

Quadrant: N
Section: 12
Sublot: 1

Laboratory Diary

General Description of Mix and Materials

Design Method: SMA
 Compactive Effort: 50 blows
 Binder Performance Grade: 76-22
 Modifier Type: SBS
 Aggregate Type: 28% 3:1 Granite
 Design Gradation Type: SMA

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"):	98	97
9.5 mm (3/8"):	73	68
4.75 mm (#4):	27	25
2.36 mm (#8):	17	16
1.18 mm (#16):	15	14
0.60 mm (#30):	13	13
0.30 mm (#50):	12	13
0.15 mm (#100):	11	12
0.075 mm (#200):	10.9	10.5
Binder Content (Pb):	6.5	6.3
Eff. Binder Content (Pbe):	6.5	6.3
Dust-to-Binder Ratio:	1.7	1.7
Rice Gravity (Gmm):	2.420	2.454
Avg. Bulk Gravity (Gmb):	2.331	2.356
Avg Air Voids (Va):	3.7	4.0
Agg. Bulk Gravity (Gsb):	2.695	2.710
Avg VMA:	19.1	18.5
Avg. VFA:	81	78

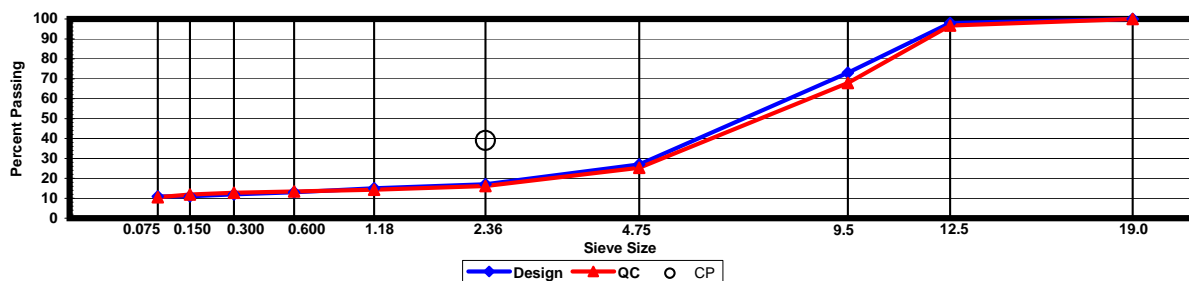
Construction Diary

Relevant Conditions for Construction

Completion Date: July 31, 2009
 24 Hour High Temperature (F): 85
 24 Hour Low Temperature (F): 75
 24 Hour Rainfall (in): 0.13
 Planned Sublot Lift Thickness (in): 2.0
 Paving Machine: Roadtec

Plant Configuration and Placement Details

Component	% Setting
Asphalt Content (Plant Setting)	6.0
7 Columbus Granite	71.0
89 Columbus Granite	20.0
Flyash	8.0
Hyd Lime	1.0
Cellulose	0.3
As-Built Sublot Lift Thickness (in):	1.7
Total Thickness of All 2009 Sublots (in):	1.7
Approx. Underlying HMA Thickness (in):	22.3
Type of Tack Coat Utilized:	PG67-22
Target Tack Application Rate (gal/sy):	0.05
Approx. Avg. Temperature at Plant (F):	340
Avg. Measured Mat Compaction:	94.7%



General Notes:

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