5/24/2016

Quadrant: W
Section: 10
Sublot: 1

Laboratory Diary

General Desccription of Mix and Materials

Design Method:	PFC
Compactive Effort:	50 gyrations
Binder Performance Grade:	76-22-ER
Modifier Type:	SBS
Aggregate Type:	PFC 12.5 RAP
Design Gradation Type:	PFC

Avg. Lab Properties of Plant Produced Mix

Sieve Size	Target	QC
25 mm (1"):	100	100
19 mm (3/4"):	100	100
12.5 mm (1/2"):	95	95
9.5 mm (3/8"):	73	74
4.75 mm (#4):	21	22
2.36 mm (#8):	9	11
1.18 mm (#16):	NA	8
0.60 mm (#30):	NA	7
0.30 mm (#50):	NA	6
0.15 mm (#100):	NA	5
0.075 mm (#200):	2.5	3.7
Binder Content (Pb):	5.8	5.1
Eff. Binder Content (Pbe):	5.8	5.1
Dust-to-Binder Ratio:	0.4	0.7
Rice Gravity (Gmm):	2.693	2.671
Avg. Bulk Gravity (Gmb):	2.136	2.171
Avg Air Voids (Va):	20.7	18.7
Agg. Bulk Gravity (Gsb):	2.990	2.924
Avg VMA:	32.7	29.6
Avg. VFA:	37	37

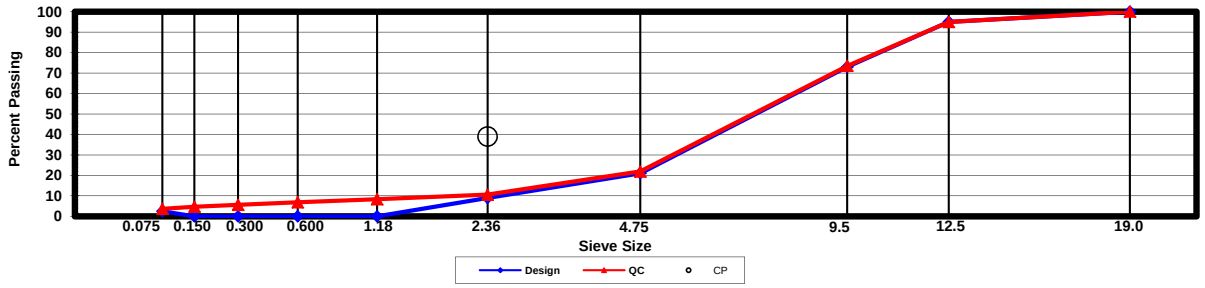
Construction Diary

Relevant Conditions for Construction

Completion Date:	August 24, 2012
24 Hour High Temperature (F):	91
24 Hour Low Temperature (F):	67
24 Hour Rainfall (in):	0.00
Planned Subot Lift Thickness (in):	2.0
Paving Machine:	Roadtec

Plant Configuration and Placement Details

Component	% Setting
Binder Content (Plant Setting)	5.8
Virginia 78	60.0
Virginia 8	30.0
Virginia RAP	10.0
Liquid Antistrip	0.5
Cellulose	0.3
As-Built Sublot Lift Thickness (in):	2.2
Total Thickness of All 2012 Sublots (in):	4.1
Approx. Underlying HMA Thickness (in):	19.9
Type of Tack Coat Utilized:	NTSS-1HM
Undilluted Target Tack Rate (gal/sy):	0.05
Approx. Avg. Temperature at Plant (F):	325
Avg. Measured Mat Compaction:	84.1%



General Notes:

1) Mixes are referenced by quadrant (E=East, N=North, W=West, S=South, L=Lee Rd 159), section number, and sublot (top=1);
2) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively; and
3) Mixes not containing hydrated lime were run with either Gripper X antistrip or Evotherm Q1 warm mix additive at a 0.5% rate

5/24/2016

Quadrant: W
Section: 10
Sublot: 2

Laboratory Diary

General Desccription of Mix and Materials

Design Method:	Super
Compactive Effort:	65 gyrations
Binder Performance Grade:	67-22
Modifier Type:	NA
Aggregate Type:	Im-19.0D w/Rap 30
Design Gradation Type:	DGA

Avg. Lab Properties of Plant Produced Mix

Sieve Size	Target	QC
25 mm (1"):	100	100
19 mm (3/4"):	97	99
12.5 mm (1/2"):	87	86
9.5 mm (3/8"):	NA	73
4.75 mm (#4):	NA	47
2.36 mm (#8):	35	35
1.18 mm (#16):	NA	28
0.60 mm (#30):	NA	20
0.30 mm (#50):	NA	12
0.15 mm (#100):	NA	8
0.075 mm (#200):	6.0	5.8
Binder Content (Pb):	4.7	4.4
Eff. Binder Content (Pbe):	4.5	4.2
Dust-to-Binder Ratio:	1.3	1.4
Rice Gravity (Gmm):	2.517	2.532
Avg. Bulk Gravity (Gmb):	2.416	2.423
Avg Air Voids (Va):	4.0	4.3
Agg. Bulk Gravity (Gsb):	2.697	2.701
Avg VMA:	14.6	14.2
Avg. VFA:	73	70

Construction Diary

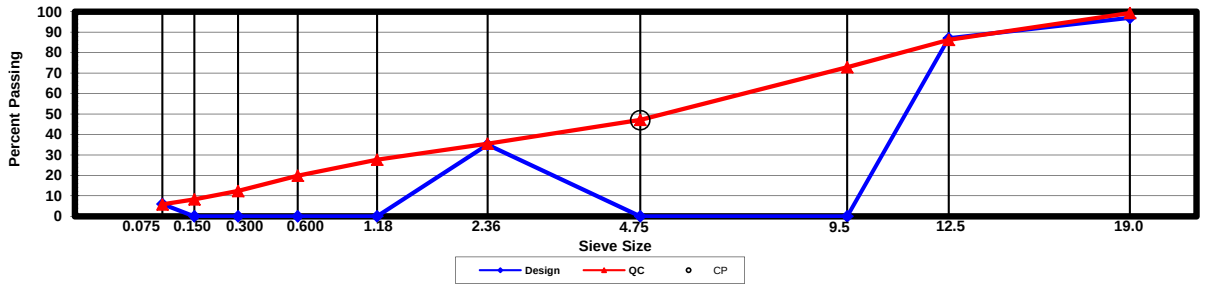
Relevant Conditions for Construction

Completion Date:	August 15, 2012
24 Hour High Temperature (F):	92
24 Hour Low Temperature (F):	69
24 Hour Rainfall (in):	0.00
Planned Subot Lift Thickness (in):	2.0
Paving Machine:	Roadtec

Plant Configuration and Placement Details

Component	% Setting
Binder Content (Plant Setting)	4.3
Virginia 68	44.0
Virginia 26	16.0
Virginia Natural Sand	10.0
Virginia RAP	30.0
Liquid Antistrip	0.5

As-Built Sublot Lift Thickness (in):	1.9
Total Thickness of All 2012 Sublots (in):	4.1
Approx. Underlying HMA Thickness (in):	19.9
Type of Tack Coat Utilized:	NTSS-1HM
Undilluted Target Tack Rate (gal/sy):	0.06
Approx. Avg. Temperature at Plant (F):	330
Avg. Measured Mat Compaction:	92.6%



General Notes:
1) Mixes are referenced by quadrant (E=East, N=North, W=West, S=South, L=Lee Rd 159), section number, and sublot (top=1);
2) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively; and
3) Mixes not containing hydrated lime were run with either Gripper X antistrip or Evotherm Q1 warm mix additive at a 0.5% rate