

PART A - CONTACT INFORMATION	
1. Sponsoring Agency	City of Scottsdale
2. Contact Name	Reginald Fitzpatrick
3. Phone	480-312-5637
4. E-Mail Address	rfitzpatrick@scottsdaleaz.gov
5. Mailing Address	9191 E. San Salvador, Scottsdale, AZ 85258
(OPTIONAL)	
<a href="#">GIS Submittal Instructions</a>	

### PART B - CMAQ Score Data

This part of the form is used to gather project related data to calculate an CMAQ Score and also gather 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 located within a nonattainment area. Please use the map provided in the tab named "Map" to verify that the project is located in a nonattainment area.

#### 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:

Tube Counts

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 Update at the MAG Website](#)

#### 2. Improvements in Traffic Management & Operations.

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

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 checked="" 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

NOTE: All ITS projects MUST involve eligible infrastructure improvements.

#### 3. Other Improvements. Check all that apply:

Traffic signal system improvements at a single agency

**PART B - CMAQ Score Data**

- Traffic signal system improvements that apply to more than one agency
- Includes improvements to coordination between arterial and freeway traffic operations
- Project conforms to local land use plans
- Adds features to traffic signals that would better accommodate seniors at pedestrian crossings

**4. Traffic Flow Improvement Due to Project (Not required for Traffic Mgmt & Operations Improvements)**

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

**PART C1 - ITS Project Information**

Please enter information **ONLY** in highlighted cells  
 Links to various websites are provided for additional information and help  
 The worksheet titled "Part C Example" shows an example on how to enter information

Integrated Corridor Mgmt ▾

**A. Project Title & Sponsor**

<b>Lead Agency</b>	City of Scottsdale
<b>Other Partnering Agencies</b>	
<b>Project Title</b>	Thomas Corridor Video Detection
<b>Project Category</b>	Arterial ITS

**B. Project Goals & Objectives**

**Project Goals:**  
 Improve accuracy and efficiency of traffic detection via video detection. Improve signal controller operational efficiency. Pave the way for future adaptive signal control technologies

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**Project Objectives:**  
 Expand TMC traffic surveillance, monitoring, and detection capability by installing video detection. Facilitate the coordination of signal timing adjustments and enable future adaptive signal control.

**C. Project Information**

**Project Location Description - a PDF file of a map must be submitted to MAG as an attachment:**  
 Thomas Road from 60th Street to Pima Road, including some adjacent intersections. Total number of intersection is 17.

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**Scope of the Project:**  
 Purchase and install a total of 17 video detection cameras along Thomas Road from 60th Street to Pima Road and adjacent intersections with central control module/software at the TMC. The software would allow TMC operators within the city to set detection zones on cameras for dynamic traffic management purposes.

**PART C1 - ITS Project Information**

**D. Identify Project Components in MAG Regional ITS Architecture**

Service Area	Addressed in this Project (Yes or No)	<a href="http://www.azmag.gov/ITS/">Applicable ITS Service Packages http://www.azmag.gov/ITS/</a>
1. Traffic Management	Y	ATMS01, ATMS03
2. Public Transportation	N	
3. Communications	N	
4. Traveler Information	Y	ATMS01, ATMS03
5. Archived Data Mgmt	Y	ATMS01, ATMS03
6. ITS for Safety	Y	ATMS01, ATMS03
7. ITS Planning	N	
8. Fwy-Arterial Operations	N	

**NOTE: Insert the relevant Architecture Flow Diagrams in worksheet: Part C-ITSArchFlowDiags**

**E. Program Year Preference (enter FY2018 oor FY2019)**

Preferred program FY

**F. Project Budget**

	Federal Cost	Local Match (min 5.7%)	Total Cost
Amount	\$368,713.00	\$22,287.00	\$391,000.00
Cost percentage	94.3%	5.7%	

**G. System Maintenance and Operations**

Current staff resources available to support ITS operations at the local agency (in FTEs)	2
Additional staff resources required for fully utilizing features added by project (in FTEs)	None
Agency's estimated current annual ITS operations & maintenance (O&M) budget	\$372,000
Estimated additional annual O & M funds required for features added by this project	\$5,100
Estimated DATE from when required additional local O&M funds will be available	May-2018

**PART C1 - ITS Project Information****Other comments:****H. 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/lead agency City of Scottsdale intends to incorporate the Systems Engineering Analysis in the scope of work for the project's Design Concept Report, following guidance on ADOT's System Engineering Checklist provided [http://azmag.gov/Documents/ITS\\_2010-11-22\\_ITS-Systems-Engineering-and-Architecture-Compliance-Checklist.pdf](http://azmag.gov/Documents/ITS_2010-11-22_ITS-Systems-Engineering-and-Architecture-Compliance-Checklist.pdf)

## PART C2 - ITS Architecture Flow Diagrams

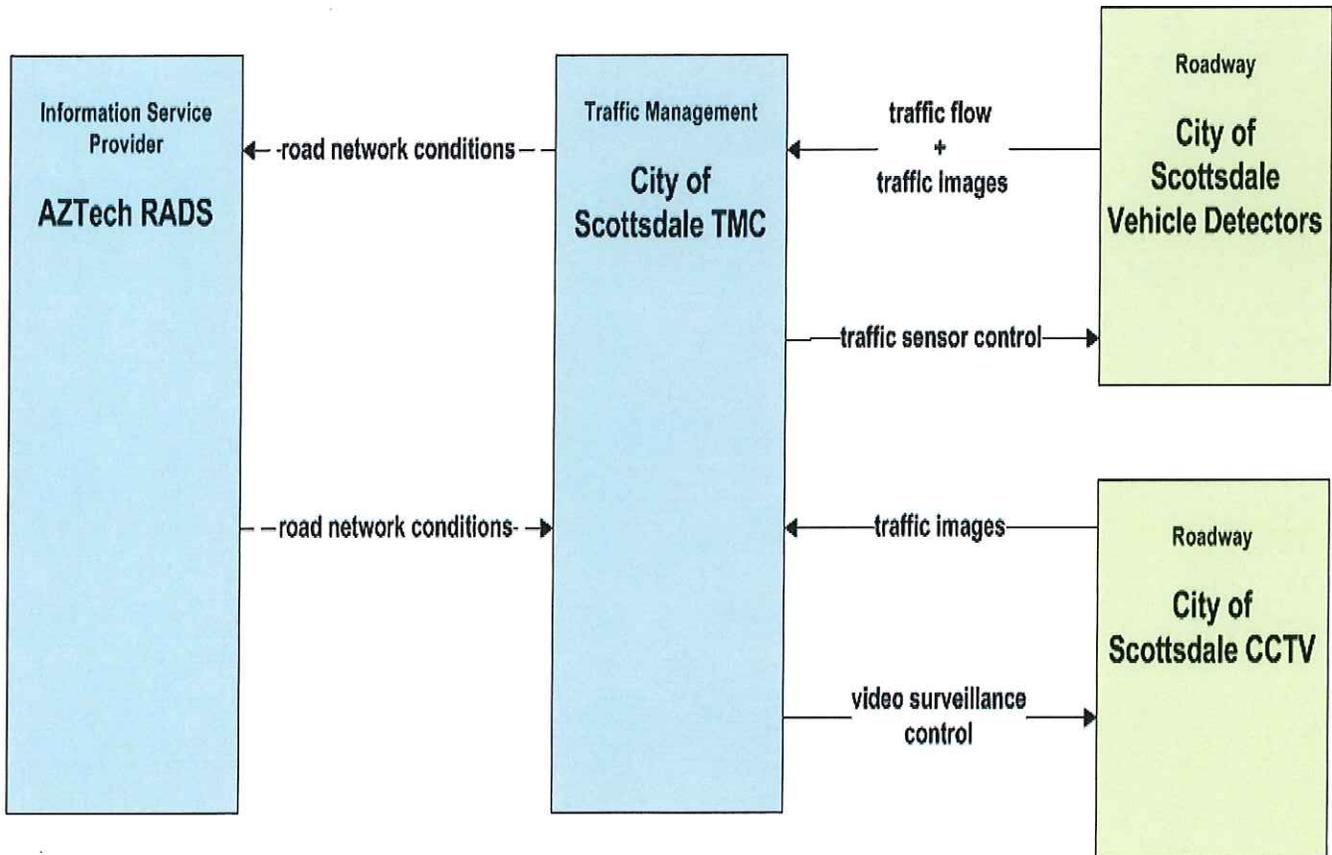
**Service Packages addressed by the proposed ITS project. This is to ensure that the project complies with the Regional ITS Architecture and meets a federal requirement for all federally funded ITS projects.**

Insert Architecture Flow Diagrams in the space below:

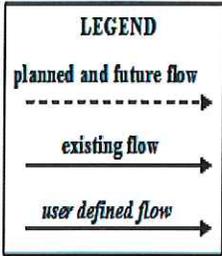
ATMS01 - Network Surveillance

This service package includes traffic detectors, other surveillance equipment, the supporting field equipment, and fixed-point to fixed-point communications to transmit the collected data back to the Traffic Management Subsystem. The derived data can be used locally such as when traffic detectors are connected directly to a signal control system or remotely (e.g., when a CCTV system sends data back to the Traffic Management Subsystem). The data generated by this service package enables traffic managers to monitor traffic and road conditions, identify and verify incidents, detect faults in indicator operations, and collect census data for traffic strategy development and long range planning. The collected data can also be analyzed and made available to users and the Information Service Provider Subsystem.

### ATMS01 - Network Surveillance City of Scottsdale

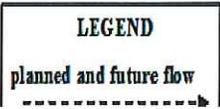
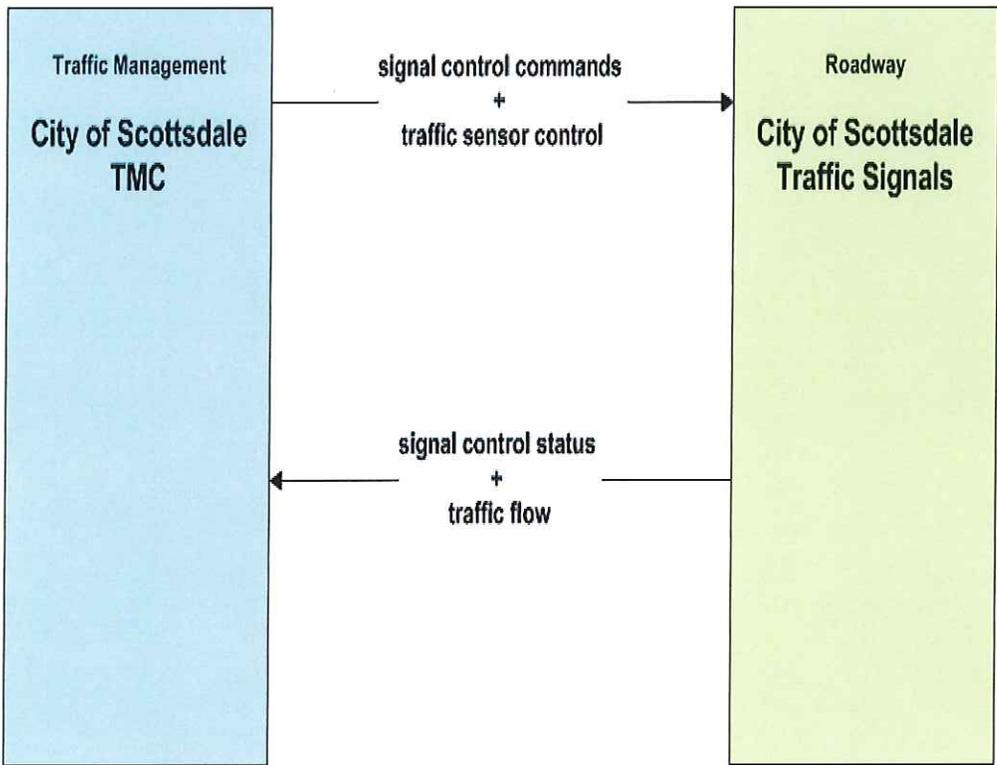


# PART C2 - ITS Architecture Flow Diagrams

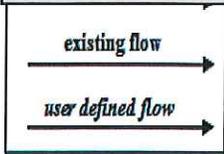


*The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.*

## ATMS03 - Traffic Signal Control City of Scottsdale



## PART C2 - ITS Architecture Flow Diagrams





PART D1 - Detailed Cost Estimate					
				\$0	Yes
SUBTOTAL - CONSTRUCTION				\$0	\$0



<b>PART D1 - Detailed Cost Estimate</b>					
TRAFFIC CONTROL	LS	0		\$0.00	Yes
CONSTRUCTION SURVEY & LAYOUT	LS	0		\$0.00	Yes
CONSTRUCTION CONTINGENCIES	LS	0		\$0.00	Yes
CONSTRUCTION ADMINISTRATION	LS	0		\$0.00	Yes
<b>SUBTOTAL – MOBILIZATION &amp; ADMINISTRATION COSTS</b>				\$ -	\$0
<b>TOTAL CONSTRUCTION OR IMPLEMENTATION COST</b>				\$ 391,000	\$ 391,000

<b>PART D1 - Detailed Cost Estimate</b>					
<b>D. ADOT Fee for PE Reviews and Staff Charges</b>					
	LS	1	\$5,000	\$5,000	No
<b>TOTAL ADOT Fee COST</b>				\$5,000	\$0
<b>E. TOTAL PROJECT COST</b>					
				\$396,000	\$391,000
<b>F. SUMMARY OF FEDERAL AND NON-FEDERAL FUNDS</b>					
<b>TOTAL COST FOR PROJECT CONSTRUCTION/IMPLEMENTATION</b>					<b>\$396,000</b>
<b>TOTAL COST FOR PROJECT ELIGIBLE FOR FEDERAL REIMBURSEMENT</b>					<b>\$391,000</b>
<b>TOTAL FEDERAL FUNDS @ 94.3% (.943 x Total Eligible Cost shown highlighted above)</b>					<b>\$368,713</b>
<b>LOCAL AGENCY MATCHING FUNDS (.057 x Total Cost shown highlighted above)</b>					<b>\$22,287</b>
<b>LOCAL AGENCY FUNDS <u>NOT</u> ELIGIBLE FOR FEDERAL REIMBURSEMENT</b>					<b>\$5,000</b>

**PART D2 - TOTAL PROJECT BUDGET AND TIP PROGRAMMING**  
**(All Items are Required, Unless Identified as 'Optional')**

Please provide a cost and programming estimate for the total project (e.g. the cost to complete all planned segment improvements). The design for the project should be programmed at least 1 year, preferably 2 years, prior to construction.

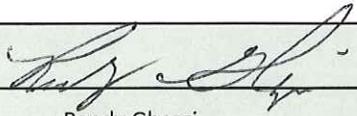
**Section 1 - Total Project Budget**

Cost Estimate for the Project from Part D1	Eligible Federal Cost	Local Cost Only	Total Cost	(Optional) Additional Notes
A. SCOPING (15% Preliminary Engineering Design) (Non-infrastructure projects: Only #2 applies).	\$ -	\$ -	\$ -	
B. FINAL PRELIMINARY ENGINEERING DESIGN - Stages II, III, IV and PS&E (Not applicable to non-infrastructure projects)	\$ -	\$ -	\$ -	
C. CONSTRUCTION OR IMPLEMENTATION				
1. CONSTRUCTION ELEMENTS	\$ -	\$ -	\$ -	
2. PROCUREMENT	\$ 391,000	\$ -	\$ 391,000	
3. OTHER ITEMS	\$ -	\$ -	\$ -	
4. MOBILIZATION AND ADMINISTRATION COSTS (Construction Only)	\$ -	\$ -	\$ -	
SUBTOTAL	\$ 391,000	\$ -	\$ 391,000	
D. ADOT Fee for PE Reviews and Staff Charges	\$ -	\$ -	\$ 5,000	
<b>Total Project Cost</b>	\$ 391,000	\$ -	\$ 396,000	

**Agency Programming**

Please describe the programming of the project in the agency's own CIP/TIP. The project will be programmed in the city's CIP following approval.

Requested MAG TIP Programming	Short Work Description (E.g. Construct HAWK)	Year (Choose One)	Local Cost	CMAQ Cost	Total Cost	Local Share
1. Scoping and PE (Optional)				\$ -	\$ -	
2. Other (Optional)				\$ -	\$ -	
3. Other (Optional)				\$ -	\$ -	
4. Construction or Implementation	Install video detection cameras	2018	\$ 22,287	\$ 368,713	\$ 391,000	6%
<b>Totals</b>			\$ 22,287	\$ 368,713	\$ 391,000	6%

<b>PART E - SIGNATURE AND CHECKLIST</b>	
<p><b>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.</b></p>	
Signature:	
Name:	Randy Ghezzi
Title:	Director, Street Operations
Date:	September 18, 2015
<b>Checklist - OPTIONAL</b>	
<p>This check list is optional, but is included to facilitate applicant review and verification that all required fields in the form have been completed.</p>	
<b>PART A - Contacts</b>	<b>Complete?</b>
Contact Information, fields 1 – 5 are complete	Yes
<b>PART B - TIP Listing and CMAQ Score Data</b>	<b>Complete?</b>
1. Traffic Estimate and Roadway Characteristics - Fields a - i are completed	Yes
2. Improvements in Traffic Management & Operations	Yes
3. Other Improvements - As applicable all fields are completed	Yes
4. Traffic Flow Improvement Due to Project	Yes
<b>PART C1 - ITS Project Information</b>	<b>Complete?</b>
Section A is Complete	Yes
Section B is Complete	Yes
Section C is Complete & A PDF file of map will be attached to the submittal to MAG	Yes
Section D is Complete & All relevant Architecture Flow Diagrams have been inserted in the worksheet	Yes
Section E is Complete	Yes
Section F is Complete	Yes
Section G is Complete	Yes
Section H is Complete	Yes
<b>PART C2 - ITS Architecture Flow Diagrams have been inserted</b>	Yes
<b>PART D1 - Detailed Cost Estimate</b>	Yes

<b>PART E - SIGNATURE AND CHECKLIST</b>	
<b>PART D2 - TOTAL PROJECT BUDGET AND TIP PROGRAMMING</b>	Yes
<b>PART E - Signature &amp; Checklist</b>	<b>Complete?</b>
Form is signed	Yes
Name, title and date fields are completed.	Yes

List of intersections for Video Detection Project:

1. 60<sup>th</sup> & Thomas
2. 61<sup>st</sup> & Thomas
3. 64<sup>th</sup> & Thomas
4. 68<sup>th</sup> & Thomas
5. 70<sup>th</sup> & Thomas
6. Scottsdale & Thomas
7. Civic Center & Thomas
8. Miller & Thomas
9. Hayden & Thomas
10. Granite Reef & Thomas
11. Pima & Thomas
12. Scottsdale & Earll
13. 68<sup>th</sup> & Osborn
14. Scottsdale & Osborn
15. Drinkwater & Osborn
16. Miller & Osborn
17. Hayden & Osborn

