SECTION 116

ASPHALT CONCRETE

116.1 GENERAL: Asphalt concrete shall consist of a mixture of asphalt binder, aggregates, mineral filler and admixtures, proportioned as required, batched and delivered as specified herein. All materials and job mix formulas used in asphalt concrete, either batched at or delivered to a project, shall be certified in accordance with the requirements of Section 13 of these specifications. The CONTRACTOR shall be solely responsible for asphalt concrete job mix formula supplied under this specification, its proportions and manufacture. Each job mix formula submitted and authorized for use under this Specification shall be identified by a number, unique to that job mix formula. If either a change in material(s) or material supplier(s) from that specified in the job mix formula occurs during a project, authorized use of the job mix formula on the project may be cancelled as directed by the ENGINEER. A job mix formula shall not be used on a project without written approval of The ENGINEER. A job mix formula, upon request by an asphalt concrete supplier, may be approved by the Municipal Development Department for use on City and City related projects for a period of 14 months from the date of sampling of reference aggregates used in the job mix formula. The primary use of this specification is for the City to approve a Job Mix Formula.

116.2 REFERENCES:

116.2.1 American Society For Testing and Materials (ASTM):

C88 Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
C117 Method for Material Finer Than 0.75 um (No.200) Sieve In Mineral Aggregates by Washing
C131 Test Method for Resistance to Degradation of Small-size Coarse Aggregate by Abrasion and Impact in a Los Angeles Machine
C136 Method for Sieve Analysis of Fine and Coarse Aggregate
D242 Specifications for Mineral Filler for Bituminous Paving Mixtures
D692 Specification for Coarse Aggregate for Bituminous Paving Mixtures
D979 Methods of Sampling Bituminous Paving Mixtures
D995 Specification for Mixing Plants for Hot-Mixed, Hot Laid Bituminous Paving Mixtures
D1073 Specification for Fine Aggregate for Bituminous Paving Mixtures
D1074 Test Method for Compressive Strength of Bituminous Mixtures
D1559 Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus
D2041 Theoretical Maximum Specific Gravity of Bituminous Paving Mixtures
D2493 Viscosity-Temperature Chart for Asphalts
D2851 Test for Determining the Percentage of Fractured Particles in Coarse Aggregate
D3203 Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures
D3515 Standard Specification for Hot Mixed, Hot-Laid Bituminous Paving Mixtures
D4791 Test for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate

116.2.2 American Association of State Highway and Transportation Officials (AASHTO) (Latest Edition):

MP2 Specification for Superpave™ Volumetric Mix Design
PP-28 Superpave™ Volumetric Design for HMA
TP 4 Preparation of Compacted Specimens of Modified and Unmodified Hot Mix Asphalt by Means of SHRP Gyratory Compactor
PP 2 Short and Long-term Aging of Bituminous Mixes
T53 Quantitative Analysis of Bitumen From Bituminous Paving Mixtures, Ignition Oven Method A
T245 Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus
T283 Resistance of Bituminous Mixture To Moisture Induced Damage
T304 Uncompacted Void Content of Fine Aggregate

116.2.3 Asphalt Institute

MS-2 Mix Design Methods, Sixth Edition
MS-2 Mix Design Methods, Sixth Edition, Section 5.16, Modified Marshall Method For Large Aggregate

116.2.4 This publication:

SECTION 13 WARRANTY AND GUARANTEE; TESTS AND INSPECTIONS; CORRECTIONS, REMOVAL, OR

ACCEPTANCE OF DEFECTIVE WORK
SECTION 101 PORTLAND CEMENT CONCRETE
SECTION 112 ASPHALT BINDER
SECTION 118 HYDRATED LIME
SECTION 336 ASPHALT CONCRETE PAVEMENT

116.3 MATERIALS

116.3.1 Asphalt binder shall comply with the requirements of SECTION 112-ASPHALT BINDER

116.3.2 Aggregates shall be crushed stone, crushed gravel, crushed asphalt concrete pavement, crushed portland cement concrete, and natural or manufactured sand conforming to the quality and crushed particle requirements of this Specification. Coarse aggregates shall comply with the requirements of ASTM D692, Coarse Aggregate for Bituminous Paving Mixtures. Fine aggregates shall comply with the requirements of ASTM D1073, Fine Aggregate for Bituminous Paving Mixtures. The combined aggregates, proportioned as defined by the target gradation, shall comply with the requirements of Table 116.A. Aggregates shall be certified to comply with the requirements of this Specification and authorized for use by The ENGINEER before the materials may be incorporated in the construction. Prior to delivery of the aggregates or material containing the aggregates, The CONTRACTOR may be required to furnish samples of the aggregates to The ENGINEER for testing. Daily production aggregates gradations shall be submitted to the ENGINEER, upon request.

116.3.3 Mineral filler shall comply with the requirements of ASTM D242, Mineral Filler for Bituminous Paving Mixtures and as specified herein. Mineral filler shall be certified to comply with the requirements of this Specification and approved for use by ENGINEER before the materials may be incorporated in the construction. Prior to either delivery of the mineral filler or material containing the mineral filler, The CONTRACTOR may be required to furnish samples of the mineral filler to The ENGINEER for testing.

116.3.4 Asphalt concrete shall comply with the minimum requirements of TABLE 116.C.1.H. Moisture susceptibility, % retained strength at 7% air voids, AASHTO T283, with freeze cycle. Admixtures to reduce moisture susceptibility in an asphalt concrete mix shall be either hydrated lime, portland cement, liquid admixture, or a modified asphalt binder authorized by the ENGINEER.

116.4 PROPORTIONING:

116.4.1.1 The CONTRACTOR shall be solely responsible for the asphalt concrete job mix formula (jmf) proportions and asphalt concrete either batched at and/or delivered to the site. Asphalt concrete shall be proportioned in accordance with the requirements of this Specification.

116.4.1.2 Asphalt concrete material proportioned with “performance grade binders” shall be proportioned to comply with the requirements of TABLE 116.C.1 of this specification, AASHTO MP2, Specification for Superpave™ Volumetric Mix Design, and PP-28, Superpave™ Volumetric Design for HMA. The job mix formulas shall be designed under the direct supervision of a New Mexico Registered Professional Engineer who has completed a certified “SUPERPAVE Mixture Design & Analysis” Short Course.

116.4.2.1 Asphalt concrete for construction of street classifications of Collector, Minor and Major Arterial, and Controlled Access Roadways may be proportioned with performance grade (PG) binders.

116.4.2.2 Asphalt concrete for construction of street classifications of Residential, Local, Major Local, and streets with design equivalent single axle loads (Esals) less than 3.0 mil, may be proportioned with a PG70-22 performance grade binder.

116.4.3 Asphalt concrete proportioned with either penetration or viscosity grade binders shall be proportioned to comply with the requirements TABLE 116.C.2. A JMF shall be prepared in a laboratory under the direct supervision of a New Mexico Registered Professional Engineer.

116.4.4 Asphalt concrete design and analysis shall be performed in a laboratory accredited in accordance with the requirements of the New Mexico Department of Transportation “Procedure for Approval of Testing Laboratories to Perform Inspection, Testing, and Mix Design Services”, April 13, 1998 Edition.

116.4.5.1 An asphalt concrete job mix formula shall be proportioned to comply with the requirements of TABLE 116.B AGGREGATE GRADATION PROPERTIES and either TABLE 116.C.1 ASPHALT

CONCRETE DESIGN SPECIFICATIONS PERFORMANCE GRADE BINDERS, or TABLE 116.C.2 ASPHALT CONCRETE DESIGN SPECIFICATIONS PENETRATION AND VISCOSITY GRADED BINDERS.

116.4.5.2.1 Aggregates, mineral filler, and anti-strip admixture if required, shall be proportioned to provide a combined gradation that complies with the requirements specified in Table 116.B, and have the same or similar shape characteristic gradation curve as the specification limits specified therein when graphically plotted on a standard "0.45 POWER" gradation chart. The gradation shall be reported to the nearest whole per cent for material passing sieves above the 0.075 mm (no. 200) sieve, and to the nearest 0.1 per cent for material passing the 0.075 mm (no. 200) sieve. The theoretical maximum density gradation curve shall be the curve represented by a straight line drawn from the intersection of the ordinate and abscissa of the graph to the one hundred percent passing point for the nominal maximum size aggregate.

116.4.5.2.2 The design characteristic shape gradation curve for SP-II asphalt concrete shall be similar to a ”S” shape curve, with a convex curve above the maximum density line for aggregate greater than 4.75 mm (No.4) sieve and a concave curve below the maximum density line for aggregate finer than the 4.75 mm (No.4) sieve.

116.4.5.2.3 The design characteristic shape gradation curve for Type SP-III and SP-IV asphalt concretes shall be similar to a ”S” shape curve, with a convex curve above the maximum density line for aggregate greater than 2.36 mm (No.8) sieve and a concave curve below the maximum density line for aggregate finer than the 2.36 mm (No.8) sieve.

116.4.5.2.4 The design characteristic shape gradation curves for Types B, C, and D, asphalt concretes shall be similar to two convex curves above the maximum density line, one for aggregate greater than the 2.36 mm (No.8) sieve, and one for aggregate finer than the 2.36 mm (No.8) sieve. The two curves shall intersect each other at the 2.36 mm (No.8) sieve.

116.4.5.2.5 The design characteristic gradation curve shape for Type A asphalt concretes shall be similar to two convex curves above the maximum density line, one for aggregate greater than the 4.75 mm (No.4) sieve, and one for aggregate finer than the 4.75 mm (No.4) sieve. The two curves shall intersect each other at the 4.75 mm (No.4) sieve.

116.4.6 The job mix formula asphalt binder content shall be proportioned to provide a job mix formula that complies with the requirements defined either in TABLE 116.C.1 when proportioned with PG binders, or in TABLE 116.C.2, when proportioned with either penetration or viscosity graded binders. The design asphalt binder content shall be selected, based on laboratory testing, aged binder/mix required. The binder content shall include a minimum of 75% virgin binder when a job mix formula is designed with recycled asphalt concrete pavement, RAP. The design % binder content, ± 0.3%, shall not exceed the binder content at minimum VMA.

116.5.1 A design mix job mix formula submittal shall be include but not be limited to the information specified in TABLE 116.D-SUBMITTAL INFORMATION, as directed by the ENGINEER.

116.5.2 The materials specified in an authorized job mix formula shall be the same source and type for all asphalt concrete batched, delivered, placed and compacted, under the identification code defined for the authorized job mix formula.

116.5.3 A submittal shall be rejected if it does not include the specified information and samples. A job mix formula submittal shall be accepted or rejected within ten (10) working days of receipt by the ENGINEER.

116.6 PRODUCTION:

116.6.1 Asphalt concrete shall be produced in accordance with the requirements of ASTM D3515, the requirements of this Specification, or as authorized by The ENGINEER. Production facilities shall comply with the requirements of ASTM D995, and this Specification. A plant shall be certified annually, by a New Mexico Registered Professional Engineer, to comply with the requirements of this Specification and Section 13. The production plant shall be calibrated annually with calibration standards traceable to the National Bureau of Standards. Certification shall be completed within 12 months prior to production of an authorized job mix formula at the plant. Certificates of calibration and production certifications shall be maintained at the plant for review by The ENGINEER. A copy of the certifications shall be submitted to The

ENGINEER upon request.

116.6.2 Asphalt concrete shall be placed at the design proportions specified in the authorized job mix formula within the specified production tolerances for combined aggregate gradation and asphalt binder content. Asphalt concrete placed at a project, sampled and tested in accordance with this specification, shall have a gradation that complies with the authorized design gradation ± the production tolerance(s) specified in the authorized job mix formula. Asphalt concrete placed at a project, sampled and tested in accordance with this specification, shall have an asphalt content that complies with the design asphalt content ± 0.5% (laboratory analysis), T53-Quantitative Analysis of Bitumen From Bituminous Paving Mixtures, Ignition Oven Method, Method A (Modified: reference temperature for constant mass, 149 ± 3° C / 300 ± 7 °F).

116.7 DELIVERY:

116.7.1 Asphalt concrete shall be delivered in trucks free of fluid leaks. Trucks detected to have leaks shall not be allowed on the project. Subgrade, base course, and asphalt concrete surfaces contaminated by uncontrolled equipment fluids shall be removed and replaced with complying material. Contaminated material shall be disposed of as specified. When hauling time from the mixing plant to the job site exceeds two hours or when inclement weather prevails, bituminous mixtures shall be covered with tarpaulins while being hauled. The tarpaulins shall completely cover the load and be firmly tied down. Mixtures shall be delivered to site of the work and placed without segregation of the ingredients and within the temperature range specified in the authorized job mix formula. Diesel fuel or other petroleum based solvents shall not be used in the bed of transport vehicles as a release agent to prevent build-up of the asphalt material. Material contaminated with diesel fuel or other petroleum based solvents shall be removed and replaced with complying material by the CONTRACTOR, as directed by the ENGINEER, at no cost to the OWNER.

116.7.2 The CONTRACTOR shall provide with each load of asphalt concrete batched and/or delivered to the job site, before unloading at the site, a delivery ticket on which is printed, stamped or written, the information defined in Table 116.E One copy of the ticket shall be available for each of the ENGINEER and the quality assurance testing program.

116.8 SAMPLING AND TESTING:

116.8.1.1 Quality assurance asphalt concrete sampling and testing shall be performed in accordance with the requirements of this specification, the Supplemental Technical Specifications, or as directed by the ENGINEER.

116.8.1.2 Quality assurance asphalt concrete analysis shall be (1) performed in a laboratory accredited in accordance with the requirements of the New Mexico Department of Transportation "Procedure for Approval of Testing Laboratories to Perform Inspection, Testing, and Mix Design Services", latest revision, and (2) under the direct supervision of a New Mexico Registered Professional Engineer.

116.8.1.3 Testing equipment shall be calibrated annually with calibration standards traceable to the National Bureau of Standards. Calibration records and certifications shall be maintained at the Laboratory for review by the ENGINEER. A copy of the certifications shall be submitted to the ENGINEER upon request.

116.8.1.4 Quality assurance sampling and testing shall be performed by a technician certified under the New Mexico Department of Transportation/Associated Contractors of New Mexico Technical Training and Certification Program for ASPHALT and SUPERPAVE™.

116.8.1.5 Quality assurance sampling and testing shall be conducted under the direct supervision of a New Mexico Registered Professional Engineer.

TABLE 116.A - COMBINED AGGREGATE DESIGN PROPERTIES

CHARACTERISTIC	AGGREGATE TYPE Coarse	AGGREGATE TYPE Fine	PROCEDURE

1. Coarse aggregate angularity, material > 4.75 mm	[1]	[2]	-	ASTM D 5821
ESALs < 3.0 mil	85	80		
3.0 < ESALs < 30.0 mil	95	90		
30.0 mil ≤ ESALs	100	100		
2. Fine aggregate angularity as air voids, %, min	-		45	AASHTO TP 33
3. Flat and elongated particles, 3:1 or greater dimension, material > 4.75 mm, %	20 max			ASTM D 4791
4. Clay content, min %	-		45	ASTM D 2419
5. Deleterious material, max %	1		1	ASTM C 142
6. LA Abrasion, material > 2.36 mm, max loss, %	40		40	ASTM C 131
7. Soundness, max loss after 5 cycles, %	15		15	ASTM C 88

[1] coarse aggregate has one or more fractured faces
[2] coarse aggregate has two or more fractured faces

TABLE 116.B AGGREGATE GRADATION [3]

	% PASSING TYPE, Nominal Maximum Size Aggregate [1]												
	SP-II/A, 1		SP-III, 3/4		SP-IV, ½		SP-V/D, 3/8		B, 3/4		C, ½		PRODUCTION
SIEVE SIZE,	min	max	min	max	min	max	min	max	min	max	min	max	TOLERANCE (+/-
1-1/2	100	100	-	-	-	-	-	-	-	-	-	-	
1.00	86	96	100	100	-	-	-	-	100	100-	-	-	8
3/4	-	90-	89	96	100	100	-	-	88	96	100	100	8
½	62	83	-	90	88	96	100	-	-	90	88	96	8
3/8	-	-	64	85	-	90	91	97	70	85	73	90	8
no.4	31	40	37	47	52	70	-	90	51	69	57	75	7 [2]
8	19	27	23	32	28	39	47	67	35	49	39	58	6
16	10	18	12	22	14	26	38	55	28	40	32	48	6
30	6	14	8	17	8	19	28	43	21	31	24	38	5
50	4	11	5	14	5	16	19	30	14	23	16	27	5
200	3.0	7.0	3.0	8.0	2.0	10.0	3.0	10.0	2.0	8.0	3.0	10.0	3.0

NOTES: [1] SP-II and Type A gradation materials may not be used for the surface course
[2] If recycled asphalt concrete aggregate (RAP) is used, ±8%
[3] A JMF aggregate gradation may pass through the restricted zone if all JMF volumetric design criteria is in compliance. The restricted zone is defined by the material passing the no.8 to no.30 sieves for SP-II and Type A asphalt concretes. The restricted zone is defined by material passing the no.4 to no.30 sieves for all other asphalt concrete.

TABLE 116.C.1 - ASPHALT CONCRETE SUPERPAVE DESIGN SPECIFICATIONS

DESCRIPTION	Local, Major Local, Residential, Intersections [1]		Collector, Minor and Major Arterial, Controlled Access Roadway, and Intersections [1]			
A. Binder	PG70-22		PG76-28		PG76-28	
B. Equiv.. Single Axle Load, ESALs (million)	< 3		3 ≤ ESALs <30		30 ≤ ESALs [2]	
C. Voids, %	3.5 - 4.5		3.5 - 4.5		3.5 - 4.5	
D. Voids in Mineral Aggregate, VMA, %	min	max	min	max	min	max
Type SP-II [3], (1 in.)	12	14	12	14	12	14
Type SP-III, (3/4 in.)	-	-	13	15	13	15
Type SP-IV, (½ in.)	-	-	14	16	14	16
Type SP-V, (3/8 in.)	-	-	16	18	16	18
Type A, (1 in.) [3]	12	14	-	-	-	-
Type B, (3/4 in.)	13	15	-	-	-	-
Type C, (½ in.)	14	16	-	-	-	-
Type D, (3/8 in.)	16	18	-	-	-	
E. Voids filled with binder, %						
Type SP-II [3], (1 in.)	-	-	65	75	65	75
Type SP-III, (3/4 in.)	-	-	65	75	65	75
Type SP-IV, (½ in.)	-	-	65	75	65	75
Type SP-V, (3/8 in.)	-	-	65	75	65	75
Type A, (1 in.) [3]	68	78	-	-	-	-
Type B, (3/4 in.)	68	78	-	-	-	-
Type C, (½ in.)	68	78	-	-	-	-
Type D, (3/8 in.)	68	78	-	-	-	-
F. Dust Ratio, -no.200 (0.075mm) : $\%P_{be}$	0.6	1.6	0.6	1.6	0.6	1.6
G. Gyratory compaction [4] at binder compaction temp, ± 5°F						
Gyrations	N	% CMPTN	N	% CMPTN	N	% CMPTN
N_i (initial)	7	91.0	8	89.0	9	89.0
N_d (design)	75	96.0	100	96.0	125	96.0
N_m (max)	115	98.0	160	98.0	205	98.0
H. Moisture susceptibility, % retained strength @7% air voids, AASHTO T283, with freeze cycle.	80 min		80 min		80 min	

NOTES:

[1] The intersection area shall be the core area common to all intersecting streets, and, include the distance to the curb return of the approach and departure of the intersecting streets.

[2] Level II Design Complying with NMSHTD Procedures at Date of Bid, as directed by the ENGINEER.

[3] SP-II and Type A gradations asphalt concrete shall not be used for surface course

[4] % of maximum theoretical specific gravity / density, Gmm

TABLE 116.C.2 - ASPHALT CONCRETE DESIGN SPECIFICATIONS
PENETRATION & VISCOSITY GRADE BINDERS

DESCRIPTION	Residential, Local, Major Local, and Intersections
A. Binder Grade	60-70 Pen, AC-20 Viscosity
B. Equiv. Single Axle Load, ESALs (million)	ESALs < 3.0
C. Voids, %	3.5 - 4.5
D. Voids in Mineral Aggregate, VMA, %	
Type A, (1 in.)	12 - 14
Type B, (3/4 in.)	13 - 15
Type C, (½ in.)	14 - 16
Type D, (3/8 in.)	15 - 17
E. Voids filled with binder, %	68 - 78
F. Dust Ratio, -no.200(0.075 mm) : $\%P_{be}$	0.6 - 1.6
G. Marshall Stability Design, Blow counts/ each face	50
Stability, lbs, min	1500
Flow, 0.01 in	10-18
H. Stability to Flow Ratio, minimum @target binder $\pm$ 0.5%	200
I. Moisture susceptibility, % retained strength, @ 7% air voids, AASHTO T283, with freeze cycle.	80 min

NOTES:
[1] The intersection area shall be the core area common to all intersecting streets and include the distance to the curb return of the approach and departure of the intersecting streets.

TABLE 116.D - SUBMITTAL INFORMATION

I. Identification
- A. Asphalt concrete supplier
- B. Laboratory that performed design/development tests
- C. Date of Submittal
- D. Unique mix code identification number
- E. Aggregate sample date

II. Job Mix Formula (jmf)
- A. City type/application of asphalt concrete
- B. Component material target proportions to include combined aggregate gradation and asphalt content, specifications, and production tolerances
- C. 0.45 power gradation plot of combined aggregate gradation with specification and production limits
- D. Temperature viscosity relationship of binder
- E. Recommended mixing, compaction, and release to traffic maximum temperatures.
- F. Tabulation of job mix formula performance characteristics defined in either TABLE 116.C.1 or TABLE 116.C.2, as applicable, at the proposed design proportions, with reference specification limits and production limits (if specified), maximum theoretical specific gravity/density (as pcf), and bulk specific gravity/density (pcf).
- G. Reference daily production gradation, see 116.3.2

III. Certifications of Compliance
- A. Compliance of job mix formula by NM Registered Professional Engineer in direct charge of design/development;
- B. Design Laboratory Certification, projects bid after June 30, 2000.
- C. Component materials testing and certification by supplier/manufacturer with supporting test data for materials used in design development

D. Certification and laboratory test results of asphalt binder used in job mix formula design development, see 112.4.1.2.

IV. Design Development (Tables and graphs, with specifications limits of the following:)

A. Marshall Design & Modified Marshall Designs (design development with a minimum of 4 asphalt binder contents required, and the recommended design characteristic bracketed by a minimum of two test points for the design binder content ± 0.5%)

1. Design hammer blow counts, mold diameter, hammer mass and drop
2. Stability (lbs.) vs. % asphalt content
3. Flow (0.01 in.) vs.% asphalt content
4. Briquette bulk Specific Gravity and Bulk Density (as pcf) vs. % asphalt content
5. % Voids In Mineral Aggregate (% VMA) vs. % asphalt content
6. % Voids (Pa) in asphalt concrete vs. % asphalt content
7. % voids filled in Asphalt Concrete vs. % asphalt content
8. dust ratio vs.% asphalt content

B. SUPERPAVE Design (Tables and graphs, with specifications limits of the following)

1. Trial Designs: Aggregate gradations, 3 minimum required, and trial asphalt binder content (%)

a) Table of Aggregate Gradations and 0.45 power plot, with specification limits
b) Trial design % asphalt content
c) Trial designs volumetric analysis for each gradation, VMA, Va, VFA, graph not required
d) Trial designs compaction analysis @ Ni, Nd, and Nm, for each gradation
e) Dust ratio for each trial design, graph not required

2. Job Mix Formula Design, (design development with a minimum of 4 asphalt binder contents required, and the recommended design characteristic bracketed by a minimum of two test points for the design binder content ± 0.5%)

a) Table of design aggregate gradation and 0.45 power plot, with specification limits and production targets
b) Compaction analysis G_{mb} as % $G_{m,}$ at Ni, Nd, and Nm, vs asphalt content (separate graphs for Ni, Nd, and Nm)
c) Volumetric analysis of VMA, Va, VFA, and dust ratio at design gyration, @Nd, vs % asphalt content
d) Gyratory compaction tables as height of sample versus gyration, for each asphalt content, Gmb @ NM, and bulk specific gravity/density correction factor(s) (graphs not required)
e) Maximum theoretical specific gravity/density (as pcf), G_{mm}, vs %asphalt content @Nd
f) Corrected bulk specific gravity/density (as pcf), G_{mb}, vs % asphalt content
e) dust ratio vs.% asphalt content
f) Recommended gyratory sample mass(g) for 115 mm sample height at Nm

C. Ignition Correction Factor: Correction for material losses during asphalt content ignition oven analysis

The correction factor shall be determined as the average value for three samples, design % asphalt content, design - 1.0%, and design +1.0%, developed in an ignition oven complying with the requirements of AASHTO T53, Method A.

TABLE 116.E - DELIVERY TICKET INFORMATION

Name of Asphalt Concrete Supplier
Date of Delivery
Delivery Ticket Number Contractor
Project Name (optional)
Job Mix Formula Number
Weight of Load (tons)
Time loaded