

Arizona Road Safety Audit Program

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Arizona RSA Program Manager



FHWA identified Arizona as:

- “Opportunity” state for fatality rate
- “Focus” state for road departure, intersection, and pedestrian fatalities



Governor's Traffic Safety Advisory Council

- Established in 2004
- Goal: reduce number of fatalities and injuries caused by crashes
- Improving traffic safety through collaboration and integration of the 4Es:
 - Engineering, Education, Enforcement, & Emergency Response
- Developed a Transportation Safety Plan



Road Safety Audit (RSA) Subcommittee

- GTSAC identified RSAs as a priority theme strategy
- RSA subcommittee established with diverse representation
- Subcommittee recommended a statewide RSA program
- Statewide program for all public roads



Arizona RSA Definition

A Road Safety Audit is a **formal** examination of user safety of a future or existing roadway by an **independent, multi-disciplinary** team



Arizona RSA Program

- Administered by ADOT Highway Enhancements for Safety (HES)
- RSAs conducted by request (road owner or land owner)
- Formal report is prepared and provided to requestor
- Requestor is to provide a written response
- RSA Manager to follow-up regarding implementation



Arizona RSA Program

- RSA marketed as a tool to address safety concerns and issues
- Developing a Peer-to-Peer Program
- Building Partnerships of joint road owners and road/land owners
- Training is provided per request
- Provide technical/administrative assistance to local and tribal jurisdictions



Arizona RSAs

- Conduct 15 RSAs first year
- All stages: scoping, design, construction, existing
- Urban and rural
- City, county, state, tribal, and federal locations



AZ RSA Process

Initiating an RSA

Responsibility of requestor:

- Identify project or site to be audited
- Complete the RSA Application Form and submit request
- Work with RSA Program Manager to select team members and schedule the RSA



AZ RSA Process

Identifying an RSA Team

RSA Manager works with the requestor

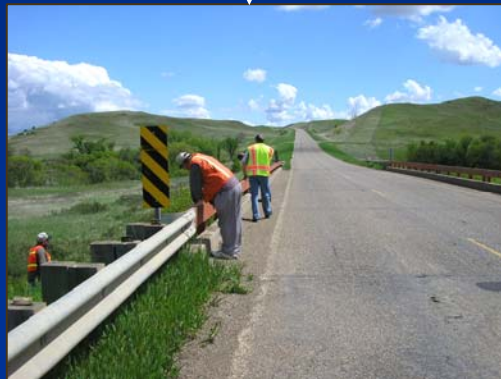
- 4-6 team members (as large as 10)
- ADOT (Maintenance, HES, Design), FHWA, DPS, BIA, COG, GOHS, County, City, On-call Consultants, FHWA Peer-to-Peer
- Multi-disciplinary representation



AZ RSA Process

Conducting the RSA

1. Start-up Meeting



2. Site Visit

3. RSA Analysis Workshop



4. Preliminary Findings Meeting



AZ RSA Process

After the Actual RSA

FEDERAL HIGHWAY ADMINISTRATION
ILLINOIS DEPARTMENT OF TRANSPORTATION




**ROAD SAFETY AUDIT FOR
IMPROVEMENTS TO CLEAR LAKE AVENUE AND
DIRKSEN PARKWAY**

SPRINGFIELD, ILLINOIS

Engineering and
Planning Consultant

CONTRACT DTHM1-03-00105
TASK ORDER BMSG05B02



MEMORANDUM

DATE: January 4, 2006

TO: Roadway Safety Audit Team FROM: Richard B. Nuss
Transportation Administrator

SUBJECT: Response to Road Safety Audit Recommendations

Project: Road Safety Audit of six "HAWK" Pedestrian Crossing Sites, Tucson Arizona
Contract: DTHM1-03-00105 Task Order BMSG05B02
Description: Installation of six HAWK Pedestrian Crossing City-wide

Issue 1: Use of the Alternating Flashing RED Signal Indication. During on-site observations of the existing HAWK installations, most drivers were observed to remain stopped until the alternating flashing RED sequence had ended, even though they may legally pass through the crosswalk. Of those drivers who did proceed during the alternating flashing RED sequence, many following drivers continued slowly through the crosswalk without coming to a full STOP as required by law at a flashing RED beacon. Drivers who illegally enter the crosswalk during the flashing RED display may conflict with pedestrians legally in the crossing during the pedestrian clearance phase. This risk was rated as low risk level.

The following suggestion(s) were discussed and action(s) were taken:

1. **Additional Signage:** Additional regulatory signage was installed at selected HAWK stations to emphasize their impact upon drivers as well as extensive educational program and enforcement. The black on white sign read "STOP-MAY PROCEED WITH CAUTION WHEN FLASHING". Observations of the signage over the last year, as well as the media campaign, has shown little change in the driver's behavior. However, enforcement has made a significant impact upon individual driver's behavior as it does with other traffic enforcement.
2. **Eliminate Flashing Interval:** The HAWK operation is very effective in gaining appropriate driver compliance at pedestrian crossings and significantly increases the percentage of drivers voluntarily stopping for pedestrians. The beacon signal displays a solid RED indication to traffic during the WALK interval and is then followed by an alternating flashing RED interval during the flashing DON'T WALK interval. The current alternating RED flashing sequence was adopted from the successful operation used in Europe, which uses a flashing AMBER at PEDESTAL crossings and Los Angeles, which uses a flashing RED indication at multilane crossings. The advantage of the flashing RED indication is allows the reasonable and prudent driver to proceed when it is safe to do so, and it best matches the crossing time needs of the individual pedestrian to actual delay time necessitating high driver compliance. It is impossible to have a pre-determined crossing time match the time necessary for all individuals that may cross. The beacon signal operation needs to match the most expediency in order to keep the compliance high. The key to the issue is that the operation of the STOP command should be generally only as long as the pedestrian needs to cross and reach the other curb and not become



5. RSA Report

6. Owner Response

7. Implementation

RSA Peer Exchange

- Arizona Program is in its infancy
- Participation in peer exchange to share what we have learned to date

AND

- Learn from each of you



Questions for Peers

- Any funding programs for implementing RSA recommendations?
- How long to get RSA recommendations implemented?
- How do the RSA Report findings get incorporated into future projects?
- How much emphasis on independence of team members?
- How do you use state on-call consultants for local projects?



Questions for Peers

- What's your experience with different project stages (planning, design, construction, existing)? Any projects with an RSA at every stage?
- Any follow-up evaluation of RSA countermeasures implementation? Of RSA process?
- Conducting RSA's on policies, as opposed to projects?



Contact Information

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