

# Dunlap Avenue Safety Improvements

## A proposal for Highway Safety Improvement Program (HSIP)

Project No.: ST89320110



SEAL



**City of Phoenix**  
**Street Transportation Dept**  
**Traffic Services Division**  
**Safety and Neighborhood Traffic Section**

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# **Dunlap Avenue Safety Improvements Highway Safety Improvement Program (HSIP) Project Proposal**

## **I. EXECUTIVE SUMMARY**

The City of Phoenix is applying for Arizona Department of Transportation (ADOT) funding through the Highway Safety Improvements Program (HSIP) for safety improvements to the Dunlap Avenue intersection with 35<sup>th</sup> Ave and the Dunlap Avenue corridor from 43<sup>rd</sup> and 31<sup>st</sup> Avenues. This intersection and the segment of Dunlap Avenue have been among the highest crash locations in Phoenix and in Maricopa County for many years. The proposed 35<sup>th</sup> Avenue intersection improvements include changing the current “protected-permissive” left turn phasing for north and southbound 35<sup>th</sup> Avenue into “protected-only” left turn phasing through changes to the signal timing and addition of a second left turn lane on 35<sup>th</sup> Avenue. The proposed corridor treatment involves improving illumination by the installation of lighting on the south side of Dunlap Avenue. The estimated cost of these upgrades is \$743,090, of which 94.3 percent or \$700,734 is being requested in Federal funds with the City of Phoenix funding the remaining 5.7 percent or \$ 42,356. If approved, the project will be scheduled for construction in fiscal year 2012. The benefit/cost ratio for these changes is estimated to be 37.97 to 1.

# **Dunlap Avenue Safety Improvements Highway Safety Improvement Program (HSIP) Project Proposal**

## **II. INTRODUCTION**

Dunlap Avenue between 31<sup>st</sup> and 43<sup>rd</sup> Avenues is a major arterial corridor located in central Phoenix with an average daily traffic volume in excess of 45,000 vehicles. The road serves as a commuter route and provides access to commercial and residential developments in the surrounding neighborhood. The Dunlap Avenue corridor between 31<sup>st</sup> and 43<sup>rd</sup> Avenues has three schools, including Cortez High School, two large apartment complexes, a park and a community pool, all of which generate a significant amount of pedestrian traffic. In addition, the intersection of Dunlap Avenue and 35<sup>th</sup> Avenue has been one of the top high crash locations in the City over the past several years with a rate of 2.16 crashes per million entering vehicles (C/MEV), which is well above the citywide mean for an arterial-arterial intersection of 1.37 C/MEV. This area is identified as a high crash location with many of the higher severity crashes occurring either as left turn crashes at the 35<sup>th</sup> Avenue intersection or as driveway or pedestrian crashes at night along the entire corridor. This proposal for Highway Safety Improvement Program (HSIP) Program funding is intended to improve road safety at both the Dunlap Avenue and 35<sup>th</sup> Avenue intersection and along the entire Dunlap (31<sup>st</sup> Ave to 43<sup>rd</sup> Ave) Avenue corridor.

The requested funding would be used to improve nighttime conditions by installing additional street lighting along the corridor. In addition, it would reduce left turn crash exposure by providing a second left turn lane to the northbound and southbound approaches at the 35<sup>th</sup> Avenue and Dunlap Avenue intersection thus allowing a shift from “protected-permissive” left turn phasing to “protected-only” left turn phasing. To complete this work the city estimates that the project will cost \$743,090.

## **III. EXISTING CONDITIONS**

### Dunlap Avenue 31<sup>st</sup> to 43<sup>rd</sup> Avenue Corridor

Dunlap Avenue is a six-lane arterial including a center two-way left-turn lane with a posted speed limit of 40 mph in both directions. Attached sidewalks are located on both sides of Dunlap Avenue with widths varying from four to five feet. There are five traffic signals along the study corridor located at: 43<sup>rd</sup> Avenue; 39<sup>th</sup> Avenue; 35<sup>th</sup> Avenue; 31<sup>st</sup> Avenue, and; the entrance to Cortez High School. Marked crosswalks are located at all five signalized locations. On both approaches to Cortez High School there are push-button activated pedestrian crossing signals and SCHOOL XING pavement stencils.

In 2007, a two-stage pedestrian crosswalk, with overhead pedestrian warning signs in both directions, was installed by the City of Phoenix on Dunlap Avenue, about 700 feet east of 35<sup>th</sup> Avenue. This was installed to assist pedestrians crossing at this mid-block location between apartment complexes, a City park and a swimming pool. A vicinity map of the project area is presented in Figure 1 and Figure 2 is an aerial map of the study corridor.

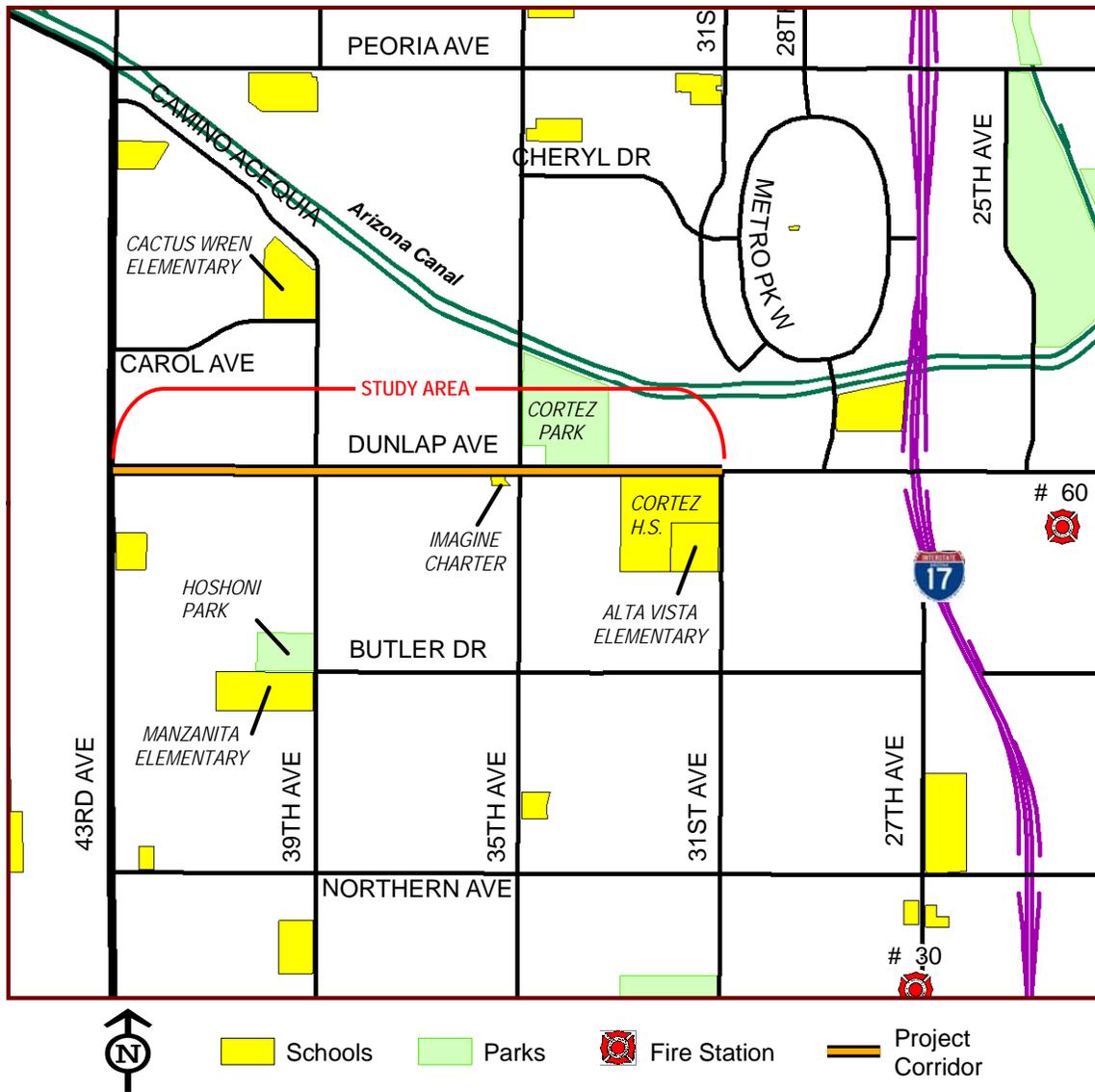
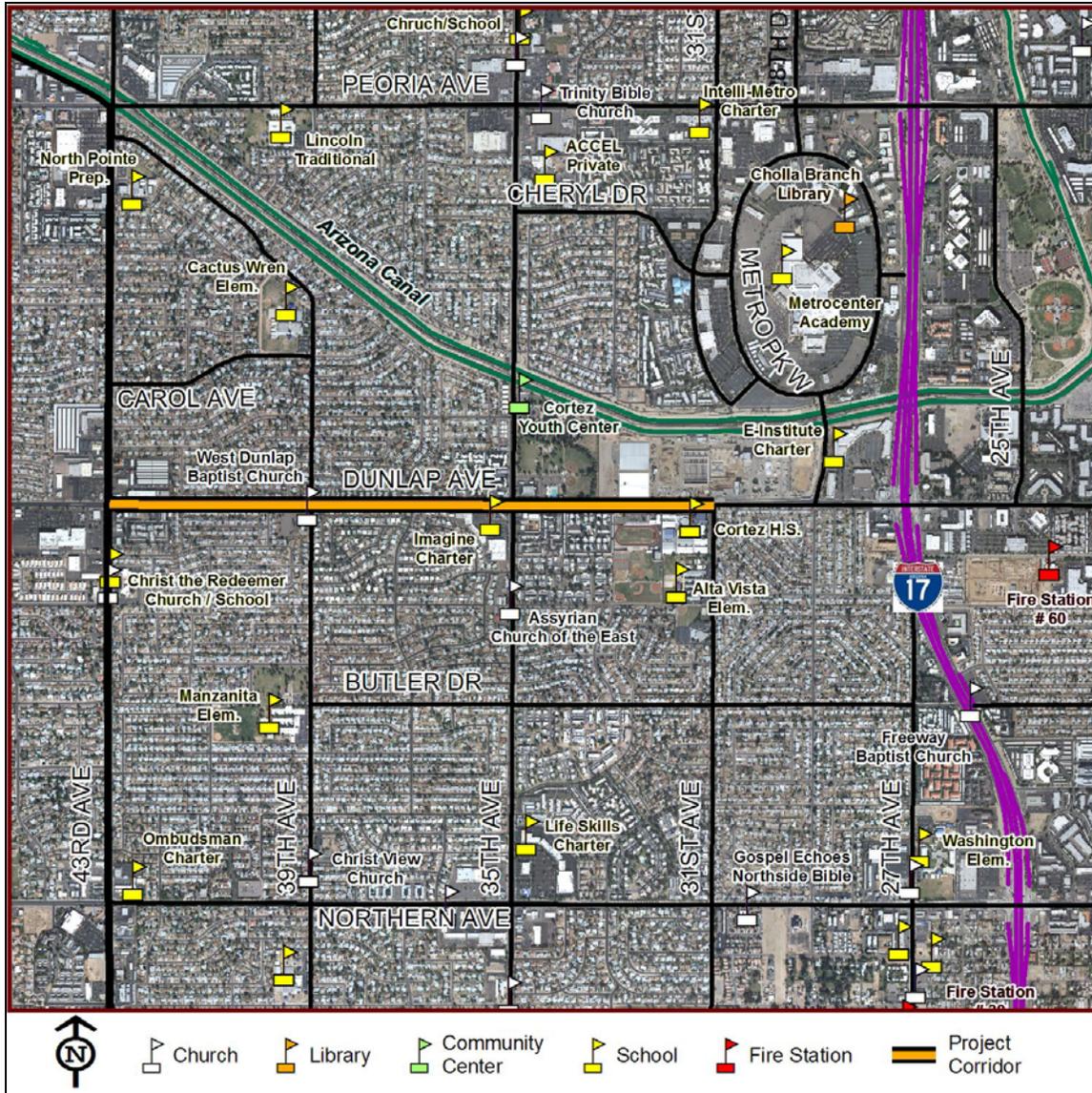


Figure 1: Vicinity Map of the Project



**Figure 2: Aerial Map of the Project Corridor**

**Dunlap Avenue and 35<sup>th</sup> Avenue Intersection:**

The intersection of Dunlap Avenue and 35<sup>th</sup> Avenue is a major arterial-arterial intersection with an average daily traffic (ADT) of about 76,500 vehicles per day (Source: 2005 City of Phoenix Traffic Volume Map). At the Dunlap Avenue intersection, 35<sup>th</sup> Avenue has three through and one left turn lane on all four approaches with a raised median on the north approach and an offset left turn lane on the south approach. All approaches of the intersection have left turn arrows with third car loop actuation during all times of the day. Signal phasing for left-turn movements on all approaches is “protected-permissive”. A red-light camera was installed to record violations along various approaches since 2001 however, little change in run red crashes has occurred since installation. Figures 3 through 6 show the intersection approaches at Dunlap Avenue/35<sup>th</sup> Avenue intersection. Figure 7 shows the two-stage crosswalk built by the City of Phoenix in 2007 on Dunlap Avenue 700 feet east of 35<sup>th</sup> Avenue in between the park and the apartment complexes.

The signal at 35<sup>th</sup> Avenue currently operates with a 90 second cycle length throughout the day. The eastbound through movements and the southbound through movements have more green time during the morning peak hour. The westbound through movement and the northbound through movements are favored during the afternoon peak hour.

Dunlap Avenue and 31st Avenue Intersection:

The intersection of 31<sup>st</sup> Avenue and Dunlap Avenue has three through lanes and a left turn lane for the eastbound and westbound approaches. The signal at the Cortez High School primarily meters vehicular traffic exiting the school parking lot but also provides for push button actuated pedestrian crossing service.



**Figure 3: Eastbound Approach on Dunlap Avenue at 35<sup>th</sup> Avenue**



**Figure 4: Westbound Approach on Dunlap Avenue at 35<sup>th</sup> Avenue**



Figure 5: Northbound Approach on 35<sup>th</sup> Ave at Dunlap Ave



Figure 6: Southbound Approach on 35<sup>th</sup> Ave at Dunlap Ave



**Figure 7: Two-stage crosswalk on Dunlap Ave, 700 ft east of 35<sup>th</sup> Ave: looking westbound**

## **IV. CRASH HISTORY**

### Dunlap Avenue and 35<sup>th</sup> Avenue Intersection

A detailed study of crashes was conducted for the period of 2004-2008. During that period the intersection averaged 63 crashes per year, which ranks the intersection as one of the five highest crash locations in Phoenix over the entire study period. Left turn crashes averaged about 25 per year and contributed to two fatalities and sixty percent of the serious injuries that occurred at the intersection. The crash rate at the intersection is 2.16 crashes per million entering vehicles (C/MEV), higher than one standard deviation above 1.37, which is the citywide average for an arterial-arterial intersection. Table 1 presents the summary of the crash history for the study period at the intersection.

**Table 1: Crash Summary at Dunlap Ave/35th Ave Intersection**

Severity	Study Year					Annual Average
	2004	2005	2006	2007	2008	
<b>Crash Severity</b>						
Fatal	1	0	0	0	1	<b>0.40</b>
Serious Injury	3	3	3	5	1	3
Minor Injury	27	41	24	24	16	26
Property Damage Only	35	26	31	34	36	32
<b>Collision Type</b>						
Left Turn	26	28	21	26	25	<b>25</b>
Angle	9	7	6	11	5	8
Pedestrian/Bike	1	4	1	1	1	2
Rear End	24	25	26	19	21	23
Sideswipe	2	4	3	3	3	3
Other	4	2	1	3	1	2
Total number of crashes	66	70	58	63	56	63

Note: Crashes where severity is not known are not shown in the table

A majority of the crashes that have occurred at the intersection during the study period were left turn crashes. Table 2 shows in detail the number of left turn crashes that have occurred by direction of travel and that the North-South conflicts are higher than the East-West conflicts. The City thus requests funds to address this issue **by adding a second left turn lane and by providing a “protected-only” phasing** to the North and South left turn movements. A striping plan of the proposed improvement is included in the attachments to the proposal.

**Table 2: Annual Average Left Turn Crash Summary at Dunlap Ave/35th Ave Intersection**

<b>Crash Type</b>	<b>Average Crashes/Year</b>
Northbound Left Turn	8.4
Southbound Left Turn	5.2
Eastbound Left Turn	4.4
Westbound Left Turn	7
North-South Conflicts	<b>13.6</b>
East-West Conflicts	11.4
<b>Left Turn Crash Severity</b>	<b>Annual Average</b>
Fatal	0.2
Incapacitating Injury	0.8
Non-incapacitating Injury	7.2
Property Damage Only	5.6

#### Dunlap Avenue between 35th Avenue and 43rd Avenue

A five-year crash study on the segment shows an average of 50 crashes per year. During the study period, the segment had experienced one night time fatal and two of eight serious injury collisions, at night time. The segment had a crash rate of 2.97 C/MEV within one standard deviation from the citywide average for arterial segments of 2.62 C/MVM. Crash severity, based on light conditions for this segment of Dunlap Avenue, is presented in Table 3. In 2004, 2006 and 2008, the segment had as many as 28 percent of the crashes occurring at night. On average, night crashes accounted for about 24 percent of the total crashes on the segment. The installation of additional street lights along this corridor will better illuminate the roadway and reduce the occurrence of nighttime crashes.

#### Dunlap Avenue between 35th Avenue and 31st Avenue

This segment of the corridor averaged 28 crashes per year, which included one fatal and four of the six serious injury collisions which occurred at night. The segment had a crash rate of 3.14 C/MVM, which is within one standard deviation of the city wide average for an arterial segment. In 2004, 45 percent of all crashes along this segment occurred at night. The percentage went down significantly in 2005 and 2006 but went back up again in 2007 to 27.3 percent. Night time crashes contributed to 25-percent of the total crashes on this segment of Dunlap Avenue. The installation of additional street lights along this corridor will better illuminate the roadway and reduce the occurrence of nighttime crashes. Crash summary by severity and light conditions for the corridor is shown in Table 4. A night time crash severity summary of the entire project corridor, Dunlap Avenue between 31<sup>st</sup> Ave and 43<sup>rd</sup> Ave, is shown in Table 5.

**Table 3: Crash Summary on Dunlap Ave between 35<sup>th</sup> Ave and 43<sup>rd</sup> Ave**

Severity	Study Year					Annual Average
	2004	2005	2006	2007	2008	
<b>Time of Occurrence: Day</b>						
Total	37	42	40	34	38	38
Fatal	0	0	0	0	0	0.0
Serious Injury	2	2	1	1	0	1
Minor Injury	16	16	17	19	14	16
Property Damage Only	19	24	22	14	23	20
<b>Time of Occurrence: Night</b>						
Total	15	7	15	8	15	12
Fatal	0	0	1	0	0	0.2
Serious Injury	1	0	0	1	0	0.4
Minor Injury	6	4	5	2	5	4
Property Damage Only	8	3	9	5	10	7
Total number of crashes	52	49	55	42	53	50
Percentage of nighttime crashes	28.8%	14.3%	27.3%	19.0%	28.3%	23.6%

Note: Twilight crashes are counted as nighttime crashes

**Table 4: Crash Summary on Dunlap Ave between 35th Ave and 31st Ave**

Severity	Study Year					Annual Average
	2004	2005	2006	2007	2008	
<b>Time of Occurrence: Day</b>						
Total	17	18	24	24	20	21
Fatal	0	0	1	0	0	0.2
Serious Injury		1	1			1
Minor Injury	10	8	7	11	3	8
Property Damage Only	9	13	16	15	20	15
<b>Time of Occurrence: Night</b>						
Total	14	4	5	9	4	7
Fatal	0	0	0	0	0	0.0
Serious Injury	2	0	0	1	1	1
Minor Injury	4	4	2	3	2	3
Property Damage Only	9	0	3	5	1	4
Total number of crashes	31	22	29	33	24	28
Percentage of nighttime crashes	45.2%	18.2%	17.2%	27.3%	16.7%	24.9%

Note: Twilight crashes are counted as nighttime crashes

**Table 5: Night Crash Severity Summary on Dunlap Ave between 31<sup>st</sup> Ave and 43<sup>rd</sup> Ave**

Crash Severity	Annual Average
Fatal	0.6
Incapacitating Injury	1.8
Non-incapacitating Injury	16
Property Damage Only	16.4

Note: Table 5 includes all night time crashes on the study segment, including the intersections of 35th Ave, 31st Ave, 39th Ave and 43rd Ave

## V. PROPOSED IMPROVEMENTS

The proposed improvements along Dunlap Avenue between 31<sup>st</sup> Avenue and 43<sup>rd</sup> Avenue are:

Improvement 1 Increase nighttime visibility on Dunlap Avenue between 31st and 43rd Avenues by installing additional street lights along the south side of the street.

Tables 3 and 4 indicate that during the 2004-2008 study period, an average of 24 percent of all crashes occurred at night on Dunlap Avenue within the project area. To reduce the potential for such crashes in the future, the Phoenix Street Transportation Department requests HSIP funds to improve illumination by installing additional street lights along the project corridor.

Street lighting has numerous benefits:

- a. Illumination reduces the occurrence of night time vehicular, pedestrian, bicycle and fixed object accidents to a great extent.
- b. It provides a sense of personal security for pedestrians and bicyclists while using the streets at night.
- c. It also facilitates traffic flow and promotes business vitality along the streets.

Improvement 2 Reduce left turn crashes by adding a second left-turn lane for northbound and southbound approaches on 35th Avenue at Dunlap Avenue and converting the existing “protected-permissive” left turn phasing to “protected-only”.

During the study period, more than 54 percent of the left turn crashes at the intersection involved a northbound or a southbound vehicle. Many of these crashes could be eliminated by providing an exclusive protected left turning phase. According to the FHWA, “protected-only” left-turn phasing should be considered if left turning crashes per approach (including crashes involving pedestrians) equal 4 or more per year, or 6 or more in 2 years, or 8 or more in 3 years (*source: Signalized Intersection : Informational Guide FHWA, Publication no: FHWA-HRT-04-09*). It is evident from Table 2 that the intersection meets the criteria as the northbound left turn crashes average to 8.4 per year and southbound left turn crashes average to 5.2 per year.

### Project Scope

1. Streetlights – Install new streetlights along Dunlap Avenue on the south side between 31<sup>st</sup> Avenue and 43<sup>rd</sup> Avenue. Figure 8 shows the location of existing streetlights on the street and the proposed locations for new streetlights.
2. Dual left-turn lanes and modified signal operation –
  - a. Remove the center raised median island on southbound 35<sup>th</sup> Avenue approach to Dunlap Avenue.
  - b. Re-stripe the southbound lane configuration to include dual left-turn lanes.
  - c. Relocate curb and sidewalk of the driveways on the east and west side of the street and convert their configuration to “right-in right-out only” to minimize vehicle conflicts.
  - d. Remove the 10 feet painted lane separator on the northbound approach.
  - e. Re-stripe the northbound lane configuration to include dual-left turn lanes.

- f. Convert the northbound and southbound “protected-permissive” left turns signal operation to “protected-only” signal operation.

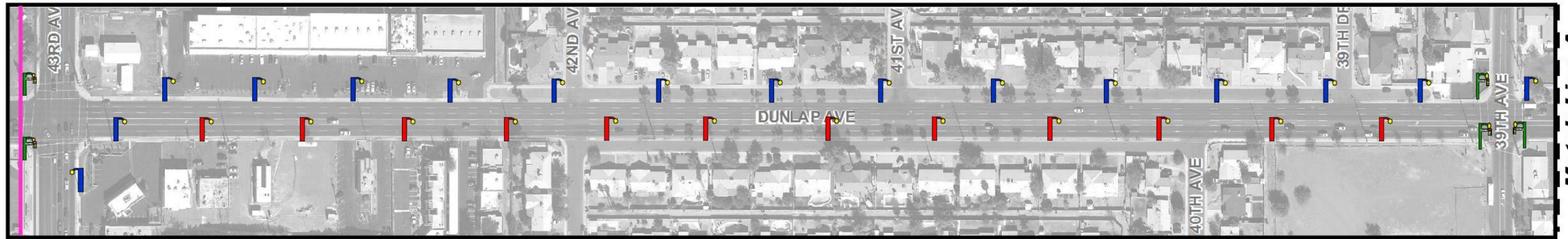
A striping plan of the proposed improvements is included in the attachments.

#### Cost Estimates

The breakdown of estimated project costs is presented in Table 6: Estimated Project Costs.

**Table 6: Estimated Project Costs**

Item	Unit	Quantity	Unit Cost	Total
Subgrade Preparation	Sq. Yd.	660	\$15	\$9,900
AC Pavement (1.5" surface course)	Tons	58	\$120	\$7,017
AC Pavement (6" base course)	Tons	234	\$120	\$28,067
Tack Coat	Tons	0.6	\$500	\$291
Vert. Curb & Gutter	Lin. Ft.	410	\$18	\$7,380
4" Concrete Fill for Medians	Sq. Ft.	935	\$7	\$6,545
ADA Ramp	Each	8	\$5,000	\$40,000
Remove Vert Curb & Gutter, Single Curb, Pavers	Lin. Ft.	1110	\$10	\$11,100
Remove AC and Concrete	Sq. Ft.	1500	\$5	\$7,500
Traffic Signal Modification	L.S.	1	\$50,000	\$50,000
Streetlights (31st to 39th Ave south side)	L.S.	1	\$115,205	\$115,205
Streetlights (39th Ave to 43rd Ave south side)	L.S.	1	\$55,000	\$55,000
<b>Sub Total Construction Cost</b>				<b>\$338,004</b>
Storm Water Pollution Prevention Allowance (0.7%)	L.S.	1		\$2,366
Traffic Control/Police Officer (10%)	L.S.	1		\$33,800
Allowance for Extra Work (10%)	L.S.	1		\$33,800
Contingency (20%)	L.S.	1		\$67,601
<b>TOTAL CONSTRUCTION COST</b>				<b>\$475,572</b>
<b>DESIGN CONSULTANT COST (15% of Const Cost)</b>				<b>\$71,336</b>
<b>Design &amp; Construction Management Work Order Costs:</b>				
Design PM (12% of Const Cost)				\$57,069
Construction Admin. (20% of Const Cost)				\$95,114
<b>RIGHT OF WAY COST</b>	Sq. Ft.	1250	\$20	\$25,000
<b>Utility Easements (5' X 5' per new streetlight)</b>	Each	38	\$500	\$19,000
<b>GRAND TOTAL</b>				<b>\$743,090</b>



Match Line A



Match Line A

Match Line B



Match Line B

Figure 8: Existing and Proposed Street Lights on the Project Corridor



City of Phoenix  
City of Glendale  
Border



## VI. BENEFIT/COST RATIO OF IMPROVEMENTS

The Benefit/Cost Ratio for the proposed treatments are calculated from the technique outlined in the Benefit/Cost Ratio Economic Analysis (Section 231) of the *ADOT Traffic Engineering Policies, Guidelines and Procedures Manual (June 2009)*.

### Benefit Assumptions

#### Crash Reduction Factors

A Crash Reduction Factor (CRF) is the percentage reduction in total number of crashes that can be expected after implementing a certain countermeasure. CRF values as presented in the “*Desktop Reference for Crash Reduction Factors*” by the U.S.Department of Transportation were used to estimate the benefits from the proposed treatments of the project. Table 7 shows the CRF values used for the proposed treatments. Table 8 shows the safety benefits associated with dual left turn lanes.

**Table 7: CRF Values**

Countermeasure/Treatment	Crash Type	Crash Reduction Factors			Source
		Fatal	Injury	Property damage only	
Convert “protected-permissive” phasing to “protected-only” phasing	Left turn crashes	99%	99%	99%	FHWA-SA-08-011
Improve Lighting	Nighttime crashes	36.75%	36.75%	36.75%	FHWA-SA-08-011

Note: The CRF for “Improve Lighting” was taken from Page 91 of the FHWA-SA-08-011. An average of the given CRFs listed was used.

**Table 8: Safety Benefits Associated with Dual Left Turn Lanes: Selected Findings**

Treatment	Finding
Double left turn lane	29% estimated reduction in all fatal/injury collisions.
	26% estimated reduction in all PDO collisions.
	29% estimated reduction in fatal/injury rear-end collisions.
	47% estimated reduction in fatal/injury left-turn collisions.
	71% estimated reduction in PDO left-turn collisions
	20% estimated reduction in angle fatal/injury collisions.

Source:

- *Signalized Intersections: Informational guide, U.S. Department of Transportation, FHWA, Publication no: FHWA-HRT-04-091, Pg 319*

- *Minnesota Department of Transportation. 2001 Solicitation for Federal Transportation Funding, Hazard Elimination Safety Program. June 2001.*
- *ITE/FHWA Toolbox of countermeasures and their potential effectiveness for intersection crashes.*

Composite Crash Reduction Factors

A methodology suggested in the report “*Recommended Procedure for Combining Crash Reduction Factors*” by J. Kevin Lacy, P.E and the “*ADOT Traffic Engineering Policies, Guidelines, and Procedures, section 200-Traffic/HES Studies*”, is used to combine the reduction factors identified in Table 7 and Table 8. According to the above report the equation for combining crash reduction factors for various treatments is given in Table 9. The composite crash reduction factor for the proposed intersection improvements at Dunlap Avenue and 35<sup>th</sup> Avenue is shown in Table 10.

**Table 9: Equation to Combine Crash Reduction Factors**

$$CRF_{Ti} = 1 - [(1 - CRF_{1i}) * (1 - CRF_{2i}) * \dots * (1 - CRF_{ni})]$$

Where  $CRF_{Ti}$  = the total crash reduction factor for the crash type i (angle, left turn, etc)  
 $CRF_{1i}$  = the crash reduction factor for the first treatment for the given crash type  
 $CRF_{2i}$  = the crash reduction factor for the second treatment for the given crash  
 $CRF_{ni}$  = the crash reduction for the nth treatment for the given crash type in

**Table 10: Composite Crash Reduction Factor for Proposed Improvement 2**

<b>Intersection Improvements (dual lanes + protected left turn phase)</b>			
Crash Severity	Convert “Protected-Permissive” Left Turn Phase to “Protected-Only Phase”	Dual Left Turn Lanes	Composite CRF
Fatal (left turn N/S)	0.99	0.47	0.9947
Incapacitating. Injury (left turn N/S)	0.99	0.47	0.9947
Non-incapacitating Injury (left turn N/S)	0.99	0.47	0.9947
Property Damage Only (left turn N/S)	0.99	0.71	0.9971

Cost Assumptions

*Project Life (Years)*

The expected service life of intersection improvements is 10 years and roadside lighting is 15 years. The expected service life of each of the upgrades was determined from the Safety Improvement Project Codes, Descriptions, and Service Lives Used in Effectiveness Evaluations table from the ADOT Guidelines (231-7).

*Interest Rate and Capital Recovery Factor*

The interest rate for the construction project was assumed to be 8 percent based on current market rates. Using this value and the Capital Recovery Factor table from the ADOT Guideline (231-8), the capital recovery factor for a project with a 10-year service life is 0.1490, and for a project with a 15-year service life is 0.1168.

*Annual Maintenance*

The estimated normal and expected maintenance cost is estimated to be \$133 per year per street light. The proposed 38 lights will total approximately to \$5054 in maintenance costs.

*Benefit/Cost Ratio Calculations*

The expected benefit from the proposed street lighting improvements on Dunlap Avenue between 31<sup>st</sup> Ave and 43<sup>rd</sup> Ave is \$2,038,008 per year. The expected benefit from the proposed intersection improvements is \$2,067,438 per year. The benefit/ cost ratios for each proposed treatment are shown in Tables 11 and 12. Table 13 presents the total benefit/cost ratio for the project.

**Table 11: Benefit/Cost Ratio Calculations: Proposed Improvement 1**

<b>Benefit/Cost Calculations for Proposed Improvement 1</b>					
Project No. ST89320110			Date: Apr 19 2010		Comp: MU
Location: Dunlap Avenue from 31st Avenue to 43rd Avenue					
<u>Type of improvement:</u> Improve corridor lighting by installing street lights along the south curb on Dunlap Avenue between 31st Avenue and 43rd Avenue					
<b>BENEFITS</b>					
Crash Severity	Annual Average	Crash Reduction Factor (CRF)	Total Reduction	Unit Cost	Annual Benefit
Fatal crashes at night	0.6	36.75%	0.22	\$5,800,000	\$1,278,900
Incap. Injury at night	1.8	36.75%	0.66	\$400,000	\$264,600
Non-incap Injury at night	16	36.75%	5.88	\$80,000	\$470,400
Property Damage Only at night	16.4	36.75%	6.03	\$4,000	\$24,108
<b>Total Annual Benefit</b>					<b>\$2,038,008</b>
Right-of-way & Easement Costs					\$44,000
Design Costs					\$112,555
Construction Costs					\$239,478
<b>Total Costs</b>					<b>\$396,033</b>
Project Life (Years)					15.00
Interest Rate (%)					8%
Capital Recovery Factor (CRF)					0.1168
Annual Cost = CRF x Total Costs (A)					\$46,257
Annual Maintenance Cost Difference (B)					\$5,054
<b>Total Annual Costs</b>					<b>\$51,311</b>
<b>BENEFIT/COST</b>					
<b>Annual Benefit</b>			<b>Annual Costs</b>		<b>Benefit/Cost Ratio</b>
\$2,038,008			\$51,311		39.72

**Table 12: Benefit/Cost Ratio Calculations: Proposed Improvement 2**

<b>Benefit/Cost Calculations for Proposed Improvement 2</b>					
Project No. ST89320110			Date: Apr 19 2010		Comp: MU
<b>Location:</b> Dunlap Avenue /35th Ave Intersection					
<u>Type of improvement:</u> 1. Add a second new left turn lane on 35th Avenue in the northbound and southbound approaches at the intersection of Dunlap Avenue; 2. Convert "protected-permissive" left turn phase to "protected-only" left turn phase.					
<b>BENEFITS</b>					
Crash Severity	Annual Average	Crash Reduction Factor (CRF)	Total Reduction	Unit Cost	Annual Benefit
Fatal (left turn N/S)	0.20	99.47%	0.20	\$5,800,000	\$1,153,852
Incap. Injury (left turn N/S)	0.80	99.47%	0.80	\$400,000	\$318,304
Non-incap Injury (left turn N/S)	7.20	99.47%	7.16	\$80,000	\$572,947
Property Damage Only (left turn N/S)	5.60	99.71%	5.58	\$4,000	\$22,335
<b>Total Annual Benefit</b>					<b>\$2,067,438</b>
Construction Costs					\$261,367
Design Costs					\$110,964
<b>Total Costs</b>					<b>\$372,331</b>
Project Life (Years)					10.00
Interest Rate (%)					8%
Capital Recovery Factor (CRF)					0.1490
Annual Construction Cost = CRF x Total Construction Costs (A)					\$55,477
Annual Maintenance Cost Difference (B)					\$1,330
<b>Total Annual Costs</b>					<b>\$56,807</b>
<b>BENEFIT/COST</b>					
<b>Annual Benefit</b>			<b>Annual Costs</b>		<b>Benefit/Cost Ratio</b>
\$2,067,438			\$56,807		36.39

**Table 13: Project Benefit/Cost Ratio**

<b>Treatment</b>	<b>Total Annual Cost</b>	<b>Total Annual Benefit</b>	<b>B/C Ratio</b>
Improve Street Lighting	\$51,311	\$2,038,008	39.72
Addition of left turn lane(double) + "protected-only" left turn phase	\$56,807	\$2,067,438	36.39
<b>Project</b>	<b>\$108,118</b>	<b>\$4,105,446</b>	<b>37.97</b>

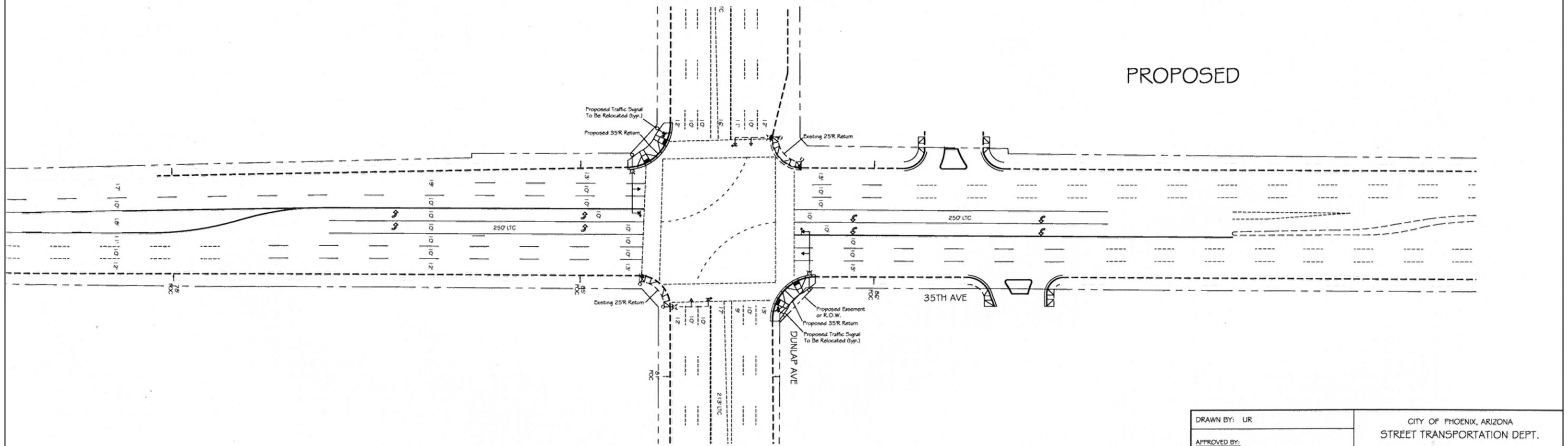
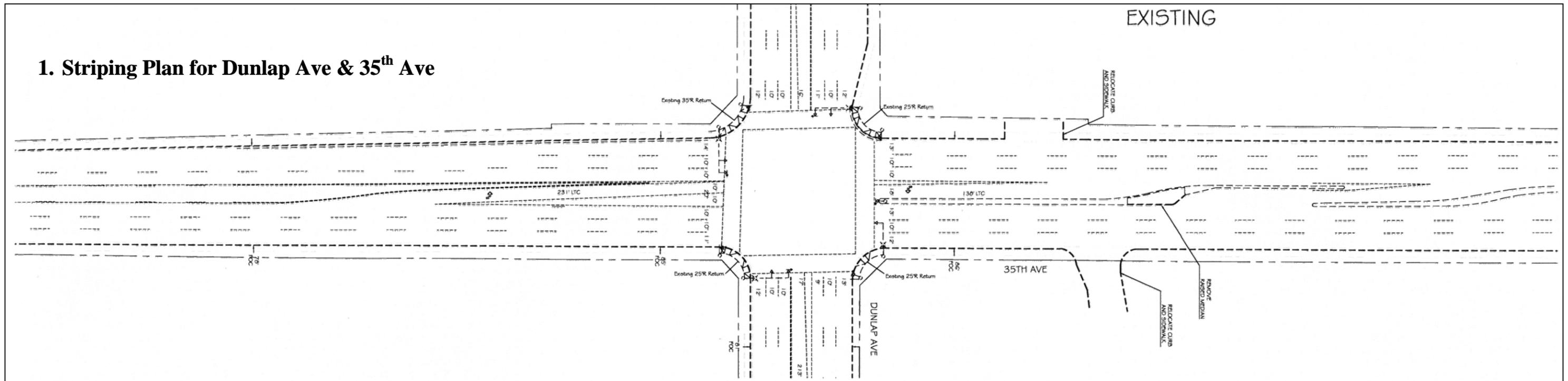
## VII. CONCLUSIONS

The Dunlap Avenue and 35<sup>th</sup> Avenue intersection has a crash rate of 2.16 C/MEV which greatly exceeds the citywide average collision rate of 1.37 C/MEV for an arterial-arterial intersection. Converting from a single to dual left turn lane and converting left turn signal phasing from “protected-permissive” to “protected-only” in the northbound and southbound directions will greatly reduce the left turn collisions on 35<sup>th</sup> Avenue. The installation of additional street lights along Dunlap Avenue corridor will greatly improve nighttime visibility and is expected to reduce the nighttime and twilight crashes on the street. The proposed improvements will yield a benefit/cost ratio of 37.97 to 1. If funded, the project will begin in fiscal year 2013 as part of the City of Phoenix Capital Improvement Program (CIP). Following completion, the City of Phoenix Street Transportation Department Safety Section will continue to monitor and report on the collision history and relative effectiveness of the upgrades for three calendar years. The project manager for this project is Kerry Wilcoxon, P.E. (602-262-4613 or [kerry.wilcoxon@phoenix.gov](mailto:kerry.wilcoxon@phoenix.gov)) of the Street Transportation Department, Traffic Services Division, Safety and Neighborhood Traffic Section, located on the 6<sup>th</sup> Floor of Phoenix City Hall, 200 W. Washington Street, Phoenix, Arizona 85003.

## **ATTACHMENTS**

1. Striping Plan of Dunlap Ave & 35<sup>th</sup> Ave Intersection
2. Project area crash history for the study period, 2004- 2008

# 1. Striping Plan for Dunlap Ave & 35<sup>th</sup> Ave



Per City Of Phoenix Ordinance G-4396, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City Of Phoenix.



DRAWN BY: IJR	CITY OF PHOENIX, ARIZONA STREET TRANSPORTATION DEPT.	
APPROVED BY:	GEOMETRIC DUNLAP AVENUE & 35TH AVENUE	
STREET TRANSPORTATION DIR. _____		
DEPUTY STREET TRANSPORTATION DIR. _____		
DEPUTY STREET TRANSPORTATION DIR. _____	SCALE: 1"=40'	CHECKED BY: _____
DEPUTY STREET TRANSPORTATION DIR. _____		FILE NO: _____

## 2. Crash Tables



**City of Phoenix**  
**Street Transportation Department**  
**Safety & Neighborhood Traffic Section**  
**Segment Crash Data Summary**

**Location:** Dunlap Ave; 43rd Ave - 39th Ave

**Study Period:** 2004 - 2008

Year	Injury Severity			Collision Type						Vehicle 1 Violation						Total
	Fatals	Injuries	PDO	1 Vehicle	Angle	Left Turn	Other	Rear End	Sideswipe	Failed to Yield	Inattention	Speed Too Fast	Unsafe Lane Change	Other	Unk./None	
2004	-	9	14	-	4	4	1	10	4	8	2	6	2	4	1	23
2005	-	6	10	1	1	2	1	6	5	4	1	4	4	1	2	16
2006	-	8	11	-	3	-	-	14	2	4	1	11	1	1	1	19
2007	-	10	10	1	4	2	-	8	5	5	1	6	3	1	4	20
2008	-	7	19	2	5	1	1	13	4	8	6	7	2	1	2	26
<b>Annual Average</b>	<b>0.0</b>	<b>8.0</b>	<b>12.8</b>	<b>0.8</b>	<b>3.4</b>	<b>1.8</b>	<b>0.6</b>	<b>10.2</b>	<b>4.0</b>	<b>5.8</b>	<b>2.2</b>	<b>6.8</b>	<b>2.4</b>	<b>1.6</b>	<b>2.0</b>	<b>20.8</b>

Total number of crashes	104
Time (years)	5
Average Daily Traffic (000's)	44.7
Length of Segment (miles)	0.50
<b>Crash Rate</b>	<b>2.55 /MVM</b>



Notes: Only crashes within the segment are included in this summary, collisions within 150' of the terminal intersections are NOT included.  
 Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave; 43rd Ave - 39th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Xn Street	Distance from Xn	Vehicle 1				Vehicle 2				Injuries	Severity	Comments
							Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
1	1/16/2004	5:47 PM	Twilight	Angle	42nd Av	W-99	S	31	Exiting Driveway	Failed to Yield	W	37	Straight	None	-	None	Veh1 - Drinking
2	1/29/2004	12:37 PM	Light	Sideswipe	42nd Av	W-30	E	20	Left Turn	Other	E	23	Straight	None	-	None	
3	2/14/2004	6:18 PM	Dark	Left Turn	43rd Av	E-173	W	42	Left Turn	Failed to Yield	E	76	Straight	None	1	Minor	
4	2/21/2004	3:37 PM	Light	Angle	42nd Av	0	S	18	Left Turn	Failed to Yield	E	49	Stopped	None	-	None	
5	2/28/2004	10:25 PM	Dark	Rear End	43rd Av	E-223	E	31	Straight	Speed Too Fast	E	24	Slowing	None	-	None	
6	3/15/2004	10:45 PM	Dark	Rear End	43rd Av	E-295	W	56	Straight	Inattention	W	22	Slowing	None	1	Minor	
7	3/25/2004	3:54 PM	Light	Sideswipe	43rd Av	E-321	W	22	Changing Lanes	Unknown	W	32	Changing Lanes	Unknown	-	None	
8	5/26/2004	4:35 PM	Light	Rear End	43rd Av	E-324	E	57	Changing Lanes	Other	E	36	Straight	None	-	None	
9	6/1/2004	5:54 PM	Light	Rear End	42nd Av	W-365	W	22	Straight	Speed Too Fast	W	51	Right Turn	None	-	None	
10	6/6/2004	2:33 PM	Light	Left Turn	43rd Av	E-301	W	36	Left Turn	Failed to Yield	E	53	Straight	None	2	Minor	
11	6/23/2004	6:22 PM	Light	Sideswipe	43rd Av	E-531	W	Unk.	Changing Lanes	Unsafe Lane Change	W	19	Straight	None	-	None	
12	6/24/2004	12:10 PM	Light	Rear End	43rd Av	E-200	E	19	Straight	Speed Too Fast	E	38	Stopped	None	1	Minor	
13	6/26/2004	11:45 AM	Light	Left Turn	43rd Av	E-1040	E	55	Left Turn	Failed to Yield	W	27	Straight	None	-	None	
14	7/26/2004	5:52 PM	Light	Sideswipe	39th Av	W-201	E	24	Changing Lanes	Unsafe Lane Change	E	33	Straight	None	-	None	
15	7/27/2004	8:47 AM	Light	Rear End	41st Av	W-33	E	16	Straight	Speed Too Fast	E	29	Slowing	None	1	Serious	
16	7/27/2004	9:10 AM	Light	Rear End	42nd Av	E-78	E	27	Slowing	Speed Too Fast	E	27	Stopped	None	-	None	
17	9/8/2004	3:15 AM	Dark	Other (HO)	41st Av	E-344	E	22	Straight	Other - Drove in Opp.	W	32	Straight	None	2	Serious	Veh1,2 - Drinking
18	9/9/2004	2:25 PM	Light	Angle	42nd Av	W-325	N	62	Exiting Driveway	Failed to Yield	E	37	Straight	None	-	None	
19	9/22/2004	2:35 PM	Light	Left Turn	42nd Av	W-171	E	21	Left Turn	Failed to Yield	W	22	Straight	None	1	Minor	
20	10/21/2004	12:47 PM	Light	Rear End	43rd Av	E-272	E	20	Slowing	Inattention	E	28	Slowing	None	1	Minor	
21	10/22/2004	5:21 PM	Twilight	Angle	42nd Av	W-233	S	41	Left Turn	Failed to Yield	W	18	Straight	None	2	Minor	
22	11/5/2004	7:33 PM	Dark	Rear End	41st Av	E-26	W	21	Straight	Speed Too Fast	W	58	Slowing	None	-	None	
23	11/29/2004	6:20 AM	Twilight	Rear End	42nd Av	E-104	E	21	Straight	Other - Followed Too Close	E	43	Slowing	Other	-	None	
24	1/1/2005	4:30 PM	Light	Rear End	43rd Av	E-628	E	18	Changing Lanes	Unsafe Lane Change	E	21	Slowing	None	-	None	
25	2/10/2005	5:05 PM	Light	Rear End	43rd Av	E-250	E	44	Straight	Speed Too Fast	E	44	Straight	None	-	None	
26	3/13/2005	3:39 PM	Light	1 Vehicle	39th Dr	W-110	W	20	Evasive Action	None	-	-	-	-	-	None	
27	3/30/2005	4:59 PM	Light	Rear End	42nd Av	E-249	W	22	Straight	Speed Too Fast	W	73	Stopped	None	1	Minor	
28	4/28/2005	5:56 PM	Light	Left Turn	42nd Av	W-165	E	31	Left Turn	Failed to Yield	W	39	Straight	None	-	None	
29	5/11/2005	9:05 AM	Light	Sideswipe	43rd Av	E-168	W	21	Changing Lanes	Unsafe Lane Change	W	61	Straight	None	-	None	
30	5/21/2005	7:25 AM	Light	Rear End	39th Dr	W-34	E	19	Straight	Inattention	E	61	Stopped	None	1	Minor	
31	6/16/2005	5:35 PM	Light	Angle	43rd Av	E-200	S	30	Left Turn	Failed to Yield	E	21	Straight	None	1	Minor	
32	6/16/2005	9:24 PM	Dark	Left Turn	42nd Av	W-168	W	29	Left Turn	Failed to Yield	E	26	Straight	None	1	Minor	
33	6/16/2005	9:31 PM	Dark	Rear End	43rd Av	E-632	E	17	Straight	Speed Too Fast	E	51	Stopped	None	2	Minor	
34	6/24/2005	9:51 PM	Dark	Other (HO)	43rd Av	E-232	E	19	Straight	Other - Drove in Opp.	W	20	Straight	None	-	None	
35	7/21/2005	2:03 PM	Light	Sideswipe	43rd Av	E-258	E	21	Changing Lanes	Unsafe Lane Change	E	22	Straight	None	2	Minor	
36	8/9/2005	10:25 PM	Dark	Sideswipe	43rd Av	E-275	E	68	Right Turn	Failed to Yield	E	45	Straight	None	-	None	
37	8/11/2005	11:12 AM	Light	Sideswipe	39th Dr	W-70	W	44	Changing Lanes	None	W	19	Straight	None	-	None	
38	12/1/2005	5:37 PM	Dark	Rear End	42nd Av	0	W	37	Straight	Speed Too Fast	W	40	Stopped	None	-	None	
39	12/30/2005	11:05 AM	Light	Sideswipe	40th Av	E-142	E	60	Changing Lanes	Unsafe Lane Change	E	22	Changing Lanes	Inattention	-	None	
40	1/17/2006	5:45 PM	Dark	Rear End	43rd Av	E-440	W	30	Straight	Speed Too Fast	W	44	Stopped	None	1	Minor	
41	1/30/2006	4:30 PM	Light	Rear End	43rd Av	E-207	W	20	Straight	Speed Too Fast	W	81	Stopped	None	1	Minor	
42	2/7/2006	4:15 PM	Light	Rear End	43rd Av	E-266	W	32	Straight	Other - Followed Too Close	W	46	Stopped	None	1	Minor	
43	2/12/2006	3:33 AM	Dark	Rear End	39th Dr	W-205	W	26	Straight	Speed Too Fast	W	Unk.	Stopped	None	-	None	
44	3/21/2006	6:01 PM	Light	Rear End	39th Dr	W-20	W	50	Straight	Failed to Yield	W	31	Straight	None	-	None	
45	3/28/2006	5:15 PM	Light	Rear End	43rd Av	E-290	E	25	Straight	Speed Too Fast	E	39	Slowing	None	1	Minor	

Notes: Only crashes within the segment are included in this summary, collisions within 150' of the terminal intersections are NOT included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave; 43rd Ave - 39th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Xn Street	Distance from Xn	Vehicle 1				Vehicle 2				Injuries	Severity	Comments
							Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
46	4/24/2006	6:56 AM	Light	Rear End	40th Av	E-26	E	47	Straight	Inattention	E	62	Straight	None	-	None	
47	4/30/2006	12:23 PM	Light	Rear End	43rd Av	E-187	E	22	Changing Lanes	Speed Too Fast	E	40	Slowing	None	-	None	
48	5/2/2006	5:53 PM	Light	Rear End	39th Dr	E-118	E	40	Straight	Speed Too Fast	E	25	Stopped	None	3	Minor	
49	5/15/2006	5:35 PM	Light	Rear End	43rd Av	E-160	W	19	Slowing	Speed Too Fast	W	47	Stopped	None	-	None	
50	6/1/2006	1:50 PM	Light	Rear End	42nd Av	E-59	W	Unk.	Straight	Speed Too Fast	W	20	Stopped	None	-	None	
51	7/6/2006	2:59 PM	Light	Sideswipe	43rd Av	E-354	W	36	Evasive Action	Unsafe Lane Change	W	21	Straight	None	-	None	
52	8/4/2006	5:10 PM	Light	Rear End	42nd Av	0	W	36	Slowing	Speed Too Fast	W	31	Stopped	None	4	Minor	
53	8/19/2006	8:32 PM	Dark	Rear End	43rd Av	E-318	E	22	Straight	Speed Too Fast	E	35	Slowing	None	1	Minor	
54	9/29/2006	8:10 AM	Light	Angle	43rd Av	E-190	N	25	Exiting Driveway	Failed to Yield	W	20	Straight	None	-	None	
55	10/16/2006	5:32 PM	Light	Angle	42nd Av	E-131	S	25	Exiting Driveway	Failed to Yield	W	20	Straight	None	-	None	
56	11/2/2006	7:06 PM	Dark	Angle	42nd Av	E-114	S	Unk.	Exiting Driveway	Failed to Yield	W	44	Straight	None	-	None	
57	12/5/2006	8:01 AM	Light	Rear End	39th Dr	E-134	E	25	Straight	Speed Too Fast	E	31	Stopped	None	1	Minor	
58	12/7/2006	6:20 AM	Twilight	Sideswipe	43rd Av	E-433	E	Unk.	Straight	Unknown	E	30	Straight	None	-	None	
59	1/22/2007	10:14 AM	Light	Sideswipe	40th Av	W-415	E	Unk.	Changing Lanes	Unsafe Lane Change	E	28	Straight	None	-	None	
60	1/30/2007	4:21 PM	Light	Rear End	43rd Av	E-212	E	25	Straight	Speed Too Fast	E	43	Slowing	None	3	Minor	
61	3/15/2007	5:53 PM	Light	Angle	42nd Av	W-75	S	26	Left Turn	Failed to Yield	W	46	Straight	None	-	None	
62	3/19/2007	4:48 PM	Light	Left Turn	41st Av	0	W	39	Left Turn	Failed to Yield	E	48	Straight	None	-	None	
63	3/21/2007	5:54 PM	Light	Rear End	42nd Av	E-65	W	21	Straight	Inattention	E	20	Stopped	None	-	None	
64	3/26/2007	2:35 PM	Light	Sideswipe	43rd Av	E-382	W	48	Changing Lanes	Unsafe Lane Change	W	29	Straight	None	1	Minor	
65	3/30/2007	2:23 PM	Light	Rear End	42nd Av	W-93	W	31	Straight	None	W	41	Straight	None	3	Minor	
66	3/31/2007	6:57 PM	Twilight	Left Turn	43rd Av	E-200	E	83	Left Turn	Failed to Yield	W	19	Straight	None	-	None	
67	4/2/2007	5:44 PM	Light	Angle	41st Av	0	S	35	Left Turn	Failed to Yield	W	35	Straight	None	1	Minor	
68	4/13/2007	2:24 PM	Light	Rear End	42nd Av	W-116	E	Unk.	Straight	Unknown	E	41	Stopped	None	-	None	
69	6/11/2007	5:25 PM	Light	Rear End	40th Av	E-34	W	17	Straight	Speed Too Fast	W	18	Stopped	None	3	Minor	
70	7/27/2007	11:46 AM	Light	Angle	39th Dr	0	S	74	Left Turn	Failed to Yield	W	32	Straight	None	3	Serious	
71	7/27/2007	11:47 AM	Light	Sideswipe	39th Dr	0	W	27	Straight	Speed Too Fast	-	-	-	-	1	Minor	
72	8/3/2007	8:15 AM	Light	Angle	43rd Av	E-230	S	21	Changing Lanes	Unsafe Lane Change	W	25	Straight	None	1	Minor	
73	9/9/2007	4:25 PM	Light	Sideswipe	43rd Av	E-233	W	Unk.	Straight	Speed Too Fast	W	54	Stopped	None	-	None	
74	9/18/2007	9:08 AM	Light	Rear End	43rd Av	E-440	E	19	Straight	Speed Too Fast	E	23	Slowing	None	-	None	
76	10/23/2007	8:18 AM	Light	Rear End	42nd Av	E-50	E	28	Slowing	Other - Followed Too Close	E	18	Straight	None	1	Minor	
77	11/14/2007	4:55 PM	Light	Sideswipe	43rd Av	E-192	E	33	Straight	Speed Too Fast	E	60	Stopped	None	-	None	
78	12/23/2007	4:24 PM	Light	Rear End	43rd Av	E-157	E	Unk.	Changing Lanes	Unknown	E	57	Stopped	None	2	Minor	
79	1/2/2008	2:42 AM	Dark	1 Vehicle	40th Av	W-196	E	32	Straight	None	-	-	-	-	-	None	
80	1/4/2008	6:45 PM	Dark	Rear End	43rd Av	E-427	W	32	Straight	Unknown	W	40	Stopped	None	-	None	
81	1/5/2008	6:25 PM	Dark	Angle	43rd Av	E-360	N	23	Left Turn	Failed to Yield	W	40	Straight	None	-	None	
82	1/23/2008	6:14 PM	Twilight	Left Turn	42nd Av	W-184	E	18	Left Turn	Failed to Yield	W	39	Straight	None	2	Minor	
83	1/28/2008	12:13 PM	Light	Rear End	43rd Av	E-352	W	35	Straight	Speed Too Fast	W	21	Stopped	None	-	None	
84	1/30/2008	9:07 AM	Light	Sideswipe	43rd Av	E-289	E	30	Right Turn	Failed to Yield	E	30	Straight	None	1	Minor	
85	2/8/2008	8:30 PM	Dark	Angle	42nd Av	W-200	N	19	Right Turn	Failed to Yield	E	27	Straight	None	-	None	
86	2/12/2008	5:00 PM	Light	Sideswipe	41st Av	0	W	19	Straight	Inattention	W	46	Right Turn	Failed to Yield	-	None	
87	2/17/2008	2:48 PM	Light	Sideswipe	43rd Av	E-494	W	60	Changing Lanes	Unsafe Lane Change	W	72	Straight	None	1	Minor	
88	3/4/2008	7:01 PM	Dark	Rear End	42nd Av	W-313	W	Unk.	Slowing	Speed Too Fast	W	34	Slowing	None	-	None	
89	3/7/2008	3:53 PM	Light	Rear End	42nd Av	W-163	W	22	Slowing	Inattention	W	Unk.	Stopped	None	-	None	
90	3/8/2008	6:04 PM	Light	Angle	43rd Av	E-425	S	70	Other	Failed to Yield	W	60	Straight	None	-	None	
91	3/24/2008	11:42 AM	Light	Angle	39th Dr	0	S	75	Left Turn	Failed to Yield	W	25	Straight	None	1	Minor	

Notes: Only crashes within the segment are included in this summary, collisions within 150' of the terminal intersections are NOT included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave; 43rd Ave - 39th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Xn Street	Distance from Xn	Vehicle 1				Vehicle 2				Injuries	Severity	Comments
							Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
92	4/17/2008	3:53 PM	Light	Rear End	43rd Av	E-297	W	51	Straight	Inattention	W	55	Stopped	None	-	None	
93	4/18/2008	2:58 PM	Light	Angle	42nd Av	W-400	N	45	Other	Failed to Yield	E	58	Stopped	None	-	None	
94	5/2/2008	5:30 PM	Light	Rear End	42nd Av	W-60	W	49	Straight	Other - Followed Too Close	W	28	Stopped	None	-	None	
95	5/22/2008	9:07 PM	Dark	Rear End	43rd Av	E-608	W	17	Straight	Speed Too Fast	W	31	Stopped	None	1	Minor	
96	5/30/2008	5:30 PM	Light	Rear End	43rd Av	E-309	W	50	Straight	Inattention	W	45	Stopped	None	-	None	
97	9/9/2008	5:20 PM	Light	Rear End	41st Av	E-390	W	22	Straight	Speed Too Fast	W	41	Straight	None	-	None	
98	9/9/2008	5:30 PM	Light	Rear End	39th Dr	W-78	W	43	Straight	Speed Too Fast	W	46	Stopped	None	-	None	
99	10/17/2008	12:46 PM	Light	Rear End	43rd Av	E-160	W	48	Straight	Inattention	W	38	Straight	None	1	Minor	
100	10/19/2008	5:06 PM	Light	1 Vehicle	42nd Av	W-267	W	22	Straight	Inattention	-	-	-	-	1	Minor	
101	10/20/2008	5:49 PM	Dark	Other (UT)	39th Av	W-300	E	31	U-Turn	Failed to Yield	W	18	Straight	None	-	None	
102	11/16/2008	4:33 PM	Light	Sideswipe	42nd Av	W-65	E	22	Changing Lanes	Unsafe Lane Change	E	22	Straight	None	-	None	
103	11/23/2008	6:18 PM	Dark	Rear End	43rd Av	E-380	E	31	Straight	Speed Too Fast	E	Unk.	Straight	None	-	None	
104	12/31/2008	7:56 AM	Light	Rear End	43rd Av	E-234	E	20	Straight	Speed Too Fast	E	59	Stopped	None	-	None	

Notes: Only crashes within the segment are included in this summary, collisions within 150' of the terminal intersections are NOT included.  
 Data Sources: 2004-2008 ADOT ALISS Database



**City of Phoenix**  
**Street Transportation Department**  
**Safety & Neighborhood Traffic Section**  
**Intersection Crash Data Summary**

Location: Dunlap Ave - 39th Ave

Study Period: 2004 - 2008

Year	Injury Severity			Collision Type						Vehicle 1 Violation						Total
	Fatals	Injuries	PDO	Angle	Bike	Left Turn	Other	Rear End	Sideswipe	Disregarded Signal	Failed to Yield	Inattention	Speed Too Fast	Other	Unk./None	
2004	-	6	2	4	-	1	-	3	-	4	-	1	2	1	-	8
2005	-	9	4	7	-	5	-	1	-	7	3	-	2	-	1	13
2006	-	6	7	2	-	4	1	5	1	1	3	2	6	1	-	13
2007	-	7	2	4	-	2	-	2	1	1	4	-	3	1	-	9
2008	-	3	7	1	1	2	-	5	1	-	1	-	4	3	2	10
Annual Average	0.0	6.2	4.4	3.6	0.2	2.8	0.2	3.2	0.6	2.6	2.2	0.6	3.4	1.2	0.6	10.6

Time (years)	5	
Total number of crashes	53	
North (000's)	2.4	South (000's) 2.6
East (000's)	44.7	West (000's) 44.7
Crash Rate	<b>0.62 /MEV</b>	



Notes: Only crashes within 150' of the intersection are included.  
 Data Sources: 2004-2008 ADOT ALISS Database

Sheet 1 of 3

Location: **Dunlap Ave - 39th Ave**

Study Period: **2004 - 2008**

#	Date	Time	Light	Collision Type	Distance from Xn	Vehicle 1				Vehicle 2				Injuries	Severity	Comments
						Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
1	3/14/2004	2:50 PM	Light	Rear End	E-42	W	25	Straight	Speed Too Fast	W	18	Straight	None	1	Minor	
2	3/23/2004	6:39 AM	Light	Rear End	W-53	E	50	Slowing	Speed Too Fast	E	64	Stopped	None	2	Minor	
3	4/16/2004	10:18 PM	Dark	Left Turn	0	E	39	Straight	Other	W	47	Left Turn	None	2	Minor	
4	4/22/2004	9:32 AM	Light	Angle	0	W	70	Straight	Disregarded Signal	N	52	Straight	None	-	None	
5	5/20/2004	1:07 PM	Light	Angle	0	W	33	Straight	Disregarded Signal	S	Unk.	Left Turn	None	7	Serious	
6	6/8/2004	5:28 PM	Light	Angle	0	E	Unk.	Straight	Disregarded Signal	N	39	Straight	None	-	None	
7	8/15/2004	5:26 PM	Light	Rear End	E-29	W	27	Straight	Inattention	W	29	Stopped	None	4	Minor	
8	9/21/2004	6:18 PM	Light	Angle	0	W	29	Straight	Disregarded Signal	N	56	Straight	None	2	Minor	
9	1/3/2005	8:50 AM	Light	Angle	0	SE	23	Left Turn	Unknown	W	21	Straight	Unknown	2	Minor	
10	1/30/2005	8:43 PM	Dark	Left Turn	0	E	27	Straight	Disregarded Signal	W	38	Left Turn	None	1	Minor	
11	2/4/2005	2:27 PM	Light	Rear End	0	W	45	Straight	Speed Too Fast	W	44	Right Turn	None	1	Minor	
12	3/8/2005	7:10 AM	Light	Angle	E-34	E	Unk.	Straight	Disregarded Signal	E	34	Left Turn	None	-	None	
13	3/11/2005	11:11 AM	Light	Angle	0	E	42	Straight	Disregarded Signal	N	82	Straight	None	-	None	
14	3/21/2005	6:30 PM	Light	Left Turn	0	W	32	Straight	Disregarded Signal	E	23	Left Turn	None	1	Minor	
15	3/25/2005	2:06 PM	Light	Left Turn	S-52	S	44	Left Turn	Speed Too Fast	N	59	Stopped	None	-	None	Veh1 - Drinking
16	3/31/2005	3:24 PM	Light	Left Turn	0	S	20	Left Turn	Failed to Yield	N	33	Straight	None	-	None	
17	6/2/2005	11:33 AM	Light	Left Turn	0	E	19	Left Turn	Failed to Yield	W	19	Straight	None	3	Minor	
18	6/2/2005	12:38 PM	Light	Angle	0	W	20	Straight	Disregarded Signal	N	68	Straight	None	2	Minor	
19	6/7/2005	7:45 AM	Light	Angle	0	N	38	Right Turn	Failed to Yield	E	22	Straight	None	1	Minor	
20	7/22/2005	7:47 AM	Light	Angle	0	N	48	Left Turn	Disregarded Signal	E	29	Straight	None	2	Minor	
21	11/3/2005	5:06 PM	Light	Angle	0	W	57	Straight	Disregarded Signal	S	41	Straight	None	3	Minor	
22	2/18/2006	1:09 PM	Light	Other	S-15	W	55	Right Turn	Speed Too Fast	N	33	Stopped	None	1	Minor	Veh1 - Drinking
23	3/21/2006	6:05 AM	Light	Rear End	W-46	E	47	Chaning Lanes	Inattention	E	43	Slowing	None	1	Minor	
24	3/25/2006	8:44 PM	Dark	Left Turn	0	E	44	Left Turn	Speed Too Fast	W	19	Straight	None	-	None	Veh1 - Drinking
25	4/29/2006	10:00 AM	Light	Angle	0	N	17	Right Turn	Other	W	42	Straight	None	1	Minor	
26	5/17/2006	5:52 PM	Light	Left Turn	0	E	34	Left Turn	Failed to Yield	W	35	Straight	None	1	Minor	Veh1 - Drinking
27	5/20/2006	3:34 PM	Light	Rear End	E-59	E	33	Straight	Speed Too Fast	E	46	Slowing	None	-	None	
28	8/27/2006	8:30 PM	Dark	Rear End	N-49	N	50	Straight	Inattention	N	44	Stopped	None	-	None	
29	10/19/2006	2:10 PM	Light	Rear End	E-65	W	50	Straight	Speed Too Fast	W	27	Stopped	None	2	Serious	
30	11/18/2006	7:22 PM	Dark	Left Turn	0	E	Unk.	Straight	Disregarded Signal	W	20	Left Turn	None	-	None	
31	11/27/2006	4:28 PM	Light	Rear End	E-45	W	22	Straight	Speed Too Fast	W	20	Stopped	None	1	Minor	
32	12/9/2006	6:32 PM	Dark	Angle	0	S	46	Straight	Failed to Yield	W	33	Straight	None	-	None	
33	12/18/2006	2:59 PM	Light	Sideswipe	E-78	W	27	Straight	Speed Too Fast	W	57	Straight	None	-	None	
34	12/25/2006	5:35 PM	Light	Left Turn	0	E	18	Left Turn	Failed to Yield	W	39	Straight	None	-	None	
35	2/7/2007	7:28 PM	Twilight	Rear End	W-123	W	53	Straight	Speed Too Fast	W	49	Stopped	None	1	Serious	
36	2/23/2007	7:00 PM	Dark	Angle	0	S	79	Right Turn	Failed to Yield	W	34	Straight	None	1	Minor	
37	4/15/2007	9:34 AM	Light	Left Turn	0	W	22	Left Turn	Failed to Yield	E	48	Straight	None	3	Minor	
38	4/21/2007	7:19 AM	Light	Angle	0	W	36	Straight	Speed Too Fast	N	29	Straight	None	1	Minor	
39	6/7/2007	12:06 PM	Light	Rear End	E-135	W	26	Slowing	Speed Too Fast	W	63	Slowing	None	1	Minor	
40	8/4/2007	1:43 PM	Light	Angle	0	E	45	Straight	Disregarded Signal	S	37	Straight	None	-	None	

Notes: Only crashes within 150' of the intersection are included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave - 39th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Distance from Xn	Vehicle 1				Vehicle 2				Injuries	Severity	Comments
						Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
41	8/29/2007	10:25 AM	Light	Sideswipe	E-19	E	74	Right Turn	Failed to Yield	E	65	Straight	None	1	Minor	
42	9/8/2007	3:37 PM	Light	Left Turn	0	W	53	Left Turn	Failed to Yield	E	16	Straight	None	4	Minor	
43	9/22/2007	5:19 AM	Twilight	Angle	0	W	31	Straight	Other	S	28	Left Turn	None	-	None	
44	2/19/2008	7:48 AM	Light	Bike	S-38	W	10	Crossing	Other	SE	34	Right Turn	None	1	Minor	Veh1 - Bike
45	2/26/2008	3:03 PM	Light	Rear End	E-80	E	34	Straight	Speed Too Fast	E	64	Stopped	None	-	None	
46	2/26/2008	3:03 PM	Light	Rear End	E-70	E	31	Straight	Speed Too Fast	E	34	Stopped	Speed Too Fast	-	None	
47	3/29/2008	4:49 PM	Light	Left Turn	0	W	61	Left Turn	Failed to Yield	E	24	Straight	None	-	None	
48	5/10/2008	8:42 PM	Dark	Rear End	0	E	Unk.	Straight	Other	SE	37	Right Turn	None	-	None	
49	9/30/2008	2:08 PM	Light	Sideswipe	E-39	W	Unk.	Straight	Unknown	NW	34	Right Turn	None	-	None	
50	10/28/2008	5:38 PM	Twilight	Left Turn	0	E	20	Straight	Other	W	16	Left Turn	None	1	Minor	
51	11/22/2008	2:51 PM	Light	Rear End	E-47	E	33	Straight	Speed Too Fast	E	21	Straight	Speed Too Fast	-	None	
52	11/29/2008	2:33 PM	Light	Angle	0	N	32	Straight	Unknown	E	22	Straight	Unknown	-	None	
53	12/1/2008	3:14 PM	Light	Rear End	W-70	E	42	Straight	Speed Too Fast	E	31	Stopped	None	1	Unknown	

Notes: Only crashes within 150' of the intersection are included.  
 Data Sources: 2004-2008 ADOT ALISS Database



**City of Phoenix**  
**Street Transportation Department**  
**Safety & Neighborhood Traffic Section**  
**Segment Crash Data Summary**

Location: Dunlap Ave; 39th Ave - 35th Ave

Study Period: 2004 - 2008

Year	Injury Severity			Collision Type							Vehicle 1 Violation						Total
	Fatals	Injuries	PDO	1 Vehicle	Angle	Bike	Left Turn	Pedestrian	Rear End	Sideswipe	Failed to Yield	Inattention	Speed Too Fast	Unsafe Lane Change	Other	Unk./None	
2004	-	10	11	2	7	1	-	-	8	3	6	3	6	2	2	2	21
2005	-	7	13	-	4	1	2	1	9	3	7	2	7	1	3	-	20
2006	1	9	13	-	2	-	3	-	12	6	5	1	8	4	3	2	23
2007	-	6	8	2	4	-	-	-	6	2	3	1	7	1	1	1	14
2008	-	10	7	1	5	-	1	-	8	2	4	1	5	1	6	-	17
Annual Average	0.2	8.4	10.4	1.0	4.4	0.4	1.2	0.2	8.6	3.2	5.0	1.6	6.6	1.8	3.0	1.0	19.0

Total number of crashes	95
Time (years)	5
Average Daily Traffic (000's)	44.7
Length of Segment (miles)	0.50
Crash Rate	<b>2.33 /MVM</b>



Notes: Only crashes within the segment are included in this summary, collisions within 150' of the terminal intersections are NOT included.  
 Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave; 39th Ave - 35th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Xn Street	Distance from Xn	Vehicle 1					Vehicle 2					Inj's (Fat's)	Severity	Comments
							Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation					
1	1/16/2004	6:16 PM	Twilight	Rear End	35th Av	W-299	E	42	Straight	Speed Too Fast	E	36	Stopped	None	1	Minor			
2	1/26/2004	7:02 AM	Dark	Rear End	37th Av	E-360	E	56	Slowing	Inattention	E	Unk.	Slowing	Unknown	-	None			
3	1/28/2004	8:03 AM	Light	Angle	37th Av	E-534	N	27	Exiting Driveway	Failed to Yield	E	24	Straight	Speed Too Fast	2	Minor			
4	3/8/2004	3:23 PM	Light	Angle	37th Av	0	N	18	Left Turn	Failed to Yield	W	47	Left Turn	None	-	None			
5	3/22/2004	5:50 PM	Light	Rear End	37th Av	W-89	E	21	Straight	Speed Too Fast	E	50	Stopped	None	-	None			
6	5/5/2004	8:00 AM	Light	Angle	35th Av	W-516	S	34	Left Turn	Failed to Yield	W	37	Straight	None	3	Minor			
7	5/13/2004	10:35 PM	Dark	Sideswipe	35th Av	W-831	E	36	Right Turn	Unknown	E	20	Straight	Unknown	-	None			
8	6/19/2004	3:48 PM	Light	Rear End	35th Av	W-378	E	54	Straight	Other (FTC)	E	25	Straight	None	2	Minor			
9	7/9/2004	11:36 PM	Dark	1 Vehicle	39th Av	E-216	E	45	Straight	Speed Too Fast	-	-	-	-	1	Minor	Veh1 - Drinking		
10	7/17/2004	11:28 AM	Light	Angle	37th Av	0	N	26	Right Turn	Other (MIT)	E	19	Straight	None	-	None			
11	8/7/2004	5:51 PM	Light	Angle	35th Av	W-965	N	24	Exiting Driveway	Failed to Yield	W	22	Straight	None	-	None			
12	8/26/2004	8:21 AM	Light	Rear End	37th Av	E-652	E	49	Straight	Speed Too Fast	E	62	Stopped	None	1	Minor			
13	9/14/2004	3:36 PM	Light	Bike	35th Av	W-591	W	13	Straight	Inattention	N	40	Exiting Driveway	None	1	Minor	Veh1 - Bike		
14	10/13/2004	3:32 PM	Light	Rear End	35th Av	W-401	E	39	Slowing	Inattention	E	22	Stopped	None	2	Minor			
15	10/18/2004	7:55 AM	Light	Angle	37th Av	E-200	N	23	Exiting Driveway	Failed to Yield	E	26	Straight	Other	3	Minor			
16	10/24/2004	8:00 AM	Light	Angle	37th Av	0	S	69	Right Turn	Failed to Yield	W	52	Straight	None	-	None			
17	10/27/2004	6:15 PM	Dark	Sideswipe	35th Av	W-460	W	51	Evasive Action	Unsafe Lane Change	W	17	Straight	None	-	None			
18	11/19/2004	2:22 AM	Dark	1 Vehicle	37th Av	W-302	W	23	Straight	Unknown	-	-	-	-	-	None			
19	11/22/2004	3:53 PM	Light	Rear End	35th Av	W-289	W	41	Straight	Speed Too Fast	W	50	Stopped	None	1	Minor			
20	12/3/2004	9:30 AM	Light	Sideswipe	35th Av	W-955	E	69	Changing Lanes	Unsafe Lane Change	E	23	Straight	None	-	None			
21	12/24/2004	1:04 PM	Light	Rear End	35th Av	W-151	W	27	Straight	Speed Too Fast	W	25	Slowing	None	-	None			
22	2/5/2005	11:47 AM	Light	Left Turn	35th Av	W-370	W	20	Left Turn	Failed to Yield	E	47	Straight	None	-	None			
23	2/11/2005	3:53 PM	Light	Rear End	35th Av	W-165	E	Unk.	Straight	Speed Too Fast	E	19	Stopped	None	-	None			
24	2/22/2005	7:52 AM	Light	Angle	35th Av	W-451	N	Unk.	Exiting Driveway	Failed to Yield	E	21	Straight	None	-	None			
25	3/5/2005	2:25 PM	Light	Rear End	37th Av	E-464	E	18	Straight	Speed Too Fast	E	50	Straight	None	2	Minor			
26	4/5/2005	3:06 PM	Light	Rear End	35th Av	W-173	E	23	Straight	Speed Too Fast	E	35	Stopped	None	-	None			
27	4/23/2005	9:54 AM	Light	Sideswipe	37th Av	E-25	E	27	Changing Lanes	Unsafe Lane Change	E	52	Straight	None	-	None	Veh2 - Drinking		
28	5/4/2005	7:33 PM	Dark	Bike	37th Av	E-381	W	19	Straight	Other (MIT)	S	43	Exiting Driveway	None	1	Minor	Veh1 - Bike		
29	5/5/2005	3:03 PM	Light	Rear End	39th Av	E-308	E	34	Straight	Speed Too Fast	E	19	Stopped	None	-	None			
30	5/19/2005	1:00 PM	Light	Pedestrian	35th Av	W-373	N	59	Exiting Driveway	Inattention	W	50	Other	Inattention	1	Serious	Veh2 - Pedestrian		
31	6/20/2005	6:22 PM	Light	Rear End	35th Av	W-1209	E	40	Straight	Inattention	E	43	Straight	None	-	None			
32	7/5/2005	3:33 PM	Light	Sideswipe	35th Av	W-540	W	68	Left Turn	Other (MIT)	W	43	Straight	None	-	None			
33	7/9/2005	6:49 PM	Light	Angle	35th Av	W-256	S	18	Exiting Driveway	Failed to Yield	W	35	Straight	None	-	None			
34	8/17/2005	7:02 AM	Light	Rear End	37th Av	W-124	E	18	Straight	Speed Too Fast	E	30	Slowing	None	-	None			
35	8/23/2005	9:11 AM	Light	Rear End	37th Av	E-407	W	26	Straight	Speed Too Fast	W	75	Stopped	None	1	Minor			
36	8/27/2005	4:06 PM	Light	Rear End	37th Av	W-115	E	42	Straight	Other	E	72	Straight	None	-	None			
37	9/16/2005	7:51 AM	Light	Angle	37th Av	0	S	17	Left Turn	Failed to Yield	W	46	Straight	None	3	Serious			
38	9/16/2005	4:36 PM	Light	Left Turn	35th Av	W-296	W	35	Left Turn	Failed to Yield	E	39	Straight	Speed Too Fast	2	Minor			
39	10/3/2005	8:09 AM	Light	Sideswipe	37th Av	W-320	E	50	Changing Lanes	Failed to Yield	E	49	Straight	None	-	None			

Notes: Only crashes within the segment are included in this summary, collisions within 150' of the terminal intersections are NOT included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave; 39th Ave - 35th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Xn Street	Distance from Xn	Vehicle 1				Vehicle 2				Inj's (Fat's)	Severity	Comments
							Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
40	10/30/2005	11:24 AM	Light	Rear End	35th Av	W-510	E	19	Straight	Speed Too Fast	E	36	Stopped	Speed Too Fast	-	None	
41	12/3/2005	12:23 PM	Light	Angle	35th Av	W-435	N	38	Left Turn	Failed to Yield	E	36	Straight	None	4	Minor	
42	1/4/2006	9:19 AM	Light	Sideswipe	35th Av	W-206	E	48	Changing Lanes	Unsafe Lane Change	E	61	Straight	None	-	None	
43	1/4/2006	5:00 PM	Light	Sideswipe	35th Av	W-545	E	64	Changing Lanes	Unsafe Lane Change	E	20	Straight	None	2	Minor	
44	1/7/2006	3:27 PM	Light	Sideswipe	35th Av	W-199	E	Unk.	Changing Lanes	Unsafe Lane Change	E	26	Changing Lanes	Unsafe Lane Change	-	None	
45	1/19/2006	12:35 PM	Light	Rear End	35th Av	W-298	E	36	Changing Lanes	None	E	42	Stopped	None	-	None	
46	3/18/2006	4:30 PM	Light	Rear End	35th Av	W-287	E	28	Straight	Speed Too Fast	E	37	Stopped	None	1	Minor	
47	3/25/2006	1:26 PM	Light	Left Turn	35th Av	W-550	W	64	Left Turn	Failed to Yield	E	20	Slowing	None	-	None	
48	4/24/2006	7:48 AM	Light	Rear End	37th Av	E-374	E	38	Straight	Inattention	E	24	Slowing	None	-	None	
49	5/20/2006	3:34 PM	Light	Rear End	39th Av	E-626	E	33	Straight	Speed Too Fast	E	46	Slowing	None	-	None	
50	6/9/2006	9:50 AM	Light	Rear End	37th Av	W-39	E	57	Straight	None	E	54	Stopped	None	2	Minor	
51	6/17/2006	1:52 PM	Light	Angle	37th Av	E-574	N	42	Exiting Driveway	Failed to Yield	W	36	Straight	None	-	None	
52	6/19/2006	5:59 AM	Light	Sideswipe	37th Av	E-636	E	28	Passing	Other	E	48	Slowing	None	-	None	
53	6/27/2006	6:05 AM	Light	Rear End	35th Av	W-344	E	61	Straight	Other (FTC)	E	42	Slowing	None	2	Minor	
54	6/30/2006	10:08 PM	Dark	Rear End	35th Av	W-633	E	Unk.	Straight	Speed Too Fast	E	51	Slowing	None	1	Minor	
55	7/10/2006	6:10 PM	Light	Rear End	37th Av	W-72	E	22	Slowing	Speed Too Fast	E	33	Stopped	None	-	None	
56	7/16/2006	2:48 AM	Dark	Angle	35th Av	W-639	S	29	Exiting Driveway	Failed to Yield	E	24	Left Turn	None	-	None	
57	8/9/2006	5:44 PM	Light	Rear End	37th Av	E-219	E	18	Straight	Speed Too Fast	E	40	Stopped	None	-	None	
58	9/15/2006	3:20 PM	Light	Rear End	37th Av	E-82	W	30	Straight	Speed Too Fast	W	65	Stopped	None	-	None	
59	9/19/2006	6:51 PM	Dark	Sideswipe	39th Av	E-597	W	49	Straight	Other	E	26	Stopped	None	2	Minor	Veh1 - Drinking
60	9/26/2006	2:00 PM	Light	Rear End	35th Av	W-298	W	47	Straight	Speed Too Fast	W	54	Stopped	None	2	Minor	
61	10/28/2006	5:21 PM	Twilight	Rear End	37th Av	E-239	W	24	Straight	Speed Too Fast	W	19	Slowing	None	5 (2)	Fatal	
62	10/28/2006	5:28 PM	Twilight	Sideswipe	37th Av	W-118	E	52	Changing Lanes	Unsafe Lane Change	E	31	Straight	None	-	None	
63	11/6/2006	6:45 PM	Dark	Left Turn	35th Av	W-400	W	45	Entering Driveway	Failed to Yield	E	36	Straight	None	1	Minor	
64	12/21/2006	4:55 PM	Light	Left Turn	35th Av	W-337	W	21	Left Turn	Failed to Yield	E	21	Straight	None	1	Minor	
65	2/22/2007	8:05 AM	Light	Rear End	37th Av	W-390	E	23	Straight	Speed Too Fast	E	38	Stopped	None	1	Minor	
66	3/6/2007	7:03 AM	Light	Rear End	35th Av	W-242	E	22	Slowing	Speed Too Fast	E	53	Stopped	None	1	Minor	
67	3/10/2007	11:18 PM	Dark	Angle	37th Av	E-36	N	32	Right Turn	Failed to Yield	W	22	Straight	None	-	None	Veh1 - Drinking
68	4/5/2007	7:51 AM	Light	Angle	37th Av	W-368	N	21	Exiting Driveway	Failed to Yield	E	30	Straight	None	-	None	
69	4/7/2007	5:22 PM	Light	Angle	35th Av	W-207	S	62	Exiting Driveway	Failed to Yield	W	42	Straight	None	1	Minor	
70	4/11/2007	6:52 AM	Light	Rear End	37th Av	W-59	W	30	Straight	Speed Too Fast	W	18	Slowing	None	3	Minor	
71	5/25/2007	10:20 PM	Dark	Angle	35th Av	W-385	N	16	Changing Lanes	Speed Too Fast	W	16	Stopped	None	5	Minor	
72	6/20/2007	5:55 AM	Light	Rear End	39th Av	E-553	E	20	Slowing	Speed Too Fast	E	25	Stopped	None	-	None	
73	6/25/2007	9:41 AM	Light	Sideswipe	37th Av	W-137	W	18	Changing Lanes	Unsafe Lane Change	W	27	Slowing	None	-	None	
74	7/16/2007	4:33 PM	Light	Rear End	37th Av	E-515	E	37	Straight	Unknown	E	20	Stopped	Unknown	-	None	
75	8/19/2007	4:59 AM	Dark	1 Vehicle	37th Av	W-307	W	28	Evasive Action	Speed Too Fast	-	-	-	-	-	None	
76	10/6/2007	6:06 PM	Twilight	Sideswipe	39th Av	E-175	W	40	Changing Lanes	Inattention	W	19	Straight	None	-	None	
77	10/22/2007	11:09 AM	Light	1 Vehicle	37th Av	W-195	W	33	Evasive Action	Other	-	-	-	-	3	Minor	
78	12/13/2007	3:52 PM	Light	Rear End	35th Av	W-440	E	28	Straight	Speed Too Fast	E	36	Stopped	None	-	None	

Notes: Only crashes within the segment are included in this summary, collisions within 150' of the terminal intersections are NOT included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave; 39th Ave - 35th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Xn Street	Distance from Xn	Vehicle 1				Vehicle 2				Inj's (Fat's)	Severity	Comments
							Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
79	1/4/2008	10:13 PM	Dark	Angle	37th Av	0	S	Unk.	Straight	Failed to Yield	E	36	Left Turn	None	-	None	
80	2/8/2008	8:16 AM	Light	Angle	35th Av	W-578	E	20	Passing	Other (UP)	N	35	Exiting Driveway	None	-	None	
81	2/14/2008	8:05 AM	Light	Angle	35th Av	W-583	E	34	Passing	Other (UP)	N	31	Exiting Driveway	None	2	Minor	
82	2/16/2008	8:27 PM	Dark	Rear End	35th Av	W-257	E	24	Straight	Speed Too Fast	E	19	Stopped	None	2	Minor	
83	2/23/2008	3:14 PM	Light	Sideswipe	39th Av	E-152	W	18	Changing Lanes	Unsafe Lane Change	W	38	Straight	None	-	None	
84	3/27/2008	4:13 PM	Light	1 Vehicle	37th Av	E-244	E	21	Straight	Inattention	-	-	-	-	1	Minor	
85	3/29/2008	5:15 PM	Light	Rear End	39th Av	E-218	E	23	Straight	Other (FTC)	E	Unk.	Stopped	Unknown	1	Minor	
86	3/31/2008	7:50 AM	Light	Rear End	35th Av	W-350	E	35	Slowing	Speed Too Fast	E	54	Stopped	None	1	Minor	
87	5/14/2008	3:35 PM	Light	Rear End	35th Av	W-372	E	28	Straight	Other (FTC)	E	78	Straight	None	1	Minor	
88	5/31/2008	7:05 AM	Light	Rear End	35th Av	W-1000	E	44	Straight	Other (FTC)	E	52	Stopped	None	1	Minor	
89	8/7/2008	9:50 PM	Dark	Rear End	39th Av	E-1056	E	18	Straight	Speed Too Fast	E	19	Straight	None	1	Minor	
90	8/29/2008	7:36 AM	Light	Rear End	37th Av	E-419	E	23	Straight	Speed Too Fast	E	25	Stopped	None	3	Minor	
91	9/6/2008	8:21 PM	Dark	Rear End	35th Av	W-186	W	22	Straight	Speed Too Fast	W	38	Stopped	None	-	None	
92	10/14/2008	5:22 PM	Light	Left Turn	35th Av	W-434	E	31	Left Turn	Other (MIT)	W	20	Straight	None	-	None	
93	10/29/2008	8:18 AM	Light	Angle	37th Av	W-25	N	40	Left Turn	Failed to Yield	E	59	Straight	None	1	Minor	
94	11/10/2008	8:08 AM	Light	Angle	35th Av	W-568	N	22	Left Turn	Failed to Yield	E	38	Straight	None	-	None	
95	11/17/2008	4:46 PM	Light	Sideswipe	37th Av	0	N	20	Right Turn	Failed to Yield	N	22	Straight	None	-	None	

Notes: Only crashes within the segment are included in this summary, collisions within 150' of the terminal intersections are NOT included.  
Data Sources: 2004-2008 ADOT ALISS Database



**City of Phoenix**  
**Street Transportation Department**  
**Safety & Neighborhood Traffic Section**  
**Intersection Crash Data Summary**

Location: Dunlap Ave - 35th Ave

Study Period: 2004 - 2008

Year	Injury Severity			Collision Type							Vehicle 1 Violation						Total
	Fatals	Injuries	PDO	1 Vehicle	Angle	Left Turn	Other	Ped/ Bike	Rear End	Sideswipe	Disregarded Signal	Failed to Yield	Inattention	Speed Too Fast	Other	Unk./ None	
2004	1	30	35	2	9	26	2	1	24	2	7	26	4	20	6	3	66
2005	-	44	26	2	7	28	-	4	25	4	10	24	4	19	9	4	70
2006	-	27	31	1	6	21	-	1	26	3	5	17	2	23	5	6	58
2007	-	29	34	2	11	26	1	1	19	3	7	24	3	14	8	7	63
2008	1	19	36	1	5	25	-	1	21	3	2	25	6	14	6	3	56
Annual Average	0.4	29.8	32.4	1.6	7.6	25.2	0.6	1.6	23.0	3.0	6.2	23.2	3.8	18.0	6.8	4.6	62.6

Time (years)	5	
Total number of crashes	313	
North (000's)	35.1	South (000's) 35.1
East (000's)	44.7	West (000's) 44.7
Crash Rate	<b>2.15 /MEV</b>	



Notes: Only crashes within 150' of the intersection are included.  
 Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave - 35th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Distance from Xn	Vehicle 1				Vehicle 2				Inj (Fat)	Severity	Comments
						Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
1	1/6/2004	6:26 AM	Dark	Left Turn	0	S	61	Left Turn	Failed to Yield	N	32	Straight	None	-	None	
2	1/7/2004	2:21 PM	Light	Rear End	E-131	E	31	Straight	Speed Too Fast	S	33	Left Turn	Other	-	None	
3	1/7/2004	2:21 PM	Light	Other	E-114	N	18	Exiting Driveway	Other	E	25	Stopped	None	1	Minor	
4	1/22/2004	10:04 PM	Dark	Rear End	W-79	E	34	Straight	Speed Too Fast	E	19	Straight	None	1	Minor	Veh1 - Drinking
5	1/23/2004	6:41 PM	Dark	Other (HO)	S-89	S	32	Straight	Speed Too Fast	N	49	Stopped	None	-	None	Veh1 - Drinking
6	1/26/2004	7:45 AM	Light	Angle	W-148	N	Unk.	Left Turn	Failed to Yield	E	26	Straight	None	-	None	
7	1/28/2004	7:20 PM	Dark	Angle	0	E	35	Straight	Disregarded Signal	S	21	Straight	None	1	Serious	
8	2/10/2004	6:08 PM	Light	Left Turn	0	W	29	Left Turn	Failed to Yield	E	36	Straight	None	-	None	
9	2/23/2004	8:35 AM	Light	Left Turn	0	W	42	Slowing	Unknown	E	21	Left Turn	Unknown	-	None	
10	3/2/2004	9:40 AM	Light	Rear End	N-104	N	43	Changing Lanes	Other	N	24	Straight	None	2	Serious	
11	3/3/2004	6:44 AM	Twilight	Rear End	W-132	W	23	Straight	Speed Too Fast	W	40	Stopped	None	-	None	
12	3/8/2004	2:32 PM	Light	Rear End	E-59	W	18	Slowing	Speed Too Fast	W	21	Stopped	None	-	None	
13	3/12/2004	12:53 PM	Light	Rear End	W-60	E	65	Straight	Speed Too Fast	E	61	Stopped	None	4	Minor	Veh1 - Drinking
14	3/22/2004	10:50 AM	Light	Left Turn	0	N	61	Left Turn	Failed to Yield	S	53	Straight	None	1	Minor	
15	4/1/2004	3:42 PM	Light	Left Turn	0	N	20	Left Turn	Failed to Yield	S	29	Straight	None	-	None	
16	4/4/2004	1:37 AM	Dark	Rear End	S-50	N	45	Straight	Inattention	N	21	Stopped	None	1	Minor	Veh1 - Drinking
17	4/7/2004	2:56 PM	Light	Rear End	N-108	S	Unk.	Straight	Speed Too Fast	S	54	Stopped	None	1	Minor	
18	4/11/2004	10:27 AM	Light	Rear End	E-55	W	31	Straight	Speed Too Fast	W	42	Stopped	None	4	Minor	
19	4/12/2004	6:05 PM	Light	Rear End	0	N	35	Straight	Speed Too Fast	N	46	Stopped	None	3	Minor	
20	4/14/2004	10:55 AM	Light	Angle	0	E	64	Straight	Disregarded Signal	S	29	Straight	None	3	Serious	
21	4/14/2004	3:00 PM	Light	Rear End	E-68	W	17	Straight	Inattention	W	63	Stopped	None	-	None	
22	4/17/2004	7:08 PM	Twilight	Left Turn	0	E	18	Left Turn	Failed to Yield	W	22	Straight	None	1	Minor	
23	4/23/2004	3:59 PM	Light	Rear End	E-59	W	26	Slowing	Other	W	28	Stopped	None	1	Minor	
24	4/24/2004	11:26 AM	Light	Left Turn	0	N	19	Left Turn	Failed to Yield	S	35	Straight	None	-	None	
25	4/24/2004	3:51 PM	Light	Rear End	E-114	E	21	Straight	Speed Too Fast	E	31	Stopped	None	-	None	
26	5/10/2004	10:52 AM	Light	Sideswipe	0	W	72	Right Turn	Other	W	23	Evasive Action	None	-	None	
27	5/10/2004	5:31 PM	Light	Rear End	S-20	N	17	Straight	Speed Too Fast	N	45	Slowing	None	-	None	
28	5/11/2004	11:21 PM	Dark	Left Turn	0	W	29	Left Turn	Failed to Yield	E	22	Straight	None	1	Minor	
29	5/17/2004	1:55 PM	Light	Left Turn	0	S	24	Left Turn	Failed to Yield	N	55	Straight	None	1	Minor	
30	5/29/2004	2:12 PM	Light	Angle	E-121	N	34	Exiting Driveway	Failed to Yield	E	51	Straight	None	-	None	
31	6/3/2004	2:35 PM	Light	Angle	0	E	60	Straight	Disregarded Signal	N	44	Straight	None	2	Minor	Veh1 - Drinking
32	6/5/2004	12:03 AM	Dark	Left Turn	0	S	22	Straight	Other	N	17	Left Turn	Failed to Yield	2 (1)	Fatal	Veh1 - Drinking
33	6/9/2004	3:35 PM	Light	Left Turn	0	N	29	Left Turn	Failed to Yield	S	39	Straight	None	-	None	
34	6/10/2004	8:01 PM	Twilight	Left Turn	0	N	25	Straight	Disregarded Signal	S	25	Left Turn	Failed to Yield	2	Minor	Veh1 - Drinking
35	6/15/2004	6:14 PM	Light	Left Turn	0	S	22	Left Turn	Failed to Yield	N	27	Straight	None	-	None	
36	6/17/2004	9:37 PM	Dark	Sideswipe	N-131	S	20	Changing Lanes	Other	S	17	Straight	None	-	None	
37	6/19/2004	12:26 AM	Dark	Left Turn	0	W	24	Left Turn	Failed to Yield	E	27	Straight	None	2	Minor	
38	7/13/2004	1:53 PM	Light	Left Turn	0	S	18	Left Turn	Failed to Yield	N	75	Straight	None	1	Minor	
39	7/14/2004	4:35 PM	Light	Rear End	E-49	W	Unk.	Straight	Unknown	W	19	Stopped	None	-	None	
40	7/18/2004	3:10 PM	Light	Left Turn	0	N	38	Left Turn	Failed to Yield	S	64	Straight	None	-	None	

Notes: Only crashes within 150' of the intersection are included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave - 35th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Distance from Xn	Vehicle 1				Vehicle 2				Inj (Fat)	Severity	Comments
						Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
41	7/27/2004	7:40 AM	Light	Rear End	S-99	S	30	Straight	Speed Too Fast	S	31	Stopped	None	-	None	
42	8/3/2004	6:51 AM	Light	Bike	N-39	W	15	Straight	Inattention	E	53	Left Turn	None	1	Minor	Veh1 - Bike
43	8/4/2004	1:10 PM	Light	1 Vehicle	W-105	E	27	Evasive Action	None	-	-	-	-	1	Minor	
44	8/12/2004	10:36 AM	Light	Angle	0	E	26	Straight	Disregarded Signal	N	86	Straight	None	1	Minor	
45	8/24/2004	6:10 PM	Light	Angle	0	W	22	Straight	Disregarded Signal	N	30	Left Turn	None	-	None	
46	8/31/2004	7:10 AM	Light	Rear End	N-45	S	28	Straight	Speed Too Fast	S	62	Stopped	None	-	None	
47	9/2/2004	8:27 AM	Light	Rear End	E-78	E	38	Straight	Speed Too Fast	E	42	Stopped	None	1	Minor	
48	9/3/2004	12:30 PM	Light	Left Turn	0	W	33	Left Turn	Failed to Yield	E	60	Straight	None	-	None	
49	9/6/2004	7:24 PM	Dark	Left Turn	0	W	17	Left Turn	Failed to Yield	E	49	Straight	None	-	None	
50	9/9/2004	8:00 AM	Light	Left Turn	0	E	30	Left Turn	Failed to Yield	W	56	Straight	None	1	Minor	
51	9/16/2004	4:58 PM	Light	Rear End	0	E	18	Straight	Speed Too Fast	E	42	Stopped	None	-	None	
52	10/20/2004	4:40 PM	Light	Left Turn	0	E	41	Left Turn	Failed to Yield	W	51	Straight	None	1	Minor	
53	10/25/2004	11:21 AM	Light	Left Turn	0	N	30	Left Turn	Failed to Yield	S	66	Straight	None	-	None	
54	10/29/2004	3:36 PM	Light	Rear End	S-79	N	19	Straight	Speed Too Fast	N	30	Stopped	None	-	None	
55	11/19/2004	11:17 AM	Light	Angle	W-99	S	32	Exiting Driveway	Failed to Yield	E	69	Straight	None	1	Minor	
56	11/23/2004	2:02 AM	Dark	Rear End	0	N	22	Straight	Inattention	N	52	Stopped	None	-	None	Veh1 - Drinking
57	11/24/2004	4:45 AM	Dark	Angle	0	N	47	Straight	Failed to Yield	W	40	Straight	None	-	None	
58	12/2/2004	8:50 AM	Light	Left Turn	0	N	32	Left Turn	Failed to Yield	S	34	Straight	None	-	None	
59	12/4/2004	11:29 AM	Light	Left Turn	0	N	88	Left Turn	Failed to Yield	S	38	Straight	Speed Too Fast	-	None	
60	12/8/2004	8:59 AM	Light	Left Turn	0	W	Unk.	Straight	Disregarded Signal	E	45	Left Turn	None	-	None	
61	12/8/2004	3:31 PM	Light	Rear End	E-75	W	Unk.	Straight	Speed Too Fast	W	33	Stopped	None	-	None	
62	12/9/2004	8:14 PM	Dark	Left Turn	0	N	33	Left Turn	Failed to Yield	S	40	Straight	None	1	Minor	
63	12/12/2004	1:21 PM	Light	Left Turn	0	E	17	Straight	Failed to Yield	W	34	Left Turn	None	1	Minor	
64	12/20/2004	10:15 AM	Light	Rear End	W-50	E	25	Straight	Speed Too Fast	E	63	Stopped	None	-	None	
65	12/20/2004	5:00 PM	Dark	1 Vehicle	S-89	S	39	Evasive Action	Speed Too Fast	-	-	-	-	1	Minor	
66	12/30/2004	4:49 PM	Light	Rear End	S-69	N	35	Slowing	Speed Too Fast	N	31	Stopped	None	2	Minor	
67	1/11/2005	12:46 PM	Light	Angle	0	W	Unk.	Straight	Disregarded Signal	S	65	Straight	None	2	Minor	
68	1/27/2005	6:05 AM	Dark	Left Turn	0	N	Unk.	Straight	Unknown	S	60	Left Turn	Inattention	1	Serious	
69	1/28/2005	3:40 PM	Light	Rear End	0	N	18	Straight	Speed Too Fast	N	82	Stopped	None	1	Minor	
70	1/28/2005	3:44 PM	Light	Sideswipe	S-45	N	48	Changing Lanes	Other	N	32	Changing Lanes	None	-	None	
71	2/2/2005	7:35 AM	Light	Rear End	N-100	S	49	Straight	Speed Too Fast	S	50	Stopped	None	2	Minor	
72	2/9/2005	6:13 PM	Twilight	Rear End	0	W	20	Left Turn	Failed to Yield	E	19	Straight	None	2	Minor	
73	2/12/2005	7:35 PM	Dark	Bike	N-140	W	18	Straight	Inattention	S	35	Straight	Inattention	1	Minor	Veh2 - Bike
74	2/13/2005	12:03 PM	Light	Angle	0	S	23	Straight	Failed to Yield	W	19	Straight	None	-	None	
75	2/13/2005	2:24 PM	Light	Angle	0	W	51	Straight	Disregarded Signal	S	35	Straight	None	-	None	
76	2/14/2005	8:04 AM	Light	Left Turn	0	S	30	Left Turn	Failed to Yield	N	20	Straight	None	3	Minor	
77	2/16/2005	4:16 PM	Light	Rear End	S-128	S	28	Straight	Inattention	S	70	Straight	None	1	Minor	
78	2/19/2005	3:35 PM	Light	Rear End	S-58	N	18	Straight	Speed Too Fast	N	29	Straight	None	1	Minor	
79	3/12/2005	1:53 PM	Light	Left Turn	0	N	23	Left Turn	Failed to Yield	S	29	Straight	Speed Too Fast	4	Minor	
80	3/16/2005	12:19 PM	Light	Left Turn	0	N	69	Left Turn	Failed to Yield	S	29	Straight	None	2	Minor	

Notes: Only crashes within 150' of the intersection are included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave - 35th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Distance from Xn	Vehicle 1				Vehicle 2				Inj (Fat)	Severity	Comments
						Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
81	3/16/2005	8:20 PM	Dark	Left Turn	0	N	26	Left Turn	Failed to Yield	S	32	Straight	Other	-	None	Veh1 - Drinking
82	3/21/2005	2:38 PM	Light	Left Turn	0	S	24	Left Turn	Failed to Yield	N	38	Straight	Speed Too Fast	4	Minor	
83	3/21/2005	3:55 PM	Light	Rear End	0	W	53	Straight	Speed Too Fast	W	60	Stopped	None	-	None	
84	3/23/2005	4:20 PM	Light	Left Turn	0	S	19	Left Turn	Failed to Yield	N	28	Straight	None	1	Minor	
85	3/23/2005	6:38 PM	Twilight	Angle	0	W	41	Straight	Disregarded Signal	S	37	Straight	None	4	Minor	
86	3/24/2005	7:38 AM	Light	Left Turn	0	N	30	Straight	Disregarded Signal	S	35	Left Turn	None	3	Serious	
87	3/26/2005	6:30 PM	Twilight	Rear End	W-101	W	50	Straight	Speed Too Fast	W	33	Stopped	None	-	None	
88	4/1/2005	12:05 PM	Light	Left Turn	0	N	37	Left Turn	Failed to Yield	S	61	Straight	None	-	None	
89	4/1/2005	12:25 PM	Light	Rear End	W-78	E	23	Straight	Speed Too Fast	E	76	Stopped	None	-	None	
90	4/2/2005	6:20 PM	Light	Left Turn	0	E	Unk.	Straight	Disregarded Signal	W	18	Left Turn	None	1	Minor	
91	4/7/2005	3:25 PM	Light	Rear End	N-134	S	33	Straight	Speed Too Fast	S	61	Slowing	None	-	None	
92	4/11/2005	2:27 PM	Light	Left Turn	0	N	40	Straight	Disregarded Signal	S	Unk.	Left Turn	None	1	Minor	
93	4/11/2005	8:54 PM	Dark	Pedestrian	0	S	19	Right Turn	Failed to Yield	W	20	Other	Inattention	-	None	Veh2 - Pedestrian
94	4/17/2005	2:25 AM	Dark	Rear End	0	N	31	Straight	Speed Too Fast	N	19	Straight	None	2	Minor	Veh1 - Drinking
95	4/19/2005	10:40 AM	Light	Left Turn	0	S	22	Left Turn	Failed to Yield	N	26	Straight	None	-	None	
96	4/20/2005	4:35 PM	Light	Bike	S-82	S	29	Straight	Other	N	44	Exiting Driveway	Inattention	1	Minor	Veh1 - Bike
97	4/22/2005	8:14 PM	Dark	Left Turn	0	N	22	Left Turn	Other	S	Unk.	Straight	None	3	Minor	
98	4/26/2005	6:15 AM	Light	Left Turn	0	W	21	Left Turn	Failed to Yield	E	57	Straight	None	2	Minor	
99	4/27/2005	6:25 AM	Light	Left Turn	0	W	22	Left Turn	Failed to Yield	E	33	Straight	None	1	Minor	
100	5/4/2005	3:31 PM	Light	Rear End	N-76	S	41	Straight	Speed Too Fast	S	55	Stopped	None	-	None	
101	5/16/2005	4:15 PM	Light	Rear End	W-72	E	16	Changing Lanes	Other	E	31	Slowing	None	-	None	
102	5/17/2005	8:39 PM	Dark	Left Turn	0	S	51	Left Turn	Failed to Yield	N	26	Straight	None	2	Minor	
103	6/1/2005	3:31 PM	Light	Rear End	S-90	N	23	Straight	Speed Too Fast	N	47	Stopped	None	-	None	
104	6/3/2005	11:21 AM	Light	Left Turn	0	N	17	Left Turn	Failed to Yield	S	17	Straight	None	1	Minor	
105	6/10/2005	6:00 PM	Light	Rear End	W-89	W	35	Straight	Other	W	24	Straight	None	1	Minor	
106	6/10/2005	6:01 PM	Light	Rear End	W-79	W	Unk.	Straight	Other	W	35	Straight	Other	1	Minor	
107	6/11/2005	5:51 PM	Light	Left Turn	0	W	32	Left Turn	Failed to Yield	E	20	Straight	None	1	Minor	
108	6/13/2005	8:20 PM	Dark	Left Turn	0	N	49	Left Turn	None	S	19	Left Turn	None	2	Minor	
109	6/18/2005	4:19 PM	Light	Rear End	W-60	E	Unk.	Straight	Speed Too Fast	E	25	Stopped	Speed Too Fast	2	Minor	
110	6/30/2005	9:01 PM	Dark	Left Turn	0	N	27	Left Turn	Failed to Yield	S	38	Straight	None	2	Minor	
111	7/1/2005	9:50 PM	Dark	Sideswipe	E-115	W	23	Evasive Action	Other	W	20	Straight	None	-	None	
112	7/15/2005	7:07 PM	Light	Rear End	W-50	E	55	Straight	Other	E	24	Stopped	None	2	Minor	
113	7/21/2005	10:05 AM	Light	Angle	0	E	23	Straight	Disregarded Signal	N	79	Straight	None	2	Minor	
114	7/25/2005	4:17 PM	Light	Left Turn	0	N	46	Left Turn	Failed to Yield	S	50	Straight	None	-	None	
115	7/28/2005	5:38 PM	Light	Left Turn	0	E	19	Left Turn	Failed to Yield	W	20	Straight	None	2	Minor	
116	8/4/2005	1:01 PM	Light	Left Turn	0	E	17	Left Turn	Failed to Yield	W	52	Straight	None	2	Minor	
117	8/16/2005	8:05 AM	Light	Rear End	N-77	S	22	Straight	Speed Too Fast	S	54	Stopped	None	-	None	
118	8/19/2005	4:15 PM	Light	Rear End	W-72	E	22	Straight	Speed Too Fast	E	24	Stopped	None	-	None	
119	8/29/2005	8:03 AM	Light	Angle	0	W	33	Straight	Failed to Yield	N	24	Straight	None	1	Minor	
120	9/6/2005	2:18 PM	Light	Left Turn	0	W	22	Left Turn	Failed to Yield	E	23	Straight	None	1	Serious	

Notes: Only crashes within 150' of the intersection are included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave - 35th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Distance from Xn	Vehicle 1				Vehicle 2				Inj (Fat)	Severity	Comments
						Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
121	9/10/2005	7:00 PM	Dark	1 Vehicle	N-71	S	45	Left Turn	None	-	-	-	-	1	Minor	
122	9/16/2005	5:40 PM	Light	Rear End	E-66	W	52	Slowing	Speed Too Fast	W	34	Stopped	None	-	None	
123	10/2/2005	2:05 PM	Light	Sideswipe	W-59	W	Unk.	Straight	Other	W	44	Straight	None	-	None	
124	10/14/2005	11:08 AM	Light	Bike	E-60	S	11	Straight	Inattention	W	Unk.	Slowing	Unknown	1	Minor	Veh1 - Bike
125	10/18/2005	11:21 PM	Dark	1 Vehicle	W-59	W	34	Evasive Action	None	-	-	-	-	1	Minor	
126	10/21/2005	3:17 PM	Light	Left Turn	0	N	34	Left Turn	Failed to Yield	S	46	Straight	None	-	None	
127	10/21/2005	5:03 PM	Light	Rear End	N-72	S	70	Straight	Speed Too Fast	S	70	Stopped	None	-	None	
128	10/22/2005	9:25 AM	Light	Left Turn	0	E	19	Left Turn	Failed to Yield	W	52	Straight	None	2	Minor	
129	10/31/2005	1:20 PM	Light	Rear End	E-118	W	19	Straight	Speed Too Fast	W	37	Stopped	None	-	None	
130	11/5/2005	5:07 PM	Light	Rear End	E-83	E	26	Straight	Speed Too Fast	E	43	Straight	None	-	None	
131	11/25/2005	7:45 PM	Dark	Left Turn	0	W	25	Straight	Disregarded Signal	E	32	Left Turn	None	3	Minor	
132	12/2/2005	5:48 PM	Dark	Left Turn	0	E	Unk.	Straight	Disregarded Signal	W	43	Left Turn	None	-	None	
133	12/4/2005	12:37 PM	Light	Angle	0	W	25	Straight	Disregarded Signal	S	41	Straight	None	1	Minor	
134	12/5/2005	8:10 AM	Light	Sideswipe	0	E	28	Straight	Speed Too Fast	E	21	Straight	None	1	Minor	
135	12/5/2005	8:59 AM	Light	Rear End	N-46	S	31	Straight	Speed Too Fast	S	24	Stopped	None	-	None	
136	12/20/2005	4:24 PM	Light	Rear End	E-109	W	52	Straight	Inattention	W	47	Stopped	None	1	Minor	
137	1/3/2006	6:15 AM	Twilight	Left Turn	0	W	76	Left Turn	Unknown	E	27	Straight	Unknown	2	Serious	
138	1/26/2006	5:45 PM	Twilight	Angle	0	N	53	Straight	Disregarded Signal	E	50	Left Turn	None	1	Minor	
139	1/27/2006	1:15 PM	Twilight	Rear End	E-93	E	28	Straight	Speed Too Fast	E	22	Stopped	None	-	None	
140	2/4/2006	4:45 PM	Light	Angle	S-38	W	20	Exiting Driveway	Other	N	17	Straight	None	-	None	
141	2/14/2006	2:39 PM	Light	Rear End	S-99	N	44	Slowing	Inattention	N	Unk.	Stopped	Unknown	1	Minor	
142	2/19/2006	9:17 PM	Dark	Left Turn	0	S	44	Left Turn	Failed to Yield	N	24	Straight	None	8	Minor	
143	2/22/2006	11:50 AM	Light	Angle	0	N	41	Straight	Disregarded Signal	W	57	Straight	None	-	None	
144	3/31/2006	6:55 AM	Light	Rear End	S-148	S	68	Straight	Speed Too Fast	S	64	Slowing	None	-	None	
145	3/31/2006	9:25 PM	Dark	Left Turn	0	N	22	Left Turn	Failed to Yield	S	20	Straight	None	-	None	
146	3/31/2006	11:36 PM	Dark	Bike	0	N	23	Straight	Disregarded Signal	E	42	Straight	None	1	Minor	Veh1 - Drinking
147	4/4/2006	6:46 AM	Light	Rear End	N-70	S	19	Straight	Speed Too Fast	S	41	Stopped	None	-	None	
148	4/11/2006	6:58 AM	Light	Left Turn	0	N	26	Left Turn	Failed to Yield	S	50	Straight	None	2	Minor	
149	4/12/2006	4:39 PM	Light	Rear End	S-78	N	23	Straight	Speed Too Fast	N	19	Stopped	None	1	Minor	
150	4/12/2006	8:41 PM	Dark	1 Vehicle	0	N	49	Other	Other	-	-	-	-	-	None	Veh1 - Drinking
151	4/13/2006	3:06 PM	Light	Left Turn	0	W	29	Left Turn	Failed to Yield	S	47	Straight	None	3	Minor	
152	4/24/2006	5:46 PM	Light	Angle	E-150	S	28	Exiting Driveway	Failed to Yield	W	50	Straight	None	-	None	
153	4/27/2006	1:20 PM	Light	Rear End	0	E	53	Straight	Speed Too Fast	E	20	Stopped	None	1	Minor	
154	4/28/2006	5:34 PM	Light	Rear End	W-72	E	37	Straight	Speed Too Fast	E	26	Stopped	None	-	None	Veh1 - Drinking
155	5/22/2006	1:05 PM	Light	Left Turn	0	E	23	Left Turn	Failed to Yield	W	21	Straight	Speed Too Fast	3	Minor	
156	6/8/2006	9:00 PM	Dark	Rear End	N-62	S	Unk.	Unknown	Unknown	S	41	Straight	None	-	None	
157	6/10/2006	4:43 PM	Light	Rear End	S-82	N	26	Straight	Speed Too Fast	N	36	Stopped	None	-	None	
158	6/20/2006	7:17 AM	Light	Left Turn	0	S	21	Straight	Inattention	N	42	Left Turn	Inattention	2	Minor	
159	6/23/2006	7:42 PM	Light	Angle	N-121	E	Unk.	Exiting Driveway	Failed to Yield	S	18	Stopped	None	-	None	
160	6/26/2006	2:30 PM	Light	Rear End	W-62	W	27	Straight	Speed Too Fast	W	41	Stopped	None	-	None	

Notes: Only crashes within 150' of the intersection are included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave - 35th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Distance from Xn	Vehicle 1				Vehicle 2				Inj (Fat)	Severity	Comments
						Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
161	6/26/2006	7:11 PM	Light	Rear End	E-40	W	34	Straight	Speed Too Fast	W	30	Stopped	None	2	Minor	
162	7/12/2006	4:53 PM	Light	Rear End	W-75	E	67	Straight	Speed Too Fast	E	55	Stopped	None	-	None	
163	7/27/2006	5:10 PM	Light	Left Turn	0	E	49	Left Turn	Failed to Yield	W	18	Straight	None	-	None	
164	7/29/2006	4:48 PM	Light	Rear End	S-134	S	Unk.	Straight	Speed Too Fast	S	38	Stopped	None	-	None	
165	8/8/2006	12:18 PM	Light	Left Turn	0	E	52	Left Turn	Failed to Yield	W	18	Straight	None	2	Minor	
166	8/14/2006	4:21 PM	Light	Rear End	W-65	E	17	Straight	Speed Too Fast	E	17	Stopped	None	-	None	
167	8/16/2006	3:42 PM	Light	Left Turn	0	E	22	Left Turn	Unknown	W	76	Straight	Unknown	-	None	
168	8/19/2006	2:04 PM	Light	Rear End	S-39	N	24	Straight	Other	N	28	Right Turn	None	-	None	
169	9/4/2006	5:25 PM	Light	Left Turn	0	W	20	Left Turn	Failed to Yield	E	30	Straight	None	-	None	
170	9/13/2006	6:37 PM	Light	Left Turn	0	S	32	Evasive Action	None	N	40	Left Turn	None	-	None	
171	9/29/2006	4:39 PM	Light	Rear End	W-95	E	47	Straight	Speed Too Fast	E	30	Stopped	None	-	None	
172	10/4/2006	12:15 PM	Light	Left Turn	0	W	Unk.	Straight	Disregarded Signal	E	42	Left Turn	None	-	None	
173	10/6/2006	8:01 AM	Light	Rear End	N-91	S	45	Straight	Speed Too Fast	S	26	Stopped	None	1	Minor	
174	11/15/2006	2:17 PM	Light	Rear End	E-68	W	21	Straight	Speed Too Fast	W	34	Stopped	None	-	None	
175	11/20/2006	1:57 PM	Light	Left Turn	0	W	31	Left Turn	Failed to Yield	E	45	Straight	None	4	Minor	
176	11/21/2006	4:24 PM	Light	Rear End	N-65	S	30	Straight	Speed Too Fast	S	40	Stopped	None	1	Minor	
177	11/21/2006	8:26 PM	Dark	Rear End	W-39	E	Unk.	Straight	Unknown	E	25	Stopped	None	1	Minor	
178	11/22/2006	7:15 AM	Light	Rear End	0	E	39	Straight	Speed Too Fast	E	42	Stopped	None	1	Minor	
179	11/27/2006	3:06 AM	Dark	Rear End	W-68	E	27	Straight	Speed Too Fast	E	42	Stopped	None	1	Minor	Veh1 - Drinking
180	11/28/2006	10:50 AM	Light	Sideswipe	0	E	90	Right Turn	Other	E	24	Straight	None	4	Serious	
181	11/28/2006	12:16 PM	Light	Rear End	S-108	N	23	Straight	Speed Too Fast	N	32	Stopped	None	1	Minor	
182	11/29/2006	12:15 PM	Light	Left Turn	0	N	76	Left Turn	Failed to Yield	S	59	Straight	None	4	Serious	
183	12/10/2006	2:05 PM	Light	Angle	S-134	E	Unk.	Exiting Driveway	Failed to Yield	S	52	Straight	None	-	None	
184	12/11/2006	8:24 AM	Light	Sideswipe	N-124	N	62	Changing Lanes	Other	N	44	Straight	None	-	None	
185	12/11/2006	3:44 PM	Light	Rear End	W-62	E	61	Straight	Speed Too Fast	E	25	Stopped	None	1	Minor	
186	12/15/2006	4:18 PM	Light	Left Turn	0	E	34	Straight	Unknown	W	21	Left Turn	Unknown	-	None	
187	12/15/2006	4:50 PM	Light	Rear End	S-49	N	17	Straight	Speed Too Fast	N	36	Stopped	None	-	None	
188	12/19/2006	8:31 AM	Light	Left Turn	0	W	64	Left Turn	Failed to Yield	E	44	Straight	None	-	None	
189	12/19/2006	3:23 PM	Light	Rear End	E-68	W	56	Straight	Speed Too Fast	W	17	Stopped	None	2	Minor	
190	12/19/2006	3:26 PM	Light	Left Turn	0	N	29	Left Turn	Failed to Yield	S	44	Straight	Unknown	2	Minor	
191	12/22/2006	2:03 PM	Light	sideswipe	N-75	N	21	Straight	Speed Too Fast	S	29	Stopped	None	-	None	
192	12/22/2006	9:16 PM	Dark	Left Turn	0	W	19	Left Turn	Failed to Yield	E	20	Straight	None	-	None	
193	12/26/2006	10:46 AM	Light	Left Turn	S-114	N	38	Entering Driveway	Failed to Yield	S	31	Straight	None	2	Minor	
194	12/30/2006	12:41 PM	Light	Left Turn	0	S	16	Straight	Disregarded Signal	N	20	Left Turn	None	1	Minor	
195	1/2/2007	1:19 PM	Light	Left Turn	0	N	48	Left Turn	Failed to Yield	S	24	Straight	None	-	None	
196	1/6/2007	11:07 PM	Dark	Angle	0	N	24	Straight	Disregarded Signal	W	44	Straight	None	1	Minor	
197	1/8/2007	11:59 AM	Light	Left Turn	0	S	49	Left Turn	Failed to Yield	N	41	Straight	None	1	Serious	
198	1/14/2007	10:25 AM	Light	Sideswipe	N-100	N	40	Right Turn	Failed to Yield	N	56	Straight	None	-	None	
199	1/16/2007	5:39 AM	Dark	Angle	0	S	26	Straight	Disregarded Signal	W	52	Straight	None	2	Minor	Veh1 - Drinking
200	1/19/2007	9:48 AM	Light	Rear End	S-63	N	22	Straight	Speed Too Fast	N	75	Stopped	None	1	Minor	

Notes: Only crashes within 150' of the intersection are included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave - 35th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Distance from Xn	Vehicle 1				Vehicle 2				Inj (Fat)	Severity	Comments
						Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
201	1/20/2007	7:15 AM	Dark	Angle	0	E	22	Straight	Unknown	N	Unk.	Straight	None	3	Minor	Veh2-Drinking
202	1/26/2007	3:40 PM	Light	Rear End	W-85	E	42	Straight	Speed Too Fast	E	44	Stopped	None	-	None	
203	1/28/2007	1:20 PM	Light	Pedestrian	E-55	S	6	Crossing Road	Other	E	38	Straight	None	1	Serious	Veh1 - Pedestrian
204	2/13/2007	2:04 PM	Light	Rear End	E-80	W	23	Straight	Speed Too Fast	W	26	Stopped	None	-	None	
205	2/15/2007	2:55 PM	Light	Rear End	S-140	N	26	Straight	Inattention	N	56	Straight	None	-	None	
206	2/19/2007	5:32 PM	Twilight	Left Turn	0	S	Unk.	Left Turn	Failed to Yield	N	19	Straight	None	-	None	
207	2/22/2007	8:35 AM	Light	Left Turn	0	W	18	Left Turn	Failed to Yield	E	58	Straight	None	2	Serious	
208	2/25/2007	9:42 AM	Light	Angle	0	S	20	Straight	Other	E	20	Straight	None	1	Minor	
209	2/26/2007	8:44 PM	Dark	Left Turn	0	S	38	Straight	Disregarded Signal	N	52	Left Turn	None	2	Minor	
210	3/1/2007	7:10 AM	Light	Sideswipe	S-135	S	51	Changing Lanes	Failed to Yield	S	18	Straight	None	-	None	
211	3/7/2007	7:40 PM	Dark	Left Turn	0	S	78	Left Turn	Failed to Yield	N	29	Straight	None	-	None	
212	3/10/2007	7:28 PM	Dark	Left Turn	0	E	37	Left Turn	Failed to Yield	W	76	Straight	None	4	Minor	
213	3/13/2007	5:28 PM	Light	Left Turn	0	E	52	Left Turn	Failed to Yield	W	54	Straight	None	-	None	
214	3/18/2007	10:30 PM	Dark	Angle	0	N	18	Straight	Disregarded Signal	E	45	Straight	None	-	None	
215	3/28/2007	7:29 PM	Dark	Left Turn	0	W	19	Left Turn	Failed to Yield	E	60	Straight	None	2	Minor	
216	4/2/2007	6:04 PM	Light	Angle	W-105	S	37	Exiting Driveway	Failed to Yield	W	47	Straight	None	-	None	
217	4/3/2007	8:12 AM	Light	Rear End	N-57	S	19	Straight	Speed Too Fast	S	45	Stopped	None	-	None	
218	4/6/2007	6:45 AM	Light	Left Turn	0	W	52	Left Turn	Failed to Yield	E	29	Straight	None	1	Minor	
219	4/15/2007	12:50 PM	Light	Left Turn	0	N	35	Left Turn	Failed to Yield	S	49	Straight	None	3	Minor	
220	4/17/2007	5:04 PM	Light	Left Turn	0	E	24	Straight	Speed Too Fast	W	22	Left Turn	None	-	None	
221	4/23/2007	6:07 AM	Light	1 Vehicle	S-124	N	52	Straight	None	-	-	-	-	-	None	
222	5/3/2007	5:24 PM	Light	Rear End	0	N	27	Straight	Speed Too Fast	N	22	Stopped	None	-	None	
223	5/5/2007	2:50 PM	Light	Rear End	W-80	E	33	Slowing	Other	E	21	Stopped	None	-	None	
224	5/7/2007	7:45 AM	Light	Rear End	W-126	E	21	Straight	Other	E	63	Slowing	Other	2	Minor	
225	5/9/2007	5:33 PM	Light	Left Turn	0	N	22	Left Turn	Failed to Yield	S	58	Straight	None	-	None	
226	5/10/2007	7:58 AM	Light	Sideswipe	E-100	E	22	Changing Lanes	Other	E	62	Straight	None	-	None	
227	5/17/2007	7:48 AM	Light	Rear End	N-82	S	Unk.	Slowing	Speed Too Fast	S	33	Slowing	None	-	None	
228	5/18/2007	4:36 PM	Light	Rear End	E-137	E	20	Straight	Inattention	E	22	Stopped	None	1	Minor	
229	5/25/2007	2:35 PM	Light	Left Turn	0	N	41	Left Turn	Inattention	S	28	Straight	None	-	None	
230	5/25/2007	9:30 PM	Dark	Left Turn	0	E	34	Left Turn	Failed to Yield	W	76	Straight	None	-	None	
231	6/13/2007	3:39 PM	Light	Left Turn	0	W	49	Straight	Unknown	E	22	Left Turn	Unknown	1	Minor	
232	6/15/2007	7:35 PM	Twilight	Angle	S-135	W	40	Exiting Driveway	Failed to Yield	N	58	Slowing	None	-	None	
233	6/27/2007	1:15 PM	Light	Angle	E-82	N	35	Exiting Driveway	Failed to Yield	W	32	Straight	None	-	None	
234	8/4/2007	6:55 AM	Light	Angle	0	W	27	Straight	Unknown	S	24	Straight	Unknown	-	None	
235	8/11/2007	11:24 PM	Dark	Angle	0	W	34	Left Turn	Disregarded Signal	N	26	Straight	None	1	Minor	
236	8/23/2007	9:09 AM	Light	Left Turn	0	W	42	Left Turn	Failed to Yield	E	21	Straight	None	-	None	
237	8/31/2007	6:46 AM	Light	Rear End	S-140	S	41	Straight	Speed Too Fast	S	68	Stopped	None	-	None	
238	8/31/2007	7:23 PM	Dark	Left Turn	0	S	21	Straight	Unknown	N	18	Left Turn	Unknown	2	Minor	
239	9/1/2007	12:01 AM	Dark	Rear End	N-65	S	19	Straight	Other	S	18	Stopped	None	-	None	Veh2-Drinking
240	9/5/2007	9:30 AM	Light	Left Turn	0	S	27	Left Turn	Failed to Yield	N	29	Straight	None	1	Minor	

Notes: Only crashes within 150' of the intersection are included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave - 35th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Distance from Xn	Vehicle 1				Vehicle 2				Inj (Fat)	Severity	Comments
						Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
241	9/10/2007	1:22 PM	Light	Left Turn	0	W	88	Left Turn	Failed to Yield	E	21	Straight	None	1	Minor	
242	9/20/2007	6:49 AM	Light	1 Vehicle	0	E	51	Left Turn	None	-	-	-	-	1	Serious	Laid MC Down
243	9/24/2007	6:12 PM	Light	Rear End	E-73	W	21	Straight	Speed Too Fast	W	23	Stopped	None	-	None	
244	10/8/2007	6:44 AM	Light	Rear End	E-67	E	45	Straight	Other	E	60	Straight	None	-	None	
245	10/16/2007	2:49 PM	Light	Rear End	E-123	E	52	Straight	Speed Too Fast	E	20	Stopped	None	1	Minor	
246	10/17/2007	8:47 PM	Dark	Other (BACK)	E-111	W	45	Backing	Other	W	34	Stopped	None	-	None	
247	10/19/2007	10:49 AM	Light	Left Turn	0	N	80	Left Turn	Failed to Yield	S	55	Straight	None	-	None	
248	10/24/2007	8:46 AM	Light	Rear End	E-107	W	18	Straight	Speed Too Fast	W	19	Stopped	None	-	None	
249	11/5/2007	5:04 PM	Light	Left Turn	0	E	46	Left Turn	Failed to Yield	W	22	Straight	None	2	Serious	
250	11/21/2007	11:05 AM	Light	Rear End	S-100	N	27	Straight	Speed Too Fast	N	44	Stopped	None	2	Minor	
251	11/30/2007	7:36 PM	Dark	Left Turn	0	W	58	Left Turn	Failed to Yield	E	30	Straight	None	1	Minor	
252	12/11/2007	7:30 PM	Dark	Rear End	E-120	W	22	Straight	Speed Too Fast	W	20	Stopped	None	1	Minor	Veh1 - Drinking
253	12/15/2007	6:35 PM	Dark	Left Turn	0	S	56	Left Turn	Disregarded Signal	N	29	Straight	None	1	Minor	
254	12/17/2007	5:51 PM	Dark	Left Turn	0	S	37	Straight	Disregarded Signal	N	31	Left Turn	None	2	Minor	
255	12/18/2007	6:03 PM	Dark	Left Turn	0	W	Unk.	Left Turn	Failed to Yield	E	42	Straight	None	1	Minor	
256	12/19/2007	11:36 AM	Light	Angle	0	N	52	Straight	Unknown	W	63	Right Turn	Unknown	-	None	
257	12/19/2007	11:53 AM	Light	Rear End	N-57	N	19	Straight	Speed Too Fast	N	23	Stopped	None	-	None	
258	1/2/2008	12:52 PM	Light	Rear End	S-60	N	20	Straight	Speed Too Fast	N	66	Stopped	None	1	Unknown	
259	1/9/2008	3:49 PM	Light	Left Turn	0	W	18	Left Turn	Failed to Yield	E	26	Straight	None	-	None	
260	1/21/2008	3:30 PM	Light	Rear End	E-143	E	18	Straight	Speed Too Fast	E	22	Stopped	None	-	None	
261	1/25/2008	5:59 PM	Light	Rear End	N-51	S	40	Straight	Inattention	S	40	Slowing	None	-	None	
262	1/27/2008	4:52 PM	Light	Left Turn	0	W	38	Left Turn	Failed to Yield	E	33	Straight	None	-	None	
263	1/31/2008	3:40 PM	Light	Rear End	S-82	N	32	Slowing	Speed Too Fast	N	42	Stopped	None	-	None	
264	2/1/2008	3:30 PM	Light	Rear End	W-78	E	24	Straight	Speed Too Fast	E	23	Stopped	None	-	None	
265	2/3/2008	5:55 PM	Twilight	Left Turn	0	S	46	Left Turn	Failed to Yield	N	Unk.	Straight	None	-	None	
266	2/4/2008	7:55 AM	Twilight	Rear End	W-15	E	69	Straight	Inattention	E	30	Straight	None	2	Minor	
267	2/8/2008	6:27 PM	Dark	Rear End	S-113	S	Unk.	Straight	Speed Too Fast	S	25	Entering Driveway	None	-	None	
268	2/11/2008	4:50 PM	Light	Left Turn	0	S	30	Left Turn	Failed to Yield	N	Unk.	Straight	None	-	None	
269	2/20/2008	10:35 PM	Dark	Angle	0	S	70	Straight	Unknown	W	20	Straight	Unknown	-	None	
270	2/25/2008	7:39 AM	Light	Rear End	W-150	E	48	Straight	Speed Too Fast	E	35	Stopped	None	1	Minor	
271	2/25/2008	8:06 AM	Light	Rear End	W-80	E	44	Slowing	Speed Too Fast	E	48	Stopped	None	-	None	
272	2/29/2008	1:33 PM	Light	Pedestrian	E-55	W	22	Right Turn	Failed to Yield	S	50	Crossing Road	Unknown	1	Minor	Veh2 - Pedestrian
273	3/7/2008	9:36 PM	Dark	Rear End	W-96	E	45	Straight	Speed Too Fast	E	24	Stopped	None	-	None	Veh1 - Drinking
274	3/12/2008	9:18 AM	Light	Rear End	0	E	83	Straight	Speed Too Fast	E	51	Other	None	-	None	
275	3/21/2008	8:49 PM	Dark	Left Turn	0	N	20	Left Turn	Failed to Yield	S	31	Straight	None	3	Minor	
276	3/23/2008	3:03 PM	Light	Rear End	E-80	E	38	Straight	Speed Too Fast	E	41	Slowing	None	-	None	
277	3/31/2008	6:57 AM	Light	Rear End	W-138	E	21	Straight	Speed Too Fast	E	31	Stopped	None	-	None	
278	4/14/2008	7:12 AM	Light	Rear End	W-150	E	58	Slowing	Other (FTC)	E	21	Stopped	None	-	None	
279	4/23/2008	11:24 AM	Light	Left Turn	0	N	58	Left Turn	Failed to Yield	S	64	Straight	None	3	Minor	
280	4/28/2008	2:14 PM	Light	Left Turn	0	S	28	Straight	Disregarded Signal	N	80	Left Turn	Failed to Yield	2	Minor	

Notes: Only crashes within 150' of the intersection are included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave - 35th Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Distance from Xn	Vehicle 1				Vehicle 2				Inj (Fat)	Severity	Comments
						Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
281	5/5/2008	10:52 PM	Dark	Left Turn	0	W	19	Left Turn	Failed to Yield	E	53	Straight	None	1 (1)	Fatal	
282	5/16/2008	7:37 PM	Twilight	Left Turn	0	W	47	Left Turn	Failed to Yield	E	34	Straight	None	-	None	
283	5/17/2008	5:56 AM	Light	1 Vehicle	S-65	N	26	Slowing	None	-	-	-	-	-	None	
284	5/28/2008	9:48 PM	Dark	Left Turn	W-45	N	23	Left Turn	Failed to Yield	S	35	Right Turn	None	3	Minor	Veh2 - Drinking
285	6/4/2008	10:09 PM	Dark	Sideswipe	N-65	S	Unk.	Straight	Other (ULC)	S	23	Straight	None	-	None	
286	6/30/2008	6:04 PM	Light	Left Turn	0	S	45	Straight	Failed to Yield	N	33	Left Turn	None	-	None	
287	7/9/2008	5:22 PM	Light	Angle	0	E	19	Straight	Failed to Yield	S	22	Straight	None	-	None	
288	7/21/2008	9:32 AM	Light	Angle	W-85	E	44	Slowing	Speed Too Fast	E	29	Stopped	None	-	None	
289	7/25/2008	4:00 PM	Light	Sideswipe	S-84	S	35	Changing Lanes	Other (ULC)	S	45	Straight	None	-	None	
290	7/30/2008	8:08 AM	Light	Left Turn	0	W	18	Left Turn	Failed to Yield	E	54	Straight	None	1	Serious	
291	8/3/2008	11:31 AM	Light	Sideswipe	0	S	42	Changing Lanes	Other (ULC)	S	42	Straight	None	-	None	
292	8/10/2008	8:20 PM	Dark	Rear End	0	W	61	Left Turn	Inattention	W	19	Straight	None	-	None	
293	8/11/2008	12:00 PM	Light	Angle	0	W	27	Left Turn	Other (MIT)	N	41	Straight	Speed Too Fast	-	None	
294	8/19/2008	9:39 PM	Dark	Left Turn	0	W	39	Left Turn	Unknown	E	20	Straight	Unknown	-	None	
295	8/23/2008	11:30 AM	Light	Rear End	E-68	W	36	Straight	Other (FTC)	W	42	Stopped	None	-	None	
296	8/28/2008	3:17 PM	Light	Rear End	N-70	S	43	Straight	Inattention	S	29	Stopped	None	-	None	
297	9/4/2008	1:28 PM	Light	Left Turn	0	E	23	Left Turn	Failed to Yield	W	61	Straight	None	-	None	
298	9/7/2008	3:42 PM	Light	Left Turn	0	N	19	Straight	Disregarded Signal	S	83	Left Turn	None	-	None	
299	9/14/2008	10:11 PM	Dark	Left Turn	0	S	53	Left Turn	Failed to Yield	N	50	Straight	None	1	Minor	
300	9/20/2008	5:55 PM	Twilight	Angle	E-125	N	62	Left Turn	Failed to Yield	E	25	Straight	None	1	Minor	
301	10/3/2008	5:14 PM	Light	Rear End	E-67	W	29	Straight	Inattention	W	44	Stopped	None	2	Minor	
302	10/9/2008	3:00 PM	Light	Left Turn	0	W	16	Left Turn	Failed to Yield	E	61	Straight	None	1	Minor	
303	10/20/2008	11:43 AM	Light	Left Turn	0	N	46	Left Turn	Failed to Yield	S	25	Straight	None	1	Minor	
304	10/31/2008	6:44 PM	Dark	Rear End	N-48	S	23	Straight	Speed Too Fast	S	39	Stopped	None	-	None	
305	11/4/2008	5:47 PM	Dark	Left Turn	0	N	17	Left Turn	Failed to Yield	S	17	Straight	None	-	None	
306	11/9/2008	12:03 PM	Light	Rear End	E-57	E	34	Straight	Inattention	E	23	Stopped	None	1	Unknown	
307	11/15/2008	9:04 AM	Light	Left Turn	0	E	78	Left Turn	Failed to Yield	W	55	Straight	None	2	Minor	
308	11/15/2008	9:20 PM	Dark	Left Turn	0	S	18	Left Turn	Failed to Yield	N	50	Straight	None	4	Minor	
309	12/7/2008	6:13 PM	Dark	Left Turn	0	S	39	Left Turn	Failed to Yield	N	57	Straight	None	1	Minor	
310	12/12/2008	6:25 PM	Dark	Left Turn	0	E	32	Left Turn	Failed to Yield	W	43	Straight	Disregarded Signal	-	None	
311	12/15/2008	5:34 PM	Dark	Rear End	E-60	W	33	Straight	Speed Too Fast	W	44	Stopped	None	-	None	
312	12/15/2008	6:13 PM	Dark	Left Turn	0	S	25	Left Turn	Failed to Yield	N	43	Straight	None	-	None	
313	12/24/2008	10:50 AM	Light	Left Turn	0	W	43	Left Turn	Failed to Yield	E	28	Straight	None	2	Minor	

Notes: Only crashes within 150' of the intersection are included.  
Data Sources: 2004-2008 ADOT ALISS Database



**City of Phoenix**  
**Street Transportation Department**  
**Safety & Neighborhood Traffic Section**  
**Segment Crash Data Summary**

Location: Dunlap Ave; 35th Ave - 31st Ave

Study Period: 2004 - 2008

Year	Injury Severity			Collision Type							Vehicle 1 Violation						Total
	Fatals	Injuries	PDO	1 Vehicle	Angle	Bike/ PED	Left Turn	Other	Rear End	Sideswipe	Failed to Yield	Inattention	Speed Too Fast	Unsafe Lane Change	Other	Unk./None	
2004	-	15	16	1	5	2	5	-	15	3	10	5	12	2	2	-	31
2005	-	11	11	-	4	1	-	-	14	3	5	2	10	1	3	1	22
2006	1	10	18	3	5	1	-	1	13	6	5	1	9	2	7	5	29
2007	-	14	19	1	6	1	2	2	17	4	8	1	15	1	4	4	33
2008	-	6	18	3	3	3	1	-	12	2	8	3	7	2	4	-	24
Annual Average	0.2	11.2	16.4	1.6	4.6	1.6	1.6	0.6	14.2	3.6	7.2	2.4	10.6	1.6	4.0	2.0	27.8

Total number of crashes	139
Time (years)	5
Average Daily Traffic (000's)	44.7
Length of Segment (miles)	0.50
Crash Rate	<b>3.41 /MVM</b>



Notes: Only crashes within the segment are included in this summary, collisions within 150' of the terminal intersections are NOT included.  
 Data Sources: 2004-2008 ADOT ALISS Database

Location: **Dunlap Ave; 35th Ave - 31st Ave**

Study Period: **2004 - 2008**

#	Date	Time	Light	Collision Type	Xn Street	Distance from Xn	Vehicle 1				Vehicle 2				Inj's (Fat's)	Severity	Comments
							Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
1	1/6/2004	6:40 PM	Twilight	Angle	35th Ave	E-508	S	33	Left Turn	Failed to Yield	W	18	Straight	None	-	None	
2	1/28/2004	12:10 PM	Light	Pedestrian	35th Ave	E-370	S	8	Crossing Road	Other (DUX)	E	23	Straight	None	1	Minor	Veh1 - Pedestrian
3	2/18/2004	7:04 PM	Dark	Rear End	35th Ave	E-636	W	27	Straight	Speed Too Fast	W	28	Slowing	None	5	Serious	
4	3/9/2004	7:50 AM	Light	Left Turn	31st Ave	W-217	W	18	Left Turn	Failed to Yield	E	17	Straight	None	-	None	
5	3/9/2004	5:39 PM	Light	Angle	35th Ave	E-344	S	19	Exiting Driveway	Failed to Yield	W	33	Slowing	None	1	Minor	
6	3/23/2004	10:03 AM	Light	Rear End	35th Ave	E-291	E	37	Changing Lanes	Unsafe Lane Change	E	74	Straight	None	-	None	
7	3/24/2004	8:30 PM	Dark	Left Turn	35th Ave	E-403	E	58	Left Turn	Failed to Yield	W	47	Straight	None	1	Minor	
8	3/25/2004	1:19 PM	Light	Left Turn	35th Ave	E-183	E	72	Left Turn	Failed to Yield	W	19	Straight	None	-	None	
9	4/8/2004	7:44 AM	Light	Rear End	31st Ave	W-929	E	24	Straight	Speed Too Fast	E	31	Slowing	None	1	Minor	
10	4/16/2004	5:09 PM	Light	Rear End	31st Ave	W-1018	W	31	Slowing	Inattention	W	65	Stopped	None	1	Minor	
11	4/19/2004	6:42 PM	Twilight	Rear End	35th Ave	E-702	W	Unk.	Stopped	Speed Too Fast	W	44	Slowing	None	2	Minor	
12	4/21/2004	3:57 PM	Light	Angle	31st Ave	W-1126	E	37	Straight	Other (DTS)	N	42	Left Turn	None	2	Minor	
13	5/21/2004	9:04 PM	Dark	Left Turn	35th Ave	E-170	W	34	Left Turn	Failed to Yield	E	33	Straight	None	3	Minor	
14	6/2/2004	11:28 AM	Light	Rear End	35th Ave	E-232	W	18	Straight	Speed Too Fast	W	23	Stopped	None	-	None	
15	6/10/2004	12:45 PM	Light	Angle	35th Ave	E-200	S	31	Left Turn	Failed to Yield	W	40	Straight	None	2	Minor	
16	6/25/2004	4:32 PM	Light	Rear End	35th Ave	E-314	W	16	Slowing	Speed Too Fast	W	24	Stopped	None	-	None	
17	6/28/2004	7:41 PM	Twilight	Sideswipe	31st Ave	W-968	W	42	Changing Lanes	Unsafe Lane Change	W	29	Straight	None	1	Minor	
18	7/13/2004	8:14 PM	Twilight	Rear End	35th Ave	E-167	E	18	Straight	Inattention	E	34	Slowing	None	-	None	
19	7/14/2004	4:30 PM	Light	Rear End	35th Ave	E-449	W	41	Straight	Speed Too Fast	W	20	Straight	None	1	Minor	
20	8/28/2004	11:32 PM	Dark	Sideswipe	35th Ave	E-403	W	16	Changing Lanes	Inattention	W	31	Straight	None	-	None	
21	9/13/2004	4:40 PM	Light	Rear End	35th Ave	E-1040	E	25	Changing Lanes	Speed Too Fast	E	Unk.	Slowing	None	-	None	
22	9/21/2004	10:07 AM	Light	Bike	35th Ave	E-360	W	41	Left Turn	Failed to Yield	E	63	Straight	None	1	Minor	Veh2 - Bike
23	9/23/2004	7:53 AM	Light	Rear End	31st Ave	W-883	E	16	Straight	Inattention	E	35	Stopped	None	1	Minor	
24	10/16/2004	2:10 AM	Dark	Sideswipe	31st Ave	W-1864	E	33	Changing Lanes	Speed Too Fast	E	39	Straight	None	-	None	Veh1 - Drinking
25	11/1/2004	7:53 PM	Dark	Rear End	31st Ave	W-1050	W	18	Straight	Speed Too Fast	W	19	Stopped	None	-	None	
26	11/5/2004	7:46 AM	Light	Rear End	35th Ave	E-557	E	27	Straight	Speed Too Fast	E	50	Stopped	None	-	None	
27	11/16/2004	3:26 PM	Light	Angle	35th Ave	E-252	S	35	Exiting Driveway	Failed to Yield	W	27	Straight	None	-	None	
28	11/29/2004	6:20 PM	Dark	Left Turn	31st Ave	W-247	W	42	Left Turn	Failed to Yield	E	48	Straight	None	-	None	
29	11/30/2004	4:58 PM	Twilight	Rear End	31st Ave	W-1050	E	50	Straight	Speed Too Fast	E	37	Slowing	None	-	None	
30	11/30/2004	8:48 PM	Dark	1 Vehicle	35th Ave	E-1318	W	18	Straight	Inattention	-	-	-	-	1	Serious	
31	12/8/2004	5:40 PM	Dark	Rear End	35th Ave	E-154	E	75	Straight	Speed Too Fast	E	33	Stopped	None	-	None	
32	1/10/2005	10:09 AM	Light	Rear End	31st Ave	W-183	W	23	Straight	Speed Too Fast	W	51	Straight	None	2	Minor	
33	1/21/2005	3:05 PM	Light	Rear End	35th Ave	E-165	W	70	Straight	Speed Too Fast	W	41	Stopped	None	-	None	
34	2/15/2005	2:56 PM	Light	Sideswipe	31st Ave	W-364	W	42	Unknown	Unknown	W	36	Unknown	Unknown	-	None	
35	2/16/2005	3:17 PM	Light	Angle	35th Ave	E-376	S	26	Exiting Driveway	Failed to Yield	W	25	Straight	None	3	Minor	
36	2/17/2005	2:44 PM	Light	Angle	35th Ave	E-316	S	18	Exiting Driveway	Failed to Yield	W	20	Straight	None	-	None	
37	2/25/2005	9:14 AM	Light	Sideswipe	35th Ave	E-267	S	68	Exiting Driveway	Failed to Yield	N	71	Exiting Driveway	Failed to Yield	-	None	
38	3/21/2005	5:49 PM	Light	Rear End	31st Ave	W-1095	W	35	Slowing	Speed Too Fast	W	27	Stopped	None	-	None	
39	3/29/2005	2:45 PM	Light	Bike	35th Ave	E-1283	N	16	Straight	Other	W	19	Exiting Driveway	None	1	Minor	Veh1 - Bike
40	4/25/2005	2:41 PM	Light	Rear End	35th Ave	E-343	E	37	Straight	Inattention	E	18	Stopped	None	1	Minor	
41	5/7/2005	4:17 PM	Light	Rear End	31st Ave	W-1056	W	22	Straight	Inattention	W	Unk.	Stopped	None	-	None	
42	7/25/2005	3:09 PM	Light	Rear End	31st Ave	W-1137	W	19	Slowing	Speed Too Fast	W	56	Straight	None	-	None	
43	7/30/2005	6:34 AM	Light	Rear End	31st Ave	W-195	E	34	Straight	Other (FTC)	E	46	Stopped	None	1	Serious	
44	8/20/2005	4:23 PM	Light	Rear End	35th Ave	E-466	W	25	Straight	Speed Too Fast	W	45	Slowing	None	-	None	
45	9/7/2005	7:16 AM	Light	Rear End	31st Ave	W-940	W	19	Straight	Speed Too Fast	W	43	Stopped	None	-	None	
46	9/12/2005	12:01 PM	Light	Angle	35th Ave	E-226	N	44	Exiting Driveway	Failed to Yield	E	20	Straight	None	-	None	
47	10/20/2005	3:06 PM	Light	Sideswipe	35th Ave	E-190	W	36	Changing Lanes	Unsafe Lane Change	W	28	Stopped	None	-	None	

Notes: Only crashes within the segment are included in this summary, collisions within 150' of the terminal intersections are NOT included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave; 35th Ave - 31st Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Xn Street	Distance from Xn	Vehicle 1				Vehicle 2				Inj's (Fat's)	Severity	Comments
							Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
48	11/13/2005	1:24 PM	Light	Rear End	35th Ave	E-164	W	19	Straight	Other (FTC)	W	48	Stopped	None	1	Minor	
49	11/15/2005	12:05 PM	Light	Rear End	35th Ave	E-1350	E	18	Straight	Speed Too Fast	E	43	Stopped	None	1	Minor	
50	11/16/2005	7:18 PM	Dark	Rear End	31st Ave	W-207	E	32	Slowing	Speed Too Fast	E	19	Stopped	None	2	Minor	
51	11/23/2005	5:33 AM	Dark	Rear End	35th Ave	E-257	E	33	Straight	Speed Too Fast	E	35	Stopped	None	3	Minor	
52	12/1/2005	6:05 PM	Dark	Rear End	35th Ave	E-482	W	28	Straight	Speed Too Fast	W	44	Stopped	None	1	Minor	
53	12/16/2005	5:15 PM	Twilight	Angle	35th Ave	E-217	S	47	Left Turn	Failed to Yield	E	27	Straight	None	1	Minor	
54	1/25/2006	9:09 AM	Light	Pedestrian	35th Ave	E-528	S	23	Crossing Road	Other (DUX)	W	30	Evasive Action	None	(1)	Fatal	Veh1 - Pedestrian
55	1/25/2006	2:05 PM	Light	Angle	35th Ave	E-258	N	18	Exiting Driveway	Failed to Yield	E	29	Straight	None	2	Minor	
56	1/27/2006	7:56 AM	Light	Rear End	35th Ave	E-708	E	22	Changing Lanes	Unsafe Lane Change	E	17	Straight	None	-	None	
57	1/27/2006	3:01 PM	Light	Rear End	35th Ave	E-242	E	20	Straight	Speed Too Fast	E	35	Stopped	None	-	None	
58	2/13/2006	7:11 PM	Dark	Rear End	35th Ave	E-245	E	17	Straight	Speed Too Fast	E	28	Stopped	None	2	Minor	
59	2/21/2006	10:00 AM	Light	Sideswipe	35th Ave	E-437	E	39	Right Turn	Other (MIT)	E	19	Straight	None	1	Serious	
60	3/29/2006	6:53 PM	Dark	1 Vehicle	35th Ave	E-253	W	60	Straight	None	-	-	-	-	1	Minor	
61	3/31/2006	7:55 AM	Light	Rear End	31st Ave	W-627	E	17	Straight	Speed Too Fast	E	37	Stopped	None	-	None	
62	4/4/2006	11:21 AM	Light	Sideswipe	35th Ave	E-564	E	21	Changing Lanes	Unsafe Lane Change	E	18	Straight	None	-	None	
63	4/16/2006	1:41 PM	Light	Rear End	35th Ave	E-393	W	65	Straight	Inattention	W	18	Stopped	None	2	Minor	
64	4/28/2006	4:31 PM	Light	Angle	31st Ave	W-688	N	51	Left Turn	Failed to Yield	E	22	Straight	None	1	Minor	
65	4/28/2006	5:40 PM	Light	Rear End	35th Ave	E-433	W	22	Straight	Speed Too Fast	W	27	Stopped	None	-	None	
66	5/29/2006	1:10 PM	Light	Other	31st Ave	W-291	E	21	Straight	Other	W	55	Straight	None	-	None	
67	5/31/2006	8:34 PM	Dark	Rear End	35th Ave	E-715	E	18	Right Turn	Speed Too Fast	E	47	Stopped	None	-	None	
68	6/13/2006	5:54 PM	Light	Rear End	35th Ave	E-843	W	25	Straight	Speed Too Fast	W	25	Stopped	None	-	None	
69	7/17/2006	12:45 PM	Light	Angle	35th Ave	E-285	N	56	Exiting Driveway	Failed to Yield	E	19	Straight	None	-	None	
70	7/28/2006	7:50 AM	Twilight	1 Vehicle	31st Ave	W-1610	E	Unk	Straight	Other	-	-	-	-	-	None	
71	8/13/2006	3:36 PM	Light	Sideswipe	35th Ave	E-223	E	44	Straight	Unknown	E	31	Straight	Unknown	-	None	
72	8/20/2006	7:24 PM	Twilight	1 Vehicle	35th Ave	E-229	E	19	Straight	Speed Too Fast	-	-	-	-	-	None	Veh1 - Drinking
73	8/25/2006	11:45 AM	Light	Rear End	35th Ave	E-1814	W	60	Straight	Speed Too Fast	W	46	Stopped	None	2	Minor	
74	9/1/2006	5:16 PM	Light	Sideswipe	35th Ave	E-498	W	20	Changing Lanes	Unknown	W	51	Straight	Unknown	-	None	
75	9/19/2006	8:59 AM	Light	Sideswipe	35th Ave	E-462	W	19	Straight	Unknown	W	32	Straight	Unknown	-	None	
76	9/25/2006	2:31 PM	Light	Rear End	35th Ave	E-354	E	17	Straight	Other (FTC)	E	57	Slowing	None	-	None	
77	9/26/2006	5:47 PM	Light	Angle	35th Ave	E-400	S	42	Entering Driveway	Failed to Yield	W	23	Straight	None	1	Minor	
78	9/29/2006	4:12 PM	Light	Angle	35th Ave	E-288	S	36	Exiting Driveway	Failed to Yield	W	52	Left Turn	None	2	Minor	
79	10/31/2006	4:15 PM	Light	Rear End	35th Ave	E-538	W	52	Straight	Speed Too Fast	W	35	Stopped	None	3	Minor	
80	12/31/2006	5:08 PM	Light	Rear End	35th Ave	E-374	E	42	Straight	Other (FTC)	E	30	Stopped	None	-	None	
81	12/31/2006	5:09 PM	Light	Rear End	35th Ave	E-374	E	Unk	Straight	Other (FTC)	E	42	Stopped	None	-	None	
82	12/31/2006	5:30 PM	Light	Sideswipe	35th Ave	E-374	W	21	Evasive Action	None	W	66	Straight	None	-	None	
83	1/1/2007	7:26 AM	Twilight	Other (HO)	31st Ave	W-389	W	28	Straight	Other (DOL)	E	33	Straight	None	3	Serious	Veh1 - Drinking
84	1/8/2007	12:43 PM	Light	Left Turn	35th Ave	E-574	W	47	Entering Driveway	Failed to Yield	E	20	Straight	None	-	None	
85	1/19/2007	5:09 PM	Light	Sideswipe	31st Ave	W-420	E	19	Evasive Action	Unsafe Lane Change	E	34	Straight	None	-	None	
86	1/19/2007	6:13 PM	Dark	Rear End	35th Ave	E-437	W	30	Straight	Speed Too Fast	W	23	Stopped	None	-	None	
87	1/23/2007	8:31 AM	Light	Rear End	31st Ave	W-407	E	35	Straight	Speed Too Fast	E	31	Straight	None	1	Minor	
88	2/14/2007	2:44 PM	Light	Angle	35th Ave	E-302	N	37	Left Turn	Failed to Yield	E	42	Straight	None	1	Minor	
89	3/6/2007	7:45 AM	Light	Angle	35th Ave	E-672	N	36	Exiting Driveway	Failed to Yield	E	58	Straight	None	-	None	
90	3/9/2007	7:43 AM	Light	Pedestrian	35th Ave	E-249	E	Unk	Unknown	Unknown	W	46	Standing	Unknown	1	Minor	Veh2 - Pedestrian
91	3/12/2007	7:15 AM	Light	Rear End	31st Ave	W-944	E	18	Straight	Speed Too Fast	E	49	Stopped	None	-	None	
92	3/12/2007	2:50 PM	Light	Angle	31st Ave	W-1200	E	18	Straight	Other (DTS)	N	18	Exiting Driveway	None	1	Minor	
93	3/17/2007	8:58 AM	Light	Rear End	31st Ave	W-690	E	44	Straight	Speed Too Fast	E	49	Entering Driveway	None	1	Minor	

Notes: Only crashes within the segment are included in this summary, collisions within 150' of the terminal intersections are NOT included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave; 35th Ave - 31st Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Xn Street	Distance from Xn	Vehicle 1				Vehicle 2				Inj's (Fat's)	Severity	Comments
							Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
94	3/22/2007	5:21 PM	Light	Sideswipe	35th Ave	E-355	W	Unk	Unknown	Unknown	W	41	Changing Lanes	None	-	None	
95	4/1/2007	5:39 PM	Light	Rear End	35th Ave	E-538	E	16	Straight	Speed Too Fast	E	39	Stopped	None	-	None	
96	4/4/2007	9:17 AM	Light	Rear End	31st Ave	W-730	W	19	Straight	Speed Too Fast	W	39	Stopped	None	3	Minor	
97	4/12/2007	1:55 PM	Light	Rear End	31st Ave	W-186	W	27	Straight	Speed Too Fast	W	77	Stopped	None	1	Minor	
98	5/30/2007	2:03 PM	Light	Rear End	35th Ave	E-940	W	32	Straight	Speed Too Fast	W	28	Slowing	None	1	Minor	
99	5/31/2007	4:44 PM	Light	Left Turn	35th Ave	E-186	E	84	Left Turn	Failed to Yield	W	36	Straight	None	-	None	
100	6/1/2007	3:06 PM	Light	Rear End	31st Ave	W-498	E	62	Straight	Inattention	E	24	Stopped	None	-	None	
101	6/21/2007	11:03 AM	Light	Sideswipe	35th Ave	E-198	E	26	Changing Lanes	Failed to Yield	E	37	Straight	None	-	None	
102	7/2/2007	3:23 PM	Light	Rear End	35th Ave	E-165	W	52	Straight	Speed Too Fast	W	30	Stopped	None	-	None	
103	7/7/2007	9:10 PM	Dark	Other (U)	31st Ave	W-279	W	25	U-Turn	Other (MIT)	W	56	Straight	None	1	Minor	
104	7/9/2007	8:00 AM	Light	1 Vehicle	35th Ave	E-396	E	28	Straight	Other	-	-	-	-	-	None	
105	7/12/2007	11:08 PM	Dark	Rear End	35th Ave	E-440	E	30	Straight	Speed Too Fast	E	36	Slowing	None	-	None	Veh1 - Drinking
106	8/16/2007	6:40 AM	Light	Angle	35th Ave	E-173	N	40	Exiting Driveway	Failed to Yield	W	53	Slowing	None	-	None	
107	8/18/2007	8:58 PM	Dark	Sideswipe	35th Ave	E-241	W	Unk	Changing Lanes	Unknown	W	18	Straight	None	-	None	
108	8/18/2007	8:59 PM	Dark	Rear End	35th Ave	E-209	W	Unk	Changing Lanes	Unknown	W	49	Stopped	None	-	None	
109	8/20/2007	2:50 PM	Light	Rear End	31st Ave	W-1337	W	19	Straight	Speed Too Fast	W	53	Slowing	None	2	Minor	
110	8/25/2007	4:30 PM	Light	Angle	35th Ave	E-155	S	26	Exiting Driveway	Failed to Yield	W	26	Straight	None	-	None	
111	9/6/2007	6:30 PM	Twilight	Angle	35th Ave	E-363	S	21	Left Turn	Failed to Yield	W	54	Straight	None	-	None	
112	10/23/2007	8:03 AM	Light	Rear End	35th Ave	E-780	E	17	Slowing	Speed Too Fast	E	17	Stopped	None	1	Minor	
113	11/8/2007	4:39 PM	Light	Rear End	35th Ave	E-430	W	23	Straight	Speed Too Fast	W	26	Stopped	None	-	None	
114	11/19/2007	7:05 AM	Twilight	Rear End	35th Ave	E-328	E	20	Straight	Speed Too Fast	E	39	Slowing	None	1	Minor	
115	12/13/2007	5:49 PM	Twilight	Rear End	35th Ave	E-640	W	54	Slowing	Speed Too Fast	W	58	Stopped	None	2	Minor	
116	1/29/2008	6:39 PM	Dark	Rear End	35th Ave	E-279	W	24	Other	Failed to Yield	W	36	straight	None	1	Serious	
117	2/10/2008	3:12 PM	Light	Sideswipe	35th Ave	E-234	E	22	Changing Lanes	Unsafe Lane Change	E	27	Straight	None	-	None	
118	2/22/2008	2:22 PM	Light	Rear End	35th Ave	E-160	E	39	Straight	Speed Too Fast	E	35	Stopped	None	-	None	
119	3/3/2008	8:59 AM	Light	Rear End	35th Ave	E-247	E	18	Changing Lanes	Speed Too Fast	E	43	Stopped	None	-	None	
120	3/24/2008	6:01 PM	Light	Rear End	35th Ave	E-490	E	Unk	Stopped	Unsafe Lane Change	E	39	Straight	None	-	None	
121	3/26/2008	1:21 PM	Light	Rear End	35th Ave	E-282	E	36	Straight	Speed Too Fast	E	24	Stopped	None	-	None	
122	4/26/2008	3:11 PM	Light	Rear End	35th Ave	E-972	W	16	Straight	Speed Too Fast	W	54	Stopped	None	3	Minor	
123	4/29/2008	6:22 PM	Light	Rear End	35th Ave	E-532	E	25	Straight	Other	E	21	Slowing	None	-	None	
124	5/2/2008	7:27 PM	Dark	Angle	35th Ave	E-324	S	37	Left Turn	Failed to Yield	W	50	Straight	None	-	None	
125	5/18/2008	4:52 PM	Light	1 Vehicle	35th Ave	E-625	W	52	Other	Other	-	-	-	-	-	None	
126	6/28/2008	3:28 PM	Light	1 Vehicle	35th Ave	E-496	W	17	Straight	Inattention	-	-	-	-	-	None	Veh1 - Drinking
127	7/11/2008	12:50 PM	Light	Sideswipe	31st Ave	W-300	E	29	Straight	Inattention	E	25	Straight	Inattention	-	None	
128	7/14/2008	5:45 PM	Light	Pedestrian	35th Ave	E-357	W	Unk	Straight	Failed to Yield	S	14	Crossing Road	None	1	Minor	Veh2 - Pedestrian
129	7/25/2008	1:20 PM	Light	Left Turn	35th Ave	E-245	E	22	Left Turn	Failed to Yield	W	53	Straight	None	-	None	
130	7/25/2008	5:24 PM	Light	Rear End	31st Ave	W-255	W	33	Straight	Speed Too Fast	W	40	Straight	None	1	Minor	
131	8/1/2008	4:08 PM	Light	Rear End	35th Ave	E-1040	E	57	Straight	Speed Too Fast	E	24	Stopped	None	-	None	
132	8/8/2008	5:15 PM	Light	Angle	35th Ave	E-154	N	38	Other	Failed to Yield	W	41	Straight	None	-	None	
133	9/4/2008	6:00 PM	Light	Angle	35th Ave	E-276	S	20	Straight	Failed to Yield	W	28	Straight	None	-	None	
134	9/15/2008	7:41 AM	Light	Rear End	31st Ave	W-1100	E	47	Right Turn	Failed to Yield	E	40	Straight	None	-	None	
135	9/26/2008	5:25 PM	Light	Rear End	35th Ave	E-379	W	17	Straight	Inattention	W	31	Stopped	None	-	None	
136	10/11/2008	8:37 AM	Light	Rear End	35th Ave	E-986	W	28	Straight	Other	W	23	Stopped	None	-	None	
137	11/2/2008	7:29 PM	Dark	Pedestrian	35th Ave	E-1430	S	18	Crossing Road	Other	W	70	Straight	None	1	Minor	Veh1 - Pedestrian
138	11/10/2008	8:52 PM	Dark	Bike	35th Ave	E-578	N	56	Other	Failed to Yield	NW	20	Other	None	1	Minor	Veh2 - Bike
139	11/18/2008	7:20 AM	Light	1 Vehicle	35th Ave	E-843	E	55	Straight	Speed Too Fast	-	-	-	-	-	None	

Notes: Only crashes within the segment are included in this summary, collisions within 150' of the terminal intersections are NOT included.  
Data Sources: 2004-2008 ADOT ALISS Database



**City of Phoenix**  
**Street Transportation Department**  
**Safety & Neighborhood Traffic Section**  
**Intersection Crash Data Summary**

**Location:** Dunlap Ave - 31st Ave

**Study Period:** 2004 - 2008

Year	Injury Severity			Collision Type							Vehicle 1 Violation						Total
	Fatals	Injuries	PDO	1 Vehicle	Angle	Left Turn	Other	Ped/Bike	Rear End	Sideswipe	Disregarded Signal	Failed to Yield	Inattention	Speed Too Fast	Other	Unk./None	
2004	-	4	6	-	-	4	2	-	3	1	-	4	-	3	2	1	10
2005	-	4	7	-	2	1	1	1	2	4	-	2	-	2	3	4	11
2006	-	3	5	1	-	1	-	1	3	2	-	1	-	5	1	1	8
2007	-	2	5	-	2	2	-	-	3	-	-	3	1	1	2	-	7
2008	-	5	8	-	2	2	-	1	6	2	1	2	2	3	5	-	13
Annual Average	0.0	3.6	6.2	0.2	1.2	2.0	0.6	0.6	3.4	1.8	0.2	2.4	0.6	2.8	2.6	1.2	9.8

Time (years)	5
Total number of crashes	49
North (000's)	0.0
South (000's)	4.1
East (000's)	44.7
West (000's)	44.7
<b>Crash Rate</b>	<b>0.57 /MEV</b>



Notes: Only crashes within 150' of the intersection are included.  
 Data Sources: 2004-2008 ADOT ALISS Database

Sheet 1 of 3

Location: Dunlap Ave - 31st Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Distance from Xn	Vehicle 1				Vehicle 2				Inj (Fat)	Severity	Comments
						Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
1	1/1/2004	1:30 PM	Light	Left Turn	0	W	44	Left Turn	Failed to Yield	E	25	Straight	None	2	Minor	Veh1 - Drinking
2	2/19/2004	10:01 PM	Dark	Other	0	E	47	Unknown	Other (DOL)	W	49	Straight	None	2	Minor	Veh1 - Drinking
3	3/7/2004	12:10 PM	Light	Other (U)	S-102	S	28	Making U-turn	Other (MIT)	E	38	Straight	Speed Too Fast	-	None	
4	3/14/2004	5:20 PM	Light	Sideswipe	E-124	E	Unk.	Right Turn	Failed to Yield	E	29	Straight	None	-	None	
5	5/6/2004	4:32 PM	Light	Rear End	W-89	E	20	Straight	Speed Too Fast	E	34	Stopped	None	2	Minor	
6	6/16/2004	11:00 AM	Light	Left Turn	0	W	18	Left Turn	Unknown	E	19	Straight	Unknown	2	Minor	
7	8/17/2004	1:50 PM	Light	Rear End	W-115	E	33	Straight	Speed Too Fast	E	42	Stopped	None	-	None	
8	9/3/2004	8:08 PM	Dark	Rear End	W-60	E	16	Straight	Speed Too Fast	E	18	Stopped	None	-	None	
9	12/17/2004	2:34 PM	Light	Left Turn	S-128	S	30	Other	Failed to Yield	N	31	Straight	None	-	None	
10	12/28/2004	3:07 PM	Light	Left Turn	0	W	18	Left Turn	Failed to Yield	E	32	Straight	None	-	None	
11	1/4/2005	8:32 AM	Light	Left Turn	0	W	25	Left Turn	Failed to Yield	E	30	Straight	None	-	None	
12	2/18/2005	7:18 AM	Light	Rear End	W-30	E	16	Straight	Speed Too Fast	E	29	Right Turn	None	2	Minor	Veh2 - Drinking
13	3/12/2005	7:24 PM	Dark	Bike	E-34	N	17	Unknown	Unknown	E	47	Straight	Unknown	1	Minor	Veh1 - Bike
14	3/13/2005	2:56 PM	Light	Sideswipe	0	W	82	Right Turn	Other (ULC)	W	24	Straight	None	1	Minor	
15	3/29/2005	7:36 AM	Light	Angle	0	E	24	Straight	Unknown	N	28	Left Turn	Unknown	-	None	
16	7/24/2005	4:26 PM	Light	Sideswipe	W-131	W	37	Straight	Other (FTC)	W	40	Straight	None	-	None	
17	7/24/2005	5:50 PM	Light	Rear End	W-59	E	Unk.	Straight	Unknown	E	35	Stopped	None	-	None	
18	8/9/2005	7:53 AM	Light	Sideswipe	S-105	S	17	Left Turn	Failed to Yield	S	17	Straight	None	-	None	
19	8/13/2005	11:25 AM	Light	Sideswipe	W-102	E	28	Straight	Other (DOL)	W	55	Straight	None	1	Minor	
20	8/15/2005	7:15 PM	Light	Angle	S-54	E	18	Slowing	Speed Too Fast	N	25	Stopped	None	-	None	
21	8/26/2005	7:53 PM	Dark	Other (Back)	S-80	N	36	Backing	Unknown	N	19	Stopped	None	-	None	
22	2/4/2006	11:28 AM	Light	Sideswipe	E-125	E	71	Changing Lanes	Other (ULC)	E	36	Straight	None	-	None	
23	2/4/2006	12:39 PM	Light	Rear End	W-60	E	20	Slowing	Speed Too Fast	E	28	Stopped	None	-	None	
24	3/8/2006	9:10 AM	Light	Pedestrian	S-45	N	20	Right Turn	Failed to Yield	W	16	Crossing Road	Unknown	1	Minor	
25	4/1/2006	5:33 PM	Light	Sideswipe	E-95	E	23	Changing Lanes	Unknown	E	19	Straight	None	-	None	
26	5/2/2006	5:11 AM	Light	Rear End	0	E	57	Straight	Speed Too Fast	E	59	Slowing	None	-	None	
27	9/11/2006	4:08 PM	Light	Left Turn	0	E	17	Straight	Speed Too Fast	W	19	Left Turn	None	2	Serious	
28	9/17/2006	9:00 PM	Dark	1 Vehicle	S-68	E	Unk.	Right Turn	Speed Too Fast	-	-	-	-	-	None	
29	9/29/2006	2:49 PM	Light	Rear End	0	E	20	Straight	Speed Too Fast	E	20	Right Turn	None	1	Minor	
30	1/19/2007	7:23 PM	Light	Rear End	W-61	E	49	Straight	Other (FTC)	E	65	Stopped	None	1	Minor	Veh1 - Drinking
31	1/27/2007	5:20 PM	Twilight	Rear End	S-10	N	23	Right Turn	Other (FTC)	N	38	Right Turn	None	-	None	
32	2/21/2007	9:09 AM	Light	Angle	0	N	40	Right Turn	Failed to Yield	E	25	Straight	None	-	None	
33	4/14/2007	5:02 PM	Light	Left Turn	0	W	Unk.	Left Turn	Failed to Yield	E	39	Straight	None	1	Minor	
34	9/10/2007	2:07 PM	Light	Rear End	W-100	E	39	Straight	Speed Too Fast	E	43	Stopped	Other	-	None	
35	12/10/2007	9:15 PM	Dark	Left Turn	0	W	19	Left Turn	Failed to Yield	E	20	Straight	None	-	None	
36	12/10/2007	9:21 PM	Light	Angle	0	E	21	Straight	Inattention	S	20	Stopped	None	-	None	
37	1/25/2008	5:23 PM	Light	Rear End	W-37	E	20	Straight	Speed Too Fast	E	Unk.	Stopped	None	-	None	
38	1/28/2008	7:07 AM	Light	Left Turn	0	W	20	Left Turn	Failed to Yield	E	31	Straight	None	1	Minor	
39	2/14/2008	10:34 AM	Light	Sideswipe	E-45	W	43	Slowing	Inattention	W	31	Stopped	None	-	None	
40	3/1/2008	3:10 PM	Light	Rear End	E-140	E	60	Straight	Speed Too Fast	E	55	Stopped	None	-	None	

Notes: Only crashes within 150' of the intersection are included.  
Data Sources: 2004-2008 ADOT ALISS Database

Location: Dunlap Ave - 31st Ave

Study Period: 2004 - 2008

#	Date	Time	Light	Collision Type	Distance from Xn	Vehicle 1				Vehicle 2				Inj (Fat)	Severity	Comments
						Dir of Travel	Age	Action	Violation	Dir of Travel	Age	Action	Violation			
41	3/24/2008	8:19 AM	Light	Sideswipe	W-87	E	Unk.	Changing Lanes	Other (ULC)	E	21	Straight	None	-	None	
42	4/1/2008	2:48 PM	Light	Rear End	W-54	E	41	Straight	Inattention	E	50	Slowing	None	-	None	
43	4/18/2008	7:42 AM	Light	Left Turn	0	W	79	Left Turn	Failed to Yield	E	52	Straight	None	6	Minor	
44	6/5/2008	5:40 PM	Light	Angle	E-50	NE	34	Right Turn	Other (MIT)	E	27	Straight	None	-	None	
45	6/26/2008	7:42 PM	Twilight	Angle	0	E	47	Straight	Disregarded Signal	N	19	Left Turn	None	2	Minor	
46	7/2/2008	1:00 PM	Light	Rear End	0	N	31	Straight	Other (FTC)	N	73	Straight	None	1	Unknown	
47	8/12/2008	5:50 PM	Light	Rear End	0	W	45	Slowing	Other	W	59	Stopped	None	-	None	
48	9/22/2008	2:20 PM	Light	Pedestrian	S-93	W	29	Crossing Road	Other (DUC)	S	34	Backing	None	1	Minor	Veh1 - Ped
49	11/9/2008	5:04 PM	Light	Rear End	E-39	W	17	Other	Speed Too Fast	W	24	Stopped	None	-	None	

Notes: Only crashes within 150' of the intersection are included.  
 Data Sources: 2004-2008 ADOT ALISS Database