

**Quadrant: N**  
**Section: 5**  
**Sublot: Surface**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: Superpave  
 Compactive Effort: 80 gyrations  
 Binder Performance Grade: 76-22  
 Modifier Type: SBS  
 Aggregate Type: Grn/Lms/Snd  
 Gradation Type: ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>Design</u>	<u>QC:</u>
1":	100	100
3/4":	100	100
1/2":	100	100
3/8"	99	100
No. 4	83	81
No. 8	62	61
No. 16	47	49
No. 30	34	37
No. 50	19	21
No. 100	11	12
No. 200	5.0	6.7
Asphalt Content	6.3	6.1
Pill Bulk Gravity:		2.358
TMD (Rice ):		2.494
Avg Air Voids		5.5
Avg VMA:		19

**Construction Diary**

Relevant Conditions for Construction

Completion Date: Monday, July 28, 2003  
 24 Hour High Temperature (F): 90  
 24 Hour Low Temperature (F): 69  
 24 Hour Rainfall (in): 0  
 Lift type: Surface  
 Planned Mill / Lift Thickness (in): 1.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Asphalt Content (Plant Setting)	6.2
89 Columbus Granite	24.0
8910 Opelika Limestone	27.0
M10 Columbus Granite	30.0
Shorter Coarse Sand	19.0
Approximate Length (ft):	200
Survey Mill / Lift Thickness (in):	0.9
Type of Tack Coat Utilized:	PG67-22
Target Tack Application Rate (gal/sy):	0.03
Avg Temperature In Truck (F):	342
Avg Section Compaction:	93.3

**General Notes:**

- 1) Mixes are referenced by quadrant (E=East, N=North, W=West, and S=South), section number (sequential) and sublot;
- 2) Sections are listed in the order they appear on the Track beginning with E2 and continuing counterclockwise to E1;
- 3) The total research thickness of all rutting study sections ranges from 3/4 to 4 inches by design;
- 4) The total HMA thickness of all structural study sections (N1 through N8) ranges from 5 to 9 inches by design;
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through and below the restricted zone, respectively;
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

**Quadrant: N**  
**Section: 5**  
**Sublot: Upper Binder**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: Superpave  
 Compactive Effort: 80 gyrations  
 Binder Performance Grade: 76-22  
 Modifier Type: SBS  
 Aggregate Type: Lms/Grn/Snd  
 Gradation Type: ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>Design</u>	<u>QC:</u>
1":	100	100
3/4":	94	92
1/2":	84	82
3/8"	72	72
No. 4	53	52
No. 8	45	44
No. 16	36	37
No. 30	28	28
No. 50	15	15
No. 100	8	9
No. 200	5.0	5.5
Asphalt Content	4.5	4.3
Pill Bulk Gravity:		2.461
TMD (Rice ):		2.571
Avg Air Voids		4.3
Avg VMA:		15

**Construction Diary**

Relevant Conditions for Construction

Completion Date: Tuesday, July 22, 2003  
 24 Hour High Temperature (F): 89  
 24 Hour Low Temperature (F): 69  
 24 Hour Rainfall (in): 0.12  
 Lift type: Upper Binder  
 Planned Mill / Lift Thickness (in): 2.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Asphalt Content (Plant Setting)	4.3
78 Opelika Limestone	33.0
57 Opelika Limestone	22.0
M10 Columbus Granite	25.0
Shorter Coarse Sand	20.0
Approximate Length (ft):	200
Survey Mill / Lift Thickness (in):	2.2
Type of Tack Coat Utilized:	PG67-22
Target Tack Application Rate (gal/sy):	0.03
Avg Temperature In Truck (F):	306
Avg Section Compaction:	92.9

**General Notes:**

- 1) Mixes are referenced by quadrant (E=East, N=North, W=West, and S=South), section number (sequential) and sublot;
- 2) Sections are listed in the order they appear on the Track beginning with E2 and continuing counterclockwise to E1;
- 3) The total research thickness of all rutting study sections ranges from 3/4 to 4 inches by design;
- 4) The total HMA thickness of all structural study sections (N1 through N8) ranges from 5 to 9 inches by design;
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through and below the restricted zone, respectively;
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

**Quadrant: N**  
**Section: 5**  
**Sublot: Lower Binder**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: Superpave  
 Compactive Effort: 80 gyrations  
 Binder Performance Grade: 76-22  
 Modifier Type: SBS  
 Aggregate Type: Lms/Grn/Snd  
 Gradation Type: ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>Design</u>	<u>QC:</u>
1":	100	100
3/4":	94	92
1/2":	84	82
3/8"	72	71
No. 4	53	51
No. 8	45	42
No. 16	36	34
No. 30	28	24
No. 50	15	13
No. 100	8	7
No. 200	5.0	5.1
Asphalt Content	4.5	4.4
Pill Bulk Gravity:		2.490
TMD (Rice ):		2.568
Avg Air Voids		3.0
Avg VMA:		14

**Construction Diary**

Relevant Conditions for Construction

Completion Date: Monday, July 21, 2003  
 24 Hour High Temperature (F): 90  
 24 Hour Low Temperature (F): 66  
 24 Hour Rainfall (in): 0  
 Lift type: Lower Binder  
 Planned Mill / Lift Thickness (in): 2.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Asphalt Content (Plant Setting)	4.4
78 Opelika Limestone	33.0
57 Opelika Limestone	22.0
M10 Columbus Granite	25.0
Shorter Coarse Sand	20.0
Approximate Length (ft):	200
Survey Mill / Lift Thickness (in):	2.0
Type of Tack Coat Utilized:	PG67-22
Target Tack Application Rate (gal/sy):	0.03
Avg Temperature In Truck (F):	324
Avg Section Compaction:	92.8

**General Notes:**

- 1) Mixes are referenced by quadrant (E=East, N=North, W=West, and S=South), section number (sequential) and sublot;
- 2) Sections are listed in the order they appear on the Track beginning with E2 and continuing counterclockwise to E1;
- 3) The total research thickness of all rutting study sections ranges from 3/4 to 4 inches by design;
- 4) The total HMA thickness of all structural study sections (N1 through N8) ranges from 5 to 9 inches by design;
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through and below the restricted zone, respectively;
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

**Quadrant: N**  
**Section: 5**  
**Sublot: Base**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: Superpave  
 Compactive Effort: 80 gyrations  
 Binder Performance Grade: 76-22  
 Modifier Type: SBS  
 Aggregate Type: Lms/Grn/Snd  
 Gradation Type: ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>Design</u>	<u>QC:</u>
1":	100	100
3/4":	94	92
1/2":	84	79
3/8"	72	66
No. 4	53	49
No. 8	45	43
No. 16	36	36
No. 30	28	26
No. 50	15	14
No. 100	8	8
No. 200	5.0	5.5
Asphalt Content	4.5	4.7
Pill Bulk Gravity:		2.473
TMD (Rice ):		2.557
Avg Air Voids		3.3
Avg VMA:		15

**General Notes:**

- 1) Mixes are referenced by quadrant (E=East, N=North, W=West, and S=South), section number (sequential) and sublot;
- 2) Sections are listed in the order they appear on the Track beginning with E2 and continuing counterclockwise to E1;
- 3) The total research thickness of all rutting study sections ranges from 3/4 to 4 inches by design;
- 4) The total HMA thickness of all structural study sections (N1 through N8) ranges from 5 to 9 inches by design;
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through and below the restricted zone, respectively;
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

**Construction Diary**

Relevant Conditions for Construction

Completion Date: Thursday, July 17, 2003  
 24 Hour High Temperature (F): 91  
 24 Hour Low Temperature (F): 71  
 24 Hour Rainfall (in): 0.01  
 Lift type: Base  
 Planned Mill / Lift Thickness (in): 2.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Asphalt Content (Plant Setting)	4.6
78 Opelika Limestone	33.0
57 Opelika Limestone	22.0
M10 Columbus Granite	25.0
Shorter Coarse Sand	20.0
Approximate Length (ft):	200
Survey Mill / Lift Thickness (in):	1.8
Type of Tack Coat Utilized:	PG67-22
Target Tack Application Rate (gal/sy):	0.03
Avg Temperature In Truck (F):	343
Avg Section Compaction:	93.2