

<b>Contact Information</b>	
1. Lead Agency	Maricopa County
2. Contact Name	April Wire
3. Phone	602-506-7174
4. E-Mail Address	april.wire@maricopa.gov
5. Mailing Address	2901 W. Durango Street, Phoenix, AZ 85009

## CMAQ 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 facility type:	<input style="width: 100%;" type="text" value="55,900"/>
b. Please describe how the ADT was estimated:	<div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; min-height: 100px;">ADT reported in MAG 2015 Annual Average Weekday Traffic Volume Map for proposed project location</div>
c. When was the ADT estimate developed:	<input style="width: 100%;" type="text" value="Estimated using 2015 ADT data"/>
d. Name of the roadway section used for the ADT estimate:	<input style="width: 100%;" type="text" value="Bell Road"/>
e. Starting limit of the roadway section:	<input style="width: 100%;" type="text" value="Civic Center Drive"/>
f. Ending limit of the roadway section:	<input style="width: 100%;" type="text" value="Loop 101"/>
g. Length (miles):	<input style="width: 100%;" type="text" value="8"/>
h. Total number of through lanes on the roadway section:	<input style="width: 100%;" type="text" value="6"/>
i. Federal Functional Classification of the roadway section:	<input style="width: 100%;" type="text" value="Principal Arterial - Other"/>

[Link to ADOT Functional Classification Maps](#)

**CMAQ Data**

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

a. Enter the pre-improvement (current) average corridor traffic speed: 31

b. In the table, check the box 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	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
- 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: (populated from #2a) 31

b. Enter the post-improvement average traffic speed of the corridor: 34

## ITS Project Information

Enter information in highlighted cells ONLY. Links to various websites are provided for additional information and help.

### 1. Project Title & Sponsor

a. Project Title	Bell Road Communications Enhancements
b. Lead Agency	Maricopa County Department of Transportation
c. Other Partnering Agencies	City of Peoria, City of Surprise, ADOT

### 2. Project Type

Prioritize SMO Buckets for the funding application

First Priority	Bucket #2 – Regional Priority Arterials
Second Priority	Bucket #1 – ICM Corridors
Third Priority	(Please Select a Bucket)

### 3. Project Goals & Objectives

a. Project Goals	This project will improve the reliability of communications and expand communications bandwidth along Bell Road at existing MCDOT, Surprise, and Peoria traffic signals. Addressing the damaged fiber (including multiple cut points) and upgrading the fiber capacity and bandwidth will improve communications connectivity to City of Surprise and City of Peoria Traffic Management Centers as well as improve the reliability of this critical portion of the Regional Community Network (RCN) along Bell Road. The increased communications bandwidth, speed, and reliability is critical to supporting current and future real-time interagency traffic operations communication, advanced traffic management (including the multi-agency adaptive traffic signal system and data sharing), incident management, and traveler information functions.
b. Project Objectives	Replace approximately eight miles of fiber optic infrastructure along Bell Road, upgrade switches at traffic signals, and construct two new node cabinets with upgraded switch capacity to provide a high-capacity communications link between City of Surprise, City of Peoria, and MCDOT. This project supports the real-time operations network along Bell Road and will connect to existing City of Peoria, City of Surprise, and MCDOT infrastructure to continue to reliably support interagency direct connection to support traffic, incident, and special event management.

### 4. Project Information

a. Project location description	This project is located along Bell Road. The project begins west of Litchfield Road at Civic Center Drive at the City of Surprise Traffic Management Center and continues east for approximately 8-miles, terminating at Loop 101. New node cabinets will be installed along Bell Road at El Mirage Road and 99th Ave.
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Note: a PDF file of a map must be submitted to MAG as an attachment.

**ITS Project Information**

b. Scope of the project

Replace fiber, rehabilitate conduit and pull boxes, and upgrade ethernet switches along the eight-mile corridor. Replace existing fiber connection to City of Surprise Traffic Management Center and upgrade switches at Surprise and Peoria TMCs. Construct two additional node cabinets along the eight-mile corridor with high bandwidth switches.

## ITS Project Information

### 5. Identify Project Components in MAG Regional ITS Architecture

Service Area	Addressed in this Project? <small>(Dropdown: Y/N)</small>	<a href="#">Applicable ITS Service Packages</a>
Traffic Management	Yes	ATMS01, ATMS03, ATMS07
Maintenance and Construction		
Public Transportation		
Traveler Information		
Emergency Management		
Archived Data Management		

NOTE: Insert the relevant ITS Architecture flow diagram in the "ITS Architecture" worksheet.

### 6. Quantitative Criteria

Enter Quantitative Criteria for Bucket(s) selected in Section 2 "Project Type"

Average Daily Traffic (ADT) from 'CMAQ Data' tab in this funding application.	55,900
Crashes Per Mile Per Year (MAG Will Complete)	
Maximum Peak Period Travel Time Index (MAG Will Complete)	
Percentage network communication connectivity to traffic signals & ITS devices.	100%
Regional Priority Corridor Ranking (Enter shares of work in "Regional Priority - Top 100")	19.02
Latest year of your agency's Operations/Management Center upgrade.	

### 7. Program Year Preference

Preferred Program Year 2021

ITS Project Information				
8. Project Budget by SMO Strategy				
Strategies for Bucket #1 – ICM Corridors	Federal Cost	Local Match (min 5.7%)	Total Cost	Share of Total Project
2-Real-time CCTV monitoring capabilities at all major-major arterial intersections on ICM corridors				0%
3-Vehicle and pedestrian actuated detection at all signalized intersections to support signal operations and real-time collection of data collection, including data on turning movement counts				0%
11-Regional Asset Upgrade/Replace Program - ICM Corridors & Priority Arterials	\$ 813,533.64			100%
<b>Total</b>	<b>\$ 813,533.64</b>	<b>\$ 49,174.36</b>	<b>\$ 862,708.00</b>	<b>100%</b>
<b>Cost Percentage</b>	<b>94.3%</b>	<b>5.7%</b>		
Strategies for Bucket #2 – Regional Priority Arterials	Federal Cost	Local Match (min 5.7%)	Total Cost	Share of Total Project
8-Real-time visual monitoring capability at all major-major intersections on Priority Arterials				0%
9-Additional detection at signalized intersections for real-time collection of data, including turning movement counts stored by individual agencies and archived in RADS				0%
10-Reliable communications between TMCs and major-major intersections to facilitate remote management of traffic operations - Adds both fiber and wireless infrastructure				0%
11-Regional Asset Upgrade/Replace Program - ICM Corridors & Priority Arterials	\$ 813,533.64			100%
<b>Total</b>	<b>\$ 813,533.64</b>	<b>\$ 49,174.36</b>	<b>\$ 862,708.00</b>	<b>100%</b>
<b>Cost Percentage</b>	<b>94.3%</b>	<b>5.7%</b>		
Strategies for Bucket #3 – Local Priority Corridors	Federal Cost	Local Match (min 5.7%)	Total Cost	Share of Total Project
12-Local priority ITS projects				
<b>Total</b>				
<b>Cost Percentage</b>				

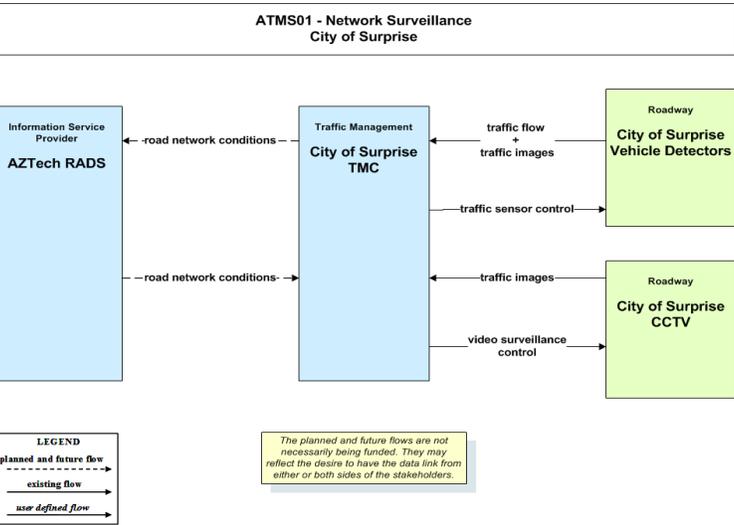
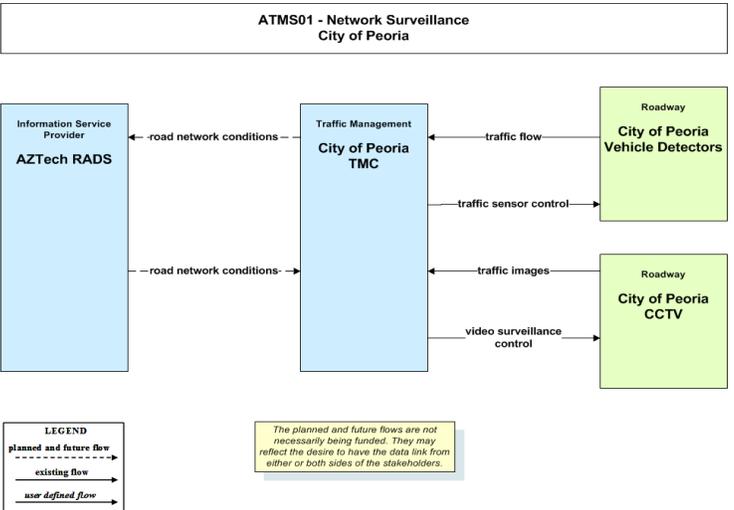
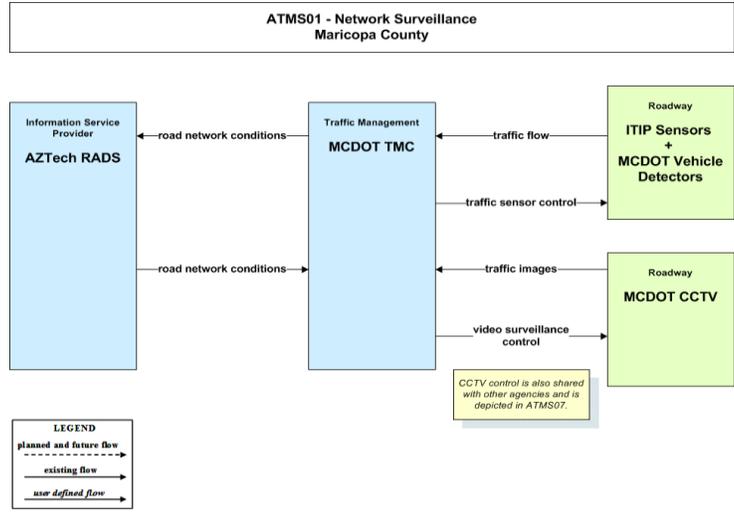
<b>ITS Project Information</b>	
<b>9. System Maintenance and Operations</b>	
a. Current staff resources available to support ITS operations at the local agency (in FTEs)	10
b. Additional staff resources required for fully utilizing features added by project (in FTEs)	0
c. Agency's estimated current annual ITS operations & maintenance (O & M) budget	\$2,500,000
d. Estimated additional annual O & M funds required for features added by this project	\$0
e. Estimated DATE from when required additional local O & M funds will be available	N/A
f. Other comments	<div style="border: 1px solid black; background-color: #e0f0e0; padding: 5px;">                     Replacing existing assets only. No additional staff or funding required. Resources for project design, local match, and long-term operations and maintenance will be jointly shared by the three partner agencies.                 </div>
<b>10. Systems Engineering Analysis Requirement</b>	
<p><b>Commitment to address the federal requirement for Systems Engineering Analysis:</b>                      Agency's intent to follow the process described in the 'V' diagram during the project development process.  <a href="#">ADOT Systems Engineering Checklist</a></p>	
<p><b>The project sponsor/lead agency of this application intends to incorporate the Systems Engineering Analysis in the project's scope of work, following guidance on the ADOT's System Engineering Checklist.</b></p>	<input checked="" type="checkbox"/> Yes, the agency intends to follow the process.

## ITS Architecture Flow Diagram

All relevant ITS Architecture Flow Diagrams **MUST** be inserted below for the relevant ITS 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.

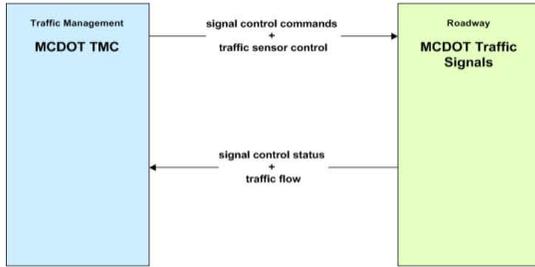
Find the relevant Service Packages addressed by the project in the MAG ITS Architecture (found in the link below). Copy and paste the graphic in the space provided.

[MAG Regional ITS Architecture](#)

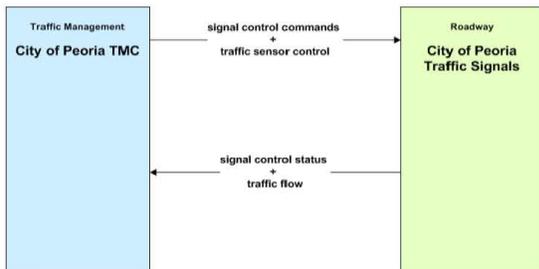


### ITS Architecture Flow Diagram

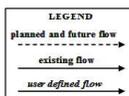
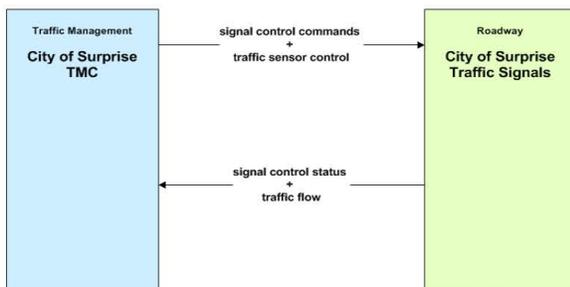
#### ATMS03 - Traffic Signal Control Maricopa County



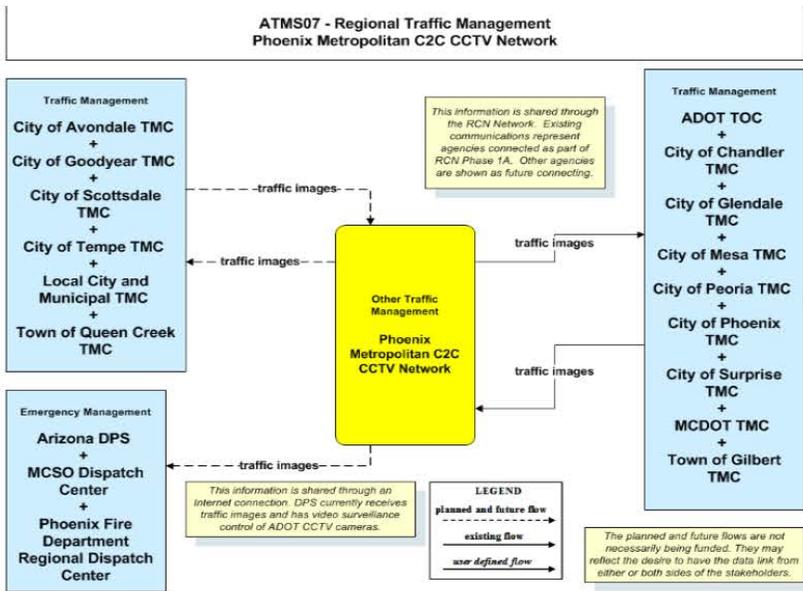
#### ATMS03 - Traffic Signal Control City of Peoria



#### ATMS03 - Traffic Signal Control City of Surprise



**ITS Architecture Flow Diagram**



PROJECT COST ESTIMATE WORKSHEET (Cost Estimates Are Required Regardless of Programming)									
DESIGN	REQUESTED PROGRAMMING (Complete if item will be programmed in the MAG TIP)	Location Description	This project is located on the Bell Road Corridor. The project begins west of Litchfield Road at the City of Surprise Traffic Management Center and continues east for approximately 8-miles, terminating at Loop 101.						
		Work Description	Replace fiber, rehab pull boxes, and install ethernet switches along the 8-mile corridor. Replace existing fiber connection to City of Surprise Traffic Management Center. Project will maintain the connection of fiber infrastructure to existing traffic signal cabinets. Construct two additional node cabinets along the 8-mile corridor.						
		Funding Source	Local						
		Preferred Year to Program Work	2020						
	COST ESTIMATE FOR DESIGN		UNITS	QUANTITY	UNIT COST	TOTAL	USES FEDERAL AID	FEDERAL	LOCAL
	PRELIMINARY ENGINEERING (15% plans) (Required for Budget)	Project Assessment Report with 15% Plans	EA	1	8,500	\$ 8,500.00	No	-	8,500
						\$ -	No	-	-
						\$ -	No	-	-
						\$ -	No	-	-
						\$ -	No	-	-
SUBTOTAL - PRELIMINARY ENGINEERING COSTS					\$ 8,500.00			8,500	
FINAL DESIGN (30, 60, 95, 100% plans) (Required for Budget)	Final Design Specifications, Cost Estimate and 100% Design Plans	EA	1	85,000	\$ 85,000.00	No	-	85,000	
					\$ -	No	-	-	
					\$ -	No	-	-	
					\$ -	No	-	-	
					\$ -	No	-	-	
SUBTOTAL - FINAL DESIGN COSTS					\$ 85,000.00			85,000	
TOTAL PRELIMINARY ENGINEERING AND DESIGN COST AVAILABLE FOR PROGRAMMING					\$ 93,500.00			93,500	
PROCUREMENT	REQUESTED PROGRAMMING	Location Description	This project is located on the Bell Road Corridor. The project begins west of Litchfield Road at the City of Surprise Traffic Management Center and continues east for approximately 8-miles, terminating at Loop 101.						
		Work Description	Replace fiber, rehab pull boxes, and install ethernet switches along the 8-mile corridor. Replace existing fiber connection to City of Surprise Traffic Management Center. Project will maintain the connection of fiber infrastructure to existing traffic signal cabinets. Construct two additional node cabinets along the 8-mile corridor.						
		Funding Source							
		Preferred Year to Program Work							
	COST ESTIMATE FOR PROCUREMENT		UNITS	QUANTITY	UNIT COST	TOTAL	USES FEDERAL AID	FEDERAL	LOCAL
	PROCUREMENT COSTS		EA			\$ -	Yes	-	-
			EA			\$ -	Yes	-	-
			EA			\$ -	Yes	-	-
			EA			\$ -	Yes	-	-
			EA			\$ -	Yes	-	-
		EA			\$ -	Yes	-	-	
		EA			\$ -	Yes	-	-	
		EA			\$ -	Yes	-	-	
		EA			\$ -	Yes	-	-	
		EA			\$ -	Yes	-	-	
TOTAL - PROCUREMENT					\$ -			-	
CONSTRUCTION	REQUESTED PROGRAMMING (Complete only if Construction will be programmed in the MAG TIP)	Location Description	This project is located on the Bell Road Corridor. The project begins west of Litchfield Road at the City of Surprise Traffic Management Center and continues east for approximately 8-miles, terminating at Loop 101.						
		Work Description	Replace fiber, rehab pull boxes, and install ethernet switches along the 8-mile corridor. Replace existing fiber connection to City of Surprise Traffic Management Center. Project will maintain the connection of fiber infrastructure to existing traffic signal cabinets. Construct two additional node cabinets along the 8-mile corridor.						
		Funding Source	CMAQ						
		Preferred Year to Program Work	2021						
	COST ESTIMATE FOR CONSTRUCTION		UNITS	QUANTITY	UNIT COST	TOTAL	USES FEDERAL AID	FEDERAL	LOCAL
	UTILITY RELOCATIONS (Required for Budget, May be 0 if no Utilities)  The cost of utility relocation for the transportation project are eligible for federal aid if the costs/activities involved are directly related to the transportation project. Generally, burying overhead utilities is cost prohibitive.					\$ -	Yes	-	-
						\$ -	Yes	-	-
						\$ -	Yes	-	-
						\$ -	Yes	-	-
						\$ -	Yes	-	-
						\$ -	Yes	-	-
						\$ -	Yes	-	-
						\$ -	Yes	-	-
						\$ -	Yes	-	-
						\$ -	Yes	-	-
	SUBTOTAL - UTILITY RELOCATION COSTS					\$ -			-
	CONSTRUCTION (Required for Budget)	Fiber Optic Equipment (1 GB Field Hardened Switch)	EA	19	4,500	\$ 85,500.00	Yes	80,627	4,874
		Fiber Optic Equipment (10 GB Field Hardened Switch) - Bell Rd and 99th	EA	1	5,200	\$ 5,200.00	Yes	4,904	296
		Fiber Optic Equipment (Field Hardened Switch) (Install Only)	EA	20	250	\$ 5,000.00	Yes	4,715	285
		Fiber Optic Equipment (Backbone Node Cabinet Switch) - Peoria TMC, Surprise TMC, 99th Ave, El Mirage Rd	EA	4	14,500	\$ 58,000.00	Yes	54,694	3,306
		Node Cabinet Assembly (includes three termination panels and foundation)	EA	2	30,000	\$ 60,000.00	Yes	56,580	3,420
		Remove Existing Fiber	LF	50,500	1.00	\$ 50,500.00	Yes	47,622	2,879
		Single Mode Fiber Optic Cable (144 Fibers)	LF	50,500	4.00	\$ 202,000.00	Yes	190,486	11,514
		Splice Closure	EA	20	2,200	\$ 44,000.00	Yes	41,492	2,508
		Provide Electrical Service to Node Cabinets	L.SUM	2	25,000	\$ 50,000.00	Yes	47,150	2,850
Force Account Work (Pull Box and Conduit Reconditioning)		L.SUM	1	56,020	\$ 56,020.00	Yes	52,827	3,193	
					\$ -	Yes	-	-	
					\$ -	Yes	-	-	
					\$ -	Yes	-	-	
					\$ -	Yes	-	-	
					\$ -	Yes	-	-	
SUBTOTAL - CONSTRUCTION COST					\$ 616,220.00		581,095	35,125	
MOBILIZATION AND ADMINISTRATION COSTS	CONTRACTOR MOBILIZATION (Typically 8% of construction cost)			49,298	\$ 49,297.60	Yes	46,488	2,810	
	TRAFFIC CONTROL (0-8% of construction cost)			49,298	\$ 49,297.60	Yes	46,488	2,810	
	CONSTRUCTION SURVEY & LAYOUT (Typically 1% of construction cost)			6,162	\$ 6,162.20	Yes	5,811	351	
	CONSTRUCTION CONTINGENCIES (Typically 5% of construction cost)			30,811	\$ 30,811.00	Yes	29,055	1,756	
	CONSTRUCTION ADMINISTRATION (Averaging 18% of construction cost)			110,920	\$ 110,919.60	Yes	104,597	6,322	
SUBTOTAL - MOBILIZATION & ADMINISTRATION COSTS					\$ 246,488.00		232,438	14,050	
TOTAL UTILITIES, CONSTRUCTION AND MOBILIZATION FOR PROGRAMMING					\$ 862,708.00		813,534	49,174	
ADOT REVIEW FEE	Please enter 'Yes' if your agency is certified accepted by ADOT for construction		Yes						
	ADOT REVIEW FEE	AGENCY TYPE	RATE	HOURS	TOTAL	USES FEDERAL AID	FEDERAL	LOCAL	
	Contracts and Specs \ Advertise Project	Non CA	55	100	\$ -	No	-	-	
	District \ Review Stage Submittals	Non CA	50	40	\$ -	No	-	-	
	Environmental Planning \ Issue Clearance	All	50	40	\$ 2,000	No	-	2,000	
	Right of Way \ Issue Clearance	Non CA	55	24	\$ -	No	-	-	
	Compliance Review \ Compliance Review	Non CA	175	40	\$ -	No	-	-	
	Project Management Group \ Project Management	Non CA	120	100	\$ -	No	-	-	
	Project Management Group \ Project Management	CA Only	120	60	\$ 7,200	No	-	7,200	
	Utilities and Railroad Sections \ Issue Clearance	Non CA	50	24	\$ -	No	-	-	
TOTAL COST ESTIMATE					\$ 965,408		813,534	151,874	

Budget and Signature Page

Phase	Location Description	Work Description	Year to be Programmed	Funding Source	Federal Amount	Local Amount	Total	Local Share
Design, excludes ADOT review fees	This project is located on the Bell Road Corridor. The project begins west of Litchfield Road at the City of Surprise Traffic Management Center and continues east for approximately 8-miles, terminating at Loop 101.	Replace fiber, rehab pull boxes, and install ethernet switches along the 8-mile corridor. Replace existing fiber connection to City of Surprise Traffic Management Center. Project will maintain the connection of fiber infrastructure to existing traffic signal cabinets. Construct two additional node cabinets along the 8-mile corridor.	2020	Local	\$ -	\$ 93,500	\$ 93,500	100.0%
Construction	This project is located on the Bell Road Corridor. The project begins west of Litchfield Road at the City of Surprise Traffic Management Center and continues east for approximately 8-miles, terminating at Loop 101.	Replace fiber, rehab pull boxes, and install ethernet switches along the 8-mile corridor. Replace existing fiber connection to City of Surprise Traffic Management Center. Project will maintain the connection of fiber infrastructure to existing traffic signal cabinets. Construct two additional node cabinets along the 8-mile corridor.	2021	CMAQ	\$ 813,534	\$ 49,174	\$ 862,708	5.7%
<b>Total Programmed</b>					\$ 813,534	\$ 142,674	\$ 956,208	14.9%
ADOT Design Review Fee					\$ -	\$ 9,200	\$ 9,200	100.0%
<b>Total Cost</b>					\$ 813,534	\$ 151,874	\$ 965,408	15.7%

Signature: To be signed and scanned with PDF copy that is sent to MAG via email

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

Signature:



Name: Nicolaas Swart, P.E.

Title: Transportation Systems Management Division Manager, Maricopa County Department of Transportation

Date:

9/12/19

<b>CHECKLIST - OPTIONAL</b>	
This check list is optional, but is included to facilitate applicant review and verification that all required fields in the form have been completed.	
<b>Contact Information</b>	<b>Complete?</b>
Contact Information, fields 1 – 5	Yes
<b>CMAQ Data</b>	<b>Complete?</b>
1. Traffic Estimate and Roadway Characteristics: Fields a - i	Yes
2. Improvements in Traffic Management & Operations: Fields a - b	Yes
3. Other Improvements: As applicable	Yes
4. Traffic Flow Improvement Due to Project: Fields a - b	Yes
<b>ITS Project Information</b>	<b>Complete?</b>
Section 1 is complete	Yes
Section 2 is complete	Yes
Section 3 is complete	Yes
Section 4 is complete & a PDF file of map will be attached to the submittal to MAG	Yes
Section 5 is complete & all relevant Architecture Flow Diagrams have been inserted in the worksheet	Yes
Section 6 is complete	Yes
Section 7 is complete	Yes
Section 8 is complete	Yes
Section 9 is complete	Yes
Section 10 is complete	Yes
<b>ITS Architecture Flow Diagram</b>	<b>Complete?</b>
ITS Architecture Flow Diagram have been inserted	Yes
<b>Prproject Cost Estimate Worksheet</b>	<b>Complete?</b>
ITS Architecture Flow Diagram have been inserted	Yes
<b>Budget &amp; Signature Page</b>	<b>Complete?</b>
Form is signed	Yes
Name, title and date fields are completed	Yes

STREET NAME	FROM	TO	RANK	Share of Work
Camelback Rd	Central	35th Ave	1	
Camelback Rd	32nd St	Central	2	
Baseline Rd	Rural	40th St	3	
Indian School Rd	Central	35th Ave	4	
Bell Rd	67th Ave	Del Webb	5	38%
Indian School Rd	32nd St	Central	6	
Bethany Home Rd	Central	35th Ave	7	
Northern Ave	Central	35th Ave	8	
Grand Ave	91st Ave	Thompson Ranch	9	
Bell Rd	Del Webb	Litchfield	10	50%
Glendale Ave	Central	35th Ave	11	
Thomas Rd	Central	35th Ave	12	
Indian School Rd	35th Ave	83rd Ave	13	
Thomas Rd	32nd St	Central	14	
Scottsdale-Rural	Elliot	McKellips	15	
Bethany Home Rd	SR 51	Central	16	
Bell Rd	Thompson Peak	Scottsdale	17	
Scottsdale Rd	McKellips	Lincoln	18	
Cactus Rd	Tatum	Cave Creek	19	
Bell Rd	7th Ave	43rd Ave	20	
35th Ave	Durango	Indian School	21	
Dunlap Ave	7th St	43rd Ave	22	
Shea Blvd	Via Linda	Scottsdale	23	
Thunderbird Rd	19th Ave	43rd Ave	24	
75th Ave	Buckeye	Indian School	25	
Country Club-Arizona Ave	Elliot	University	26	
51st Ave	Lower Buckeye	Indian School	27	
Chandler Blvd	Alma School	Rural	28	
Gilbert Rd	Elliot	University	29	
67th Ave	Buckeye	Indian School	30	
University Dr	Rural	40th St	31	
Washington St	Central	27th Ave	32	
Bell Rd	Tatum	Cave Creek	33	
Thomas Rd	64th St	32nd St	34	
Dysart Rd	MC 85	Indian School	35	
48th St	Baseline	I-10	36	
Mill Ave	Baseline	Curry	37	
Broadway Rd	Alma School	Rural	38	
Baseline Rd	40th St	Central	39	
Bell Rd	43rd Ave	67th Ave	40	
Olive Ave	43rd Ave	83rd Ave	41	
Glendale-Lincoln	32nd St	Central	42	

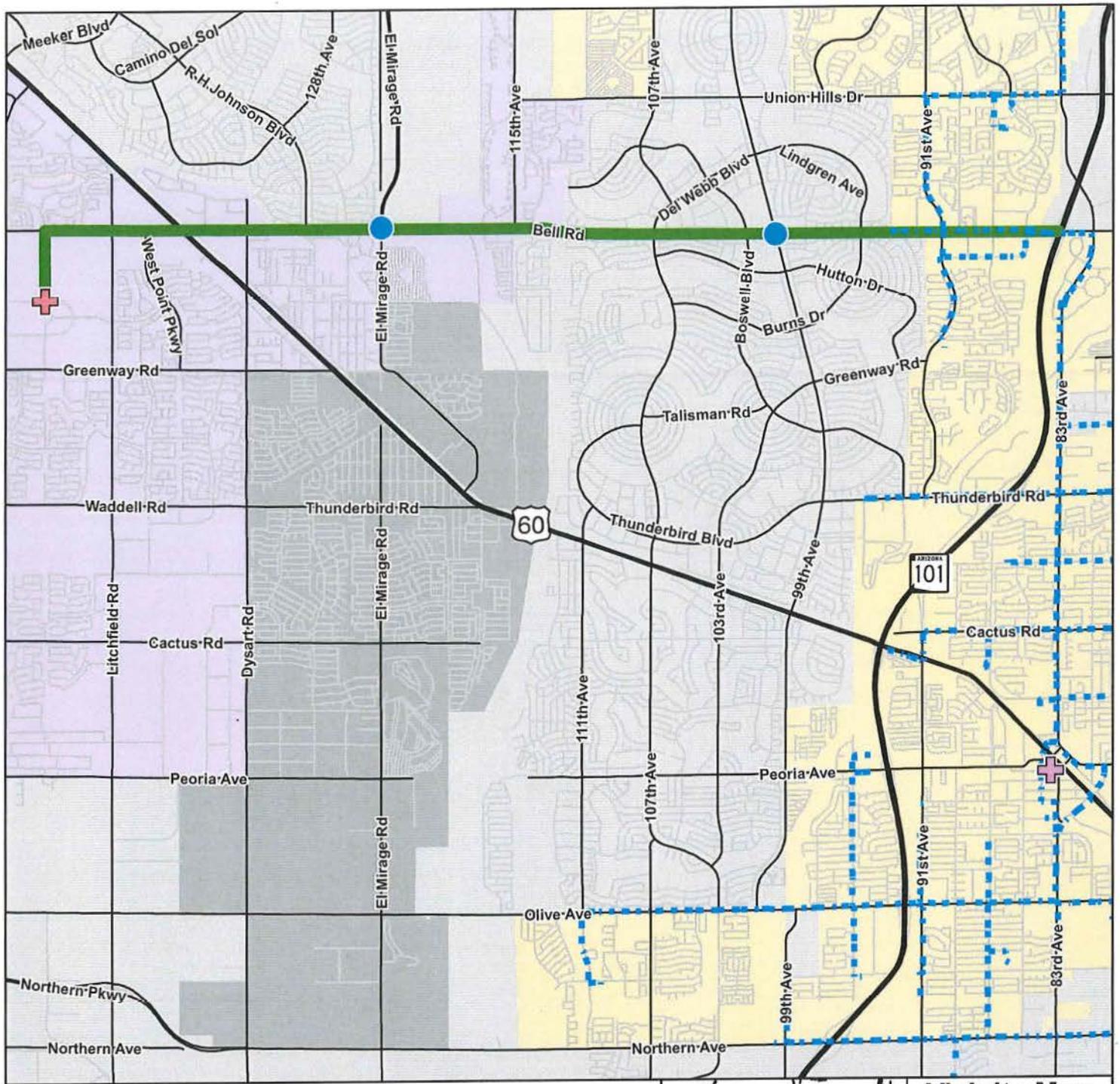
Indian School Rd	Loop 101E	64th St	43
Alma School Rd	Queen Creek	Chandler	44
Broadway Rd	Rural	40th St	45
Northern Ave	SR 51	Central	46
Scottsdale Rd	Shea	Frank Lloyd Wright	47
7th St	Indian School	Dunlap	48
Thunderbird Rd	43rd Ave	67th Ave	49
7th St	Broadway	Indian School	50
Arizona Ave	Queen Creek	Chandler	51
McDowell Rd	64th St	32nd St	52
Cooper-Stapley	Elliot	University	53
Camelback Rd	35th Ave	83rd Ave	54
Scottsdale Rd	Frank Lloyd Wright	Pinnacle Peak	55
Peoria Ave	7th Ave	43rd Ave	56
Glendale Ave	35th Ave	83rd Ave	57
Gilbert Rd	Queen Creek	Chandler	58
Thomas Rd	35th Ave	83rd Ave	59
Thomas Rd	Loop 101E	64th St	60
Bell Rd	Cave Creek	7th Ave	61
Shea Blvd	Scottsdale	Tatum	62
35th Ave	Indian School	Dunlap	63
Ray Rd	Alma School	Rural	64
Thunderbird Rd	67th Ave	103rd Ave	65
McDowell Rd	32nd St	Central	66
19th Ave	Indian School	Dunlap	67
43rd Ave	Buckeye	Indian School	68
Grand Ave	35th Ave	67th Ave	69
43rd Ave	Indian School	Olive-Dunlap	70
7th Ave	Broadway	Indian School	71
16th St	Thomas	Northern	72
Southern Ave	Rural	40th St	73
McClintock Dr	Elliot	McKellips	74
Scottsdale Rd	Lincoln	Shea	75
Alma School Rd	Elliot	University	76
Val Vista Dr	Elliot	University	77
59th Ave	Buckeye	Indian School	78
Central Ave	Broadway	Indian School	79
59th Ave	Indian School	Olive	80
Arizona Ave	Chandler	Elliot	81
Cave Creek Rd	Bell Rd	Pinnacle Peak	82
McQueen-Mesa	Elliot	University	83
Apache-Main	Alma School	Rural	84
19th Ave	Dunlap	Bell	85
51st Ave	Indian School	Olive	86
Bethany Home Rd	35th Ave	83rd Ave	87
Greenway Rd	Tatum	7th Ave	88
Northern Ave	35th Ave	83rd Ave	89

Val Vista Dr	Queen Creek	Williams Field	90	
Peoria Ave	43rd	75th Ave	91	
Power Rd	Germann	Warner	92	
67th Ave	Indian School	Olive	93	
Cactus Rd	19th Ave	43rd Ave	94	
Olive Ave	83rd Ave	111th Ave	95	
Southern Ave	Alma School	Rural	96	
McDowell Rd	Central	35th Ave	97	
59th Ave	Olive	Bell	98	
Power Rd	University	Warner	99	
27th Ave	Indian School	Northern	100	
All other roads			101	12%

Add title to top.

"Top 100 Priority Arterials in the MAG Region"

CMP OBJECTIVES	EVALUATION CRITERIA	OUTCOMES	0	1	2	3	4
Improve efficiency	<ul style="list-style-type: none"> <li>Minimize travel time</li> <li>Minimize delay</li> <li>Reduce number of stops</li> <li>Increase travel speed</li> <li>Increase LOS</li> </ul>	<p>Will this improve</p> <ul style="list-style-type: none"> <li>the duration and intensity of congestion?</li> <li>effective capacity of the roadway?</li> </ul>	Does not apply	No impact on efficiency	May improve efficiency	Likely to improve efficiency	High impact to improve efficiency
Improve reliability	<ul style="list-style-type: none"> <li>Reduce volatility of commute time</li> <li>Improve advisory of travel time and detour information</li> </ul>	<p>Will this improve</p> <ul style="list-style-type: none"> <li>variability of travel time?</li> <li>traffic incident management?</li> <li>work zone management?</li> <li>impact to travelers through traveler information?</li> </ul>	Does not apply	No impact on reliability	May reduce travel time variability	Likely to reduce travel time variability	High impact on travel time variability
Improve connectivity	<ul style="list-style-type: none"> <li>Increase communications links to field ITS infrastructure</li> <li>Increase communications links to local or regional facilities, e.g., RCN</li> <li>Increase number of center-to-center integration</li> </ul>	<p>Will this improve</p> <ul style="list-style-type: none"> <li>ITS communications within city, or with adjacent cities?</li> <li>traffic data transfer to central system to support decision-making?</li> </ul>	Does not apply	No impact on system connectivity	May improve system connectivity	Likely to improve system connectivity	High impact on system connectivity
Improve modal availability	<ul style="list-style-type: none"> <li>Improve access to alternative transportation services</li> <li>Improve transit service, e.g., transit signal priority</li> <li>Increase number of ITS features at intersection for bicycle &amp; pedestrian</li> </ul>	<p>Will this improve</p> <ul style="list-style-type: none"> <li>use of public transit?</li> <li>transit on-time performance?</li> <li>bicycle &amp; pedestrian interaction with other roadway users?</li> <li>access to various modes of travel?</li> </ul>	Does not apply	No impact on alternative mode share	May increase alternative mode share	Likely to increase alternative mode share	High impact on alternative mode share
Improve measure of cost effectiveness	<ul style="list-style-type: none"> <li>Maximize benefit/cost ratio</li> </ul>	<p>Will this improve</p> <ul style="list-style-type: none"> <li>system-wide benefits that may outweigh the costs?</li> </ul>	Does not apply	No impact on system-wide benefits	May provide some benefits	Likely to provide system-wide benefits	High impact on system-wide benefits
Improve safety benefits	<ul style="list-style-type: none"> <li>Minimize frequency of crashes</li> <li>Reduce secondary crashes</li> <li>Minimize incident response times</li> <li>Provide advanced safety warning</li> </ul>	<p>Will this improve</p> <ul style="list-style-type: none"> <li>safety for road users?</li> <li>traffic incident management?</li> <li>work zone safety?</li> </ul>	Does not apply	No impact on safety benefits	May provide some safety benefits	Likely to provide safety benefits	High impact on safety benefits
Improve regional operations	<ul style="list-style-type: none"> <li>Increase system-wide data integration and compatibility</li> <li>Increase real-time monitoring and management capability</li> <li>Increase number of center-to-center integration</li> </ul>	<p>Will this improve</p> <ul style="list-style-type: none"> <li>inter-jurisdiction coordination and collaboration?</li> <li>data-driven decision making?</li> </ul>	Does not apply	No impact on operational improvements	May provide some operational improvements	Likely to provide operational improvements	High impact on operational improvements



## Bell Road Transportation Enhancement Project Project Location Map

- Peoria TMC
- Surprise TMC
- Node Cabinet
- Existing Fiber
- FY2021 Fiber Replacement
- Freeways
- Arterials
- Other Streets

- Jurisdictions**
- Peoria
  - Surprise
  - Other Municipalities
  - Maricopa County

