

# Road Safety Audits Minnesota Experience

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The background features several sets of concentric circles in a lighter shade of blue, resembling ripples in water, scattered across the lower half of the slide.

# Minnesota's Strategic Highway Safety Plan (SHSP)

- A Comprehensive Highway Safety Plan was developed in 2004 as an outgrowth of our Toward Zero Death (TZD) program
- CHSP is being updated to become a SHSP
- Anticipate completion by August 2007
- Updating and verifying strategies
- Providing guidance for future funding

# Minnesota's 15 Critical Strategies

## Enforcement



- Provide adequate law enforcement resources
- Primary seat belt law
- Implement automated enforcement
- Stronger graduated driver licensing system
- Support the enforcement of traffic safety laws
- Targeted enforcement

## Engineering



- Cost effective lane departure improvements
- Cost effective intersection improvements
- Roadway maintenance
- Road Safety Audits

## Education



- Communication and marketing task force
- High-level traffic safety panel and legislature action committee
- Enhance driver education

## EMS



- Statewide Trauma System

## Data Systems



- Improve Data System

# Road Safety Audit Methodology

## ➤ RSA Process

- Form team
- Obtain Data
- Site visits
- Safety Stakeholder meeting
- Formal Report
- Present results



# Evolution of RSA's

## ➤ First Generation

- Request By Districts
- Primarily problem intersection based

## ➤ Second Generation

- Funded through solicitation process
- County wide

## ➤ Project Safety Reviews

- Proposed for all Mn/DOT projects
- Completed internally

# 1<sup>st</sup> Generation RSA

- Single intersections / locations
- Reactive – High Crash Locations
- Reactive – Highly political
- Short term, lower cost solutions
- Long term, higher cost solutions
- District must respond to recommendations

# 2<sup>nd</sup> Generation RSA

- Corridor or County Wide approach
- Multiple intersections and/or sections
- Numerous stakeholders
- Funded through solicitation process
- Focus is on local roadways
- New direction – Start with SHSP
- Meeting with Stakeholders required to discuss safety and TZD

# 2<sup>nd</sup> Generation RSA (Cont)

- For 2006 funded audits in 27 Counties
  - Primary focus was on selected intersections
  - Recommendations varied from reactive to proactive
- For 2007-08 an additional 11 audits for Counties have been approved
  - Guidance is to shift to sections of roadway utilizing data and recommendations from the SHSP



## Observation

Mn/DOT's typical layout of intersection guide signs intercepts sight lines from the stop signs.



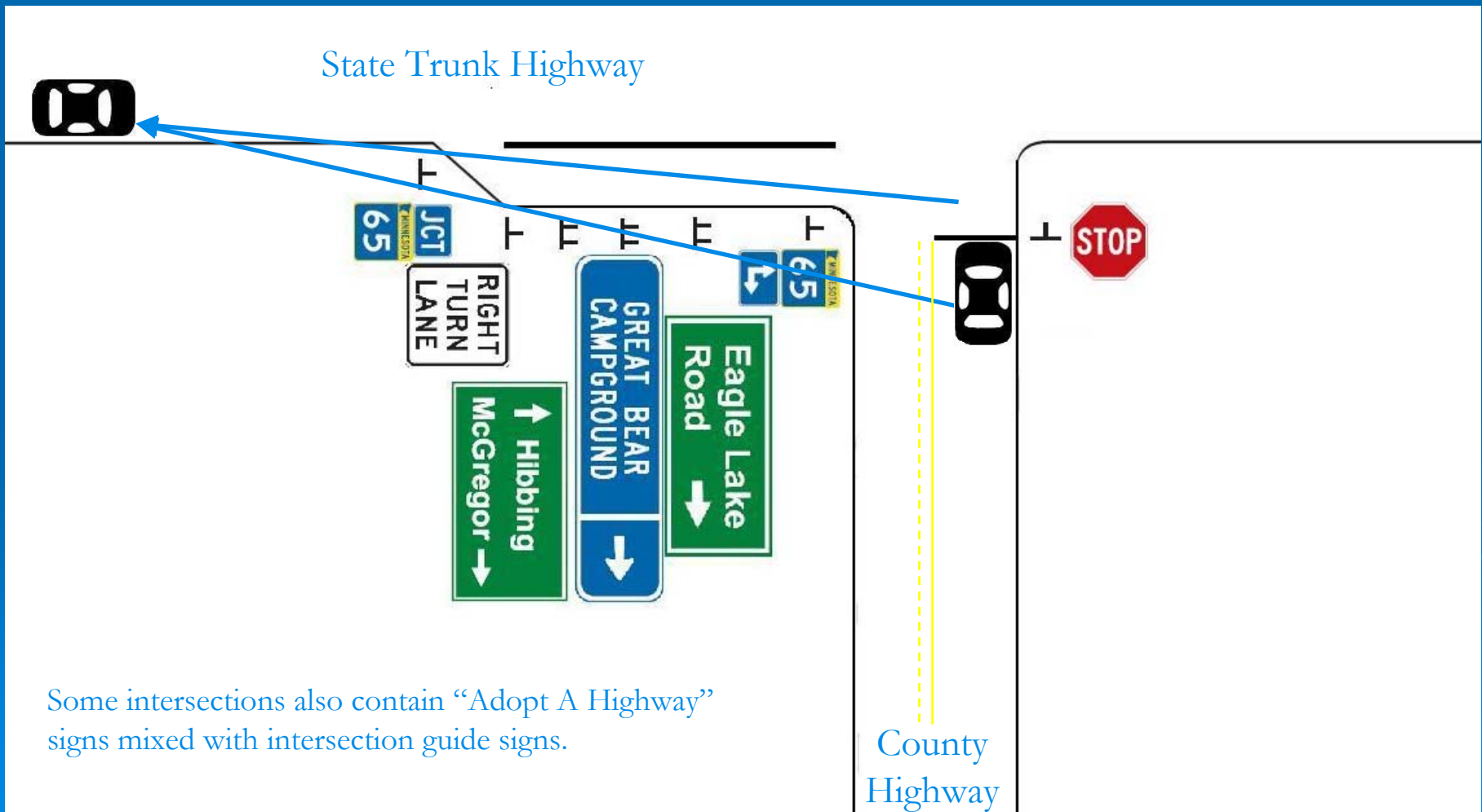
## Suggestion

Develop/adopt a revised typical layout that relocates all of the signs away from the intersection.



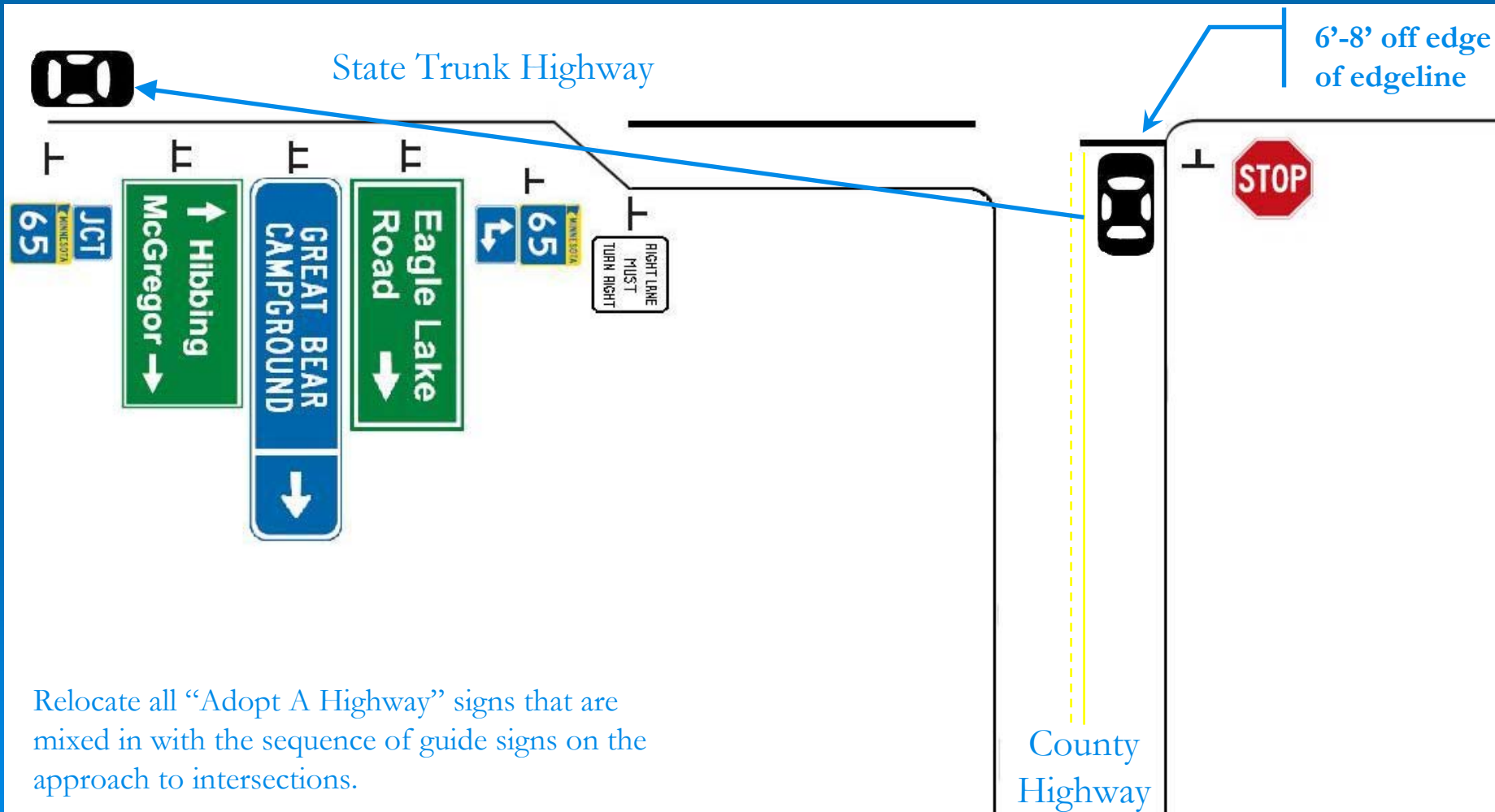
# Signing

## Existing Typical Layout of Trunk Highway Guide Signs



# Signing

## Revised Typical Layout of Trunk Highway Guide Signs



# Signing

## Revised Typical Layout of County Highway Traffic Control Devices

Add can delineators to Stop sign

Stop Bar, 12" to 24" wide,  
8' to 12' back from edgeline

### Prioritized/Phasing

1. Stop bar
2. Stop sign
3. Junction sign
4. Stop Ahead Message
5. Stop Ahead Sign

Provide  
three  
devices  
indicating  
up coming  
intersection

AHEAD  
STOP



36", reserve 48"  
for intersections  
with documented  
deficiency and  
where there are  
RR grade  
crossings on the  
CH approach

1/2 distance  
between Stop  
Ahead and Stop

1/2 distance  
between Stop  
Ahead and  
Junction sign

450' (min.) to  
750' back, 1 size  
larger than Stop  
(up to 48")

# Implementation of RSA's

- Districts provide funds to implement recommendations on a priority basis
- Grants from our Central Safety fund are being used to implement county proactive strategies
  - Rumble strips
  - Rumble stripes
  - Intersection lighting
  - Pavement markings

# Project Safety Reviews

- Product of new direction in pavement preservation
- Proposal – Conduct a safety review of all proposed projects, including all pavement preservation projects.
  - Suggest safety improvements – low cost, proactive and higher cost improvements
  - Conduct a cost benefit analysis and prioritize improvements
  - Project manager documents decisions on which improvements will be included in final project
- All projects will have a safety review. Results, recommendations and decisions will be documented

# Future of RSA's

- More SHSP Grant \$ will be Available
- Within Mn/DOT we will continue to do RSA's on selected locations
- A higher priority will be placed on wide scale systematic approaches that use SHSP strategy mechanisms.
- The link between RSA's and implementing SHSP strategies will be stronger

Questions?

