

November 7, 2016

TO: Members of the MAG Transportation Safety Committee

FROM: Dana Alvidrez, City of Chandler, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

**Tuesday, November 15, 2016 - 9:30 a.m.** (Please note earlier start time)  
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 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 MAG. 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

For the November 15, 2016 meeting, the quorum requirement is 10 committee members.

2. Approval of September 27, 2016 Meeting Minutes

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:

- 2016-2017 RSA and PA Program
- RSA & PA Summit Update
- Avondale STSP Update
- 2016 UPWP Project Ideas
- RTSIMS Announcement
- 2017 Meeting Dates (Attachment One)

5. FY 2018-2020 TAP SRTS Projects

In response to the call for Transportation Alternatives/Safe Routes to School (TA/SRTS) project applications for FY 2018 through 2020,

## COMMITTEE ACTION REQUESTED

2. Review and approve the September 27, 2016, meeting minutes.

3. For information.

4. For information and discussion.

5. For information, discussion, and possible action to recommend a list of TA/SRTS non-infrastructure projects in FY2018, FY2019, and FY2020.

a total of twelve (12) project applications were received from six (6) MAG member agencies, requesting a total of \$541,390, \$298,565, and \$277,708 in FY 2018, 2019, and 2020, respectively. A total of \$400,000 is available for programming in each fiscal year. The complete list of proposed TA/SRTS projects is included in Attachment Two.

All project applications have been made available to the committee for review. Brief presentations will be provided on individual projects. Following each presentation, the committee may pose any questions to the applicants. The committee will discuss the merits of proposed projects and recommend a list of TA/SRTS projects to match the funds available in FY 2018 - 2020.

The committee will also discuss a strategy to program any remaining funds.

6. 2011-2015 List of Top 100 High Crash Risk Intersections

The MAG Network Screening Methodology for Intersections, was developed and adopted by the committee in January 2010, with a modification to the crash risk formula adopted in 2014.

This methodology was used to review crash data for the period 2011-2015 and generate the list of the top 100 intersections based on crash risk.

Attachment Three provides the resulting list and a map of the top 100 intersections. This list will be posted at the MAG website. The list will also be utilized to identify locations for the next round of Road Safety Assessment projects.

7. Reports by Committee Members on Transportation Safety Activities

Members will be requested to report agency

6. For information and discussion.

7. For information and discussion.

activities or current issues that are related to transportation safety.

8. Request for Future Agenda Items

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

9. Next Meeting

The next meeting is scheduled to be held on Tuesday, January 24, 2017 at 10:00 a.m. in the MAG Ironwood Room.

10. Adjournment

8. For information and discussion.

9. For information and discussion.

DRAFT MINUTES OF  
MARICOPA ASSOCIATION OF GOVERNMENTS  
TRANSPORTATION SAFETY COMMITTEE MEETING

September 27, 2016  
Maricopa Association of Governments  
Ironwood Room, Suite 200  
302 N. 1<sup>st</sup> Ave,  
Phoenix, AZ 85003

MEMBERS ATTENDING

- |  |  |
|--|--|
| Ned Ferris for Cristy Robinson,<br>AAA Arizona | # Hugh Bigalk, City of Goodyear<br>Mike Gillespie, Litchfield Park |
| # Tom Burch, AARP<br>Kerry Wilcoxon, ADOT      | Mazen Muradvich for Nicolaas Swart,<br>Maricopa County             |
| Shane Kiesow, City of Apache Junction          | Renate Ehm, City of Mesa   |
| * Robert Gray, ASU                             | * Jeremy Knapp, Town of Paradise Valley                            |
| Tom Peterson, City of Avondale                 | Mannar Tamirisa for Jamal Rahimi,<br>City of Peoria                |
| * Jason Mahkovtz, City of Buckeye              | Rick Russ for Kerry Wilcoxon,<br>City of Phoenix                   |
| Dana Alvidrez (Chair), City of Chandler        | # George Williams, City of Scottsdale                              |
| * Nick Russo, City of El Mirage                | Dana Owsiany, City of Surprise                                     |
| * Kelly LaRosa, FHWA                           | Julian Dresang, City of Tempe                                      |
| * Rajnish Gupta, Town of Gilbert               | * Adrian Ruiz, RPTA  |
| Kiran Guntupalli, City of Glendale             |  |
| * Alberto Gutier, GOHS                         |  |

OTHERS PRESENT

- |                                   |                                |
|-----------------------------------|--------------------------------|
| Sarath Joshua, MAG                | Scott Kelley, AMECFW           |
| Margaret Boone, MAG               | Mike Blankenship, AMECFW       |
| Micah Henry, MAG                  | Shanthi Krishnan, Jacobs       |
| Sanjay Paul. Lee Engineering      | Allen Barakivic, Jacobs        |
| Randy Dittberner, Lee Engineering | Anita Johari, ASJ Engineering  |
| Liza Golden, MCDPH                | Natalie Carrick, Michael Baker |
| Doug McCants, Horrocks            | Derrick Denton, Pinal Co       |
| Brian Brikley, Valley Metro       | Skye Gentile, Parsons          |

- \* Not present or represented by proxy
- # Participated by teleconference
- + Participated by videoconference

1. Call to Order

Chair Dana Alvidrez called the meeting to order at 10:01 a.m.

2. Approval of May 24, 2016 Meeting Minutes

Chair Dana Alvidrez called for a motion to approve the May 24, 2016 meeting minutes. Shane Kiesow made a motion to approve as written, Kerry Wilcoxon seconded and the motion passed unanimously.

3. Call to Audience

Chair Dana Alvidrez 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

Chair Dana Alvidrez requested Sarath Joshua to report on the items included in the Program Manager's Report.

- 2017 RSA and PA Program Update: \$300k in FY2017 Work Program budgeted for seven RSAs and one PA. The list of recommended projects will go before Regional Council for approval on the 28<sup>th</sup> of September. The next steps are to start Task Order development for November RSAs and PA to begin after RSA summit. New project scopes to incorporate input from summit. The remaining RSAs to be conducted February thru June 2017.
- RSA and PA Summit: To be held today from 1:30 to 3:30 p.m. Ironwood Room. Attendees will include two staff from each on-call consultant firm, local agency, volunteer RSA team members, Human Factors experts and ADOT staff. The agenda includes a brainstorming session based on lessons learned; attendees have been asked to send three pros and three cons ahead of the summit for discussion.
- Update on the Avondale's Strategic Transportation Safety Plan: All tasks have been completed including the Draft Final Report. A presentation was made to Avondale City Council on September 19<sup>th</sup> and received positive input and comments. The Plan identifies three intersection improvement projects and one segment project. The Implementation Plan identifies potential funding for 22 strategies to address the five action areas; various sources including GOHS, HSIP, CIP, TA, MAG-UPWP. Final approval from Council is anticipated in October 2016.
- TA SRTS Call for Projects and Workshop: A call for projects issued August 15<sup>th</sup> for \$400k per program year available, FY2018, 2019, 2020. Eligible projects include SRTS Studies at \$300k per program year, \$100k max and SRTS Support Activity projects at \$100k per program year, \$50k max. Workshops were held Aug 22nd, Sept 13th, and TODAY at 11:15 a.m. in the Cottonwood Room, in order for any final questions and application review prior to submittal. Applications are due Thursday September 29th at 10 a.m. No late applications will be accepted.
- Update on ALISS Crash Coding Issues: At the July 2016 meeting, a crash data issue was expressed by a local agency to be addressed with ADOT. Sarath Joshua invited Kerry Wilcoxon from ADOT to address the Committee on the issue and possible resolution.

5. 2015 NHTSA Traffic Safety Facts

Chair Dana Alvidrez stated that this item on the agenda for information and discussion and invited Sarath Joshua and Margaret Boone to provide a presentation. Mr. Joshua provided a brief overview of the annual report published by NHTSA and asked Margaret Boone to review the Traffic Safety Facts with a MAG Region comparison. Ms. Boone reviewed some of the key data elements reported by NHTSA in comparing 2014 with 2015 crash statistics. Ms. Boone presented graphics to include the MAG region's statistics for percent change from 2014 to 2015 in; total fatalities, reported crashes by severity, fatalities by mode/vehicle type, fatalities by person (age, sex), fatalities by driver behavior and restraint use, and a range of states in comparison with the US, Arizona and MAG region for alcohol impaired fatalities. In several areas the MAG region percent change is opposite that of the nation. One key element in which the MAG region had reduction from 2014 to 2015 is in the alcohol impaired fatalities at a 3 percent decrease compared to Vermont at a nearly an 88 percent increase, Massachusetts at a nearly 33 percent increase, Arizona at a 36 percent increase. Kiran Guntupalli asked if the five year trend had been analyzed for the MAG region. Ms. Boone reiterated that, at this time, the analysis reported here was consistent with the NHTSA crash facts document, which only compared 2015 with 2014.

6. Reporting on Transportation Safety Performance

Chair Dana Alvidrez invited Sarath Joshua to present this item for information. Mr. Joshua stated that the 2015 STSP recommended an annual report to show regional road safety performance. In addition, the MAG region crash trends are available on the MAG Safety webpage and that MAG staff is currently working on major revisions to this page. Margaret Boone provided a presentation on this item noting that the revised page will include new reporting on transportation safety performance to align with the MAG STSP performance measurement element. The report will also provide an annual reporting of safety performance towards the safety targets outlined in the national safety performance final rule for; number of fatalities, rate of fatalities per 100 million VMT, number of serious injuries, rate of serious injuries per 100 million VMT, and non-motorist number of fatalities and serious injuries. MAG will be coordinating with ADOT in order to set targets consistent to that which the State will be reporting to FHWA. Example targets have been set for three of the five performance measures to date and MAG is working on establishing a method to estimate regional VMT for the remaining two measures. Ms. Boone provided an example of one STSP strategy in terms of the potential performance measurement. One of the goal oriented measures was the percent reduction of fatalities at all intersections to the five-year rolling. Ms. Boone demonstrated what this might look like using data from 2005 through 2015 to establish the five year rolling trend and applying a 3 percent and 7 percent reduction in comparison with the most recent actual intersection related fatalities in the MAG region. The 2015 actual intersection related fatalities was above the five-year rolling average trend line at 1486 fatalities. The 2016 fatalities would have to be 1249 or fewer to be at or below the trend line. Kiran Guntupalli noted when looking at the 2014 and 2015 numbers are both above the trend line and asked what our next steps are, an if we need to go to elected officials to highlight this need. In response, Kerry Wilcoxon was invited to provide any insight he might have into future HSIP guidance for funding of projects could help result in meeting the targets. Kerry

Wilcoxon stated that the three to seven percent is the state reported SHSP goal and ADOT is still working to identify what the targets will be based on. In addition, it is a five year rolling average and the fact that we are above the trend line will effect what that is in terms of when we are required to start reporting next August. The new reporting requirement is that the states meet 4-5 of the targets. All of these things will determine how HSIP is portioned out. If you look at the crashes statewide, 72 percent of crashes are occurring off the state system, and yet 80 percent is being spent on the state system, which is reverse of what the data is showing. ADOT is trying to move to a statewide competition process. How that is worked out has yet to be developed. ADOT is trying to figure out what certain countermeasures should be funded 100 percent, HAWKS for instance. All this will still be driven by the BC ratio. The good news is that the changes are anticipated to get the HSIP dollars where it is needed in the state. Kiran Guntupalli asked if there was any consideration to add safety elements in projects established with the RTP re-balancing effort or through the RSA program where reviews are done during design phase. Mr. Joshua described the RTP re-balancing and that in that discussion most of the considerations were bringing back to projects that were shelved due to the down economy around 2009-2010. In the previous RTP there was no funding source identified for safety. In addition, with the rebalancing, there was no money coming back for safety with the direction for the region to rely on HSIP only to fund safety improvements. Sarah Joshua noted that the best way to get safety entered back into the discussion is at the local agency level, coming forward with a need identified. The committee could certainly work on proposals for safety elements for those projects in the re-balancing.

7. Reports by Committee Members on Transportation Safety Activities

Chair Dana Alvidrez requested reports from committee members on transportation safety related activities at local agencies. Tom Peterson reported that the approval of the Avondale STSP is on the October 17<sup>th</sup> Council agenda. Kiran Guntupalli reported on the status of the safety improvement project at 59<sup>th</sup> Avenue and Olive Avenue, currently in the final stages of design to begin construction in 2017. George Williams reported on the City of Scottsdale's new roundabouts first and pedestrian crossing policies.

8. Request for Future Agenda Items

None heard.

9. Next Meeting

Chair Dana Alvidrez stated that the next meeting is scheduled for Tuesday, November 15, 2016 at 10:00 a.m. in the Ironwood Room. This meeting will be held to provide SRTS applicants to present their projects for Committee review, discussion and possible action to recommend a list of projects.

10. Adjournment

Chair Dana Alvidrez adjourned the meeting at 11: 04 a.m.

**2017 MAG Meeting Schedule**  
**Transportation Safety Committee**  
**MAG Ironwood Room**

January 24, 2017	10:00 AM	Transportation Safety Committee
March 28, 2017	10:00 AM	Transportation Safety Committee
May 23, 2017	10:00 AM	Transportation Safety Committee
July 25, 2017	10:00 AM	Transportation Safety Committee
September 26, 2017	10:00 AM	Transportation Safety Committee
November 14, 2017	10:00 AM	Transportation Safety Committee

Unless otherwise noted, bi-monthly meetings will be held on the fourth Tuesday of odd-numbered months.

**MAG TA/SRTS Non-Infrastructure List of Projects FFY 2018 - 2020**

Applicant	Requested FY2018 Funds	Requested FY2019 Funds	Requested FY2020 Funds	Project Type	Project
City of Avondale	\$ 96,186	\$ 96,186	\$ 77,326	Priority One: Studies	Avondale Citywide SRTS Studies
City of El Mirage	\$ 38,192	\$ -	\$ -	Priority Two: Support Activity	School Speed Display Signs Supporting SRTS
City of Florence	\$ 39,606	\$ -	\$ -	Priority One: Studies	Florence Schools Framework Study
Maricopa County	\$ 47,150	\$ 47,148	\$ 47,150	Priority Two: Support Activity	Walk-N-Rollers - Safe Routes to School
Maricopa County	\$ 47,150	\$ 47,148	\$ 47,150	Priority Two: Support Activity	Safe Routes to School
City of Scottsdale	\$ 49,999	\$ 49,999	\$ 49,999	Priority Two: Support Activity	Citywide Scottsdale Safe Routes to School Coordinator
City of Surprise	\$ 15,667	\$ 15,667	\$ 15,667	Priority Two: Support Activity	Kingswood, West Point, and Sonoran Heights Elementary
City of Surprise	\$ 15,667	\$ 15,667	\$ 15,667	Priority Two: Support Activity	ACA, Imagine Prep, and Imagine Rosefield Schools
City of Surprise	\$ 70,725	\$ -	\$ -	Priority One: Studies	Kingswood, West Point, and Sonoran Heights Elementary
City of Surprise	\$ 15,667	\$ 15,667	\$ 15,667	Priority Two: Support Activity	Ashton Ranch, Countryside, Parkview Elementary
City of Surprise	\$ 11,080	\$ 11,080	\$ 11,080	Priority Two: Support Activity	Marley Park and Rancho Gabriela Elementary
City of Surprise	\$ 94,300	\$ -	\$ -	Priority One: Studies	Canyon Ridge, Cimarron Springs, Sunset Hills, and Western Peaks Elementary

Request Total **541,390**  
 Total Available \$ 400,000

**FY2018 Remaining \$ (141,390)**

Request Total **298,565**  
 Total Available \$ 400,000

**FY2019 Remaining \$ 101,435**

Request Total **279,708**  
 Total Available \$ 400,000

**FY2020 Remaining \$ 120,292**

Total Requested FY18-20 1,119,663  
 Total Available FY18-20 \$1,200,000  
 Remaining \$80,337

## 2011-2015 Top 100 List of High Crash Risk Intersections by Safety Score (MAG Region)

Rank	Agency(ies)	Location	Crashes	CF Score	CS Score	CT Score	Final Score
1	Phoenix	INDIAN SCHOOL RD & 59TH AVE	186	0.68	1.00	0.73	0.85
2	Phoenix/Glendale*	GLENDALE AVE & 43RD AVE	158	0.58	0.96	0.59	0.77
3	Phoenix	THOMAS RD & 75TH AVE	171	0.62	0.65	0.78	0.68
4	Phoenix	THOMAS RD & 43RD AVE	201	0.73	0.47	0.88	0.64
5	Phoenix	THOMAS RD & CENTRAL AVE	74	0.27	0.76	0.68	0.62
6	Avondale/Goodyear*	MCDOWELL RD & DYSART RD	198	0.72	0.54	0.61	0.60
7	Glendale	OLIVE AVE & 59TH AVE	241	0.88	0.26	1.00	0.60
8	Glendale	NORTHERN AVE & 59TH AVE	197	0.72	0.43	0.81	0.60
9	Phoenix	INDIAN SCHOOL RD & 67TH AVE	221	0.81	0.30	0.91	0.58
10	Phoenix	CAMELBACK RD & 27TH AVE	180	0.66	0.45	0.74	0.57
11	Phoenix	INDIAN SCHOOL RD & 51ST AVE	179	0.65	0.43	0.76	0.57
12	Phoenix	BASELINE RD & 24TH ST	186	0.68	0.40	0.73	0.55
13	Peoria/Glendale*	BELL RD & 83RD AVE	246	0.90	0.32	0.63	0.55
14	Glendale/Phoenix*	BETHANY HOME RD & 43RD AVE	154	0.56	0.43	0.69	0.53
15	Phoenix	MCDOWELL RD & 44TH ST	169	0.62	0.36	0.76	0.53
16	Tempe	BASELINE RD & I 010	275	1.00	0.17	0.75	0.52
17	Phoenix	THUNDERBIRD RD & I 017	195	0.71	0.39	0.61	0.52
18	Phoenix	THOMAS RD & 59TH AVE	180	0.66	0.39	0.65	0.52
19	Mesa	SOUTHERN AVE & DOBSON RD	205	0.75	0.28	0.74	0.51
20	Tempe	UNIVERSITY DR & RURAL RD	232	0.85	0.17	0.86	0.51
21	Phoenix/Glendale*	PEORIA AVE & 43RD AVE	175	0.64	0.39	0.62	0.51
22	Phoenix	THOMAS RD & 32ND ST	161	0.59	0.38	0.67	0.51
23	Phoenix	NORTHERN AVE & 7TH ST	119	0.43	0.57	0.44	0.51
24	Phoenix	BELL RD & 19TH AVE	156	0.57	0.37	0.71	0.50
25	Phoenix	CAMELBACK RD & 35TH AVE	168	0.61	0.37	0.65	0.50
26	Phoenix	INDIAN SCHOOL RD & 19TH AVE	142	0.52	0.40	0.67	0.50
27	Phoenix	MCDOWELL RD & 67TH AVE	214	0.78	0.21	0.79	0.49
28	Phoenix	GLENDALE AVE & 35TH AVE	134	0.49	0.37	0.74	0.49
29	Tempe/Phoenix*	SOUTHERN AVE & 48TH ST	115	0.42	0.56	0.41	0.49
30	Phoenix	BELL RD & 35TH AVE	133	0.49	0.42	0.62	0.49
31	Phoenix/Tempe*	BASELINE RD & 48TH ST	163	0.59	0.38	0.59	0.49
32	Phoenix	MCDOWELL RD & 35TH AVE	120	0.44	0.52	0.45	0.48
33	Gilbert	VAL VISTA DR & ELLIOT RD	119	0.43	0.54	0.42	0.48
34	Phoenix	INDIAN SCHOOL RD & 16TH ST	140	0.51	0.36	0.67	0.48
35	Phoenix	INDIAN SCHOOL RD & 27TH AVE	144	0.53	0.39	0.59	0.47
36	Phoenix	NORTHERN AVE & 35TH AVE	147	0.54	0.38	0.59	0.47
37	Phoenix	THOMAS RD & 67TH AVE	182	0.66	0.21	0.77	0.47
38	Phoenix	INDIAN SCHOOL RD & 7TH ST	159	0.58	0.33	0.61	0.46
39	Glendale	NORTHERN AVE & 51ST AVE	203	0.74	0.21	0.68	0.46
40	Glendale	GLENDALE AVE & 67TH AVE	144	0.53	0.21	0.88	0.46
41	Phoenix	BELL RD & 43RD AVE	89	0.32	0.55	0.41	0.46
42	Tempe	SOUTHERN AVE & RURAL RD	186	0.68	0.23	0.68	0.46
43	Phoenix/Glendale*	BELL RD & 51ST AVE	125	0.46	0.43	0.50	0.45
44	Phoenix	MCDOWELL RD & 32ND ST	154	0.56	0.23	0.76	0.44
45	Phoenix	NORTHERN AVE & 43RD AVE	120	0.44	0.40	0.54	0.44
46	Phoenix	UNION HILLS DR & 19TH AVE	127	0.46	0.36	0.58	0.44
47	Glendale	PEORIA AVE & 51ST AVE	143	0.52	0.36	0.53	0.44
48	Phoenix	MCDOWELL RD & 43RD AVE	171	0.62	0.15	0.85	0.44
49	Phoenix	UNION HILLS DR & CAVE CREEK RD	116	0.42	0.44	0.46	0.44
50	Avondale/Goodyear*	VAN BUREN ST & DYSART RD	157	0.57	0.36	0.46	0.44
51	Phoenix	PEORIA AVE & I 017	158	0.58	0.31	0.56	0.44
52	Mesa	STAPLEY DR & SOUTHERN AVE	186	0.68	0.19	0.67	0.43
53	Phoenix	BUCKEYE RD & 35TH AVE	110	0.40	0.44	0.44	0.43
54	Phoenix	THOMAS RD & 16TH ST	159	0.58	0.23	0.68	0.43
55	Glendale	BELL RD & 59TH AVE	181	0.66	0.17	0.72	0.43

## 2011-2015 Top 100 List of High Crash Risk Intersections by Safety Score (MAG Region)

Rank	Agency(ies)	Location	Crashes	CF Score	CS Score	CT Score	Final Score
56	Gilbert/Maricopa County*	HIGLEY RD & BASELINE RD	145	0.53	0.34	0.51	0.43
57	Phoenix	DUNLAP AVE & 35TH AVE	171	0.62	0.21	0.67	0.43
58	Tempe	RURAL RD & BROADWAY RD	158	0.58	0.32	0.49	0.43
59	Glendale	THUNDERBIRD RD & 59TH AVE	195	0.71	0.18	0.64	0.43
60	Phoenix	THOMAS RD & 35TH AVE	131	0.48	0.33	0.56	0.43
61	Phoenix	HAPPY VALLEY RD & 67TH AVE	86	0.31	0.52	0.35	0.42
62	Phoenix	CAMELBACK RD & 16TH ST	137	0.50	0.30	0.57	0.42
63	Tempe	HARDY DR & BASELINE RD	111	0.41	0.34	0.56	0.41
64	Mesa	ELLSWORTH RD & BASELINE RD	79	0.29	0.51	0.35	0.41
65	Avondale	DYSART RD & I 010	182	0.66	0.24	0.51	0.41
66	Phoenix	THOMAS RD & 44TH ST	160	0.58	0.20	0.67	0.41
67	Phoenix	INDIAN SCHOOL RD & 75TH AVE	147	0.54	0.23	0.64	0.41
68	Phoenix	PARADISE VILLAGE PKWY & CACTUS R	74	0.27	0.46	0.44	0.41
69	Phoenix	HIGHLAND AVE & 16TH ST	79	0.29	0.50	0.34	0.41
70	Phoenix	GREENWAY RD & 35TH AVE	116	0.42	0.35	0.50	0.40
71	Peoria	THUNDERBIRD RD & 75TH AVE	114	0.42	0.41	0.37	0.40
72	Phoenix	INDIAN SCHOOL RD & 43RD AVE	138	0.50	0.31	0.46	0.40
73	Phoenix	CACTUS RD & 35TH AVE	105	0.38	0.38	0.46	0.40
74	Mesa/Gilbert	VAL VISTA DR & BASELINE RD	185	0.68	0.18	0.56	0.40
75	Phoenix	BETHANY HOME RD & 15TH AVE	76	0.28	0.50	0.29	0.39
76	Phoenix	MCDOWELL RD & 51ST AVE	152	0.55	0.15	0.71	0.39
77	Surprise/ Maricopa County*	EL MIRAGE RD & BELL RD	92	0.34	0.46	0.30	0.39
78	Scottsdale	THOMAS RD & HAYDEN RD	170	0.62	0.22	0.49	0.39
79	Phoenix	GREENWAY RD & 40TH ST	68	0.25	0.49	0.33	0.39
80	Phoenix	THOMAS RD & 51ST AVE	163	0.59	0.14	0.68	0.39
81	Peoria/Glendale*	UNION HILLS DR & 83RD AVE	133	0.49	0.33	0.40	0.39
82	Glendale/Peoria*	PEORIA AVE & 67TH AVE	124	0.45	0.29	0.52	0.39
83	Phoenix	CACTUS RD & 43RD AVE	118	0.43	0.34	0.43	0.39
84	Tempe	MCCLINTOCK DR & APACHE BLVD	128	0.47	0.31	0.45	0.39
85	Phoenix	UNION HILLS DR & 7TH ST	128	0.47	0.24	0.60	0.38
86	Phoenix	INDIAN SCHOOL RD & CENTRAL AVE	126	0.46	0.34	0.39	0.38
87	Phoenix	THOMAS RD & 36TH ST	111	0.41	0.32	0.48	0.38
88	Mesa/Maricopa County*	SOUTHERN AVE & POWER RD	91	0.33	0.47	0.26	0.38
89	Phoenix	BETHANY HOME RD & 35TH AVE	145	0.53	0.15	0.69	0.38
90	Mesa	BROADWAY RD & ALMA SCHOOL RD	61	0.22	0.50	0.28	0.38
91	Phoenix	INDIAN SCHOOL RD & S 1010	107	0.39	0.35	0.40	0.37
92	Phoenix	NORTHERN AVE & I 017	114	0.42	0.32	0.44	0.37
93	Chandler	RAY RD & MCCLINTOCK DR	117	0.43	0.34	0.39	0.37
94	Chandler	WARNER RD & ALMA SCHOOL RD	122	0.45	0.33	0.37	0.37
95	Phoenix	51ST AVE & I 101	179	0.65	0.16	0.50	0.37
96	Chandler	WARNER RD & ARIZONA AVE	148	0.54	0.19	0.55	0.37
97	Glendale/Phoenix*	THUNDERBIRD RD & 51ST AVE	142	0.52	0.17	0.61	0.37
98	Glendale	BETHANY HOME RD & 59TH AVE	154	0.56	0.12	0.67	0.37
99	Chandler	RAY RD & DOBSON RD	153	0.56	0.20	0.52	0.37
100	Phoenix	GREENWAY RD & 32ND ST	130	0.47	0.20	0.60	0.37

\*

to accurately identify intersection crashes, thereby consolidating crash numbers at some locations that may have been previously reported as separate intersections in different jurisdictions. This eliminates an inherent error created in the ALISS database at intersections with shared ownership/jurisdiction or crashes at one intersection being reported under two jurisdictions by the reporting officers. Intersections listed with two agency names represent those agencies that have maintenance responsibility, based on information available to MAG at the time the analysis was performed.

**Definitions:**

Rank - Numerical representation of the locations place sorted highest to lowest of all locations Final Score.

Crashes - Total number of crashes at the location.

CF Score - Crash Frequency Score: the ratio of the crash frequency at the intersection to the highest intersection crash frequency for the region.

CS Score - Crash Severity Score: the ratio of the crash severity value for the intersection to the maximum crash severity value for the region.

CT Score - Crash Type Score: the ratio between CT Cost at a particular intersection to maximum of CT Cost at all intersections in the region.

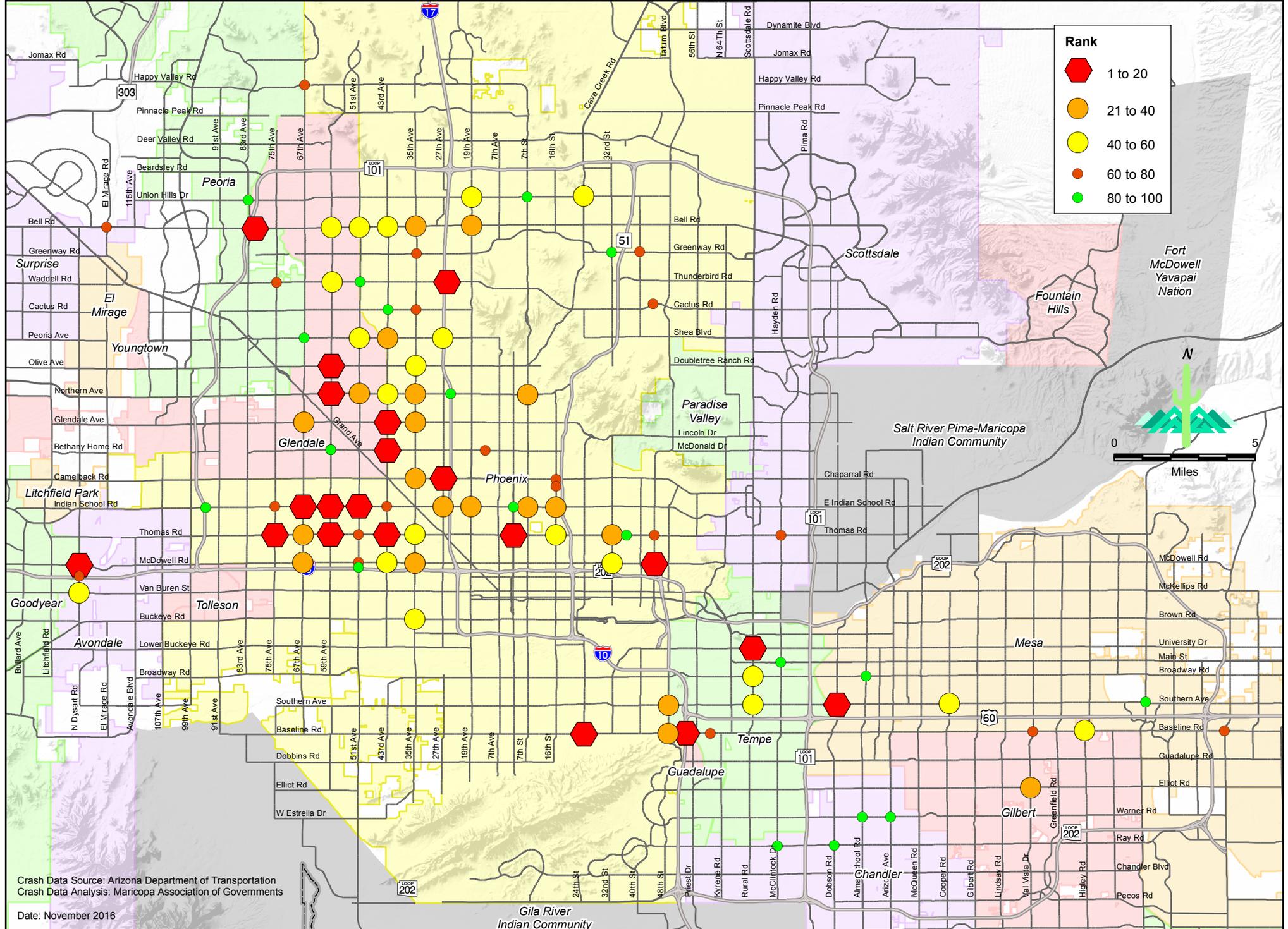
Final Score - Intersection Safety Score based on the sum  $0.25 \times \text{Crash Frequency Score} + 0.5 \times \text{Crash Severity Score} + 0.25 \times \text{Crash Type Score}$ .

More information on the MAG Intersection Safety Score is available in the MAG Network Screening

Methodology for Intersections document available at the following link:

<http://www.azmag.gov/addons/MAG/download.asp?ID=8448>

# Top 100 Intersections Ranked by Crash Risk – Using 2011-2015 Crash Data



Crash Data Source: Arizona Department of Transportation  
 Crash Data Analysis: Maricopa Association of Governments

Date: November 2016