10/5/2009

Quadrant: S
Section: 8
Sublot: 1

Laboratory Diary

General Desccription of Mix and Materials

Design Method:	FC-5
Compactive Effort:	50 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Granite/RAP
Design Gradation Type:	PFC

Avg. Lab Properties of Plant Produced Mix

Sieve Size	Design	QC
25 mm (1"):	100	100
19 mm (3/4"):	100	100
12.5 mm (1/2"):	95	97
9.5 mm (3/8"):	64	71
4.75 mm (#4):	15	21
2.36 mm (#8):	9	11
1.18 mm (#16):	8	9
0.60 mm (#30):	6	7
0.30 mm (#50):	5	6
0.15 mm (#100):	4	4
0.075 mm (#200):	3.7	3.1
Binder Content (Pb):	5.5	5.1
Eff. Binder Content (Pbe):	4.9	NA
Dust-to-Binder Ratio:	0.8	NA
Rice Gravity (Gmm):	2.446	2.482
Avg. Bulk Gravity (Gmb):	2.037	NA
Avg Air Voids (Va):	16.8	NA
Agg. Bulk Gravity (Gsb):	2.613	NA
Avg VMA:	26.3	NA
Avg. VFA:	36	NA

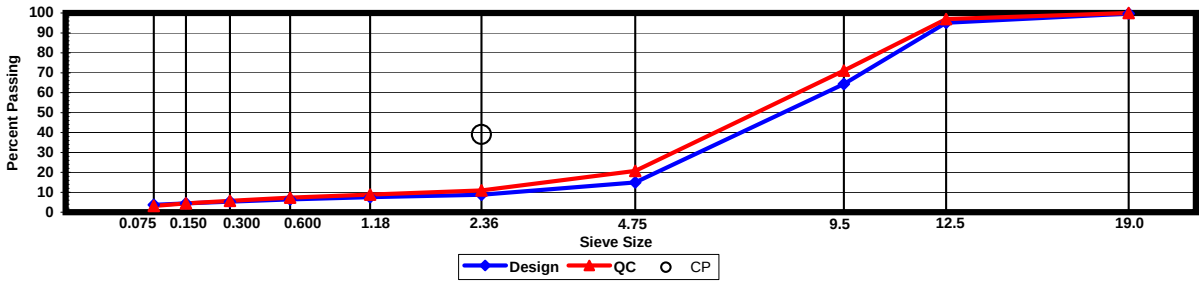
Construction Diary

Relevant Conditions for Construction

Completion Date:	July 15, 2009
24 Hour High Temperature (F):	91
24 Hour Low Temperature (F):	74
24 Hour Rainfall (in):	0.24
Planned Subot Lift Thickness (in):	1.3
Paving Machine:	Spray Paver

Plant Configuration and Placement Details

Component	% Setting
Asphalt Content (Plant Setting)	5.5
78 LaGrange Granite	85.0
Coarse Fraction Local RAP	15.0
Cellulose	0.3
As-Built Sublot Lift Thickness (in):	1.3
Total Thickness of All 2009 Sublots (in):	7.0
Approx. Underlying HMA Thickness (in):	0.0
Type of Tack Coat Utilized:	NTSS-1HM
Target Tack Application Rate (gal/sy):	0.05
Approx. Avg. Temperature at Plant (F):	335
Avg. Measured Mat Compaction:	75.0%



General Notes:

1) Mixes are referenced by quadrant (E=East, N=North, W=West, and S=South), section # (sequential) and sublot (top=1);
3) The total HMA thickness of all structural study sections (N1-N11 and S8-S12) ranges from 5-3/4 to 14 inches by design;
3) All non-structural sections are supprted by a uniform perpetual foundation in order to study surface mix performance;
4) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively; and
5) All liquid asphalt purchased for use in Track reconstruction contained LOF 6500 antistrip additive at a rate of 0.5 percent

10/5/2009

Quadrant: S
Section: 8
Sublot: 2

Laboratory Diary

General Desccription of Mix and Materials

Design Method:	Super
Compactive Effort:	80 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Lms/Sand/Grn
Design Gradation Type:	Fine

Avg. Lab Properties of Plant Produced Mix

Sieve Size	Design	QC
25 mm (1"):	100	98
19 mm (3/4"):	93	94
12.5 mm (1/2"):	82	87
9.5 mm (3/8"):	71	78
4.75 mm (#4):	52	59
2.36 mm (#8):	45	47
1.18 mm (#16):	35	37
0.60 mm (#30):	24	26
0.30 mm (#50):	12	15
0.15 mm (#100):	7	9
0.075 mm (#200):	3.9	5.2
Binder Content (Pb):	4.7	4.6
Eff. Binder Content (Pbe):	4.1	4.0
Dust-to-Binder Ratio:	0.9	1.3
Rice Gravity (Gmm):	2.575	2.556
Avg. Bulk Gravity (Gmb):	2.472	2.450
Avg Air Voids (Va):	4.0	4.1
Agg. Bulk Gravity (Gsb):	2.737	2.710
Avg VMA:	13.9	13.8
Avg. VFA:	71	70

Construction Diary

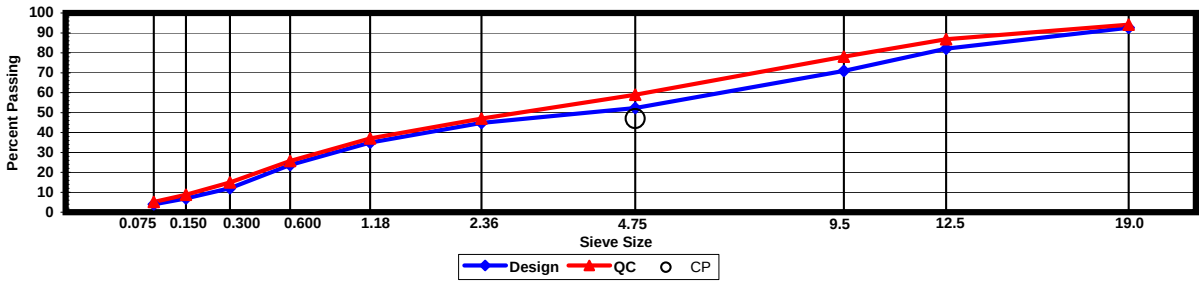
Relevant Conditions for Construction

Completion Date:	July 14, 2009
24 Hour High Temperature (F):	93
24 Hour Low Temperature (F):	72
24 Hour Rainfall (in):	0.00
Planned Subot Lift Thickness (in):	2.8
Paving Machine:	Roadtec

Plant Configuration and Placement Details

Component	% Setting
Asphalt Content (Plant Setting)	4.7
78 Opelika Limestone	30.0
57 Opelika Limestone	18.0
M10 Columbus Granite	25.0
Shorter Coarse Sand	27.0

As-Built Sublot Lift Thickness (in):	3.0
Total Thickness of All 2009 Sublots (in):	7.0
Approx. Underlying HMA Thickness (in):	0.0
Type of Tack Coat Utilized:	NTSS-1HM
Target Tack Application Rate (gal/sy):	0.07
Approx. Avg. Temperature at Plant (F):	335
Avg. Measured Mat Compaction:	93.7%



General Notes:

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10/5/2009

Quadrant: S
Section: 8
Sublot: 3

Laboratory Diary

General Desccription of Mix and Materials

Design Method:	Super
Compactive Effort:	80 gyrations
Binder Performance Grade:	67-22
Modifier Type:	NA
Aggregate Type:	Lms/Sand/Grn
Design Gradation Type:	Fine

Avg. Lab Properties of Plant Produced Mix

Sieve Size	Design	QC
25 mm (1"):	100	98
19 mm (3/4"):	93	94
12.5 mm (1/2"):	84	87
9.5 mm (3/8"):	73	79
4.75 mm (#4):	55	59
2.36 mm (#8):	47	49
1.18 mm (#16):	36	39
0.60 mm (#30):	25	27
0.30 mm (#50):	14	15
0.15 mm (#100):	8	9
0.075 mm (#200):	4.6	5.3
Binder Content (Pb):	4.6	4.9
Eff. Binder Content (Pbe):	4.1	4.4
Dust-to-Binder Ratio:	1.1	1.2
Rice Gravity (Gmm):	2.574	2.532
Avg. Bulk Gravity (Gmb):	2.471	2.442
Avg Air Voids (Va):	4.0	3.6
Agg. Bulk Gravity (Gsb):	2.738	2.700
Avg VMA:	13.9	14.0
Avg. VFA:	71	75

Construction Diary

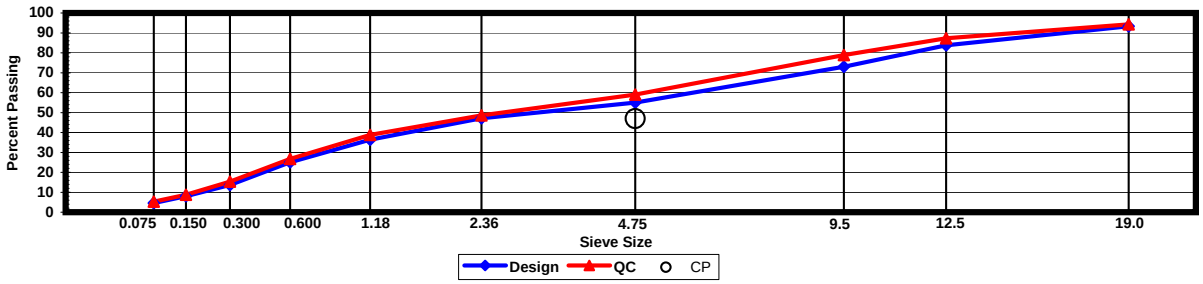
Relevant Conditions for Construction

Completion Date:	July 3, 2009
24 Hour High Temperature (F):	92
24 Hour Low Temperature (F):	69
24 Hour Rainfall (in):	0.00
Planned Subot Lift Thickness (in):	3.0
Paving Machine:	Roadtec

Plant Configuration and Placement Details

Component	% Setting
Asphalt Content (Plant Setting)	4.9
78 Opelika Limestone	30.0
57 Opelika Limestone	18.0
M10 Columbus Granite	25.0
Shorter Coarse Sand	27.0

As-Built Sublot Lift Thickness (in):	2.6
Total Thickness of All 2009 Sublots (in):	7.0
Approx. Underlying HMA Thickness (in):	0.0
Type of Tack Coat Utilized:	NA
Target Tack Application Rate (gal/sy):	NA
Approx. Avg. Temperature at Plant (F):	325
Avg. Measured Mat Compaction:	91.7%



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