

Performance of Modified Asphalt Binders in Iowa

Summary of Research

Prepared for the AMAP Annual Meeting in New Orleans

Jan. 27th 2003

Viscosity Graded Binders

- AC-20 PG 64-22
- AC-10 PG 58-22
- AC-5 PG 52-28

Modifiers Used Prior to PG in Special Applications

Asphadur (3M)

PAC-20, PAC-30, PAC-40

(SBS, SBR)

Multi-Grade

Research Projects

- Hwy 3 Plymouth Co.
- 1995
- PG 58-34 AC-10 & AC-5
- Marshall & Superpave
- Full Depth
- Hwy 71 Sac & Buena Vista Co. 1995
- PG 58-34 PG 58-28 PG 58-22 & AC-10
- Marshall
- Overlay of PCC

Research Projects Continued

- Hwy 61 Jackson Co.
- 1999
- PG 64-28
- Neat
- Polymer Modified
- Chemical Modified
- Over CIPR
- Hwy 141 Polk Co.
- 2001
- SAMI
- Crack Treatment
- Rubbilization
- Overlay of PCC

Current Profile

1932 PCC Pavement,
10-7-10

1995 overlay,
4"

1961 and 1980 overlay
milled to 2"

3'

4'

5'

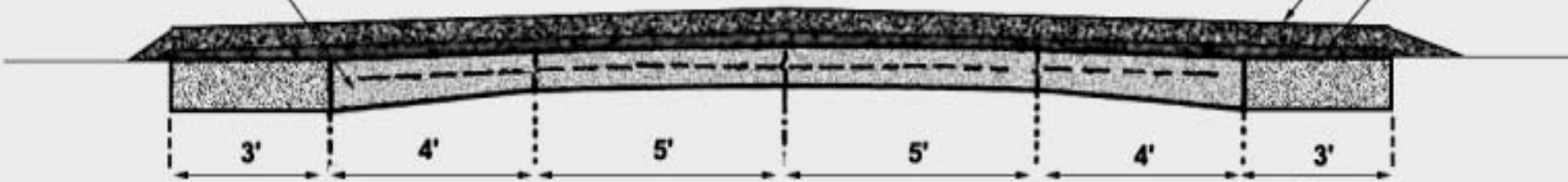
5'

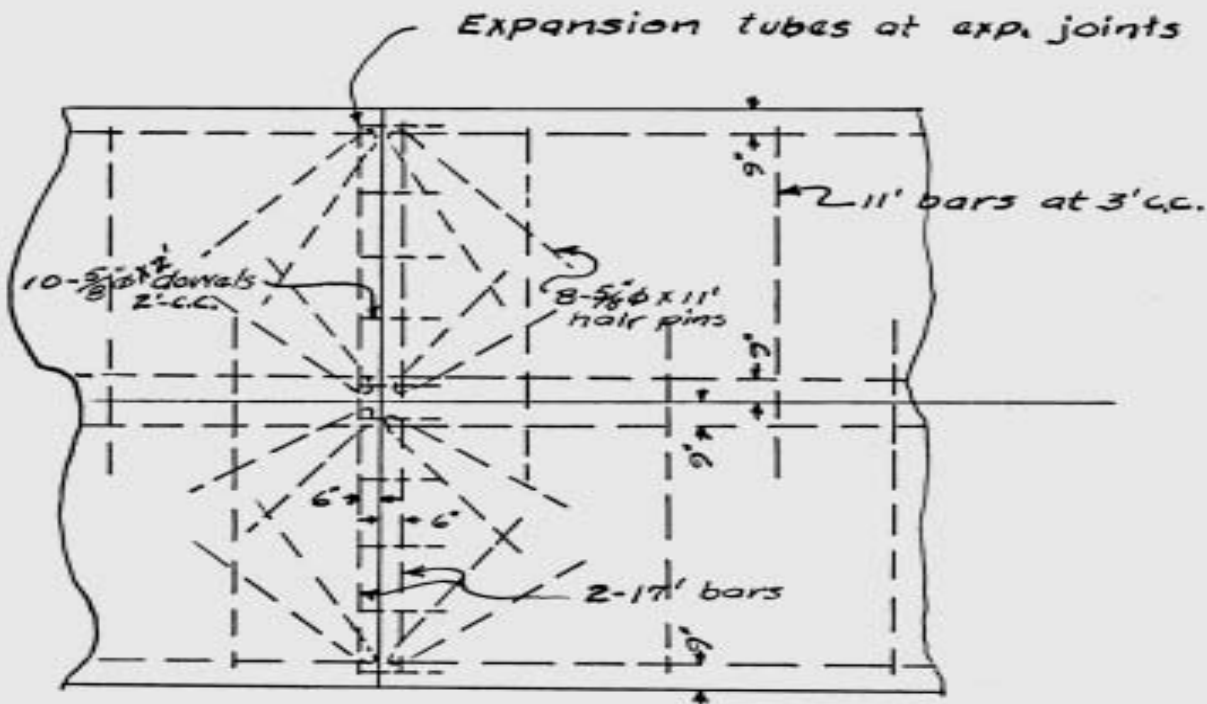
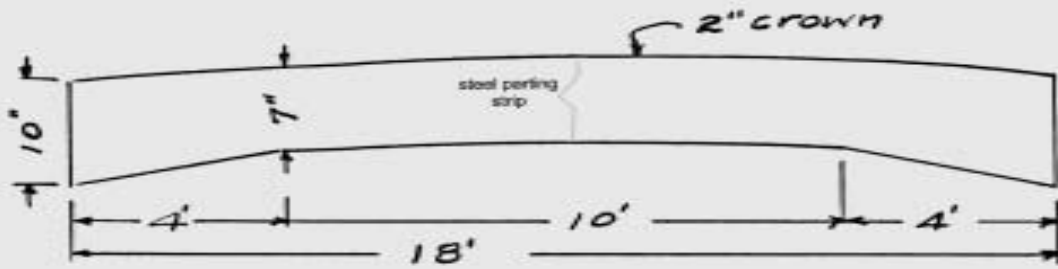
4'

3'

10" PCC widening,
1956

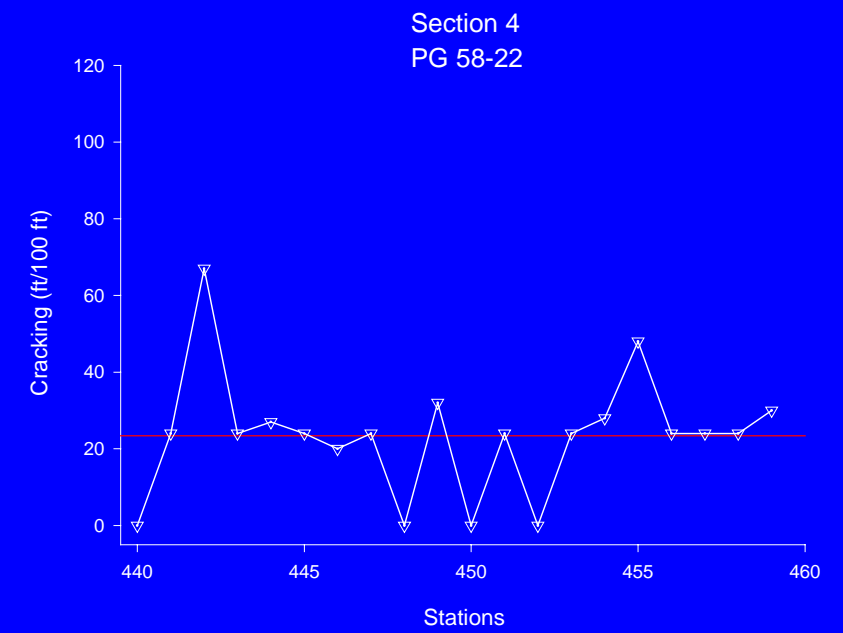
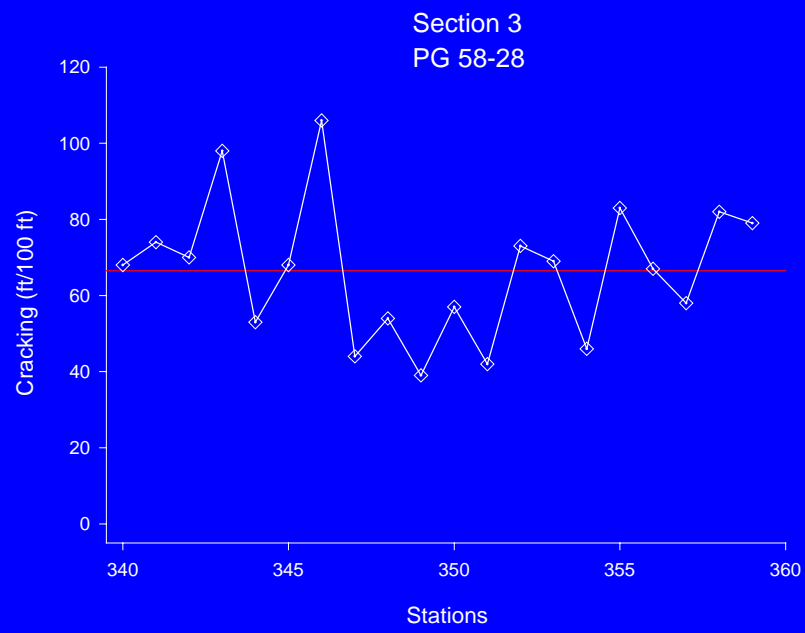
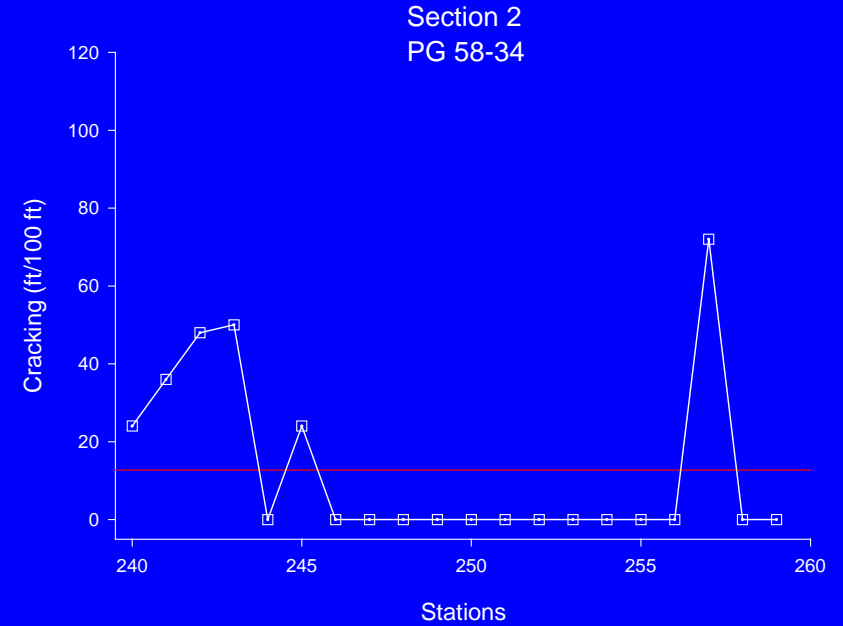
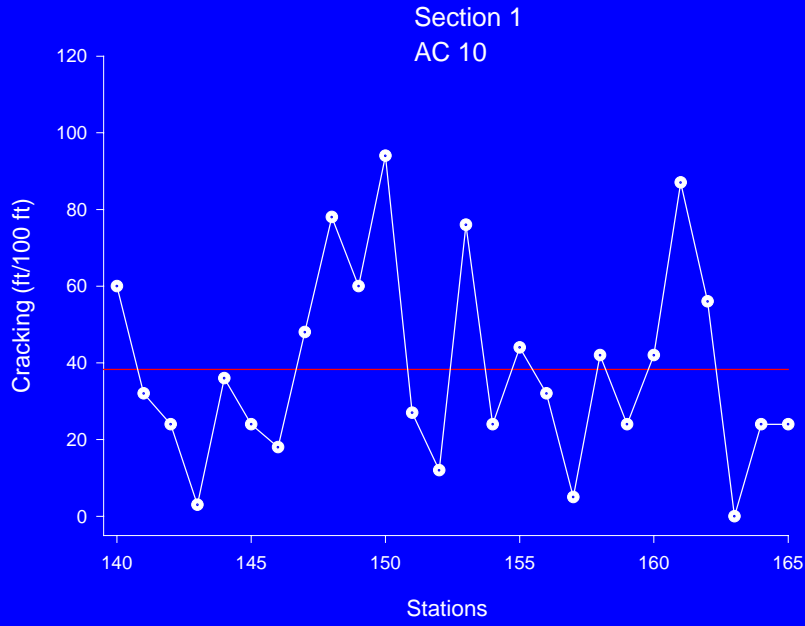
10" PCC widening,
1956



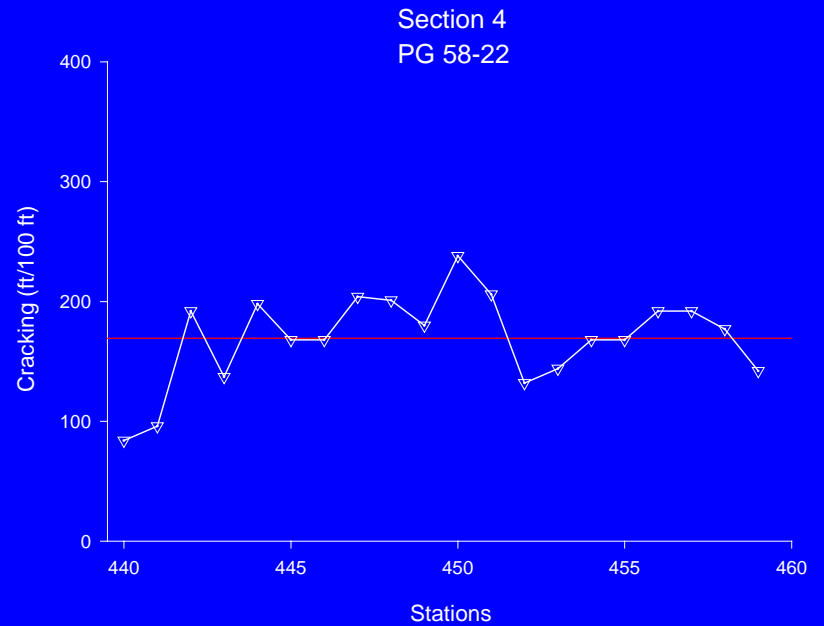
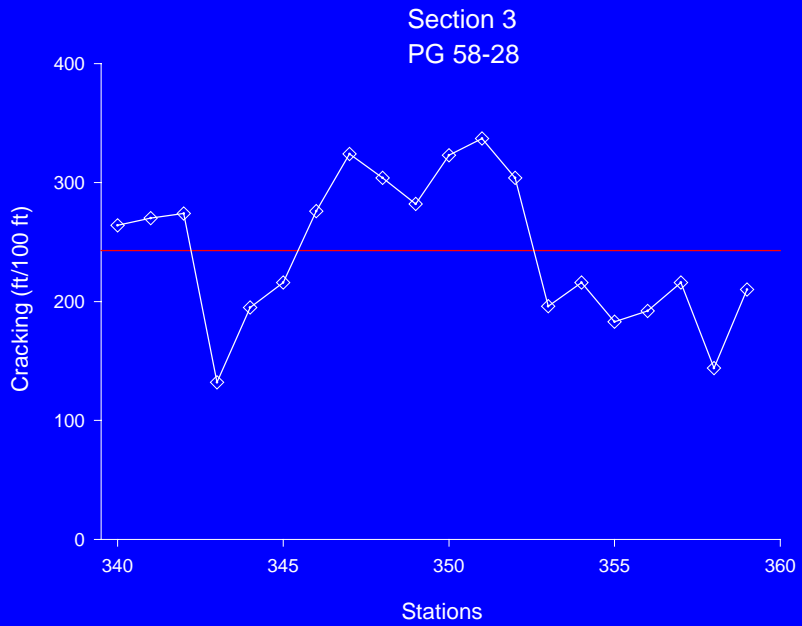
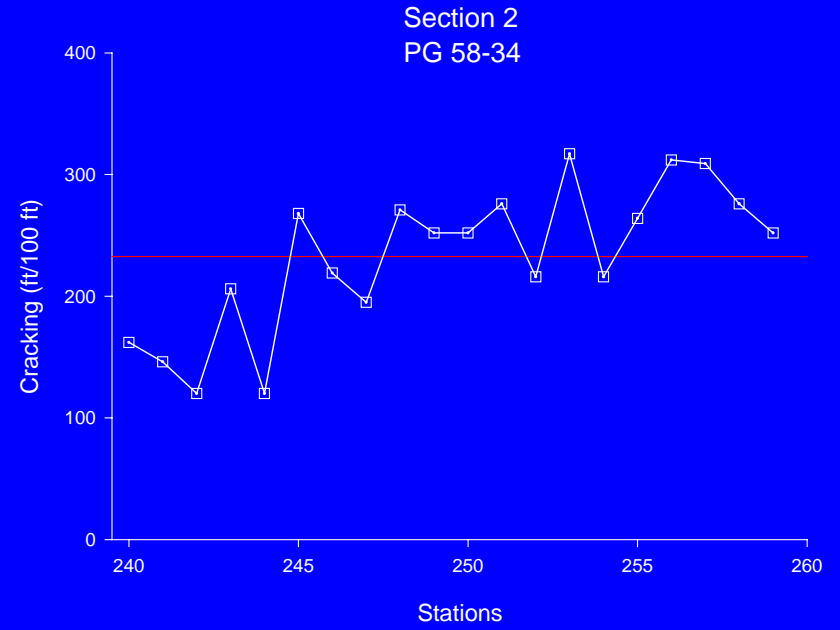
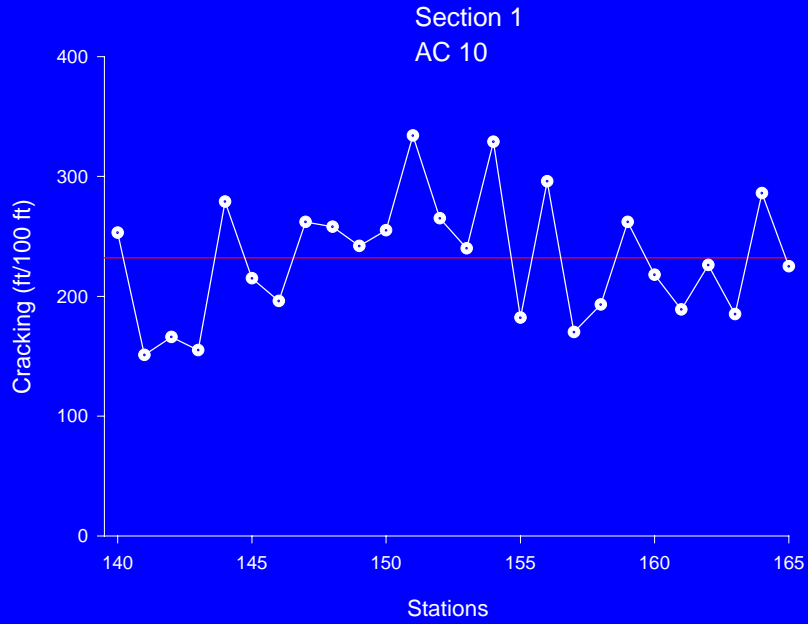


All steel $\frac{5}{8}$ " ϕ plain round
 $2\frac{1}{2}$ " cover except dowels
 at center of section.

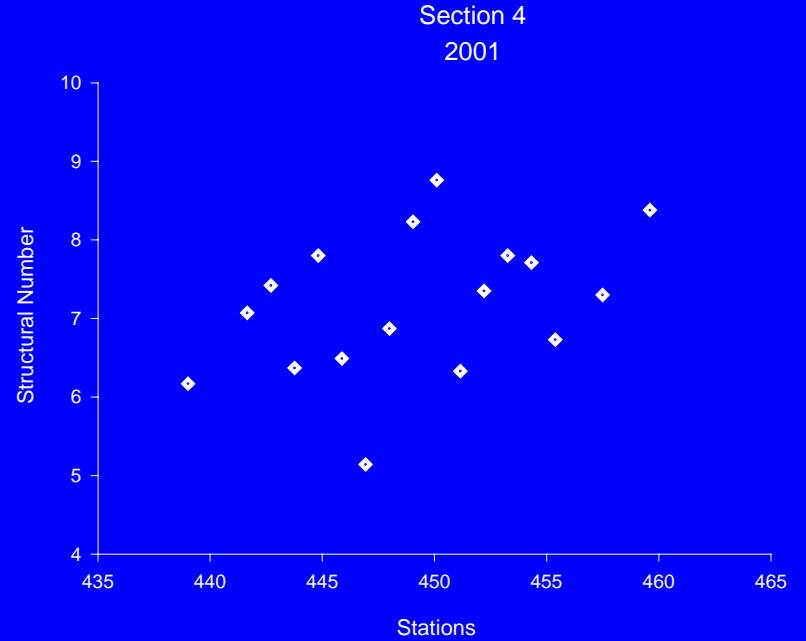
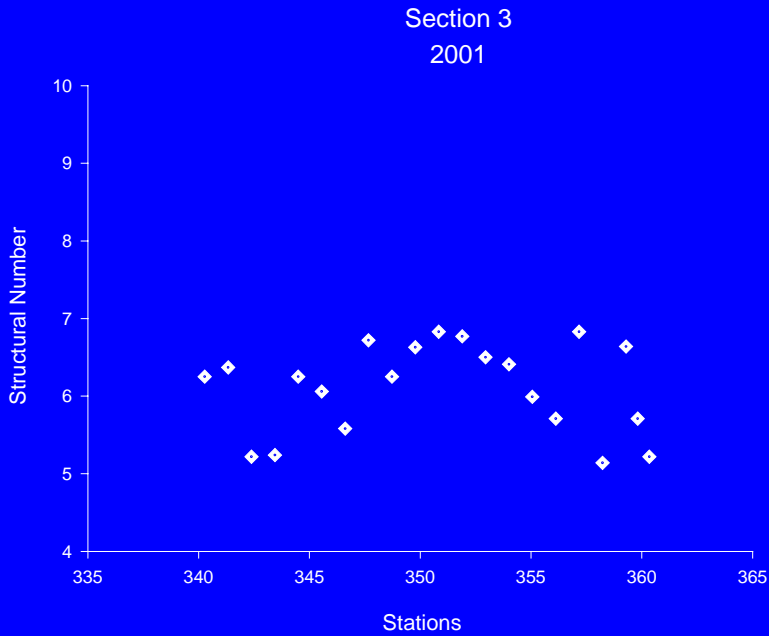
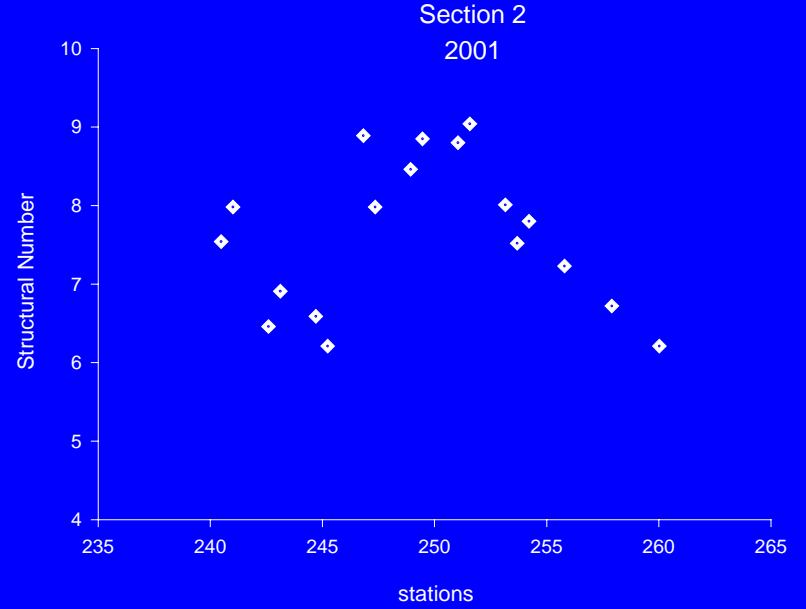
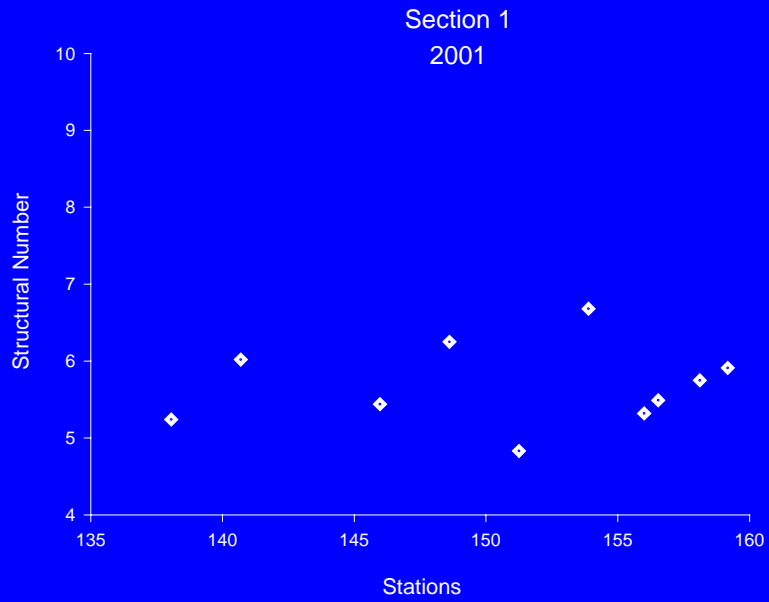
Unadjusted Crack Survey Results 2002



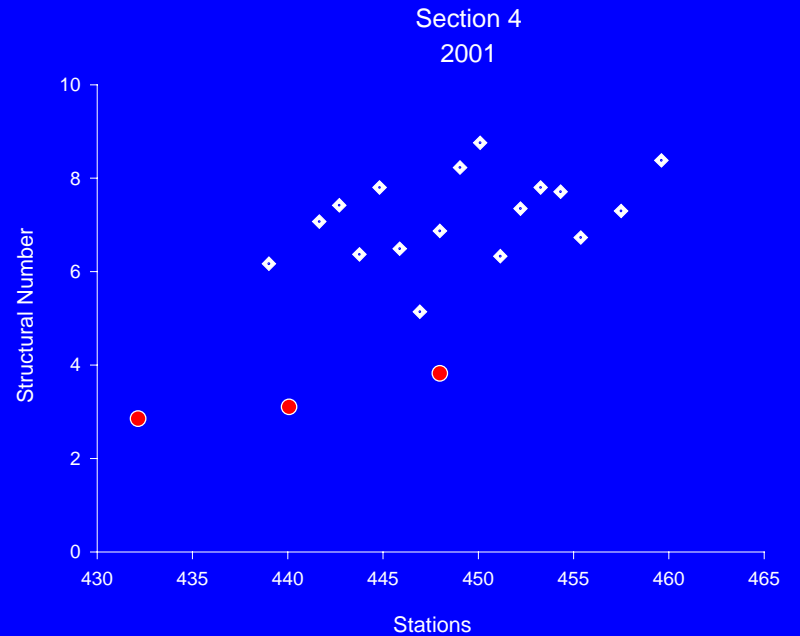
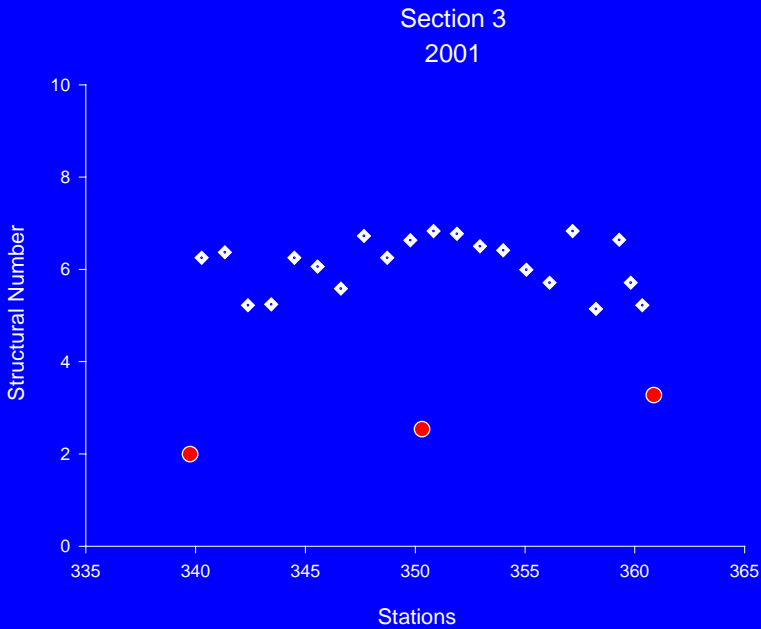
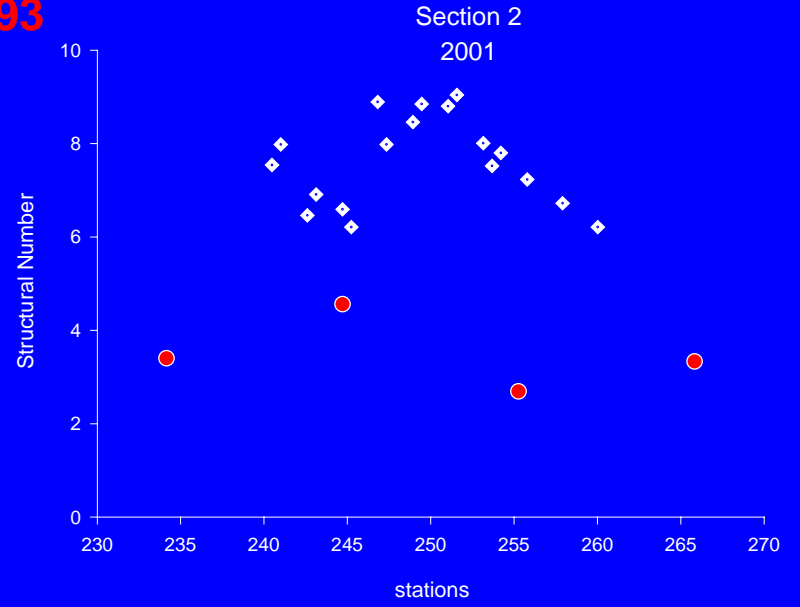
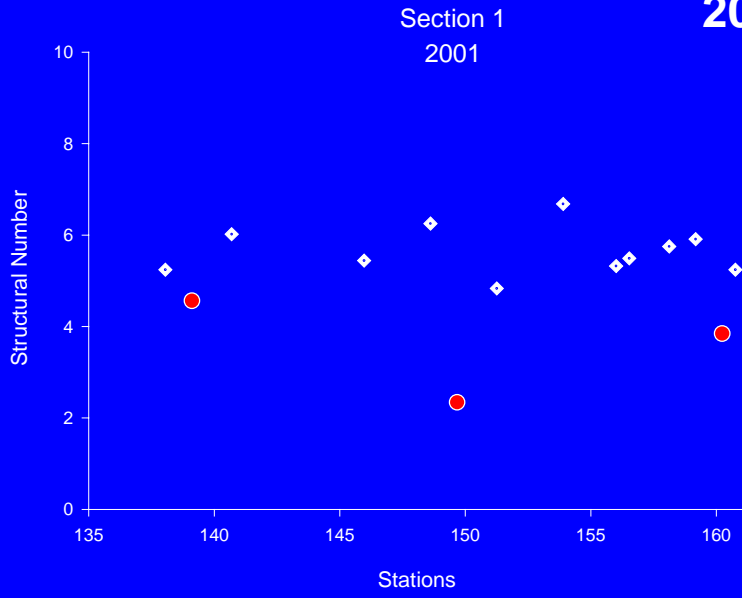
Original Cracking



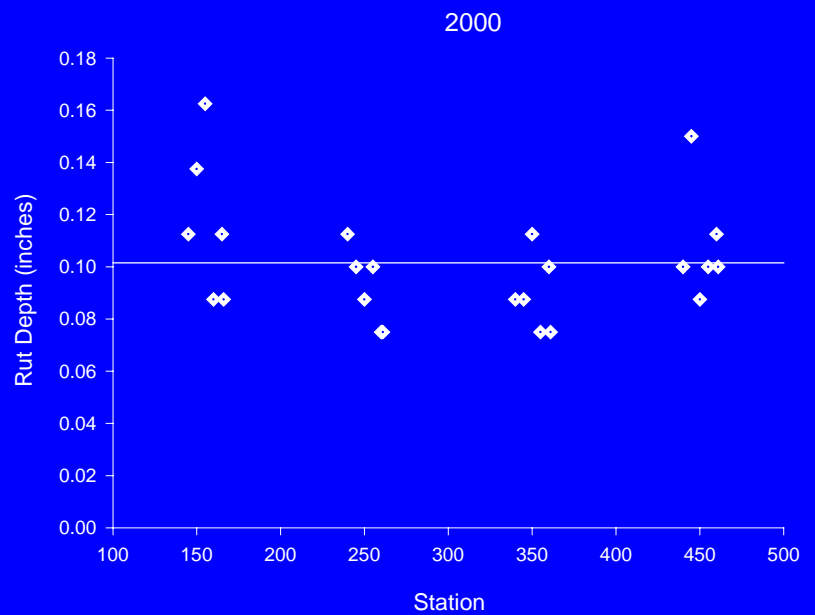
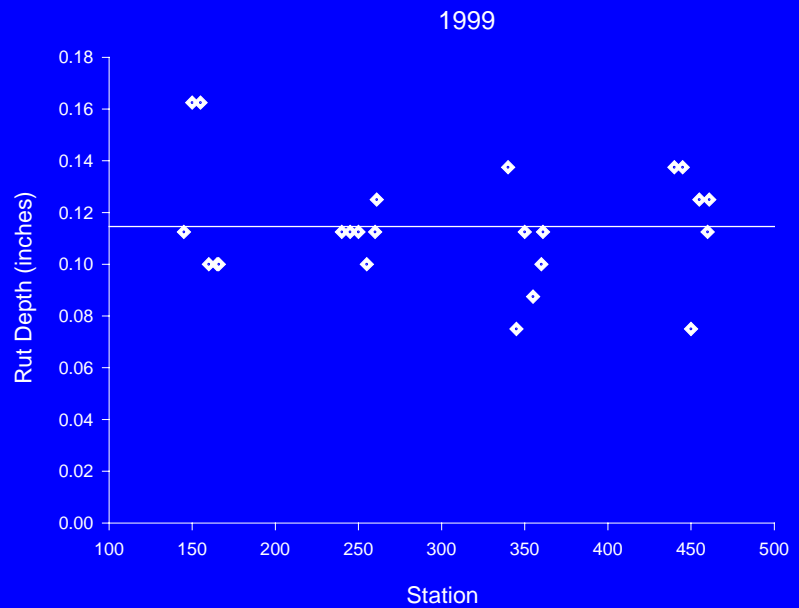
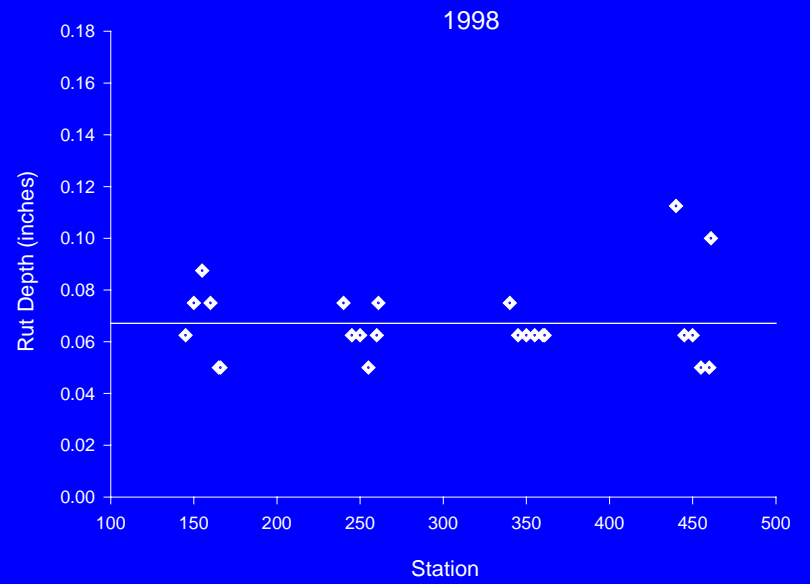
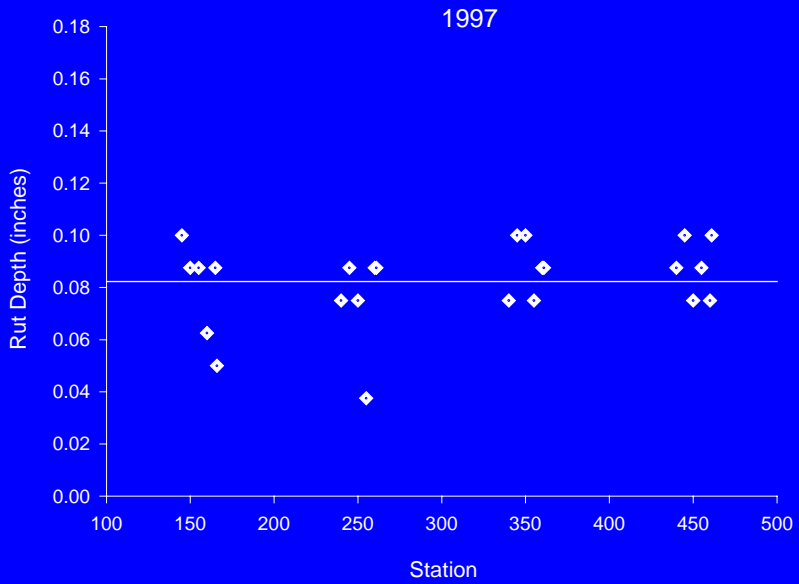
Road Rater Test Results 2001

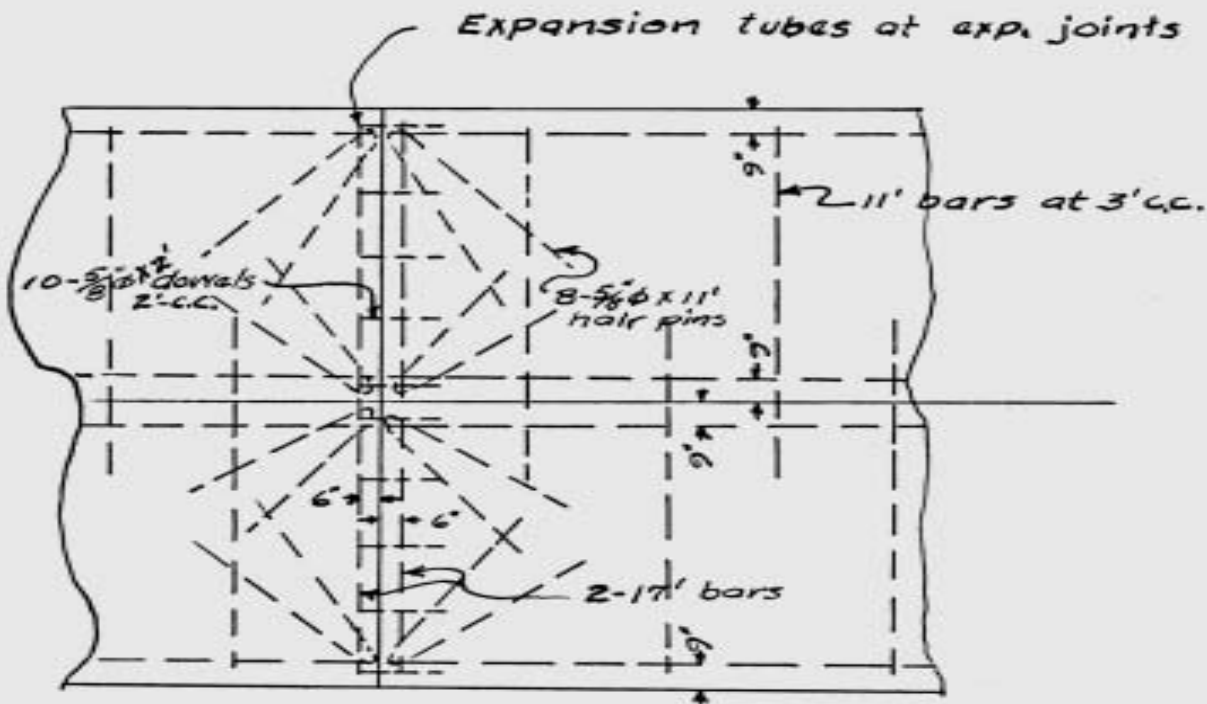
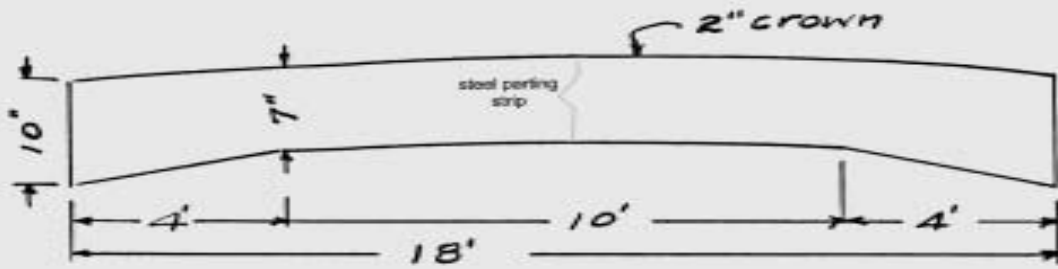


Road Rater Test Results 2001 and 1993



Rut Depth Measurements





All steel $\frac{5}{8}$ " ϕ plain round
 $2\frac{1}{2}$ " cover except dowels
 at center of section.

DISCUSSION?