

**Quadrant: N**  
**Section: 3**  
**Sublot: Surface**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: Superpave  
 Compactive Effort: 80 gyrations  
 Binder Performance Grade: 67-22  
 Modifier Type: NA  
 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            | 80         |
| No. 8              | 62            | 63         |
| No. 16             | 47            | 51         |
| No. 30             | 34            | 38         |
| No. 50             | 19            | 21         |
| No. 100            | 11            | 12         |
| No. 200            | 5.0           | 6.6        |
| Asphalt Content    | 6.3           | 6.1        |
| Pill Bulk Gravity: |               | 2.347      |
| TMD (Rice ):       |               | 2.488      |
| Avg Air Voids      |               | 5.7        |
| Avg VMA:           |               | 17         |

**Construction Diary**

Relevant Conditions for Construction

Completion Date: Thursday, July 24, 2003  
 24 Hour High Temperature (F): 86  
 24 Hour Low Temperature (F): 62  
 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):     | 1.2               |
| Type of Tack Coat Utilized:            | PG67-22           |
| Target Tack Application Rate (gal/sy): | 0.03              |
| Avg Temperature In Truck (F):          | 325               |
| 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: 3**  
**Sublot: Upper Binder**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: Superpave  
 Compactive Effort: 80 gyrations  
 Binder Performance Grade: 67-22  
 Modifier Type: NA  
 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            | 51         |
| No. 8              | 45            | 43         |
| No. 16             | 36            | 37         |
| No. 30             | 28            | 29         |
| No. 50             | 15            | 16         |
| No. 100            | 8             | 9          |
| No. 200            | 5.0           | 5.6        |
| Asphalt Content    | 4.5           | 4.3        |
| Pill Bulk Gravity: |               | 2.469      |
| TMD (Rice ):       |               | 2.590      |
| Avg Air Voids      |               | 4.7        |
| Avg VMA:           |               | 14         |

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- 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: 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):     | 1.8               |
| Type of Tack Coat Utilized:            | PG67-22           |
| Target Tack Application Rate (gal/sy): | 0.03              |
| Avg Temperature In Truck (F):          | 320               |
| Avg Section Compaction:                | 93.3              |

**Quadrant: N**  
**Section: 3**  
**Sublot: Lower Binder**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: Superpave  
 Compactive Effort: 80 gyrations  
 Binder Performance Grade: 67-22  
 Modifier Type: NA  
 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            | 93         |
| 1/2":              | 84            | 84         |
| 3/8"               | 72            | 74         |
| No. 4              | 53            | 53         |
| No. 8              | 45            | 43         |
| No. 16             | 36            | 35         |
| No. 30             | 28            | 24         |
| No. 50             | 15            | 14         |
| No. 100            | 8             | 9          |
| No. 200            | 5.0           | 5.5        |
| Asphalt Content    | 4.5           | 4.5        |
| Pill Bulk Gravity: |               | 2.496      |
| TMD (Rice ):       |               | 2.575      |
| Avg Air Voids      |               | 3.1        |
| Avg VMA:           |               | 13         |

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- 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: 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):     | 2.7               |
| Type of Tack Coat Utilized:            | PG67-22           |
| Target Tack Application Rate (gal/sy): | 0.03              |
| Avg Temperature In Truck (F):          | 329               |
| Avg Section Compaction:                | 93.7              |

**Quadrant: N**  
**Section: 3**  
**Sublot: Upper Base**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: Superpave  
 Compactive Effort: 80 gyrations  
 Binder Performance Grade: 67-22  
 Modifier Type: NA  
 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            | 100        |
| 1/2":              | 84            | 84         |
| 3/8"               | 72            | 75         |
| No. 4              | 53            | 57         |
| No. 8              | 45            | 48         |
| No. 16             | 36            | 42         |
| No. 30             | 28            | 33         |
| No. 50             | 15            | 20         |
| No. 100            | 8             | 11         |
| No. 200            | 5.0           | 6.7        |
| Asphalt Content    | 4.5           | 4.3        |
| Pill Bulk Gravity: |               | 2.441      |
| TMD (Rice ):       |               | 2.571      |
| Avg Air Voids      |               | 5.1        |
| Avg VMA:           |               | 16         |

**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: Upper Base  
 Planned Mill / Lift Thickness (in): 2.0

Plant Configuration and Placement Details

| <u>Component:</u>                      | <u>% Setting:</u> |
|--|-------------------|
| Asphalt Content (Plant Setting)        | 4.5               |
| 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):     | 2.1               |
| Type of Tack Coat Utilized:            | PG67-22           |
| Target Tack Application Rate (gal/sy): | 0.03              |
| Avg Temperature In Truck (F):          | 346               |
| Avg Section Compaction:                | 93.0              |

**General Notes:**

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- 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: 3**  
**Sublot: Lower Base**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: Superpave  
 Compactive Effort: 80 gyrations  
 Binder Performance Grade: 67-22  
 Modifier Type: NA  
 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            | 90         |
| 1/2":              | 84            | 79         |
| 3/8"               | 72            | 68         |
| No. 4              | 53            | 50         |
| No. 8              | 45            | 44         |
| No. 16             | 36            | 39         |
| No. 30             | 28            | 30         |
| No. 50             | 15            | 16         |
| No. 100            | 8             | 9          |
| No. 200            | 5.0           | 5.6        |
| Asphalt Content    | 4.5           | 4.6        |
| Pill Bulk Gravity: |               | 2.450      |
| TMD (Rice ):       |               | 2.553      |
| Avg Air Voids      |               | 4.0        |
| Avg VMA:           |               | 15         |

**Construction Diary**

Relevant Conditions for Construction

Completion Date: Wednesday, July 16, 2003  
 24 Hour High Temperature (F): 91  
 24 Hour Low Temperature (F): 65  
 24 Hour Rainfall (in): 0  
 Lift type: Lower Base  
 Planned Mill / Lift Thickness (in): 2.0

Plant Configuration and Placement Details

| <u>Component:</u>                      | <u>% Setting:</u> |
|--|-------------------|
| Asphalt Content (Plant Setting)        | 4.5               |
| 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):     | 1.3               |
| Type of Tack Coat Utilized:            | PG67-22           |
| Target Tack Application Rate (gal/sy): | 0.03              |
| Avg Temperature In Truck (F):          | 326               |
| Avg Section Compaction:                | 94.6              |

**General Notes:**

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- 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.