

PART A - CONTACT INFORMATION	
1. Sponsoring Agency	City of Surprise
2. Contact Name	Albert Garcia
3. Phone	623-222-1733
4. E-Mail Address	albert.garcia@surpriseaz.gov
5. Mailing Address	16000 North Civic Center Plaza Surprise, AZ 85374
(OPTIONAL)	
GIS Submittal Instructions	

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:

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
	Interconnected, pre-timed signals with old timing plan	Advanced computer-based control	17.5 percent
	Non-interconnected signals with traffic-actuated controllers	Advanced computer-based control	16.0 percent
	Interconnected, pre-timed signals with actively managed timing	Advanced computer-based control	8.0 percent
X	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
	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	
<input type="checkbox"/>	Traffic signal system improvements that apply to more than one agency
<input checked="" type="checkbox"/>	Includes improvements to coordination between arterial and freeway traffic operations
<input type="checkbox"/>	Project conforms to local land use plans
<input checked="" type="checkbox"/>	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:	<input type="text" value="39"/>
b. Enter the post-improvement (current) average traffic speed of the corridor:	<input type="text" value="45"/>

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

ITS Applications that Improve Safety ▼

A. Project Title & Sponsor

Lead Agency	City of Surprise
Other Partnering Agencies	N/A
Project Title	Fire Station Traffic Signal Technology Implementation Plan
Project Category	ITS Applications that Improve Safety

B. Project Goals & Objectives

Project Goals:
 Analyze existing ITS technology deployed and implemented at traffic signals adjacent or at City fire stations and develop an implementation plan that prioritizes the deployment of ITS technologies/devices that improve the safety and roadway efficiency at each of the City's seven Fire Stations.

Project Objectives:
 Various ITS detection technologies are currently implemented at the traffic signals adjacent to or at City fire stations. This project would analyze and provide recommendations for standardization of ITS technology at all fire station traffic signals, improving access, safety, and efficiency.

C. Project Information

Project Location Description - a PDF file of a map must be submitted to MAG as an attachment:
 There are seven fire stations within the City of Surprise that would be included in this implementation plan.

Scope of the Project:
 Review current implemented ITS technology at signalized intersections at or adjacent to City fire stations. Provide implementation plan to improve efficiency communications, consistency throughout the system and safety to the travelling public.

PART C1 - ITS Project Information

D. Identify Project Components in MAG Regional ITS Architecture

Service Area	Addressed in this Project (Yes or No)	Applicable ITS Service Packages http://www.azmag.gov/ITS/
1. Traffic Management	Yes	ATMS03, EM02
2. Public Transportation		
3. Communications	Yes	ATMS03, EM02
4. Traveler Information		
5. Archived Data Mgmt		
6. ITS for Safety	Yes	EM02
7. ITS Planning		
8. Fwy-Arterial Operations		

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

E. Program Year Preference (enter FY2018 or FY2019)

Preferred program FY

F. Project Budget

	Federal Cost	Local Match (min 5.7%)	Total Cost
Amount	\$94,300.00	\$5,700.00	\$100,000.00
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)	4
Additional staff resources required for fully utilizing features added by project (in FTEs)	0
Agency's estimated current annual ITS operations & maintenance (O&M) budget	\$140,000
Estimated additional annual O & M funds required for features added by this project	\$0
Estimated DATE from when required additional local O&M funds will be available	N/A

PART C1 - ITS Project Information

Other comments:

[Empty comment box]

H. Systems Engineering Analysis Requirement

Commitment to address the federal requirement for Systems Engineering Analysis:

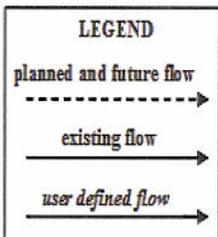
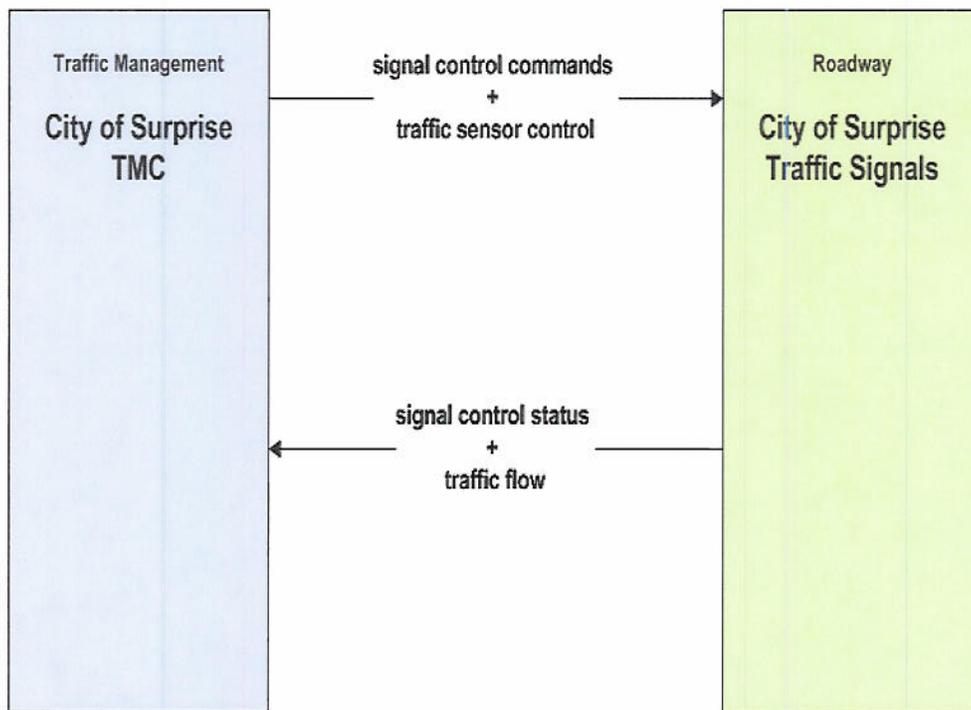
Agency's intent to follow the process described in the 'V' diagram during the project development process

The project sponsor, City of Surprise intends to incorporate the Systems Engineering Analysis in the scope of work for the project, following guidance on the ADOT's System Engineering Checklist provided at:
http://azmag.gov/Documents/ITS_2010-11-22_ITS-Systems-Engineering-and-Architecture-Compliance-Checklist.pdf

PART C2 - ITS Architecture Flow Diagrams

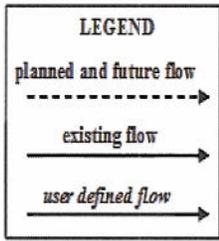
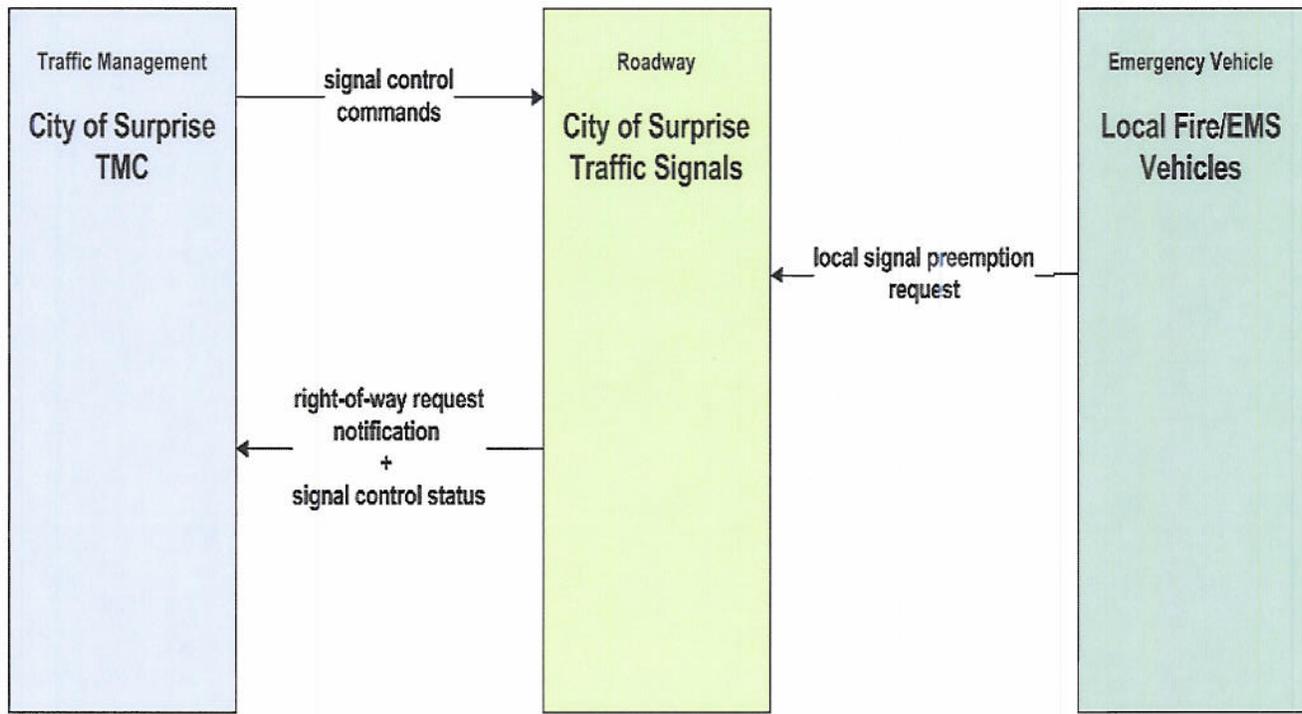
Service Packages addressed by the proposed ITS project. This is to ensure that the project complies with the Regional ITS Architecture and meets a federal requirement for all federaly funded ITS projects.

ATMS03 - Traffic Signal Control City of Surprise



PART C2 - ITS Architecture Flow Diagrams

**EM02 - Emergency Routing
City of Surprise**

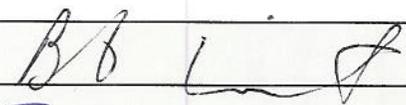


PART D1 - Detailed Cost Estimate					
				\$0	Yes
				\$0	Yes
SUBTOTAL - CONSTRUCTION				\$0	\$0

PART D1 - Detailed Cost Estimate					
Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
CONTRACTOR MOBILIZATION	LS	1		\$0.00	Yes
TRAFFIC CONTROL	LS	1		\$0.00	Yes
CONSTRUCTION SURVEY & LAYOUT	LS	1		\$0.00	Yes
CONSTRUCTION CONTINGENCIES	LS	1		\$0.00	Yes
CONSTRUCTION ADMINISTRATION	LS	1		\$0.00	Yes
SUBTOTAL – MOBILIZATION & ADMINISTRATION COSTS				\$ -	\$0
TOTAL CONSTRUCTION OR IMPLEMENTATION COST				\$ 100,000	\$ 100,000

PART D1 - Detailed Cost Estimate					
D. ADOT Fee for PE Reviews and Staff Charges	LS	1	\$15,000	\$15,000	No
TOTAL ADOT Fee COST				\$15,000	\$0
E. TOTAL PROJECT COST				\$115,000	\$100,000
F. SUMMARY OF FEDERAL AND NON-FEDERAL FUNDS					
TOTAL COST FOR PROJECT CONSTRUCTION/IMPLEMENTATION				\$115,000	
TOTAL COST FOR PROJECT ELIGIBLE FOR FEDERAL REIMBURSEMENT				\$100,000	
TOTAL FEDERAL FUNDS @ 94.3% (.943 x Total Eligible Cost shown highlighted above)				\$94,300	
LOCAL AGENCY MATCHING FUNDS (.057 x Total Cost shown highlighted above)				\$5,700	
LOCAL AGENCY FUNDS <u>NOT</u> ELIGIBLE FOR FEDERAL REIMBURSEMENT				\$15,000	

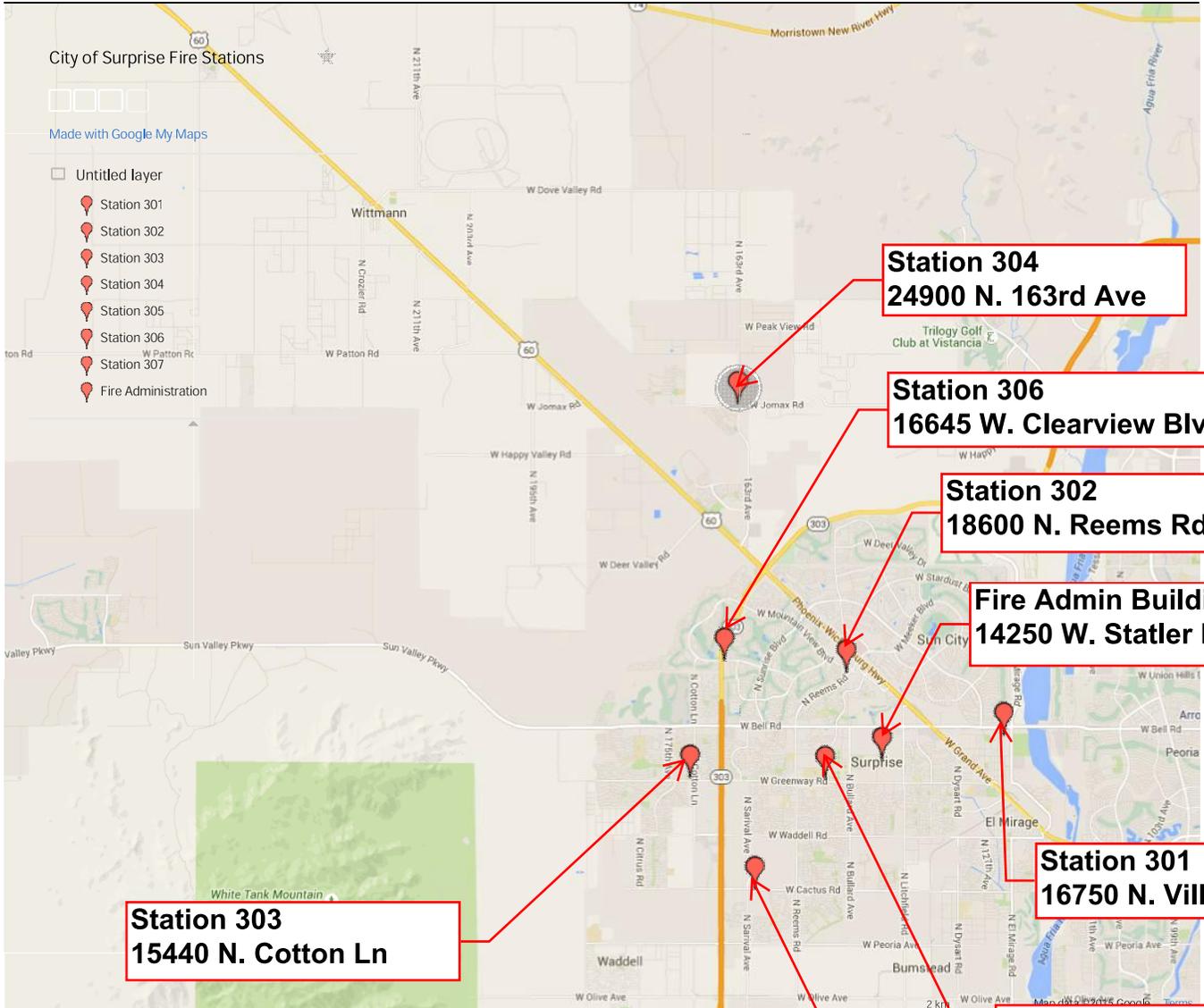
PART D2 - TOTAL PROJECT BUDGET AND TIP PROGRAMMING (All Items are Required, Unless Identified as 'Optional')						
Please provide a cost and programming estimate for the total project (e.g. the cost to complete all planned segment improvements). The design for the project should be programmed at least 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	\$ -	\$ -	\$ -			
3. OTHER ITEMS	\$ 100,000	\$ -	\$ 100,000			
4. MOBILIZATION AND ADMINISTRATION COSTS (Construction Only)	\$ -	\$ -	\$ -			
SUBTOTAL	\$ 100,000	\$ -	\$ 100,000			
D. ADOT Fee for PE Reviews and Staff Charges	\$ -	\$ -	\$ 15,000			
Total Project Cost	\$ 100,000	\$ -	\$ 115,000			
Agency Programming						
Please describe the programming of the project in the agency's own CIP/TIP.						
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)	Fire Station Traffic Signal Technology Implementation Plan	2018	\$ 5,700	\$ 94,300	\$ 100,000	6%
4. Construction or Implementation					\$ -	
Totals			\$ 5,700	\$ 94,300	\$ 100,000	6%

PART E - 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:	
Name:	BOB WINGENROTH
Title:	CITY MANAGER
Date:	9-18-15
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	
Contact Information, fields 1 – 5 are complete	Yes
PART B - TIP Listing and CMAQ Score Data	
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
PART C1 - ITS Project Information	
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
PART C2 - ITS Architecture Flow Diagrams have been inserted	Yes
PART D1 - Detailed Cost Estimate	Yes

PART E - SIGNATURE AND CHECKLIST	
PART D2 - TOTAL PROJECT BUDGET AND TIP PROGRAMMING	Yes
PART E - Signature & Checklist	
Form is signed	Yes
Name, title and date fields are completed.	Yes

City of Surprise Fire Station Vicinity Map

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Station 304
24900 N. 163rd Ave

Station 306
16645 W. Clearview Blvd

Station 302
18600 N. Reems Rd Blvd

Fire Admin Building
14250 W. Statler Plaza

Station 303
15440 N. Cotton Ln

Station 301
16750 N. Village Dr

Station 305
15517 N. Parkview Pl

Station 307
16171 W. Cactus Rd