UNIVERSITY AVENUE
4-LANE TO 5-LANE CONVERSION

CRASH ANALYSES
TO IOWA DOT SAFETY FORUM

BY THOMAS B. STOUT, P.E.

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INTRODUCTION

- Location
- Objective
- Process
- Results
LOCATION

- Des Moines, 31st west to 43rd
- Off-peak parking maintained
STUDY OBJECTIVES

- Crash frequency
- Crash types
- Crash causes
- Crash severity
PROCESS

- Before-after study
- 3 years 4 months each way
- Compare to overall corridor
RESULTS – COUNT

CRASH COUNT COMPARISON

CRASH COUNT

STUDY AREA LOCATION CORRIDOR

BEFORE AFTER
RESULTS – COUNT

- Ten percent reduction in study area vs. four percent increase in corridor
RESULTS – RATE

CRASH RATE COMPARISON

RATE PER MVM

LOCATION

STUDY AREA

CORRIDOR

BEFORE

AFTER
RESULTS - RATE

• Crash rate went down 13.7 percent in study area
• Corridor crash rate went up about 2.5 percent
RESULTS - TYPES

STUDY AREA CRASH TYPES

SHARE OF TOTAL CRASHES

TYPE OF CRASH

HEAD-ON
REAR-END
ANGLE
BROADSIDE
SIDESWIPE (SAME DIR)
SIDESWIPE (OPP. DIR)

0%
5%
10%
15%
20%
25%
30%
35%
40%
BEFORE
AFTER
RESULTS – TYPE

• Twenty percent improvement in head-on crashes when compared to corridor
• Twenty two percent improvement in same direction side-swipe crashes when compared to corridor
RESULTS – MAJOR CAUSE

• Twenty five percent reduction in crashes caused by crossing centerline, when compared to the corridor

• Thirty five percent reduction in crashes caused by failure to yield ROW during left turn, when compared to the corridor
RESULTS – SEVERITY

- Major injury crashes down by 20%
- Minor injury crashes down by 16%
CONCLUSION

• Significant benefits to these improvements
• Consistent with other studies in Iowa
QUESTIONS