

**NYSDOT**  
**Highway Safety Program**

**Road Safety Audit**  
**SAFETAP**

AASHTO TIG/FHWA Road Safety Audit Peer Exchange  
Charleston, SC - May 2007

# SMS Organization

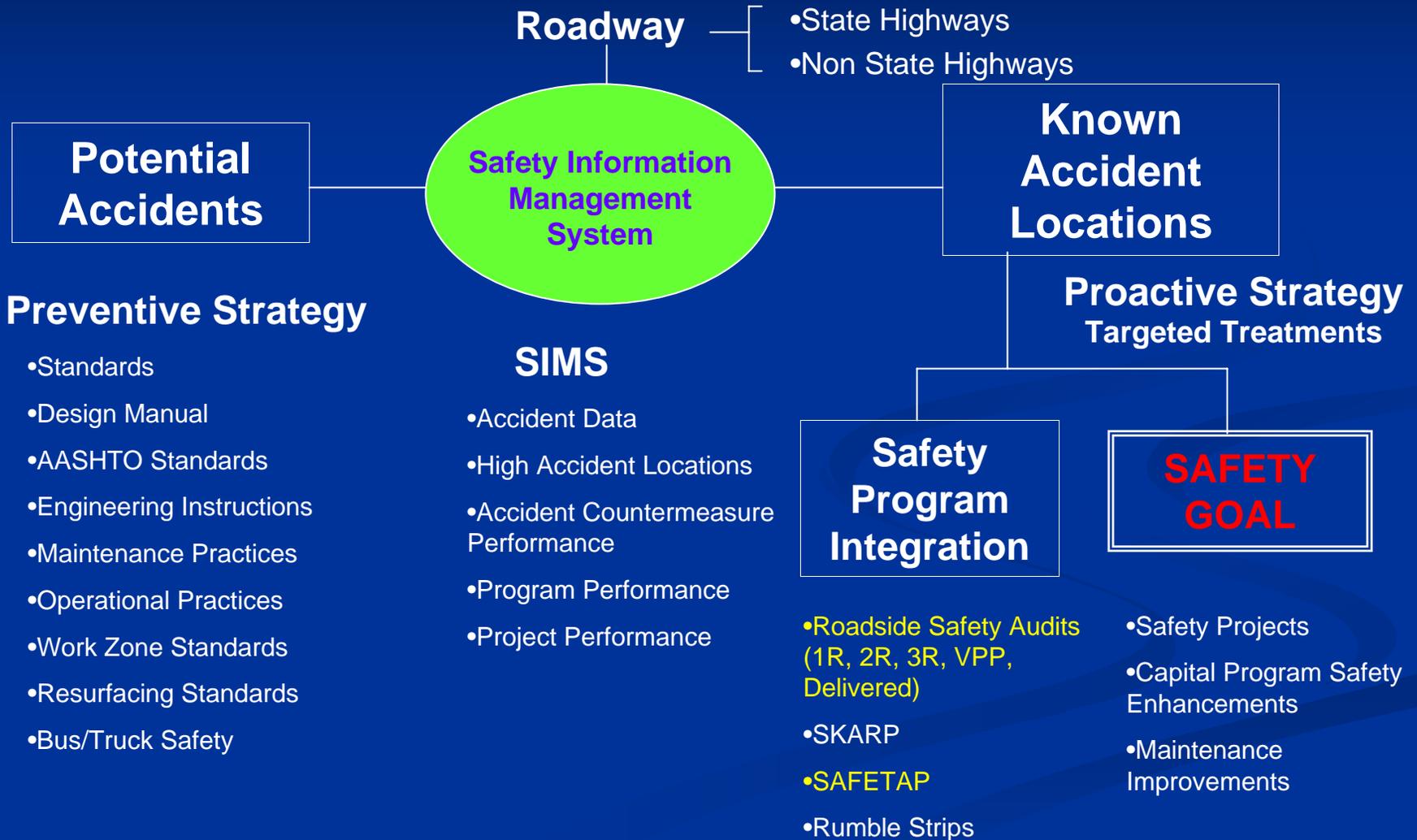


# NYSDOT Safety Goal

**Goal: Ensure that highway safety is considered in the development and implementation of all department programs and projects for the purpose of reducing deaths, injuries and total accidents occurring on the state's highways.**

# NYSDOT SAFETY MANAGEMENT SYSTEM

## NYSDOT RESPONSIBILITIES



# Hazard Elimination Process

**Identify HALs**



**Identify Accident Patterns**



**Develop Improved Alternatives**

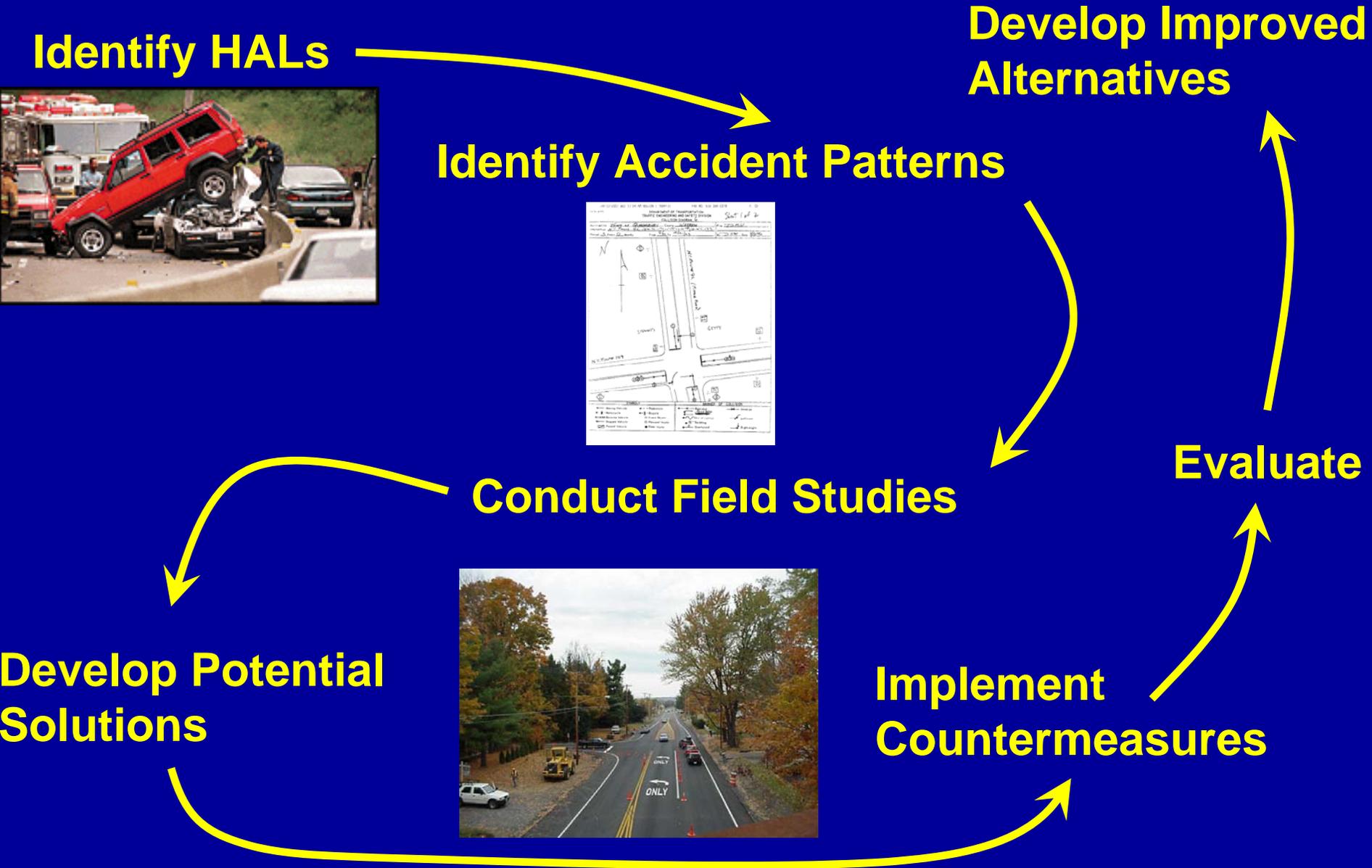
**Evaluate**

**Conduct Field Studies**



**Develop Potential Solutions**

**Implement Countermeasures**



# Road Safety Audit

## *PREVENTIVE MAINTENANCE PAVING*

- Simple 1.5 inch overlay placed by Maintenance forces, simplified contract, or vendor in place
- Preserve the pavement
- Avoid more expensive pavement reconstruction alternative
- Do not increase hazard to motorist

# Road Safety Audit

## *PREVENTIVE MAINTENANCE PAVING*

### **NEED**

- Preventive Maintenance Paving (PMP) -  
Not part of HSIP process
- Examined the impacts of simple  
resurfacing with and without roadside  
improvements
- PMP proportion of program increased from  
44 % in 1990 to 70% in 2000

# Road Safety Audit

## *PREVENTIVE MAINTENANCE PAVING*

### Criteria

- Our safety goal required integrating safety into the paving program
- Adapted the road safety audit process to address the safety elements of the roadway
- Required an advocate to change program “culture”

# ROAD SAFETY AUDIT

## SAFETAP

### FEDERAL ELIGIBILITY

### 1R Requirements



- Pavement Preventive Maintenance and Vendor in Place Paving competitively let projects
- Single course overlays /Inlays 50-mm (2-in) max thickness
- Acceptable surface score of 6 or better (out of 9)

# ROAD SAFETY AUDIT

## 1R Requirements continued



- **No lane or shoulder drop offs – maintain existing surface elevation**
- **Safety Audit by Safety Audit Team**
- **Safety work to avoid increasing hazard**

# ROAD SAFETY AUDIT

## 1R Requirements

continued



- Safety treatments that are practical and necessary to address existing or potential safety problems
- Timing of safety work (allows for flexible, cost-effective, implementation methods)
- 4 to 6 months from Inception to Construction

# NYS DOT Transportation Project Types

- Safety Related Work
  - Minor Intersection Reconstruction
  - Major Intersection Reconstruction
- 
- **1R - Pavement Preventive and Corrective Maintenance**
  - 2R – Simple Resurfacing, Restoration, and Rehabilitation
  - 3R - Resurfacing, Restoration, and Rehabilitation
  - 4R - Reconstruction and New Construction
- 
- Bridge Preventive and Corrective Bridge Maintenance
  - Minor Bridge Rehabilitation
  - Major Bridge Rehabilitation
  - Bridge Replacement
  - New Bridge

# **ROAD SAFETY AUDIT**

## **SAFETAP**

### **How it Works**

- **Regional Director appoints a road safety audit team from Regional Traffic, Design, Maintenance and any other regional group determined to be appropriate**
- **Team performs simple analyses of site related computerized accident data**
- **Examines the selected sites for hazardous features**
- **Makes recommendations for safety improvements**

# Timing of 1R Work

- **Before Paving**
  - Replace missing regulatory or warning signs
- **During Paving or as soon as possible**
  - Superelevation
  - Shoulders, edge pavement drop-offs
  - Brush removal
  - Fixed objects
  - Guiderail
  - Delineation
- **Done in a timely manner after paving**
  - Guiderail
  - Fixed Objects
  - Guide signs, route markers

# Safety Audit Team Findings





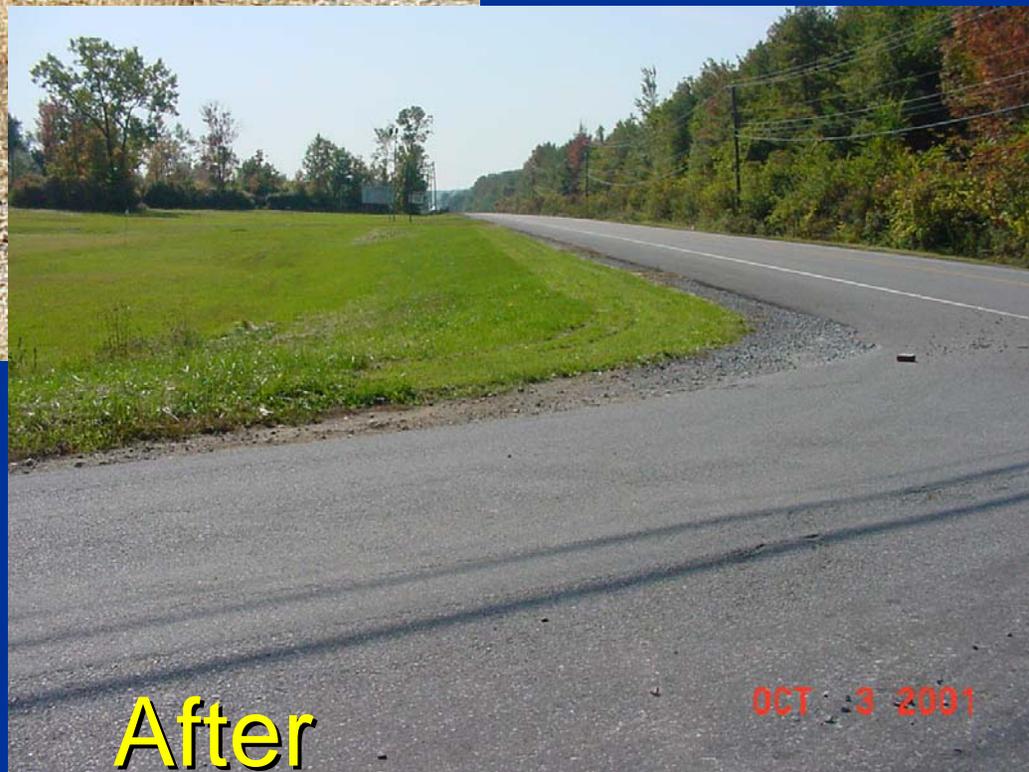
# Roadside Obstacles

## Fixed Objects





Before



After

OCT 3 2001



SEP 24 2004



32

SEP 24 2004

# Program Benefits

- Communication among disciplines –
  - **Experienced and Interdisciplinary Team – Traffic, Maintenance and Design**
- Independent reviews considers the needs of all users of the system
- Covers 8-10% of all state highways each year
- Program focuses on the entire system (preventive)
- Mitigate existing or potential safety deficiencies
- Document Findings

# Questions?

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