

June 21, 2013

TO: Members of the MAG Transportation Safety Committee

FROM: Renate Ehm, City of Mesa, Chair

SUBJECT: SPECIAL MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Thursday, June 27, 2013 10:00 a.m.  
MAG Office Building, 2<sup>nd</sup> Floor, Ironwood Room  
302 North First Avenue, Phoenix

A meeting of the MAG Transportation Safety Committee will be held at the time and place noted above. Committee members or their proxies may attend **in person, via videoconference or by telephone conference call**. Those who will be attending by video conference must notify the MAG site three business days prior to the meeting. Those attending by telephone conference call please contact MAG offices for conference call instructions.

Please park in the garage under the MAG building, bring your ticket, parking will be validated. For those using transit, Valley Metro/RPTA will provide transit tickets for your trip. For those using bicycles, please lock your bicycle in the bike rack in the garage.

In 1996, the Regional Council approved a simple majority quorum for all MAG advisory committees. If the Transportation Safety Committee does not meet the quorum requirement, members who have arrived at the meeting will be instructed a legal meeting cannot occur and subsequently be dismissed. Your attendance at the meeting is strongly encouraged.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Jason Stephens at the MAG office. Requests should be made as early as possible to allow time to arrange the accommodation.

If you have any questions regarding the meeting, please contact Sarath Joshua at (602) 254-6300.

TENTATIVE AGENDA

1. Call To Order
2. Approval of May 28, 2013 Meeting Minutes

COMMITTEE ACTION REQUESTED

2. Review and approve minutes of the meeting held on May 28, 2013.

3. Call to Audience

An opportunity will be provided to members of the public to address the Transportation Safety Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Members of the public will be requested not to exceed a three minute time period for their comments. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless members request an exception to this limit. Please note that those wishing to comment on action agenda items will be given an opportunity at the time the item is heard.

4. Program Managers Report

The following items will be addressed:

- NHI CMF/CRF Training
- Crossing Guard Training Workshops
- Update on MAG STSP

5. HSIP Project Applications for FY2014-17

Per MAP-21, the MAG Metropolitan Planning Area (MPA) receives a sub-allocation of \$1.3M/year in HSIP funds. Through prior MAG action, available funds in FY2012-2014 were fully programmed for projects. However, several FY2014 projects were advanced to FY2013 which resulted in \$1.1M being available in FY2014 along with the \$1.3M each for FY2015-2017.

MAG has commenced preparations to issue a call for new HSIP projects in FY2014-2017. An updated Excel-based HSIP Project Application Form (See Attachment One) was recently received from ADOT and FHWA.

The HSIP project development process description has also been updated in

3. For information.

4. For information and discussion.

5. For information and discussion.

consultation with ADOT (See Attachment Two).

Two types of road safety projects are eligible for HSIP funds - “spot” improvements and “systemic” improvements. The HSIP Project Application Form identifies information required for spot improvements. All systemic road safety improvement projects must now be accompanied by a project justification based on crash data. MAG staff have developed an Excel-based template that could be used for this purpose and submitted with the project application (See Attachment Three).

The committee will review and help finalize all three attachments that will be used by MAG as part of the call for new HSIP projects.

6. Reports by Committee Members on Transportation Safety Activities

Members will be requested to report agency activities or current issues that are related to transportation safety.

7. Request for Future Agenda Items

Members will be provided the opportunity to suggest future agenda topics.

8. Next Meeting

Please note the new meeting time for the July 23, 2013 at 9:30 a.m in the MAG Ironwood Room. The Traffic Safety Stakeholders Group (TSSG) meeting for the STSP kick-off will start immediately after the TSC meeting.

9. Adjournment

6. For information and discussion.

7. For information and discussion.

8. For information and discussion.

DRAFT MINUTES OF  
MARICOPA ASSOCIATION OF GOVERNMENTS  
TRANSPORTATION SAFETY COMMITTEE

May 28, 2013  
Maricopa Association of Governments  
Ironwood Room, Suite 200  
302 N. 1<sup>st</sup> Ave,  
Phoenix, AZ 85003

MEMBERS ATTENDING

Michael Duhamel for Linda Gorman,  
AAA Arizona  
Tom Burch, AARP  
Kohinoor Kar, ADOT  
Heather Hodgeman for Shane Kiesow,  
City of Apache Junction  
Chris Hamilton, City of Avondale  
\*Thomas Chlebanowski,  
Town of Buckeye  
\*Martin Johnson, City of Chandler  
Jorge Gastelum, City of El Mirage  
Kelly LaRosa, FHWA  
\*Mike Gillespie, Town of Gilbert

Chris Lemka, City of Glendale  
\*Alberto Gutier, GOHS  
+Luke Albert for Hugh Bigalk,  
City of Goodyear  
Nicolaas Swart, Maricopa County  
Renate Ehm (Chair), City of Mesa  
Jeremy Knapp, Town of Paradise Valley  
\*Jamal Rahimi, City of Peoria  
\*Kerry Wilcoxon, City of Phoenix  
George Williams, City of Scottsdale  
Nuning Lemka for Jason Mahkvtz, City  
of Surprise  
Julian Dresang, City of Tempe  
Gardner Tabon, RPTA

OTHERS PRESENT

Maria Deeb, City of Mesa  
Margaret Boone, MAG  
Sarath Joshua, MAG  
Leo Luo, MAG  
Kiran Guntupalli, MAG  
Mohammad Rehman, URS  
Shanthy Krishnan, Jacobs  
Trent Thatcher, ADOT TSS  
Don Thorstenson, AMEC

Jason Simmers, Kittelson  
Ashley Barinka, City of Mesa  
Sandra Thoms, Jacobs  
Lenny Hulme, City of Mesa  
Tim Gibson, 3M-TSSD  
Glen Jones, City of Glendale  
Ma'rtta Gerber, Michael Baker  
Barney Bigman, GRIC  
Robert Travis, ADOT RR

+Teleconference  
# Videoconference  
\*Not present

1. Call to Order  
Chair Renate Ehm called the meeting to order at 10:00 a.m.

2. Approval of March 26, 2013 Meeting Minutes

Chair Renate Ehm called for a motion to approve the March 26, 2013 minutes. Chris Lemka moved to approve the minutes, Kohinoor Kar seconded and the motion passed unanimously.

3. Call to Audience

Chair Renate Ehm made a call to the audience providing an opportunity to members of the public to address the Transportation Safety Committee. None requested.

4. Program Manager's Report

The following items were addressed:

- **2013 Crossing Guard Training**

- Phoenix, July 30<sup>th</sup>
- August 1<sup>st</sup> – Mesa
- August 6<sup>th</sup> - Peoria
- Letters sent requesting registration
- 146 registered to date
- MAG to purchase safety vests to be distributed to school districts

Sarath invited members of the committee to come and observe the workshops as well as to put out the word to schools to participate.

- **Update on 2013 RSA's**

- 3 RSAs at 5 intersections in Phoenix
- 1 segment RSA in Peoria (1st segment RSA)
- 3 RSAs in Avondale, 2 completed; one will need to be rescheduled for the Fall due to construction at the intersection. Construction scheduling conflicts should be noted for future RSA's.
- 6 agency debriefings completed
- RSA Final Reports are being developed and will be delivered to local agencies by MAG

- **FY2014-17 HSIP**

- Programmed projects for HSIP through 2014 - Sarath gave a brief history of the HSIP program and the sub-allocation of funds to be distributed to the MAG region primarily for low-cost safety improvements.
- Three 2014 projects were advanced to 2013, approved by RC in January
- \$1.1M remaining in FY2014 to be programmed
- 2015-2017 \$1.3M/year available to be programmed

- **Transportation Alternative Call for Projects**

- Under MAP-21 the SRTS Program and the Transportation Enhancement Program administered through ADOT have been merged into a new program named Transportation Alternatives and would include SRTS, Bike & Ped, etc.
- The TA program for the MAG region will be administered by MAG
- MAG staff are working on a call for projects to be announced in August
- MAG programming staff has suggested that FY2014-2017 HSIP be programmed along with TA in August.
- ADOT obligation requirement by June 30, 2014

Sarath further explained that it would be possible to defer the 2014 funds to FY2015-17. The obligation authority could be used on other federally funded projects at MAG and

make available those funds for the FY2015-17 projects. Sarath noted that this will require input from the committee on this strategy for the HSIP programming. Sarath reminded the committee that this will provide more funding for FY2015-17, possibly for larger projects which are being encouraged by ADOT for the HSIP systematic safety improvements.

Julian Dresang asked if we have received confirmation from ADOT that we can do that and not lose the funding. Margaret Boone stated that ADOT was notified of the strategy and asked for feedback and stated that once that confirmation has been received from ADOT MAG will pass that on to the committee members.

- **Update – MAG Strategic Transportation Safety Plan**

- Lee Engineering selection recommended by this committee and approved by Regional Council on 4/15/2013
- Working on contract to be executed by the end of June
- 19 month project with oversight by this committee and Transportation Safety Stakeholders Group. This will include other key agencies/people to provide input. Meetings to be held in conjunction with the TSC meeting schedule.
- Committee meetings will start at 9:30 a.m. and then go on to the TSSG project meetings at 10:30 a.m.
- Visioning Meeting on Sept 24<sup>th</sup> to follow TSC from 9:30 a.m. to 1:30 p.m.
- November TSC at 9:30 a.m. and TSSG at 10:30 a.m.

Kohinoor Kar was invited to briefly speak on the SHSP. Dr. Kar mentioned that the project is anticipated to be completed by March 2014 and that two major events are scheduled as part of this process; the Safety Launch was held on May 16<sup>th</sup> and the Safety Summit will be held on September 26<sup>th</sup> the at Desert Willow Conference Center in Phoenix. Dr. Kar stated that at the Safety Launch, Executive Committee members exhibited preliminary understanding of the data and how emphasis areas can be formed. The Safety Summit will provide more opportunities for participation and hope to have more members from the committee attend. Dr. Kar further stated that between now and the Safety Summit, the consultant will be working with a number of stakeholders who will be participating in task groups on emphasis areas and strategies. He emphasized that as MAG develops the MAG STSP there will be good coordination and follow up discussions so that the two the plans can be integrated with regard to MAP-21 requirements and addressing the key issues. Sarath suggested that members should plan ahead to participate in the Safety Summit. MAG will continue to update the committee on SHSP events and closely coordinate the two plans.

5. MAP-21 Penalty for Safety Non-Performance

Chair Ehm stated that this item was requested for clarification of statements made at the January 8, 2013 meeting. Sarath clarified that he was informed by MAG programming staff that there were some penalties for safety non-compliance assessed to the state that would result in additional funding allocation to Safety Programs which could flow into the MAG portion as well. Upon further examination of this issue MAG has been informed by ADOT that the penalties are assessed to states for not having a repeat offender penalty program and that the state has been fined. The correction is that the penalty will not result in any type of additional allocation of HSIP funds.

6. Section 130 Funded Projects

Kohinoor Kar introduced Robert Travis from ADOT. Sarath noted that ADOT has a program for railroad safety crossing improvements and that those funds now need to be

reflected in the TIP. Mr. Travis, Railroad Liaison for ADOT, stated that if the crossing in the state system it will need to be in the STIP and those in local agency jurisdictions will need to be listed in the TIP. Mr. Travis provided some background on the railroad program and outlined the project selection as a statewide process which will be based on how much train traffic, vehicle traffic, and existing measures in place. Mr. Travis stated that input from the local agencies, council of governments, and FHWA is obtained to select projects. Development will be similar to other projects; they will contact the local agency, perform an on-site meeting with the RR, Corporation Commission, ADOT, local agency, and FHWA. If the project is deemed viable, the IGA process will begin and the project will be placed on the local TIP then go to the federal government for engineering approval. Mr. Travis noted that issues have come about when the local agency is asking to do additional work (sidewalks, approaches, etc.); the railroad will not do that work. If agency has certification acceptance, they will design and build that infrastructure with reimbursement from ADOT, if not ADOT will administer the design and construction. ADOT RR will be responsible for getting approvals from FHWA as well as permits from the RR and Corporation Commission. Mr. Travis stated that the presentation will be made available to MAG as well as posted on the ADOT website. Sarath asked if updated traffic volumes are inserted into the equations for exposure index used to determine project viability which was mentioned in the presentation. Mr. Travis answered that the baseline included volume information from the agencies as well as count data from MAG. Sarath asked for how the crash information gets put into the baseline. Mr. Travis stated that they are working on getting more defined information. Sarath reminded Mr. Travis that MAG can be another resource for this with the RTSIMS application. Mr. Travis noted that the FRA information has been fairly reliable since the railroads are required to report this information. Maria Deeb asked if locations identified could be shared with local agencies in order to coordinate local improvement projects which may include railroad crossings. Mr. Travis offered to coordinate with the local agency and asked that if the local agency will contact him directly once they have established a project in order to better coordinate resources.

7. TIP Administrative Change and Future HSIP Funds for Cave Creek Project

Sarath Joshua outlined that the Litchfield Park Sign Management System project initially funded in FY2013 and the Cave Creek project which was advanced into FY2013 from FY2014 based on a previous action by the committee. The Litchfield Park project was moved to 2014 in order to provide adequate time for implementation. This was an administrative change put in by MAG staff. Since this will mean moving \$110k to 2014, The El Mirage project for \$133k will be moved into FY 2013 to utilize those funds vacated by the Litchfield Park project. Sarath noted that in the future Sign Management System projects need to be submitted in two phases; a design phase to involve the procurement of the sign management system and to conduct the sign inventory, then the second phase which will involve construction/installation of new signs identified by the SMS as requiring replacement. These two phases need to be scheduled at least a year apart to give the local agency has time to do the inventory to assess how many signs will be needed. Chris Lemka commented that Glendale is currently going through the process and realized the importance of the initial inventory and that the IGA was written to do the assessment of signs which did not meeting the retroreflectivity requirements, that based on the number of signs that city forces may do the work and then whatever additional signs were needed Glendale would ask for additional HSIP funds during future call for projects.

Mr. Lemka stated that the issue is that the second component Sarath mentioned for the installation of signs would have to wait since you don't know what is needed until you do the inventory. Sarath agreed that we need to figure out how to identify the projects with a place holder noting the FHWA has stipulated a requirement that all SMS projects must have a new sign implementation project. Mr. Lemka mentioned that he is fine with a place holder and looked to Trent Thatcher ADOT TSS for input. Mr. Thatcher who currently manages a majority of projects that go through ADOT procurement concurred with Mr. Lemka that if you put a place holder the agency may not have enough funds to replace all the signs and that projects are historically underfunded and that it is imperative that they get a better idea of what is needed. Mr. Thatcher suggested that agencies come together and form a larger project and then work through MAG to funnel the projects up for implementation. Mr. Thatcher also suggested that agencies work with ADOT up front to get a better handle on what the sign costs and utilize ADOT as opposed to having to go through a contractor. Sarath noted that when projects are submitted for eligibility it would be helpful to have FHWA's agreement with that process. MAG will coordinate with Mr. Thatcher from ADOT on how to address these issues for future call for projects.

8. Planning, Implementing and Using Sign Management Systems

Chair Renate Ehm introduced Lenny Hulme from the City of Mesa who outlined Mesa's asset management system which includes that for their sign management system, their process to assess retroreflectivity, and the management system they developed to track work orders, manage costs, and program replacement projects. Mr. Hulme noted that the key benefits is that it has streamlined the process, enhanced project management capabilities and resolved scheduling conflicts with other roadway projects, and has ultimately improved data for performance measures, budget forecasts, and inventory valuation. Margaret Boone presented information on the iTracSigns system in use by Fountain Hills and her experience with local agency self-managed sign maintenance system via the use of excel and an asset management system. In addition, Ms. Boone gave a brief overview of information gathered from other providers such as SignProx on costs, various capabilities of the various systems and services and some pros and cons of the two different services, including compatibility with various retroreflectometers, workorder tracking, and availability of initial inventory services. Ms. Boone wrapped up by mentioning that this type of project would be ideal for an HSIP request and reiterated that this project would need to be in two phases for design/study and construction/implementation and that MAG staff will be working with ADOT to revise the application for the next call for projects to accommodate the phasing and timelines. Sarath noted that if signs are being replaced on a cycle based on date of original installation that some signs may degrade faster than other signs installed at the same time. Sarath also mentioned that the City of Phoenix shared with MAG the tremendous cost for implementing based on retroreflectivity. Sarath asked what the best practice is; best knowledge of degradation or feasibility of testing, based on current practices. Chris Lemka offered that that they would identify those needing to be replaced right away, that they have been using diamond grade for several years as their standard so their plan is to go by the manufacturer warrantee, which may be 10 years and use that to set the future date for replacement. Glendale is not planning to go back to reassess the signs retroreflectivity, but based on the warrantee and type of sign sheeting. Sarath noted that this seems to be a reasonable approach and asked if the need for measuring retroreflectivity testing is a requirement. Kelly LaRosa stated that there are a few smaller

agencies outside of the MAG region that are doing the retroreflectivity testing using the LTAP resource and that it is required to maintain sign retroreflectivity to the standards outlined in the MUTCD. Maria Deeb asked if it is required to do the testing to apply for the HSIP funds. Ms. LaRosa stated that there are several methods outlined to do that but that it is not dictated to local agencies how to do that. Sarath followed up with a question regarding when agencies implement a new system, going through HSIP for procurement and installation, then they have their first inventory for the system done is it not necessary for them to have a reading for each sign. Ms. LaRosa stated the agency should have some sort of process to determine the baseline retroreflectivity. Margaret Boone ask if an agency is putting their system on an 8 year cycle when the manufacturer states a lifetime of 10 years if this would be acceptable as documented. Ms. LaRosa stated that this is acceptable although the documentation is not required for compliance. Ms. LaRosa recommended that the committee look at the availability of HSIP funds in FY2014 for programming new projects to help local agencies meet the June 2014 deadline associated with the MUTCD requirement to have a sign management process. Sarath noted that MAG should contact all the agencies within the MAG region, which may be called the MAG planning are in the future based on the expansion of the MAG boundaries, to see what their needs are in order to better plan programming of the next round of HSIP projects.

9. Reports by Committee Members on Transportation Safety Activities

Chair Renate Ehm called on members to report on safety activities. Sarath Joshua stated that the City of Tempe has requested the RTSIMS software developed by MAG for their use. Kohinoor Kar mentioned that ADOT would like to be provided updates on the STSP process in coordination with the state SHSP. Kelly LaRosa encouraged participation in the state SHSP task force meetings. Sarath followed up this with a request that the state open up the opportunity for MAG agencies to participate on task forces. Kohinoor Kar agreed and stated that after the executive committee meets that local agencies will be given that opportunity once the logistics of the task force meetings are established.

10. Next Meeting

Chair Renate Ehm noted the next meeting is scheduled to be held on Tuesday, July 23, 2013 at 9:30 a.m. in the MAG Ironwood Room with the Strategic Transportation Safety Plan Kick-off immediately following at 10:30 a.m.

11. Adjournment

Chair Renate Ehm adjourned the meeting at 11:34 AM

**MAG HSIP APPLICATION FY2014-2017**

DRAFT

<b>APPLICATION FOR MAG-HSIP PROJECTS IN FY 2014, 2015, 2016 &amp; 2017</b>	
<b>ADOT Guidance on HSIP Funded Road Safety Improvement Projects</b>	
<b>1</b>	<p><b>Two categories of road safety improvements: "Systemic" projects and "Spot Specific" projects. All projects must be identified through a data-driven process, reduce potential fatalities and serious injury crashes, and relate back to Emphasis Areas in the Arizona Strategic Highway Safety Plan (SHSP) and the MAG Strategic Transportation Safety Plan (STSP). Links to the Arizona SHSP, the Arizona HSIP Manual, and the Crash Modification Factors Clearinghouse can be found at <a href="http://azdot.gov/Highways/Traffic/9620.asp">http://azdot.gov/Highways/Traffic/9620.asp</a></b></p> <p>"<b>Systemic Projects</b>" are those projects that implement systemic road safety improvements across a road network. These are projects that can be implemented with minimal clearances required, usually system-or corridor-wide. A data analysis that identifies crash trends and risk factors with a prioritized list of potential locations that could benefit from the systemic safety improvements utilizing highly-effective countermeasures is required. Contact ADOT Traffic Safety Section for technical assistance if needed. See <a href="http://safety.fhwa.dot.gov/systemic/">http://safety.fhwa.dot.gov/systemic/</a> for more information.</p> <p>"<b>Spot Specific Projects</b>" are those projects that would implement safety improvements focused at a specific location. Applications for this category of projects require a study, network screening, supporting crash data, benefit-cost ratio &gt; 1.0 and proven countermeasures. These projects may require environmental, utility and ROW clearances.</p>
<b>2</b>	<p><b>Examples of Road Safety Improvement Projects</b></p> <p><b>Improve Roadway Segment Safety:</b>                      Milled in shoulder and centerline rumble strips                      Install delineation for barriers and obstacles                      Upgrade markings (wider and more durable materials) including Raised Pavement Markers                      Upgrade regulatory and warning signs                      Shoulder widening                      Enhanced delineation at horizontal curves                      Road Diets                      High Friction course applications                      Install new Streetlighting</p> <p><b>Improve Signalized Intersection Safety:</b>                      Converting traffic signal heads from 8-inch incandescent/LED to 12-inch LED                      Upgrading existing street name signing with larger font (The use of Clearview Font is recommended by a MAG study. Contact MAG for more information)                      Installation of new advance street name signing (The use of Clearview Font is recommended by a MAG study. Contact MAG for more information)                      Backplates with Retroreflective Borders</p> <p><b>Improve Unsignalized Intersection Safety:</b>                      Upgrade STOP signs – larger and/or retroreflective upgrade                      Install advance stop ahead pavement markings</p> <p><b>Improve Pedestrian Safety:</b>                      Install pedestrian countdown signals                      Install and/or upgrade pedestrian crosswalk pavement markings                      Enhanced school crossing signals, signing and/or pavement markings                      Provide mid-block crosswalk advance stop bars                      Provide pedestrian refuge islands and medians                      Install Pedestrian Hybrid Beacons (Ref: <a href="http://safety.fhwa.dot.gov/provencountermeasures/">http://safety.fhwa.dot.gov/provencountermeasures/</a>)</p>

APPLICATION FOR MAG-HSIP PROJECTS IN FY 2014, 2015, 2016 & 2017	
3	<p><b>Improve Emergency Response:</b> Establish or upgrade mileposts and milepost system (Not applicable to urban arterial streets)</p> <p><b>Establish Inventory of Traffic Control Devices:</b> Inventory of signs, traffic signals, etc. required for implementing systematic improvements</p> <p><b>Example Safety Improvements that may qualify to be 100% HSIP funded (see 23 U.S.C. 120 (c) for complete list):</b></p> <ul style="list-style-type: none"> <li>Roundabouts</li> <li>Traffic Signals</li> <li>Pavement Markings</li> <li>New or Replacement Road Signs - i.e. to meet MUTCD retroreflectivity requirements</li> <li>Street Lighting - May require more indepth environmental clearances</li> </ul>
4	<p><b>Additional Requirements</b></p> <p><b>Cover Letter (required with project submission to ADOT following MAG approval of HSIP project list):</b> Summary of application. The Commitment to the safety project,, how much HSIP funding, etc. Just a short summary of your application. When completed please print and sign your letter and .pdf it along with the final version of this Excel application. The final version of the Excel application must include any modifications to project scope and project cost made during the project review process at MAG.</p> <p>The amount of MAG-HSIP funding shown in the Cost Estimate of the final Excel application MUST match the amount approved by MAG.</p> <p>ADOT and Federal Highway Administration both are required to give concurrence of <b>eligibility</b> for all HSIP Local Government Projects. Please note that eligibility does not give you authorization to begin work.</p> <p>Any changes in project cost above 20% will need to be re-submitted for eligibility and approval.</p> <p>Any changes in project scope will need to be re-submitted for eligibility and approval.</p> <p>The ADOT Admin fee is due and payable with your first submittal to ADOT.</p> <p>ADOT clearances and an executed IGA are required and must be completed prior to May 1, 20XX. If you are a Certified Acceptance (CA) Agency no IGA is required, but you are still required to have all clearances completed by May 1, 20XX.</p> <p>Merchandise must be installed within one year of purchase. Merchandise <b>can not</b> be stockpiled for future use.</p> <p>Work must not be classified as <b>maintenance</b> such as normal operating expenses and routine repair.</p> <p>If you are doing planning/study project; must result in a design/construction project.</p> <p><b>Reimbursement for Installation:</b> As indicated in 23 CFR 635.112(e): "No public agency shall be permitted to bid in competition or to enter into subcontracts with private contractors." There are no exceptions to this competitive bidding policy. However, under limited circumstances a public agency may be permitted to undertake efforts normally reserved for the private sector (Publicly Owned Equipment, Convict Produced Materials, and State Owned/Furnished/Designated Materials). Otherwise, unless it is an emergency situation or an attempt was made to bid installation competitively and was not successful, installation <b>will not</b> be eligible for Federal-aid reimbursement.</p> <p><b>Clearance Letters:</b> Templates are provided for your use. Once you have received an executed IGA and federal authorization you can submit your clearance letters to the appropriate ADOT</p>

**ADOT LOCAL HIGHWAY SAFETY IMPROVEMENT PROGRAM  
APPLICATION**

Attachement One

Agency:	Name of Project:	
County:	COG/MPO:	MAG
Contact:	Phone:	E-Mail:
Type of Safety Improvement:	Systemic: <input type="checkbox"/> YES <input type="checkbox"/> NO	
Mark all that apply to your project: <input type="checkbox"/> PE <input type="checkbox"/> Const. <input type="checkbox"/> Procurement <input type="checkbox"/> Planning - Study		
Anticipated Cost Estimate:	\$30,000.00	
Anticipated dollar amount of HSIP Funding:	\$30,000.00	
Anticipated Dollar amount of Local Match (5.7%):	\$0.00	
Anticipated Dollar amount of Other:	\$0.00	
Funding Source: <input type="checkbox"/> 100% HSIP <input type="checkbox"/> 94.3% HSIP		
Funding Year (Check all that apply):	<input type="checkbox"/> FY14 <input type="checkbox"/> FY15 <input type="checkbox"/> FY16 <input type="checkbox"/> FY17	
Administration of Project:	Agency: <input type="checkbox"/> YES <input type="checkbox"/> NO	ADOT: <input type="checkbox"/> YES <input type="checkbox"/> NO
<b>1. Describe your safety improvement project in detail: (50 words or less)</b>		
1a.		
<b>2. Describe the location of your safety project:</b>		
2a.		
<b>3. How was the proposed location(s) identified?</b>		
3a.		
<b>4. What is the safety justification for the proposed project?</b>		
4a.		
<b>5. Will there be ground disturbing activities?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO		
<b>6. Is project within applicants ROW?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO		
6a. If NO please explain:		
<b>7. Will there be any utility relocation needed?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO		
7a. If YES please explain:		
<b>8. Are there any Studies, RSA's or Other evaluations that support this project?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO		
<b>9. Detailed cost estimate attached:</b> <input type="checkbox"/> YES <input type="checkbox"/> NO		
<b>"Systemic" Safety Project</b>		
<b>1. If purchasing equipment or materials, who will install?</b> <input type="checkbox"/> Town/City <input type="checkbox"/> County <input type="checkbox"/> Contractor <input type="checkbox"/> Tribe		
<b>2. Does the project require proprietary Items (23CFR 635.411)?:</b> <input type="checkbox"/> YES <input type="checkbox"/> NO		
<b>3. Is a list of locations for systemic projects provided on the attached form?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO		
<b>4. How will the proposed locations be prioritized for replacement? (explain below)</b>		

"Name of Project" should be same as what will be put in TIP once eligibility is given

Auto fill from cost estimate  
Note: Check all that apply?

Note: Project Administration by the Agency requires approval from ADOT/FHWA.

Note: HSIP eligible scope of work - Work must not be classified as maintenance such as normal operating expenses and routine repair. Please include what the current item is and what you are upgrading to.

Note: For "Systemic" Improvements describe project coverage such as Citywide, Townwide, Various Locations, all corridors, all school zones etc.

**Example:** The Town just recently inventoried and identified signs that do not meet retro reflectivity requirements. **Example:** The City's Engineering Group analyzed three years of crash data (2006 - 2008) where safe passage for emergency vehicles was needed via emergency signal from the HSIP Safety funds.

**Example:** The determination of the emergency preemption cards locations, the City used a systematic approach to identify key signalized intersections where safe passage for emergency vehicles was needed via emergency signal preemption.

**Example:** The determination of pedestrian count down head locations, the City of Tempe staff used a systematic approach that identified key "high-pedestrian" activity locations within the City. It was determined that all intersections along the existing Metro Light Rail Alignment experience heavy volumes of pedestrian traffic.

Note: Provide the safety justification for each proposed safety improvement. **Example:** Advanced Dilemma-Zone Detection is intended to safely control the major-road approaches to isolated signalized intersections, reducing the frequency of crashes associated with traffic signal phase change (for example, rear-end and angle crashes).

**Example:** The intent of countdown pedestrian signals is to provide additional visual information to pedestrians crossing at signalized intersections. The countdown display indicates the number of seconds remaining for the pedestrian phase. It states in the 2009 edition of The Manual on Uniform Traffic Control Devices (MUTCD) by the US DOT FHWA, that pedestrian change interval countdown displays shall be used if the interval is more than

**Example:** The City would like to put in place a sign management inventory system to identify all sign types and prioritize, which will bring the City into compliance with the requirements of the MUTCD (e.g. size, legend and retroreflectivity).

[ADOT ~ EPG ~ Local Government Projects-Guidance & Documents](#)

**Reimbursement for Installation:** As indicated in 23 CFR 635.112(e): "No public agency shall be permitted to bid in competition or to enter into subcontracts with private contractors." There are no exceptions to this competitive bidding policy. However, under limited circumstances a public agency may be permitted to undertake efforts normally reserved for the private sector (Publicly Owned Equipment, Convict Produced Materials, and State Owned/Furnished/Designated Materials). Otherwise, unless it is an emergency situation or an attempt was made to bid installation competitively and was not successful, installation **will not** be eligible for Federal-aid reimbursement

If YES, Requires ADOT/FHWA approval for a "Cost Effectiveness"/"Finding in the Public Interest".

**ADOT LOCAL HIGHWAY SAFETY IMPROVEMENT PROGRAM  
APPLICATION**

Attachement One

Agency:		Name of Project:		
County:		COG/MPO:	MAG	
Contact:		Phone:	E-Mail:	
4a.				
<b>"Spot" Improvement Projects Only</b> <i>(The following items are required)</i>				
1. Completed B/C Ratio Tabulation Sheet Attached (Required):	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO
2. 3-5 Years Crash Data-sort by year & severity or correctable action (attached):	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO
3. Project vicinity map is provided:	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO
<b>"ADOT" Review and Comments</b> <i>(ADOT Use)</i>				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

"Name of Project" should be same as what will be put in TIP once eligibility is given

**Example:** Locations will be prioritized for upgrades based on warning, regulatory and street name signs. **Example:** These locations were prioritized based on the supporting accident data (attached).

Benefit/Cost Ratio Tabulation Sheet is a "TAB" in this workbook.

DRAFT

**Instructions:**

Look for the red arrows and provide the information needed for those lines only. Many of the items will be auto filled based on your application.

When you have completed the letter, print it out, sign and pdf a copy with your electronic application file.

**LOCAL AGENCY LETTERHEAD**

June 21, 2013

Ms. Mona Aglan-Swick, P.E.  
Traffic Engineering Group, Traffic Safety Section  
Arizona Department of Transportation  
1615 W. Jackson ST., MD 061R  
Phx, AZ 85007-3217

RE: **MAG-HSIP Local Government Project Request and Application**  
**COG/MPO: MAG**  
**Agency:**  
**Project Name:**  
**Project Location:**

Dear Ms. Aglan-Swick:

The [ insert agency name ] is submitting herewith a project application for Highway Safety Improvement Program (HSIP) funding for fiscal year 20XX. This road safety improvement project has been approved by the MAG Regional Council to be funded with HSIP funds allocated to the MAG region for FY 20XX. The proposed request is for the procurement of xxx pedestrian countdown signals to be installed at xx intersections. This project application is a request for procurement of equipment. The [ insert agency name ] staff will install all equipment with no reimbursement. There are no ground disturbing activities or utility relocations anticipated.

The intent of countdown pedestrian signals is to provide additional visual information to pedestrians crossing at signalized intersections. The countdown display indicates the number of seconds remaining for the pedestrian phase. It states in the 2009 edition of The Manual on Uniform Traffic Control Devices (MUTCD) by the U.S. Department of Transportation Federal Highway Administration that pedestrian change interval countdown displays shall be used if the interval is more than 7 seconds.

During a x-year period ending xxxxx 20xx, the City/Town experienced xxx total pedestrian intersection related crashes including xx fatal, xx incapacitating, xx non-incapacitating, and xx possible injury crashes. With a Crash Reduction Factor (CRF) of xx% for all crashes, the City/Town could see a 5-year reduction of xxx crashes.

HSIP funds in the amount of \$XX,XXX are being requested for this project. The requested funds will be used solely for the procurement of equipment. With FHWA Arizona Division Office concurrence the above safety improvement items are eligible to be funded at 100% Federal share per 23 U.S.C. 120(c) as described in Code of Federal Register 23 CFR Part 924. Therefore, the [ insert agency name ] does not propose to contribute any local match for the above mentioned project. Furthermore, the [ insert agency name ] is not requesting reimbursement for staff time for installation. Table 2 summarizes the cost estimate projected for this project.

If you have any questions, please contact me at XXX-XXX-XXXX .

Sincerely,

your name & title  
your section/department  
address  
city, state and zip code

Attachment: Application (excel format) to include cost estimate, vicinity map and/or list of locations  
Study/RSA Reports  
If applicable: B/C Ratio and Crash Data

\_\_\_\_\_

\_\_\_\_\_

Just a short summary of your app. What are you asking for, the potential reduction of similar crashes, how much HSIP funding and your commitment to the Safety Project., etc.

replace the XXXX with your phone and FAX numbers

print this page and sign your name here

type your name & title

type your section

type your street address

type your city, state and zip code

customize to your project



**ADOT LOCAL HIGHWAY SAFETY IMPROVEMENT PROGRAM  
APPLICATION - COST ESTIMATE**

Agency:		Name of Project:						
Project Cost Estimate Worksheet								
Project Cost Estimate:	Description:	Quantity:	Cost (Unit):	Total Cost	HSIP:	Local Match:	Other Amt:	TOTAL COST
					100.00%	0.00%	0.00%	
Planning or Study:		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Preliminary Engineering:		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ADOT Admin Costs:		1	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ -	\$ -	\$ 30,000.00
<b>Sub-Total</b>			\$ 30,000.00		\$ 30,000.00	\$ -	\$ -	\$ 30,000.00
Construction:		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials:		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials:		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials:		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials:		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials:		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials:		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials:		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Sub-Total</b>			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Construction Admin :		15.00%			\$ -	\$ -	\$ -	\$ -
Contingencies :		5.00%			\$ -	\$ -	\$ -	\$ -
Other Costs:		0			\$ -	\$ -	\$ -	\$ -
		0			\$ -	\$ -	\$ -	\$ -
		0			\$ -	\$ -	\$ -	\$ -
		0			\$ -	\$ -	\$ -	\$ -
		0			\$ -	\$ -	\$ -	\$ -
		0			\$ -	\$ -	\$ -	\$ -
<b>Sub-Total</b>				\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL REQUEST</b>					\$ 30,000.00	\$ -	\$ -	\$ 30,000.00

← Change Percentage based on if a local match is required.  
**HSIP** 100% or 94.3%    **Local Match** 0% or 5.7%

Comments:



**ADOT LOCAL HIGHWAY SAFETY IMPROVEMENT PROGRAM  
APPLICATION - COST ESTIMATE**

Attachement One

Agency:		Name of Project:						
Project Cost Estimate Worksheet								
Project Cost Estimate:	Description:	Quantity:	Unit Cost:	Total Cost:	HSIP:	Local Match:	Other Amt:	TOTAL COST
					94.30%	5.70%	0.00%	
Planning or Study:		0		\$ -	\$ -	\$ -	\$ -	\$ -
Preliminary Engineering:		0		\$ -	\$ -	\$ -	\$ -	\$ -
ADOT Admin Costs:		1	\$ 30,000.00	\$ 30,000.00	\$ 28,290.00	\$ 1,710.00	\$ -	\$ 30,000.00
<b>Sub-Total</b>				\$ <b>30,000.00</b>	\$ <b>28,290.94</b>	\$ <b>1,710.00</b>	\$ <b>-</b>	\$ <b>30,000.00</b>
Construction:		0		\$ -	\$ -	\$ -	\$ -	\$ -
Materials:	Pedestrian Countdown Signals	400	\$ 20.00	\$ 8,000.00	\$ 7,544.00	\$ 456.00	\$ -	\$ 8,000.00
Materials:	12" Type F Signal Head and Type V Mounting Brackets	62	\$ 10.00	\$ 620.00	\$ 584.66	\$ 35.34	\$ -	\$ 620.00
Materials:		0		\$ -	\$ -	\$ -	\$ -	\$ -
Materials:		0		\$ -	\$ -	\$ -	\$ -	\$ -
Materials:		0		\$ -	\$ -	\$ -	\$ -	\$ -
Materials:		0		\$ -	\$ -	\$ -	\$ -	\$ -
<b>Sub-Total</b>				\$ <b>8,620.00</b>	\$ <b>8,128.66</b>	\$ <b>491.34</b>	\$ <b>-</b>	\$ <b>8,620.00</b>
Construction Admin :		<b>15.00%</b>		\$ 1,293.00	\$ 1,219.30	\$ 73.70	\$ -	\$ 1,293.00
Contingencies :		<b>5.00%</b>		\$ 431.00	\$ 406.43	\$ 24.57	\$ -	\$ 431.00
Other Costs:				\$ -	\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -	\$ -
<b>Sub-Total</b>				\$ <b>1,724.00</b>	\$ <b>1,625.73</b>	\$ <b>98.27</b>	\$ <b>-</b>	\$ <b>1,724.00</b>
<b>TOTAL REQUEST</b>				\$ <b>40,344.00</b>	\$ <b>38,045.33</b>	\$ <b>2,299.61</b>	\$ <b>-</b>	\$ <b>40,344.00</b>

← Change Percentage based on if a local match is required.  
**HSIP** 100% or 94.3%    **Local Match** 5.7% or 0%

Comments:



EXISTING SIGNS							PROPOSED REPLACEMENT SIGNS							MUTCD Size (inches)	
Qty	Sign Description or Legend	Type (R or W)	Reported MUTCD Designation	Size (inches)	Face Background Color	Legend Color	Qty	Sign Description or Legend	Type (R or W)	Actual MUTCD Designation	Proposed Size	Face Background Color	Legend Color	Conventional Road Single Lane	Conventional Road Multi-Lane
8	Dead End Ahead	W		30x30	Yellow	Black	8	Dead End + Supplemental Warning Plaque	W	W14-1 W16-9P	24x12	Yellow	Black	30x30 24x12	36x36 24x12
11	No Parking School Days	R		12x18	White	Red	11	No Parking School Days	R	R-7 Custom	12x18	White	Red	12x18	12x18
3	No Parking 7AM-4:30PM	R	R7-2A	12x18	White	Red	3	No Parking 7AM-4:30PM	R	R7-2A	12x18	White	Red	12x18	12x18
19	No Parking Anytime	R	R7-1	12x18	White	Red	19	No Parking Anytime	R	R7-1	12x18	White	Red	12x18	12x18
11	No Parking Here to Corner	R		12x18	White	Red	11	No Parking Here to Corner	R	R-7 Custom	12x18	White	Red	12x18	12x18
1	No Parking Between Signs	R		12x18	White	Red	1	No Parking Between Signs	R	R-7 Custom	12x18	White	Red	12x18	12x18
4	Drug Free School Zone	R		18x24	White	Black	4	Drug Free School Zone	R	None		White	Black		
2	Curve	W	W1-2L	30x30	Yellow	Black	2	Curve	W	W1-2L		Yellow	Black	30x30	36x36
1	Curve	W	W1-2R	30x30	Yellow	Black	1	Curve	W	W1-2R		Yellow	Black	30x30	36x36
3	Stop When Children In Crosswalk	R		24x30	White	Black	3	Stop When Children In Crosswalk	R	S2-2AZ	24x30	White	Black		
20	No Trucks	R	R5-2	24x24	White	Red/ Black	20	No Trucks	R	R5-2	24x24	White	Red/ Black	24x24	24x24
10	Reserved Parking - Handicap	R	R7-8	12x18	White	Green/ Blue	10	Reserved Parking - Handicap	R	R7-8	12x18	White	Green/ Blue	12x18	12x18
24	School Children Crossing	W	S1-1	30x30	Yellow	Black	24	School Sign	W	S1-1	36x36	Fluorescent Yellow Green	Black	36x36	36x36

Street Name Sign Inventory Sheet

<b>Agency:</b>	<b>Project:</b>
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EXISTING SIGNS			PROPOSED REPLACEMENT SIGNS					
Qty	Street Name Legend	Speed Limit Over 40-MPH	Qty	Street Name Legend	Face Color	Legend Color	Lettering Size 6 inch upper-case 4.5 inch lower-case	Lettering Size 8 inch upper-case 6 inch lower-case
28	MALEY STREET	4	28	Malen St	Green	White	24	4
5	RAILVIEW AVENUE		5	Railview Ave	Green	White	5	0
5	FIRST AVENUE		5	First Ave	Green	White	5	0
4	SECOND AVENUE	2	4	Second Ave	Green	White	2	2
4	THIRD AVENUE	1	4	Third Ave	Green	White	3	1
6	REX ALLEN JR ROAD	1	6	Rex Allen Jr Rd	Green	White	5	1
26	STEWART STREET		26	Stewart St	Green	White	26	0
21	GRANT STREET		21	Grant St	Green	White	21	0
1	FIRST LANE		1	First Ln	Green	White	1	0
1	FAIRWAY LANE		1	Fairway Ln	Green	White	1	0
22	CURTIS AVENUE		22	Curtis Ave	Green	White	22	0
37	ARIZONA AVENUE		37	Arizona Ave	Green	White	37	0
14	RAILROAD AVENUE		14	Railroad Ave	Green	White	14	0
28	HASKELL AVENUE	2	28	Haskell Ave	Green	White	26	2
18	BIDDLE AVENUE		18	Biddle Ave	Green	White	18	0
18	AUSTIN BLVD		18	Austin Blvd	Green	White	18	0
5	WOOD STREET		5	Wood St	Green	White	5	0
12	TUCSON AVENUE		12	Tucson Ave	Green	White	12	0
12	PHOENIX AVENUE		12	Phoenix Ave	Green	White	12	0
18	N DOUGLAS AVENUE		18	N Douglas Ave	Green	White	18	0
8	N FLAGSTAFF AVENUE		8	N Flagstaff Ave	Green	White	8	0
4	N PRESCOTT AVENUE		4	N Prescott Ave	Green	White	4	0
9	N MESA AVENUE		9	N Mesa Ave	Green	White	9	0
8	FOX STREET		8	Fox St	Green	White	8	0
6	TODD STREET		6	Todd St	Green	White	6	0
7	PATTE ROAD	2	7	Patte Rd	Green	White	5	2
2	JOE HINES ROAD		2	Joe Hines Rd	Green	White	2	0
5	FORT GRANT ROAD		5	Fort Grant Rd	Green	White	5	0
2	JONNIE DRIVE		2	Jonnie Dr	Green	White	2	0
2	CIRCLE I ROAD		2	Circle I Rd	Green	White	2	0
2	LAKEVIEW DRIVE		2	Lakeview Dr	Green	White	2	0
4	VIRGINIA AVENUE		4	Virginia Ave	Green	White	4	0
12	SCOTT STREET		12	Scott St	Green	White	12	0
18	REX ALLEN DRIVE		18	Rex Allen Dr	Green	White	18	0
13	JESSIE STREET		13	Jessie St	Green	White	13	0
24	FREMONT STREET		24	Fremont St	Green	White	24	0
8	HENRY STREET		8	Henry St	Green	White	8	0
21	DELOS STREET		21	Delos St	Green	White	21	0
9	PEARCE STREET		9	Pearce St	Green	White	9	0
16	WASSON STREET		16	Wasson St	Green	White	16	0
14	MCCOURT STREET		14	McCourt St	Green	White	14	0
20	SOTO STREET		20	Soto St	Green	White	20	0
12	DOWNEN STREET		12	Downen St	Green	White	12	0
6	PARKER STREET		6	Parker St	Green	White	6	0
4	WILSON STREET		4	Wilson St	Green	White	4	0

**ONLY Required for Spot Safety Improvement Projects**

<b>Agency:</b>		<b>Name of Project:</b>			
<b>Benefit / Cost Ratio Tabulation</b>					
<b>Annual Benefit Tabulation</b>					
Severity	Annual Average	Estimated CRF* Reduction	Total Reduction	Unit Cost	Annual Benefit
Fatal	0.00	0%	0.00	\$5,800,000	\$0
Incapacitating Injury	0.00	0%	0.00	\$400,000	\$0
Non Incapacitating Injury	0.00	0%	0.00	\$80,000	\$0
Possible Injury	0.00	0%	0.00	\$42,000	\$0
No Injury	0.00	0%	0.00	\$4,000	\$0
Unknown	0.00	0%	0.00	\$4,000	\$0
Total Annual Benefits					\$0
<b>Costs</b>					
Total Construction Costs					\$0
Project Life (years)					0
Interest Rate (%)					8%
Capital Recovery Factor					#DIV/0!
Annual Construction Cost					#DIV/0!
Annual Maintenance Cost					0
Total Annual Costs					#DIV/0!
<b>Benefit / Cost</b>					
Annual Benefit	Annual cost	Benefit / Cost Ratio			
\$0	#DIV/0!	#DIV/0!			
<b>REQUIRED: Site each CRF Source, including page number etc.</b>					

Annual Average Number of Crashes (divided) Number of Years of Data  
 Crash Reduction Factors [CRF References](#) Multiple Improvements Use a Combined CRF(if applicable)  
 $1-(1-0.3)^*(1-0.3)^*(1-0.3) = 0.66$  or 66%

**Construction Cost** Include Design, Right of Way and Construction if seeking reimbursement for any of these elements.  
**Project Life** <http://www.azdot.gov/highways/traffic/standards/PGP/TM231.pdf> Traffic PGP, Section 231, pg 231-7  
**Interest Rate (Current Rate 8%)** <http://www.azdot.gov/highways/traffic/standards/PGP/TM231.pdf> Traffic PGP, Section 231, pg 231-8  
**Capital Recovery (Auto Fill)** <http://www.azdot.gov/highways/traffic/standards/PGP/TM231.pdf> Traffic PGP, Section 231, pg 231-8  
**Operating and Maintenance Cost** Subtract existing annual operating and maintenance cost to obtain the annual maintenance cost difference  
<http://www.azdot.gov/highways/traffic/standards/PGP/TM231.pdf> Traffic PGP, Section 231, pg 231-2

**Benefit/Cost Ratio (BC)** B/C > = 1.0 may be eligible for HSIP funds

**Site each CRF Source:** You are required to site each CRF Source used : EXAMPLE: "Safety Reviews of Existing Roads: a Quantitative Safety Assessment Methodology" in Transportation Research Record: Journal of the Transportation Research Board, No. 1922, pg 67

June 21, 2013

**MAG Highway Safety Improvement Program (HSIP) Project Development Process FY 2014-2017**

1. MAG issues a call for HSIP projects applications for “Systemic” and “Spot” road safety improvements. - June 28, 2013
2. Project applications are submitted by Local Public Agencies (LPA) to MAG using the ADOT approved Excel-based template customized for MAG. One application per project. All HSIP projects will have two-phases but one ADOT Administrative Fee of \$30,000. Phase 1: Study/Scoping/Design to be programmed in FY14-16; Phase 2: Install/Construct in a subsequent FY. Both Phases 1 and 2 will be funded and programmed in two separate FY. ALL “Systemic” projects must be accompanied by a **Crash Data-Driven Project Justification**. The MAG template provided for this purpose is recommended. MAG can provide assistance in obtaining relevant crash data. - July 26, 2013.
3. Projects applications are summarized by MAG, for each program year 2014, 2015, 2016 & 2017 and forwarded to the MAG Transportation Safety Committee (TSC) for review and recommendation of a list of HSIP projects for each fiscal year totaling approx. \$1.3m/yr (or the updated HSIP allocation for the MAG region). - Special TSC meeting on August 13, 2013
4. LPAs submit revised HSIP project applications to address any TSC review comments (by Aug 20). The list of projects recommended by TSC is **forwarded by MAG to ADOT for eligibility determination (by Aug 23)**. This list will include two additional projects in each FY that are ranked below the limit of available HSIP funding. ADOT/FHWA will review eligibility of the additional projects ONLY if any projects on the primary list are considered ineligible for federal funds.
5. **ADOT/FHWA determines project eligibility and informs MAG**. Projects are either approved or returned to MAG as not eligible for HSIP funding. ADOT Traffic Safety Section will coordinate with the LPA to ensure eligibility documentation supports the proposed project scope. – by Sept 20, 2013
6. The approved project list will be reviewed by TSC and action taken, if necessary, to modify the previous TSC recommended list. – on Sept 24, 2013
7. MAG includes the list of approved HSIP projects in the TIP in respective program years. Final TIP project numbers are provided to ADOT by MAG. – Oct/Nov 2013
8. ADOT issues TRACS numbers and initiates Phase 1 of all projects involving the study/scoping/design as applicable.
9. Member agencies coordinate with ADOT Urban Project Management and LPA Program Manager in carrying out all required steps for implementing HSIP projects. They include: completion of all required environmental/right-of-way/utility clearances and development of Intergovernmental Agreements with ADOT.



**SYSTEMIC ROAD SAFETY IMPROVEMENT PROJECT APPLICATION**

Crash Data Driven Project Justification for

Systemic Improvements at Intersections

AGENCY: City of Peoria

Safety Improvement: Traffic Signal Backplates with Retroreflective Borders

K = Fatal Crashes

A = Serious Injury Crashes

**ALL CRASHES AT INTERSECTIONS**

Year	K	A
2008	5	36
2009	0	56
2010	2	57
2011	5	72
2012	5	64

**CRASHES AT NIGHT TIME**

Year	K	A
2008	3	11
2009	0	15
2010	1	13
2011	2	12
2012	2	22

**ELDERLY DRIVER INVOLVED CRASHES**

Year	K	A
2008	0	9
2009	0	15
2010	0	9
2011	3	23
2012	1	21

**LEFT-TURN CRASHES**

Year	K	A
2008	0	13
2009	0	13
2010	0	14
2011	0	27
2012	3	22

**BICYCLIST INVOLVED CRASHES**

Year	K	A
2008	0	4
2009	0	2
2010	0	6
2011	0	7
2012	0	6

**PEDESTRIAN CRASHES**

Year	K	A
2008	0	1
2009	0	1
2010	0	0
2011	0	1
2012	0	1

**INTERSECTIONS RANKED BY CRASH SEVERITY INDEX (=1450\*K + 100\*A)**

Rank	Intersection	K	A	Index	ALL	CMF	Crashes Reduced	Notes
1	NORTHERN AVE & 83RD AVE	1	5	1950	36	0.9	3.6	
2	UNION HILLS DR & 83RD AVE	1	5	1950	145	0.9	14.5	
3	OLIVE AVE & 95TH AVE	1	4	1850	56	0.9	5.6	
4	WESTWING PKWY & LAKE PLEASANT RD	1	2	1650	7	0.9	0.7	
5	NORTHERN AVE & 107TH AVE	1	1	1550	14	0.9	1.4	
6	WESTBROOK PKWY & 92ND AVE	1	0	1450	1	0.9	0.1	
7	CASTLE HOT SPRINGS RD & S 074	1	0	1450	6	0.9	0.6	
8	THUNDERBIRD RD & 91ST AVE	1	0	1450	39	0.9	3.9	
9	DEER VALLEY RD & 80TH AVE	1	0	1450	5	0.9	0.5	
10	BEARDSLEY RD & 91ST AVE	1	0	1450	20	0.9	2	
11	OLIVE AVE & 75TH AVE	1	0	1450	13	0.9	1.3	
12	MOUNTAIN VIEW RD & 91ST AVE	1	0	1450	3	0.9	0.3	
13	PARADISE LN & 75TH AVE	1	0	1450	26	0.9	2.6	
14	THUNDERBIRD RD & 75TH AVE	0	10	1000	152	0.9	15.2	
15	OLIVE AVE & 91ST AVE	0	8	800	151	0.9	15.1	
16	NORTHERN AVE & 75TH AVE	0	8	800	53	0.9	5.3	
17	NORTHERN AVE & 91ST AVE	0	7	700	60	0.9	6	
18	CACTUS RD & 91ST AVE	0	7	700	75	0.9	7.5	
19	BELL RD & 84TH AVE	0	6	600	90	0.9	9	
20	PEORIA AVE & 91ST AVE	0	6	600	75	0.9	7.5	
21	LAKE PLEASANT RD & DEER VALLEY RD	0	5	500	47			
22	HAPPY VALLEY PKWY & 107TH AVE	0	5	500	35			
23	OLIVE AVE & 83RD AVE	0	5	500	49			
24	BELL RD & 91ST AVE	0	5	500	140			
25	DEER VALLEY RD & 83RD AVE	0	5	500	68			