LOOP 101 MOBILITY PARTNERSHIP

Partners

- ADOT
- MCDOT
- MAG
- City of Scottsdale
- City of Phoenix
- City of Glendale
- City of Peoria
- City of Mesa
- City of Tempe
- City of Chandler
- Valley Metro
- University of Arizona
- Arizona State University
PROJECT PLAN

Phase 1: Initiation
- Operations Plan
- Systems Engineering Management Plan

Phase 2: Design
- Concept of Operations
- System Requirements

Phase 3: Implementation
- Deployment
- Testing
- Operations
LOOP 101 MOBILITY CHALLENGES

This location experienced travel times that were...
- 8.1 times higher;
- 8.4 times higher;
- 6.8 times higher;
- 13.7 times higher;
...than average corridor travel time.

Loop 101 Mobility Project

Major Venues and Destinations
1. University of Phoenix Stadium
2. Tournament Players Club of Scottsdale
3. Westworld in Scottsdale

Legend
- Cactus League Spring Training Stadium
- Hospital
- Community College
- Park and Ride
- Downtown Business District
- Traffic Management/Operations Center
- Light Rail
- Local Bus Route
- Express Bus Route
- Crashes in 2016
- Crash hotspots

1,325 crashes  
147 crashes/mile

375 crashes  
125 crashes/mile

Milepost 54  
430 crashes

2,421 crashes  
202 crashes/mile
DECISION SUPPORT SYSTEM

ICM Operations Activated

Heavy Congestion

Incident

Decision Support System (DSS)

Regional Archived Data System (RADS)

Predictive Model Network Simulation

Traffic Operations
- ADOT
- MC DOT
- Cities
- Transit Operations

Data Hub

Incident Notification System

ARIS

Recommend ICM Measures

Freeway
- Closure
- Alternative route
- CMS
- Ramp meter

Arterial
- Alternative route
- Signal timing plans
- Connected Vehicle signal priority

MCDOT
- Scottsdale
- Phoenix
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- Tempe
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Traffic Incident Management
- ALERT
- REACT
- DPS
- Fire/EMS

Transit
- Service alternatives

Traveler Info
- 511
- Social media
- Third-party providers
- PIcos
- Media (radio, TV)
- Personal navigation app
- Special event route guidance

Implement ICM Measures

ARIS incident status
- Freeway condition
- Arterial condition
- Purdue/UDOT SPM
- CCTV over RYN
- Anecdotal sources

Performance Dashboard
- Corridor travel time by mode
- Person hours of delay
- Response time
- Incident duration

Monitor Performance

Feedback to DSS
ADAPTIVE RAMP METERING
INTEGRATED TRAVELER MOBILITY APPLICATION
THANK YOU!

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