City of Peoria

DEVELOPMENT AND ENGINEERING

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May 13, 2015

Ms. Mona Aglan-Swick, P.E.
Arizona Department of Transportation
Transportation Systems Management & Operations, Traffic Safety Section
1615 W. Jackson Street, MD 065R
Phoenix, AZ 85007-3217

RE: Highway Safety Improvement Program (HSIP) Project Determination and Application

Agency:	City of Peoria
Project Name:	107th Avenue and Rose Garden Lane Intersection Safety Improvement
Project Location:	Intersection of 107th Avenue and Rose Garden Lane in Peoria, Arizona.

Dear Ms. Aglan-Swick:

The City of Peoria is submitting here within a project application for Highway Safety Improvement Program (HSIP) funding. This Road Safety Improvement project was identified through the local network crash data screening process and meets all requirements of Title 23. The proposed request is for the installation of a traffic signal at the intersection of 107th Avenue and Rose Garden Lane and does not include any non-infrastructure funding request. The intent of installing a traffic signal is to reduce angle and left-turn crashes and mitigate a sight distance issue. An engineering consultant will be hired to provide design services, and a contractor will be hired for construction. There will be ground-disturbing activities with the installation of the traffic signal.

Fourteen angle and left-turn crashes, susceptible to correction by a traffic signal, were reported at the un-signalized intersection of 107th Avenue and Rose Garden Lane during a five-year period, from 2014 to 2018. Of these crashes, there was one fatality and two serious injuries. With a Crash Reduction Factor (CRF) of 67% obtained from the ADOT 4/5 Star list, the City could see a five-year reduction of nine crashes including one fatal and one serious injury crash.

City of Peoria has determined that, in accordance with 23 USC 148(a)(4))(A), this project is consistent with the Maricopa Association of Governments (MAG) 2015 Strategic Transportation Safety Plan and the State's 2014 SHSP. It supports ADOT's SHSP emphasis area of 'Roadway Infrastructure and Operations' and MAG's emphasis area of 'Eliminate Death and Serious Injury Related to Intersections. The B/C Ratio is 14.5 (Element 44 in Application, Tab 2).

The City of Peoria has estimated the total project cost of this project to be $632,467. Of that amount requested $632,467 is HSIP eligible, with $0 being non-HSIP eligible. No other funds will be necessary. In accordance with Title 23, the Federal share for safety improvement items are eligible to be funded at 100% or 94.3%. This request is for 100% federal funding. Federal share per 23 U.S.C. 120(c) as described in Code of Federal Register 23 CFR Part 924. Therefore, the City of Peoria proposes a 0%

match in the amount of $0. The 100% Cost Estimate, Tab 5 summarizes the anticipated cost estimate projected for this project.

City of Peoria is aware that, if funded, additional HSIP funds above the attached estimated cost are not available to pay for excess costs and that other funds whether STP, local or other will have to provided or secured by City of Peoria to cover the additional costs, or the project will have to be withdrawn and resubmitted in the next call-for-projects.

City of Peoria agrees to conduct and provide to ADOT TSS on a yearly basis a written before-and-after study utilizing the same crash data included in the countermeasure influence area in order to determine the effectiveness of the countermeasure on fatal and serious injury crashes.

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City of Peoria further understands that Federal funds can only be used once to install or upgrade either a spot or systemic countermeasure and that once installed, the City of Peoria will maintain the countermeasure at or above the standard to which it was installed.

If you have any questions, please contact me at 623-773-7994, or via email at Steve.McKenzie@Peoriaaz.gov

Sincerely,

Steve McKenzie
ITS Engineer

Attachments:

1) Application (excel format) including Cost Estimate, B/C Ratio and Crash Data
2) Project Vicinity Map
3) Project Limits Map
4) 107th Avenue and Rose Garden Lane Traffic Signal Warrant Analysis
5) City of Peoria 2018 Crash Reports (not available in ADOT database)

Agency:	City of Peoria	**Title of Project:**	107th Avenue and Rose Garden Lane Intersection Safety Improvement
County:	Maricopa	**COG/MPO:**	MAG
District:	Central	**Date:**	5/1/2019
Contact:		**Phone:**	**E-Mail:**
Steve McKenzie		623-773-7994	Steve.McKenzie@peoriaaz.gov
Type of Safety Improvement:		**Spot:** ☑ YES ☐ NO	**Systemic:** ☐ YES ☑ NO
Mark all that apply to your project:		☑ Design ☑ Construction ☐ Procurement ☐ Non-Infrastructure	
Anticipated Total Cost Estimate:			**$632,467.50**
Anticipated dollar amount of HSIP Funding:			**$632,467.50**
Anticipated Dollar amount of Local Match (5.7%) (5.66%):			**$0.00**
Anticipated Dollar amount of Other:			**$0.00**
Funding Source:	☑ 100% HSIP ☐ 94.3% HSIP ☐ 94.34% HSIP		**Cost Estimate Tab:** 5. 100% Contract Install
Administration of Project:		**Agency:** ☐ YES ☑ NO	**ADOT:** ☑ YES ☐ NO
Name and Title of COG/MPO Representative:			Margaret Herrera, PE, Transportation Safety Program Manager

Basic Project Information

Anticipated Design Year (Construction year cannot be the same):		☑ FY23
If additional ROW is needed, what FY is purchase anticipated?:		☑ FY23 ☑ FY24
Anticipated Construction Year:		☑ FY24
1.	**Have lower cost countermeasures been considered or implemented?**	☑ YES ☐ NO
1a.	**If "Yes", describe:** **If "No", explain why not:**	In March 2018, STOP AHEAD (symbol) advance warning signs and RIGHT LANE MUST TURN RIGHT signs were installed on both Rose Garden Lane intersection approaches in the eastbound and westbound directions. In addition, new pavement markings were installed to designate dedicated right-turn lanes on each Rose Garden Lane approach. In December 2018, STOP AHEAD pavement markings were installed at the STOP AHEAD warning signs on each Rose Garden Lane approach along with three STOP pavement markings in advance of the STOP bars.
2.	**Which 23 USC 148 highway safety improvement project category does this project come under?**	
2a.	12. Installation of traffic contol or other warning device	
3.	**Describe your safety improvement project in detail: (50 words or less)**	

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3a.	Countermeasure ID 320, Install a Traffic Signal, is the reason for the HSIP fund request. Warrant 7, Crash Experience is satisfied for the installation of a traffic signal at the intersection of 107th Avenue and Rose Garden Lane per the 2009 edition of the Manual on Uniform Traffic Control Devices (MUTCD). The intersection is currently controlled by a two-way stop, and the safety improvement project will install a traffic signal and upgrade the curb ramps to meet ADA standards.
4.	**Describe the location of this safety project:**
4a.	The safety improvement project is at the intersection of 107th Avenue and Rose Garden Lane in Peoria, Arizona. The limits of the project is the intersection extending 1,000 feet along each intersection approach. An aerial exhibit with limits & dimensions is shown attached.
5.	**What crash data screening method was used to identify this project?**
5a.	The *2018 City of Peoria State of Road Safety* report provides a citywide five-year crash analysis and identifies priority locations for the investigation and development of safety countermeasures. As part of the citywide crash analysis, fatal (K) and serious injury (A) crashes were identified at the intersection of 107th Avenue and Rose Garden Lane.
6.	**What is the safety justification for the proposed project?**
6a.	The intent of installing a traffic signal at the intersection is to mitigate a sight distance issue and reduce serious injury and death from angle and left-turn crashes. Fourteen angle and left-turn crashes, susceptible to correction by a traffic signal, were reported at the unsignalized intersection of 107th Avenue and Rose Garden Lane during a five-year period from 2014 to 2018. Of these crashes, there was one fatality and two serious injuries. A contributing factor is sight distance limited by a retaining wall and vertical curvature in the roadway. Traffic at the intersection is expected to increase in the future due to new nearby roadway connections being constructed.
7.	**Will there be ground disturbing activities?** ☑ YES ☐ NO
8.	**Is project within applicants permanent ROW?** ☐ YES ☑ NO
8a.	**If NO please explain:** Additional land at the NEC of 107th & Rose Garden is owned by El Paso Gas and may be needed for the project. If so, it will be acquired following the established procedures at the time of acquisition.
9.	**Will any temporaty right-of-way acquisitions be required?** ☑ YES ☐ NO
10.	**Will there be any utility relocation needed?** ☐ YES ☑ NO
10a.	**If YES please explain:**

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11.	**Does Section 4(f) apply to any portion of this project?**	☐ YES ☑ NO
11a.	**If YES please explain:**	
12.	**Are there any other issues that may impact or delay development or construction of this project?**	☐ YES ☑ NO
12a.	**If YES please explain:**	
13.	**Is this project in compliance with revised ADA Standards?**	☑ YES ☐ NO
13a.	**If NO please explain:**	
14.	**Does the project support Arizona's Strategic Highway Safety Plan?**	☑ YES ☐ NO
15.	**Are there any Studies, RSA's or Other evaluations that support this project?**	☑ YES ☐ NO
16.	**If the project is a traffic control device requiring a warrant, is a copy attached?**	☑ YES ☐ NO
17.	**HSIP Roadway Functional Classification:**	Urban Principal Arterial - Other
18.	**For projects on State System:**	**BMP:** N/A **EMP:** N/A
19.	**Average Daily Traffic Volume and Year Collected:**	Major Approaching: 8,384 VPD Minor Approaching: 1,598 VPD Year: 2018
20.	**What is the source of ADT?:**	24 HR Turning Movement Counts collected in Nov 2018 for Signal Warrant Analysis
21.	**What is the posted speed limit?**	40
22.	**Detailed engineer's cost estimate attached:**	☑ YES ☐ NO

"Systemic" Safety Project

23.	**Completed B/C Ratio Tabulation Sheet Attached (Required):**	☐ YES ☐ NO
24.	**Most current 5 Years Crash Data from ADOT ALISS database sorted by year & severity (required):**	
25.	**What are the inclusive dates of the crash data?**	

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26.	**Have all crashes that will not be influenced by this countermeasure been deleted from the crash list? (pedestrian, pedalcycle, etc. as applicable)**	
27.	**If purchasing equipment or materials, who will install?**	☐ Town/City ☐ County ☐ Tribe ☐ Contractor
28.	**Does the project require proprietary Items (23CFR 635.411)?:**	☐ Yes ☐ No
29.	**Is a list of locations for systemic projects provided on the attached form?**	☐ Yes ☐ No
30.	**How are (will) the proposed locations be prioritized for replacement? (explain below)**	
30a.		
31.	**Are the supporting structures in good condition, meet local standards and have an anticipated service life longer than the countermeasure being installed?**	☐ Yes ☐ No

"Spot" Improvement Projects Only

32.	**Completed B/C Ratio Tabulation Sheet Attached (required):**	☑ YES ☐ NO
33.	**Is the most current 5 Years Crash Data from ADOT ALISS database sorted by year & severity attached and in correct format? (required):**	☑ YES ☐ NO
34.	**What are the inclusive dates of the crash data?**	2014-2018
35.	**Have all crashes that will not be influenced by this countermeasure been deleted from the crash list? (pedestrian, pedalcycle etc. as applicable)**	Yes
36.	**Have any infrastructure changes occurred within the work limits of this project during the years the crash data covers?**	☑ YES ☐ NO
37.	**If YES please explain:**	In March 2018, STOP AHEAD (symbol) advance warning signs and RIGHT LANE MUST TURN RIGHT signs were installed on both Rose Garden Lane intersection approaches in the eastbound and westbound directions. In addition, new pavement markings were installed to designate dedicated right-turn lanes on each Rose Garden Lane approach. In December 2018, STOP AHEAD pavement markings were installed at the STOP AHEAD warning signs on each Rose Garden Lane approach along with three STOP pavement markings in advance of the STOP bars. An angle crash involving a serious injury was reported in April 2018 after the March 2018 improvements, and a recent angle crash involving a minor injury was reported in February 2019.

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38.	**Project vicinity map is provided:**	☑ YES ☐ NO
39.	**Project work limits map is provided:**	☑ YES ☐ NO

SHSP - All Projects

40.	**Which SHSP Emphasis Area (EA) does this project support?:**	Roadway_Infrastructure_and_Operations	
40a.	**Which EA Strategy does it support?:**	(Intersections) Reduce frequency and severity of intersection crashes through traffic-control and operational improvements.	
40b.	**Does this project support a second SHSP EA? If so, which EA.:**		
40c.	**Which EA Strategy supports the second EA?**		
40d.	**Does this project support a third SHSP EA? If so, which EA.:**		
40e.	**Which EA Strategy supports the third EA?**		
41.	**Does this project support one of the nine FHWA proven countermeasures?:**	☐ YES ☑ NO	
41a.	**If so, which countermeasure?:**		
42.	**Does this project support one of the three Arizona Focus Areas?:**	☑ YES ☐ NO	
42a.	**If so, which focus area?:**	Intersection	
43.	**Which HSIP Improvement Category does this project support?:**	Intersection_Traffic _Control	
43a.	**Which HSIP Improvement Sub-Category does this project support?:**	Intersection traffic control - other	
44.	**Does your COG/MPO have a Strategic Transportation Safety Plan (STSP)?:**	☑ YES ☐ NO	
44a.	**If "YES", does this project support an Emphasis Area in the COG/MPO STSP?:**	YES	
44b.	**List the EA:**	Eliminate Death and Serious Injury Related to Intersections	
44c.	**If your COG/MPO has a STSP and it was Federally Funded and you answered NO in 41a, explain why this project is being submitted over a STSP identified project. (For Local Agencies Only)**		

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44d.	**Rational:**	
45.	**Are any temporary safety countermeasures needed prior to this permanent solution being installed?**	No
45a.	**If yes, please explain:**	
46.	**For State Agencies, has the Regional Traffic Engineer been made aware of this potential project and does he/she concur with it?**	☐ YES ☐ NO

Strategic Transportation Safety Plans Funds (COG/MPO)

47.	**What is the date of your last STSP or update completed?**	
48.	**How many projects that were identified In your last STSP or update were submitted for HSIP funding?**	
49.	**What was the total dollar amount of the projects in question 45?**	
50.	**How many projects that were submitted for HSIP funding were eligible and funded by ADOT?**	
51.	**What was the total dollar amount of the projects in question 47?**	

B/C Ratio

52.	**The calculated B/C Ratio is:**	**14.50**	**CMF ID Number:**	320
			2nd CMF ID No.:	
			3rd CMF ID NO.:	

HIGHWAY SAFETY IMPROVEMENT PROGRAM
APPLICATION - COST ESTIMATE

Agency:	City of Peoria	Name of Project:		107th Avenue and Rose Garden Lane Intersection Safety Improvement		Non-State Agency Cost Estimate - Countermeasure 100% HSIP Eligible				
HSIP Project Cost Estimate Worksheet										
Project Cost Estimate:	**Description:**	**Quantity:**	**Unit:**	**Unit Cost:**	**Total Cost**	**HSIP Eligible:**	**HSIP:**	**State Match:**	**Other Amt:**	**TOTAL COST**
							100.00%	**0.00%**	**0.00%**	
Preliminary Engineering:	Engineering Design	1	LS	$ 100,000.00	$ 100,000.00	$ 100,000.00	$ 100,000.00	$ -	$ -	$ 100,000.00
ROW Acquisition:		809	SF	$ 25.00	$ 20,225.00	$ 20,225.00	$ 20,225.00	$ -	$ -	$ 20,225.00
ADOT Admin Costs:		1	LS	$ 30,000.00	$ 30,000.00	$ 30,000.00	$ 30,000.00	$ -	$ -	$ 30,000.00
Design Sub-Total					$ 150,225.00	$ 150,225.00	$ 150,225.00	$ -	$ -	$ 150,225.00
Inflation Factor		**5.00%**			$ 7,511.25	$ 7,511.25	$ 7,511.25	$ -	$ -	$ 7,511.25
Total Design Cost					**$ 157,736.25**	**$ 157,736.25**	**$ 157,736.25**	**$ -**	**$ -**	**$ 157,736.25**
Construction:	Signage and Striping	1	LS	$ 35,000.00	$ 35,000.00	$ 35,000.00	$ 35,000.00	$ -	$ -	$ 35,000.00
Construction:	Traffic Control (10%)	1	LS	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ -	$ -	$ 5,000.00
Construction:	Signal Cabinet and Controller, UPS, Switch, and Power Meter	1	LS	$ 75,000.00	$ 75,000.00	$ 75,000.00	$ 75,000.00	$ -	$ -	$ 75,000.00
Construction:	Poles, Mast Arms, Signal Faces, and Lumininaires	1	LS	$ 95,000.00	$ 95,000.00	$ 95,000.00	$ 95,000.00	$ -	$ -	$ 95,000.00
Construction:	Video Detection, Premption, and CCTV	1	LS	$ 55,000.00	$ 55,000.00	$ 55,000.00	$ 55,000.00	$ -	$ -	$ 55,000.00
Construction:	Concrete Vertical Curb & Gutter (MAG Std Dtl 220-1, Type A)	110	LF	$ 30.00	$ 3,300.00	$ 3,300.00	$ 3,300.00	$ -	$ -	$ 3,300.00
Construction:	Concrete Curb Ramp	4	EA	$ 9,000.00	$ 36,000.00	$ 36,000.00	$ 36,000.00	$ -	$ -	$ 36,000.00
Construction:	Asphaltic Concrete & Aggregate Base Course	20	SY	$ 60.00	$ 1,200.00	$ 1,200.00	$ 1,200.00	$ -	$ -	$ 1,200.00
Construction:	Remove Concrete Curb & Gutter	110	LF	$ 5.00	$ 550.00	$ 550.00	$ 550.00	$ -	$ -	$ 550.00
Construction:	Remove Concrete Sidewalk, Valley Gutters, Ramps & Slabs	1900	SF	$ 3.50	$ 6,650.00	$ 6,650.00	$ 6,650.00	$ -	$ -	$ 6,650.00
Construction:	Relocate Catch Basin (Removal & New Catch Basin & Storm Drain	2	EA	$ 8,000.00	$ 16,000.00	$ 16,000.00	$ 16,000.00	$ -	$ -	$ 16,000.00
Mobilization		1	LS	$ 33,000.00	$ 33,000.00	$ 33,000.00	$ 33,000.00	$ -	$ -	$ 33,000.00
Sub-Total					$ 361,700.00	$ 361,700.00	$ 361,700.00	$ -	$ -	$ 361,700.00
Construction Admin :		**14.00%**			$ 50,638.00	$ 50,638.00	$ 50,638.00	$ -	$ -	$ 50,638.00

HIGHWAY SAFETY IMPROVEMENT PROGRAM
APPLICATION - COST ESTIMATE

Contingencies :		**5.00%**			$ 18,085.00	$ 18,085.00	$ 18,085.00	$ -	$ -	$ 18,085.00
Post Design:		**1.00%**			$ 3,617.00	$ 3,617.00	$ 3,617.00	$ -	$ -	$ 3,617.00
Communications:		**5.00%**			$ 18,085.00	$ 18,085.00	$ 18,085.00	$ -	$ -	$ 18,085.00
Post Sub-Total					$ 90,425.00	$ 90,425.00	$ 90,425.00	$ -	$ -	$ 90,425.00
Construction Sub-Total					$ 452,125.00	$ 452,125.00	$ 452,125.00	$ -	$ -	$ 452,125.00
Inflation Factor		**5.00%**			$ 22,606.25	$ 22,606.25	$ 22,606.25	$ -	$ -	$ 22,606.25
Construction Total					**$ 474,731.25**	**$ 474,731.25**	**$ 474,731.25**	**$ -**	**$ -**	**$ 474,731.25**
TOTAL REQUEST					**$ 632,467.50**	**$ 632,467.50**	**$ 632,467.50**	**$ -**	**$ -**	**$ 632,467.50**

Comments:

Required for all HSIP Applications

Agency:	City of Peoria	Title of Project:	107th Avenue and Rose Garden Lane Intersection Safety

Benefit / Cost Ratio Tabulation

Annual Benefit Tabulation

Severity	Annual Average	Estimated **CRF*** Reduction	Total Reduction	Unit Cost	Annual Benefit
Fatal	**0.20**	**67%**	0.13	$9,515,371	$1,275,060
Incapacitating Injury	**0.40**	**67%**	0.27	$550,499	$147,534
				Total Annual Benefits	$1,422,593

Costs

Total Project Cost	$632,468
Project Life (years)	10
Interest Rate (%)	8%
Capital Recovery Factor	0.1490
Annual Construction Cost	$94,256
Annual Maintenance Cost	$3,500.00
Total Annual Costs	$97,756

Benefit / Cost

Annual Benefit	Annual cost	Benefit / Cost Ratio
$1,422,593	$97,756	14.5

***REQUIRED: Use 4 and 5 star CMFs from ADOT Lists Only at Tabs 11 - 12 preferred. The CMF's CRF is used in the above calculation**

Id	Date	Date	Time	Onroad	CrossingFeature	Offset	InjurySeverity	FirstHarmful	CollisionManner Desc
3197580	2/12/2017	2/12/2017 14:08	14:08	ROSE GARDEN LN	107TH AVE	0	FATAL	MOTOR_VEHICLE_IN_TRANSPORT	ANGLE
2018 Peoria Police Report	1/25/2018	1/25/2018 08:10	08:10	ROSE GARDEN LN	107TH AVE	0	SUSPECTED_SERIOUS_INJURY	MOTOR_VEHICLE_IN_TRANSPORT	ANGLE
2018 Peoria Police Report	4/14/2018	04/14/2018 10:49	10:49	ROSE GARDEN LN	107TH AVE	0	SUSPECTED_SERIOUS_INJURY	MOTOR_VEHICLE_IN_TRANSPORT	ANGLE

a. Most recent 5 years of data from the ADOT crash database.
b. Only crashes that the proposed countermeasure will correct
c. Only crashes in the countermeasure's influence area
d. Severity of each crash, Fatal and Serious Injury only
e. Manner of collision
f. Driver behavior of U1. (Alcohol related or other driver behavior influenced crashes can be included in infrastructure countermeasure calculations).
g. Other relevant attributes
h. Do not include crashes unreported by law enforcement unless supporting documentation, i.e. crash reports, is provided and attested to.

LightCondition	Weather	IntersectionTypeDesc	JunctionRelationDesc	TrafficWayType	UnitTravelDirectionDesc
DAYLIGHT	CLOUDY	FOUR-WAY INTERSECTION	INTERSECTION_NON_INTERCHANGE	TWO_WAY_NOT_DIVIDED_WITH_CONTINUOUS_LEFT_TURN_LANE	4-WEST 1-NORTH
DAYLIGHT	CLEAR	FOUR-WAY INTERSECTION	INTERSECTION_NON_INTERCHANGE	TWO-WAY, DIVIDED, UNPROTECTED (PAINTED>4 FEET) MEDIAN	3-EAST 1-NORTH
DAYLIGHT	CLEAR	FOUR-WAY INTERSECTION	INTERSECTION_NON_INTERCHANGE	TWO-WAY, NOT DIVIDED (no median present)	3-EAST 1-NORTH

UnitActionDesc	UnitRoadConditionDesc1	SurfaceCondition	EnvCondition	UnitDefect	UnitNumber
UNKNOWN	NO_CONTRIBUTING_CIRCUMSTANCES	DRY	NO_CONTRIBUTING_CIRCUMSTANCES	NO_CONTRIBUTING_CIRCUMSTANCES	1
GOING_STRAIGHT_AHEAD	NO_CONTRIBUTING_CIRCUMSTANCES	DRY	NO_CONTRIBUTING_CIRCUMSTANCES	NO_CONTRIBUTING_CIRCUMSTANCES	2
GOING_STRAIGHT_AHEAD	NO_CONTRIBUTING_CIRCUMSTANCES	DRY	NO_CONTRIBUTING_CIRCUMSTANCES	NO_CONTRIBUTING_CIRCUMSTANCES	1
GOING_STRAIGHT_AHEAD	NO_CONTRIBUTING_CIRCUMSTANCES	DRY	NO_CONTRIBUTING_CIRCUMSTANCES	NO_CONTRIBUTING_CIRCUMSTANCES	2
GOING_STRAIGHT_AHEAD	NO_CONTRIBUTING_CIRCUMSTANCES	DRY	NO_CONTRIBUTING_CIRCUMSTANCES	UNKNOWN	1
GOING_STRAIGHT_AHEAD	NO_CONTRIBUTING_CIRCUMSTANCES	DRY	NO_CONTRIBUTING_CIRCUMSTANCES	NO_CONTRIBUTING_CIRCUMSTANCES	2

UnitEvent Sequence	UnitEvent Sequence	UnitEvent Sequence	UnitEvent Sequence	PersonID	PersonType	UnitNumber	InjuryStatus
MOTOR_VEHICLE_IN_TRANSPORT	0	0	0	25905679	DRIVER	1	FATAL
MOTOR_VEHICLE_IN_TRANSPORT	0	0	0	25970133	DRIVER	2	NO_INJURY
				25841133	PASSENGER	2	NO_INJURY
MOTOR_VEHICLE_IN_TRANSPORT	Not Reported	Not Reported	Not Reported		DRIVER	1	SUSPECTED_MINOR_INJURY
MOTOR_VEHICLE_IN_TRANSPORT	Not Reported	Not Reported	Not Reported		DRIVER	2	SUSPECTED_SERIOUS_INJURY
MOTOR_VEHICLE_IN_TRANSPORT	CURB	OTHER_FIXED_OBJECT	OTHER_FIXED_OBJECT		DRIVER	1	SUSPECTED_SERIOUS_INJURY
MOTOR_VEHICLE_IN_TRANSPORT	Not Reported	Not Reported	Not Reported		DRIVER	2	SUSPECTED_MINOR_INJURY

PersonSafety Device	PersonViolation	PersonPhysical	PersonPhysical
SHOULDER AND LAP BELT	FAILED_TO_YIELD_RIGHT_OF_WAY	NO_APPARENT_INFLUENCE	NO_APPARENT_INFLUENCE
SHOULDER AND LAP BELT	NO_IMPROPER_ACTION	NO_APPARENT_INFLUENCE	NO_APPARENT_INFLUENCE
CHILD RESTRAINT SYSTEM			
SHOULDER AND LAP BELT	FAILED_TO_YIELD_RIGHT_OF_WAY	NO_APPARENT_INFLUENCE	NO_APPARENT_INFLUENCE
AIR BAG DEPLOYED/SHOULDER-LAP BELT	NO_IMPROPER_ACTION	NO_APPARENT_INFLUENCE	NO_APPARENT_INFLUENCE
SHOULDER AND LAP BELT	FAILED_TO_YIELD_RIGHT_OF_WAY	NO_APPARENT_INFLUENCE	NO_APPARENT_INFLUENCE
SHOULDER AND LAP BELT	NO_IMPROPER_ACTION	NO_APPARENT_INFLUENCE	NO_APPARENT_INFLUENCE

ADOT USE ONLY

962

ARIZONA CRASH REPORT

1 *POLICE ONLY*—FORWARD COPY TO ADOT TRAFFIC RECORDS SECTION, 064R 206 S. 17TH AVE., PHOENIX, ARIZONA 85007-3233

REPORT ID

YEAR	MONTH	DAY	HOUR	NCIC NO.	OFFICER ID NO.
18	04	14	1049	0721	08912

Agency Report Number: **2018-00026496**

Total Number of Sheets: 5

COMPLETE THE TRUCK/BUS SUPPLEMENT IF ANY (circle) AND ANY (diamond) ARE CHECKED

2 Total Units 02 | Total Injuries 03 | Total Fatalities 00 | Estimated Total Damage Compared To $1,000 Limit: [X] Over [ ] Under | [ ] Fatal | [ ] Hit/Run Unit # ____ | Person Transported for Immediate Medical Care? | Tow Away of At Least One Vehicle from Scene? | District or Grid No. 60

3 LOCATION

On Highway/Road/Street: 10700 W ROSE GARDEN LN | [X] Inside [ ] Outside | City: Peoria | County: Maricopa

Intersecting Street/Road/M.P. or R.P.: [X] At [ ] From N 107th AVE | [ ] North [ ] East [ ] South [ ] West | [ ] Plus [ ] Minus | Distance [ ] Measured [ ] Approximate | [ ] Miles [ ] Feet

4 Is this a Secondary Collision: Yes [ ] No [X] | Roadway Clearance Time: | Incident Clearance Time:

Safety Devices (SD)
0 - Not Applicable
1 - None Used
2 - Lap Belt
3 - Shoulder and Lap Belt
4 - Child Restraint System
5 - Helmet Used
6 - Air Bag Deployed
7– Air Bag Deployed/ Shoulder-Lap Belt
97 - Other ____
99 - Unknown

Injury Severity (IS)
1 - No Injury
2 - Possible Injury
3 - Non Incapacitating Injury
4 - Incapacitating Injury
5 - Fatal Injury
99 - Unknown/ Not Reported

Seating Position
31 21 11
32 22 12 55
33 23 13
38 28 18
18 - Front Seat - Other (Child in Lap)
28 or 38 - Additional passenger in vehicle by row
51 - In enclosed or cargo area
52 - In unenclosed passenger/cargo area
55 - Riding on Vehicle Exterior
99 - Unknown

5 TRAFFIC UNIT NO. 1

State: AZ | Class: D | End.: D | [X] DL # [ ] No Valid License/Permit | [X] Driver [ ] Driverless [ ] Pedestrian [ ] Pedalcyclist | Name (First, Middle, Last): [redacted] | [ ] ejected [ ] extricated | Suffix | Sex: M

Restrictions | Address: [redacted] | City | State | Zip Code | Telephone Number

City | State | Zip Code

Color: W[redacted] | Vehicle Year | Make: Cadillac | Model: DTS | Body Style: 4D | Plate: [redacted] | State: AZ | Plate Mo/Yr: 03/2018 | [ ] Bus (9 or more seats)

VIN: [redacted] | Trailer (Other Unit) Plate No. | State | Year | GVW / GCWR (Rated) Greater Than 10k pounds? [ ] Yes [X] No | HazMat Placard? [ ] Yes [X] No

Safety Devices: 3 | Injury Severity: 4 | Posted Speed Limit: 40 | Ofc Est. Speed | Transported To/By: John C Lincoln Deer Valley EMS

Removed to (Address/Storage Location Identifier): Western - Carole Dr Glendale | [X] Disabled [ ] Not Disabled | Removed by: Western Towing | Orders of: Law Enforcement

Insurance Company: [redacted] | Telephone Number: [redacted] | Policy Number: [redacted] | Exp. Date: [redacted]

TRAFFIC UNIT NO. 2

State: AZ | Class: D | End.: [redacted] | [X] DL # [ ] No Valid License/Permit | [X] Driver [ ] Driverless [ ] Pedestrian | Name (First, Middle, Last)): [redacted] | [ ] ejected [ ] extricated | Suffix | Sex: M

Restrictions | Address: [redacted] | City | State | Zip Code | Telephone Number

City | State | Zip Code

Color: [redacted] | Vehicle Year | Make: Cadillac | Model | Body Style: 4D | Plate: [redacted] | State: WI | Plate Mo/Yr: / | [ ] Bus (9 or more seats)

VIN: [redacted] | Trailer (Other Unit) Plate No. | State | Year | GVW / GCWR (Rated) Greater Than 10k pounds? [ ] Yes [X] No | HazMat Placard? [ ] Yes [X] No

Safety Devices: 3 | Injury Severity: 3 | Posted Speed Limit: 40 | Ofc Est. Speed: 35 | Transported To/By: Not Transported

Removed to (Address/Storage Location Identifier): Western - Carole Dr Glendale | [X] Disabled [ ] Not Disabled | Removed by: Law Enforcement | Orders of: Law Enforcement

[redacted] | Telephone Number: [redacted] | Exp. Date: [redacted]

TRAFFIC UNIT NO. ___

State | Class | End. | [ ] DL # [ ] No Valid License/Permit | [ ] Driver [ ] Driverless [ ] Pedestrian [ ] Pedalcyclist | Name (First, Middle, Last)) | [ ] ejected [ ] extricated | Suffix | Sex

Restrictions | Address | City | State | Zip Code | Telephone Number

Date of Birth | [ ] Same as Driver | Owner/Carrier Name | Address | City | State | Zip Code

Color | Vehicle Year | Make | Model | Body Style | Plate Number | State | Plate Mo/Yr | [ ] Bus (9 or more seats)

VIN | Trailer (Other Unit) Plate No. | State | Year | GVW / GCWR (Rated) Greater Than 10k pounds? [ ] Yes [ ] No | HazMat Placard? [ ] Yes [ ] No

Safety Devices | Injury Severity | Posted Speed Limit | Ofc Est. Speed | Transported To/By

Removed to (Address/Storage Location Identifier) | [ ] Disabled [ ] Not Disabled | Removed by | Orders of

Insurance Company | Telephone Number | Policy Number | Exp. Date

6 WITNESSES

Name	Address	City	State	Zip Code	Telephone Number	D.O.B / Age

7 Property Damaged (Other than Vehicles) Block 33, Event 29-49 | Owner Code (OC) 1 - Private 2 - Public Utility 3 - Federal Government 4 - State of Arizona 5 - County in Arizona 6 - City in Arizona 7 - Tribal Nation 99 - Unknown | Inventory Tag No.

OC: 1 | Owner's Name: Ventana Lakes HOA | Address (or Bar Code ID Number) | City: Peoria | State: AZ | Zip Code: 85373 | Telephone Number

8 Photos Taken [X] Yes [ ] No | Photographer's Name: [redacted] | ID Number and Agency Number: 3043 AZ0072100 | Invest. At Scene [X] Yes [ ] No | Date Invest.: 04/14/2018 | Time Invest.: 10:49 | Fire/EMS Incident No.: 138993

Officer's Name/ Badge #: [redacted] 8912 | Supervisor's Signature: [redacted] | Agency Name: Peoria PD | Date Completed: 04/14/2018

01-2704A1 R05/2014b

ARIZONA CRASH REPORT

1 ***CONTINUED***

POLICE ONLY—FORWARD COPY TO
ADOT TRAFFIC RECORDS SECTION, 064R
206 S. 17TH AVE., PHOENIX, ARIZONA 85007-3233

REPORT ID

YEAR	MONTH	DAY	HOUR	NCIC NO.	OFFICER ID NO.
1 8	0 4	1 4	1 0 4 9	0 7 2 1	0 8 9 1 2

Agency Report Number

2018-00026496

BLOCKS 09 - 24: CHECK ONLY ONE OR ONE BLOCK PER UNIT UNLESS NOTED

09 —LIGHT CONDITION

- [x] 1 DAYLIGHT
- [ ] 2 DAWN
- [ ] 3 DUSK
- [ ] 4 DARK—LIGHTED
- [ ] 5 DARK—NOT LIGHTED
- [ ] 6 DARK—UNKNOWN LIGHTING

10 —WEATHER CONDITIONS

- [x] 1 CLEAR
- [ ] 2 CLOUDY
- [ ] 3 SLEET,HAIL (freezing rain/drizzle)
- [ ] 4 RAIN
- [ ] 5 SNOW
- [ ] 6 SEVERE CROSSWINDS
- [ ] 7 BLOWING SAND, SOIL, DIRT
- [ ] 8 FOG, SMOG, SMOKE
- [ ] 9 BLOWING SNOW
- [ ] 97 OTHER _____
- [ ] 99 UNKNOWN

11 —ROAD SURFACE CONDITION

UNIT # 1	2		
[x]	[x]	[ ]	1 DRY
[ ]	[ ]	[ ]	2 WET
[ ]	[ ]	[ ]	3 SNOW
[ ]	[ ]	[ ]	4 SLUSH
[ ]	[ ]	[ ]	5 ICE/FROST
[ ]	[ ]	[ ]	6 WATER (standing, moving)
[ ]	[ ]	[ ]	7 SAND
[ ]	[ ]	[ ]	8 MUD, DIRT, GRAVEL
[ ]	[ ]	[ ]	9 OIL
[ ]	[ ]	[ ]	97 OTHER _____
[ ]	[ ]	[ ]	99 UNKNOWN

12 —ROAD GRADE

UNIT # 1	2		
[x]	[x]	[ ]	1 LEVEL
[ ]	[ ]	[ ]	2 DOWNHILL
[ ]	[ ]	[ ]	3 UPHILL
[ ]	[ ]	[ ]	4 HILLCREST
[ ]	[ ]	[ ]	5 SAG/DIP/BOTTOM
[ ]	[ ]	[ ]	99 UNKNOWN

13 —RELATION TO JUNCTION

- [ ] 0 NOT JUNCTION RELATED

NON-CONTROLLED ACCESS AREA

- [x] 1 INTERSECTION (within)
- [ ] 2 INTERSECTION-RELATED
- [ ] 3 ENTRANCE/EXIT RAMP (rest areas)
- [ ] 4 RAILWAY GRADE CROSSING
- [ ] 5 MEDIAN CROSSOVER-RELATED
- [ ] 6 FRONTAGE ROAD
- [ ] 7 DRIVEWAY
- [ ] 8 ALLEY-ACCESS-RELATED
- [ ] 18 WRONG WAY DRIVING
- [ ] 9 UNKNOWN NON-INTERCHANGE

CONTROLLED ACCESS AREA

- [ ] 10 THRU ROADWAY
- [ ] 11 INTERSECTION (within)
- [ ] 12 INTERSECTION-RELATED
- [ ] 13 ENTRANCE/EXIT RAMP
- [ ] 14 FRONTAGE ROAD
- [ ] 15 OTHER PART OF INTERCHANGE
- [ ] 16 MEDIAN CROSSOVER-RELATED
- [ ] 17 WRONG WAY DRIVING
- [ ] 99 UNKNOWN

14 —TYPE OF INTERSECTION

- [x] 1 FOUR– WAY INTERSECTION
- [ ] 2 T - INTERSECTION
- [ ] 3 Y - INTERSECTION
- [ ] 4 INTER. AS PART OF INTERCHANGE
- [ ] 5 TRAFFIC CIRCLE
- [ ] 6 ROUNDABOUT
- [ ] 7 FIVE POINT, OR MORE
- [ ] 99 UNKNOWN

15 —TRAFFIC WAY DESCRIPTION

- [ ] 1 ONE WAY TRAFFICWAY
- [x] 2 TWO-WAY, NOT DIVIDED (no median present)
- [ ] 3 TWO-WAY, (NOT DIVIDED) WITH A CONTINUOUS LEFT TURN LANE
- [ ] 4 TWO-WAY, DIVIDED, UNPROTECTED (PAINTED> 4 FEET) MEDIAN
- [ ] 5 TWO-WAY, DIVIDED, POSITIVE MEDIAN BARRIER
- [ ] 99 UNKNOWN

16 —TRAFFIC CONTROL DEVICE

UNIT # 1	2		
[ ]	[x]	[ ]	0 NO CONTROLS
[ ]	[ ]	[ ]	1 SIGNAL
[x]	[ ]	[ ]	2 STOP SIGN
[ ]	[ ]	[ ]	3 YIELD SIGN
[ ]	[ ]	[ ]	4 WARNING SIGN
[ ]	[ ]	[ ]	5 RAILROAD CROSSING SIGN
[ ]	[ ]	[ ]	6 FLASHING TRAFFIC SIGNAL
[ ]	[ ]	[ ]	7 PERSON (law enforcement, crossing guard, flagger, etc.)
[ ]	[ ]	[ ]	97 OTHER _____
[ ]	[ ]	[ ]	99 UNKNOWN

17 —MANNER OF CRASH IMPACT

- [ ] 1 SINGLE VEHICLE
- [x] 2 ANGLE (front to side) (other than left turn)
- [ ] 3 LEFT TURN
- [ ] 4 REAR END (front-to-rear)
- [ ] 5 HEAD-ON (front-to-front) (other than left turn)
- [ ] 6 SIDESWIPE, SAME DIRECTION
- [ ] 7 SIDESWIPE, OPPOSITE DIRECTION
- [ ] 8 REAR-TO-SIDE
- [ ] 9 REAR-TO-REAR
- [ ] 97 OTHER _____
- [ ] 99 UNKNOWN

18 —DIRECTION OF UNIT TRAVEL (Compass)

BEFORE 1ST CRASH EVENT

UNIT # 1	2		
[ ]	[x]	[ ]	1 NORTH
[ ]	[ ]	[ ]	2 SOUTH
[x]	[ ]	[ ]	3 EAST
[ ]	[ ]	[ ]	4 WEST
[ ]	[ ]	[ ]	5 NORTHWEST
[ ]	[ ]	[ ]	6 NORTHEAST
[ ]	[ ]	[ ]	7 SOUTHWEST
[ ]	[ ]	[ ]	8 SOUTHEAST
[ ]	[ ]	[ ]	99 UNKNOWN

19 —CONTRIBUTING CIRCUMSTANCES

UP TO TWO CHOICES PER UNIT

UNIT # 1	2		
[ ]	[x]	[ ]	0 NO CONTRIBUTING CIRCUMSTANCE

ENVIRONMENTAL

			1 GLARE
[ ]	[ ]	[ ]	A. SUNLIGHT
[ ]	[ ]	[ ]	B. HEADLIGHTS
			2 PHYSICAL OBSTRUCTION(S)
[ ]	[ ]	[ ]	A. STOPPED/PARKED VEHICLE
[ ]	[ ]	[ ]	B. MOVING VEHICLE
[ ]	[ ]	[ ]	C. LOAD ON VEHICLE
[ ]	[ ]	[ ]	D. TREE/SHRUB/BUSH

ROAD

[ ]	[ ]	[ ]	3 ROAD SURFACE CONDITION
[ ]	[ ]	[ ]	4 DEBRIS
			5 WORK ZONE
[ ]	[ ]	[ ]	A. LANE CLOSURE
[ ]	[ ]	[ ]	B. LANE SHIFT/CLOSURE
[ ]	[ ]	[ ]	C. WORK ON SHOULDER OR MEDIAN
[ ]	[ ]	[ ]	D. INTERMITTENT OR MOVING WORK
[ ]	[ ]	[ ]	E. OTHER _____
[ ]	[ ]	[ ]	F. WORKERS PRESENT
[ ]	[ ]	[ ]	6 OBSTRUCTION IN ROADWAY
[ ]	[ ]	[ ]	7 CHANGING ROAD WIDTH
[ ]	[ ]	[ ]	8 NON-HIGHWAY WORK

MOTOR VEHICLE

[ ]	[ ]	[ ]	9 BRAKES
[ ]	[ ]	[ ]	10 STEERING
[ ]	[ ]	[ ]	11 SUSPENSION
[ ]	[ ]	[ ]	12 TIRES
[ ]	[ ]	[ ]	13 WHEELS
[ ]	[ ]	[ ]	14 LIGHTS (head, signal, tail)
[ ]	[ ]	[ ]	15 WINDOWS/WINDSHIELD
[ ]	[ ]	[ ]	16 MIRRORS
[ ]	[ ]	[ ]	17 WIPERS
[ ]	[ ]	[ ]	18 TRUCK COUPLING/TRAILER/HITCH/SAFETY CHAINS
[ ]	[ ]	[ ]	97 OTHER _____
[x]	[ ]	[ ]	99 UNKNOWN

20 —DISTRACTED DRIVING BEHAVIOR

UNIT # 1	2		
[ ]	[x]	[ ]	0 NOT DISTRACTED
[ ]	[ ]	[ ]	1 TALKING ON HANDS FREE DEVICE
[ ]	[ ]	[ ]	2 TALKING ON HAND HELD DEVICE
[ ]	[ ]	[ ]	3 PASSENGER
[ ]	[ ]	[ ]	4 OTHER ACTIVITY, ELECTRONIC DEVICE
[ ]	[ ]	[ ]	5 MANUALLY OPERATING AN ELCTRONIC DEVICE
[ ]	[ ]	[ ]	6 OTHER INSIDE THE VEHICLE (eating, drinking, etc.)
[ ]	[ ]	[ ]	7 OUTSIDE THE VEHICLE (includes unspecified distractions)
[x]	[ ]	[ ]	99 UNKNOWN DISTRACTIONS

21 —CONDITION INFLUENCING Driver/Ped/Cyclist

UP TO TWO CHOICES PER UNIT

UNIT # 1	2		
[x]	[x]	[ ]	0 NO APPARENT INFLUENCE
[ ]	[ ]	[ ]	1 ILLNESS
[ ]	[ ]	[ ]	2 PHYSICAL IMPAIRMENT
[ ]	[ ]	[ ]	3 FELL ASLEEP/FATIGUED
[ ]	[ ]	[ ]	4 ALCOHOL
[ ]	[ ]	[ ]	5 DRUGS
[ ]	[ ]	[ ]	6 MEDICATIONS

CHECK ONE IF BLOCKS 4, 5, OR 6 CHECKED

[ ]	[ ]	[ ]	A. NO TEST GIVEN
[ ]	[ ]	[ ]	B. TEST GIVEN
[ ]	[ ]	[ ]	C. TEST REFUSED
[ ]	[ ]	[ ]	D. TESTING UNKNOWN
[ ]	[ ]	[ ]	97 OTHER _____
[ ]	[ ]	[ ]	99 UNKNOWN CONDITION

22 —VIOLATIONS/BEHAVIOR

UP TO TWO CHOICES PER UNIT

UNIT # 1	2		
[ ]	[x]	[ ]	1 NO IMPROPER ACTION
[ ]	[ ]	[ ]	2 SPEED TOO FAST FOR CONDITIONS
[ ]	[ ]	[ ]	3 EXCEEDED LAWFUL SPEED
[ ]	[ ]	[ ]	4 FOLLOWED TOO CLOSELY
[ ]	[ ]	[ ]	5 RAN STOP SIGN
[ ]	[ ]	[ ]	6 DISREGARDED TRAFFIC SIGNAL
[ ]	[ ]	[ ]	7 MADE IMPROPER TURN
[ ]	[ ]	[ ]	8 DROVE/RODE IN OPPOSING TRAFFIC LANE
[ ]	[ ]	[ ]	9 KNOWINGLY OPERATED WITH FAULTY/ MISSING EQUIPMENT
[ ]	[ ]	[ ]	10 REQUIRED MOTORCYCLE SAFETY EQUIP- MENT NOT USED
[ ]	[ ]	[ ]	11 PASSED IN NO PASSING ZONE
[ ]	[ ]	[ ]	12 UNSAFE LANE CHANGE
[ ]	[ ]	[ ]	13 FAILED TO KEEP IN PROPER LANE
[ ]	[ ]	[ ]	14 DISREGARDED PAVEMENT MARKINGS
[ ]	[ ]	[ ]	15 OTHER UNSAFE PASSING
			16 (Moved to Box 20-Distracted Driving Behavior)
[ ]	[ ]	[ ]	17 DID NOT USE CROSSWALK
[ ]	[ ]	[ ]	18 WALKED ON WRONG SIDE OF ROAD
			19 (Moved to Box 20-Distracted Driving Behavior)
[x]	[ ]	[ ]	20 FAILED TO YIELD RIGHT-OF-WAY
[ ]	[ ]	[ ]	97 OTHER _____
[ ]	[ ]	[ ]	99 UNKNOWN

23 —TRAFFIC UNIT MANEUVER/ACTION

UNIT # 1	2		
[x]	[x]	[ ]	1 GOING STRAIGHT AHEAD
[ ]	[ ]	[ ]	2 SLOWING IN TRAFFICWAY
[ ]	[ ]	[ ]	3 STOPPED IN TRAFFIC WAY
[ ]	[ ]	[ ]	4 MAKING LEFT TURN
[ ]	[ ]	[ ]	5 MAKING RIGHT TURN
[ ]	[ ]	[ ]	6 MAKING U-TURN
[ ]	[ ]	[ ]	7 OVERTAKING/PASSING
[ ]	[ ]	[ ]	8 CHANGING LANES
[ ]	[ ]	[ ]	9 NEGOTIATING A CURVE
[ ]	[ ]	[ ]	10 BACKING
[ ]	[ ]	[ ]	11 AVOIDING VEHICLE /OBJECT/PED/CYCLIST
[ ]	[ ]	[ ]	12 ENTERING PARKING POSITION
[ ]	[ ]	[ ]	13 LEAVING PARKING POSITION
[ ]	[ ]	[ ]	14 PROPERLY PARKED
[ ]	[ ]	[ ]	15 IMPROPERLY PARKED
[ ]	[ ]	[ ]	16 DRIVERLESS MOVING VEHICLE
[ ]	[ ]	[ ]	17 CROSSING ROAD
[ ]	[ ]	[ ]	18 WALKING WITH TRAFFIC
[ ]	[ ]	[ ]	19 WALKING AGAINST TRAFFIC
[ ]	[ ]	[ ]	20 STANDING
[ ]	[ ]	[ ]	21 LYING
[ ]	[ ]	[ ]	22 GETTING ON/OFF VEHICLE
[ ]	[ ]	[ ]	23 WORKING ON/PUSHING VEHICLE
[ ]	[ ]	[ ]	24 WORKING ON ROAD
[ ]	[ ]	[ ]	97 OTHER _____
[ ]	[ ]	[ ]	99 UNKNOWN

24 —LOCATION OF PEDESTRIAN/CYCLIST

UNIT # 1	2		
[ ]	[ ]	[ ]	1 MARKED CROSSWALK at INTERSECTION
[ ]	[ ]	[ ]	2 AT INTERSECTION BUT NO CROSSWALK
[ ]	[ ]	[ ]	3 NON-INTERSECTION CROSSWALK
[ ]	[ ]	[ ]	4 DRIVEWAY ACCESS CROSSWALK
[ ]	[ ]	[ ]	5 SCHOOL CROSSWALK
[ ]	[ ]	[ ]	6 IN ROADWAY (not in crosswalk/intersection)
[ ]	[ ]	[ ]	7 MEDIAN (but not on shoulder)
[ ]	[ ]	[ ]	8 ISLAND
[ ]	[ ]	[ ]	9 SHOULDER
[ ]	[ ]	[ ]	10 SIDEWALK
[ ]	[ ]	[ ]	11 ROADSIDE
[ ]	[ ]	[ ]	12 OUTSIDE OF TRAFFICWAY
[ ]	[ ]	[ ]	13 DEDICATED BIKE LANE
[ ]	[ ]	[ ]	14 SHARED-USE PATH
[ ]	[ ]	[ ]	15 INSIDE BUILDING
[ ]	[ ]	[ ]	97 OTHER _____
[ ]	[ ]	[ ]	99 UNKNOWN

01-2704B1 R05/2014b

ARIZONA CRASH REPORT

CONTINUED

POLICE ONLY—FORWARD COPY TO
ADOT TRAFFIC RECORDS SECTION, 064R
206 S. 17TH AVE., PHOENIX, ARIZONA 85007-3233

REPORT ID																								Agency Report Number
	YEAR		MONTH		DAY		HOUR				NCIC NO.				OFFICER ID NO.									
1	1	8	0	4	1	4	1	0	4	9	0	7	2	1	0	8	9	1	2					2018-00026496

25 PASSENGERS

Unit #	Seat Pos	SD	IS	Name / Address / City / State / Zip Code	Telephone No.	D.O.B. or Age	Sex
2	13	3	2	☐ transported by EMS/FIRE ☐ ejected ☐ extricated DOLORES IRENE WRBELIS 20430 N 109TH DR SUN CITY AZ 85373		10/10/1944 73	F
				☐ transported by EMS/FIRE ☐ ejected ☐ extricated			
				☐ transported by EMS/FIRE ☐ ejected ☐ extricated			
				☐ transported by EMS/FIRE ☐ ejected ☐ extricated			
				☐ transported by EMS/FIRE ☐ ejected ☐ extricated			

Safety Devices (SD)
0 - Not Applicable
1 - None Used
2 - Lap Belt
3 - Shoulder and Lap Belt
4 - Child Restraint System
5 - Helmet Used
6 - Air Bag Deployed
7– Air Bag Deployed/ Shoulder-Lap Belt
97 - Other _____
99 - Unknown

Injury Severity (IS)
1 - No Injury
2 - Possible Injury
3 - Non Incapacitating Injury
4 - Incapacitating Injury
5 - Fatal Injury
99 - Unknown/ Not Reported

Seating Position
31 21 11
32 22 12 55
33 23 13
38 28 18
18 - Front Seat - Other (Child in Lap)
28 or 38 - Additional passenger in vehicle by row
51 - In enclosed or cargo area
52 - In unenclosed passenger/cargo area
55 - Riding on Vehicle Exterior
99 - Unknown

26 CITATION

UNIT #	A.R.S. NO. OR CITY CODE	UNIT #	A.R.S. NO. OR CITY CODE

27 VEHICLE DAMAGED AREA(S) - (CIRCLE UP TO THREE AREAS PER UNIT)

1 Unit #
2 3 4
1 9 5
8 7 6
0—NONE
10—UNDERCARRIAGE
97—OTHER
99—UNKNOWN

2 Unit #
2 3 4
1 9 5
8 7 6
0—NONE
10—UNDERCARRIAGE
97—OTHER
99—UNKNOWN

Unit #
2 3 4
1 9 5
8 7 6
0—NONE
10—UNDERCARRIAGE
97—OTHER
99—UNKNOWN

28 GLOBAL POSITION

Latitude: **33.674513**
Longitude: **-112.28993530177**

29 —ROADWAY ALIGNMENT

UNIT # 1	UNIT # 2		
☒	☒	☐	1 - STRAIGHT
☐	☐	☐	2 - CURVE LEFT
☐	☐	☐	3 - CURVE RIGHT
☐	☐	☐	99 - UNKNOWN

30 —LANE

Please enter unit's number and lane of travel before first crash event

UNIT 1	UNIT 2	UNIT ___
1	1	

0 TWO-WAY CONTINUOUS LEFT TURN
1-9 1= FIRST LANE NEXT TO A MEDIAN THRU 9
10 CROSSWALK
L1 THRU LX - LEFT TURN ONLY LANES (L1= 1ST LEFT TURN AFTER MEDIAN/ CENTERLINE)
R1 THRU RX - RIGHT TURN LANES (R1=1ST RIGHT TURN AFTER THROUGH LANES)
SW SIDEWALK
BL DEDICATED BIKE LANE
HOV HIGH OCCUPANCY VEHICLE
97 NON-ROADWAY
99 UNKNOWN

31 —EJECTION

0 NOT APPLICABLE
1 NOT EJECTED
2 EJECTED, PARTIALLY
3 EJECTED, TOTALLY
4 UNKNOWN DEGREE
99 UNKNOWN

32 —EXTRICATION

0 NOT APPLICABLE
1 EXTRICATED
99 UNKNOWN

Unit # and Seat Position from front page.
Driver seat position = 11

Unit #	Seat Pos	Ejection	Extrication
1	11	1	0
2	11	1	0
2	13	1	0

33 —SEQUENCE OF EVENTS

UP TO FOUR CRASH EVENTS FOR EACH UNIT IN THE ORDER OF OCCURRENCE

NON-COLLISION

1 OVERTURN/ROLLOVER
2 FIRE/EXPLOSION
3 IMMERSION
4 JACKKNIFE
5 CARGO/EQUIPMENT LOSS/SHIFT
6 FELL/JUMPED FROM VEHICLE
7 THROWN OR FALLING OBJECT
8 OTHER NON-COLLISION _____
9 EQUIPMENT FAILURE (tires, brakes)
10 SEPARATION OF UNITS
11 RAN OFF ROAD RIGHT
12 RAN OFF ROAD LEFT
13 CROSS MEDIAN
14 CROSS CENTERLINE
15 DOWNHILL RUNAWAY

COLLISION WITH PERSON, MOTOR VEHICLE, OR NON-FIXED OBJECT

16 MOTOR VEHICLE IN TRANSPORT
17 PEDESTRIAN
18 PEDALCYCLE
19 RAILWAY VEHICLE (TRAIN, ENGINE)
20 LIGHT RAILWAY/RAILCAR VEHICLE
21 ANIMAL, WILD—NON GAME _____
22 ANIMAL, WILD—GAME _____
23 ANIMAL—PET_____
24 ANIMAL—LIVESTOCK _____
25 PARKED MOTOR VEHICLE
26 WORK ZONE/MAINT. EQUIP.
27 STRUCK BY FALLING, SHIFTING CARGO OR ANYTHING SET IN MOTION BY ANOTHER VEHICLE
28 OTHER NON-FIXED OBJ. _____

COLLISION WITH FIXED OBJECT

29 IMPACT ATTENUATOR/CRASH CUSHION
30 BRIDGE/OVERHEAD STRUCTURE
31 BRIDGE RAIL
32 CULVERT
33 CURB
34 DITCH
35 EMBANKMENT
36 GUARDRAIL FACE
37 GUARDRAIL END
38 CONCRETE TRAFFIC BARRIER
39 CABLE TRAFFIC BARRIER
40 OTHER TRAFFIC BARRIER
41 TREE, BUSH, STUMP (standing)
42 TRAFFIC SIGN SUPPORT
43 TRAFFIC SIGNAL SUPPORT
44 UTILITY POLE/LIGHT SUPPORT
45 OTHER POST, POLE, OR SUPPORT
46 FENCE
47 MAILBOX
48 BUILDING
49 OTHER FIXED OBJ. _____

99 UNKNOWN

FIRST HARMFUL EVENT OF THE CRASH 16

SEQUENCE OF EVENTS PER TRAFFIC UNIT

	Unit 1	Unit 2	Unit ___
FIRST EVENT	16	16	
SECOND EVENT	33		
THIRD EVENT	49		
FOURTH EVENT	49		

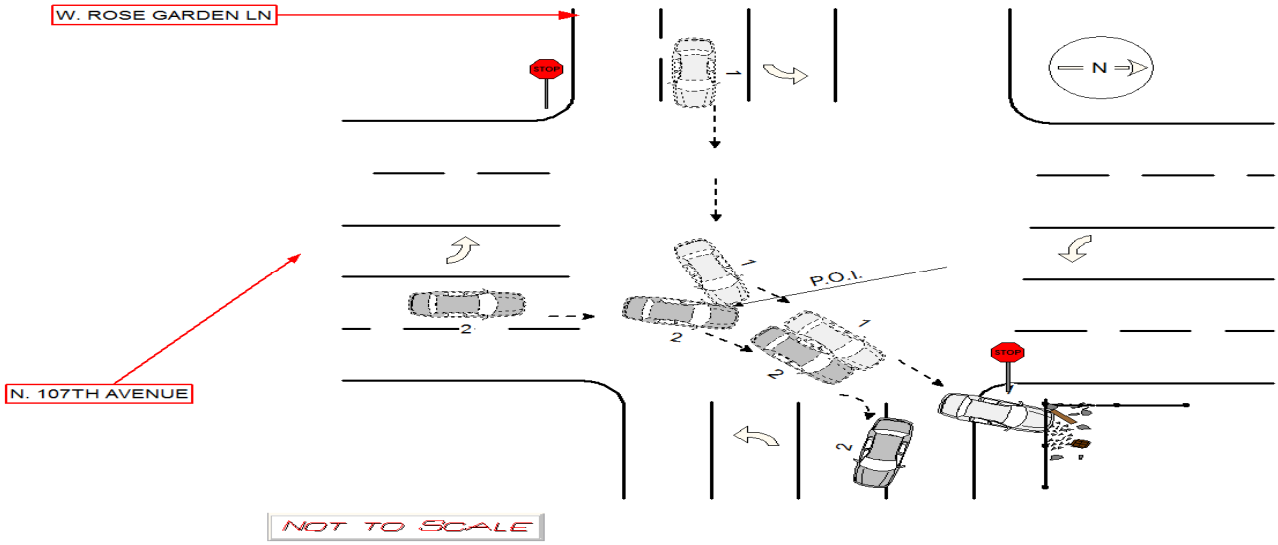
01-2704B2 R05/2014

ARIZONA CRASH REPORT	REPORT ID																	Agency Report Number
1	**CONTINUED** *POLICE ONLY*—FORWARD COPY TO ADOT TRAFFIC RECORDS SECTION, 064R 206 S. 17TH AVE., PHOENIX, ARIZONA 85007-3233	YEAR		MONTH		DAY		HOUR				NCIC NO.				OFFICER ID NO.				**2018-00026496**
		1	8	0	4	1	4	1	0	4	9	0	7	2	1	0	8	9	1	2

32 CRASH DIAGRAM

[X] MEASUREMENTS ARE APPROXIMATE AND NOT TO SCALE
[ ] MEASUREMENTS ARE SCALED (SCALE = _____)

33 INDICATE NORTH



01-2704C1 R05/2014

ARIZONA CRASH REPORT	REPORT ID																	Agency Report Number
1	**CONTINUED** *POLICE ONLY*—FORWARD COPY TO ADOT TRAFFIC RECORDS SECTION, 064R 206 S. 17TH AVE., PHOENIX, ARIZONA 85007-3233	YEAR		MONTH		DAY		HOUR				NCIC NO.				OFFICER ID NO.				2018-00026496
		1	8	0	4	1	4	1	0	4	9	0	7	2	1	0	8	9	1	2

34 NARRATIVE Describe what happened

On 04-14-18 at 1049 hours, the Peoria Police Department responded to a 2 vehicle collision at the intersection of N. 107th Avenue and W. Rose Garden Ln.

TU1 was traveling east on Rose Garden Ln. Upon entering the intersection at N. 107th Avenue, TU1 collided with TU2 who was traveling north on N. 107th Avenue. Driver of TU1 does not recall the incident and was unable to provide any information.

TU2 was traveling north on 107th Avenue in the #1 lane. Upon entering the intersection at Rose Garden Ln. The driver of TU2 stated he observed TU1 enter the intersection traveling from west to east. TU2 attempted to avoid the collision by swerving to the right but was unsuccessful and the front of TU1 collided with the front driver side of TU2.

Injuries:
Driver 1 sustained serious bodily injury.
Per medical staff: Hematoma to the top of his head, possible broken nose, complained of back pain. He was transported to Deer Valley Hospital by Peoria FD ambulance. After a CT Scan, I was advised he suffered a brain bleed, and a left knee injury.

Driver 2 suffered a laceration to his left forearm and complained of right shoulder pain, and pain consistent with the airbag deployment.

Passenger of TU2 complained of pain consistent with airbag deployment.

Both subjects of TU2 were evaluated at the scene and released by Peoria Fire.

Both parties were provided the required exchange information along with the case number.

Both vehicles were towed from the scene by Western Towing.

NFI.

ADOT USE ONLY

962

ARIZONA CRASH REPORT

1 *POLICE ONLY*—FORWARD COPY TO ADOT TRAFFIC RECORDS SECTION, 064R 206 S. 17TH AVE., PHOENIX, ARIZONA 85007-3233

REPORT ID

YEAR	MONTH	DAY	HOUR	NCIC NO.	OFFICER ID NO.
18	01	25	0810	0721	0304

Agency Report Number: **2018-00005604**

Total Number of Sheets: 6

COMPLETE THE TRUCK/BUS SUPPLEMENT IF ANY (circle) *AND* ANY (diamond) ARE CHECKED

2 Total Units 2 | Total Injuries 2 | Total Fatalities 0 | Estimated Total Damage Compared To $1,000 Limit: [X] Over [ ] Under | [ ] Fatal | [ ] Hit/Run Unit # ____ | Person Transported for Immediate Medical Care? | Tow Away of At Least One Vehicle from Scene? | District or Grid No. 62

3 LOCATION

On Highway/Road/Street: W ROSE GARDEN LN | [X] Inside [ ] Outside | City: Peoria | County: Maricopa

Intersecting Street/Road/M.P. or R.P.: [X] At [ ] From N 107Th AVE | [ ] North [ ] South [ ] East [ ] West | [ ] Plus [ ] Minus | Distance [ ] Measured [ ] Approximate | [ ] Miles [ ] Feet

4 Is this a Secondary Collision: Yes [ ] No [X] | Roadway Clearance Time: 0900 | Incident Clearance Time: 0900

Safety Devices (SD)
0 - Not Applicable
1 - None Used
2 - Lap Belt
3 - Shoulder and Lap Belt
4 - Child Restraint System
5 - Helmet Used
6 - Air Bag Deployed
7– Air Bag Deployed/ Shoulder-Lap Belt
97 - Other ____
99 - Unknown

Injury Severity (IS)
1 - No Injury
2 - Possible Injury
3 - Non Incapacitating Injury
4 - Incapacitating Injury
5 - Fatal Injury
99 - Unknown/ Not Reported

Seating Position
31 21 11
32 22 12 55
33 23 13
38 28 18
18 - Front Seat - Other (Child in Lap)
28 or 38 - Additional passenger in vehicle by row
51 - In enclosed or cargo area
52 - In unenclosed passenger/cargo area
55 - Riding on Vehicle Exterior
99 - Unknown

5 TRAFFIC UNIT NO. 1

State: AZ | Class: D | End.: D | [X] DL # [ ] No Valid License/Permit | [X] Driver [ ] Driverless [ ] Pedestrian [ ] Pedalcyclist | Name (First, Middle, Last): [redacted] | [ ] ejected [ ] extricated | Suffix | Sex: M

Restrictions | Address: [redacted] | City | State | Zip Code | Telephone Number: [redacted]

Date of Birth: [redacted] | [X] Same as Driver | Owner/Carrier Name | Address | City | State | Zip Code

Color: WHI | Vehicle Year: 2001 | Make: Ford | Model | Body Style: PK | Plate Number: [redacted] | State: AZ | Plate Mo/Yr: [redacted] | ◇ Bus (9 or more seats)

VIN: [redacted] | Trailer (Other Unit) Plate No. | State | Year | GVW / GCWR (Rated) Greater Than 10k pounds? ◇ Yes [X] No | HazMat Placard? ◇ Yes [X] No

Safety Devices: 3 | Injury Severity: 3 | Posted Speed Limit: 35 | Ofc Est. Speed: 10 | Transported To/By: Not Transported

Removed to (Address/Storage Location Identifier): Western - 75th Ave Glendale | [X] Disabled [ ] Not Disabled | Removed by: Western Towing | Orders of: Law Enforcement

Insurance Company: none | Telephone Number | Policy Number | Exp. Date

TRAFFIC UNIT NO. 2

State: AZ | Class: D | End.: D | [X] DL # [ ] No Valid License/Permit | [X] Driver [ ] Driverless [ ] Pedestrian [ ] Pedalcyclist | Name (First, Middle, Last)): [redacted] | [ ] ejected [ ] extricated | Suffix | Sex: F

Restrictions | Address: [redacted] | City | State | Zip Code | Telephone Number: [redacted]

Date of Birth: [redacted] | [X] Same as Driver | Owner/Carrier Name | Address | City | State | Zip Code

Color: GRY | Vehicle Year: 2008 | Make: Mazda | Model: MAZDA 5 | Body Style: 4D | Plate Number: [redacted] | State: AZ | Plate Mo/Yr: [redacted] | ◇ Bus (9 or more seats)

VIN: [redacted] | Trailer (Other Unit) Plate No. | State | Year | GVW / GCWR (Rated) Greater Than 10k pounds? ◇ Yes [X] No | HazMat Placard? ◇ Yes [X] No

Safety Devices: 7 | Injury Severity: 4 | Posted Speed Limit: 40 | Ofc Est. Speed: 40 | Transported To/By: Arrowhead Hospital | EMS

Removed to (Address/Storage Location Identifier): Western - 75th Ave Glendale | [X] Disabled [ ] Not Disabled | Removed by: Western Towing | Orders of: Law Enforcement

Insurance Company: [redacted] | Telephone Number: [redacted] | Policy Number: [redacted] | Exp. Date: [redacted]

TRAFFIC UNIT NO. ___

State | Class | End. | [ ] DL # [ ] No Valid License/Permit | [ ] Driver [ ] Driverless [ ] Pedestrian [ ] Pedalcyclist | Name (First, Middle, Last)) | [ ] ejected [ ] extricated | Suffix | Sex

Restrictions | Address | City | State | Zip Code | Telephone Number

Date of Birth | [ ] Same as Driver | Owner/Carrier Name | Address | City | State | Zip Code

Color | Vehicle Year | Make | Model | Body Style | Plate Number | State | Plate Mo/Yr | ◇ Bus (9 or more seats)

VIN | Trailer (Other Unit) Plate No. | State | Year | GVW / GCWR (Rated) Greater Than 10k pounds? ◇ Yes [ ] No | HazMat Placard? ◇ Yes [ ] No

Safety Devices | Injury Severity | Posted Speed Limit | Ofc Est. Speed | Transported To/By

Removed to (Address/Storage Location Identifier) | [ ] Disabled [ ] Not Disabled | Removed by | Orders of

Insurance Company | Telephone Number | Policy Number | Exp. Date

6 WITNESSES

Name	Address	City	State	Zip Code	Telephone Number	D.O.B / Age
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

7 Property Damaged (Other than Vehicles) Block 33, Event 29-49 | Owner Code (OC) 1 - Private 2 - Public Utility 3 - Federal Government 4 - State of Arizona 5 - County in Arizona 6 - City in Arizona 7 - Tribal Nation 99 - Unknown | Inventory Tag No.

OC | Owner's Name | Address (or Bar Code ID Number) | City | State | Zip Code | Telephone Number

8 Photos Taken [ ] Yes [X] No | Photographer's Name, ID Number and Agency Number: AZ0072100 | Invest. At Scene [ ] Yes [X] No | Date Invest.: 01/25/2017 | Time Invest.: 08:15 | Fire/EMS Incident No.: 18-033126

Officer's Name/ Badge #: [redacted] 3043 | Supervisor's Signature: [redacted] | Agency Name: Peoria PD | Date Completed: 01/25/2017

01-2704A1 R05/2014b

ARIZONA CRASH REPORT

1 ***CONTINUED***

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206 S. 17TH AVE., PHOENIX, ARIZONA 85007-3233

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1	8	0	1	2	5	0	8	1	0	0	7	2	1	0	3	0	4	3			

09 —LIGHT CONDITION

- [X] 1 DAYLIGHT
- [ ] 2 DAWN
- [ ] 3 DUSK
- [ ] 4 DARK—LIGHTED
- [ ] 5 DARK—NOT LIGHTED
- [ ] 6 DARK—UNKNOWN LIGHTING

10 —WEATHER CONDITIONS

- [X] 1 CLEAR
- [ ] 2 CLOUDY
- [ ] 3 SLEET,HAIL (freezing rain/drizzle)
- [ ] 4 RAIN
- [ ] 5 SNOW
- [ ] 6 SEVERE CROSSWINDS
- [ ] 7 BLOWING SAND, SOIL, DIRT
- [ ] 8 FOG, SMOG, SMOKE
- [ ] 9 BLOWING SNOW
- [ ] 97 OTHER _____
- [ ] 99 UNKNOWN

11 —ROAD SURFACE CONDITION

UNIT # 1	2			
X	X	☐	1	DRY
☐	☐	☐	2	WET
☐	☐	☐	3	SNOW
☐	☐	☐	4	SLUSH
☐	☐	☐	5	ICE/FROST
☐	☐	☐	6	WATER (standing, moving)
☐	☐	☐	7	SAND
☐	☐	☐	8	MUD, DIRT, GRAVEL
☐	☐	☐	9	OIL
☐	☐	☐	97	OTHER _____
☐	☐	☐	99	UNKNOWN

12 —ROAD GRADE

UNIT # 1	2			
X	X	☐	1	LEVEL
☐	☐	☐	2	DOWNHILL
☐	☐	☐	3	UPHILL
☐	☐	☐	4	HILLCREST
☐	☐	☐	5	SAG/DIP/BOTTOM
☐	☐	☐	99	UNKNOWN

13 —RELATION TO JUNCTION

- [ ] 0 NOT JUNCTION RELATED

NON-CONTROLLED ACCESS AREA

- [X] 1 INTERSECTION (within)
- [ ] 2 INTERSECTION-RELATED
- [ ] 3 ENTRANCE/EXIT RAMP (rest areas)
- [ ] 4 RAILWAY GRADE CROSSING
- [ ] 5 MEDIAN CROSSOVER-RELATED
- [ ] 6 FRONTAGE ROAD
- [ ] 7 DRIVEWAY
- [ ] 8 ALLEY-ACCESS-RELATED
- [ ] 18 WRONG WAY DRIVING
- [ ] 9 UNKNOWN NON-INTERCHANGE

CONTROLLED ACCESS AREA

- [ ] 10 THRU ROADWAY
- [ ] 11 INTERSECTION (within)
- [ ] 12 INTERSECTION-RELATED
- [ ] 13 ENTRANCE/EXIT RAMP
- [ ] 14 FRONTAGE ROAD
- [ ] 15 OTHER PART OF INTERCHANGE
- [ ] 16 MEDIAN CROSSOVER-RELATED
- [ ] 17 WRONG WAY DRIVING
- [ ] 99 UNKNOWN

14 —TYPE OF INTERSECTION

- [X] 1 FOUR– WAY INTERSECTION
- [ ] 2 T - INTERSECTION
- [ ] 3 Y - INTERSECTION
- [ ] 4 INTER. AS PART OF INTERCHANGE
- [ ] 5 TRAFFIC CIRCLE
- [ ] 6 ROUNDABOUT
- [ ] 7 FIVE POINT, OR MORE
- [ ] 99 UNKNOWN

15 —TRAFFIC WAY DESCRIPTION

- [ ] 1 ONE WAY TRAFFICWAY
- [ ] 2 TWO-WAY, NOT DIVIDED (no median present)
- [ ] 3 TWO-WAY, (NOT DIVIDED) WITH A CONTINUOUS LEFT TURN LANE
- [X] 4 TWO-WAY, DIVIDED, UNPROTECTED (PAINTED> 4 FEET) MEDIAN
- [ ] 5 TWO-WAY, DIVIDED, POSITIVE MEDIAN BARRIER
- [ ] 99 UNKNOWN

16 —TRAFFIC CONTROL DEVICE

UNIT # 1	2			
☐	X	☐	0	NO CONTROLS
☐	☐	☐	1	SIGNAL
X	☐	☐	2	STOP SIGN
☐	☐	☐	3	YIELD SIGN
☐	☐	☐	4	WARNING SIGN
☐	☐	☐	5	RAILROAD CROSSING SIGN
☐	☐	☐	6	FLASHING TRAFFIC SIGNAL
☐	☐	☐	7	PERSON (law enforcement, crossing guard, flagger, etc.)
☐	☐	☐	97	OTHER _____
☐	☐	☐	99	UNKNOWN

17 —MANNER OF CRASH IMPACT

- [ ] 1 SINGLE VEHICLE
- [X] 2 ANGLE (front to side) (other than left turn)
- [ ] 3 LEFT TURN
- [ ] 4 REAR END (front-to-rear)
- [ ] 5 HEAD-ON (front-to-front) (other than left turn)
- [ ] 6 SIDESWIPE, SAME DIRECTION
- [ ] 7 SIDESWIPE, OPPOSITE DIRECTION
- [ ] 8 REAR-TO-SIDE
- [ ] 9 REAR-TO-REAR
- [ ] 97 OTHER _____
- [ ] 99 UNKNOWN

18 —DIRECTION OF UNIT TRAVEL (Compass)
BEFORE 1ST CRASH EVENT

UNIT # 1	2			
☐	X	☐	1	NORTH
☐	☐	☐	2	SOUTH
X	☐	☐	3	EAST
☐	☐	☐	4	WEST
☐	☐	☐	5	NORTHWEST
☐	☐	☐	6	NORTHEAST
☐	☐	☐	7	SOUTHWEST
☐	☐	☐	8	SOUTHEAST
☐	☐	☐	99	UNKNOWN

19 —CONTRIBUTING CIRCUMSTANCES
UP TO TWO CHOICES PER UNIT

UNIT # 1	2			
X	X	☐	0	NO CONTRIBUTING CIRCUMSTANCE

ENVIRONMENTAL

			1	GLARE
☐	☐	☐	A.	SUNLIGHT
☐	☐	☐	B.	HEADLIGHTS
			2	PHYSICAL OBSTRUCTION(S)
☐	☐	☐	A.	STOPPED/PARKED VEHICLE
☐	☐	☐	B.	MOVING VEHICLE
☐	☐	☐	C.	LOAD ON VEHICLE
☐	☐	☐	D.	TREE/SHRUB/BUSH

ROAD

☐	☐	☐	3	ROAD SURFACE CONDITION
☐	☐	☐	4	DEBRIS
			5	WORK ZONE
☐	☐	☐	A.	LANE CLOSURE
☐	☐	☐	B.	LANE SHIFT/CLOSURE
☐	☐	☐	C.	WORK ON SHOULDER OR MEDIAN
☐	☐	☐	D.	INTERMITTENT OR MOVING WORK
☐	☐	☐	E.	OTHER _____
☐	☐	☐	F.	WORKERS PRESENT
☐	☐	☐	6	OBSTRUCTION IN ROADWAY
☐	☐	☐	7	CHANGING ROAD WIDTH
☐	☐	☐	8	NON-HIGHWAY WORK

MOTOR VEHICLE

☐	☐	☐	9	BRAKES
☐	☐	☐	10	STEERING
☐	☐	☐	11	SUSPENSION
☐	☐	☐	12	TIRES
☐	☐	☐	13	WHEELS
☐	☐	☐	14	LIGHTS (head, signal, tail)
☐	☐	☐	15	WINDOWS/WINDSHIELD
☐	☐	☐	16	MIRRORS
☐	☐	☐	17	WIPERS
☐	☐	☐	18	TRUCK COUPLING/TRAILER/HITCH/SAFETY CHAINS
☐	☐	☐	97	OTHER _____
☐	☐	☐	99	UNKNOWN

20 —DISTRACTED DRIVING BEHAVIOR

UNIT # 1	2			
X	X	☐	0	NOT DISTRACTED
☐	☐	☐	1	TALKING ON HANDS FREE DEVICE
☐	☐	☐	2	TALKING ON HAND HELD DEVICE
☐	☐	☐	3	PASSENGER
☐	☐	☐	4	OTHER ACTIVITY, ELECTRONIC DEVICE
☐	☐	☐	5	MANUALLY OPERATING AN ELCTRONIC DEVICE
☐	☐	☐	6	OTHER INSIDE THE VEHICLE (eating, drinking, etc.)
☐	☐	☐	7	OUTSIDE THE VEHICLE (includes unspecified distractions)
☐	☐	☐	99	UNKNOWN DISTRACTIONS

BLOCKS 09 - 24: CHECK ONLY ONE OR ONE BLOCK PER UNIT UNLESS NOTED

21 —CONDITION INFLUENCING Driver/Ped/Cyclist
UP TO TWO CHOICES PER UNIT

UNIT # 1	2			
X	X	☐	0	NO APPARENT INFLUENCE
☐	☐	☐	1	ILLNESS
☐	☐	☐	2	PHYSICAL IMPAIRMENT
☐	☐	☐	3	FELL ASLEEP/FATIGUED
☐	☐	☐	4	ALCOHOL
☐	☐	☐	5	DRUGS
☐	☐	☐	6	MEDICATIONS

CHECK ONE IF BLOCKS 4, 5, OR 6 CHECKED

☐	☐	☐	A.	NO TEST GIVEN
☐	☐	☐	B.	TEST GIVEN
☐	☐	☐	C.	TEST REFUSED
☐	☐	☐	D.	TESTING UNKNOWN
☐	☐	☐	97	OTHER _____
☐	☐	☐	99	UNKNOWN CONDITION

22 —VIOLATIONS/BEHAVIOR
UP TO TWO CHOICES PER UNIT

UNIT # 1	2			
☐	X	☐	1	NO IMPROPER ACTION
☐	☐	☐	2	SPEED TOO FAST FOR CONDITIONS
☐	☐	☐	3	EXCEEDED LAWFUL SPEED
☐	☐	☐	4	FOLLOWED TOO CLOSELY
☐	☐	☐	5	RAN STOP SIGN
☐	☐	☐	6	DISREGARDED TRAFFIC SIGNAL
☐	☐	☐	7	MADE IMPROPER TURN
☐	☐	☐	8	DROVE/RODE IN OPPOSING TRAFFIC LANE
☐	☐	☐	9	KNOWINGLY OPERATED WITH FAULTY/ MISSING EQUIPMENT
☐	☐	☐	10	REQUIRED MOTORCYCLE SAFETY EQUIP- MENT NOT USED
☐	☐	☐	11	PASSED IN NO PASSING ZONE
☐	☐	☐	12	UNSAFE LANE CHANGE
☐	☐	☐	13	FAILED TO KEEP IN PROPER LANE
☐	☐	☐	14	DISREGARDED PAVEMENT MARKINGS
☐	☐	☐	15	OTHER UNSAFE PASSING
			16	(Moved to Box 20-Distracted Driving Behavior)
☐	☐	☐	17	DID NOT USE CROSSWALK
☐	☐	☐	18	WALKED ON WRONG SIDE OF ROAD
			19	(Moved to Box 20-Distracted Driving Behavior)
X	☐	☐	20	FAILED TO YIELD RIGHT-OF-WAY
☐	☐	☐	97	OTHER _____
☐	☐	☐	99	UNKNOWN

23 —TRAFFIC UNIT MANEUVER/ACTION

UNIT # 1	2			
X	X	☐	1	GOING STRAIGHT AHEAD
☐	☐	☐	2	SLOWING IN TRAFFICWAY
☐	☐	☐	3	STOPPED IN TRAFFIC WAY
☐	☐	☐	4	MAKING LEFT TURN
☐	☐	☐	5	MAKING RIGHT TURN
☐	☐	☐	6	MAKING U-TURN
☐	☐	☐	7	OVERTAKING/PASSING
☐	☐	☐	8	CHANGING LANES
☐	☐	☐	9	NEGOTIATING A CURVE
☐	☐	☐	10	BACKING
☐	☐	☐	11	AVOIDING VEHICLE /OBJECT/PED/CYCLIST
☐	☐	☐	12	ENTERING PARKING POSITION
☐	☐	☐	13	LEAVING PARKING POSITION
☐	☐	☐	14	PROPERLY PARKED
☐	☐	☐	15	IMPROPERLY PARKED
☐	☐	☐	16	DRIVERLESS MOVING VEHICLE
☐	☐	☐	17	CROSSING ROAD
☐	☐	☐	18	WALKING WITH TRAFFIC
☐	☐	☐	19	WALKING AGAINST TRAFFIC
☐	☐	☐	20	STANDING
☐	☐	☐	21	LYING
☐	☐	☐	22	GETTING ON/OFF VEHICLE
☐	☐	☐	23	WORKING ON/PUSHING VEHICLE
☐	☐	☐	24	WORKING ON ROAD
☐	☐	☐	97	OTHER _____
☐	☐	☐	99	UNKNOWN

24 —LOCATION OF PEDESTRIAN/CYCLIST

UNIT # 1	2			
☐	☐	☐	1	MARKED CROSSWALK at INTERSECTION
☐	☐	☐	2	AT INTERSECTION BUT NO CROSSWALK
☐	☐	☐	3	NON-INTERSECTION CROSSWALK
☐	☐	☐	4	DRIVEWAY ACCESS CROSSWALK
☐	☐	☐	5	SCHOOL CROSSWALK
☐	☐	☐	6	IN ROADWAY (not in crosswalk/intersection)
☐	☐	☐	7	MEDIAN (but not on shoulder)
☐	☐	☐	8	ISLAND
☐	☐	☐	9	SHOULDER
☐	☐	☐	10	SIDEWALK
☐	☐	☐	11	ROADSIDE
☐	☐	☐	12	OUTSIDE OF TRAFFICWAY
☐	☐	☐	13	DEDICATED BIKE LANE
☐	☐	☐	14	SHARED-USE PATH
☐	☐	☐	15	INSIDE BUILDING
☐	☐	☐	97	OTHER _____
☐	☐	☐	99	UNKNOWN

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1	8	0	1	2	5	0	8	1	0	0	7	2	1	0	3	0	4	3						

25 PASSENGERS

Unit #	Seat Pos	SD	IS	Name	Address	City	State	Zip Code	Telephone No.	D.O.B. or Age	Sex
				☐ transported by EMS/FIRE	☐ ejected		☐ extricated				
				☐ transported by EMS/FIRE	☐ ejected		☐ extricated				
				☐ transported by EMS/FIRE	☐ ejected		☐ extricated				
				☐ transported by EMS/FIRE	☐ ejected		☐ extricated				
				☐ transported by EMS/FIRE	☐ ejected		☐ extricated				

Safety Devices (SD)
0 - Not Applicable
1 - None Used
2 - Lap Belt
3 - Shoulder and Lap Belt
4 - Child Restraint System
5 - Helmet Used
6 - Air Bag Deployed
7– Air Bag Deployed/ Shoulder-Lap Belt
97 - Other _____
99 - Unknown

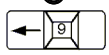
Injury Severity (IS)
1 - No Injury
2 - Possible Injury
3 - Non Incapacitating Injury
4 - Incapacitating Injury
5 - Fatal Injury
99 - Unknown/ Not Reported

Seating Position
31 21 11
32 22 12 55
33 23 13
38 28 18
18 - Front Seat - Other (Child in Lap)
28 or 38 - Additional passenger in vehicle by row
51 - In enclosed or cargo area
52 - In unenclosed passenger/cargo area
55 - Riding on Vehicle Exterior
99 - Unknown

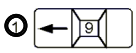
26 CITATION

UNIT #	A.R.S. NO. OR CITY CODE	UNIT #	A.R.S. NO. OR CITY CODE
1	28-773B	1	28-4135C

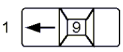
27 VEHICLE DAMAGED AREA(S) - (CIRCLE UP TO THREE AREAS PER UNIT)

1 Unit #


0—NONE
10—UNDERCARRIAGE
97—OTHER
99—UNKNOWN

2 Unit #


0—NONE
10—UNDERCARRIAGE
97—OTHER
99—UNKNOWN

Unit #


0—NONE
10—UNDERCARRIAGE
97—OTHER
99—UNKNOWN

28 GLOBAL POSITION Latitude: **33.674513** Longitude: **-112.28993**

29 —ROADWAY ALIGNMENT

UNIT # 1	UNIT # 2		
☒	☒	☐	1 - STRAIGHT
☐	☐	☐	2 - CURVE LEFT
☐	☐	☐	3 - CURVE RIGHT
☐	☐	☐	99 - UNKNOWN

30 —LANE

Please enter unit's number and lane of travel before first crash event

UNIT 1	UNIT 2	UNIT ___
1	1	

0 TWO-WAY CONTINUOUS LEFT TURN
1-9 1= FIRST LANE NEXT TO A MEDIAN THRU 9
10 CROSSWALK
L1 THRU LX - LEFT TURN ONLY LANES (L1= 1ST LEFT TURN AFTER MEDIAN/ CENTERLINE)
R1 THRU RX - RIGHT TURN LANES (R1=1ST RIGHT TURN AFTER THROUGH LANES)
SW SIDEWALK
BL DEDICATED BIKE LANE
HOV HIGH OCCUPANCY VEHICLE
97 NON-ROADWAY
99 UNKNOWN

31 —EJECTION

0 NOT APPLICABLE
1 NOT EJECTED
2 EJECTED, PARTIALLY
3 EJECTED, TOTALLY
4 UNKNOWN DEGREE
99 UNKNOWN

32 —EXTRICATION

0 NOT APPLICABLE
1 EXTRICATED
99 UNKNOWN

Unit # and Seat Position from front page.
Driver seat position = 11

Unit #	Seat Pos	Ejection	Extrication
1	11	1	0
2	11	1	0

33 —SEQUENCE OF EVENTS

UP TO FOUR CRASH EVENTS FOR EACH UNIT IN THE ORDER OF OCCURRENCE

NON-COLLISION

1 OVERTURN/ROLLOVER
2 FIRE/EXPLOSION
3 IMMERSION
4 JACKKNIFE
5 CARGO/EQUIPMENT LOSS/SHIFT
6 FELL/JUMPED FROM VEHICLE
7 THROWN OR FALLING OBJECT
8 OTHER NON-COLLISION _____
9 EQUIPMENT FAILURE (tires, brakes)
10 SEPARATION OF UNITS
11 RAN OFF ROAD RIGHT
12 RAN OFF ROAD LEFT
13 CROSS MEDIAN
14 CROSS CENTERLINE
15 DOWNHILL RUNAWAY

COLLISION WITH PERSON, MOTOR VEHICLE, OR NON-FIXED OBJECT

16 MOTOR VEHICLE IN TRANSPORT
17 PEDESTRIAN
18 PEDALCYCLE
19 RAILWAY VEHICLE (TRAIN, ENGINE)
20 LIGHT RAILWAY/RAILCAR VEHICLE
21 ANIMAL, WILD—NON GAME _____
22 ANIMAL, WILD—GAME _____
23 ANIMAL—PET_____
24 ANIMAL—LIVESTOCK _____
25 PARKED MOTOR VEHICLE
26 WORK ZONE/MAINT. EQUIP.
27 STRUCK BY FALLING, SHIFTING CARGO OR ANYTHING SET IN MOTION BY ANOTHER VEHICLE
28 OTHER NON-FIXED OBJ. _____

COLLISION WITH FIXED OBJECT

29 IMPACT ATTENUATOR/CRASH CUSHION
30 BRIDGE/OVERHEAD STRUCTURE
31 BRIDGE RAIL
32 CULVERT
33 CURB
34 DITCH
35 EMBANKMENT
36 GUARDRAIL FACE
37 GUARDRAIL END
38 CONCRETE TRAFFIC BARRIER
39 CABLE TRAFFIC BARRIER
40 OTHER TRAFFIC BARRIER
41 TREE, BUSH, STUMP (standing)
42 TRAFFIC SIGN SUPPORT
43 TRAFFIC SIGNAL SUPPORT
44 UTILITY POLE/LIGHT SUPPORT
45 OTHER POST, POLE, OR SUPPORT
46 FENCE
47 MAILBOX
48 BUILDING
49 OTHER FIXED OBJ. _____

99 UNKNOWN

FIRST HARMFUL EVENT OF THE CRASH 16

SEQUENCE OF EVENTS PER TRAFFIC UNIT

	Unit 1	Unit 2	Unit ___
FIRST EVENT	16	16	
SECOND EVENT			
THIRD EVENT			
FOURTH EVENT			

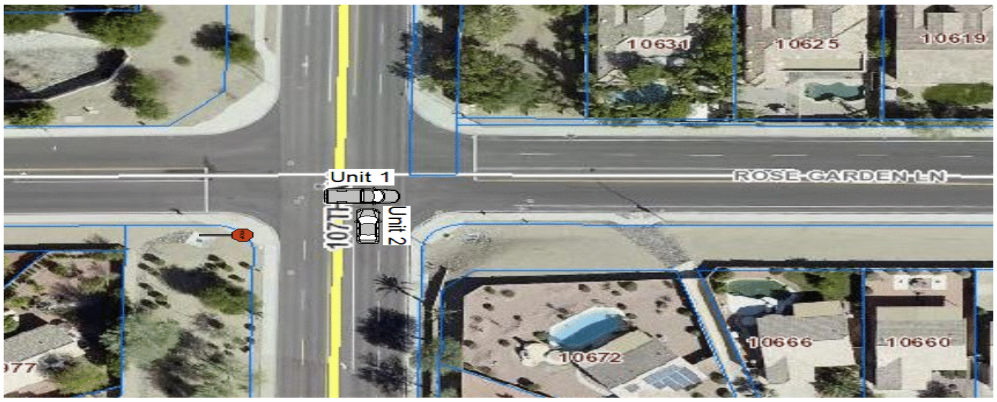
01-2704B2 R05/2014

ARIZONA CRASH REPORT	REPORT ID																	Agency Report Number
1	***CONTINUED*** ***POLICE ONLY***—FORWARD COPY TO ADOT TRAFFIC RECORDS SECTION, 064R 206 S. 17TH AVE., PHOENIX, ARIZONA 85007-3233	YEAR		MONTH		DAY		HOUR				NCIC NO.				OFFICER ID NO.				**2018-00005604**
		1	8	0	1	2	5	0	8	1	0	0	7	2	1	0	3	0	4	3	

32 CRASH DIAGRAM

[X] MEASUREMENTS ARE APPROXIMATE AND NOT TO SCALE
[ ] MEASUREMENTS ARE SCALED (SCALE = _____)

33 INDICATE NORTH



Peoria Police Department
IR 2018-0000
Collision Non-Injury
10700 W. Rose Gardenl Ln.
Ofc. J. Cousins #3043

N

01-2704C1 R05/2014

ARIZONA CRASH REPORT	REPORT ID																	Agency Report Number
1	**CONTINUED** *POLICE ONLY*—FORWARD COPY TO ADOT TRAFFIC RECORDS SECTION, 064R 206 S. 17TH AVE., PHOENIX, ARIZONA 85007-3233	YEAR		MONTH		DAY		HOUR			NCIC NO.				OFFICER ID NO.			2018-00005604
		1	8	0	1	2	5	0	8	1	0	0	7	2	1	0	3	0	4	3	

34 NARRATIVE Describe what happened

This was a collision with injuries involving two traffic units, which occurred in the intersection of W. Rose Garden Ave. and N. 107Th Ave. These are public roadways. Rose Garden has one lane in each of the EB and WB lanes of travel with a designated left turn lane. North 107th Ave is a five-lane roadway with two lanes in both NB and SB directions with a designated left turn lane. Rose Garden has a stop sign for a two way stop. North 107Th Ave. is free flowing traffic with no stop signs.

Traffic at this time of day is light.

Traffic Unit 2 (TU2) was NB in lane #1. TU1 was EB on Rose Garden. TU1 pulled out in front of TU2 unsafely from a stop sign. TU2 struck TU1 on the passenger side.

Both witnesses and driver of TU2 had the same account as listed above.

TU1 driver stated he stopped, but didn't see TU2 coming. He proceeded from the stop sign and was struck by TU2.

TU1 doesn't have insurance. TU1 driver didn't have his seat belt on and went into the passenger side of the driving compartment striking his head. He refused further medical treatment.

TU2 driver sustained head, neck, and back injury. She was treated on scene by Peoria Fire #195 and taken to Arrowhead Hospital.

Western Towing towed both vehicles.

This concludes my involvement in this case.

ARIZONA CRASH REPORT

1 FATAL SUPPLEMENT

POLICE ONLY—FORWARD COPY TO
ADOT TRAFFIC RECORDS SECTION, 064R
206 S. 17TH AVE., PHOENIX, ARIZONA 85007-3233

REPORT ID																								Agency Report Number
YEAR		MONTH		DAY		HOUR				NCIC NO.				OFFICER ID NO.										2018-00005604
1	8	0	1	2	5	0	8	1	0	0	7	2	1	0	3	0	4	3						☐ Delayed Fatality

2 VICTIM

NAME OF VICTIM | ☐ DRIVER ☐ PASSENGER ☐ PEDESTRIAN ☐ PEDALCYCLIST

ADDRESS | CITY | STATE | ZIP

SEX | WEIGHT | EYES | HEIGHT | HAIR | DATE OF BIRTH

VICTIM REMOVED TO | VICTIM REMOVED BY

DECEASED AT SCENE ☐ YES ☐ NO | TRANSPORTED TO HOSPITAL ☐ YES ☐ NO | DATE OF DEATH (MMDDYYYY) | TIME OF DEATH

SAFETY DEVICE FAILURE

- ☐ 0 NOT APPLICABLE (SAFETY DEVICE WORKED)
- ☐ 1 LAP FAILED
- ☐ 2 SHOULDER FAILED
- ☐ 3 BOTH FAILED
- ☐ 4 CHILD SAFETY SEAT FAILED
- ☐ 5 CHILD BOOSTER SEAT FAILED
- ☐ 99 UNKNOWN

AIR BAG NOT AVAILABLE

- ☐ 0 NOT APPLICABLE
- ☐ 1 PREVIOUSLY DEPLOYED - NOT REPLACED
- ☐ 2 DISABLED
- ☐ 3 REMOVED

SAFETY DEVICE - IMPROPER USAGE

- ☐ 0 NOT APPLICABLE (Safety Device Properly Used)
- ☐ 1 LAP
- ☐ 2 SHOULDER
- ☐ 3 BOTH
- ☐ 4 CHILD SAFETY SEAT
- ☐ 5 CHILD BOOSTER SEAT
- ☐ 99 UNKNOWN

EJECTION (Eject) PATH

- ☐ 0 NOT APPLICABLE (NON-MOTORIST/ NOT EJECTED)
- ☐ 1 THROUGH SIDE DOOR OPENING
- ☐ 2 THROUGH SIDE WINDOW
- ☐ 3 THROUGH WINDSHIELD
- ☐ 4 THROUGH BACK WINDOW
- ☐ 5 THROUGH BACK DOOR/ TAILGATE OPENING
- ☐ 6 THROUGH ROOF OPENING (sunroof; convertible top down)
- ☐ 7 Through ROOF (convertible top up)
- ☐ 8 OTHER PATH
- ☐ 99 UNKNOWN

3 DRIVER

NAME OF DRIVER ☐ SAME AS VICTIM

4 EXTRICATION (Extr) SUPPLEMENT

UNIT #

- ☐☐☐ 0 NOT APPLICABLE (NON MOTORIST)/ NOT EXTRICATED
- ☐☐☐ 1 BY AMBULANCE ATTENDANT
- ☐☐☐ 2 BY POLICE
- ☐☐☐ 3 BY FIRE DEPARTMENT
- ☐☐☐ 4 BY PASSERBY
- ☐☐☐ 97 OTHER
- ☐☐☐ 99 UNKNOWN

5 COMPLETED IF ANY DRIVER IS TESTED FOR ALCOHOL/ DRUGS

	DRIVER # 01	DRIVER # 02	DRIVER #
ALCOHOL TEST TYPE	00	00	
ALCOHOL TEST RESULTS			
DRUG TEST TYPE	0	0	
DRUG TEST RESULTS			

6 MOTOR VEHICLE

UNDERRIDE/ OVERRIDE

UNIT #

☐☐☐ 0 NOT APPLICABLE

UNDERRIDING A MOTOR VEHICLE IN- TRANSPORT

- ☐☐☐ 1 UNDERRIDE (COMPARTMENT INSTRUSION)
- ☐☐☐ 2 UNDERRIDE (NO COMPARTMENT INTRUSION)
- ☐☐☐ 3 UNDERRIDE (COMPARTMENT INTRUSION UNKNOWN)

UNDERRIDING A MOTOR VEHICLE NOT IN- TRANSPORT

- ☐☐☐ 4 UNDERRIDE (COMPARTMENT INSTRUSION)
- ☐☐☐ 5 UNDERRIDE (NO COMPARTMENT INTRUSION)
- ☐☐☐ 6 UNDERRIDE (COMPARTMENT INTRUSION UNKNOWN)

- ☐☐☐ 7 OVERRIDING A MOTOR VEHICLE IN- TRANSPORT
- ☐☐☐ 8 OVERRIDING A MOTOR VEHICLE NOT IN- TRANSPORT
- ☐☐☐ 9 THROUGH ROOF OPENING (sunroof)
- ☐☐☐ 99 UNKNOWN

FIRE OCCURRENCE

UNIT #

- ☐☐☐ 0 NOT APPLICABLE
- ☐☐☐ 1 FIRE OCCURRED IN VEHICLE DURING CRASH

7 EMS

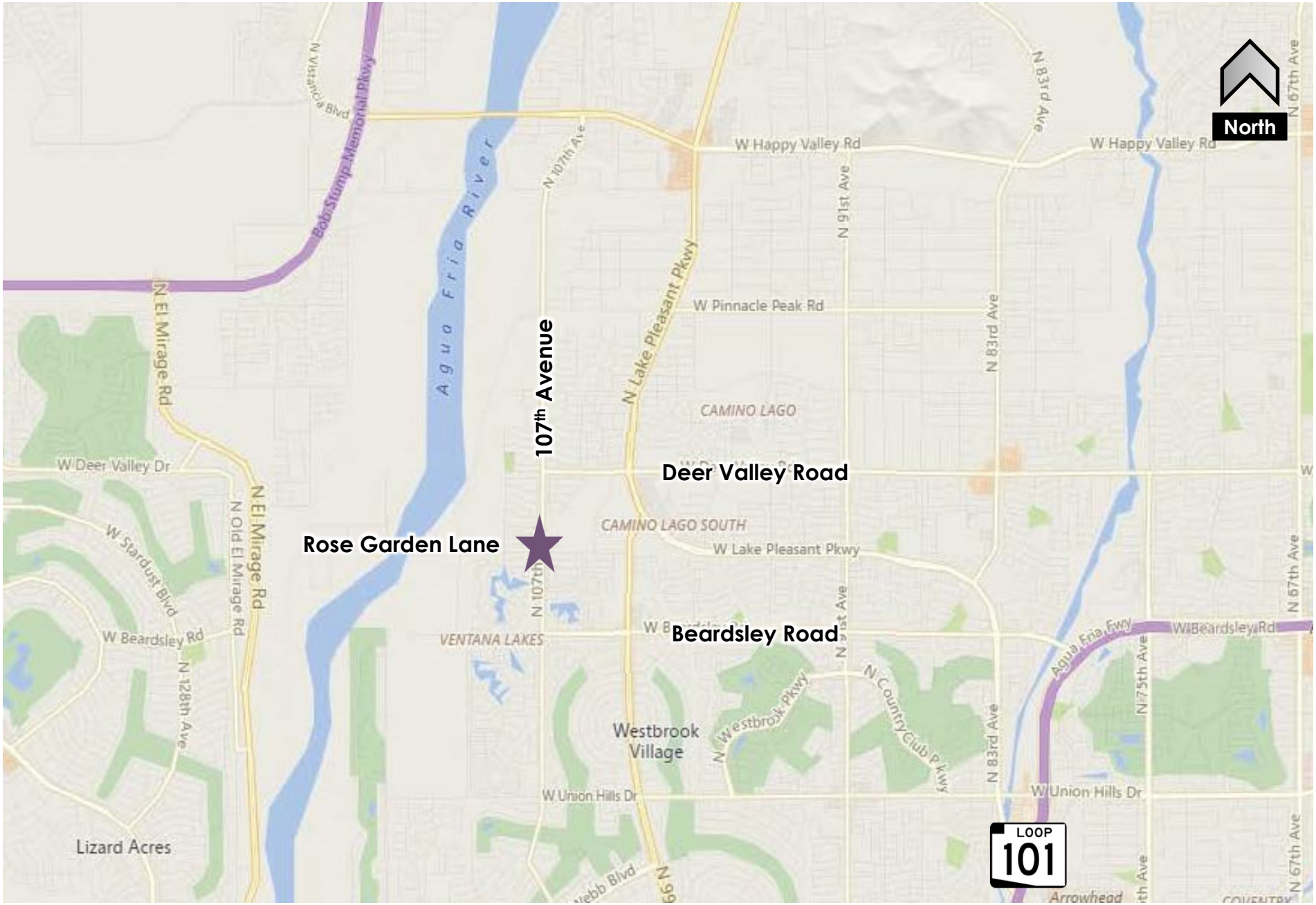
TIME EMS CALLED | TIME EMS ARRIVED | ARRIVAL TIME AT HOSPITAL

8 COMMENTS

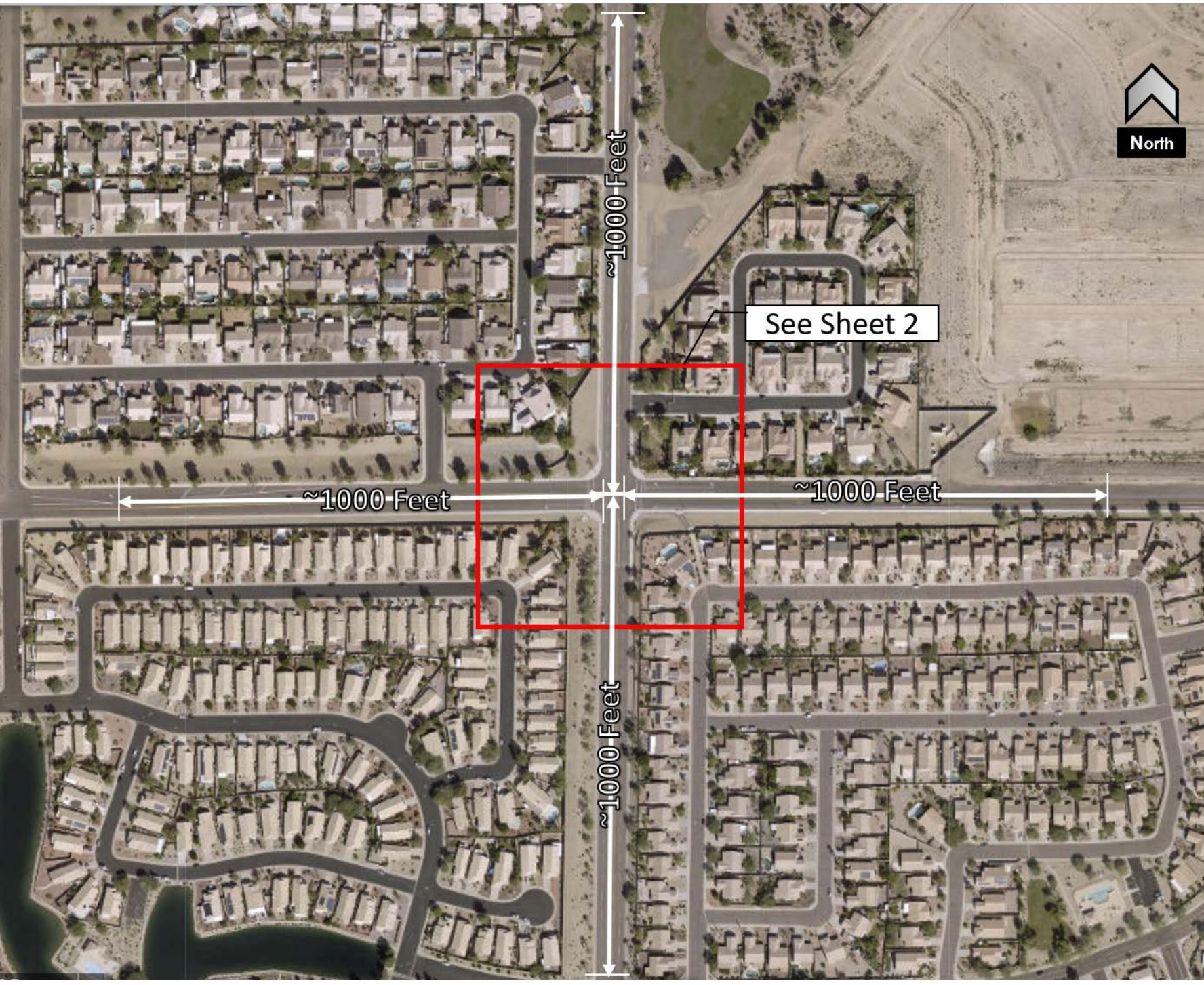
9

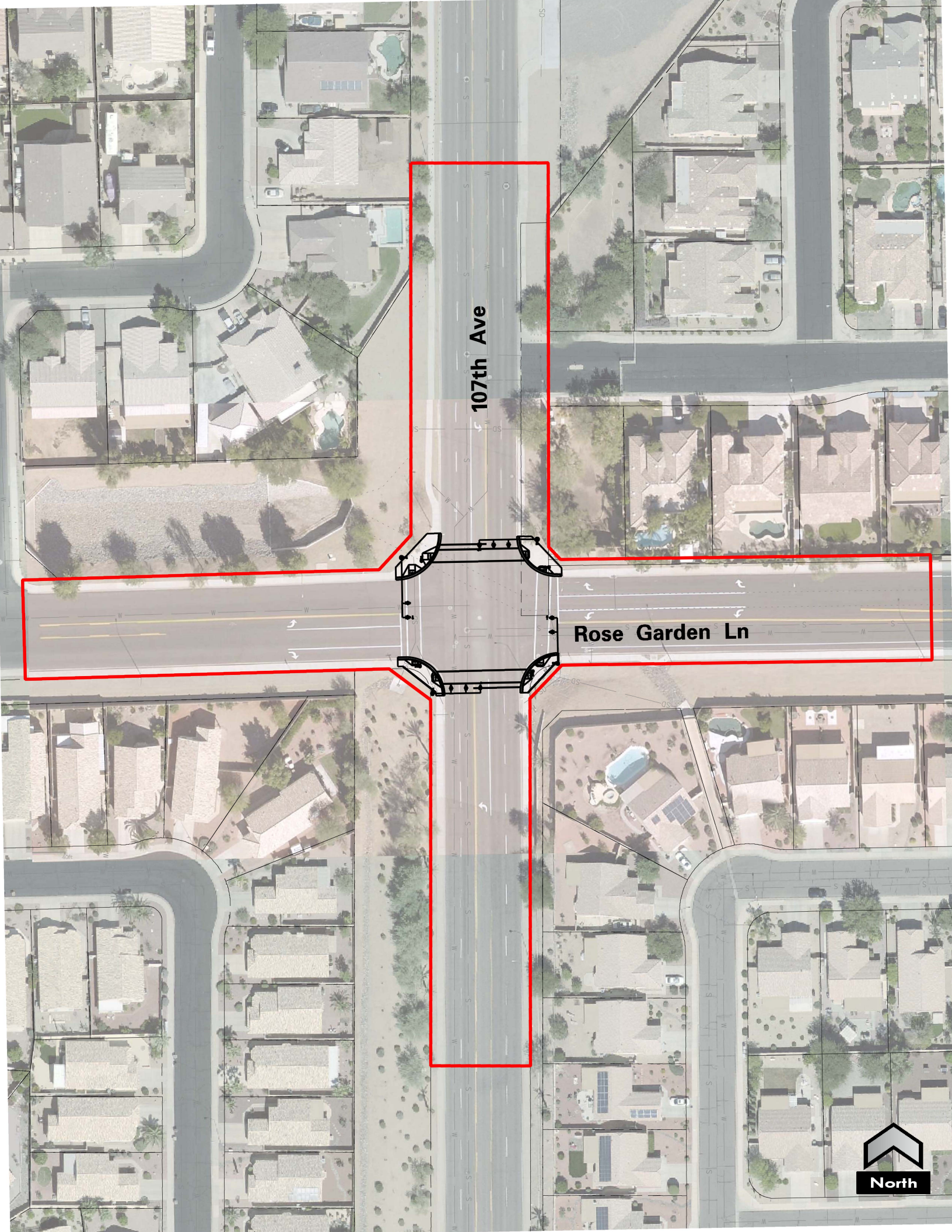
OFFICER'S NAME	SUPERVISOR'S SIGNATURE	AGENCY	DATE COMPLETED
James Cousins 3043	Stipp, Daniel	Peoria PD	01/25/2017

01-2705 R06/2010



Project Vicinity Map


North
~1000 Feet
~1000 Feet
~1000 Feet
~1000 Feet
See Sheet 2


107th Ave
Rose Garden Ln
North

ENGINEERING

PROVIDING VALUE FIRST

107th Avenue & Rose Garden Lane Traffic Signal Warrant Analysis

Peoria, Arizona

March 2019

PREPARED FOR:
City of Peoria

PREPARED BY:
Y2K Engineering, LLC.
Project No. 18-041A

1921 S. Alma School Rd, Ste 110 \ Mesa, AZ 85210

480.696.1701

info@y2keng.com

Registered Professional Engineer (Civil)
CERTIFICATE NO. 40213
KELLY S. FLETCHER
Date Signed 3/11/19
ARIZONA, U.S.A.

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EXECUTIVE SUMMARY

INTRODUCTION

Y2K Engineering, LLC. {Y2K} has prepared a traffic signal warrant analysis report for the intersection of 107th Avenue and Rose Garden Lane per the request of the City of Peoria. **Figure 1** illustrates the location of the study intersection.

PRINCIPAL FINDINGS

- **107th Avenue & Rose Garden Lane:** Traffic Signal Warrant 7 (crash experience) is satisfied based on existing traffic volumes.

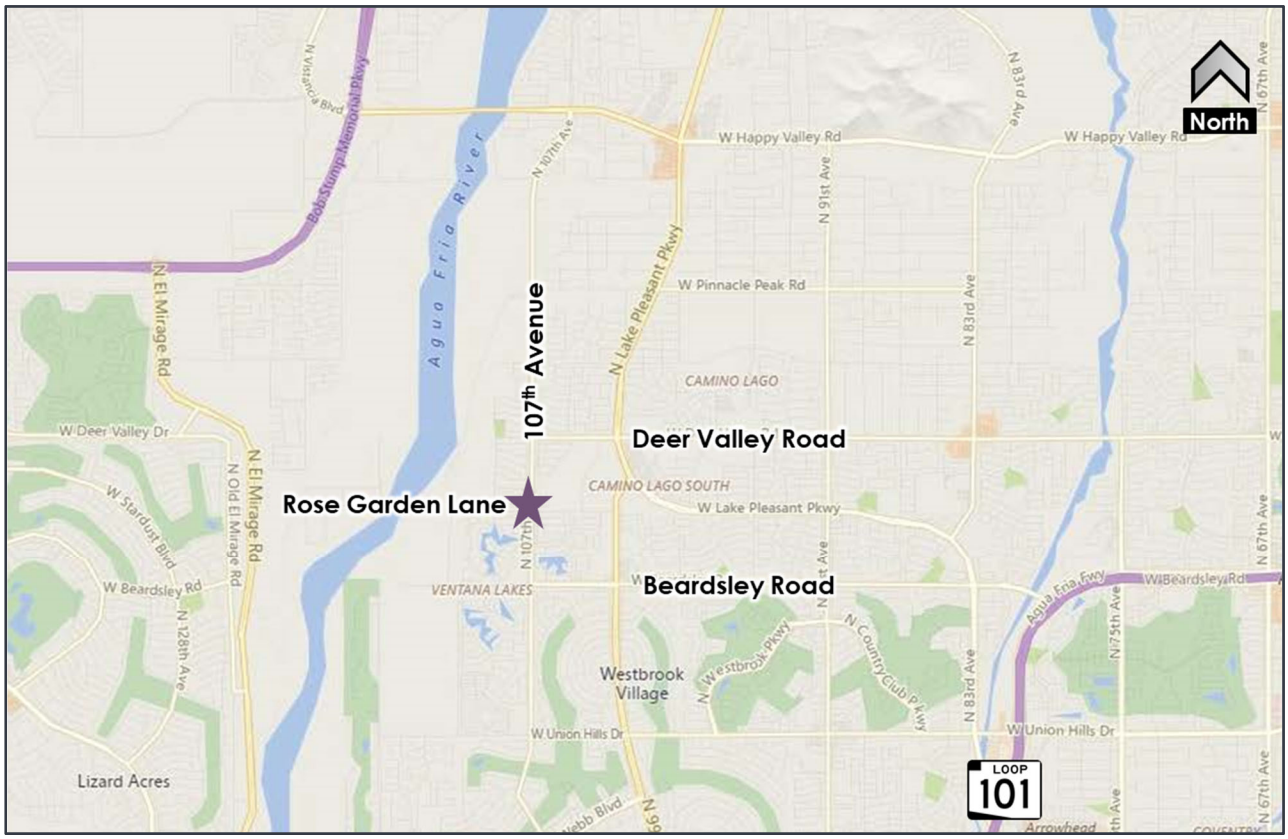


Figure 1: Location Map

EXISTING CONDITIONS

EXISTING LANE CONFIGURATION AND STOP CONTROL

The existing lane configuration for the study intersection is depicted in **Figure 2**. The 107th Avenue/Rose Garden Lane intersection is four legged and controlled by a two-way stop with Rose Garden Lane stopping for 107th Avenue. The northbound and southbound approaches consist of a dedicated left-turn lane, a through lane, and a shared through/right-turn lane. The eastbound and westbound approaches consist of a dedicated left-turn lane, a through lane, and a dedicated right-turn lane.

The posted speed limit on 107th Avenue is 40 mph, and the posted speed limit on Rose Garden Lane is 35 mph. Per the most recent data from the City of Peoria, the 85th percentile speed on 107th Avenue approaching the intersection is 42 mph in the southbound direction and 47 mph in the northbound direction. The 85th percentile speed on Rose Garden Lane approaching the intersection is 39 mph in the eastbound direction and 43 mph in the westbound direction.

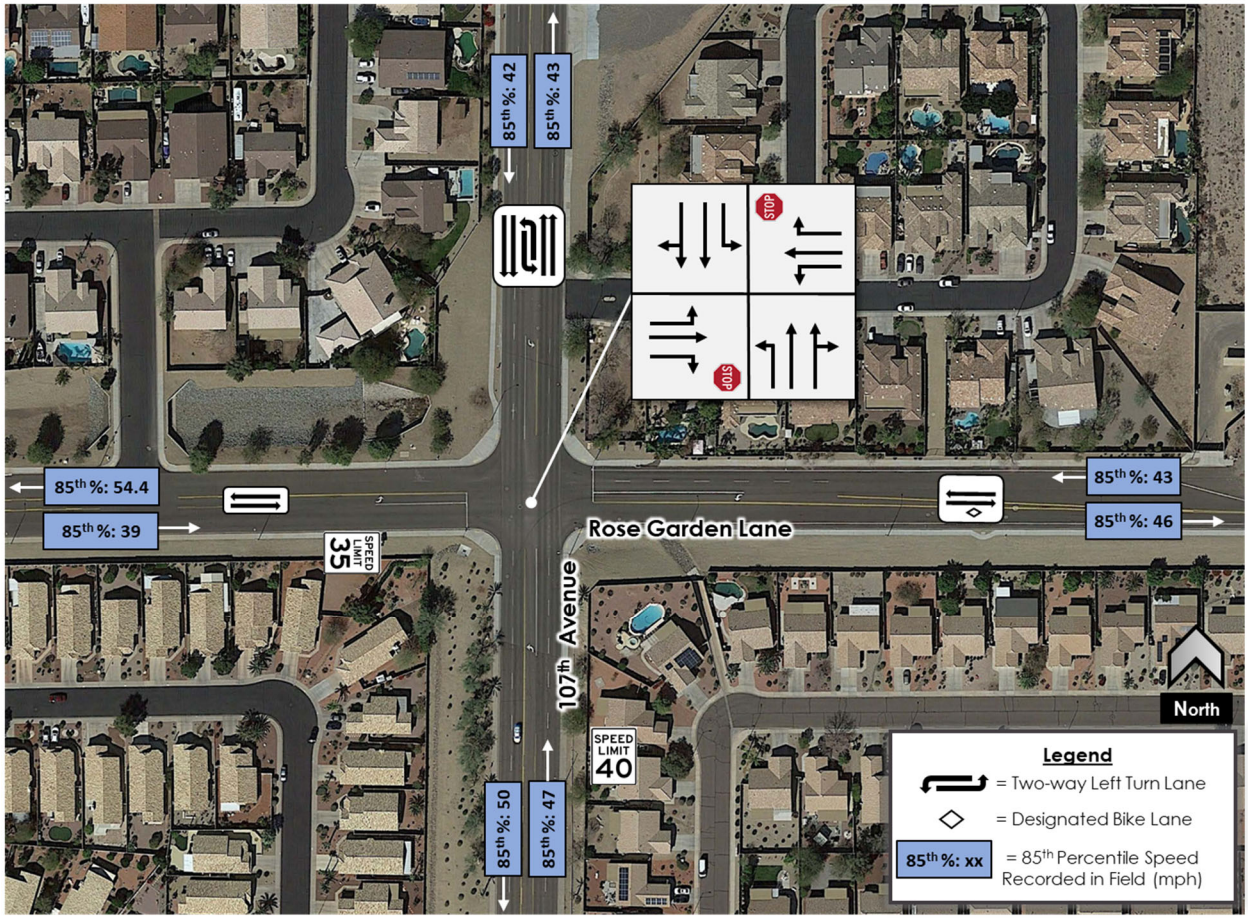


Figure 2: Existing Conditions

EXISTING TRAFFIC VOLUMES

24-hr turning movement counts were conducted at the study intersection on Tuesday November 6, 2018. All counts were provided in 15-minute intervals. The existing traffic counts are provided in **Attachment A** to this report. A chart illustrating the approach volumes by time of day is depicted in **Figure 3**. The peak hour turning movement counts are depicted in **Figure 4**.

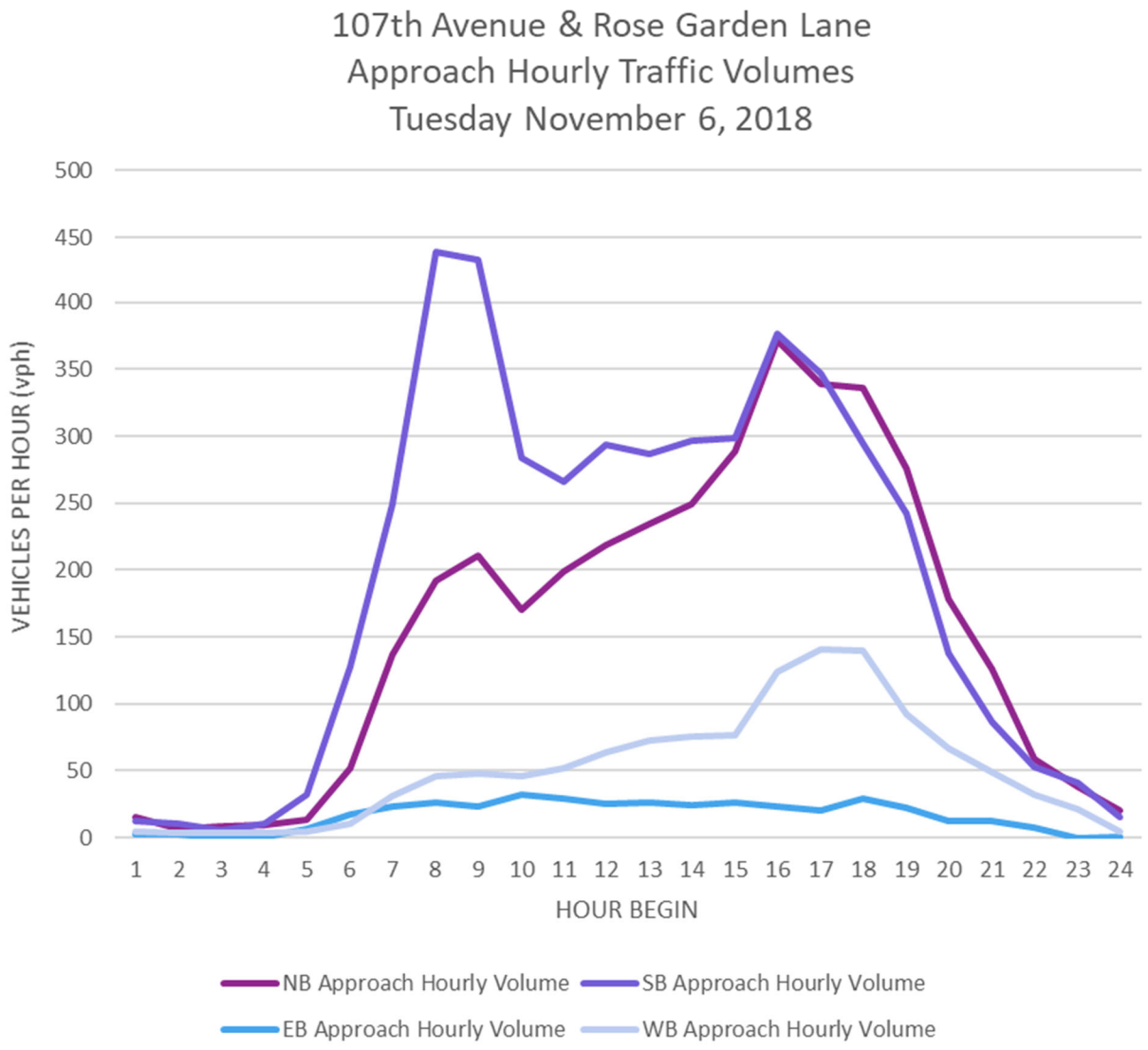


Figure 3: 107th Avenue & Rose Garden Lane Approach Hourly Traffic Volumes

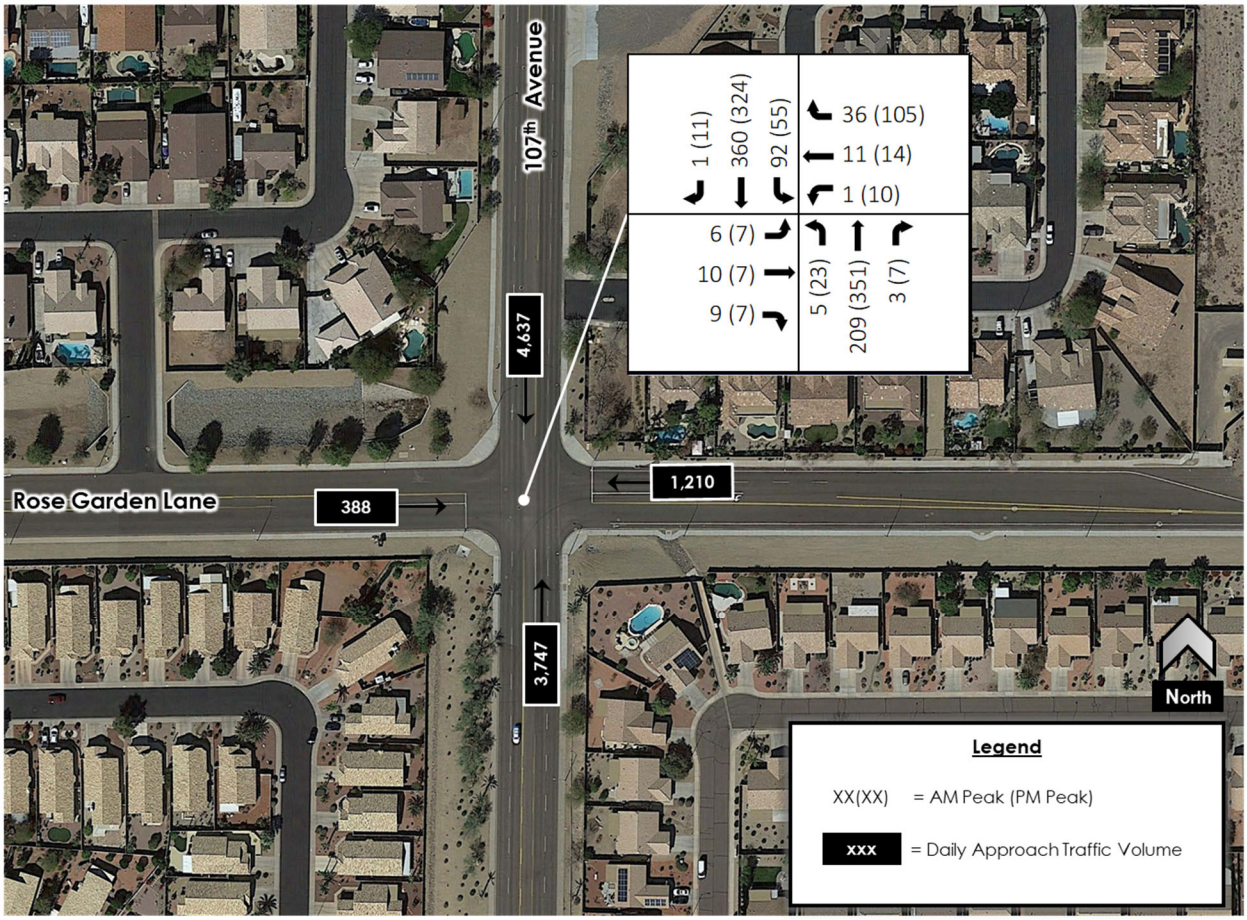


Figure 4: 2018 Existing Traffic Volumes

CRASH DATA

Five years of ALISS crash data (2013-2017) were reviewed from the Arizona Department of Transportation (ADOT) Safety Data Mart database for the study intersection. The crash data reveal that seven crashes in a 12-month period susceptible to correction by a traffic signal were recorded at the study intersection. Of the seven crashes, one was a fatal crash and one was a serious injury crash. Therefore, Warrant 7 (Crash Experience) was considered in this analysis.

EXISTING TRAFFIC SIGNAL WARRANT ANALYSIS

A traffic signal warrant analysis was conducted for the study intersection based on the November 2018 traffic counts.

METHODOLOGY

The *Manual on Uniform Traffic Control Devices (MUTCD), Federal Highway Administration (FHWA), 2009*, describes nine warrants that are used to determine if a traffic signal should be considered for installation at an intersection. A traffic signal is warranted if one or more of the warrants are satisfied. Warrants #1 (Eight Hour Volume), #2 (Four Hour Vehicular Volume) and #7 (Crash Experience) were used to evaluate the need to signalize the intersection. Based on existing conditions, availability of information, and applicability, the remaining warrants (#3, #4, #5, #6, #8 and #9) are not applicable.

Warrant #1 (Eight Hour Volume) is satisfied when for at least eight (8) hours of an average day, specific traffic volume levels are met for both the major and minor streets (Condition A – Minimum Vehicular Volume). The MUTCD states these volumes depending on the vehicles per hour (vph) combined for both approaches of the major street, and for the highest volume approach on the minor street. The values vary depending on the number of approach lanes and speed limit.

Warrant #1 also applies to operating conditions where the major street traffic levels are sufficiently high that traffic entering or crossing from a minor street suffers excessive delay (Condition B – Interruption of Continuous Traffic). The warrant is satisfied when for each of any of the same eight (8) hours of an average day, specific traffic volume levels are met for both the major and minor streets.

Warrant #2 (Four Hour Volume) is met when, for any four hours of the average day on both the major and minor streets, the hourly approach volumes are above the plotted curve contained in the MUTCD (see Appendix).

Warrant #7 (Crash Experience) is met when an adequate number of alternatives have failed to reduce crash frequency, five or more reported crashes ("…each involving personal injury or property damage…") have occurred (within a 12 month period) which could be corrected by the installation of a traffic signal, 80% of Warrant #1 Condition A, Warrant #1 Condition B, or Warrant #4 have been met, and if the installation of a traffic signal will not disrupt progressive traffic flow.

RESULTS

The results of the traffic signal warrant analyses are summarized in **Table 1**, and analysis worksheets are included in **Attachment B** for the intersection.

Table 1: Traffic Signal Warrant Analysis Results

Intersection	Existing Stop Control	Traffic Signal Warrant Satisfied?				
		Warrant 1: Eight-Hour Vehicular Volume			Warrant 2: Four-Hour Vehicular Volume	Warrant 7: Crash Experience
		Condition A	Condition B	Combination of Conditions A & B		
107th Avenue & Rose Garden Lane	Two-Way Stop	No	No	No	No	Yes

The satisfaction of a traffic signal warrant or warrants itself is guidance and shall not in itself require the installation of a traffic signal.

- Traffic Signal Warrant 7 (crash experience) is satisfied for the 107th Avenue/Rose Garden Lane intersection based on existing traffic counts.

ATTACHMENT A:

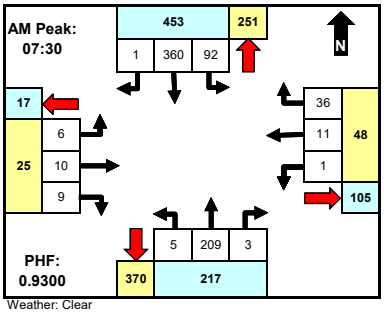
EXISTING TRAFFIC VOLUMES

TRAFFIC RESEARCH & ANALYSIS, INC.
Specializing in Traffic Data Collection

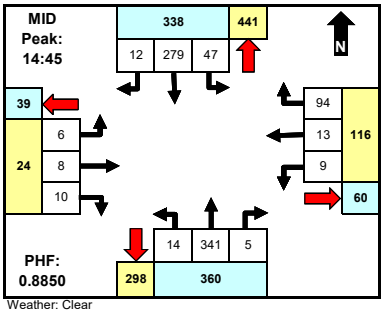
Traffic Research & Analysis, Inc.
3844 East Indian School Road
Phoenix, AZ 85018
(602) 840-1500

Intersection ID: 1805313
Count Date: 11/6/2018

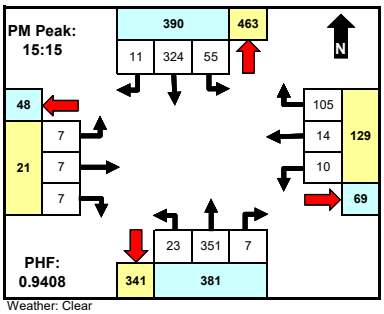
107TH AVE & W ROSE GARDEN LN



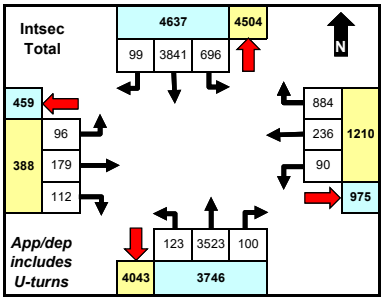
Weather: Clear



Weather: Clear



Weather: Clear



	North		East		South		West		
	App	Dep	App	Dep	App	Dep	App	Dep	Total
AM	453	251	48	105	217	370	25	17	743
MID	338	441	116	60	360	298	24	39	838
PM	390	463	129	69	381	341	21	48	921
Total	4637	4504	1210	975	3746	4043	388	459	9981

Comments

Unless shown otherwise, MID period defined as 10:00 AM - 2:00 PM. Peaks defined based on total intersection volume for all vehicle types. Chart totals do not include crosswalk data.

	From North (SB)					From East (WB)					From South (NB)					From West (EB)					INTSEC
	107TH AVE					W ROSE GARDEN LN					107TH AVE					W ROSE GARDEN LN					
Time	LT	Thru	RT	U	Cwlk	LT	Thru	RT	U	Cwlk	LT	Thru	RT	U	Cwlk	LT	Thru	RT	U	Cwlk	TOTAL
00:00	0	5	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	9
00:15	2	3	0	0	0	0	0	1	0	0	1	3	0	0	0	0	1	1	0	0	12
00:30	0	2	0	0	0	0	1	2	0	0	1	2	1	0	0	0	0	0	0	0	9
00:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
01:00	0	5	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	0	9
01:15	0	1	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	1	0	0	5
01:30	1	3	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	7
01:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	4
02:15	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	4
02:30	0	2	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	7
02:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00	1	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	6
03:15	0	3	0	0	0	1	0	1	0	0	0	2	0	0	0	0	0	0	0	1	8
03:30	0	2	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	5
03:45	0	2	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	5
04:00	1	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4
04:15	1	6	0	0	0	0	1	0	0	1	0	1	0	0	0	0	2	0	0	1	13
04:30	2	11	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	1	0	0	18
04:45	0	11	0	0	0	1	0	1	0	0	0	7	0	0	0	0	2	0	0	0	22
05:00	5	16	0	0	0	0	0	1	0	0	0	4	0	0	0	1	1	2	0	0	30
05:15	5	23	0	0	0	0	0	1	0	0	0	10	0	0	0	1	3	0	0	0	43
05:30	5	36	0	0	0	0	1	3	0	5	0	15	0	0	0	0	0	0	0	0	65
05:45	9	29	0	0	0	0	1	3	0	0	0	22	1	0	1	3	4	2	0	0	75
06:00	6	41	0	0	0	2	0	10	0	0	0	15	1	0	0	0	4	0	0	0	79
06:15	12	44	0	0	0	0	0	6	0	0	1	27	1	0	0	1	3	1	0	1	97
06:30	15	49	0	0	0	0	1	5	0	0	0	52	1	0	0	1	3	0	0	0	127
06:45	18	63	1	0	0	1	0	6	0	0	1	37	1	0	0	1	4	5	0	0	138
07:00	27	87	0	0	0	0	1	11	0	0	0	43	2	0	1	2	1	2	0	1	178
07:15	26	90	4	0	0	0	2	6	0	0	3	43	0	0	0	3	2	2	0	0	181
07:30	19	98	0	0	0	0	2	10	0	0	2	57	1	0	0	0	1	4	0	0	194
07:45	15	72	0	0	0	1	4	9	0	0	0	40	1	0	1	3	4	2	0	0	152
08:00	30	100	0	0	0	0	2	8	0	0	1	50	0	0	0	2	3	2	0	0	198
08:15	28	90	1	0	0	0	3	9	0	0	2	62	1	0	0	1	2	1	0	0	200
08:30	22	81	3	0	0	1	1	13	0	0	2	41	1	0	0	2	3	1	0	0	171
08:45	17	58	2	0	0	1	2	8	0	0	0	49	2	0	0	1	2	3	0	0	145
09:00	12	59	3	0	1	0	2	5	0	1	2	33	2	0	0	0	4	1	0	0	125
09:15	11	56	3	0	0	2	3	4	0	0	0	38	2	0	0	2	7	4	0	0	132
09:30	12	56	0	0	0	3	2	10	0	0	2	49	2	0	1	2	3	2	0	1	145
09:45	10	61	1	0	0	2	3	10	0	0	1	36	3	0	0	1	5	1	0	0	134
10:00	10	54	0	0	0	0	1	9	0	0	1	42	1	0	1	3	4	1	0	0	127
10:15	14	44	2	0	0	0	4	8	0	0	1	44	3	0	0	0	2	2	0	2	126
10:30	6	68	4	0	1	2	3	11	0	0	2	46	5	0	0	3	5	1	0	0	157
10:45	9	54	1	0	0	2	3	9	0	0	2	48	4	0	0	0	4	3	1	0	140
11:00	9	65	2	0	0	3	2	8	0	0	1	49	1	0	0	0	2	1	0	0	143
11:15	6	48	1	0	0	1	0	10	0	0	1	44	2	0	0	3	1	2	0	0	119
11:30	11	89	0	0	1	2	4	12	0	0	2	60	2	0	0	3	2	2	0	0	190
11:45	10	52	1	0	0	6	5	11	0	0	1	54	2	0	0	1	3	5	0	0	151
12:00	9	55	1	0	0	0	4	11	0	0	2	51	2	0	0	1	4	1	0	0	141
12:15	10	68	1	0	0	2	0	7	0	0	1	60	1	0	0	3	0	1	0	0	154
12:30	6	69	4	0	0	1	3	15	0	0	2	54	2	0	0	1	5	1	0	0	163
12:45	9	50	5	0	0	5	9	16	0	0	1	56	2	0	0	2	4	3	0	0	162
13:00	15	61	4	0	0	5	7	8	0	0	3	53	2	0	0	4	2	0	0	0	164
13:15	14	56	2	0	0	1	3	16	0	0	0	50	4	0	0	1	0	2	0	0	149
13:30	9	74	1	0	0	2	3	19	0	0	3	61	0	0	0	0	4	3	0	0	179
13:45	8	50	3	0	0	1	2	9	0	0	3	67	3	0	0	1	3	4	0	0	154
14:00	7	52	1	0	0	2	5	12	0	1	1	56	0	0	0	0	2	1	0	0	140
14:15	11	65	1	0	0	3	4	13	0	0	3	64	2	0	0	3	1	5	0	0	175
14:30	15	78	2	0	0	0	5	7	0	0	2	70	3	0	0	5	2	1	0	0	190
14:45	10	56	1	0	0	2	4	20	0	0	2	84	2	0	0	2	2	2	0	0	187
15:00	9	67	4	0	0	2	3	23	0	0	4	80	0	0	0	0	3	3	0	0	198
15:15	15	67	1	0	0	3	3	20	0	0	4	93	1	0	0	4	2	3	0	1	217
15:30	13	89	6	0	0	2	3	31	0	0	4	84	2	0	0	0	1	2	0	0	237
15:45	14	89	3	0	0	2	4	28	0	0	2	95	3	0	0	1	3	1	0	0	245
16:00	13	79	1	0	0	3	4	26	0	0	13	79	1	0	0	2	1	1	0	0	223
16:15	12	70	0	0	0	4	10	23	0	0	3	77	2	0	0	0	2	1	0	0	204
16:30	10	70	2	1	0	0	7	34	0	0	5	81	1	0	0	1	5	3	0	0	220
16:45	13	75	1	0	0	3	6	21	0	0	4	72	0	0	0	1	2	1	0	0	199
17:00	8	70	1	0	1	2	8	40	0	1	3	107	4	0	0	4	1	4	0	0	254
17:15	5	55	3	0	0	0	4	25	0	0	2	83	2	0	0	3	3	1	0	0	186
17:30	6	60	2	0	0	0	4	28	0	1	1	64	1	0	0	2	5	1	0	0	175
17:45	9	70	6	0	0	1	6	22	0	0	1	66	2	0	0	1	3	1	0	0	188
18:00	5	63	3	0	0	2	4	16	0	0	1	90	0	0	0	1	2	2	0	0	189
18:15	6	60	0	0	0	1	1	18	0	0	1	56	1	0	0	0	2	0	0	0	146
18:30	5	58	0	0	0	1	9	9	0	0	0	55	3	0	0	3	1	4	0	0	148
18:45	5	37	0	0	0	0	5	26	0	0	5	62	2	0	0	2	4	1	0	0	149
19:00	3	36	1	0	1	1	4	18	0	0	2	43	0	0	0	0	1	1	0	0	111
19:15	5	30	1	0	0	0	4	14	0	0	4	41	1	0	0	0	1	0	0	0	101
19:30	7	23	0	0	0	0	4	10	0	0	2	40	0	0	0	0	3	0	0	0	89
19:45	4	25	3	0	0	0	6	6	0	0	0	44	1	0	0	2	4	0	0	2	97
20:00	3	23	2	0	0	1	5	9	0	0	0	39	0	0	0	1	1	1	0	2	87
20:15	4	17	1	0	0	0	4	9	0	0	4	30	0	0	0	2	2	0	0	1	74
20:30	1	14	0	0	1	1	3	5	0	1	1	25	2	0	0	2	3	0	0	0	59
20:45	2	18	1	0	0	2	2	8	0	0	2	23	0	0	0	0	0	0	0	0	58
21:00	0	13	0	0	0	0	4	4	0	0	0	13	0	0	0	0	2	1	0	0	37
21:15	1	9	0	0	0	1	5	8	0	0	0	27	0	0	0	0	1	0	0	1	53
21:30	2	9	0	0	0	1	0	3	0	0	0	8	0	0	0	1	2	0	0	0	26
21:45	2	17	0	0	0	0	0	6	0	0	0	11	0	0	0	0	0	0	0	0	36
22:00	0	9	1	0	0	1	1	5	0	0	1	8	1	0	0	0	0	0	0	0	27
22:15	0	5	0	0	0	0	4	4	0	0	0	10	0	0	0	0	0	0	0	0	23
22:30	2	10	0	0	0	0	1	2	0	0	0	10	0	0	0	0	0	0	0	0	25
22:45	2	12	0	0	0	0	1	2	0	0	1	7	0	0	0	0	0	0	0	0	25
23:00	0	5	0	0	0	0	1	2	0	0	0	7	0	0	0	0	0	1	0	0	16
23:15	0	3	0	0	0	0	0	1	0	0	0	5	0	0	0	0	0	0	0	0	9
23:30	0	3	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	9
23:45	0	3	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	6
Total	696	3841	99	1	6	90	236	884	0	11	123	3523	100	0	5	96	179	112	1	15	10018
AM Peak Hr:																					7:30
Pk Vol	92	360	1	0	0	1	11	36	0	0	5	209	3	0	1	6	10	9	0	0	744
PHF	0.767	0.900	0.250	n/a	n/a	0.250	0.688	0.900	n/a	n/a	0.625	0.843	0.750	n/a	0.250	0.500	0.625	0.563	n/a	n/a	0.930
MID Peak Hr:																					14:45
Pk Vol	47	279	12	0	0	9	13	94	0	0	14	341	5	0	0	6	8	10	0	1	839
PHF	0.783	0.784	0.500	n/a	n/a	0.750	0.813	0.758	n/a	n/a	0.875	0.917	0.625	n/a	n/a	0.375	0.667	0.833	n/a	0.250	0.885
PM Peak Hr:																					15:15
Pk Vol	55	324	11	0	0	10	14	105	0	0	23	351	7	0	0	7	7	7	0	1	922
PHF	0.917	0.910	0.458	n/a	n/a	0.833	0.875	0.847	n/a	n/a	0.442	0.924	0.583	n/a	n/a	0.438	0.583	0.583	n/a	0.250	0.941

Per MUTCD 2009, when performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians. For the data entry, bicyclists riding in the road are include in the total vehicle count and bicylists in the crosswalks are in the 'Peds' column.

TRAFFIC SIGNAL WARRANT TOOL

INPUT - TRAFFIC VOLUMES

Major Street Volumes - 107th Avenue

Hour Begin Time	Northbound Vehicles per Hour (vph)				
	Left-turn	Through	Right-turn	Total	Peds (crossing minor)
12:00 AM	2	11	2	15	0
1:00 AM	0	6	0	6	0
2:00 AM	0	8	0	8	0
3:00 AM	0	7	2	9	0
4:00 AM	0	12	1	13	0
5:00 AM	0	51	1	52	1
6:00 AM	2	131	4	137	0
7:00 AM	5	183	4	192	2
8:00 AM	5	202	4	211	0
9:00 AM	5	156	9	170	1
10:00 AM	6	180	13	199	1
11:00 AM	5	207	7	219	0
12:00 PM	6	221	7	234	0
1:00 PM	9	231	9	249	0
2:00 PM	8	274	7	289	0
3:00 PM	14	352	6	372	0
4:00 PM	26	309	4	339	0
5:00 PM	7	320	9	336	0
6:00 PM	7	263	6	276	0
7:00 PM	8	168	2	178	0
8:00 PM	7	117	2	126	0
9:00 PM	0	59	0	59	0
10:00 PM	2	35	1	38	0
11:00 PM	0	20	0	20	0

Hour Begin Time	Southbound Vehicles per Hour (vph)				
	Left-turn	Through	Right-turn	Total	Peds (crossing minor)
12:00 AM	2	10	0	12	0
1:00 AM	1	9	0	10	0
2:00 AM	0	5	0	5	0
3:00 AM	1	9	0	10	0
4:00 AM	4	28	0	32	0
5:00 AM	24	104	0	128	0
6:00 AM	51	197	1	249	0
7:00 AM	87	347	4	438	0
8:00 AM	97	329	6	432	0
9:00 AM	45	232	7	284	1
10:00 AM	39	220	7	266	1
11:00 AM	36	254	4	294	1
12:00 PM	34	242	11	287	0
1:00 PM	46	241	10	297	0
2:00 PM	43	251	5	299	0
3:00 PM	51	312	14	377	0
4:00 PM	49	294	4	347	0
5:00 PM	28	255	12	295	1
6:00 PM	21	218	3	242	0
7:00 PM	19	114	5	138	1
8:00 PM	10	72	4	86	1
9:00 PM	5	48	0	53	0
10:00 PM	4	36	1	41	0
11:00 PM	0	14	1	15	0

Per MUTCD 2009, when performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians. For the data entry, bicyclists riding in the road are include in the total vehicle count and bicylists in the crosswalks are in the 'Peds' column.

TRAFFIC SIGNAL WARRANT TOOL

INPUT - TRAFFIC VOLUMES

Minor Street Volumes - Rose Garden Lane

Hour Begin Time	Eastbound Vehicles per Hour (vph)				
	Left-turn	Through	Right-turn	Total	Peds (crossing major)
12:00 AM	0	1	1	2	0
1:00 AM	0	1	1	2	1
2:00 AM	0	0	0	0	0
3:00 AM	0	1	0	1	1
4:00 AM	0	5	1	6	1
5:00 AM	5	8	4	17	0
6:00 AM	3	14	6	23	1
7:00 AM	8	8	10	26	1
8:00 AM	6	10	7	23	0
9:00 AM	5	19	8	32	1
10:00 AM	7	15	7	29	2
11:00 AM	7	8	10	25	0
12:00 PM	7	13	6	26	0
1:00 PM	6	9	9	24	0
2:00 PM	10	7	9	26	0
3:00 PM	5	9	9	23	1
4:00 PM	4	10	6	20	0
5:00 PM	10	12	7	29	0
6:00 PM	6	9	7	22	0
7:00 PM	2	9	1	12	2
8:00 PM	5	6	1	12	3
9:00 PM	1	5	1	7	1
10:00 PM	0	0	0	0	0
11:00 PM	0	0	1	1	0

Hour Begin Time	Westbound Vehicles per Hour (vph)				
	Left-turn	Through	Right-turn	Total	Peds (crossing major)
12:00 AM	0	1	3	4	0
1:00 AM	0	0	3	3	0
2:00 AM	0	2	1	3	0
3:00 AM	1	1	1	3	0
4:00 AM	2	1	1	4	1
5:00 AM	0	2	8	10	5
6:00 AM	3	1	27	31	0
7:00 AM	1	9	36	46	0
8:00 AM	2	8	38	48	0
9:00 AM	7	10	29	46	1
10:00 AM	4	11	37	52	0
11:00 AM	12	11	41	64	0
12:00 PM	8	16	49	73	0
1:00 PM	9	15	52	76	0
2:00 PM	7	18	52	77	1
3:00 PM	9	13	102	124	0
4:00 PM	10	27	104	141	0
5:00 PM	3	22	115	140	2
6:00 PM	4	19	69	92	0
7:00 PM	1	18	48	67	0
8:00 PM	4	14	31	49	1
9:00 PM	2	9	21	32	0
10:00 PM	1	7	13	21	0
11:00 PM	0	1	3	4	0

ATTACHMENT B:

TRAFFIC SIGNAL WARRANT ANALYSIS

107th Avenue & Rose Garden Lane

TRAFFIC SIGNAL WARRANT TOOL

RESULTS			
Intersection:	107th Avenue	&	Rose Garden Lane
File Number:	NO ENTRY		
Condition:	Existing Traffic Counts		
Major Street:	107th Avenue	2 or more lanes	
Minor Street:	Rose Garden Lane	2 or more lanes	

TRAFFIC SIGNAL WARRANT	SATISFIED?
Warrant 1, Eight-Hour Vehicular Volume	NO
Warrant 2, Four-Hour Vehicular Volume	NO
Warrant 3, Peak Hour	NO
Warrant 4, Pedestrian Volume	NOT CONSIDERED
Warrant 5, School Crossing	NOT CONSIDERED
Warrant 6, Coordinated Signal System	NOT CONSIDERED
Warrant 7, Crash Experience	YES
Warrant 8, Roadway Network	NOT CONSIDERED
MULTI-WAY STOP WARRANT	NO

Warrant 1, Eight-Hour Vehicular Volume[1]				
	Condition A Minimum Vehicular Volume	Condition B Interruption of Continuous Traffic	Combination of Conditions A & B[2]	
Condition Satisfied?	NO	NO	NO	
# Hours Met?	2	3	3	9
Criteria - Major (vph)	420	630	336	504
Criteria - Minor (vph)	140	70	112	56

1. It is intended that **Warrant 1, Eight-Hour Vehicular Volume** be treated as a single warrant. If Condition A is satisfied, then Warrant 1 is satisfied and analyses of Condition B and the combination of Conditions A and B are not needed. Similarly, if Condition B is satisfied, then Warrant 1 is satisfied and an analysis of the combination of Conditions A and B is not needed.
2. Combination of Conditions A & B should be applied only after adequate trial of other remedial measures.

Warrant 2, Four-Hour Vehicular Volume[3]	
Condition Satisfied?	NO
# Hours Met?	0
Applicable Figure/Plot Line:	Figure 4C-2/2&2

3. **Warrant 2, Four-Hour Vehicular Volume** signal warrant conditions are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

Warrant 3, Peak Hour[4]	
Condition Satisfied?	NO
# Hours Met?	0
Applicable Figure/Plot Line:	Figure 4C-4/2&2
Stopped Time Delay Satisfied?	Yes

4. **Warrant 3, Peak Hour** shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

TRAFFIC SIGNAL WARRANT TOOL

TRAFFIC VOLUMES		
Hour Begin Time	Major Street Volume (vph) Total of Both Approaches	Minor Street Volume (vph) Highest Approach
12:00 AM	27	4
1:00 AM	16	3
2:00 AM	13	3
3:00 AM	19	3
4:00 AM	45	6
5:00 AM	180	17
6:00 AM	386	31
7:00 AM	630	46
8:00 AM	643	48
9:00 AM	454	46
10:00 AM	465	52
11:00 AM	513	64
12:00 PM	521	73
1:00 PM	546	76
2:00 PM	588	77
3:00 PM	749	124
4:00 PM	686	141
5:00 PM	631	140
6:00 PM	518	92
7:00 PM	316	67
8:00 PM	212	49
9:00 PM	112	32
10:00 PM	79	21
11:00 PM	35	4
MAX	749	141
8th Highest	521	67

TRAFFIC SIGNAL WARRANT TOOL

Intersection:	107th Avenue	&	Rose Garden Lane
File Number:	NO ENTRY		
Condition:	Existing Traffic Counts		
Major Street:	107th Avenue	2 or more lanes	
Minor Street:	Rose Garden Lane	2 or more lanes	
Major-street speed >40 mph or isolated community with population <10,000?			Yes

Is the multi-way stop an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of a warranted traffic control signal?	**No**
How many crashes have been reported in a 12-month period that are susceptible to correction by a multi-way stop installation such as right-turn, left-turn, and right-angle collisons.	**7**
Is the average delay to minor-street vehicular at least 30 seconds/vehicle during the highest hour?	**Yes**

Multi-Way Stop Results		
SATISFIED? NO		
	CRITERIA C	CRITERIA D (80%)
Satisfied?	No	No
Hours Met?	3	2
Requirements-Major	210	240
Requirements-Minor	140	160
Average Delay Met?	Yes	Yes
	5 or more crashes?	Yes

Other criteria that may be considered in an engineering study include:

A. The need to control left-turn conflicts;

B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;

C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and

D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.

Multi-Way Stop

Per MUTCD 2009:

Support:

01 Multi-way stop control can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. Multi-way stop control is used where the volume of traffic on the intersecting roads is approximately equal.

02 The restrictions on the use of STOP signs described in Section 2B.04 also apply to multi-way stop applications.

Guidance:

03 The decision to install multi-way stop control should be based on an engineering study.

04 The following criteria should be considered in the engineering study for a multi-way STOP sign installation:

A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.

B. Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.

C. Minimum Volumes:

1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and
2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but
3. If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.

D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

Option:

05 Other criteria that may be considered in an engineering study include:

A. The need to control left-turn conflicts;
B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;
C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and
D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.

TRAFFIC SIGNAL WARRANT TOOL

Intersection:	107th Avenue	&	Rose Garden Lane
File Number:	NO ENTRY		
Condition:	Existing Traffic Counts		
Major Street:	107th Avenue	2 or more lanes	
Minor Street:	Rose Garden Lane	2 or more lanes	
Major-street speed >40 mph or isolated community with population <10,000?			Yes

Warrant 1, Eight-Hour Vehicular Volume[1] Results

WARRANT 1 SATISFIED? NO

	Condition A Minimum Vehicular Volume	Condition B Interruption of Continuous Traffic	Combination of Conditions A & B[2]	
Condition Satisfied?	NO	NO	NO	
# Hours Met?	2	3	3	9
Criteria - Major (vph)	420	630	336	504
Criteria - Minor (vph)	140	70	112	56

1. It is intended that **Warrant 1, Eight-Hour Vehicular Volume** be treated as a single warrant. If Condition A is satisfied, then Warrant 1 is satisfied and analyses of Condition B and the combination of Conditions A and B are not needed. Similarly, if Condition B is satisfied, then Warrant 1 is satisfied and an analysis of the combination of Conditions A and B is not needed.

2. Combination of Conditions A & B should be applied only after adequate trial of other remedial measures.

Per MUTCD 2009: Warrant 1, Eight-Hour Vehicular Volume

Support:

01 The minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the princal reason to consider installing a traffic control signal.

02 The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

03 It is intended that Warrant 1 be treated as a single warrant. If Condition A is satisfied, then Warrant 1 is satisfied and analyses of Condition B and the combination of Conditions A and B are not needed. Similarly, if Condition B is satisfied, then Warrant 1 is satisfied and an analysis of the combination of Conditions A and B is not needed.

Standard:

04 The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both of the 100 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or
B. The vehicles per hour given in both of the 100 percent columns of Condition B in Table 4C-1 exist on the major-street

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.

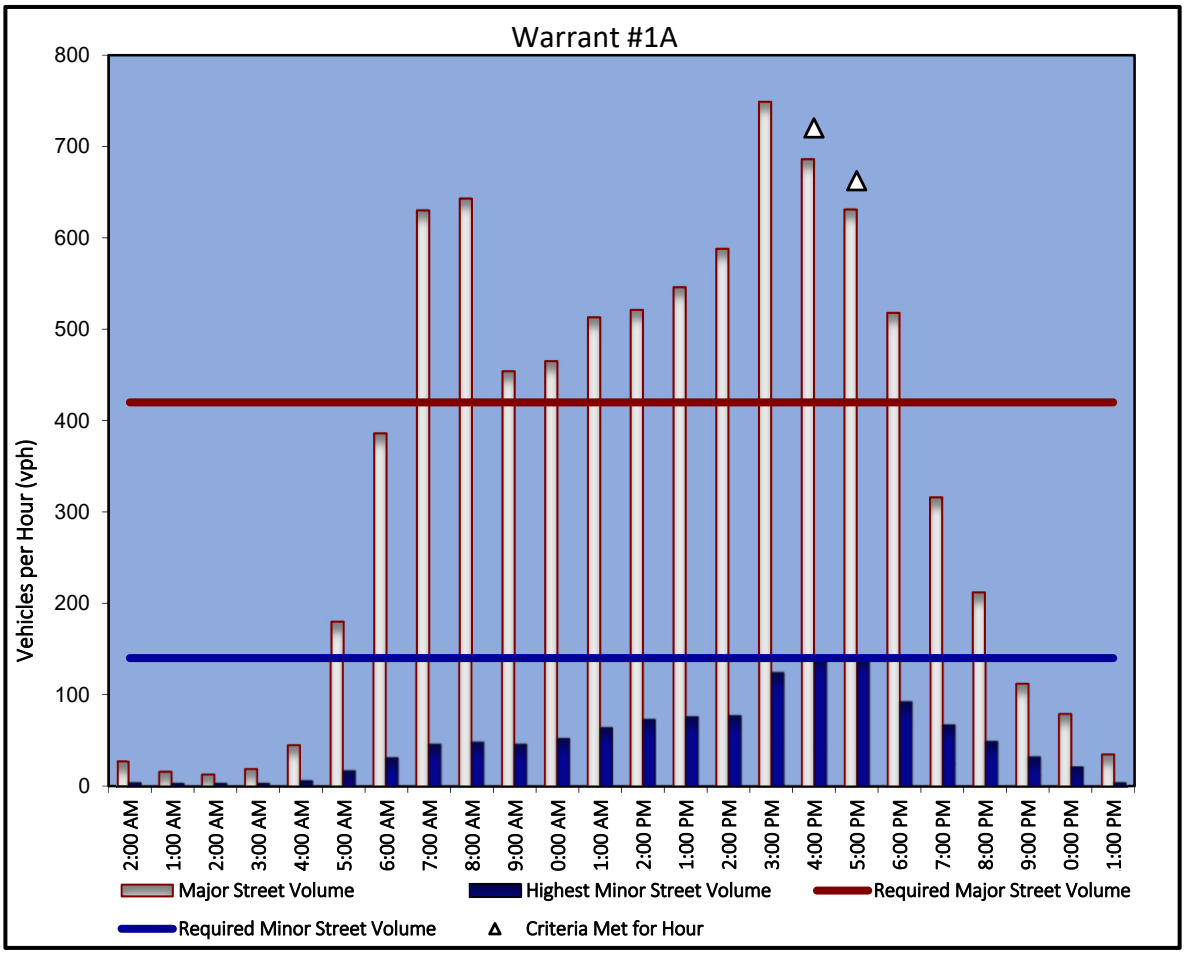
TRAFFIC SIGNAL WARRANT TOOL

Warrant 1, Eight-Hour Vehicular Volume				
Hour Begin Time	Condition A Minimum Vehicular Volume	Condition B Interruption of Continuous Traffic	Combination of Conditions A & B A	B
12:00 AM	-	-	-	-
1:00 AM	-	-	-	-
2:00 AM	-	-	-	-
3:00 AM	-	-	-	-
4:00 AM	-	-	-	-
5:00 AM	-	-	-	-
6:00 AM	-	-	-	-
7:00 AM	-	-	-	-
8:00 AM	-	-	-	-
9:00 AM	-	-	-	-
10:00 AM	-	-	-	-
11:00 AM	-	-	-	X
12:00 PM	-	-	-	X
1:00 PM	-	-	-	X
2:00 PM	-	-	-	X
3:00 PM	-	X	X	X
4:00 PM	X	X	X	X
5:00 PM	X	X	X	X
6:00 PM	-	-	-	X
7:00 PM	-	-	-	X
8:00 PM	-	-	-	-
9:00 PM	-	-	-	-
10:00 PM	-	-	-	-
11:00 PM	-	-	-	-
# Hours Met	2	3	3	9
Satisfied?	NO	NO	NO	

TRAFFIC SIGNAL WARRANT TOOL

Intersection:	107th Avenue	&	Rose Garden Lane
File Number:	NO ENTRY		
Condition:	Existing Traffic Counts		
Major Street:	107th Avenue		2 or more lanes
Minor Street:	Rose Garden Lane		2 or more lanes
		Major-street speed >40 mph or isolated community with population <10,000?	Yes

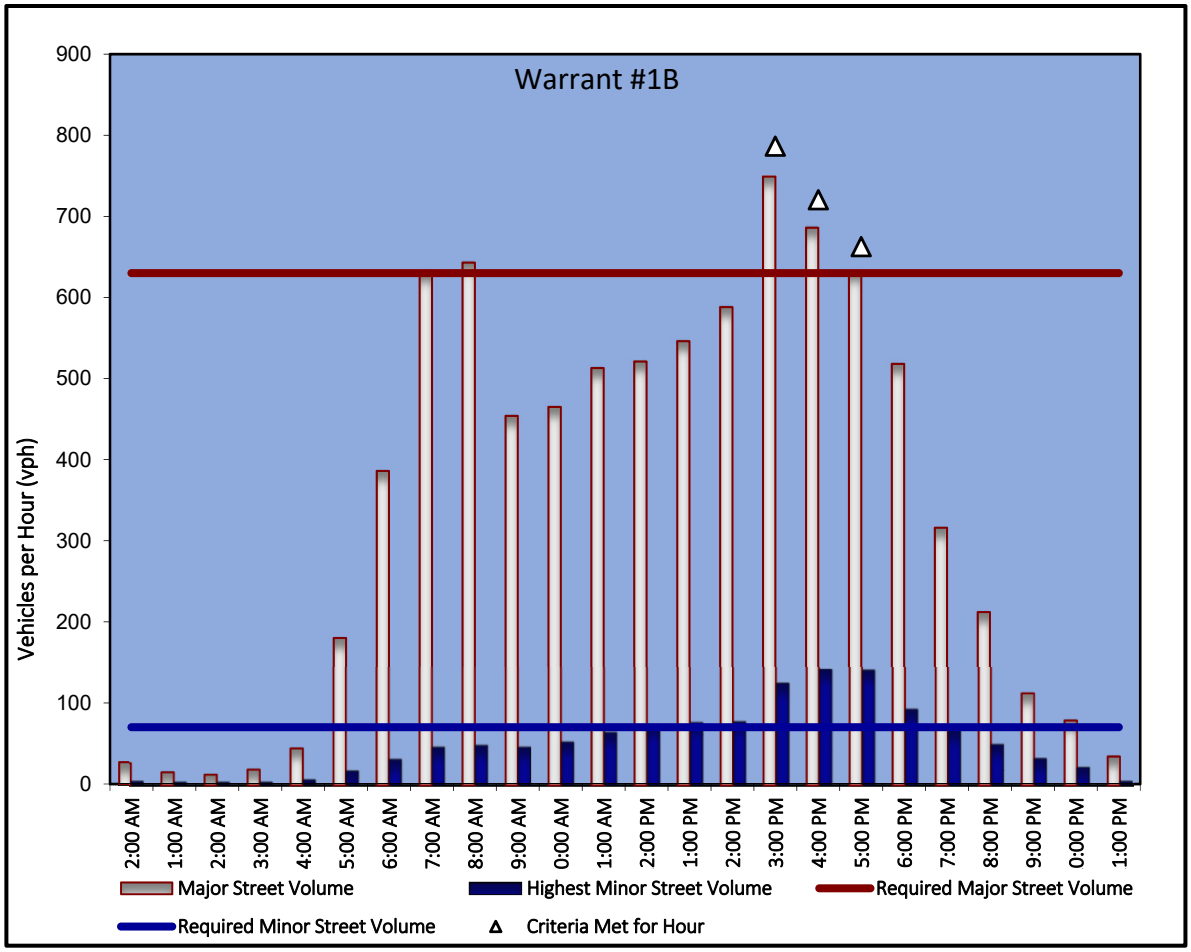
MUTCD WARRANT #1A Minimum Vehicular Volume	
Required Hours for Major Street:	420
Required Hours for Minor Street:	140
Number of Hours Satifisfied:	2
Number of Hours satisfied by less than 10%:	2
Number of hours within 10% of being satisfied:	0
Warrant Met?:	NO



TRAFFIC SIGNAL WARRANT TOOL

Intersection:	107th Avenue	&	Rose Garden Lane
File Number:	NO ENTRY		
Condition:	Existing Traffic Counts		
Major Street:	107th Avenue		2 or more lanes
Minor Street:	Rose Garden Lane		2 or more lanes
	Major-street speed >40 mph or isolated community with population <10,000?		Yes

MUTCD WARRANT #1B Interruption of Continuous Traffic	
Required Hours for Major Street:	630
Required Hours for Minor Street:	70
Number of Hours Satifisfied:	3
Number of Hours satisfied by less than 10%:	2
Number of hours within 10% of being satisfied:	1
Warrant Met?:	NO



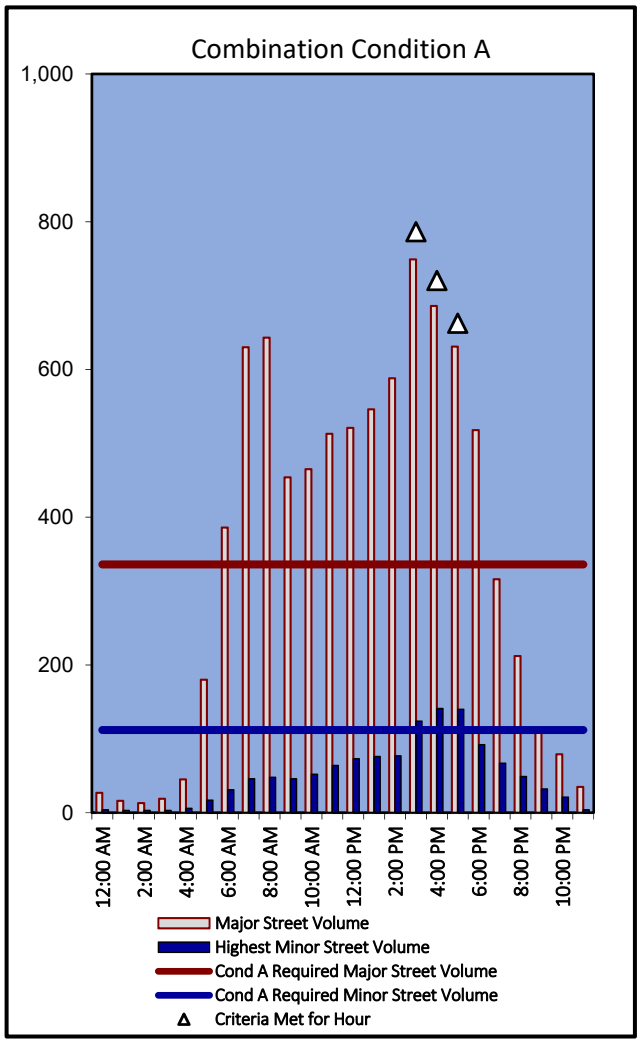
TRAFFIC SIGNAL WARRANT TOOL

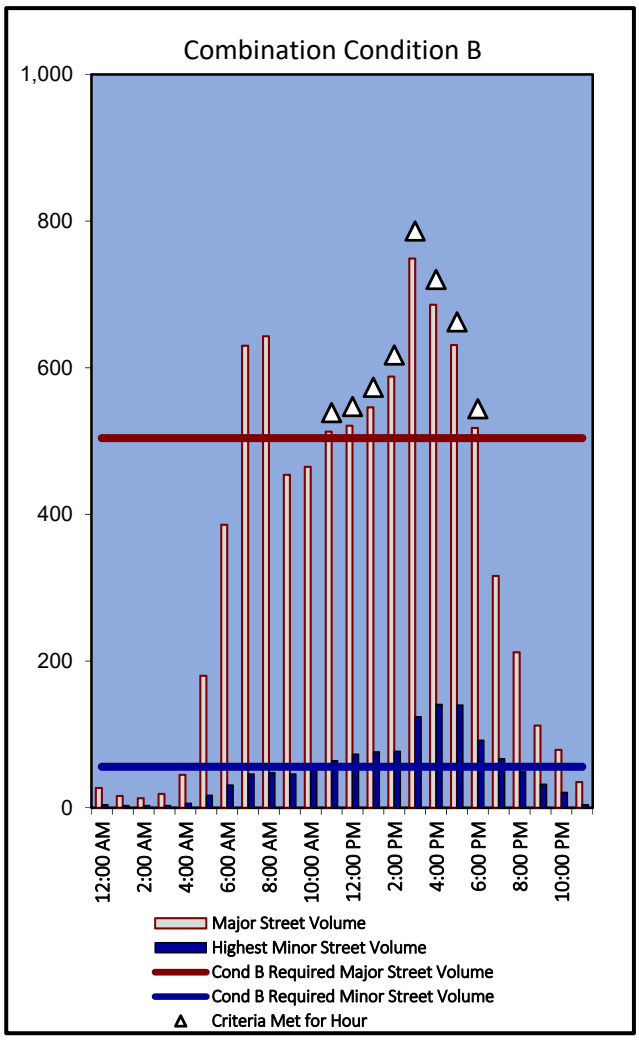
Intersection:	107th Avenue	&	Rose Garden Lane
File Number:	NO ENTRY		
Condition:	Existing Traffic Counts		
Major Street:	107th Avenue	2 or more lanes	
Minor Street:	Rose Garden Lane	2 or more lanes	
	Major-street speed >40 mph or isolated community with population <10,000?		Yes

MUTCD WARRANT #1 COMBINATION OF CONDITIONS A & B

Combination of Conditions A & B should be applied only after adequate trial of other remedial measures.

	Condition A	Condition B
Required Hours for Major Street:	336	504
Required Hours for Minor Street:	112	56
Number of Hours Satisfisfied:	3	8
Warrant Met?:	NO	





TRAFFIC SIGNAL WARRANT TOOL

Intersection:	107th Avenue	&	Rose Garden Lane
File Number:	NO ENTRY		
Condition:	Existing Traffic Counts		
Major Street:	107th Avenue	2 or more lanes	
Minor Street:	Rose Garden Lane	2 or more lanes	
Major-street speed >40 mph or isolated community with population <10,000?			Yes

Warrant 2, Four-Hour Vehicular Volume Results
WARRANT 2 SATISFIED? NO
Number of Hours Satisfied: 0
Applicable Figure/Plot Line: Figure 4C-2/2&2

Per MUTCD 2009: Warrant 2, Four-Hour Vehicular Volume

Support:

01 The Four-Hour Vehicular Volume signal warrant conditions are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

Standard:

02 The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in **Figure 4C-1** for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.

Option:

03 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, **Figure 4C-2** may be used in place of **Figure 4C-1**.

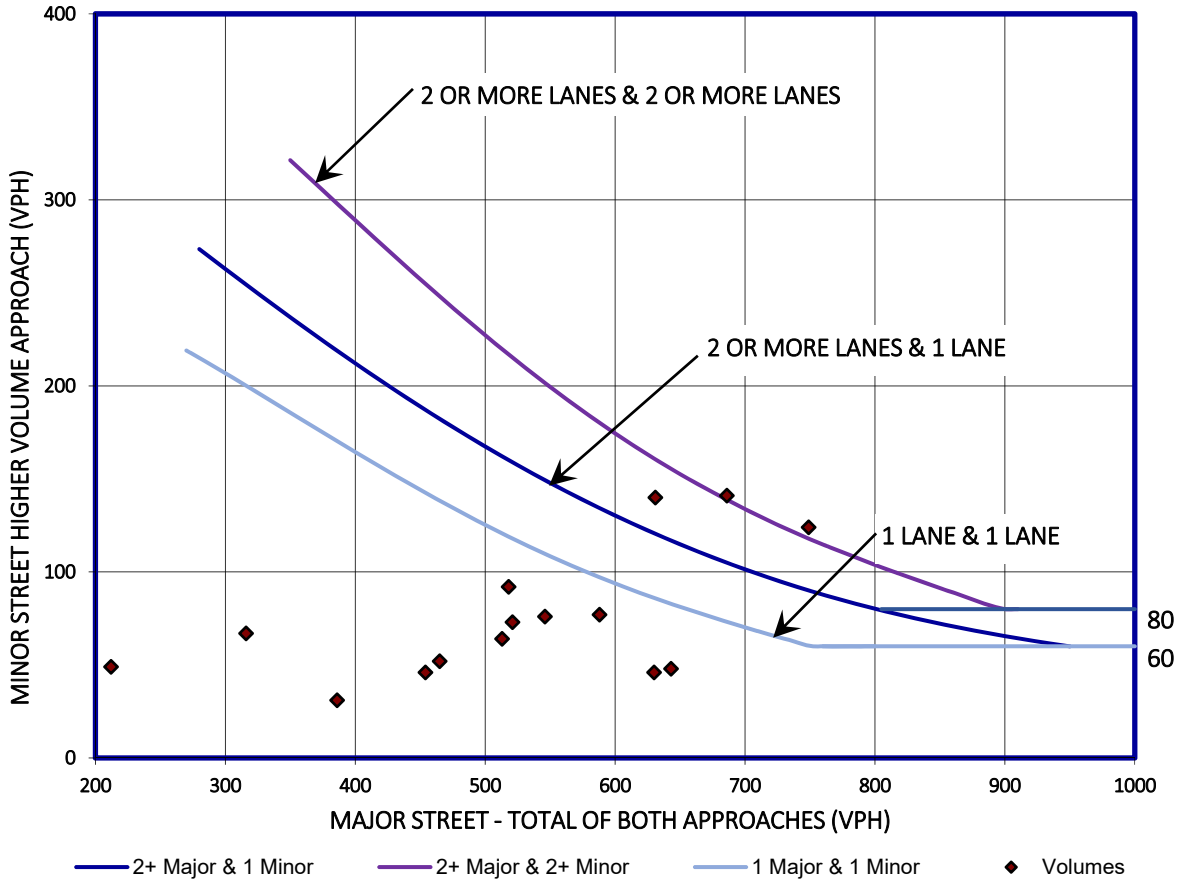
TRAFFIC SIGNAL WARRANT TOOL

Intersection:	107th Avenue	&	Rose Garden Lane
File Number:	NO ENTRY		
Condition:	Existing Traffic Counts		
Major Street:	107th Avenue	2 or more lanes	
Minor Street:	Rose Garden Lane	2 or more lanes	
Major-street speed >40 mph or isolated community with population <10,000?			Yes

Warrant 2, Four-Hour Vehicular Volume
WARRANT 2 SATISFIED? NO
Number of Hours Satisfied: 0
Applicable Figure/Plot Line: **Figure 4C-2/2&2**

Figure 4C-2, Warrant 2, Four-Hour Vehicular Volume (70% Factor)

Community less than 10,000 population or above 40 mph on Major Street



Note: 80 vph applies as the lower threshold volume for a minor approach with two or more lanes, and 60 vph applies as the lower threshold volume for a minor approach with one lane. Major volumes greater than 1,000 vph are plotted on 1,000 axis.

TRAFFIC SIGNAL WARRANT TOOL

Intersection:	107th Avenue	&	Rose Garden Lane
File Number:	NO ENTRY		
Condition:	Existing Traffic Counts		
Major Street:	107th Avenue	2 or more lanes	
Minor Street:	Rose Garden Lane	2 or more lanes	
Major-street speed >40 mph or isolated community with population <10,000?			Yes

Are the principal reasons for the traffic signal installation due to the severity and frequency of crashes?	**Yes**
How many crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period (each crash involving personal injury or property damage apparently exceeding the applicable requiements for a reportable crash)?	**7**
Has an adequate trial of alternatives with satisfactory observance and enforcement failed to reduce the crash frequency?	**Yes**

Warrant 7, Crash Experience Results	
WARRANT 7 SATISFIED? YES	
The principal reasons for installing a traffic signal are due to the severity and frequency of crashes.	
The criteria for the number of crashes is met with FIVE or more.	
An adequate trial of alternatives with satisfactory observance and enforcement failed to reduce crash frequency.	
56% Condition A Vehicular Volumes Satisfied?	No
56% Condition B Vehicular Volumes Satisfied?	Yes
80% Pedestrian Four Hour Satisfied?	No
80% Pedestrian Peak Hour Satisfied?	No

Per MUTCD 2009: Warrant 7, Crash Experience

Support:

01 The Crash Experience signal warrant conditions are intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal.

Standard:

02 The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 80 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 80 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

Option:

03 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 56 percent columns in Table 4C-1 may be used in place of the 80 percent columns.