the project engineer with a memo or other appropriate form indicating that the inspection has been made and the material is acceptable.					
921.05 Traffic Signal Strain Poles	VI and Test Data Cert	-	-	-	
922.02 Traffic Maintenance and Control Temp Signs, Reflective Sheeting	VI or QPL See Remark	-	-	-	For 1996 Spec, reflective sheeting may be a Qualified Product, 2003 spec jobs, product to meet 2003 specifications
922.03 Traffic Maintenance and Control, A. Cones and B. Drums	Gen Cert	-	-	-	For 1996 Spec, reflective sheeting may be a Qualified Product, 2003 spec jobs, product to meet 2003 specifications
922.03D Traffic Maintenance and Control Type III Barricade, Reflective Sheeting	VI or QPL See Remark	-	-	-	For 1996 Spec, reflective sheeting may be a Qualified Product, 2003 spec jobs, product to meet 2003 specifications
922.03E Traffic Maintenance and Control Temporary Concrete Barriers	Test Data Cert	Each proj.	-	-	Contractor testing and Cert Verification per MTM-716 & NCHRP 350. For JJ Easy Hook – Gen. Cert. No testing required.

MATERIALS ACCEPTANCE REQUIREMENTS

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.l. Quantity	Remarks (QPL Reference)
922.03E1 Barrier Reflector Markers Temporary and Permanent	VI or QPL	-	-	-	For 1996 Spec, reflective sheeting may be a Qualified Product, 2003 spec jobs, product to meet 2003 specifications
922.04A Traffic Maintenance and Control Temporary Pavement Markings; Type R and NR Tape	QPL	-	-	-	Must be a Qualified Product (922.04)
922.04A Traffic Maintenance and Control Temporary Pavement Markings; Paint	QPL See Remark	-	-	-	For 1996 Spec, see Specific Paint Type in Section 920.01
922.04B Temporary Raised Pavement Markers	QPL	-	-	-	Must be a Qualified Product
922.05 Traffic Maintenance and Control Lighted Arrows; Type B and C (Solar Assist)	VI or QPL See Remark	Each sign per proj.	Full unit	-	Contractor to allow two week lead time for inspection. Construction Inspection Report required. For 1996 Spec, Type C may be a Qualified Product or meet 2003 specifications
922.05B Traffic Maintenance and Control Warning Flashers and Lights; Type A, B, C	VI See Remark	Each proj.	3 each type		Units submitted for test when required by project engineer will be returned to the contractor upon completion of testing.
922.05C Portable Changeable Message Signs	VI	-	-	-	Contractor to allow two week lead time for inspection.
922.07 Traffic Maintenance and Control Sign Paddles and Vests	VI See Remark	-	-	-	VI for conformance to the MMUTCD, Section 6F-2, and the MDOT Traffic Regulators Instruction Manual. MDOT Guidance Document 10118
922.08A Traffic Maintenance and Control Dust Palliative 1. Calcium Chloride Solids	Test	1 per proj.	5 lb	5000 lb	
922.08A Traffic Maintenance and Control Dust Palliative 2. Calcium Chloride Solutions	Test	1 per proj.	1 qt	1000 gal.	
Misc. #2 Cast Iron and Ductile Iron (Watermain and Culverts)	Gen Cert	-	-	250 ft.	
Misc. #3 Clay Pipe	Gen Cert	See Remark	See Remark	10 pieces	See Special Instructions

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Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required	Sample Size	Maximum V.l. Quantity	Remarks (QPL Reference)
Misc. #5 Galvanized Slotted Drain Pipe	VI See Remark	-	-	-	MDOT approval of Design is required. Coating thickness checked at project site.
Misc. #7 ABS Pipe	Test	1 per 6000 ft	1 piece, 6 ft in length.	600 ft	If bell and spigot joint, sample from bell end.
Misc. #8 Corrugated Galvanized Steel Structural Plated	Gen Cert	1 per 100 plates or fraction thereof	1 piece at least 3 in. by 3 in.	10 plates	
Misc. #9 Aluminum Alloy Structural Plates	Gen Cert	-	-	-	
Misc. #13 Pavement Warning Strips	VI	-	-	-	
Misc. #14 Bituminized Cotton Fabric and Fiberglass Fabric	Gen Cert	See Remark	1 piece full width of roll, min. of 3 ft	5 rolls	1 per 100 rolls (50 sft per roll) or fraction thereof; for lots of more than 100 rolls - 1 sample plus 1 for each 500 rolls or fraction thereof. Do not sample from first 3-4 ft of roll.
Special Provision #1 Liner for Culverts A. Polyethylene Plastic Pipe	Gen Cert	-	-	-	
Special Provision #2 B. Reinforced Plastic Mortar Pipe	Gen Cert	-	-	-	
Special Provision #3 Railroad Ballast	Test	1 per 5000 ton	60 lb	500 tons	See UPTRAN Specifications for Trackwork
Special Provision #6 Truck Mounted Attenuator	Gen Cert	-	-	-	See Special Provision in Contract
Special Provision #7 Traffic Signal Mast Arm Pole and Mast Arm (Trunkline)	Fabrication Inspection	-	-	-	See QA Manual Section D-16

***** See following pages for SPECIAL INSTRUCTIONS (Pages 42 - 46) *****

SPECIAL INSTRUCTIONS

901 Cement

Certification Verification Sampling Schedule - Per the following

<u>Quantity of Concrete to State Projects (per week)*</u>	<u>Frequency</u>
Less than 500 cyds.	1 per 1000 cyd.
500 cyds. to 2000 cyds.	1 every month
2000 cyds. to 6000 cyds.	1 every other week
Over 6000 cyds.	1 per 12,000 cyd.

The plastic lined cement sample bags furnished by the laboratory will hold 10 pounds when full.

*Quantity estimated and based upon work in area, season of the year, orders, past experiences, etc.

907.03 Woven Wire Fencing Materials, Steel Posts

Size of Sample - 5 posts. If compliance with weight requirements can be accurately determined in the field by weighing 5 posts selected at random (with ground plates removed), only 1 post need be submitted for a sample. Include complete weight information on sample identification.

Maximum for VI - 15 end, corner, gate and brace posts; 80 line posts for woven wire.

NOTE: An alternate zinc/clear coat system shall be applied for pipe sections only. This alternate coating system shall consist of 2 ounces/square feet of zinc coating on all surfaces of the pipe according to ASTM A123. A clear acrylic coating having a minimum thickness of 7.6 microns shall be applied to the exterior surface after galvanizing.

907.04 Steel Chain Link Fence Materials, Posts for Fence and Gates (Steel)

Size of Sample - 5 posts. If compliance with weight requirements can be accurately determined in the field by weighing 5 posts selected at random (with ground plates removed), only one post need be submitted for a sample. Include complete weight information on sample identification.

Maximum for VI - Gate posts, 15 each; line posts, 25 each.

NOTE: An alternate zinc/clear coat system will be allowed for pipe sections only. This alternate coating system shall comply with subsection 907.03D of 2003 Standard Specifications for Construction.

909.04A Reinforced Concrete Pipe

Size of Sample - Full size units for strength test. For absorption tests, 26 inch square to 81 inch square in area from the wall of each piece of pipe tested.

Number of Samples - One percent of the number of pieces of each size.

Reinforced concrete pipe 42-inch diameter and larger may be tested by coring. Size of core will be 4-inch nominal diameter (but not less than 3 ¼ inches actual). Up to 1 percent of the number of pieces of pipe for each size, but not less than 3 pieces, will be selected for coring. One core will be drilled and tested from each of these test pieces. Reinforcement will be inspected prior to incorporation in the pipe.

909.04C Nonreinforced Concrete Pipe

Size of Sample - Same as reinforced concrete pipe.

Number of Samples - One percent of the number of pieces, but not less than 2 pieces of each size except that at the option of the department the following sampling schedule will apply for 4 inches through 24 inches in diameter sewer pipe for quantities of 500 or more:

Sampling Schedule - Per the following:

<u>Concrete Pipe</u>	<u>Number of Samples</u>
500 to 1,000 pieces	6
1,001 to 2,000 pieces	8
2,001 to 5,000 pieces	11
Over 5,000 pieces	2 samples per 1,000 or fraction thereof

909.05A Corrugated Steel Pipe

Size of Sample - A 6-inch by 3-inch (minimum) section cut from the pipe. The sample should be taken from the end of the pipe avoiding the seams. Care should be taken to assure the coating is not damaged during sampling.

Number of Samples - Per the following:

<u>Diameter of Pipe</u>	<u>Quantity Represented (maximum)</u>
12 inches or less	2500 ft.
15 inches through 54 inches	1000 ft.
60 inches and over	500 ft.

Less than 5 percent of the quantity in the above table may be visually inspected.

909.05A1 Corrugated Galvanized Steel Sheets

Size of Sample - One strip the full width of the sheet and 3 ½ inches in the direction of the length of the sheet. The strip may be cut from the end of the sheet for material coated in coils. If the sheets were individually coated after being cut to length, as indicated by heavy accumulations of zinc at one end, the sample strip shall be cut from the end opposite the heavy accumulation and after cutting 4 inches from the end of the sheet.

Number of Samples - Per the following:

<u>Diameter of Pipe</u>	<u>Length of Sheet</u>	<u>Quantity Represented (max)</u>
12 inches or less	44 inches or less	2500 feet
15 through 54 inches	50 to 175 inches, approx*	1000 feet
60 inches and over	190 inches and over*	500 feet

*Larger pipe may be made from combination of shorter sheets. Less than 5 percent of the quantity in the table above may be visually inspected.

NOTE: Normally each heat and thickness is to be sampled. Exception may be made where quantities are limited and/or mixtures of heat numbers are excessive.

909.05B Corrugated Aluminum Alloy Sheets

Size of Sample - A transverse strip full width of the sheet and at least 3 inches in length cut from the end of the sheet.

Number of Samples - A sample shall be taken from each of 3 different sheets for lots weighing 5 tons or less, from 4 sheets for lots weighing more than 5 tons and less than 10 tons, and from 5 sheets for lots weighing 10 tons or more.

Less than 25 sheets may be visually inspected.

909.06A Corrugated Polyethylene Pipe (Smooth Lined Type S or Corrugated)

Sampling Frequency - Straight Lengths, 12-inch diameter and over - 1 per 1000 feet

If the manufacturer has developed a history of five consecutive passing tests over the past two years for a given diameter of pipe (12 to 24-inch), at the discretion of the MDOT testing laboratory the sampling frequency may become 1 per 2500 feet for that diameter of pipe provided the stockpile consists of pipe manufactured with a single "Plant" and "Date" code. The Tested Stockpile sampling frequency of one sample per 1000 feet of pipe (12 to 36 inch) may be re-instituted if the manufacturer experiences three failing test results for a given diameter of pipe over a one year period. Up to date information on sampling frequency may be acquired from MDOT's Construction and Technology Division.

Size of Sample - Over 12-inch diameter - one 10-foot length and one 6-foot length plus coupling

Maximum for VI - 12-inch diameter and over - 100 feet

For perforated pipe wrapped in geotextile fabric, tie fabric securely in place on sample before cutting pipe sample. Do not disturb fabric after cutting.

Suppliers shall provide MDOT inspector with list of date codes on pipe in stockpile to be tested prior to sampling.

Each size pipe is a different material. Stockpile each pipe size separately.

Perforated Pipe

Twelve inches in diameter and above shall be tested for acceptance on a project-by-project basis when specified by Special Provision (No Tested Stock).

Watertight sleeves shall be submitted with a pipe section 12 inches minimum length and gasket fully inserted into one end of the sleeve. A second gasket shall be supplied already installed on either the 10-foot specimen or on a separate specimen at least 12 inches in length, from the same stockpile.

Single Gasket Bell and Spigot Fused Coupling System - Couplers shall be submitted as attached part of 10-foot specimen and a second piece of the specimen, minimum of 12 inches in length, with gasket installed shall be included with the sample.

Each size pipe is a different material. Stockpile each pipe size separately.

For perforated pipe and tubing wrapped in geotextile fabric, tie fabric securely in place on sample before cutting pipe sample. Do not disturb fabric after cutting.

909.07 Corrugated Polyethylene Pipe (Tubing) (Perforated and Non-Perforated) (Wrapped and Non-Wrapped)

Sampling Frequency - From Coils - 1 per 5000 feet

Size of Sample - One 10-foot length plus coupling. For perforated tubing wrapped in geotextile fabric, tie fabric securely into place before cutting sample. Do not disturb fabric after cutting.

909.08A Downspouts for Bridge, Polyethylene (PE) Plastic Pipe

Normal Sampling Frequency -

From Coils - 1 per 5000 ft.

Straight Lengths, Less than 12 inches dia. - 1 per 2500 ft.

Straight Lengths, 12 inches in dia. and over - 1 per 1000 ft.

Size of Sample - Over 12 inches in diameter - one 10-foot length and one 6-foot length plus coupling.

Maximum for VI - Less than 12 inches dia. - 250 ft.
12 inches dia. and over - 100 ft.

NOTE: Suppliers shall provide MDOT inspector with list of date codes on pipe in stockpile to be tested prior to sampling.

Perforated Pipe

See subsection 909.06A of the Standard Specifications for Construction.

910.03 Geotextiles

Sampling Frequency - Obtain Certification Verification samples for geotextiles when the quantity of each material type on any particular project exceeds the following amounts:

<u>Geotextile</u>	<u>First Sample</u>	<u>Additional Samples</u>
Blanket	1200 syd.	7,500 syd.
Liner for Riprap	1200 syd.	5,000 syd.
Separator/Stabilization	1200 syd.	25,000 syd.
Liner for Heavy Riprap	1200 syd.	4,000 syd.

Size of Sample - Sample shall be a minimum of 3 ft. long by the full roll width, with a 3 syd. minimum.

Maximum for VI - 360 syd. (3200 sq. ft.)

NOTE: Woven geotextile must be **rolled**, not folded, and shipped in a manner to prevent creases in the fabric.

914.04C Neoprene Joint Seal

Sample - Each sample to be a minimum of 1 yard (straight or loosely rolled - no kinks) (2 ft. for bridge seals). Samples shall to be collected, randomly within each lot of production.

914.05 Epoxy Binder, For Joint Spall Repair

Normal Sampling Frequency - 1 per lot or batch number

Size of Sample - For material mixed at 1:1 ratio - 2 quart, 1 quart of each component: For material mixed at 2:1 ratio - 1/2 gallon of resin and 1 quart of curing agent. Material limited to shelf life of one year from date of manufacture. Material must be labeled with date of manufacture. MAY BE "TESTED STOCK" ITEM.

Maximum for VI - 5 gallons

917.12 Grass Seed Sampling Information

Sample - For lots of 1 to 6 bags, sample each bag. For lots of more than 6 bags, sample 5 bags plus at least 10 percent of the bags in the lot. It is not necessary to sample more than 30 bags in any single lot.

NOTE: Samples are to be sent to Lansing Maintenance Division.

Acceptance by the Project Engineer is based on visual inspection of original, sewn-on bag tickets

for verification of quantity and source of seed. The guaranteed analysis on the ticket will constitute the certification of this product by the Approved Certifier.

Misc. #3 Clay Pipe

Normal Sampling Frequency - One percent of the number of pieces, but not less than 2 pieces of each size except that at the option of the department the following sampling schedule will apply for 4-inch through 24-inch diameter sewer pipe for quantities of 500 or more:

Sampling Schedule - Per the following:

<u>Clay Pipe</u>	<u>Number of Samples</u>
500 to 1,000 pieces	6
1,001 to 2,000 pieces	8
2,001 to 5,000 pieces	11
Over 5,000 pieces	2 samples per 1,000 or fraction thereof

Size of Sample - Full size units for strength test. For absorption tests, 26 inches square to 82 inches square in area from the wall of each piece of pipe tested.

Maximum for VI - 10 pieces