

SEAUPG 2003 CONFERENCE

SUPERPAVE Evolutionary Perspective

2003 SEAU/PG

**Design & Construction Experience
“First” Projects**

- SUPERPAVE trial in Tampa, Florida - US 301 - 1995
- SUPERPAVE trial in Crestview, Florida - I 10 - 1996
- SUPERPAVE project near Stockbridge, Georgia - 1996
- SUPERPAVE project in Dothan, Alabama - US 231 - 1996
- SUPERPAVE project in Madison Co, Florida - I 10 - 1997
- SUPERPAVE project in XYZ, Alabama - city streets - 2003

XYZ Street Project - 2003

- Existing city streets with irregular cross section (and poor underlying base, in places)
- Surface treatment
- 150 psy of SUPERPAVE 1/2” nominal mix (ADOT 3/4” max mix)
- Design by private engineering firm

SUPERPAVE Results

| Identification | % Air Voids | % AC | % Compaction |
|----------------------|-------------|------|--------------|
| Test Strip | 2.5 | 5.8 | 93.0 |
| Avg after test strip | 3.5 | 5.4 | 89.8 |

SUPERPAVE & Marshall Designs

| Sieve Size | % Passing | % Passing |
|------------|-----------|-----------|
| | SUPERPAVE | Marshall |
| 3/4 | 100 | 100 |
| 1/2 | 98 | 98 |
| 3/8 | 86 | 82 |
| 4 | 52 | 50 |
| 8 | 38 | 42 |
| 16 | 31 | 34 |
| 30 | 22 | 26 |
| 50 | 15 | 17 |
| 100 | 9 | 9 |
| 200 | 5.3 | 5.4 |
| % AC | 5.3 | 5.5 |

Marshall Results

| Identification | % Air Voids | % AC | % Compaction |
|----------------------|-------------|------|--------------|
| Test Strip | 3.9 | 5.7 | 93.9 |
| Avg after test strip | 3.8 | 5.7 | 93.2 |

SEAUPG 2003 CONFERENCE

Kendall Rd & Jennings Way



Kendall Rd & Jennings Way Compaction Comparison

| Identification | % Air Voids | % AC | % Comp | PLI Breakdown Roller |
|--------------------|-------------|------|--------|----------------------------|
| Kendall Rd - SUP | 3.1 | 5.5 | 89.2 | 2080 |
| Jennings Way - MAR | 3.9 | 5.7 | 93.9 | 1200 |

Breakdown roller for SUPERPAVE mix



IR DD 110 HF
260 pli per drum

Breakdown roller for Marshall mix



CAT CB-434C
150 pli per drum

Conclusion

All SUPERPAVE mixes are not for all construction applications. SUPERPAVE is not a replacement for engineering judgment, common sense, and experience.