

Section S1 (Lower Layer)

Laboratory Diary

General Description of Mix and Materials

| | |
|---------------------------|---------------|
| Design Method: | Superpave |
| Compactive Effort: | 100 gyrations |
| Binder Performance Grade: | 76-22 |
| Modifier Type: | SBS |
| Aggregate Type: | Granite |
| Gradation Type: | BRZ |

Avg. Lab Properties of Plant Produced Mix

| <u>Sieve Size:</u> | <u>% Passing:</u> |
|--------------------|-------------------|
| 1" | 100 |
| 3/4" | 97 |
| 1/2" | 66 |
| 3/8" | 48 |
| No. 4 | 32 |
| No. 8 | 24 |
| No. 16 | 20 |
| No. 30 | 16 |
| No. 50 | 11 |
| No. 100 | 7 |
| No. 200 | 4.1 |

| | |
|------------------------------|-------|
| Asphalt Binder Content: | 5.0% |
| Compacted Pill Bulk Gravity: | 2.408 |
| Theoretical Maximum Gravity: | 2.484 |
| Computed Air Voids: | 3.1% |

Construction Diary

Relevant Conditions for Construction

| | |
|------------------------------------|-------------------------|
| Completion Date: | Thursday, June 22, 2000 |
| 24 Hour High Temperature (F): | 92 |
| 24 Hour Low Temperature (F): | 75 |
| 24 Hour Rainfall (in): | 0.00 |
| Lift Type: | lower |
| Design Thickness of Test Mix (in): | 2.5 |

Plant Configuration and Placement Details

| <u>Component:</u> | <u>% Setting:</u> |
|----------------------------|-------------------|
| Liquid Binder Setting | 4.7% |
| Granite 6M | 52.0% |
| Granite 789 | 20.0% |
| Granite Manufactured Sand | 10.0% |
| Granite Regular Screenings | 18.0% |

| | |
|---------------------------------------|---------------|
| Approximate Length (ft): | 200 |
| Surveyed Thickness of Section (in): | NA |
| Std Dev of Section Thickness (in): | NA |
| Type of Tack Coat Utilized: | CQS-1h |
| Target Tack Application Rate: | 0.03 gal / sy |
| Avg Mat Temperature Behind Paver (F): | 329 |
| Average Section Compaction: | 93.7% |

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S1 (Upper Layer)

Laboratory Diary

General Description of Mix and Materials

| | |
|---------------------------|---------------|
| Design Method: | Superpave |
| Compactive Effort: | 100 gyrations |
| Binder Performance Grade: | 76-22 |
| Modifier Type: | SBS |
| Aggregate Type: | Granite |
| Gradation Type: | BRZ |

Avg. Lab Properties of Plant Produced Mix

| <u>Sieve Size:</u> | <u>% Passing:</u> |
|--------------------|-------------------|
| 1" | 100 |
| 3/4" | 100 |
| 1/2" | 95 |
| 3/8" | 86 |
| No. 4 | 54 |
| No. 8 | 36 |
| No. 16 | 28 |
| No. 30 | 21 |
| No. 50 | 15 |
| No. 100 | 9 |
| No. 200 | 5.5 |

| | |
|------------------------------|-------|
| Asphalt Binder Content: | 5.0% |
| Compacted Pill Bulk Gravity: | 2.378 |
| Theoretical Maximum Gravity: | 2.452 |
| Computed Air Voids: | 3.0% |

Construction Diary

Relevant Conditions for Construction

| | |
|------------------------------------|-----------------------|
| Completion Date: | Monday, June 26, 2000 |
| 24 Hour High Temperature (F): | 92 |
| 24 Hour Low Temperature (F): | 75 |
| 24 Hour Rainfall (in): | 0.00 |
| Lift Type: | upper |
| Design Thickness of Test Mix (in): | 4.0 |

Plant Configuration and Placement Details

| <u>Component:</u> | <u>% Setting:</u> |
|----------------------------|-------------------|
| Liquid Binder Setting | 5.2% |
| Granite 6M | 10.0% |
| Granite 789 | 53.0% |
| Granite Manufactured Sand | 12.0% |
| Granite Regular Screenings | 25.0% |

| | |
|---------------------------------------|---------------|
| Approximate Length (ft): | 200 |
| Surveyed Thickness of Section (in): | 3.9 |
| Std Dev of Section Thickness (in): | 0.0 |
| Type of Tack Coat Utilized: | CQS-1h |
| Target Tack Application Rate: | 0.03 gal / sy |
| Avg Mat Temperature Behind Paver (F): | 335 |
| Average Section Compaction: | 94.8% |

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.