

# Experimental Project Report

County Clay  
Section/Subsection No. 71050-3512  
State Road 16  
Project Description Light Fractions in Asphalt

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State Materials Office  
Gainesville, Florida



# Project Description

County Clay  
Section Number 71050-3512  
State Road 16

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## OBJECTIVE:

The objective of this study is to evaluate the relative long-term pavement performance of a pavement structure consisting of asphalt containing various light fractions (lighter asphalt oils). The project was initiated in December of 1984 on SR 16 in Clay County. The project consists of eight sections located in the east and westbound traffic lanes. The performance is evaluated in term of Deflection (Dynalect Deflection), Ride, Rutting and Cracking.

The sections being evaluated are:

- Section 1:** Asphalt cement with Typical percentage of Light Fractions. **Type Plant - Batch**
- Section 2:** Asphalt cement with Typical percentage of Light Fractions. **Type Plant – Drum Mix**
- Section 3:** AC with a high percentage of Light Fractions. **Type Plant - Batch**
- Section 4:** AC with a high percentage of Light Fractions. **Type Plant – Drum Mix**
- Section 5:** Same AC as used in Section No. 1 after steam distillation to remove Light Fractions. **Type Plant – Batch**
- Section 6:** Same AC as used in Section No. 2 after steam distillation to remove Light Fractions. **Type Plant – Drum Mix**
- Section 7:** Same AC as used in Section No. 3 after steam distillation to remove Light Fractions. **Type Plant – Batch**
- Section 8:** Same AC as used in Section No. 4 after steam distillation to remove Light Fractions. **Type Plant – Drum Mix**

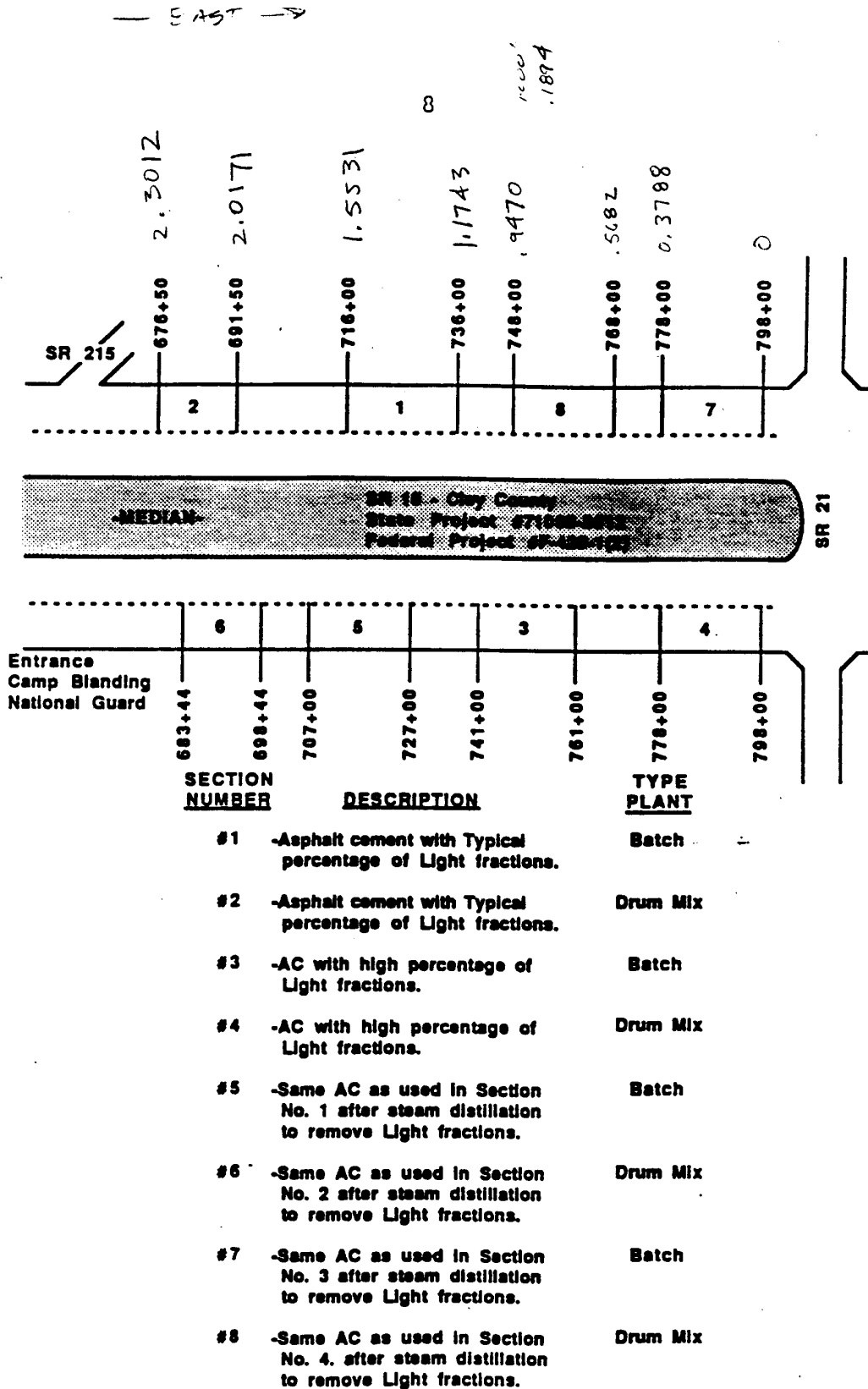
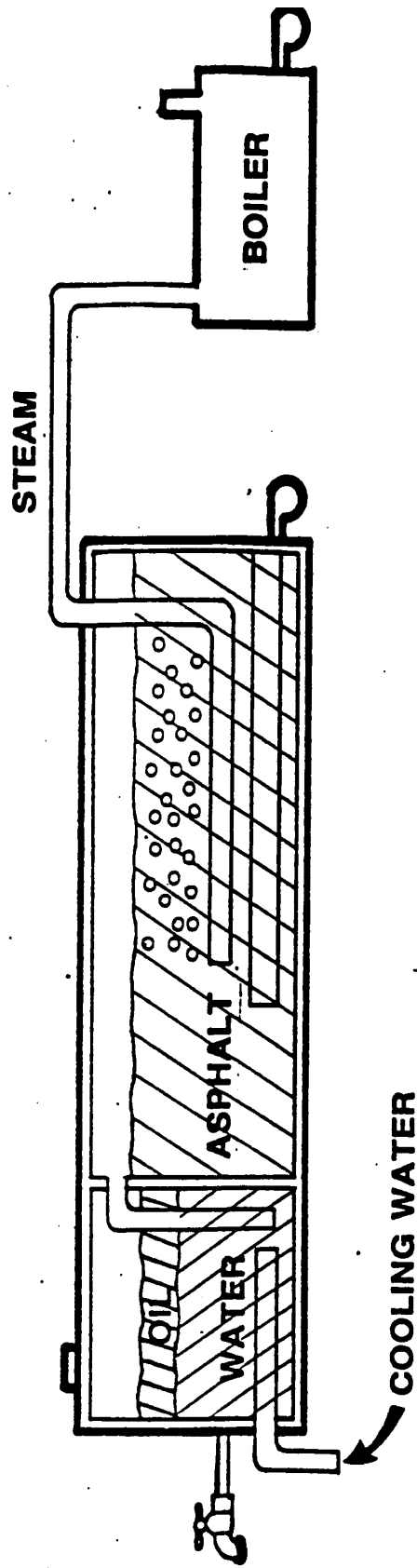


Figure 1. Field Trial to Evaluate the Effects of Light Fractions in Asphalt on Mix Properties and Pavement Performance



# STEAM DISTILLATION

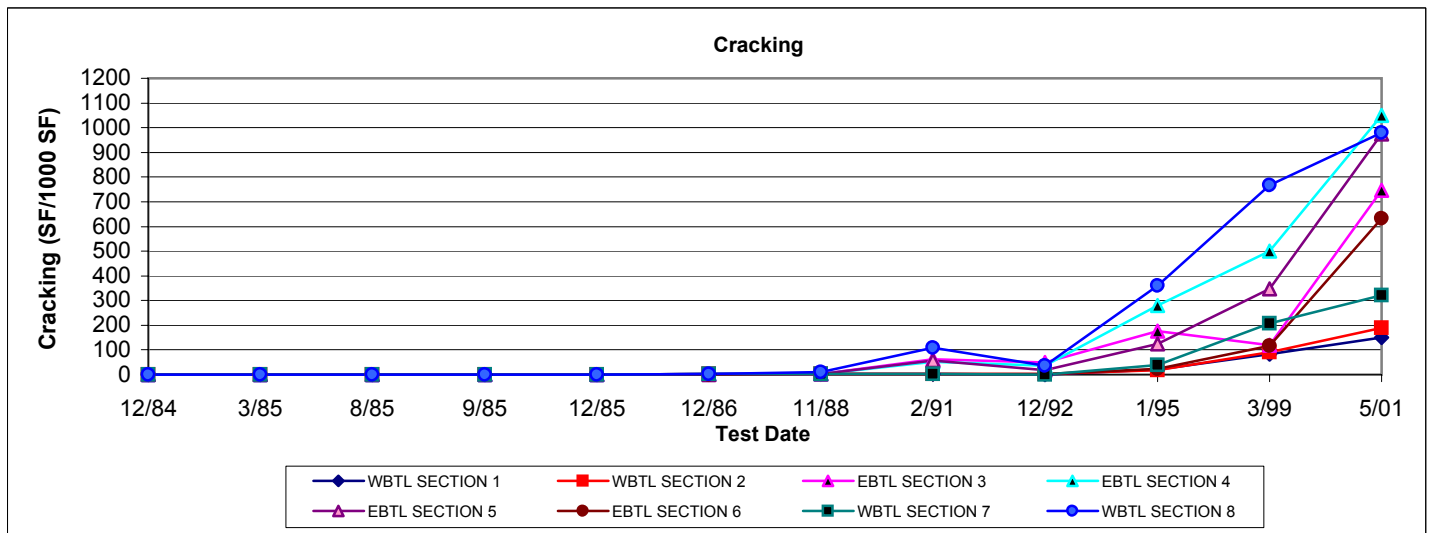
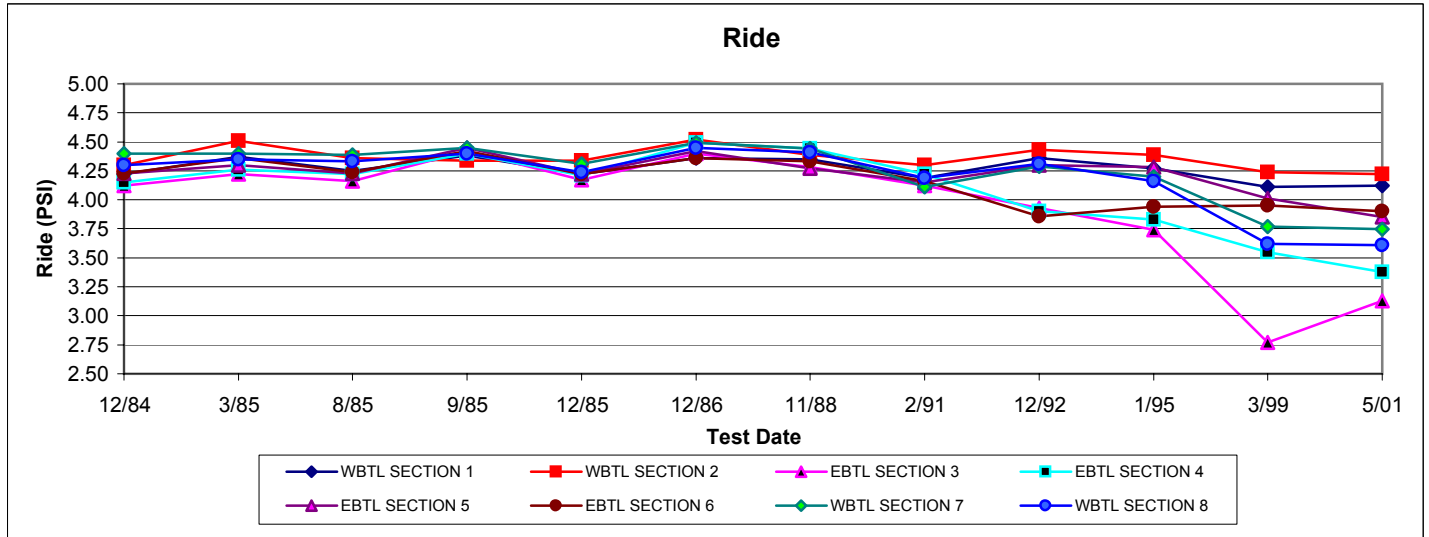
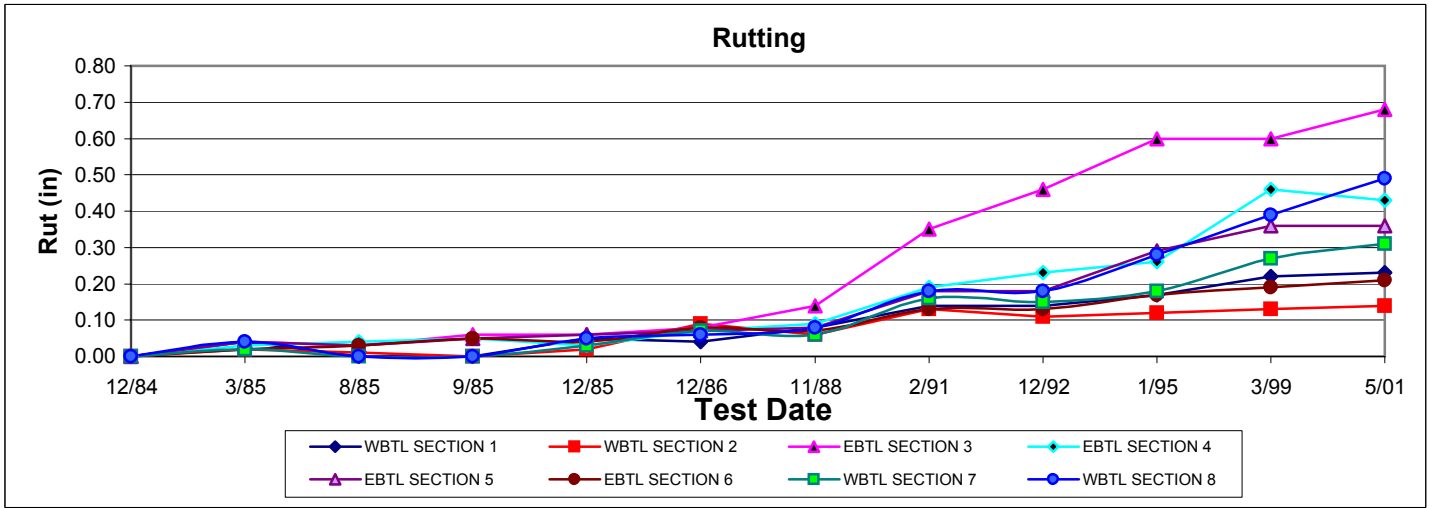
Figure 2. Schematic of Steam Distillation Unit

# Pavement Distress Graphs

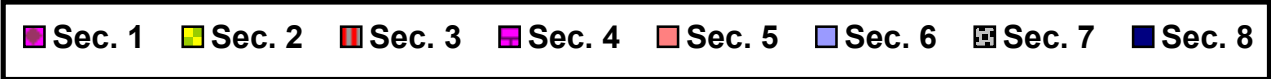
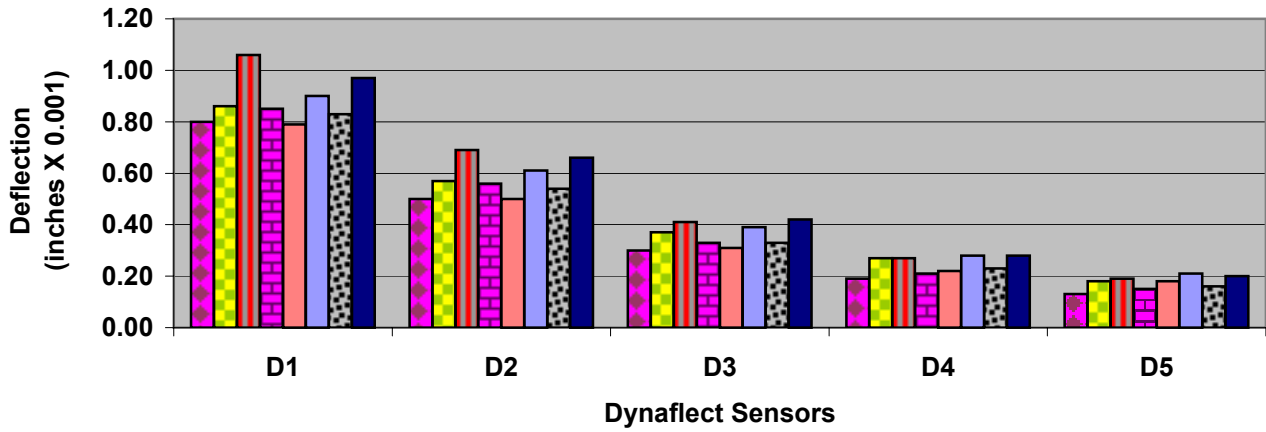
County: Clay

Section Number: 71050-3512

State Road: 16



**Dynaflect Deflection  
(Initial Deflection Test Data - 1984)**



**Dynaflect Deflection  
(Most Recent Deflection Test Data - 2001)**

