Maricopa Association of Governments
Road Safety Assessment Program

Presented to TexITE District
Ft. Worth
August 30, 2012
What is a RSA?

- Road Safety Audit/Assessment
- Structured review of intersection or road segment
- Multi-disciplinary team
  - Team Leader
  - Team Coordinator
  - Traffic Engineer from another agency
  - Local Police Officer
  - Human Factors expert
  - MAG traffic engineer
Arizona RSA History

- ADOT – RSAs since 2006
- MAG – RSA Program began last year
- Pima Association of Governments (PAG) beginning this year
MAG’S RSA Program

- MAG provides Top 100 crash locations to member agencies
- Agencies nominate intersections
- MAG’s Transportation Safety Committee programs based on rank order of crash risk
- Assign RSA consultant to lead/coordinate
- MAG representative participates on RSA team
- MAG monitors crash experience at RSA locations
Kick-off Meeting Information

- **Reason for RSA** – Crashes, citizen complaints, etc.
- **History** – Recent changes
- **Background Information** – Number of lanes, volumes, speed limits, signalization, etc.
- **Crash History Overview** – Number & Severity by year
- **Roadway Owner Comments** – What prompted RSA request; what has been tried?
Agenda – Day One

- 9:00 AM: Kick-Off Meeting (close to site)
- 10:30 AM: Daytime Off-Peak Site Visit
- 12:30 PM: Mid-day Field Review
- 3:00 PM: PM Peak Period Field Review
- 7:00 PM: Nighttime Field Observations
Agenda – Day Two and Three

- 7:00 AM: Morning Peak Period Field Review
- 9:00 AM: RSA Team Meeting / Findings & recommendations
- Day 2 PM and Day 3 AM: Team Coordinator and Team Leader Prepare presentation summarizing team findings and recommendations
- 1 PM Day 3: RSA Team reviews and modifies preliminary findings
- 2 PM Day 3: Presentation to Owner/Discussion
Field Reviews

- Entire team in van
  - Drive all turning movements from all approaches
  - Walk and cross all approaches
  - Do both day and night
- Note things done well
- Note issues
- Consider improvement options
RSA Team Discussions

- Things done well
- Issues/problems observed
- Improvements suggested and discussed
- Recommendations are from TEAM – not an individual
Reporting

- Team Coordinator and Team Leader draft report within 2 weeks
- Review/Modification by RSA team
- Submit to MAG Safety Engineer for review/submission to Owner
- Owner reviews and prepares response.
Road Users
RSA Team
Pedestrians

- Crossing at all times of day and early evening
- Vehicles turn in front of or behind pedestrians
- Not always watching for cars
- Crossing against signal because:
  - Traffic not that heavy
  - Delay seemed excessive
Recommendations to Improve Pedestrian Experience

- Operate pedestrian recall for minor street from 6AM–9PM
  - Currently operates well in the AM
  - May reduce driver frustration
- “LOOK” pavement stencils
- Turning Vehicles Yield to Pedestrians
Pedestrians

- Low visibility of crosswalks at night
Recommendations to Improve Pedestrian Experience

- High visibility crosswalks across arterial street
- Improve illumination
  - Brighter luminaries, or
  - Additional lights on NWC and SEC
Pedestrians

- Uneven sidewalk surface
- Pitted and bulging asphalt at pedestrian ramps
Recommendations to Improve Pedestrian Experience

- Sidewalk repair
- Add down-guy shields and trim anchor tail near SWC
- Replace peeling push button decals
- Replace push button decal on SWC with a sign
- Raise pedestrian signal on SEC to 7’ min
Bicyclists

- Bicyclists can’t reach push buttons
- Bike lanes not carried to intersection in all directions
- Width of bike lanes
Recommendations for Bicyclists

- Extend bike lanes to intersection on all approaches
- Provide video bicycle detection on minor street, or
- Provide bicycle push button near curb on minor street
Signal Timing & Progression

- Different cycle lengths
- SBL vehicles impatient and several close calls observed with:
  - NB through vehicles
  - N–S Pedestrians
  - Vehicles exiting Circle K
Recommendations for Signal Timing & Configuration

- Pedestrian Recall across arterial from 6AM – 9PM
- Review timing at three adjacent intersections
- Consider flashing yellow arrow for SBL
Sight Distance

- Eastbound right turn vehicles have sight distance blocked by signal cabinet and vegetation

**Recommendation:** Trim/remove tree north of the intersection on the west side.
Circle K Driveway

- SBL vehicles were often making the quick turn to use this driveway
- Exiting vehicles want to get in WBL queue
  - Driving off of curb instead of using driveway
Recommendations for Circle K Driveway

- Explore moving Circle K driveway further east
  - Relocate air compressor
  - Relocate/remove pay phones
Other Issues

- Trim vegetation blocking speed limit sign
- Paint solid lines for through traffic on arterial near intersection to discourage lane-changing
- Refresh centerline striping on all legs
Ultimate Improvement

- Major Street Road Diet (Restriping)
  - Remove one lane NB and SB
  - Wider left-turn lanes with positive offset
  - Bike lanes with stencils and hatched buffer
  - Keep current configuration ½ mile south
  - Extend road diet to the north 2–3 miles
  - Time it with next resurfacing
Questions?