

INTELLIGENT TRANSPORTATION APPLICATION

General Instructions:

This Excel form is to be used to request federal Congestion Mitigation and Air Quality (CMAQ) funding available through the Maricopa Association of Governments (MAG) for Bicycle Projects to be included in the FY2014-FY 2018 MAG Transportation Improvement Program. Funding is available for Federal Fiscal Year (FFY) 2015, 2016 and 2017.

This application form includes:

- Part A - Contact and Project Description,
- PART B - ITS TIP Listing and CMAQ Score Data,
- PART C - ITS project Description,
- Part D - Checklist and Signature Page, and Transmittal Instructions and Schedule.

Each part is a separate tab of this excel file. Please complete Parts A - D. Alternative application forms are available upon request.

Deadlines and Transmittal Instructions:

Two copies of a printed, complete and signed application must be received in the MAG offices by **10:00 a.m. Wednesday, September 19, 2012**. The application is to be submitted electronically and should include ArcGIS shape files depicting the project location if they are available.

Detailed transmittal instructions are located in a separate tab in this excel sheet. Late applications **will not be accepted**.

If member agencies need additional information or have questions, they should contact Teri Kennedy or Stephen Tate at (602) 254-6300 or contact them by e-mail at the following addresses:

- <mailto:state@azmag.gov>
- <mailto:tkennedy@azmag.gov>
- <mailto:LLuo@azmag.gov>

All information is required, unless noted by the word - Optional.

PART A - CONTACT AND PROJECT DESCRIPTION

Contact Information	
1. Sponsoring Agency	City of Mesa
2. Contact Name	Avery Rhodes
3. Phone	(480) 644-4960
4. E-Mail Address	avery.rhodes@mesaaz.gov
5. Mailing Address	PO Box 1466, Mesa, AZ 85211-1466

(OPTIONAL)

If the applicant will be providing a GIS coverage (shapefile or geodatabase), please see the tab labeled "GIS Transmittal Instructions)

[GIS Submittal Instructions](#)

ITS Application from City of Mesa for 'Integrate Mesa 9-1-1 Call Center CAD Data'

PART B-ITS TIP Listing and CMAQ Score Data

This part of the form identifies data to calculate an CMAQ Score and provide the minimum data needed for a listing of the project in the Transportation Improvement Program

Federal Funding Eligibility

All ITS projects to be funded with Federal CMAQ funds must be in the 8-Hour Ozone Nonattainment Area. Please use the following link to verify that the map is located in the nonattainment area:

[Link to an 8-Hr Ozone Nonattainment Map on the MAG Website](#)

1. Traffic Estimate and Roadway Characteristics

a. Current Average Daily Traffic (ADT) on the Facility or the Nearest Parallel Facility of a Similar Type:

b. Please Describe how the ADT was estimated:

c. When was the ADT estimate developed:

d. Name of the Roadway Section Used for the ADT Estimate:

e. Starting Limit of the Roadway Section:

f. Ending Limit of the Roadway Section:

g. Length (Miles)

h. Total Number of Through Lanes on the Roadway Section:

i. Federal Functional Classification of the Roadway Section:

[Link to Functional Classification Map on the MAG Website](#)

2. Traffic Coordination Improvements. If the project improves traffic signal coordination, please do the following:

a. Enter the pre-improvement (current) traffic speed of the traffic corridor:

b. In the Table Check the Box in The Row That Best Describes the Project (Check Only One Box):

Before (Pre-Improvement) Condition	After (Post Improvement) Condition	Expected Increase In Speed
<input type="checkbox"/> Interconnected, pre-timed signals with old timing plan	Advanced computer-based control	17.5 percent
<input type="checkbox"/> Non-interconnected signals with traffic-actuated controllers	Advanced computer-based control	16.0 percent
<input type="checkbox"/> Interconnected, pre-timed signals with actively managed timing	Advanced computer-based control	8.0 percent
<input type="checkbox"/> Interconnected, pre-timed signals with various forms of master control and various qualities of timing plans	Optimization of signal timing plans. No change in hardware	12.0 percent
<input type="checkbox"/> Non-interconnected, pre-timed signals with old timing plan	Optimization of Signal Timing Plans	7.5 percent

3. Other Improvements. Check all that apply:

- Includes Traffic Signal Improvements for a Single Agency
- Includes Traffic Signal Improvements that Apply to More than One Agency
- Includes FMS Improvements
- The Project Conforms to Local Land Use Plans

Adds Traffic Signals that increase pedestrian crossing time for seniors

4. Traffic Speed Impacts of the Project (Not required for Traffic Coordination Improvements)

a. Enter the pre-improvement (current) traffic speed of the traffic corridor:

b. Enter the post-improvement (current) traffic speed of the traffic corridor:

ITS Application from City of Mesa for 'Integrate Mesa 9-1-1 Call Center CAD Data'

PART C -ITS project Description

Please enter project data ONLY in highlighted cells, save the file with the lead agency name in it - ie. City 0 ITS Projects.xls
 Submit this Excel workbook to MAG via email to: lluo@azmag.gov
 Please use one worksheet per project, with the tab at the bottom indicating agency priority -- Mesa1, Mesa2,... etc.
 Links to various websites are provided for additional information and help
 The worksheet titled "Example" shows an example on how to enter Data in the highlighted areas

Please enter required information in highlighted cells

A. Project Title & Sponsor

Lead Agency	City of Mesa
Other Partnering Agencies	Maricopa County Department of Transportation
ITS Project Title:	Integrate Mesa 9-1-1 Call Center CAD Data
Project Category:	Arterial ITS

B. Project Goals & Objectives

Project Goals:
 Integrate Mesa 9-1-1 Call Center Computer Aided Dispatch (CAD) data into the Regional Archive Data System (RADS).

Objectives:
 Integrate CAD data from the Mesa Fire Department 9-1-1 Call Center. Mesa's center is the second largest 9-1-1 call center in the region behind the Phoenix Fire Department's 9-1-1 call center. The center serves several communities in the East Valley including the City of Mesa, the Town of Gilbert, the Town of Queen Creek and parts of unincorporated Maricopa County.

C. Project Information

Project Location:
 Will benefit all areas served by the Mesa Fire Department 9-1-1 Call Center. Project will occur at the 9-1-1 Call Center and Mesa Traffic Management Center. Project will feed data into the Regional Archive Data System.

Scope of the project:
 Coordinate access to Mesa's CAD with the Mesa Fire Department. Develop an electronic means of sharing CAD data with RADS. Develop filters for integrating Mesa 9-1-1 CAD data in RADS. Develop a user interface that Traffic Management Center operators can use to monitor incidents. This project and scope was identified in the Regional Archive Data System User Needs Assessment dated June 5, 2012.

D. Identify Components in MAG Regional ITS Architecture

ITS applications	Relevant Applications (ENTER: Yes or No)	Applicable ITS Market Packages http://www.azmag.gov/ITS/	Note: Please attach the Architecture Flow Diagram in the application
1. Traffic Management	Yes	ATMS01, ATMS08	
2. Transit Operations Support	No		
3. Communications	No		
4. Traveler Information	No		
5. Archived Data Management	Yes	AD2	
6. ITS for Safety	No		
7. ITS Plans	No		
8. Freeway-Arterial Operations	No		

E. Program Year Preference

First Choice FY2015 FY2016 FY2017
 Second Choice FY2015 FY2016 FY2017
 Third Choice FY2015 FY2016 FY2017

F. Project Budget

	Federal Cost	Local Match (min 5.7%)	Total Cost
Amount	\$56,580.00	\$3,420.00	\$60,000.00
Cost percentage	94.3%	5.7%	

G. Project Schedule

The table below is provided as a tool to assist local agencies develop a project planning schedule. Column A shows standard project milestones and Column B shows the schedule based on a typical project procurement process. To generate a custom Project Schedule:(1) select applicable milestones in Column C;(2) Enter estimated time to complete milestone measured in months from project development start date in Column D; **NOTE: The project obligation date generated in cell E111 MUST occur before Sept 15th of the programmed fiscal year.** Determine the appropriate Project Activity Start Date (by trial-and-error) in order to obligate the project on time.

Standard Project Milestones	Default Schedule for Process	Applicable Milestones (ENTER - Yes OR No)	Estimated Time to Milestone (ENTER #Months)	Estimated Date
Apply for ADOT project number				Aug-2015
Receipt of ADOT project number	Oct-2015	Yes	1	Sep-2015
Initial DCR	Nov-2015	Yes	3	Nov-2015
Final DCR	Dec-2015	Yes	5	Jan-2016
30% Preliminary Plans, Cost Estimate and Report	Feb-2016	Yes	8	Apr-2016
60% Preliminary Plans, Cost Estimate and Report	Apr-2016	Yes	10	Jun-2016
Final Preliminary Plans, Cost Estimate and Report	Jun-2016	Yes	12	Aug-2016
Environmental Clearance	Apr-2016	Yes	11	Jul-2016
Utility Clearance	May-2016	Yes	11	Jul-2016
Right-of-Way Clearance	Feb-2016	Yes	11	Jul-2016
Approval of IGA	Aug-2016	No		NA
Obligation authority of Federal funds	Sep-2016	Yes	12	Aug-2016
Advertised Date	Nov-2016	Yes	2	Oct-2016
Final Deployment	May-2017	Yes	6	Apr-2017

< ENTER mm/yyyy -- Project Activity S

H. System Maintenance and Operations

Current staff resources available for ITS operations at the local	19
Additional staff resources required for fully utilizing features added by	None
Estimated current annual ITS operations & maintenance budget	\$4,028,393
Estimated additional annual operations & maintenance funds required	\$1,000
Estimated DATE from when required additional O&M funds will be	Jul-2016

Other comments:

I. Systems Engineering Analysis Requirement

Commitment to address the federal requirement for Systems Engineering Analysis:
 Agency's intent to follow the process described in the 'V' diagram during the project development process

The project sponsor or lead agency intends to incorporate the Systems Engineering Analysis in the scope of work for the project's Design Concept Report. Details on the ADOT System Engineering Checklist can be found at:
<http://www.azdot.gov/Highways/TTG/PDF/SystemsEngineeringChecklist.pdf>

PART D - SIGNATURE AND CHECKLIST

As the jurisdiction's manager/administrator or designated representative, I certify that this application is accurate and complete and that the project will be included in the sponsoring MAG member agency's local CIP/TIP if the project is selected for federal funding.

Signature: *DK Cleaverger*

Name: *DANIEL K. CLEAVENGER*

Title: *TRANSPORTATION DEPARTMENT DIRECTOR (CITY OF MESA)*

Date: *9/18/12*

WILL FILL OUT AFTER QUESTIONS APPROVED.

Checklist - OPTIONAL

This check list is optional, but is included to facilitate applicant review and verification that all required fields in the form have been completed.

PART A - Contacts and Project Description Fields	Complete?
Contact Information, fields 1 – 5 are complete	Yes
PART B - TIP Listing and CMAQ Score Data	Complete?
1. Traffic Estimate and Roadway Characteristics - Fields a - I are complete	
2. Traffic Coordination Improvements - as applicable table is complete	Yes
3. Other Improvements - As applicable all fields are completed	Yes
PART C - Total Project Schedule and Budget Including All Segment Fields	Complete?
Section A is Complete	Yes
Section B is Complete	Yes
Section C is Complete	Yes
Section D is Complete	Yes
Section E is Complete	Yes
Section F is Complete	Yes
Section G is Complete	Yes
Section H is Complete	Yes
Section I is Complete	Yes
PART D - Signature Page Fields	Complete?
Form is signed	Yes
Name, title and date fields are completed.	Yes

ITS Application from City of Mesa for ~~Radio Communications Upgrade~~
Integrate Mesa 9-11 Call Center CIP data



Maricopa County
Department of Transportation

2901 W. Durango St
Phoenix, AZ 85009
Phone: 602-506-8676
Fax: 602-506-8758
www.maricopa.gov

September 14, 2012

Avery Rhodes
City of Mesa Transportation
P.O. Box 1466
Mesa, AZ 85211-1466

Dear Avery Rhodes,

As the jurisdiction's designated representative, I certify that the Maricopa County is a partnering agency in the ITS Application for City of Mesa for 'Integrate Mesa 9-1-1 Call Center CAD Data to Regional Archive Data System (RADS)' Project. If the project is selected for federal funding, Maricopa County agrees to provide its fair share of local match per attached project cost estimate.

Sincerely,

Nicolaas Swart, P.E.
Traffic Management Division Manager

COST ESTIMATE

Project: Integrate Mesa 911 Call Center to RADS

<i>RADS Server Software Development</i>	LS	1	\$30,000	\$30,000
<i>Computer Hardware at City of Mesa</i>	LS	1	\$10,000	\$10,000
<i>Access Dispatch Data, Provide Data Filtering and set up XML web service</i>	LS	1	\$20,000	\$20,000
TOTAL COST ESTIMATE:				\$60,000

MAG CMAQ Project

Intelligent Transportation Systems Project

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
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A. SCOPING (15% Preliminary Engineering Design)
(Non-infrastructure projects: Only #2 applies).

1. SITE TOPOGRAPHIC SURVEY	LS	0	\$50,000.00	\$0.00	No
2. PROJECT ASSESSMENT REPORT or DETAILED WORKPLAN	LS	1	\$5,000.00	\$5,000.00	No
3. SYSTEMS ENGINEERING ANALYSIS (must address FHWA requirements)	LS	0	\$10,000.00	\$0.00	No
4. ENVIRONMENTAL DETERMINATION (Infrastructure projects, including technical supporting documents)	LS	0	\$30,000.00	\$0.00	No
5. HAZMAT ASSESSMENT	LS	0		\$0.00	No
SUBTOTAL – PROJECT SCOPING COSTS				\$5,000.00	\$0

B. FINAL PRELIMINARY ENGINEERING DESIGN - Stages II, III, IV and PS&E
(Not applicable to non-infrastructure projects)

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
1. Right-of-Way Acquisition	LS	1		\$0.00	No
2. Plans, Special Provisions or Bid Manual, Cost Estimate & Schedules.	LS	1		\$0.00	No
3. GEOTECHNICAL INVESTIGATION and Materials & Pavement Design Report	LS	1		\$0.00	No
4. DRAINAGE REPORT	LS	1		\$0.00	No
5. Storm Water Pollution Prevention Plan (SWPPP)	LS	1		\$0.00	No
SUBTOTAL – PROJECT DESIGN COSTS				\$0.00	\$0

C. CONSTRUCTION OR IMPLEMENTATION

For non-infrastructure projects (no ground disturbing activities), address only parts 2, 3 and D.

1. CONSTRUCTION ELEMENTS (Insert additional rows if necessary)

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
SUBTOTAL - CONSTRUCTION				\$0	\$0

2. PROCUREMENT (Insert additional rows if necessary)

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
<i>RADS Server Software Development</i>	LS	1	\$30,000	\$30,000	Yes
<i>Computer Hardware at City of Mesa</i>	LS	1	\$10,000	\$10,000	Yes
<i>Access Dispatch Data, Provide Data Filtering and set up XML web service</i>	LS	1	\$20,000	\$20,000	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
				\$0	Yes
SUBTOTAL - PROCURMENT				\$60,000	\$60,000

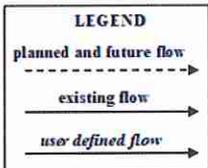
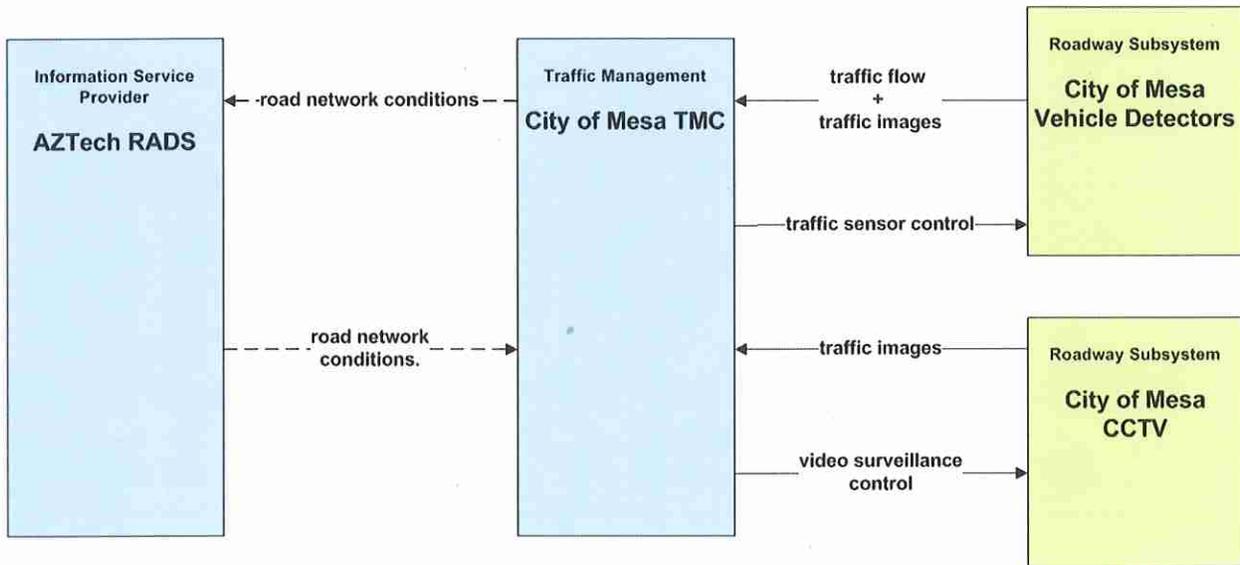
3. OTHER ITEMS
(Insert additional rows if necessary)

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
E. TOTAL PROJECT COST (All <u>subtotals</u> + ADOT local projects review fee)				\$70,000	\$60,000
					

F. SUMMARY OF FEDERAL AND NON-FEDERAL FUNDS

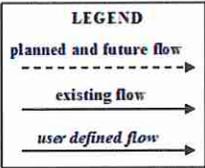
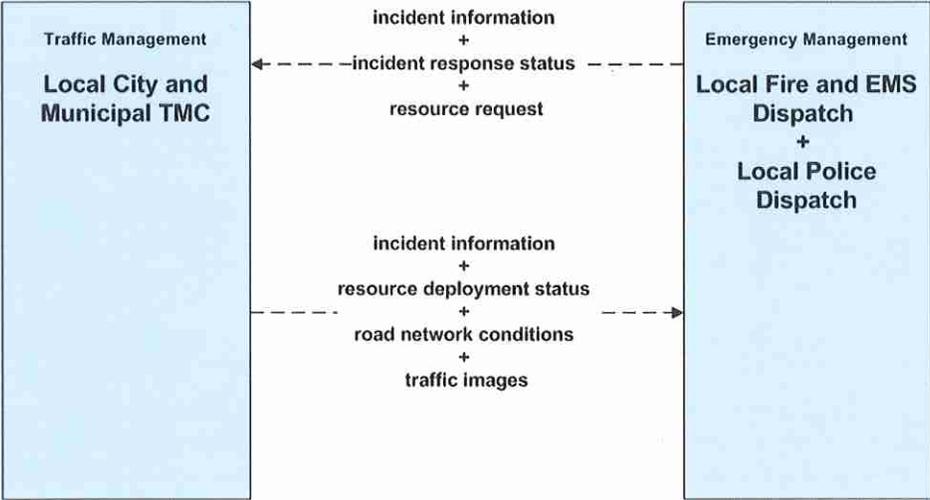
TOTAL COST FOR PROJECT CONSTRUCTION/IMPLEMENTATION	\$70,000
TOTAL COST FOR PROJECT ELIGIBLE FOR FEDERAL REIMBURSEMENT	\$60,000
TOTAL FEDERAL FUNDS @ 94.3% (.943 x Total Eligible Cost shown highlighted above)	\$56,580
LOCAL AGENCY MATCHING FUNDS (.057 x Total Cost shown highlighted above)	\$3,420

**ATMS01 - Network Surveillance
City of Mesa**



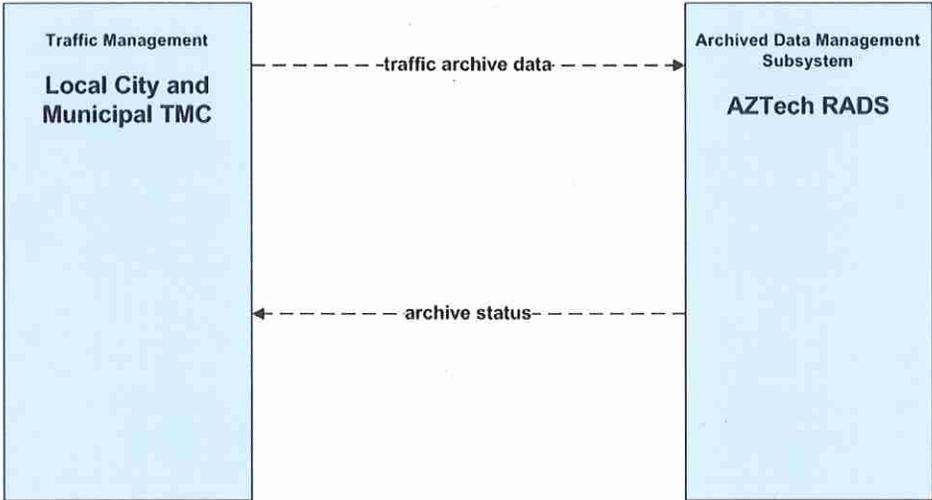
The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

**ATMS08 - Incident Management
Local Cities and Municipalities – Generic (TM to EM)**



The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

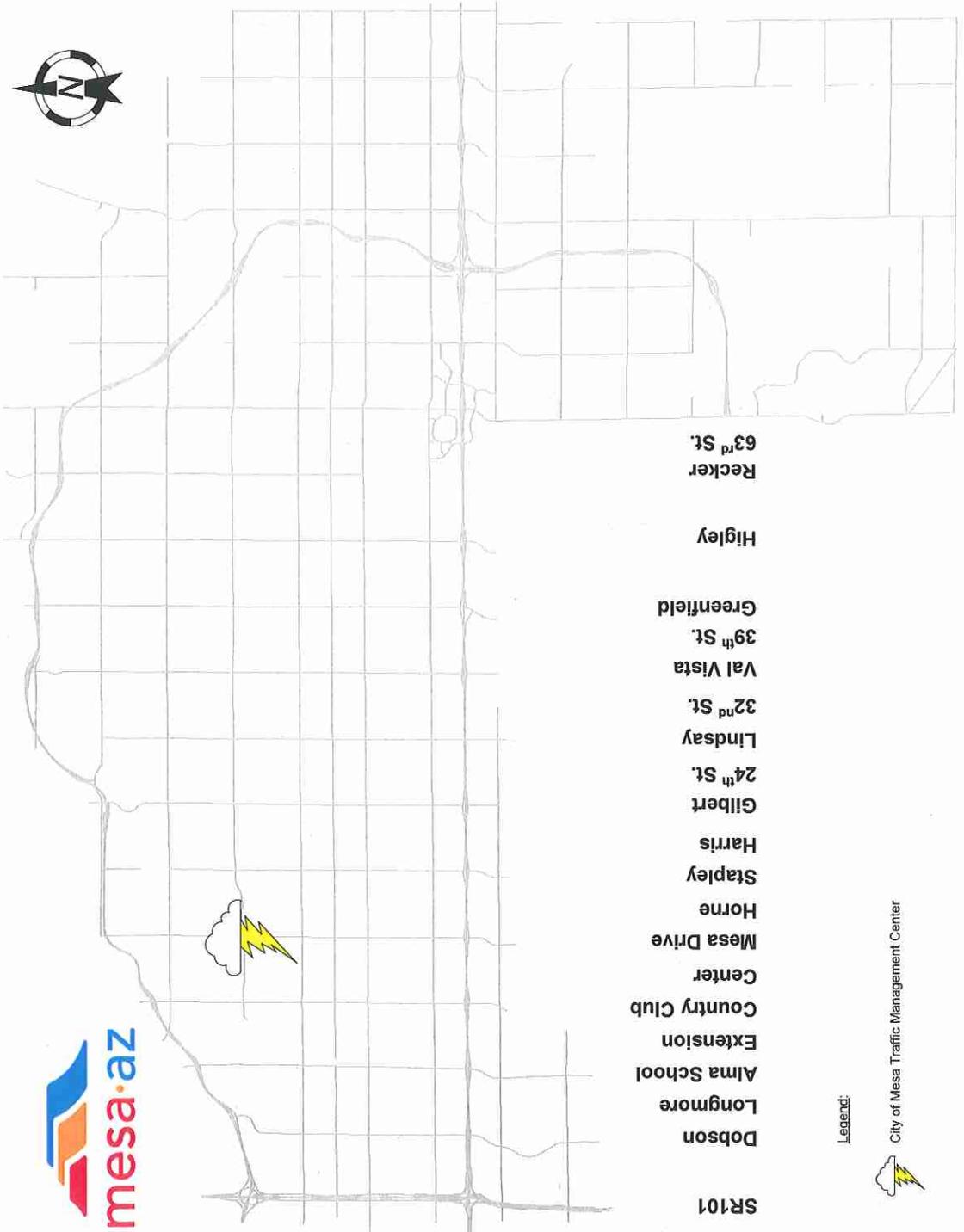
**AD2 - ITS Data Warehouse
AZTech RADS - Generic**



LEGEND

- planned and future flow
- existing flow
- user defined flow

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.



- Thomas
- McDowell
- McKellips
- McLellan
- Brown
- 8th St.
- University
- Main
- Broadway
- 8th Ave.
- Southern
- Baseline
- Guadalupe
- Elliot
- Warner
- Ray
- Williams Field
- Pecos
- Germann

- SR101
- Dobson
- Longmore
- Alma School
- Extension
- Country Club
- Center
- Mesa Drive
- Horne
- Stapley
- Harris
- Gilbert
- 24th St.
- Lindsay
- 32nd St.
- Val Vista
- 39th St.
- Greenfield
- Higley
- Recker
- 63rd St.

- Power
- 72nd St.
- Sossaman
- Haves
- Ellsworth
- Crismon
- Signal Butte
- Meridian



Legend:
City of Mesa Traffic Management Center

