



CITY OF AVONDALE CITYWIDE SPEED LIMIT SURVEY

Prepared for:
CITY OF AVONDALE



Prepared by:



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January 2003

OA Project Number: 2001-0847

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RECOMMENDATIONS

Based on a comprehensive speed limit survey for the City of Avondale, street segments with recommended speed limit changes have been identified and are depicted in the diagram on page 2. The current speed limits should be maintained on all of the residential streets. Changes have been recommended for sixteen (16) percent of the collector street segments and fifty (50) percent of the arterial street segments. The changes include lowering the speed limit or assigning a speed limit where it is currently not posted. No street segments are recommended for further study.

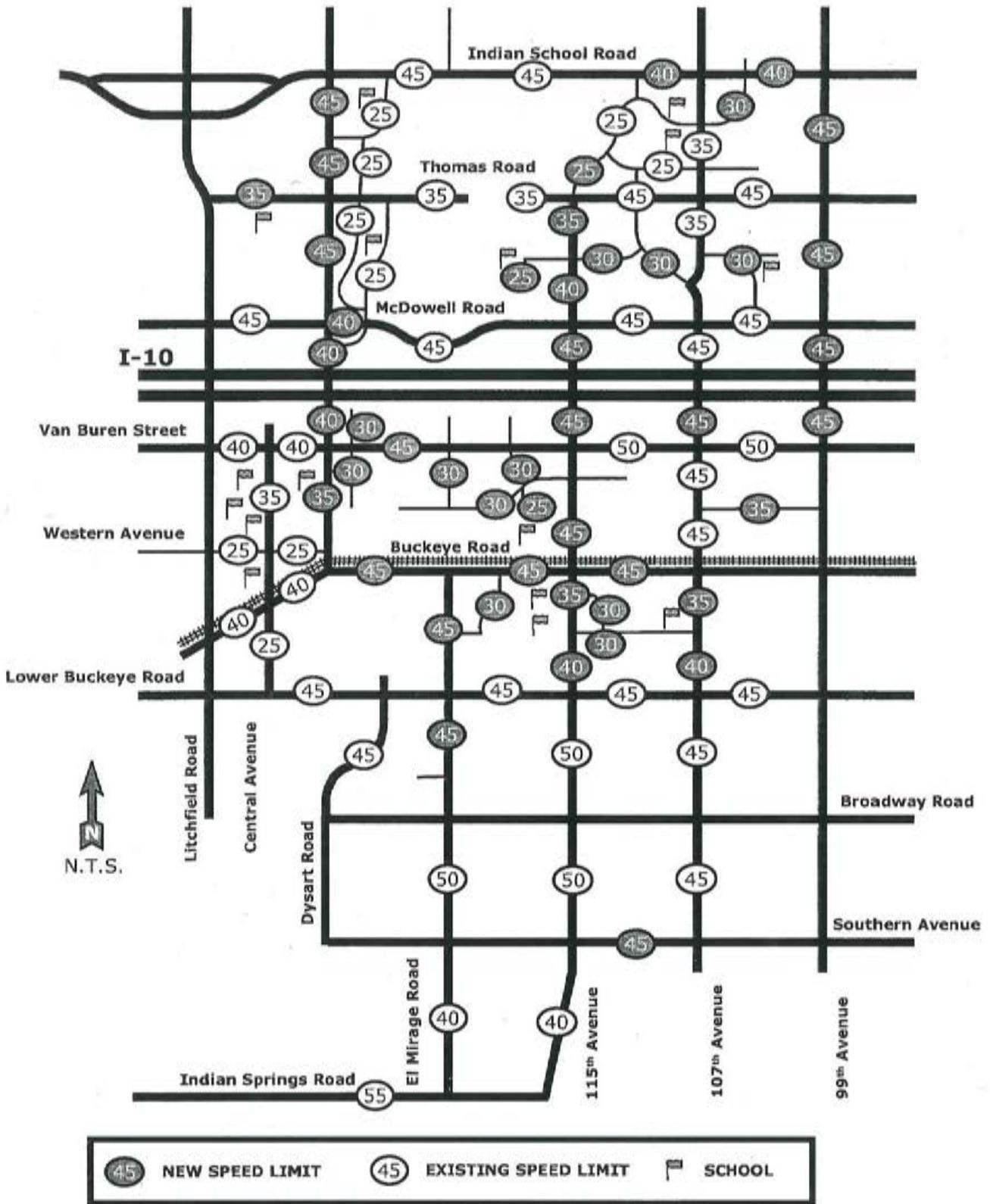
This survey and report serve the purpose of a speed limit study for those street segments with existing speed limits recommended to remain the same. This survey and report also serve the purpose of a speed limit study for those street segments with speed limits recommended to be reduced. A comprehensive list of all residential, collector, and arterial street segment changes is included in Appendix A.

INTRODUCTION

The City of Avondale initiated this comprehensive speed limit survey. There are two purposes for this survey and investigation. The first purpose is to identify the street segments within the City of Avondale that may require different speed limits due to changing conditions as the City of Avondale develops. The second purpose is to provide a basis for determining initial speed limits on future newly constructed streets.

Arizona State Traffic Law allows local authorities to determine the maximum speed limit on any street or highway within their respective jurisdiction, provided that the basis of the speed limit is the result of an engineering and traffic investigation. Appendix B to this report is a copy of the pertinent excerpts of Arizona Revised Statute, Title 28, Article 6, Section 28-703.

This study recommends the placement of streets into three separate categories. The first category is streets with current speed limits that are appropriate. The second category is streets that should have lower speed limits. The third category is streets that require specific analysis and reports of street characteristics to determine a new speed limit.



RECOMMENDED SPEED LIMITS – SELECTED STREETS



INTRODUCTION (continued)

The nationally accepted standard for performing a speed limit engineering and traffic investigation is the Manual on Uniform Traffic Control Devices (MUTCD), as published by the United States Department of Transportation and the Federal Highway Administration. Appendix C is a copy of the pertinent excerpt of the MUTCD (Part 2, Section 2B-11). This section lists six factors for consideration in determining speed limits – 85th Percentile Speed, Road Characteristics, Pace Speed, Roadside Development, Parking Practices and Pedestrian Activity, and Collision Experience.

This current study for Avondale does not include the collection of vehicle speeds or the review of collision experience. It would be burdensome to accomplish this data collection and analyses for all of the streets in Avondale. Any street segments recommended for further study in this report should have an investigation that includes vehicle speed and collision experience.

SCOPE OF STUDY

This speed limit survey includes all of the street segments within the City of Avondale including residential, collector, and arterial streets. The scope of this study includes determining the criteria for a speed limit inventory, performing the inventory, evaluating the data collected through the inventory, categorizing each street segment, and preparing a report summarizing the findings.

CRITERIA DETERMINATION

A comprehensive set of criteria was developed for the speed limit inventory to conform to pertinent factors listed for consideration in the Manual on Uniform Traffic Control Devices. These criteria emphasize the MUTCD considerations of Road Characteristics, Roadside Development, Parking Practices and Pedestrian Activity. Olsson Associates expanded these criteria to comprehensively evaluate the existing streets. All criteria utilized for this study are listed below:

Posted Speed Limit	Striping Condition
Vehicle Lanes	Type of Shoulder
Median Type	Signing Conditions
Lane Widths	Street Lighting
Driveway Density	Parking
School Zone	Pedestrian Activity
Roadway Alignment	Sidewalks
Sight Distance	Bicycle Lanes
Description of Roadside Development and Environment	Presence of Speed Humps or Bumps
Traffic Controls Description	Presence of Irrigation Channels
Pavement Condition	Presence of Railroad Crossings
	Presence of Adjacent Railroad

SPEED LIMIT CHARACTERISTICS INVENTORY

Field trips were conducted in October and November 2002 to observe and record the individual street segment characteristics according to the criteria listed in the previous section. All of the street segments within the City of Avondale were driven. The data have been entered into a spreadsheet and categorized based on street type. These data sheets are included in Appendix D, E, and F for residential, collector, and arterial street classifications, respectively.

For the street segments with railroad crossings, a note is included in the 'Additional Remarks' column of the inventory spreadsheets. Railroad crossings are present just north of Main Street/Buckeye Road on Central Avenue, Fourth Street, Dysart Road, 115th Avenue, and 107th Avenue. All of these railroad crossings have gates and flashing lights. The railroad tracks run parallel to Buckeye Road for its entirety within Avondale.

Irrigation channels were also observed and are noted in the 'Additional Remarks' column. The width, depth, and location of the irrigation channels vary on different street segments.

EVALUATION

A review of the field data was performed to determine if the current speed limits are appropriate. The major factors utilized were:

Residential Street Guidelines

25 mph – accepted residential speed limit, no changes were made.

Collector Street Guidelines

15 mph – portable school speed limit signs at schools should continue

25 mph – school or high driveway density

30 mph – no school, low driveway density, residential area, usually less than one mile long

35 mph – no school, low driveway density, commercial area

35 mph – serves multiple neighborhoods, few driveways, longer than one mile

Arterial Street Guidelines

35 mph – adjacent school

40 mph – high driveway density

45 mph – accepted urban arterial speed, unless other conditions warrant different speed *

50 mph – accepted rural arterial speed

* Rural or urban, consider future development – non rural or with near-future development should be 45 or less; rural should be 50

EVALUATION (continued)

The field review for this study indicated that the width, depth, and location of the irrigation channels vary on different street segments. The irrigation channels are considered roadside obstructions. Another possible roadside obstruction is the railroad tracks that exist parallel to Buckeye Road. The roadside obstruction guidelines have been updated since the 2001 publication of *AASHTO Policy on Geometric Design of Highways and Streets*. New guidelines are included in the *AASHTO Roadside Design Guide* published in 2002. The recommended clear zones discussed in the new *AASHTO Roadside Design Guide* are not directly related to the speed limit. Prior to the 2002 edition of the *Roadside Design Guide*, speed limits of 45 mph or less were considered acceptable adjacent to roadside obstructions located ten feet or greater from the edge of the travel lane. The 2002 *Roadside Design Guide* requires a minimum clear zone of fourteen feet for speed limits of 40 mph or less with typical collector street traffic volumes. For speed limits of 45 mph to 50 mph, the *Roadside Design Guide* requires a minimum clear zone of eighteen feet with typical collector street traffic volumes. Other factors such as daily traffic and slope rates also need to be considered. An evaluation of the existing conditions for the irrigation channels and railroad tracks is beyond the scope of this speed limit survey.

For further reference, pertinent excerpts of the *AASHTO Policy on Geometric Design of Highways and Streets (2001)* and the *AASHTO Roadside Design Guide (2002)* are included in Appendix G and Appendix H respectively.

CONCLUSION

The recommendations include either maintaining or lowering the existing posted speed limits. None of the street segments have been recommended for further study in regard to raising their posted speed limit. This survey and report serve the purpose of a speed limit study for those street segments with existing speed limits recommended to remain the same. This survey and report also serve the purpose of a speed limit study for those street segments with speed limits recommended to be reduced.

The result of the speed limit survey recommends changes for sixteen (16) percent of the collector street segments and fifty (50) percent of the arterial street segments. The changes include lowering the speed limit or assigning a speed limit where it is currently not posted. The lower speed limits recommended for the collector street segments are due to their location within residential areas. The lower speed limits for the arterial street segments are primarily recommended due to changing conditions within the city as a result of new development. All of the residential street segments are currently posted at 25 mph or not posted. According to Arizona Revised Statute, Title 28, Article 6, Section 28-701.B.2, when a speed limit is not posted on a residential street, the prima facie speed limit is 25 mph. A speed limit of 25 mph is appropriate for the residential streets except in the case of school zones, where lower speed limits are achieved through special school signs.

APPENDIX A

RECOMMENDATIONS

Recommendations

Segment	Street Type	Speed Limit (mph)		Primary Determinant
		Current	Recommended	
Westwinds Parkway from 107 th Avenue to Indian School Road	Collector	35	30	Residential area
Crystal Gardens Parkway from 107 th Avenue to Thomas Road	Collector	35	30	Residential area
Encanto Boulevard from Crystal Gardens Parkway to end	Collector	35	30	Residential area, not a through street
116 th Lane/117 th Avenue from Palm Lane to Encanto Boulevard	Collector	Not Posted	25	Provides access to elementary school
Harbor Shores Boulevard from McDowell Road to 107 th Avenue	Collector	35	30	Residential area
Fairway Drive from Van Buren Street to Coldwater Springs	Collector	35	30	Residential area
Coldwater Springs Boulevard from Links Drive to east of 125 th Avenue	Collector	35	30	Residential area
Links Drive from Van Buren Street to Coldwater Springs	Collector	35	30	Residential area
118 th Drive from Coldwater Springs to end	Collector	35	25	Provides access to school
4 th Street from Madden Drive to Ludlow Drive	Collector	Not Posted	25	Residential area with high driveway density
4 th Street/Pima Street from 113 th Avenue to 111 th Avenue	Collector	Not Posted	25	School adjacent and high driveway density
Durango Street from El Mirage Road to Cocopah Circle	Collector	Not Posted	30	Residential area
Durango Street from 113 th Avenue to 115 th Avenue	Collector	35	30	Residential area, park
Cocopah Circle from Durango Street to 119 th Avenue	Collector	35	30	Residential area



Recommendations

Segment	Street Type	Speed Limit (mph)		Primary Determinant
		Current	Recommended	
Eliseo Felix Way from Van Buren Street to north to the end	Collector	Not Posted	30	Commercial area, not a through street
Eliseo Felix Way from Van Buren Street to south to the end	Collector	Not Posted	30	Commercial area, not a through street
Whyman Avenue from 110 th Drive to Durango Street	Collector	35	30	Residential area
109 th Avenue from Lower Buckeye Road to Whyman Avenue	Collector	35	30	Residential area
109 th Avenue from Whyman Avenue to Chase Lane	Collector	Not Posted	30	Residential area
Pima/114 th Avenue from 115 th Avenue to Durango Street	Collector	Not Posted	30	Residential area
El Mirage Road from Van Buren Street to north to end	Collector	Not Posted	25	Residential area with homes facing
99 th Avenue from Van Buren to I-10	Arterial	Under Constr	45	Future development, I-10 interchange
99 th Avenue from I-10 to McDowell Road	Arterial	Under Constr	45	Future development, I-10 interchange
99 th Avenue from McDowell Road to Thomas Road	Arterial	50	45	Future development, irrigation channel
99 th Avenue from Thomas Road to Indian School Road	Arterial	50	45	Future development, irrigation channel
107 th Avenue from I-10 to Van Buren Street	Arterial	45/50	45	Future development, I-10 interchange
107 th Avenue from Buckeye Road to Durango Street	Arterial	Not Posted	35	Adjacent school and school zone
107 th Avenue from Durango Street to Lower Buckeye Road	Arterial	Not Posted	40	Transition to school zone



Recommendations

Segment	Street Type	Speed Limit (mph)		Primary Determinant
		Current	Recommended	
115 th Avenue from Thomas Road to Encanto Boulevard	Arterial	45	35	Not a major through street, leads into a 25 mph collector north of Thomas Road, narrow
115 th Avenue from Encanto Boulevard to McDowell Road	Arterial	45	40	Not a major through street, leads into a collector north of Thomas Road, narrow
115 th Avenue from McDowell Road to I-10	Arterial	50	45	Future development
115 th Avenue from I-10 to Van Buren Street	Arterial	50	45	Future development
115 th Avenue from Van Buren Street to Buckeye Road	Arterial	50	45	Future development
115 th Avenue from Buckeye Road to Durango Street	Arterial	40	35	Adjacent schools
115 th Avenue from Durango Street to Lower Buckeye Road	Arterial	50	40	Transition to school, new development
El Mirage Road from Buckeye Road to Lower Buckeye Road	Arterial	50	45	New development, minor arterial
El Mirage Road from Lower Buckeye Road to Illini Street	Arterial	50	45	Slight vertical curve, minor arterial
Dysart Road from Indian School Road to Thomas Road	Arterial	45/50	45	Highly developed
Dysart Road from Thomas Road to McDowell Road	Arterial	45/50	45	Highly developed
Dysart Road from McDowell Road to I-10	Arterial	45	40	High driveway density
Dysart Road from I-10 to Van Buren Street	Arterial	45	40	High driveway density
Dysart Road from Van Buren Street to MC 85/Main Street	Arterial	45/35	35	Adjacent school and access to Old Town

Recommendations

Segment	Street Type	Speed Limit (mph)		Primary Determinant
		Current	Recommended	
Indian School Road from 99 th Avenue to 107 th Avenue	Arterial	Under Constr	40	Highly developed
Indian School Road from 107 th Avenue to 111 th Avenue	Arterial	45	40	Highly developed
Thomas Road from RID canal to 107 th Avenue	Arterial	Not Posted	45	Urban arterial, consistent with adjacent segments
Thomas Road from Dysart Road to Litchfield Road	Arterial	35/40	35	Not a through street, adjacent school and college
McDowell Road From 99 th Avenue to 107 th Avenue	Arterial	Under Constr	45	Urban arterial, consistent with adjacent segments
McDowell Road from Dysart Road to Rancho Santa Fe Trail	Arterial	45	40	High Density
Buckeye Road from Bridge to El Mirage Road	Arterial	55	45	Future development
Buckeye Road from El Mirage Road to 115 th Avenue	Arterial	55	45	Future development, school in southwest corner of Buckeye and 115th
Buckeye Road from 115 th Avenue to 107 th Avenue	Arterial	45/55	45	Future development, business driveways, school in southwest corner of Buckeye and 115th
Southern Avenue From 107 th Avenue to 115 th Avenue	Arterial	Not Posted	45	Rural with driveways, consistent with adjacent segments



APPENDIX B

PERTINENT EXCERPTS FROM
ARIZONA REVISED STATUTES

1. During a course of conduct the person commits a violation of either section 28-701, subsection A or section 28-701.02 and at least two of the following violations:

(a) Failure to obey traffic control devices as provided in section 28-644.

(b) Overtaking and passing another vehicle on the right by driving off the pavement or main traveled portion of the roadway as provided in section 28-724.

(c) Unsafe lane change as provided in section 28-729.

(d) Following a vehicle too closely as provided in section 28-730.

(e) Failure to yield the right-of-way as provided in article 9 of this chapter.

2. The person's driving is an immediate hazard to another person or vehicle.

B. A person convicted of aggressive driving is guilty of a class 1 misdemeanor.

C. In addition to any other penalty prescribed by law, The court shall:

1. Order a person convicted of a violation of this section to attend and successfully complete approved training and educational sessions that are designed to improve the safety and habits of drivers and that are approved by the department.

2. Forward the abstract of conviction to the department and may order the department to suspend the person's driving privilege for thirty days.

D. If a person who is convicted of a violation of this section has been previously convicted of a violation of this section within a period of twenty-four months:

1. The person is guilty of a class 1 misdemeanor.

2. In addition to any other penalty prescribed by law, the court shall forward the abstract of conviction to the department. On receipt of the abstract of conviction, the department shall revoke the driving privilege of the person for one year.

E. The dates of the commission of the offense determine whether subsection D of this section applies. A second or subsequent violation for which a conviction occurs as provided in this section does not include a conviction for an offense arising out the same series of acts.

F. For the purposes of this section "course of conduct" means a series of acts committed during a single, continuous period of driving.

1996

1. Approaching and crossing an intersection or railroad crossing.

2. Approaching and going around a curve.

3. Approaching a hillcrest.

4. Traveling on a narrow or winding roadway.

5. A special hazard exists with respect to pedestrians or other traffic or by reason of weather or highway conditions.

E. A person shall not drive a motor vehicle at a speed that is less than the speed that is reasonable and prudent under existing conditions.

1996

28-701.02. Excessive speeds; classification

A. A person shall not:

1. Exceed thirty-five miles per hour approaching a school crossing.

2. Exceed the posted speed limit in a business or residential district by more than twenty miles per hour, or if no speed limit is posted, exceed forty-five miles per hour.

3. Exceed eighty-five miles per hour in other locations.

B. A person who violates subsection A of this section is guilty of a class 3 misdemeanor.

C. A person charged with a violation of this section may not be issued a civil complaint for a violation of section 28-701 if the civil complaint alleges a violation arising out of the same circumstances.

1996

28-702. State highway speed limits

A. If the director determines on the basis of an engineering and traffic investigation that any maximum speed limit is greater or less than is reasonable or safe under the conditions found to exist on any part of a state highway, the director may determine and declare a reasonable and safe maximum speed limit or varying speed limits for the location.

B. The maximum speed limit determined pursuant to this section is effective when appropriate signs giving notice of the maximum speed limit are erected.

C. The director may declare a maximum speed limit that is determined pursuant to this section to be effective at all times or at such times as indicated on the speed limit signs. The director may establish varying speed limits for different times of day, different types of vehicles, varying weather conditions and other factors bearing on safe speeds. The varying limits are effective when posted on appropriate fixed or variable signs.

1997

28-702.01. Urbanized areas; waste of a finite resource; civil penalties

A. If the maximum speed limit on a public highway in this state is fifty-five miles per hour, a person shall not drive a motor vehicle at a speed in excess of fifty-five miles per hour on that highway.

If the speed at which the person is alleged to have driven as provided in section 28-707, subsection A or the speed at which the court finds the person drove is sixty-five miles per hour or less, the offense is designated as the waste of a finite resource and is a civil traffic violation subject to the provisions of subsection B of this section.

B. If a person is found responsible for a civil traffic violation pursuant to subsection A of this section:

1. A department or agency of this state shall not consider the violation for the purpose of determining whether the person's driver license should be suspended or revoked and a court shall not transmit abstracts of records of conviction for the violation to the department.

2. An insurer shall not consider the violation as a moving traffic violation against the person for the purpose of establishing rates of motor vehicle insurance charged by the insurer and shall not cancel or refuse to renew a policy of insurance because of the violation.

3. The civil penalty shall not exceed fifteen dollars plus the penalty assessments imposed pursuant to sections 12-116.01 and 12-116.02.

ARTICLE 6. SPEED RESTRICTIONS

28-701. Reasonable and prudent speed; prima facie evidence; exceptions

A. A person shall not drive a vehicle on a highway at a speed greater than is reasonable and prudent under the circumstances, conditions and actual and potential hazards then existing. A person shall control the speed of a vehicle as necessary to avoid colliding with any object, person, vehicle or other conveyance on, entering or adjacent to the highway in compliance with legal requirements and the duty of all persons to exercise reasonable care for the protection of others.

B. Except as provided in subsections C and D of this section or except if a special hazard requires a lesser speed, any speed in excess of the following speeds is prima facie evidence that the speed is too great and therefore unreasonable:

1. Fifteen miles per hour approaching a school crossing.

2. Twenty-five miles per hour in a business or residential district.

3. Sixty-five miles per hour in other locations.

C. The speed limits prescribed in this section may be altered as authorized in sections 28-702 and 28-703.

D. The maximum speed provided in this section is reduced to the speed that is reasonable and prudent under the conditions and with regard to the actual and potential hazards then existing, including the following conditions:

4. A report shall not be made under section 28-1559, subsection B.

C. If the maximum speed limit on a public highway in this state is fifty-five miles per hour, a person shall not drive a motor vehicle at a speed in excess of fifty-five miles per hour on that highway. If the speed at which the person is alleged to have driven as provided in section 28-707, subsection A or the speed at which the court finds the person drove is more than sixty-five miles per hour, the offense is designated as a civil traffic violation and the person is subject to a civil penalty of not more than the amount provided in section 28-1598.

D. This section does not apply to an interstate system highway located outside of an urbanized area, as defined in section 28-702.04, with a population of fifty thousand or more persons.

1997

28-702.03. Maximum speed limit violation on interstate highway system in another state; effect

If a resident of this state is convicted of violating the maximum speed limit of fifty-five miles per hour on the interstate system highways of another state and the speed at which the person is alleged to have driven is sixty-five miles per hour or less:

1. A department or agency of this state shall not consider the violation for the purpose of determining whether the person's driver license should be suspended or revoked.

2. An insurer shall not consider the violation as a moving traffic violation against the person for the purpose of establishing rates of motor vehicle insurance charged by the insurer, and the insurer shall not cancel or refuse to renew a policy of insurance because of the violation.

1996

28-702.04. Maximum speed limit on interstate highways outside urbanized areas; definition

A. The speed limit for all types of motor vehicles is sixty-five miles per hour on the interstate system highways located outside of an urbanized area with a population of fifty thousand or more persons, except that the director may declare a lower speed limit on the highways pursuant to section 28-702.

B. A person shall not drive a motor vehicle at a speed in excess of the maximum speed limit prescribed by this section.

C. The director may order the increase of the maximum speed limit prescribed in subsection A of this section to seventy-five miles per hour on an individual interstate system highway subject to this section or on all of the interstate system highways in this state as prescribed in section 28-702.

D. A violation of this section is a civil traffic violation, and the person is subject to a civil penalty that does not exceed the amount provided by section 28-1598.

E. For the purposes of this section, "urbanized area" means an urbanized area as defined in the decennial census by the United States bureau of the census.

1997

28-703. Alteration of speed limits by local authority

A. If a local authority determines on the basis of an engineering and traffic investigation that the maximum speed permitted under this article is greater or less than is reasonable or safe under the conditions found to exist on any part of a street or highway in its jurisdiction, the local authority may determine and declare a reasonable and safe maximum speed limit at the location and, based on the investigation, may:

1. Decrease the limit at intersections.
2. Increase the limit within any business or residence district to not more than sixty-five miles per hour.
3. Decrease the limit outside any business or residence district.
4. Increase or decrease the limit on streets adjacent to school grounds.

B. A local authority shall determine by an engineering and traffic investigation the proper maximum speed for all arterial

streets in its jurisdiction and shall declare a reasonable and safe maximum limit on the arterial streets in its jurisdiction that may be more or less than the maximum speed permitted under this article for a business or residence district.

C. A local authority may decrease the limit to not less than fifteen miles per hour on an unpaved street or road within any district in its jurisdiction if the local authority determines that the limit is necessary to achieve or maintain national ambient air quality standards.

D. An altered limit established as provided for in this section is effective at all times, or during hours of darkness, or at other times as may be determined if appropriate signs giving notice of the altered limit are erected on the street or highway.

E. The alteration of maximum speed limits on state highways or extensions of state highways in a municipality by a local authority is not effective until the director approves the alteration.

F. A local authority shall not make more than six alterations per mile along a street or highway pursuant to this section, except for reduced limits at intersections. The difference between adjacent limits shall not be more than ten miles per hour except for school crossings.

1998

28-703.01. End of speed zone; signs required

The agency or authority establishing a speed zone under section 28-702 or 28-703 is responsible for erecting:

1. At the beginning of each zone a sign designating the maximum allowable speed within the zone.

2. At the end of each zone a sign bearing either the legend "resume speed" or setting forth the new maximum speed limit.

1996

28-703.02. Establishing speed on multiple lane highways

On multiple lane highways with two or more separate roadways, different prima facie speed limits may be established for different roadways under any of the procedures specified in sections 28-702 and 28-703.

1997

28-704. Minimum speed limits; requirement to turn off roadway

A. A person shall not drive a motor vehicle at such a slow speed as to impede or block the normal and reasonable movement of traffic except when reduced speed is necessary for safe operation or in compliance with law.

B. If the director or local authorities within their respective jurisdictions determine on the basis of an engineering and traffic investigation that slow speeds on any part of a highway consistently impede the normal and reasonable movement of traffic, the director or local authority may determine and declare a minimum speed limit below which a person shall not drive a vehicle except when necessary for safe operation or in compliance with law.

C. If a person is driving a vehicle at a speed less than the normal flow of traffic at the particular time and place on a two-lane highway where passing is unsafe, and if five or more vehicles are formed in a line behind the vehicle, the person shall turn the vehicle off the roadway at the nearest place designated as a turnout by signs erected by the director or a local authority, or wherever sufficient area for a safe turnout exists, in order to permit the vehicles following to proceed.

1998

28-705. Special speed limitation; motor driven cycles

A person shall not operate a motor driven cycle at any time provided in section 28-922 at a speed of more than thirty-five miles per hour unless the motor driven cycle is equipped with a head lamp or head lamps that are adequate to reveal a person or vehicle at a distance of three hundred feet ahead.

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28-706.

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APPENDIX C

SPEED STUDY CONSIDERATIONS FROM MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

Manual on Uniform Traffic Control Devices

Millennium Edition



Part 2 Signs



Section 2B.11 Speed Limit Sign (R2-1)**Standard:**

After an engineering study has been made in accordance with established traffic engineering practices, the Speed Limit (R2-1) sign shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency. The speed limits shown shall be in multiples of 10 km/h (5 mph).

If a metric speed limit is displayed, the METRIC supplemental plaque shall be placed above the sign and the km/h supplemental plaque shall be placed below.

Support:

The METRIC supplemental plaque, which has a yellow background with a black legend and border, indicates to road users that the metric system is being used.

Guidance:

No more than three speed limits should be displayed on any one Speed Limit sign or assembly.

When a speed limit is to be posted, it should be the 85th-percentile speed of free-flowing traffic, rounded up to the nearest 10 km/h (5 mph) increment.

Option:

Other factors that may be considered when establishing speed limits are the following:

- A. Road characteristics, shoulder condition, grade, alignment, and sight distance;
- B. The pace speed;
- C. Roadside development and environment;
- D. Parking practices and pedestrian activity; and
- E. Reported crash experience for at least a 12-month period.

Two types of Speed Limit signs may be used: one to designate passenger car speeds, including any nighttime information or minimum speed limit that might apply; and the other to show any special speed limits for trucks and other vehicles.

A changeable message sign that changes for traffic and ambient conditions may be installed provided that the appropriate speed limit is shown at the proper times.

APPENDIX D

INVENTORY FOR RESIDENTIAL STREET SEGMENTS

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE?	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
129	119th Avenue	McDowell Road	south to end	Residential	1,500	0.60	NP	25	1	1	None	12'	12'	Medium on west side	No	Straight, level	
130	Joblanca Road	113th Avenue	111th Drive	Residential	945	0.18	25	NP	1	1	None	Wide		High	No	Level, straight	
131	Yuma Street	113th Avenue	111th Drive	Residential	945	0.18	25	NP	1	1	None	Wide		High	No	Level, straight	
132	Flanagan Street	Jean Elizabeth Place	109th Avenue	Residential	823	0.16	Not Posted		1	1	None	12'	12"	High	No	Slight vertical curve, straight	
133	2nd Street	111th Avenue	108th Avenue	Residential	1,590	0.30	Not Posted		1	1	None	Wide		High	No	Level, straight	
134	3rd Street	111th Avenue	108th Avenue	Residential	1,590	1.30	Not Posted		1	1	None	Wide		High	No	Level, straight	
135	107th Drive	Durango Street	to the end of the cul-de-sac	Residential	130	0.02	25	25	1	1	TWLTL	12'	12'	Medium	No	Straight, long vertical curve	
136	108th Avenue	2nd (Second) Street	3rd (Third) Street	Residential	276	0.05	Not Posted		1	1	None	Wide		Low	No	Level, straight	
137	111th Drive	Buckeye Road (MC-85)	Pima	Residential	1,276	0.24	NP	25	1	1	None	Wide		High	No	Level, straight	
138	111th Drive	Apache Street	Durango Street	Residential	512	0.10	25	NP	1	1	None	Wide		High	No	Level, straight	
139	112th Drive	Pima Street	Cocopah Street	Residential	221	0.04	Not Posted		1	1	None	Wide		High	No	Level, straight	
140	112th Drive	Apache Street	Durango Street	Residential	447	0.08	25	NP	1	1	None	12'	12'	Medium	No	level, straight	
141	112th Drive	Pima Street	Yuma Street	Residential	500	0.09	Not Posted		1	1	None	Wide		High	No	Level, straight	
142	112th Avenue	Pima Street	Yuma Street	Residential	500	0.09	Not Posted		1	1	None	Wide		High	No	Level, straight	
143	112th Avenue	Apache Street	Durango Street	Residential	477	0.09	25	NP	1	1	None	Wide		Medium	No	level, straight	
144	Jean Elizabeth Place	Buckeye Road	4th (Fourth) Street	Residential	1,320	0.25	25	25	1	1	None	Wide		High	No	Level, straight	
145	Cocopah Street	112th Avenue	111th Avenue	Residential	1,009	0.19	Not Posted		1	1	None	Wide		High	No	Level, straight	
146	Cocopah Street	111th Avenue	109th Avenue	Residential	1,290	0.24	Not Posted		1	1	None	Wide		High	No	Level, straight	
147	Mohave Street	113th Avenue	111th Avenue	Residential	1,299	0.25	25	NP	1	1	None	Wide		High	No	Level, straight	
148	Mohave Street	111th Avenue	109th Avenue	Residential	1,221	0.23	Not Posted		1	1	None	Wide		High	No	Level, straight	
149	Apache Street	113th Avenue	112th Drive	Residential	451	0.09	25	NP	1	1	None	Wide		High	No	Level, straight	
150	Apache Street	111th Drive	111th Avenue	Residential	230	0.04	Not Posted		1	1	None	Wide		High	No	Level, straight	
151	Apache Street	111th Avenue	107th Avenue	Residential	2,455	0.46	25	NP	1	1	None	Wide		High	No	Horizontal curve east end, level	
152	Apache Street	112th Avenue	to the end of the cul-de-sac	Residential	145	0.03	Not Posted		1	1	None	12'	12'	High	No	Level, straight	
153	Hopi Street	113th Avenue	112th Drive	Residential	449	0.09	25	NP	1	1	None	Wide		High	No	Level, straight	

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
129	Good	Residential (high density)		2-way stop north/south	Good	Good	Vertical curb northbound dirt/gravel southbound
130	Good	Residential		WB stop at 113th Avenue, EB stop at 111th Avenue	Good/fair	None	Rolled curb
131	Good	Residential		WB stop at 113th Avenue, EB stop at 111th Avenue	Good/fair	None	Rolled curb
132	Good	Residential		EB stop at 109th Avenue	Good	None	Rolled curb
133	Good	Residential		WB/EB stop at 109th Avenue, WB stop at 111th	Good	None	Rolled curb
134	Good	Residential		WB/EB stop at 109th Avenue, WB stop at 111th	Good	None	Rolled curb
135	Fair	Residential		EB Stop at 107th Avenue	Good/fair	Good	Vertical curb on south, rolled curb on north
136	Good	Residential		None	Good	None	Rolled curb
137	Good	Residential, post office, commercial		NB stop at Buckeye Road, SB stop at Pima	Good/fair	None	Rolled curb
138	Good	Residential		NB stop at Apache Street, SB stop at Durango Street	Good/fair	None	Rolled curb
139	Good	Residential		NB stop at Pima Street	Good/Fair	None	Rolled curb
140	Good	Residential		SB stop at Durango Street	Good/Fair	None	Rolled curb
141	Good	Residential		NB stop at Yuma, SB stop at Pima	Good/fair	None	Rolled curb
142	Good	Residential		NB stop at Yuma, SB stop at Pima	Good/fair	None	Rolled curb
143	Good	Residential		SB stop at Durango Street	Good/Fair	None	Rolled curb
144	Good	Residential		WB stop at Buckeye, SB stop at 4th Street	Good	None	Rolled curb
145	Good	Residential, church		WB stop at 111th Avenue	Good/fair	None	Rolled curb
146	Good	Residential		EB stop at 109th Avenue	Good	None	Rolled curb
147	Good	Residential		WB stop at 111th Avenue	Good/fair	None	Rolled curb
148	Good	Residential		EB stop at 109th Avenue, WB stop at 111th Avenue	Good	None	Rolled curb
149	Good	Residential		WB stop at 113th Avenue	Good/fair	None	Rolled curb
150	Good	Residential		EB stop at 109th Avenue, WB stop at 111th Avenue	Good/fair	None	Rolled curb
151	Good	Residential		EB stop at 111th Avenue	Good	None	Rolled curb
152	Good	Residential		None	Good/fair	None	Rolled curb
153	Good	Residential		WB stop at 113th Avenue, EB stop at 112th Avenue	Good/fair	None	Rolled curb

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMPS
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
129	Good	Yes	Prohibited		Minimal	Yes	No	Meand	No	No	No	No
130	Good	Intermittent	No restrictions		Minimal	No		No		No	No	No
131	Good	Intermittent	No restrictions		Minimal	No	Intermit	No		No	No	No
132	Good	Yes	No restrictions		Minimal	No		No		No	No	No
133	Good	Yes	No restrictions		Minimal	No		No		No	No	No
134	Good	Yes	No restrictions		Minimal	Intermittent		No		No	No	No
135	Good	Yes	No Restrictions		Minimal	No	Yes	Meand	No	Yes	No	No
136	Fair	Yes	No restrictions		Minimal	No		No		No	No	No
137	Good	Yes	No Restrictions		Minimal	Intermittent		No		No	No	No
138	Fair	Yes	No restrictions		Minimal	No		No		No	No	No
139	Fair	Yes	No restrictions		Minimal	No		No		No	No	No
140	Fair	Yes	No restrictions		Minimal	No		No		No	No	No
141	Fair	Yes	No restrictions		Minimal	Intermit	No	No		No	No	No
142	Good	Yes	No restrictions		Minimal	No	Intermit	No		No	No	No
143	Fair	Intermittent	No restrictions		Minimal	No		No		No	No	No
144	Fair	Intermittent	No Restrictions		Minimal	Intermit	No	No		No	No	No
145	Fair	Yes	No restrictions		Minimal	Intermittent		No		No	No	No
146	Fair	Yes	No restrictions		Minimal	No		No		No	No	No
147	Fair	Yes	No restrictions		Minimal	Intermittent		No		No	No	No
148	Fair	None	No restrictions		Minimal	No		No		No	No	No
149	Fair	Yes	No restrictions		Minimal	No		No		No	No	No
150	Fair	Intermittent	No restrictions		Minimal	No		No		No	No	No
151	Fair	Yes	No restrictions		Minimal	No	Intermit	No		No	No	No
152	Poor	None	No restrictions		Minimal	No		No		No	No	No
153	Fair	Yes	No restrictions		Minimal	No	Intermit	No		No	No	No

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE?	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
154	Hopi Street	111th Avenue	107th Avenue	Residential	2,455	0.46	25	NP	1	1	None	Wide	High	No	Horizontal curve east end, level		
155	Hopi Street	113th Avenue	to the end of the cul-de-sac	Residential	512	0.10	Not Posted		1	1	None	12'	12'	High	No	Level, straight	
156	Lower Buckeye Road (Frontage Rd.)	123rd Avenue	127th Avenue	Residential	2,118	1.65	Not Posted		1	1	None	Narrow	Medium	No	Slight vertical curve		
157	Del Rio Lane	127th Avenue	El Mirage Road	Residential	2,772	0.53	25	25	1	1	None	Wide	High	No	curve, slight vertical curve		
158	Rio Vista Lane	127th Avenue	El Mirage Road	Residential	2,772	0.53	25	25	1	1	None	12'	12'	Medium	No	curve, horizontal curve on east end	
159	Calle Hermosa	124th Drive	El Mirage Road	Residential	1,055	0.20	25	25	1	1	None	Wide	High	No	Two sharp horizontal curves		
160	Warner Street	125th Avenue	127th Avenue	Residential	1,584	0.30	25	NP	1	1	None	12'	12'	High	No	Straight, some slight vertical curves	
161	Florence Street (Half Street)	127th Avenue	125th Avenue	Residential	1,584	0.30	25	NP	1	1	None	12'	12'	High	No	Level, straight	
162	Florence Street (Dirt)	El Mirage Road (123rd Ave.)	west to 123rd Circle	Residential	528	0.10	NP	25	1	1	None	Wide	High	No	Vertical curves		
163	Illini Street	127th Avenue	126th Drive	Residential	528	0.10	Not Posted		1	1	None	12'	12'	High	No	Straight, large horizontal curve	
164	Illini Street (Dirt)	El Mirage Road (123rd Ave.)	127th Avenue	Residential	1,584	0.89	Not Posted		1	1	None	12'	12'	High	No	Several small vertical curves	
165	123rd Drive (Dirt)	Elwood Street	south to the end of the cul-de-sac	Residential	250	0.05	Not Posted		1	1	None	12'	12'	High	No	Level, straight	
166	123rd Drive (Dirt)	Illini Street	north to the end of the cul-de-sac	Residential	200	0.04	Not Posted		1	1	None	12'	12'	High	No	Level, straight	
167	123rd Drive	Lower Buckeye Road	Rio Vista Lane	Residential	500	0.09	25	25	1	1	None	Wide	Low	No	Level, straight		
168	123rd Circle (Dirt)	Florence Street	north to the end of the cul-de-sac	Residential	300	0.06	NP	25	1	1	None	12'	12'	Medium	No	Level, horizontal curve	
169	124th Drive	Rio Vista Lane	Calle Hermosa	Residential	528	0.10	25	NP	1	1	None	Wide	Low	No	Level, straight		
170	124th Avenue	Lower Buckeye Road	Pioneer Street	Residential	1,528	0.29	25	NP	1	1	None	12'	12'	High	No	Minor vertical curve	
171	124th Avenue (Dirt)	Elwood Street	south to the end of the cul-de-sac	Residential	250	0.05	Not Posted		1	1	None	12'	12'	High	No	Level, straight	
172	124th Avenue (Dirt)	Illini Street	north to the end of the cul-de-sac	Residential	200	0.04	Not Posted		One large cul-de-sac			Large cul-de-sac	High	No	Level, straight		
173	124th Drive (Dirt)	Illini Street	north to the end of the cul-de-sac	Residential	200	0.04	Not Posted		One large cul-de-sac			Large cul-de-sac	High	No	Level, straight		
174	125th Avenue	Rio Vista Lane	Calle Hermosa	Residential	339	0.06	25	NP	1	1	None	Half street	Medium	No	Level, straight		
175	125th Avenue	Lower Buckeye Road	Rio Vista Lane	Residential	772	0.15	25	25	1	1	None	Wide	High	No	Level, straight		
176	125th Avenue (Dirt)	Illini Street	Warner Street	Residential	216	0.04	25	NP	1	1	None	12'	12'	Low	No	Curve at south end	
177	125th Avenue	Warner Street	Lower Buckeye Road	Residential	3,168	0.60	25	25	1	1	None	12'	12'	High	No	Vertical curve	
178	125th Drive	Warner Street	south to the end of the cul-de-sac	Residential	206	0.04	Not Posted		1	1	None	12'	12'	Low	No	Level, straight	

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
154	Poor	Residential		EB stop at 107th Ave, EB/WB stop at 109th Avenue, WB stop at 11th Avenue	Good	None	Rolled curb
155	Good	Residential		None	Good/fair	None	Rolled curb
156	Good	Residential, Lower Buckeye Road	Frontage road. Pedestrian crosswalk at 125th Avenue (N/S) to park	E/W stop at 125th, WB stop at 123rd	Good/Fair	None	vertical curb on south side
157	Fair	Residential, dairy		E/W stop at 123rd, EB stop at El Mirage. E/W stop at 125th, WB stop at 127th	Good/Fair	None	Rolled curb
158	Fair to poor	Residential, vacant		E/W stop at 125th, EB stop at El Mirage	Good/Fair	None	Rolled curb
159	Good	Residential, vacant	Drainage (runoff) through street	EB stop at El Mirage	Good/Fair	None	Rolled curb
160	Good	Residential		EB stop at 125th Avenue, WB stop at 127th Avenue	Fair	None	Rolled curb
161	Good	Residential, vacant		WB stop at 127th Avenue, EB stop at 125th Avenue	Fair/poor	None	Rolled curb on S
162	Good	Residential		EB stop at El Mirage	None	None	Dirt/gravel
163	Fair	Residential		WB stop at 127th Avenue, NB stop at Warner	Fair	None	Rolled curb
164	Good	Residential, pond		EB stop at El Mirage	None	None	Dirt/gravel
165	Good	Residential		NB stop at Elwood Street	None	None	Dirt/gravel
166	Good	Residential		SB stop at Illini	None	None	Dirt/gravel
167	Good	Residential, vacant		NB stop at Rio Vista, SB stop at Lower Buckeye	Good/Fair	None	Rolled curb
168	Good	Residential		SB stop at Florence	None	None	Dirt/gravel
169	Good	Residential, vacant		SB stop at Rio Vista	Good/Fair	None	Rolled curb
170	Good	Residential, park		SB stop at Pioneer, NB stop at Lower Buckeye	Fair/Poor	None	Dirt/gravel
171	Good	Residential		None	None	None	Dirt/gravel
172	Good	Residential		None	None	None	Dirt/gravel
173	Good	Residential		None	None	None	Dirt/gravel
174	Good	Residential, dairy	*R2-1 sign knocked down	E/W stop at Rio Vista	Good/Fair	None	Dirt, vertical curb on E
175	Good	Residential		N/S stop at lower Buckeye	Good/Fair	None	Rolled curb
176	Good	Residential, park		None	Poor	None	side, dirt/gravel on east side
177	Fair	Residential, vacant, park		N/S stop at lower Buckeye Road	Fair	None	Dirt, with intermittent vertical curb on west side
178	Good	Residential, vacant		NB stop at Warner	Fair	None	Rolled curb

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMPS
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
154	Good	Yes	No restrictions		Minimal	Intermittent		No		No		No
155	Poor	None	No restrictions		Minimal	No		No		No		No
156	Good	Yes	Too narrow		Minimal	No		No		No		No
157	Fair	Yes	No restrictions		Minimal	Intermittent		No		No		No
158	Fair	Yes	No restrictions		Minimal	No		No		No		No
159	Fair	Intermittent	No restrictions		Minimal	No		No		No		No
160	None	Yes	No Restrictions		Minimal	No		No		No		No
161	Fair	Yes	No restrictions		Minimal	No		No		No		No
162	Fair	Yes	No restrictions		Minimal	No		No		No		No
163	None	Yes	Prohibited		Minimal	No		No		No		No
164	Poor	Yes	Prohibited		Minimal	No		No		No		No
165	Fair	Yes	No restrictions		Minimal	No		No		No		No
166	Poor	Yes	Prohibited		Minimal	No		No		No		No
167	Fair	Yes	No restrictions		Minimal	No		No		No		No
168	Fair	Yes	No restrictions		Minimal	No		No		No		No
169	Fair	None	No restrictions		Minimal	No		No		No		No
170	Fair	Yes	No Restrictions		Minimal	No		No		No		No
171	Fair	Yes	No restrictions		Minimal	No		No		No		No
172	None	Yes	Prohibited		Minimal	No		No		No		No
173	None	None	Prohibited		Minimal	No		No		No		No
174	Fair*	None	No restrictions	Prohibited	Minimal	No		No		No		No
175	Fair	Yes	No Restrictions		Minimal	No		No		No		No
176	None	Yes	No Restrictions		Minimal	No		No		No		No
177	Good	Yes	No Restrictions		Minimal	No		No		No		No
178	Fair	None	No restrictions		Minimal	No		No		No		No

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE?	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
179	126th Avenue	Warner Street	south to the end of the cul-de-sac	Residential	206	0.04	Not Posted		1	1	None		12'	12'	High	No	Level, straight
180	126th Drive	Illini Street	Warner Street	Residential	206	0.04	Not Posted		1	1	None		12'	12'	High	No	Straight, large horizontal curve
181	127th Avenue	Lower Buckeye Road	Rio Vista Lane	Residential	772	0.15	25	25	1	1	None		Wide		Medium	No	Level, straight
182	127th Avenue (Dirt)	pavement end south	Florence Street	Residential	528	0.10	NP	25	1	1	None		12'	12'	Medium	No	Large vertical curve
183	127th Avenue (Half Street)	Florence Street	Illini Street	Residential	1,056	0.20	Not Posted		1	1	None		12'	12'	Medium	No	Level, straight
184	Whyman Circle (Dirt)	124th Avenue	east to the end of the cul-de-sac	Residential	190	0.04	25	NP	1	1	None		12'	12'	High	No	Level, straight
185	Victory Street (Dirt)	125th Avenue	east to the end of the road	Residential	528	0.10											
186	Bohne Circle (Dirt)	124th Avenue	east to the end of the cul-de-sac	Residential	190	0.04	25	25	1	1	None		12'	12'	High	No	Level, straight
187	Bohne Street (Dirt)	127th Avenue	east to the end of the road	Residential	528	0.10	Not Posted		1	1	None		12'	12'	Low	No	Slight vertical curve, straight
188	County Line (Dirt)	124th Avenue	125th Avenue	Residential	528	0.10	25	NP	1	1	None		12'	12'	High	No	Slight vertical curve
189	County Line (Dirt)	127th Avenue	east to the end of the road	Residential	528	0.10	Not Posted		1	1	None		12'	12'	Medium	No	Level straight
190	Pioneer Street (Dirt)	124th Avenue	125th Avenue	Residential	528	0.10	25	NP	1	1	None		12'	12'	Medium	No	Level, straight
191	Pioneer Street (Dirt)	127th Avenue	east to the end of the road	Residential	528	0.10	Not Posted		1	1	None		12'	12'	Medium	No	Level straight
192	Kinderman Drive	Fifth Street	Central Avenue	Residential	443	0.08	25	25	1	1	None		Wide		High	No	Level, straight
193	Kinderman Drive	Sixth Street	Fifth Street	Residential	443	0.08	Not Posted		1	1	None		Wide		High	No	Level, straight
194	Hill Drive	Dysart Road	Sixth Street	Residential	792	0.15	NP	25	1	1	None		Wide		High	No	Level, straight
195	Hill Drive	Sixth Street	Fifth Street	Residential	443	0.08	25	NP	1	1	None		Wide		High	No	Level, straight
196	Hill Drive	Central Avenue	First Street	Residential	320	0.06	25	25	1	1	None		Wide		High	No	Level, straight
197	Hill Drive	First Street	Second Street	Residential	323	0.06	25	25	1	1	None		Wide		High	No	Level, straight
198	Hill Drive	Second Street	Third Street	Residential	216	0.04	25	25	1	1	None		Wide		High	No	Level, straight
199	Hill Drive	Third Street	east to the end of pavement	Residential	333	0.06	25	25	1	1	None		Wide		High	No	Level, straight
200	Deasy Lane	First Street	east to the end of pavement	Residential	150	0.03	Not Posted		1	1	None		Wide		High	No	Level, straight
201	Madden Drive	Sixth Street	Fifth Street	Residential	443	0.08	Not Posted		1	1	None		Wide		High	No	Level, straight
202	Madden Drive	Fifth Street	Central Avenue	Residential	1,584	0.30	25	25	1	1	None		Wide		High	No	Level, straight
203	Ludlow Drive	Central Avenue	east to the end of pavement	Residential	1,584	0.30	25	NP	1	1	None		Wide		High	No	Level, straight

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
179	Fair	Residential		NB stop at Warner	Fair	None	Rolled curb
180	Fair	Residential		WB stop at 127th Avenue, NB stop at Warner	Fair	None	Rolled curb
181	Good	Residential, river overflow at end		None	Good/Fair	None	Vertical curb on E, dirt/gravel on W
182	Fair	Residential, vacant		NB stop at Vermeersch	None	None	Dirt
183	Good	Residential, vacant		4-way stop at Elwood Street	Fair/Poor	None	Vertical curb on east side
184	Good	Residential		None	None	None	Dirt/gravel
185	NON EXISTENT						
186	Good	Residential		None	None	None	Dirt/gravel
187	Good	Vacant, residential		WB stop at 127th Avenue	None	None	Dirt/gravel
188	Good	Residential		EB stop at 124th, WB stop at 125th	None	None	Dirt/gravel
189	Good	Vacant, residential		WB stop at 127th Avenue	None	None	Dirt/gravel
190	Good	Residential, vacant		WB stop at 125th	None	None	Dirt, minimal
191	Good	Vacant, residential		WB stop at 127th Avenue	None	None	Dirt/gravel
192	Good	Residential		EB stop at 6th	Fair	None	Rolled Curb
193	Good	Residential	"No Truck Parking" sign	WB stop at 5th, EB stop at 6th	Fair	None	Vertical Curb
194	Good	Residential		EB stop at Dysart, E/W 2-way stop at 6th	Good	None	Vertical Curb
195	Good	Residential		NB stop at 5th	Fair	None	Vertical Curb
196	Good	Residential	Day care center at 1st and Hill	E/W stop	Fair	None	Vertical Curb
197	Good	Residential		E/W stop	Fair	None	Vertical Curb
198	Good	Residential		E/W stop	Fair	None	Vertical Curb
199	Good	Residential		E/W stop	Fair	None	Vertical Curb
200	Good	Residential		None	Fair	None	None
201	Good	Residential		EB stop, WB stop	Fair	None	Vertical Curb
202	Good	Residential		WB stop, EB stop, NB stop at 4th	Fair	None	Vertical Curb
203	Good	Residential, vacant		WB stop at Central	Fair	None	Vertical Curb

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMP
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
179	Fair	None	No restrictions		Minimal	No	No	No	No	No	No	
180	None	Yes	Prohibited		Minimal	No	No	No	No	No	No	
181	None	None	No restrictions		Minimal	No	No	No	No	No	No	
182	Poor	Yes	No Restrictions		Minimal	No	No	No	No	No	No	
183	Fair	Yes	No Restrictions		Minimal	No	No	No	No	No	No	
184	None	Yes	No restrictions		Minimal	No	No	No	No	No	No	
185												
186	None	Yes	No restrictions		Minimal	No	No	No	No	No	No	
187	None	None	Prohibited (north side)		Minimal	No	No	No	No	No	No	
188	Fair	Yes	No restrictions		Minimal	No	No	No	No	No	No	
189	None	None	No restrictions		Minimal	No	No	No	No	No	No	
190	None	Yes	No restrictions		Minimal	No	No	No	No	No	No	
191	None	None	No restrictions		Minimal	No	No	No	No	No	No	
192	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
193	Good	None	No restrictions		Minimal	Yes	No	No	No	No	No	
194	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
195	Good	None	No restrictions		Minimal	Yes	No	No	No	No	No	
196	Good	None	No restrictions		Minimal	Yes	No	No	No	No	No	
197	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
198	Good	None	No restrictions		Minimal	Yes	No	No	No	No	No	
199	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
200	Good	Yes	No restrictions		Minimal	No	No	No	No	No	No	
201	Good	None	No restrictions		Minimal	Yes	No	No	No	No	No	
202	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
203	Good	Intermittent	No restrictions		Minimal	No	Intermittent	No	No	No	No	

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE?	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
204	Los Amigos Drive	Ludlow Drive	south to the end of the cul-de-sac	Residential	528	0.10	Not Posted		1	1	None		Wide		High	No	Level, straight
205	Lawrence Drive	Central Avenue	First Street	Residential	528	0.10	Not Posted		1	1	None		Wide		High	No	Level, straight
206	Gardenia Drive	Fourth Street	First Street	Residential	892	0.17	Not Posted		1	1	None		Wide		High	No	Level, straight
207	Madison Drive	Fourth Street	First Street	Residential	1,056	0.20	Not Posted		1	1	None		Wide		High	No	Level, horizontal curve
208	Camino Estrella Blvd.	Fourth Street	First Street	Residential	1,056	0.20	Not Posted		1	1	None		Wide		High	No	Level, straight
209	Camino Estrella Blvd.	Central Avenue	First Street	Residential	892	0.17	Not Posted		1	1	None		Wide		None	No	Level, straight
210	West Loma Linda Blvd. (Half Street)	Central Avenue	Fourth Avenue	Residential	1,056	0.20	25	25	1	1	None		Wide		High	No	Level, straight
211	Loma Linda Blvd.	Fourth Street	First Street	Residential	1,056	0.20	Not Posted		1	1	None		Wide		None	No	Level, straight
212	Loma Linda Way	south of Loma Linda Blvd.	back to Loma Linda Blvd.	Residential	892	0.17	Not Posted		1	1	None		Wide		None	No	Level, straight
213	West Lawrence Blvd.	Central Avenue	Fourth Avenue	Residential	1,056	0.20	25	25	1	1	None		Wide		High	No	Level, straight
214	Lawrence Blvd.	Fourth Street	First Street	Residential	892	0.17	25	NP	1	1	None		Wide		High	No	Level, curves including 90 degree curve
215	Washington Street	Dysart Road	east to the end of the street	Residential	1,320	0.25	25	25	1	1	None		Wide		High	No	Level, straight
216	West Brinker Drive	Central Avenue	Fourth Avenue	Residential	1,056	0.20	25	25	1	1	None		Wide		High	No	Level, straight
217	Brinker Drive	Central Avenue	Third Street	Residential	892	0.17	Not Posted		1	1	None		Wide		High	No	Level, horizontal curve at Park
218	Brinker Drive	Dysart Road	east to the end of the street	Residential	1,584	0.30	Not Posted		1	1	None		Wide		High	No	Level, straight
219	Randy Street	Fourth Street	Seventh Street	Residential	1,056	0.20	25	25	1	1	None		Wide		High	No	Vertical curve, straight
220	Dee Street	Fourth Street	Seventh Street	Residential	1,056	0.20	25	25	1	1	None		Wide		High	No	Level, straight
221	Dorris Street	Fourth Street	Seventh Street	Residential	1,056	0.20	25	25	1	1	None		Wide		High	No	Slight vertical curve, straight
222	Auga Fria Lane	Corral Street	east to the end of the street	Residential	528	0.10	Not Posted		1	1	None		Wide		High	No	Level, straight
223	Corral Street	Seventh Street	west to the end of the street	Residential	528	0.10	25	25	1	1	None		Narrow		Medium	No	Level, straight
224	Elm Lane	Fourth Street	Central Avenue	Residential	1,584	0.30	25	NP	1	1	None		Varies		High	No	Level, straight
225	Elm Lane	Central Avenue	Third Avenue	Residential	1,056	0.20	Not Posted		1	1	None		Wide		High	No	Level, straight
226	Park Drive	First Street	Second Street	Residential	264	0.05	Not Posted		1	1	None		Wide		High	No	Level, curves into 1st
227	Mountain View Drive	Fourth Street	Central Avenue	Residential	1,584	0.30	25	25	1	1	None		Wide		High	No	Level, straight

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
204	Good	Residential		NB stop	Fair	None	Rolled Curb
205	Good	Residential, vacant, commercial		E/W stop at Central	Fair	None	Vertical Curb
206	Good	Residential		3-way stop at 4th	Fair	None	Vertical Curb
207	Good	Residential		WB stop at 1st, EB stop at 4th	Fair	None	Vertical Curb
208	Good	Residential		WB stop at 1st, EB stop at 4th	Fair	None	Vertical Curb
209	Good	Residential, vacant	No Truck Sign in EB direction	WB stop at Central	Fair	None	Vertical Curb
210	Good	East side-residential, west side-fence and landscaping	Crosswalk at church/private school	EB stop at Central	Fair	None	Rolled Curb
211	Good	Residential	Frontage Road (Loma Linda Way)	WB stop at 1st, EB stop at 4th	Fair	None	Vertical Curb
212	Good	Residential	Acts as frontage road to Loma Linda Way, purpose is to provide parking for condos, group mailboxes	None	Fair	None	Vertical Curb
213	Good	Church/private school, residential, park		WB yield at 4th Ave, EB stop at Central	Fair	None	Rolled Curb
214	Good	Vacant, residential, park		EB stop at 4th	Fair	None	Vertical Curb
215	Good	Residential	School, no parking in front of school	WB stop at Dysart	Fair	Good	Rolled Curb
216	Good	Residential		EB stop at Central, WB yield at 4th Ave	Fair	None	Rolled Curb
217	Good	Residential, park, commercial at Central		WB stop at Central, SB stop at Ludlow	Fair	None	Vertical Curb
218	Good	Residential, business		WB stop at Dysart	Good	None	Vertical Curb
219	Fair (limited to hill)	Residential		WB stop at 4th Street, EB stop at 7th Street	Poor	None	Vertical Curb
220	Good	Residential		WB stop at 4th Street, EB stop at 7th Street	Poor	None	Vertical Curb
221	Good	Residential		WB stop at 4th Street, EB stop at 7th Street	Poor	None	Vertical Curb
222	Good	Residential		None	Poor	None	Vertical Curb
223	Good	Residential		EB stop at 7th Street	Poor	None	Vertical Curb
224	Good	Residential, park		WB stop at Central	Fair	none	Vertical Curb
225	Good	Residential		WB stop at 3rd, EB stop at Central	Fair	None	Rolled and Vertical Curb
226	Good	Residential		EB stop at 2nd	Fair	None	Vertical Curb
227	Good	Residential, park, center	"No Truck Parking" sign	EB stop at 4th, WB stop at Central	Fair	None	Vertical Curb

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMPS
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
204	Good	Yes	No restrictions		Minimal	Yes		No		No		No
205	Good	Yes	Prohibited		Minimal	Yes		No		No		No
206	Good	Yes	No restrictions		Minimal	Yes		No		No		No
207	Good	Intermittent	No restrictions		Minimal	Yes		No		No		No
208	Good	Intermittent	No restrictions		Minimal	Yes		No		No		No
209	Good	Yes	No restrictions		Minimal	Yes		No		No		No
210	Good	Intermittent	No restrictions		Minimal	Yes		No		No		No
211	Good	Yes	No restrictions		Minimal	No	Yes	No		No		No
212	Good	Yes	No restrictions		Minimal	Yes	No	No		No		No
213	Good	Yes	No restrictions		Minimal	Yes		No		No		No
214	Good	Yes	No restrictions		Minimal	Yes		No		No		No
215	Good	Yes	No restrictions		Minimal	Yes		No		No		No
216	Good	Yes	No restrictions		Minimal	Yes		No		No		No
217	Good	Intermittent	No restrictions		Minimal	Yes		No		No		No
218	Good	Intermittent	No restrictions		Minimal	Intermittent		No		No		No
219	Good	Yes	No restrictions		Minimal	Yes		No		No		No
220	Good	Yes	No restrictions		Minimal	Yes		No		No		No
221	Good	Yes	No restrictions		Minimal	Yes		No		No		No
222	Good	Intermittent	No restrictions		Minimal	Yes	No	No		No		No
223	Good	Intermittent	No restrictions		Minimal	Yes	No	No		No		No
224	Good	Intermittent	No restrictions		Minimal	Small section		No		No		No
225	Good	Intermittent	No restrictions		Minimal	Yes		No		No		No
226	Good	None	No restrictions		Minimal	No		No		No		No
227	Good	Intermittent	No restrictions (some perpendicular)		Minimal	Intermittent		No		No		No

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE?	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
228	Brooke Place	Fourth Street	Central Avenue	Residential	1,584	0.30	NP	NP	1	0	None	Narrow	Low	No	Level, straight		
229	First Street	Western Avenue	Kinderman Drive	Residential	616	0.12	25	25	1	1	None	Wide	High	No	Level, straight		
230	First Street	Madden Drive	Deasy Lane	Residential	528	0.10	Not Posted		1	1	None	Wide	High	No	Level, straight		
231	First Street	Lawrence Drive	Gardenia Drive	Residential	1,584	0.30	Not Posted		1	1	None	Wide	High	No	horizontal curves at Lawrence and		
232	First Street	Western Avenue	Pacific Drive	Residential	1,584	0.30	25	25	1	1	None	Wide	High	No	Level, straight		
233	First Street	Brooke Place	Harrison Street	Residential	528	0.10	Not Posted		1	1	None	Narrow	High	No	Level, straight		
234	First Street	Harrison Drive	Davis Lane	Residential	1,584	0.30	Not Posted		1	1	None	Narrow	High	No	Level, straight		
235	First Street	Davis Lane	Locust Lane	Residential	264	0.05	Not Posted		1	1	None	Narrow	High	No	Level, straight		
236	First Street	Locust Lane	Mountain View Drive	Residential	528	0.10	Not Posted		1	1	None	Narrow	High	No	Level, straight		
237	First Street	Mountain View Drive	south to the end of the street	Residential	264	0.05	Not Posted		1	1	None	Narrow (half street)	High	No	Level, straight		
238	First Street	Elm Lane	Park Drive	Residential	528	0.10	Not Posted		1	1	None	Half street	High	No	Level, curves into Park		
239	Second Street	Western Avenue	Kinderman Drive	Residential	616	0.12	25	25	1	1	None	Wide	High	No	Level, straight		
240	Second Street	Loma Linda Blvd.	north to the end of the cul-de-sac	Residential	114	0.02	Not Posted		1	1	None	Wide	High	No	Level, straight		
241	Second Street	Southern Lane	Pacific Drive	Residential	264	0.05	Not Posted		1	1	None	Wide	High	No	Level, curves at Southern		
242	Second Street	Pacific Drive	Rose Lane	Residential	792	0.15	25	25	1	1	None	Wide	High	No	Level, straight		
243	Second Street	Harrison Drive	MC 85 /Main Street	Residential	1,056	0.20	NP	25	1	1	None	Wide	High	No	Level, large horizontal curve		
244	Second Street	Harrison Drive	Mountain View Drive	Residential	1,584	0.30	25	NP	1	1	None	Wide	High	No	Level, straight		
245	Second Street	Elm Lane	Mountain View Drive	Residential	1,056	0.20	25	NP	1	1	None	Wide	High	No	Level, straight		
246	Third Street	Western Avenue	Kinderman Drive	Residential	616	0.12	25	NP	1	1	None	Narrow	High	No	Level, straight		
247	Third Street	Madden Drive	Ludlow Drive	Residential	644	0.12	Not Posted		1	1	None	Wide	High	No	Level, straight		
248	Third Street	Brinker Drive	Ludlow Drive	Residential	264	0.05	Not Posted		1	1	None	Wide	High	No	Level, Horz Curve at Brinker		
249	Third Street	Loma Linda Blvd.	north to the end of the cul-de-sac	Residential	114	0.02	Not Posted		1	1	None	Wide	High	No	Level, straight		
250	Third Street	Western Avenue	Pacific Drive	Residential	1,584	0.30	Not Posted		1	1	None	Wide	High	No	Level, curves at Pacific		
251	Third Street	Brooke Place	Harrison Drive	Residential	1,320	0.25	Not Posted		1	1	None	Narrow	High	No	Level, straight		
252	Third Street	Harrison Drive	Mountain View Drive	Residential	1,320	0.25	25	25	1	1	None	Varies	High	No	Level, straight		

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
228	Some limited sight distance	Residential, commercial	One-lane, one-way, EB street - backs commercial on north, some residential on south	No traffic control at Corral, EB stop at 2nd Street, EB stop at 4th Street	Fair	None	Dirt
229	Good	Residential		NB stop and SB stop	Fair	None	Vertical & Rolled Curb
230	Good	Residential		SB stop	Poor	None	Vertical Curb
231	Good	Residential		NB stop at Camino Estrella, WB stops at Madison and Loma Linda	Fair	None	Vertical Curb
232	Good	Residential, business at Western		NB stop at Western, SB stop at Pacific	Fair	None	Vertical Curb
233	Good	Residential, vacant		SB stop at Harrison, NB stop at Brooke	Fair	None	Vertical Curb
234	Wall obstruction	Residential, vacant		SB stop at Davis, NB stop at Harrison	Fair	None	Vertical Curb
235	Wall obstruction	Residential		SB stop at Locust, NB stop at Davis	Fair	None	Vertical Curb
236	Wall obstruction	Residential		SB stop at Mountain View, NB stop at Locust	Fair	None	Vertical Curb
237	Wall obstruction	Residential		NB stop at Mountain View	Poor	None	Dirt
238	Good	Residential, vacant		SB stop at Elm	Fair	None	East side-Vertical Curb, West side-Gravel
239	Good	Residential		NB stop and SB stop	Fair	None	Vertical Curb
240	Good	Residential	Cul-de-sac	None	Fair	None	Vertical Curb
241	Good	Residential		NB stop at Pacific	Fair	None	Vertical Curb
242	Good	Residential		SB stop at Pacific, NB stop at Rose	Poor	None	Vertical Curb
243	Good	Residential		SB stop at Harrison, NB Stop at Main	Poor	None	Vertical Curb
244	Good	Residential		SB stop at Mountain View, NB stop at Harrison	Fair	None	Vertical Curb
245	Good	Residential, park	No parking during park events on west side	SB stop at Elm	Fair	None	Vertical Curb
246	Good	Residential		NB stop and SB stop	Fair	None	Vertical Curb
247	Good	Residential		NB stop, SB stop	Fair	None	Vertical Curb
248	Good	Residential		Street curves into Brinker, SB stop at Ludlow	Fair	None	Vertical Curb
249	Good	Residential	Cul-de-sac	None	Fair	None	Vertical Curb
250	Good	Residential, Boys and Girls Club	Curves into Pacific	NB stop at Western	Fair	None	Vertical Curb
251	Good	Residential, vacant	Street very narrow at Brooke due to Electric Pole in the NB direction	SB stop, NB stop	Fair	None	Vertical Curb
252	Good	Residential		SB stop at Harrison	Fair	None	Mostly Vertical Curb

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMP
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
228	Good	Intermittent	Intermittent restrictions		Minimal	No		No		No		No
229	Good	Yes	No restrictions		Minimal	Yes		No		No		No
230	Good	Intermittent	No restrictions		Minimal	Yes		No		No		No
231	Good	Yes	No restrictions		Minimal	Yes		No		No		No
232	Good	Yes	No restrictions		Minimal	Yes		No		No		No
233	Good	Yes	No restrictions		Minimal	No		No		No		No
234	Good	Yes	No restrictions		Minimal	Yes	No	No		No		No
235	Good	Yes	No restrictions		Minimal	No		No		No		No
236	Good	Intermittent	No restrictions		Minimal	No		No		No		No
237	Good	Intermittent	No restrictions		Minimal	No		No		No		No
238	Good	Intermittent	No restrictions		Minimal	No		No		No		No
239	Good	Yes	No restrictions		Minimal	Yes		No		No		No
240	Good	Yes	No restrictions		Minimal	Yes		No		No		No
241	Good	Yes	No restrictions		Minimal	Yes		No		No		No
242	Good	Intermittent	No restrictions		Minimal	Yes		No		No		No
243	Good	Yes	No restrictions		Minimal	Yes		No		No		No
244	Good	Yes	No restrictions		Minimal	North of Davis		No		No		No
245	Good	Yes	No restrictions		Minimal	No		No		No		No
246	Good	At Intersection	Prohibited		Minimal	No		No		No		No
247	Good	Yes	No restrictions		Minimal	Yes		No		No		No
248	Good	Yes	No restrictions		Minimal	Yes		No		No		No
249	Good	Yes	No restrictions		Minimal	Yes		No		No		No
250	Good	Yes	No restrictions		Minimal	Yes		No		No		No
251	Good	Yes	No restrictions		Minimal	No		No		No		No
252	Good	Yes	No restrictions		Minimal	No		No		No		No

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE?	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
253	Third Street	Elm Lane	Mountain View Drive	Residential	1,056	0.20	Not Posted		1	1	None		Wide		High	No	Level, straight
254	Fifth Street	Western Avenue	Riley Drive	Residential	1,320	0.25	25	25	1	1	None		Extra wide		High	No	Level, straight
255	Fifth Street	Western Avenue	Pacific Drive	Residential	1,056	0.20	Not Posted		1	1	None		Wide		High	No	Level, straight
256	Sixth Street	Western Avenue	Riley Drive	Residential	1,320	0.25	25	NP	1	1	None		Wide		High	No	Level, straight
257	Sixth Street	Western Avenue	Pacific Drive	Residential	792	0.15	Not Posted		1	1	None		Wide		High	No	Level, straight
258	Sixth Street	MC 85 / Main Street	Auga Fria Lane	Residential	222	0.04	Not Posted		1	1	None		Wide		Medium	No	Level, straight
259	Seventh Street	Hill Drive	Riley Drive	Residential	792	0.15	25	NP	1	1	None		Wide		High	No	Level, straight
260	Seventh Street	Western Avenue	Pacific Drive	Residential	528	0.10	NP	25	1	1	None		Wide		High	No	Level, curve at Pacific
261	Rio Vista Lane	Central Avenue	Third Avenue	Residential	1,056	0.20	Not Posted		1	1	None		Wide		High	No	Level, straight
262	Third Avenue	Rio Vista Lane	north to the end of the street	Residential	1,320	0.25	Not Posted		1	1	None		Wide		High	No	Level, straight
263	Holben Place	Elm Lane	north to the end of the cul-de-sac	Residential	528	0.10	Not Posted		1	1	None		Wide		High	No	Level, straight
264	Frost Lane	Elm Lane	north to the end of the cul-de-sac	Residential	528	0.10	Not Posted		1	1	None		Wide		High	No	Level, straight
265	Whyman	Central Avenue	west to the end of the street	Residential	528	0.10	Not Posted		1	1	None		Wide		High	No	Level, straight
266	Locust Lane	Second Street	Central Avenue	Residential	792	0.15	Not Posted		1	1	None		Narrow		High	No	Level, horizontal curve
267	Locust Lane	Central Avenue	First Avenue	Residential	528	0.10	Not Posted		1	1	None		Wide		High	No	Level, straight
268	Davis Lane	Second Street	Central Avenue	Residential	528	0.10	Not Posted		1	1	None		Narrow		High	No	Level, straight
269	Davis Lane	Central Avenue	First Avenue	Residential	528	0.10	Not Posted		1	1	None		Wide		High	No	Level, straight
270	Overlin Lane	Central Avenue	First Avenue	Residential	528	0.10	Not Posted		1	1	None		Wide		High	No	Level, straight
271	First Avenue	Locust Lane	north to the end of the street	Residential	1,056	0.20	Not Posted		1	1	None		Narrow		Low	No	Level, straight
272	Greenleaf Lane	MC 85 / Main Street	south to the end of the cul-de-sac	Residential	528	0.10	25	25	1	1	None		Wide		High	No	Level straight
273	Fourth Avenue (Half Street)	south of Brinker Drive	Loma Linda Blvd.	Residential	1,056	0.20	Not Posted		1	1	None		Narrow		Low	No	Level, straight
274	Fourth Avenue	Western Avenue	south to the end of the street	Residential	1,056	0.20	Not Posted		1	1	None		Wide		Low	No	Level, straight
275	Del Rio Lane	Third Avenue	Holben Place	Residential	500	0.09	Not Posted		1	1	None		Wide		High	No	Level, straight
276	Holben Place	Del Rio	Rio Vista Lane	Residential	200	0.04	Not Posted		1	1	None		Wide		Low	No	Level, straight
277	Rhodes Avenue	Central Avenue	Third Avenue	Residential	1,056	0.20	25	25	1	1	None		Wide		High	No	Level, straight

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
253	Good	Residential, park	No parking during park events on east side	SB stop at Elm	Fair	None	Vertical Curb
254	Good	Residential		All-way stop at Riley	Fair	None	Vertical Curb
255	Good	Fire station, residential, business		WB stop at Pacific, N/S 2-way stop at Western	Fair	None	Vertical curb
256	Good	Residential		SB stop at Western, NB stop at Riley	Fair	Fair	Vertical Curb
257	Good	Residential		NB stop, SB stop	Good	None	Vertical Curb
258	Good	Residential, church		NB stop at Main Street, SB stop at Agua Fria	Fair	None	Vertical Curb
259	Good	Residential		SB stop at Hill, NB stop at Riley	Fair	Fair	Vertical Curb
260	Good	Residential, business		NB stop at Western	Fair	None	Vertical Curb
261	Good	Residential		EB stop at Central, WB stop at 3rd	Fair	None	Rolled Curb
262	Good	Residential	15 mph advisory speed sign on U-channel post at curve from 3rd to Del Rio	WB stops at Elm and Rio Vista	Poor	None	Rolled Curb
263	Good	Residential	"No Truck Parking" sign	SB stop at Elm	Fair	None	Rolled Curb
264	Good	Residential	"No Truck Parking" sign	SB Stop at Elm	Fair	None	Rolled Curb
265	Good	Residential	"No Truck Parking" sign	EB stop at Central	Fair	None	Vertical Curb
266	Good	Residential	Dirt road from 2nd St to 3rd St	WB stop at 2nd, EB stop at Central	Fair	None	Vertical Curb
267	Good	Residential	"No Truck Parking" sign	EB stop at Central	Fair	None	Vertical Curb
268	Good	Residential		WB stop at Central, EB stop at 2nd	Fair	None	Vertical Curb
269	Good	Residential	"No Truck Parking" sign	EB stop, WB stop	Fair	None	Vertical Curb
270	Good	Residential	"No Truck Parking" sign	EB stop at Central	Fair	None	Vertical Curb
271	Good	Residential, vacant	One-way NB, signing not consistent from side streets	WB stop at Davis	Fair	None	East side-Vertical Curb
272	Good	Residential	Cul-de-sac, "No Truck Parking" sign	NB stop at Main Street	Fair	None	Vertical Curb
273	Good	School, residential	Alley access	All-way stop at Jolla & Loma Linda	Fair	None	East side - Rolled Curb
274	Good	Residential, apartments		NB stop at Western	Fair	Good	Vertical Curb
275	Good	Residential		None	Fair	Good	Rolled Curb
276	Good	Residential		None	Fair	Good	Rolled Curb
277	Good	Residential	"No Truck Parking" sign, bus stops	WB stop at 3rd	Fair	None	Rolled Curb

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMPS
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
253	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	No
254	Good	Intermittent	No restrictions		Minimal	Yes		No	No	No	No	No
255	Good	Yes	No Restrictions		Minimal	Yes		No	No	No	No	No
256	Good	Yes	No restrictions		Minimal	Yes		No	No	No	No	No
257	Good	Yes	No restrictions		Minimal	Yes		No	No	No	No	No
258	Good	None	No restrictions		Minimal	Yes		No	No	No	No	No
259	Good	Yes	No restrictions		Minimal	Yes		No	No	No	No	No
260	Good	Yes	No restrictions		Minimal	Yes		No	No	No	No	No
261	Good	Yes	No restrictions		Minimal	Yes		No	No	No	No	No
262	Good	Yes	No restrictions		Minimal	Yes		No	No	No	No	No
263	Good	Yes	No restrictions		Minimal	Yes		No	No	No	No	No
264	Good	Yes	No restrictions		Minimal	Yes		No	No	No	No	No
265	Good	Yes	No restrictions		Minimal	Yes		No	No	No	No	No
266	Good	Intermittent	No restrictions		Minimal	No		No	No	No	No	No
267	Good	Yes	No restrictions		Minimal	Yes		No	No	No	No	No
268	Good	None	No restrictions		Minimal	Small section		No	No	No	No	No
269	Good	Yes	No restrictions		Minimal	Yes		No	No	No	No	No
270	Good	Intermittent	No restrictions		Minimal	Yes		No	No	No	No	No
271	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	No
272	Good	None	No restrictions		Minimal	No		No	No	No	No	No
273	Good	Yes	Prohibited		Minimal	Yes	No	No	No	No	No	No
274	Good	Yes	No restrictions		Minimal	No	Yes	No	No	No	No	No
275	Good	Yes	No restrictions		Minimal	Yes		No	No	No	No	No
276	Good	None	No restrictions		Minimal	Yes		No	No	No	No	No
277	Good	Intermittent	No restrictions		Minimal	Yes		No	No	No	No	No

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE?	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
278	Ely Lane	Central Avenue	Third Avenue	Residential	1,056	0.20	25	25	1	1	None	Wide	High	No	Level, straight		
279	Aragon Lane	Central Avenue	Third Avenue	Residential	1,056	0.20	25	25	1	1	None	Wide	High	No	Level, straight		
280	Holly Lane	Central Avenue	Third Avenue	Residential	1,056	0.20	25	25	1	1	None	Wide	High	No	Level, straight		
281	Rose Lane	Third Street	First Street	Residential	528	0.10	25	25	1	1	None	Wide	High	No	Level, straight		
282	Southern Lane	Central Avenue	Second Street	Residential	528	0.10	Not Posted		1	1	None	Wide	High	No	Level, curves at 2nd		
283	Pacific Drive	Third Street	Central Avenue	Residential	1,056	0.20	25	25	1	1	None	Wide	High	No	Level, straight		
284	Pacific Drive	Third Street	Fourth Street	Residential	264	0.05	Not Posted		1	1	None	Wide	High	No	Level, straight		
285	Pacific Drive	Seventh Street	Fourth Street	Residential	1,320	0.25	NP	25	1	1	None	Wide	High	No	Level, curve at 7th		
286	Belmont Drive	First Street	east to the end of the street	Residential	264	0.05	Not Posted		1	1	None	Wide	High	No	Level, straight		
287	Belmont Drive	Third Street	west to the end of the street	Residential	208	0.04	Not Posted		1	1	None	Wide	High	No	Level, straight		
288	Belmont Drive	Fourth Street	Fifth Street	Residential	152	0.03	Not Posted		1	1	None	2-lane width	High	No	Level, straight		
289	Belmont Drive	Fifth Street	Sixth Street	Residential	528	0.10	Not Posted		1	1	None	2-lane width	High	No	Level, straight		
290	Belmont Drive	Sixth Street	Seventh Street	Residential	528	0.10	Not Posted		1	1	None	2-lane width	High	No	Level, straight		
291	Garden Lakes Subdivision	Estate at Garden Lakes		Residential	1,864	0.35	Not Posted		1	1	None	Wide	High	No	Curvilinear		
292	Garden Lakes Subdivision	Estates		Residential	15,177	2.87	Not Posted		1	1	None	Wide	High	No	Curvilinear		
293	Garden Lakes Subdivision	Estates I		Residential	10,274	1.95	Hidden 25mph Sign		1	1	None	Wide	High	No	Curvilinear		
294	Garden Lakes Subdivision	Estates II		Residential	6,194	1.17	Not Posted		1	1	None	Wide	High	No	Curvilinear		
295	Garden Lakes Subdivision	Estates III		Residential	8,237	1.56	Not Posted		1	1	None	Wide	High	No	Curvilinear		
296	Garden Lakes Subdivision	Estates IV		Residential	10,081	1.91	Not Posted		1	1	None	Wide	High	No	Curvilinear		
297	Garden Lakes Subdivision	Loma Pointe I & Key West		Residential	21,391	4.05	Not Posted		1	1	None	Wide	High	No	Curvilinear		
298	Garden Lakes Subdivision	Loma Pointe II		Residential	7,693	1.46	Not Posted		1	1	None	Wide	High	No	Curvilinear		
299	Garden Lakes Subdivision	Loma Pointe III		Residential	6,711	1.27	Not Posted		1	1	None	Wide	High	No	Curvilinear		
300	Garden Lakes Subdivision	Lakeview Estates		Residential	17,567	3.33	Not Posted		1	1	None	Wide	High	No	Curvilinear		
301	Garden Lakes Subdivision	Horizon West I		Residential	16,450	3.12	Not Posted		1	1	None	Wide	High	No	Curvilinear		
302	Garden Lakes Subdivision	Horizon West II		Residential	11,247	2.13	Not Posted		1	1	None	Wide	High	No	Curvilinear		
303	Garden Lakes Subdivision	Manor		Residential	8,499	1.61	Not Posted		1	1	None	Wide	High	No	Curvilinear		

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
278	Good	Residential	"No Truck Parking" sign	WB stop at 3rd	Fair	Good	Rolled Curb
279	Good	Residential	"No Truck Parking" sign	WB stop at 3rd	Fair	None	Rolled Curb
280	Good	Residential	"No Truck Parking" sign	WB stop at 3rd	Fair	None	Rolled Curb
281	Good	Residential		EB stop at 3rd, WB stop at 1st	Fair	None	Vertical Curb
282	Good	Residential		WB stop at Central	Fair	None	Vertical Curb
283	Good	Residential		WB stop at Central	Fair	None	Vertical Curb
284	Good	Residential		WB stop at 3rd, EB stop at 4th	Fair	None	Vertical Curb
285	Good	Residential		SB stop at 5th, WB stop at 4th	Fair	None	Vertical Curb
286	Good	Residential		WB stop at 1st	Fair	None	Vertical Curb
287	Good	Residential		EB stop at 3rd	Fair	None	Vertical Curb
288	Good	Residential		2-way stop with Belmont stopping at 4th and 5th	Fair	None	Vertical Curb
289	Good	Church	Fire department and police department	2-way stop with Belmont stopping at 6th	Fair	None	Vertical Curb
290	Good	Business		2-way stop with Belmont stopping at 7th	Fair	None	Vertical Curb
291	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
292	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
293	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
294	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
295	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
296	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
297	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb (Intermittent Vert)
298	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
299	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
300	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
301	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
302	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
303	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMP
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
278	Good	Intermittent	No restrictions		Minimal	Yes		No		No		No
279	Good	Intermittent	No restrictions		Minimal	Yes		No		No		No
280	Good	Intermittent	No restrictions		Minimal	Yes		No		No		No
281	Good	Intermittent	No restrictions		Minimal	Yes		No		No		No
282	Good	Yes	No restrictions		Minimal	Yes		No		No		No
283	Good	Yes	No restrictions		Minimal	Yes		No		No		No
284	Good	None	No restrictions		Minimal	Yes (very narrow)		No		No		No
285	Good	Yes	No restrictions		Minimal	Yes		No		No		No
286	Good	None	No restrictions		Minimal	Yes		No		No		No
287	Good	None	No restrictions		Minimal	Yes		No		No		No
288	Good	Yes	Mostly prohibited (partial parking on north side)		Minimal	No		No		No		No
289	Good	Yes	Prohibited		Minimal	Intermittent	No	No		No		No
290	Good	Yes	No restrictions		Minimal	No	Intermittent	No		No		No
291	Good	Yes	No restrictions		Minimal	Yes		No		No		No
292	Good	Yes	No restrictions		Minimal	Yes		No		No		No
293	Good	Yes	No restrictions		Minimal	Yes		No		No		No
294	Good	Yes	No restrictions		Minimal	Yes		No		No		No
295	Good	Yes	No restrictions		Minimal	Yes		No		No		No
296	Good	Yes	No restrictions		Minimal	Yes		No		No		No
297	Good	Yes	No restrictions		Minimal	Yes		No		No		No
298	Good	Yes	No restrictions		Minimal	Yes		No		No		No
299	Good	Yes	No restrictions		Minimal	Yes		No		No		No
300	Good	Yes	No restrictions		Minimal	Yes		No		No		No
301	Good	Yes	No restrictions		Minimal	Yes		No		No		No
302	Good	Yes	No restrictions		Minimal	Yes		No		No		No
303	Good	Yes	No restrictions		Minimal	Yes		No		No		No

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE?	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
304	Garden Lakes Subdivision		The Landing	Residential	18,900	3.58	Not Posted		1	1	None		Wide		High	No	Curvilinear
305	Garden Lakes Subdivision		Cobblestone Bay	Residential	9,696	1.84	Not Posted		1	1	None		Wide		High	No	Curvilinear
306	Garden Lakes Subdivision		Crystal Cove	Residential	19,910	3.77	Not Posted		1	1	None		Wide		High	No	Curvilinear
307	Garden Lakes Subdivision		Malaga	Residential	15,270	2.89	Not Posted		1	1	None		Wide		High	No	Curvilinear
308	Garden Lakes Subdivision		Laguna Hills	Residential	11,706	2.22	Not Posted		1	1	None		Wide		High	No	Curvilinear
309	Garden Lakes Subdivision		Avalon	Residential	1,776	0.34	Not Posted		1	1	None		Wide		High	No	Curvilinear
310	Garden Lakes Subdivision		Las Vistas	Residential	15,000	2.84	Not Posted		1	1	None		Wide		High	No	Curvilinear
311	Garden Lakes Subdivision		Avalon	Residential	2,358	0.45	Not Posted		1	1	None		Wide		High	No	Curvilinear
312	Garden Lakes Subdivision		Summerwind	Residential			Not Posted		1	1	None		Wide		High	No	Curvilinear
313	Garden Lakes Subdivision		Laguna Vista	Residential			Not Posted		1	1	None		Wide		High	No	Curvilinear
314	Garden Lakes Subdivision		Harbor View	Residential			Not Posted		1	1	None		Wide		High	No	Curvilinear
315	Westwinds Subdivision			Residential	23,793	4.51	Not Posted		1	1	None		Wide		High	No	Curvilinear
316	Glennarms Subdivision			Residential	17,588	3.33	25	25	1	1	None		Narrow		High	No	Level, straight
317	Garden Park Subdivision			Residential	14,510	2.75	25	25	1	1	None		Wide		High	No	Level, curvilinear
318	Garden Trails Subdivision			Residential	6,664	1.26	Under Const	Under Const	1	1	None		Wide		High	No	Level, curvilinear
319	Crystal Park Estates Subdivision			Residential	2,277	0.43	Under Const	Under Const	1	1	None		Wide		High	No	Level, curvilinear
320	Crystal Ridge Subdivision			Residential	8,921	1.69	25	25	1	1	None		Wide		High	No	Level, curvilinear
321	Crystal Gardens Subdivision			Residential	15,298	2.90	25	25	1	1	None		Wide		High	No	Level, curvilinear
322	Crystal Point Subdivision			Residential			25	25	1	1	TWLTL		12'	12'	None	No	Straight & curvilinear
323	Upland Park Subdivision			Residential	14,254	1.56	25	25	1	1	None		Extra Wide		High	No	Level, curvilinear
324	Pecan Groves Subdivision			Residential	7,693	1.46	25	25	1	1	None		Extra Wide		High	No	Level, curvilinear
325	Harbor Shores Subdivision		Sunrise-106th Avenue to 106th Lane	Residential	2,745	0.52	25	25	1	1	None		Wide		High	No	Level, curvilinear
326	Harbor Shores Subdivision		Sunrise-105th Avenue to 105th Lane	Residential	1,882	0.36	25	25	1	1	None		Wide		High	No	Level, curvilinear
327	Harbor Shores Subdivision		Ryland	Residential	7,057	1.34	25	25	1	1	None		Wide		High	No	Level, curvilinear
328	Harbor Shores Subdivision		Dietz Crane	Residential	3,150	0.60	25	25	1	1	None		Wide		High	No	Level, curvilinear

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
304	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
305	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
306	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
307	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
308	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
309	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
310	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
311	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Vertical Curb (Some Rolled)
312	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Vertical Curb (Some Rolled)
313	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Vertical Curb (Some Rolled)
314	Good	Residential	Group mailboxes, intermittent cross washings	Sidestreets stop at collector street	Good	None	Rolled Curb
315	Good	Residential	Group mailboxes	Stop at Indian School Road, signal at 107th Avenue, internal stops at side streets	Good	None	Rolled Curb
316	Good	Older neighborhood, mailboxes at driveways	Entrance to neighborhood is wide with curb and no homes, streets in neighborhood are narrow with homes facing	Stop at 107th	Good	None	Good
317	Good	Residential, park	Group mailboxes	Stop at Thomas, stop at 119th	Good	None	Rolled Curb
318	Good	Residential, park	Group mailboxes	Stop at Thomas	Good	None	Rolled and Vertical Curb
319	Good	Residential, park	Group mailboxes	Stop at 115th	Good	None	Rolled and Vertical Curb
320	Good	Residential, park	Group mailboxes	Stop at 115th	Good	None	Rolled and Vertical Curb
321	Good	Residential	Group mailboxes	Sidestreets stop at collector street	Good	None	Curb
322	Good	Residential		SB stop	Good	Good	Vertical curb northbound & southbound
323	Good	Residential	Extra wide collector street with homes facing and no striping	Sidestreets stop at collector street	Good	None	Curb
324	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Curb
325	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Curb
326	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Curb
327	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Curb
328	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Curb

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMPS
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
304	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
305	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
306	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
307	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
308	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
309	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
310	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
311	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
312	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
313	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
314	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
315	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
316	None	None	No restrictions		Minimal	No	No	No	No	No	No	
317	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
318	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
319	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
320	Good	Yes	No restrictions		Minimal	Yes	No	No	No	No	No	
321	Good	Yes	No restrictions		Minimal	No	Yes	No	No	No	No	
322	Good	Yes	Prohibited		Minimal	No	Meandering	Yes	No	No	No	
323	Good	Yes	No Restrictions		Minimal	No	Yes	No	No	No	No	
324	Good	Yes	No restrictions		Minimal	No	Yes	No	No	No	No	
325	Good	Yes	No restrictions		Minimal	No	Yes	No	No	No	No	
326	Good	Yes	No restrictions		Minimal	No	Yes	No	No	No	No	
327	Good	Yes	No restrictions		Minimal	No	Yes	No	No	No	No	
328	Good	Yes	No restrictions		Minimal	No	Yes	No	No	No	No	

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE?	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
329	Palm Gardens Subdivision			Residential	12,198	2.31	25	25	1	1	None	Wide	High	No	Curvilinear		
330	Palm Meadows Subdivision			Residential	14,448	2.74	Not Posted		1	1	None	Wide	High	No	Level, curvilinear		
331	Rancho Santa Fe Subdivision	Rancho Sante Fe		Residential	8,692	1.65	25	25	1	1	None	Wide	High	No	Level, curvilinear		
332	Rancho Santa Fe Subdivision	Alta Mira		Residential	6,072	1.15	25	25	1	1	None	Wide	High	No	Curvilinear		
333	Rancho Santa Fe Subdivision	Casitas I		Residential	5,603	1.06	25	25	1	1	None	Wide	High	No	Curvilinear		
334	Rancho Santa Fe Subdivision	Casitas II		Residential	4,683	0.89	25	25	1	1	None	Wide	High	No	Curvilinear		
335	Rancho Santa Fe Subdivision	Tierra		Residential	7,271	1.38	25	25	1	1	None	Wide	High	No	Curvilinear		
336	Rancho Santa Fe Subdivision	Vistas-east		Residential			25	25	1	1	None	Wide	High	No	Curvilinear		
337	Rancho Santa Fe Subdivision	Vistas-west		Residential	9,819	1.86	25	25	1	1	None	Wide	High	No	Curvilinear		
338	Rancho Santa Fe Subdivision	Ironwood-east		Residential			25	25	1	1	None	Wide	High	No	Curvilinear		
339	Rancho Santa Fe Subdivision	Ironwood-west		Residential			25	25	1	1	None	Wide	High	No	Curvilinear		
340	Rancho Santa Fe Subdivision	Horizon		Residential			25	25	1	1	None	Wide	High	No	Curvilinear		
341	Corte Sierra Subdivision	Verde Lane	Osborne Road	Residential	37,958	7.19	25	25	1	1	None	Wide	High	No	Curvilinear		
342	Corte Sierra Subdivision	Cherry Lynn Road	Amelia Avenue	Residential	23,541	4.46	25	25	1	1	None	Wide	High	No	Curvilinear		
343	Las Palmeras Subdivision			Residential	17,990	3.41	25	25	1	1	None	Wide	High	No	Curvilinear		
344	Sage Creek Subdivision			Residential	34,740	6.58	25	25	1	1	None	Wide	High	No	Curvilinear		
345	Coldwater Springs Subdivision	123rd Drive	126th Avenue	Residential	7,075	1.34	Not Posted		1	1	None	Wide	High	No	Horizontal curves, level		
346	Coldwater Springs Subdivision	123rd Avenue	123rd Drive	Residential	4,267	0.81	Not Posted		1	1	None	Wide	High	No	Horizontal curves, level		
347	Coldwater Springs Subdivision	Coldwater Springs Blvd.	Tonto Street	Residential	4,339	0.82	Not Posted		1	1	None	Wide	High	No	Horizontal curves, level		
348	Coldwater Springs Subdivision	Coldwater Springs Blvd.	Tonto Street	Residential	5,271	1.00	Not Posted		1	1	None	Wide	High	No	Straight, horizontal curves, level		
349	Coldwater Springs Subdivision	122nd Lane	122nd Ave	Residential	2,564	0.49	25	25	1	1	None	Wide	High	No	Straight, horizontal curves, level		
350	Coldwater Springs Subdivision	122nd Avenue	122nd Lane	Residential	4,670	0.88	25	25	1	1	None	Wide	High	No	Straight, horizontal curves, level		
351	Coldwater Springs Subdivision	Coldwater Springs Blvd.	Maricopa Street	Residential	6,029	1.14	25	25	1	1	None	Wide	High	No	Straight, horizontal curves, level		
352	Coldwater Springs Subdivision	Clubhouse Drive	119th Avenue	Residential	3,465	0.66	25	25	1	1	None	Wide	High	No	Straight, horizontal curves, level		

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
329	Good	Residential	Group mailboxes	Sidestreet stops at Encanto	Good	Good	Vertical and Rolled curb
330	Good	Residential, park	Group mailboxes	Internal stops at side streets	Good	None	Rolled and Vertical Curb
331	Good	Residential, parks	Data for internal, residential streets only - see lines 73 and 73a for collector streets within this section. Group mailboxes	Side streets stop at Ranch Santa Fe	Good	Good	Vertical and Rolled curb
332	Good	Residential	Group mailboxes	Sidestreet stops at Rancho Santa Fe	Good	Good	Vertical and Rolled curb
333	Good	Residential	Group mailboxes	Sidestreet stops at Rancho Santa Fe	Good	Good	Vertical and Rolled curb
334	Good	Residential	Group mailboxes	Sidestreet stops at Rancho Santa Fe	Good	Good	Vertical and Rolled curb
335	Good	Residential	Group mailboxes	Sidestreet stops at Rancho Santa Fe	Good	Good	Vertical and Rolled curb
336	Good	Residential	Group mailboxes	Sidestreet stops at Rancho Santa Fe	Good	Good	Vertical and Rolled curb
337	Good	Residential	Group mailboxes	Sidestreet stops at Rancho Santa Fe	Good	Good	Vertical and Rolled curb
338	Good	Residential	Group mailboxes	Sidestreet stops at Rancho Santa Fe	Good	Good	Vertical and Rolled curb
339	Good	Residential	Group mailboxes	Sidestreet stops at Rancho Santa Fe	Good	Good	Vertical and Rolled curb
340	Good	Residential	Group mailboxes	Sidestreet stops at Rancho Santa Fe	Good	Good	Vertical and Rolled curb
341	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Rolled and Vertical curb
342	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Rolled and Vertical curb
343	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Rolled and Vertical curb
344	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Rolled and Vertical curb
345	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Vertical and Rolled curb
346	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Vertical and Rolled curb
347	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Vertical and Rolled curb
348	Good	Residential	Speed limit posted at 'entrance' to each section (i.e. - upon entering a residential street from a collector street). Group mailboxes	Internal stops at side streets	Good	None	Vertical and Rolled curb
349	Good	Residential	Speed limit posted at 'entrance' to each section (i.e. - upon entering a residential street from a collector street). Group mailboxes	Internal stops at side streets	Good	None	Vertical and Rolled curb
350	Good	Residential	Speed limit posted at 'entrance' to each section (i.e. - upon entering a residential street from a collector street). Group mailboxes	Internal stops at side streets	Good	None	Vertical and Rolled curb
351	Good	Residential	Speed limit posted at 'entrance' to each section (i.e. - upon entering a residential street from a collector street). Group mailboxes	Internal stops at side streets	Good	None	Vertical and Rolled curb
352	Good	Residential	Speed limit posted at 'entrance' to each section (i.e. - upon entering a residential street from a collector street). Group mailboxes	Internal stops at side streets	Good	None	Vertical and Rolled curb

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMPS
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
329	Good	Yes	No restrictions		Minimal	Yes		No		No		No
330	Good	Yes	No restrictions		Minimal	No		Yes		No		No
331	Good	Yes	No restrictions		Minimal	Yes		No		No		No
332	Good	Yes	No restrictions		Minimal	Yes		No		No		No
333	Good	Yes	No restrictions		Minimal	Yes		No		No		No
334	Good	Yes	No restrictions		Minimal	Yes		No		No		No
335	Good	Yes	No restrictions		Minimal	Yes		No		No		No
336	Good	Yes	No restrictions		Minimal	Yes		No		No		No
337	Good	Yes	No restrictions		Minimal	Yes		No		No		No
338	Good	Yes	No restrictions		Minimal	Yes		No		No		No
339	Good	Yes	No restrictions		Minimal	Yes		No		No		No
340	Good	Yes	No restrictions		Minimal	Yes		No		No		No
341	Good	Yes	No restrictions		Minimal	Yes		No		No		No
342	Good	Yes	No restrictions		Minimal	Yes		No		No		No
343	Good	Yes	No restrictions		Minimal	Yes		No		No		No
344	Good	Yes	No restrictions		Minimal	Yes		No		No		No
345	Good	Yes	No restrictions		Minimal	Yes		No		No		No
346	Good	Yes	No restrictions		Minimal	Yes		No		No		No
347	Good	Yes	No restrictions		Minimal	Yes		No		No		No
348	Good	Yes	No restrictions		Minimal	Yes		No		No		No
349	Good	Yes	No restrictions		Minimal	Yes		No		No		No
350	Good	Yes	No restrictions		Minimal	Yes		No		No		No
351	Good	Yes	No restrictions		Minimal	Yes		No		No		No
352	Good	Yes	No restrictions		Minimal	Yes		No		No		No

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE?	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
353	Coldwater Springs Subdivision	120th Avenue	119th Avenue	Residential	4,881	0.92	25	25	1	1	None	Wide	High	No	Straight, horizontal curves, level		
354	Coldwater Springs Subdivision	Coldwater Springs Blvd.	Tonto Street	Residential	4,262	0.81	25	25	1	1	None	Wide	High	No	Straight, horizontal curves, level		
355	Sanctuary Phase 1 Subdivision			Residential	1,221	0.23	Not Posted		1	1	None	Wide	High	No	Straight, horizontal curves, level		
356	Sanctuary Phase 2 Subdivision			Residential	13,224	2.50	25	NP	1	1	None	Wide	High	No	Straight, horizontal curves, level		
357	Durango Park Subdivision	Nonexistant															
358	Durango Park Subdivision																
359	Durango Park Subdivision																
360	Durango Park Subdivision																
361	Fieldcrest Subdivision			Residential	8,529	1.62	Not Posted		1	1	None	Wide	High	No	Horizontal curves		
362	Cambridge Estates Subdivision	Belmont Drive	Pima Street	Residential	12,697	2.40	25	25	1	1	None	Wide	High	No	Curves		
363	Cambridge Estates Subdivision	Cocopah Street	Hopi Street	Residential	3,539	0.67	Not Posted		1	1	None	Wide	High	No	Curves		
364	Cambridge Estates Subdivision	Belmont Drive	Hopi Street	Residential	11,548	2.19	25	25	1	1	None	Wide	High	No	Curves		
365	Diamond Ridge Subdivision	Nonexistant															
366	Terra Ranchette Mobile Home Park			Residential	7,473	1.42	Not Posted		1	1	None	Wide	High	No	Level straight		
367	Del Monte Subdivision			Residential	6,661	1.26	25	25	1	1	None	Wide	High	No	Level, curvilinear		
368	Goodale II Subdivision			Residential	3,168	0.60	25	25	1	1	None	Wide	High	No	Level, curvilinear		
369	Litchfield Mountain View Subdivision			Residential	18,136	3.43	Not Posted		1	1	None	Wide	High	No	Curvilinear		

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
353	Good	Residential	Speed limit posted at 'entrance' to each section (i.e. - upon entering a residential street from a collector street). Group mailboxes	Internal stops at side streets	Good	None	Vertical and Rolled curb
354	Good	Residential	Speed limit posted at 'entrance' to each section (i.e. - upon entering a residential street from a collector street). Group mailboxes	Internal stops at side streets	Good	None	Vertical and Rolled curb
355	Good	Residential	Speed limit posted at 'entrance' to each section (i.e. - upon entering a residential street from a collector street). Group mailboxes	Internal stops at side streets	Good	None	Vertical and Rolled curb
356	Good	Residential	Speed limit posted at 'entrance' to each section (i.e. - upon entering a residential street from a collector street). Group mailboxes	Internal stops at side streets	Good	None	Vertical and Rolled curb
357							
358							
359							
360							
361	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Vertical and Rolled curb
362	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Vertical and rolled curb
363	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Vertical and rolled curb
364	Good	Residential	Group mailboxes	Internal stops at side streets	Good	None	Vertical and rolled curb
365							
366	Fair	Residential	Group mailboxes	NB stop at Roeser	Fair	None	Rolled curb
367	Good	Residential	Church and business near Western	SB stop at Madden & 3rd Pl, EB stop at Central and internal stop signs	Fair	None	Rolled Curb
368	Good	Residential	No parking during school hours from subdivision entrance to Central, school bus entrance off of street	Internal stops at side streets	Fair	None	Vertical & Rolled Curb
369	Good	Residential, vacant, commercial	Group mailboxes	Stop at Lower Buckeye Road, stop at Litchfield Road, internal stops at side streets	Good	Good	Rolled curb

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMPS
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
353	Good	Yes	No restrictions		Minimal	Yes		No		No		No
354	Good	Yes	No restrictions		Minimal	Yes		No		No		No
355	Good	Yes	No restrictions		Minimal	Yes		No		No		No
356	Good	Yes	No restrictions		Minimal	Yes		No		No		No
357												
358												
359												
360												
361	Good	Yes	No Restrictions		Minimal	Yes		No		No		No
362	Good	Yes	No restrictions		Minimal	No		Yes		No		No
363	Good	Yes	No restrictions		Minimal	No		Yes		No		No
364	Good	Yes	No restrictions		Minimal	No		Yes		No		No
365												
366	None	Intermittent	No restrictions		Minimal	Yes		No		No		No
367	Good	Yes	No restrictions		Minimal	Yes		No		No		No
368	Good	Yes	No restrictions		Minimal	Yes		No		No		No
369	Fair	Yes	No restrictions		Minimal	Yes		No		No		No

APPENDIX E

INVENTORY FOR COLLECTOR STREET SEGMENTS

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE?	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
63	Garden Lakes Parkway	Thomas Road	107th Avenue	Collector	8,976	1.70	25	25	1	1	TWLTL	Wide	Few	Yes	Few large radius curves		
64	Lakeshore Drive (Garden Lakes)	Garden Lakes Parkway	107th Avenue	Collector	4,488	0.85	25	25	1	1	TWLTL	Wide	Few	No	Level, curves		
65	111th Avenue (Garden Lakes)	Indian School Road	Garden Lakes Parkway	Collector	528	0.10	Not Posted		1	1	TWLTL	Wide	None	No	Level, straight		
66	111th Avenue (Garden Lakes)	Lakeshore Drive	Thomas Road	Collector	792	0.15	25 (No Trucks)		1	1	TWLTL	Wide	None	No	Level, straight		
67	Thomas Road	Dysart Road	east to the cul-de-sac	Collector	6,336	0.24	35	35	2/1*	2/1*	None	12'	12'	Low	Yes	Level, straight	
68	Thomas Road	115th Avenue	119th Avenue	Collector	1,056	0.20	35	35	1,2	1	None	Varies		Low	No	Level, straight	
69	Encanto Blvd.	115th Avenue	W. of 117th Avenue	Collector	2,640	0.50	25	25	1	1	None	12'	12'	Few	No	Level, straight	
70	Encanto Blvd.	107th Avenue	Dead End	Collector	2,640	0.50	25	25	1	1	None	1/2 Street Section		High	Yes	Level, straight	
71	Encanto Blvd.	Crystal Gardens Parkway	west of 112th Avenue (to end)	Collector	1,584	0.30	35	None	1	1	TWLTL	12'	12'	None	No	Level, curvilinear	
72	Encanto Blvd.	Rancho Santa Fe Blvd.	Dysart Road	Collector	2,640	0.50	25	25	1	1	TWLTL	12'	12'	None	No	Curvilinear	
73	Westwinds Parkway	107th Avenue	Indian School Road	Collector	3,168	0.60	35	35	1	1	TWLTL	Wide	None	No	Level, large horizontal curves		
74	Crystal Gardens Parkway	107th Avenue	Thomas Road	Collector	4,752	0.90	35	35	1	1	TWLTL	Wide	Low	No	Level, large curves		
75	112th Avenue	Encanto Blvd.	McDowell Road	Collector	2,640	0.50	25	25	1	1	TWLTL	Wide	None	No	Level, slight horz curve		
76	107th Avenue	RID Canal	Crystal Gardens Parkway	Collector	6,720	1.27	35	35	1	1	TWLTL	~12'	~12'	High (homes facing)	No	Level, straight	
77	116th Lane/117th Avenue	Palm Lane	Encanto Blvd.	Collector	3,500	0.66	Not Posted		1	1	TWLTL	12'	12'	School only	Yes	Level, straight	
78	Harbor Shores Blvd.	McDowell Road	107th Avenue	Collector	2,640	0.50	35	35	1	1	TWLTL	Wide	Low	No	Level, large curves		
79	103rd Avenue	Encanto Blvd.	south to the end	Collector	1,056	0.20	25	25	1	1	Raised	Wide	None	No	Level, straight		
80	Roosevelt Street	99th Avenue	end	Collector	1,584	0.30	Not Posted		1	1	None	12'	12'	Low	No	Level, straight	
81	Roosevelt Street	99th Avenue	107th Avenue	Collector	5,280	1.00	NP	35	1	1	None	12'	12'	Low	No	Level, straight	
82	Rancho Santa Fe Blvd.	Thomas Road	McDowell Road	Collector	5,808	1.10	25	25	1	1	TWLTL	12'	12'	None	Yes	Curvilinear	
83	Rancho Santa Fe Blvd.	McDowell Road	Dysart Road	Collector	2,900	0.55	25	25	1	1	TWLTL	12'	12'	High/Medium*	No	90 degree horizontal curve, level	
84	Rancho Santa Fe Trail	Rancho Santa Fe Blvd.	Encanto Blvd.	Collector	2,640	0.50	25	25	1	1	TWLTL	12'	12'	None	No	Curvilinear	
85	Rancho Santa Fe Trail	Encanto Blvd.	Thomas Road	Collector	2,640	0.50	25	25	1	1	TWLTL	12'	12'	None	No	Curvilinear	
86	Osborne Road	Dysart Road	Rancho Santa Fe Trail	Collector	1,584	0.30	25	25	1	1	TWLTL	12'	12'	None (except school)	Yes	Level, straight	

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
63	Good	Res, park, lakes, church, schools	Sidewalks both sides at schools	3-way at 111th, Signal at 107th, All-way at Thomas	Good	Good (TWLTL)	Vertical Curb
64	Some restrictions on inside of curves	Park w/parking lot, residential		3-way at 111th	Good	Good	Vertical Curb
65	Good	Subdivision entrance		Signal at Indian School	Good	Good	Vertical curb
66	Good	Subdivision entrance		Stop at Thomas	Good	Good	Vertical curb
67	Good	Residential, vacant	Vehicle lanes drop from 2 to 1 near cul-de-sac, irrigation channel on south side	Signal at Dysart Rd.	Good	Good	Vertical curb both sides dirt near cul-de-sac north side
68	Good	Subdivisions	35 mph appropriate speed for this segment, Street dead ends	All-way at 115th	Good	Good	Vertical curb where development exists
69	Good	Dairy/vacant - north, residential - south	Irrigation channel on north side	EB Stop at 115th (3-way at 116th Lane)	Good	Good	Vertical curb - south side, dirt gravel - north side
70	Good	Residential, school	side face street, elem school in SEC of 103rd & Encanto, dead ends before 99th	All-way at 103rd, Stop at 107th	Good	Good	North side-curb, south side-gravel/wall
71	Good	Residential, park, pond		EB Stop at Crystal Gardens	Good	Good	Vertical curb - north and south
72	Good	Residential		Signal at Dysart Rd.	Good	Good	Vertical curb both sides
73	Good	Residential, park		Signal at 107th	Good	Good	Curb
74	Good	Residential, park	Fire station on corner of 107th and Crystal Gardens	3-way at 107th (107th has LT lane and shared LT/RT lane, NB has channelize RT lane)	Good	Good	Curb
75	Good	Residential, park	25 mph appropriate	NB stop at Encanto, SB stop at McDowell, side streets stop for 112th Avenue	Good	Good	Vertical Curb
76	Good	Vacant, new development	35 mph posted speed limit is appropriate for this segment, under construction	All-way at Thomas	Good	Good	Curb where new development exists
77	Good	Residential, agricultural, school	15 mph portable signs when school in session, permanent school crossing signs, inconsistent street names: 116th Lane and 117th Ave	All-way stop at Encanto, side streets stop for 116th Lane	Good	Good	Vertical curb northbound & southbound
78	Good	Residential		Stop at 107th	Good	Good	Curb
79	Good	Residential	Entrance to subdivision	NB stop at Encanto	Good	Good	Vertical Curb
80	Good	Business		Signal at 99th Avenue	Good	Good	Vertical curb both sides (N/S)
81	Good	Car dealership, vacant, William Travel Center	Irrigation channel on south side (10-12' clearance)	Signal at 99th Avenue, WB stop at 107th Avenue	Good	Good	Vertical curb northside dirt/gravel southside
82	Good	Residential	20 mph warning sign	Signal at McDowell	Good	Good	Vertical curb both sides
83	Fair	High density residential, commercial	* Driveway density high on south end near commercial development, medium on north end near residential	Signal at McDowell, Signal at Dysart	Good	Good	Vertical curb both sides
84	Good	Residential	Group mailboxes	2-way stop at Encanto (north/south)	Good	Good	Vertical curb both sides
85	Good	Residential	Group mailboxes	None - 2-way stop at Thomas (north/south)	Good	Good	Vertical curb both sides
86	Good	Residential, retention basin	School crossing warning signs	None	Good	Good	Vertical curb both sides

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMPS
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
63	Good (School X-ing)	Yes	Prohibited		Low (school)	Half	No	Half	No	Yes		No
64	Good	Yes	Prohibited		Low (school)	No		Meand	No	Yes		No
65	Good	Yes	Prohibited		Minimal	No		Meandering		No		No
66	Good	Yes	Prohibited		Minimal	No		Meandering		Yes		No
67	Good	Yes	Prohibited		Minimal	No		No	Meand	Yes		No
68	Good	Yes	Prohibited		Minimal	No		In front of new development		Most of segment		No
69	Good	Yes	No Restrictions		Minimal	Yes	No	No		No		No
70	Good	Yes	Prohibited		Minimal	No		Meandering-south side		No		No
71	Good	Yes	Prohibited		Minimal	Yes	No	No	Meand	Yes		No
72	Good	Yes	Prohibited		Low (school)	No		Meandering		Yes		No
73	Good	Yes	Prohibited		Minimal	Meandering and adjacent				Yes		No
74	Good	Yes	Prohibited		Minimal	Yes		No		Yes		No
75	Good	Yes	No Restrictions		Minimal	No		Meandering		No		No
76	Good	Yes	Prohibited		Minimal	Where new development exists				Pvmt exists but not yet striped		No
77	Good	Yes	Prohibited		Low (school)	Yes		No		Yes		No
78	Good	Yes	Prohibited		Minimal	Yes		No		Yes		No
79	Good	Yes	No Restrictions		Minimal	Yes		No		No		No
80	Good	Yes	Prohibited		Minimal	No		Meandering		No		No
81	Good	Yes	Prohibited		Minimal	No		Meandering		No		No
82	Good	Yes	Prohibited		Low (school)	No		Meandering		Yes		No
83	Good	Yes	Prohibited		Minimal	Yes		No		No		No
84	Good	Yes	Prohibited		Minimal	No		Meandering		Yes		No
85	Good	Yes	Prohibited		Minimal	No		Meandering		Yes		No
86	Good	Yes	Prohibited		Low (school)	No		Meandering		Yes		No

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE?	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
87	Santa Fe Trail	Thomas Road	to end (Osborn)	Collector	3,700	0.70	25	25	1	1	TWLTL		12'	12'	None	Yes	Curvilinear, straight
88	Santa Fe Trail	Osborn	Indian School Road	Collector	3,100	0.59	25	25	1	1	TWLTL		12'	12'	None	Yes	Curvilinear, straight
89	El Mirage Road	Van Buren Street	north to end	Collector	3,168	0.60	Not Posted		1	1	None		12'	12'	High (homes facing)	No	Level, straight
90	Fairway Drive (Coldwater Springs)	Van Buren Street	Coldwater Springs Blvd.	Collector	2,900	0.55	35	35	1	1	TWLTL		12'	12'	Low	No	Slight vertical curve, straight
91	Coldwater Springs Blvd.	Links Drive	east of 125th Avenue	Collector	6000	1.14	35	35	1	1	TWLTL		12'	12'	None	No	Horizontal curves, level
92	Coldwater Springs Blvd.	East of 125th Ave	west to end	Collector	500	0.09	NP	25	1	1	None		12'	12'	High	No	Straight, level
93	Links Drive (Coldwater Springs)	Van Buren Street	Coldwater Springs Blvd.	Collector	2,112	0.40	35	NP	1	1	TWLTL		12'	12'	None	No	Horizontal curves, level
94	118th Drive	Coldwater Springs Blvd.	south to end	Currently, access to school only - future collector	1,000	0.19	35	NP	1	1	Intermittent TWLTL		12'	12'	School Only	Yes	Horizontal curves, level
95	Whyman Avenue	110th Drive	Durango Street	Collector	2,640	0.50	NP	35	1	1	TWLTL		12'	12'	None	No	Horizontal curves, level
96	109th Avenue	Buckeye Road	Durango Street	Collector	2,560	0.48	25	25	1	1	None		Wide		Medium	No	Level, straight
97	109th Avenue	Lower Buckeye Road	Whyman Avenue	Collector	1,584	0.30	35	35	1	1	None		12'	12'	None	No	Horizontal curves, level
98	109th Avenue	Whyman Avenue	Chase Lane	Collector			Not Posted		1	1	None		12'	12'	None	No	Horizontal curves, level
99	111th Avenue	Buckeye Road	Durango Street	Collector	2,560	0.48	25	25	1	1	None		Wide*		None	No	Level, straight
100	113th Avenue	Durango Street	Buckeye Road	Collector	2,602	0.49	25	25	1	1	TWLTL*		12'	12"	Medium	No	Level, straight
101	114th Avenue/Pima Street	115th Avenue	Durango Street	Collector			Not Posted		1	1	None		12'	12'	None	No	Horizontal curves
102	4th Street/Pima Street	111th Avenue	107th Avenue	Collector	2,454	0.46	Not Posted		1	1	None		Wide		High	present but no	Level, straight
103	4th Street/Pima Street	113th Avenue	111th Avenue	Collector	1,290	0.24	25	NP	1	1	None		Wide		High	No	Level, straight
104	Durango Street	113th Avenue	107th Avenue	Collector	3,960	0.75	25	25	1	1	None		12'	12'	Medium, homes facing	No	Level, straight
105	Durango Street	115th Avenue	113th Avenue	Collector	1,320	0.25	35	35	1	1	TWLTL		12'	12'	None	No	Level, straight
106	Durango Street	El Mirage Road (123rd Ave.)	Cocopah Circle	Collector	1,056	0.20	Not Posted		1	1	None		12'	12'	None	No	Level, straight
107	Cocopah Circle	Durango Street	119th Avenue	Collector	2,112	0.40	35	35	1	1	TWLTL		12'	12'	None	No	Horizontal curves, traffic calming
108	119th Avenue	Cocopah Circle	Buckeye Road	Collector	1,188	0.23	25	NP	1	1	None		12'	12'	None	No	Level, straight
109	Elwood Street (Dirt)	Vermeersch Avenue	127th Avenue	Collector	528	0.10	25	NP	1	1	None		12'	12'	High	No	Vertical curve
110	Elwood Street	127th Avenue	El Mirage Road (123rd Ave.)	Collector	1,848	0.35	25	25	1	1	None		12'	12'	High	No	Slight vertical curve

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
87	Good	Residential	Residential, elementary school, cemetery	None	Good	Good	Vertical curb, paved shoulder
88	Good	Residential	Residential	None	Good	Good	Vertical curb, paved shoulder
89	Good	Cotton field, residential, vacant		SB stop at Van Buren Street	Poor	None	Dirt/gravel
90	Good	Residential, model homes	Golf cart crossing	NB stop at Van Buren Street, SB stop at Coldwater Springs Blvd.	Good	Good	Vertical curb
91	Good	Vacant, golf course, school, park	(permanent or portable), 2 golf cart crossing - each signed and each with brick crosswalk	EB and WB stop at Fairway	Good	Good	Vertical curb -both sides
92	Good	Residential	Coldwater Springs Blvd is collector to east but transitions into residential area at east of 125th Avenue		Good	Good	Vertical curb -both sides
93	Good	Vacant, golf course, residential	Group mailboxes	NB stop at Van Buren Street, SB stop at Coldwater Springs Blvd.	Good	Good	Vertical curb -both sides
94	Good	School, vacant	Portable 15 mph signs in school zone - Not a through street	NB stop at Coldwater Springs Blvd.	Good	Good	Vertical curb
95	Fair	Vacant, residential		NB stop at Durango Street	Good	Good	Vertical curb
96	Good	Residential, park	Bus stop both sides	SB stop at Durango, Signal at Buckeye, 4-way stop at 4th Avenue NB stop at Buckeye Road	Good	None	Rolled curb
97	Fair	Vacant, residential		SB stop at Lower Buckeye, NB stop at Whyman Avenue	Good	Good	Vertical curb
98	Fair	Vacant, residential	Homes begin facing street at Overlin just before Chase, playground at Overlin	SB stop at Whyman Avenue	Good	Good	Vertical curb
99	Good	Residential	Bus stop north side	SB stop at Durango Street, Signal at Buckeye, 4-Way stop at 4th Street and Pima Street	Good	Good	Vertical Curb
100	Good	Residential	*TWLTL very (unusually) wide, run-off/drainage dip	SB stop at Durango , NB stop at Buckeye (SR-85)	NB 1/2 good SB 1/2 fair	Good	Vertical curb
101	Good	Residential	Group mailboxes, a few homes face street	WB stop at 115th venue, SB stop at Durango Street	Good	None	Vertical curb
102	Good	Residential	NO SPECIAL SCHOOL SPEED SIGNS (temporary or permanent)	WB stop at 111th, EB stop at 107th	Good	None	Rolled curb
103	Good	Residential		WB stop at 113th Avenue, EB stop at 111th Avenue	Good/fair	None	Rolled curb
104	Good	Residential	Homes face street	Stop at 107th Avenue	Good	Good	Vertical curb on south side, intermittent rolled curb on north
105	Good	Residential, park		WB stop at 115th Avenue	Good	Good	Vertical curb
106	Good	Residential, agricultural		WB stop at El Mirage Road	Good	Good	Vertical curb - north side; paved, dirt/gravel - south side
107	Fair	Park	Pedestrian path terminus, 90 degree curve to Durango	None	Good	Good	Vertical curb
108	Good	Residential, vacant		NB stop at Buckeye Road	Good	Good	Vertical curb on west side, dirt/gravel on east side
109	Fair	Residential		4-way stop at 127th Avenue	None	None	Dirt/gravel
110	Good	Residential		4-way stop at 127th Avenue, E/W stop at 125th Avenue	Fair	None	Rolled curb W of 125th Avenue, dirt/gravel E of 125th Avenue

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMPS
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
87	Good	Yes	Prohibited		Minimal	No		Meandering		Yes		No
88	Good	Yes	Prohibited		Minimal	No		Meandering		Yes		No
89	Fair	None	No restrictions		Minimal	No		No		No		No
90	Good	Yes	No Restrictions		Minimal	No		Yes		Yes		No
91	Good	Yes	Prohibited		Minimal	No		Meandering		Yes		No
92	Good	Yes	No restrictions		Minimal	Yes		No		No		No
93	Good	Yes	No restrictions		Minimal	Yes		No		No		No
94	Good	Yes	Prohibited north of school driveway - NP south of school driveway		Low (school)	No		No	Meand	Yes - north of school driveway		No
95	Good	Yes	Prohibited		Minimal	No		Meandering		Yes		No
96	Fair	Yes	Prohibited		Minimal	Yes		No		No		No
97	Good	Yes	Prohibited		Minimal	Yes		No		Yes		No
98	Good	Yes	Prohibited		Minimal	Yes		No		Yes		No
99	Fair	Yes	No Restrictions		Minimal	No	Yes	Yes	No	No		No
100	Good	Yes	Prohibited		Minimal	Yes	No	No		Yes		No
101	Good	Yes	No Restrictions		Minimal	Yes		No		No		No
102	Good	Yes	No Restrictions		Minimal	Yes		No		No		No
103	Fair	Yes	No Restrictions		Minimal	Yes		No		No		No
104	Good	Yes	No Restrictions north side, prohibited south side		Minimal	North side		Meandering south side		Yes - south side onlt		No
105	Good	Yes	Prohibited		Minimal	No		Meandering		Yes		No
106	Good	Yes	No Restrictions		Minimal	No		No	Yes	No		No
107	Good	Yes	Prohibited		Minimal	No		Meandering		Yes		No
108	Good	Yes	No Restrictions	Prohibited	Minimal	No		Meand	No	No		No
109	Fair	Yes	No Restrictions		Minimal	No		No		No		No
110	Fair	Yes	No Restrictions		Minimal	No		No		No		No

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE?	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
111	La Jolla Blvd.	La Canada Blvd.	Van Buren Street	Collector	1,584	0.30	25	25	1	1	None	Wide	High	No	Level, straight		
112	Riley Drive	Dysart Road	east to the end of the street	Collector	2,112	0.40	NP	25	1	1	None	Extra Wide	Low	No	Level, straight		
113	Riley Drive	Dysart Road	Fourth Street	Collector	1,056	0.20	25	25	1	1	None	Extra wide	High	No	Level, straight		
114	Fourth Street	Madden Drive	Ludlow Drive	Collector	644	0.12	Not Posted		1	1	None	Wide	High	No	curves, curve at Ludlow		
115	Fourth Street	Ludlow Drive	Gardenia Drive	Collector	2,112	0.40	25	NP	1	1	None	Wide	High	No	Level, horizontal curves		
116	Fourth Street	Gardenia Drive	Van Buren Street	Collector	1,848	0.35	25	NP	1	1	None	Wide	High	No	Level, curve at Gardenia		
117	Fourth Street	Western Avenue	MC 85 / Main Street	Collector	1,320	0.25	25	25	1	1	None	Wide	High	No	Level, straight		
118	Fourth Street	MC 85 / Main Street	Lower Buckeye Road	Collector	1,320	0.25	25	25	1	1	None	Extra Wide	High	No	Level, straight		
119	La Canada Blvd.	Central Avenue	Fourth Street	Collector	1,320	0.25	25	25	1	1	None	Wide	High	Yes	Level, straight		
120	La Canada Blvd.	La Jolla	Central Avenue	Collector	1,320	0.25	25	25	1	1	None	Wide	Low	No	Level, straight		
121	Eliseo Felix Way	Van Buren Street	north to the end of the the street	Collector	1,320	0.25	Not Posted		1	1	None	Narrow	Medium	No	Level, straight		
122	Eliseo Felix Way	Van Buren Street	south to the end of the cul-de-sac	Collector	2,640	0.50	Not Posted		1	1	None	Wide	Low	No	Level, straight		
123	Eliseo Felix Way	Western Avenue	Riley Drive	Collector	1,056	0.20	NP	25	1	1	None	~12'	~12'	Park Only	No	Level, straight	
124	Harrison Drive	Fourth Street	Seventh Street	Collector	1,320	0.25	25	25	1	1	None	Wide	Medium	No	Level, straight		
125	Harrison Drive	Fourth Street	Central Avenue	Collector	1,584	0.30	25	25	1	1	None	3 lane width	Low	No	Level, straight		
126	Seventh Street	MC 85 / Main Street	Harrison Drive	Collector	2,112	0.40	25	25	1	1	None	Wide	High	No	Level, straight		
127	Western Avenue	Dysart Road	east to the end of the street	Collector	1,056	0.20	25	25	1	1	None	Extra Wide	Low	No	Level, Slight Curve		
128	Third Avenue	Western Avenue	south to the end of the cul-de-sac	Collector	2,640	0.50	25	25	1	1	None	Extra wide	Low	Yes	Level, straight		

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
111	Good	High School, Junior High School, City Hall, commercial, and a few homes		NB stop at Van Buren	Fair	Good	Vertical Curb
112	Good	Vacant, business		Signal at Dysart	Good	Good	Vertical curb
113	Good	High School and residential	School crosswalk	3-way stop at 5th, WB stop at 4th	Good	Fair	Vertical Curb
114	Good	Residential	Group mailboxes	SB stop at Madden, NB stop at Ludlow	Fair	None	Vertical Curb
115	Good	Residential		NB stop at Gardenia	Fair	None	Vertical Curb
116	Curve at Gardenia causes obstruction	Vacant, businesses		Stop at Van Buren	Good	Good	Vertical Curb
117	Good	Residential, Boys and Girls Club	Railroad crossing with gates and flashing lights	Signal at Main	Fair	Poor	Vertical curb
118	Good	Residential, business		N/S 2-way stop at Lower Buckeye, Signal at Buckeye	Fair	Poor	Vertical curb
119	Good	School, residential (homes facing)		All-way at La Jolla	Good	None	Vertical Curb
120	Good	Vacant, church	Portable school signs, school crossing	E/W stop at Central	Good	None	Vertical Curb
121	Good	Vacant, commercial	Dead ends into ADOT maintenance yard, MVD and Family Health Center have access off of Eliseo Felix	SB stop at Van Buren Street	Fair	None	Vertical curb - SB, gravel - NB
122	Good	Vacant, commercial	Dead end	NB stop at Van Buren Street	Good	None	Vertical curb
123	Good	Park only	Road closure gate for Eliseo Felix at Western and Riley, park access	SB stop at Western, NB stop at Riley	Good	Good	Vertical curb
124	Good	Residential		WB stop at 4th Street	Poor	None	Vertical Curb
125	Good	Residential	"No Truck Parking" sign, narrow street 2nd street to Central Avenue - no parking	WB stop at 4th Street, EB stop at Central Avenue	Fair	None	Vertical Curb
126	Good	Residential	"No Truck Parking" sign	NB stop at Main Street	Fair	None	Vertical Curb
127	Good	Towing Business, Vacant	Towing business with lots of on-street parking, railroad tracks on south side of street	WB stop at Dysart, SB stop at Eliseo Felix Way	Good	Good	Vertical curb
128	Good	Residential	School crosswalks, portable 15 mph school signs, bus loading/unloading, bus stop	NB stop at Central	Fair	None	Vertical Curb

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMPS
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
111	Good	None	No restrictions		Minimal	Yes		No		No		No
112	Good	Yes	No Restrictions		Minimal	Yes	No	No		No		No
113	Good	Yes	South side-no restrictions, north side-Prohibited during school		Minimal	Yes		No		No		No
114	None	Yes	No restrictions		Minimal	Yes		No		No		No
115	Good	Yes	No restrictions		Minimal	Yes		No		No		No
116	Good	Yes	No restrictions		Minimal	No	Yes	No		No		No
117	Good	None	No Restrictions		Minimal	No	Yes	No		No		No
118	Good	Yes	West side-Parallel, east side-some 90 degrees		Minimal	Yes		No		No		No
119	Good	None	No restrictions		Minimal	Yes		No		No		No
120	Good	Yes	No restrictions		Minimal	Yes		No		No		No
121	Good	Yes	No Restrictions		Minimal	No	Small section	No		No		No
122	Good	None	No Restrictions		Minimal	Yes	Yes	No		No		No
123	Good	Yes	Prohibited		Minimal	Small Section		No		No		No
124	Good	Yes	No restrictions		Minimal	Yes		No		No		No
125	Good	Intermittent	No restrictions		Minimal	No		No		No		No
126	Good	Yes	No restrictions		Minimal	Yes		No		No		No
127	Good	Yes	No Restrictions		Minimal	Yes	No	No		No		No
128	Good	Yes	No restrictions	Prohibited in sections	Minimal	North of Rhodes	Yes	No		No		No

APPENDIX F

INVENTORY FOR ARTERIAL STREET SEGMENTS

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
1	99th Avenue	Van Buren	I-10	Arterial	4,000	0.76	Under Const	Under Const	UC, multiple	UC, multiple	TWLTL		~12	~12	Medium	No	Level, straight
2	99th Avenue	I-10	McDowell Road	Arterial	1,280	0.24	Not Posted		3	3	Raised		~12'	~12'	Low	No	Level, straight
3	99th Avenue	McDowell Road	Thomas Road	Arterial	5,280	1.00	Under Const	50	2	2	None		~12'	~12'	Low	No	Level, straight
4	99th Avenue	Thomas Road	Indian School Road	Arterial	5,280	1.00	50	50	2	2	None		~12'	~12'	Low	No	Level, straight
5	107th Avenue	Indian School Road	RID Canal	Arterial	2,800	0.53	35	35	1, 2	1, 2	TWLTL		~12'	~12'	Medium	No	Level, straight
6	107th Avenue	I-10	Van Buren Street	Arterial	4,000	0.76	45	50	1	1	North end: raised by TI, Middle: TWLTL, South end: None		12'	12'	Low	No	Level, straight
7	107th Avenue	Van Buren Street	Buckeye Road	Arterial	5,280	1.00	NP	45	1	1	None - flare for left turn		12'	12'	Low	No	Level, straight
8	107th Avenue	Buckeye Road	Lower Buckeye Road	Arterial	5,280	1.00	Not Posted		1	1	None		12'	12'	Low	Yes	Level, straight
9	107th Avenue	Lower Buckeye Road	Broadway Road	Arterial	5,280	1.00	45	NP	1	1	None		12'	12'	Low	No	Vertical curves, level
10	107th Avenue	Broadway Road	Southern Avenue	Arterial	5,280	1.00	45	45	1	1	None		12'	12'	Low	No	Vertical curves, level
11	115th Avenue	Thomas Road	McDowell Road	Arterial	5,280	1.00	45	45	1	1	None		11-12'	11-12'	None	No	Level, straight
12	115th Avenue	McDowell Road	I-10	Arterial	3,500	0.66	50	50	1	1	None*		12'	12'	Low	No	Level, straight
13	115th Avenue	Van Buren Street	I-10	Arterial	1,780	0.34	50	50	1	1	None		12'	12'	Low	No	Level, straight
14	115th Avenue	Buckeye Road	Van Buren Street	Arterial	5,280	1.00	NP	50	1	1	None		12'	12'	Low	No	Large vert curve, straight
15	115th Avenue	Lower Buckeye Road	Buckeye Road	Arterial	5,280	1.00	50/40	50/40	2	2	None - except TWLTL N of School		12'	12'	Low	No	Level, straight
16	115th Avenue	Lower Buckeye Road	Broadway	Arterial	5,280	1.00	50	50	2	2	None		12'	12'	Low	No	Level, straight
17	115th Avenue	Broadway	Southern Avenue	Arterial	5,280	1.00	50	50	2	2	None		12'	12'	Low	No	Level, straight
18	115th Avenue	Southern Avenue	River	Arterial	4,200	0.80	NP	40	2	2	None		12'	12'	Low	No	Level, straight
19	El Mirage Road	Buckeye Road	Lower Buckeye Road	Arterial	5,280	1.00	50	50	1	1	TWLTL/None		12'	12'	Low	No	Slight vertical curve, straight
20	El Mirage Road	Lower Buckeye Road	Broadway	Arterial	5,280	1.00	50	50	1	1	None		13'	13'	Low	No	Level, straight

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
1	Good	Vacant, commercial	Under construction	Signal at I-10, Signal at Driveway, Signal at Van Buren	Under Construction	Under Construction	Vertical curb-SB, under const-NB
2	Good	Vacant	6-lane section from I-10 to McDowell	Signal at McDowell, Signal at I-10	Good	Good	Under construction
3	Good	Cemetery (SWC Thomas & 99th), vacant	Recommend 45 mph, there is a warning sign for school bus stop with with 45 mph Advisory Speed Plate, area is currently rural but will probably develop soon, irrigation channel-west side (~10'-15' clearance)	Signal at Thomas, Signal at McDowell	Good	Good	Gravel
4	Good	Vacant	Recommend 45 mph, There is a warning sign for school bus stop with with 45 mph Advisory Speed Plate, area is currently rural but will probably develop soon, speed posted at 50 mph north of Indian School, irrigation channel-west side (~10'-15' clearance)	Signal at Indian School, Signal at Thomas	Good	Good	Gravel
5	Good	Subdivisions, schools, commercial	There are no school warning signs on 107th Avenue for possible ped crossings, 35 mph posted speed appropriate due to school	Signal at Indian School, Signal at Garden Lakes	Good	Good	NB-1/2 gravel, 1/2 vert curb SB-vertical curb
6	Good	Agricultural, vacant	Irrigation channel west side (~10-12' clearance)	NB signal at I-10, SB stop at Van Buren Street	Good	Fair	Dirt/gravel, minimal paved
7	Good	Agricultural, industrial	Irrigation channel west side (~10'-12' clearance); construction zone w/in section - W2TC signing 40/35/25mph at MC-85, railroad crossing with gates and flashing lights	NB stop at Van Buren Street, signal at MC-85/Buckeye Road	Fair	Fair	Dirt/ gravel
8	Good	Agricultural, school, residential	turn lane to school (Underdown Jr. High); inconsistent road width; irrigation channel west side (few feet of clearance)	Signal at Buckeye Road/MC-85, SB stop (4-way) at Lower Buckeye Road	Fair/Poor	Poor	NB - dirt/gravel, SB - Vertical curb in front of school only
9	Good	Vacant, residential, agricultural, dairy	Irrigation channel on west side (~3' clearance), intermittent irrigation channel on east side (~10'-12' clearance), city jurisdiction is west half street only	4-way stop at Lower Buckeye Road, 4-way stop at Broadway Road	Poor	Poor	Dirt/gravel
10	Fair	Dairy, residential	* Pavement condition poor south of dairy. Street widens SB at Roeser. City jurisdiction is west half street only.	4-way stop at Broadway Road, 4-way stop at Southern Avenue	Fair/ poor*	Fair	Dirt, minimal paved
11	Good	Vacant, new subdivisions	Ditch east side of street, intermittent additional pvmt at new subdivisions, recommend 40 mph	Signal at McDowell, All-way at Thomas	Fair	Good (center & edge)	Gravel, narrow
12	Good	Agricultural, residential	4-lanes at I-10 and raised median	4-way stop at Van Buren Street, signal at McDowell Road, no signal at I-10	Fair	Good	Paved and dirt/gravel
13	Good	Agricultural, commercial, residential	Recommend lowering posted speed to 45 mph	4-way stop at Van Buren Street	Fair/Poor	Fair	Dirt/gravel
14	Good	Agricultural	Railroad crossing with gates and flashing lights - large vertical curve over Buckeye Road	Signal at Buckeye Road, NB stop at Van Buren Street	Fair/Poor	Fair/Poor	Dirt/gravel
15	Good	Agricultural, vacant, high school, residential	At High School - no speed reduction, no crosswalk At Littleton Elem. School - SW corner of Buckeye Road and 115th Avenue: well signed for school crossing NB/SB; painted school crosswalk, posted speed is 40 mph south of Buckeye near the school, recommend lowering the speed where it is currently 50 mph due to future development	SB stop at Lower Buckeye Road, Signal at Buckeye Road	Fair	Poor	Dirt & gravel/paved SB, N of school. Vertical curb NB, S of Buckeye adjacent to new development
16	Good	Agricultural, residential	Street segment is in county jurisdiction.	4-way stop at Lower Buckeye Road	Fair	Good	Dirt/gravel
17	Good	Agricultural, residential	Street segment is in county jurisdiction.	None	Fair	Good	Dirt/gravel
18	Good	Agricultural, residential		4-way stop at Southern Avenue	Fair	Good	Dirt/gravel
19	Good	Agricultural, residential	posted speed of 50 mph too high	NB stop at Buckeye Road, SB stop at Lower Buckeye Road	Fair	Good	Paved and dirt/gravel, vertical curb in front of comm.
20	Good	Vacant, agricultural, residential	City jurisdiction is from Lower Buckeye Road to Illini Street.	N/S stop at Lower Buckeye	Fair	Fair	Dirt/gravel

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMPS
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
1	Under construction	Yes	Prohibited		Minimal	Yes	No	No		No		No
2	Under construction	Yes	Prohibited		Minimal	No		No		No		No
3	Good, (Old trailblazing sign tipped over)	None	Prohibited		Minimal	No		No		No		No
4	Good, (graffiti on one sign)	None	Prohibited		Minimal	No		No		No		No
5	Good	Yes	Prohibited		Minimal	Yes	No	No	Yes	No		No
6	Good	None	Prohibited NB, No restrictions SB		Minimal	No		No		No		No
7	Good	None	No Restrictions		Minimal	No		No		No		No
8	Good	In front of school only	Only prohibited in front of school NB/SB		Minimal	No		Meandering SB in front of school		No		No
9	Fair	None	No Restrictions		Minimal	No		No		No		No
10	Good	None	No Restrictions		Minimal	No		No		No		No
11	Good	Intermittent	Prohibited		Minimal	No		No		No		No
12	Good	None	No Restrictions		Minimal	No		No		No		No
13	Good	None	Intermittent Restrictions		Minimal	No		No		No		No
14	Good	None	No Restrictions		Minimal	No		No		No		No
15	Good NB, School crossing sign missing SB	Intermittent	No restrictions except SB in front of high school, and SB in front of Elem. school		Low/moderate	No		Meandering - in front of school only		No		No
16	Good	None	No Restrictions		Minimal	No		No		No		No
17	Good	None	No Restrictions		Minimal	No		No		No		No
18	Good	None	No Restrictions		Minimal	No		No		No		No
19	Good	Intermittent	No Restrictions		Minimal	No		Meandering adjacent to development		No		No
20	Good	None	No Restrictions		Minimal	No		No		No		No

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
21	El Mirage Road	Broadway	Southern Avenue	Arterial	5,280	1.00	50	50	1	1	None	12'	12'	High	No	Level, straight	
22	El Mirage Road	Southern Avenue	Holly Acres Levee	Arterial	2,900	0.55	40	40	1	1	None	12'	12'	Low	No	Level, straight	
23	El Mirage Road (123rd Ave.)	Indian Springs Road	north to the city boundary	Arterial	680	0.13	NP	40	1	1	None	12'	12'	None	No	Large vertical curves, multiple vertical curves	
24	127th Avenue	Lower Buckeye Road	south to the pavement end	Arterial	1,320	0.25	45	45	1	1	None	12'	12'	Low	No	Horizontal curves, south end	
25	Vermeersch Avenue	127th Avenue	south to the city boundary	Arterial	4,246	0.80	45	45	1	1	None	12'	12'	Low	No	Horizontal curves, south end	
26	Dysart Road	Indian School Road	Thomas Road	Arterial	5,280	1.00	50/45	50	2	2	Raised	12'	12'	Low	No	Level, straight	
27	Dysart Road	Thomas Road	McDowell Road	Arterial	5,280	1.00	50/45	50	3	3	Raised	12'	12'	None	No	Level, straight	
28	Dysart Road	McDowell Road	ADOT / I-10 right-of-way	Arterial	1,844	0.35	45	45	3	3	Raised	12'	12'	High	No	Level, straight	
29	Dysart Road	ADOT / I-10 right-of-way	Van Buren Street	Arterial	2,372	0.45	45	45	3	3/2*	Raised	12'	12'	High	No	Level, straight	
30	Dysart Road	Van Buren Street	MC 85 /Main Street	Arterial	5,012	0.95	45/35*	45/35*	2	2	TWLTL	~12'	~12'	High	No	Level, straight	
31	Central Avenue	Western Avenue	Van Buren Street	Arterial	4,752	0.90	35	35	2	2	TWLTL	~12'	~12'	Medium	Yes	Level, straight	
32	Central Avenue	Western Avenue	MC 85 /Main Street	Arterial	2,112	0.40	35	35	1	1	TWLTL	Wide		High	No	Level, straight	
33	Central Avenue	Main Street	Lower Buckeye Road	Arterial	3,300	0.63	NP	25	1	1	None	Wide		High	No	Level, straight	
34	Indian School Road	99th Avenue	107th Avenue	Arterial	5,280	1.00	Under Const	Under Const	2	2	None	~12'	~12'	High	No	Level, straight	
35	Indian School Road	107th Avenue	Agua Fria River	Arterial	8,100	1.53	45	45	2	2	TWLTL	~12'	~12'	Low	No	Level, straight	
36	Indian School Road	Agua Fria River	Dysart Road	Arterial	7,740	1.47	45	45	2	2	TWLTL	~12'	~12'	Medium	No	Level, straight	
37	Thomas Road	99th Avenue	RID Canal	Arterial	2,112	0.40	45	45	1	1	None	Wide some areas	~12'	Low	No	Level, straight	
38	Thomas Road	RID Canal	107th Avenue	Arterial	3,168	0.60	Not Posted		1	1	None	~12'	~12'	Low	No	Level, straight	
39	Thomas Road	107th Avenue	115th Avenue	Arterial	5,280	1.00	45	45	1	1	TWLTL	~12'	~12'	Low	No	Level, straight	
40	Thomas Road	Dysart Road	west to the end of city boundary	Arterial	1,316	0.25	35/40	40	2	2	TWLTL	12'	12'	Low (only at school)	Yes	Level, straight	
41	McDowell Road	99th Avenue	107th Avenue	Arterial	5,280	1.00	Under Const	Under Const	1,2	2	TWLTL except at 107th	~12'	~12'	Low	No	Level, straight	
42	McDowell Road	107th Avenue	115th Avenue	Arterial	5,280	1.00	45	45	2	2	None	~12'	~12'	Low	No	Level, straight	
43	McDowell Road	115th Avenue	Rancho Santa Fe Trail	Arterial	8,448	1.60	45	45	2	2	None	~12'	~12'	Low	No	Level, straight	

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
21	Good	Agricultural, residential	Street segment is in county jurisdiction.	N/S stop at Southern Avenue	Good	Good	Paved and dirt/gravel
22	Good	Agricultural	Street segment is in county jurisdiction.	N/S stop at Southern Avenue	Fair	Good	Paved and dirt/gravel
23	Poor	Gila River crossing, vacant land, estuary	PIR at south end	SB stop at Indian Springs Road	Fair/poor	Fair	Paved, dirt/gravel, inconsistent width
24	Poor	Vacant, residential, waste water plant		WB stop at Broadway, NB stop at 127th Avenue	Poor	Fair	Dirt/gravel
25	Poor	Vacant, residential, waste water plant		WB stop at Broadway, NB stop at 127th Avenue	Poor	Fair	Dirt/gravel
26	Good	Vacant, church, residential, Estrella Mountain Community College	Bus stop SB on Dysart Rd-south of Indian School Rd, vehicles travelling approx 45 mph, posted speed of 50 mph seems too high	Signal at Dysart Rd./ Indian School	Good	Good	Vertical curb east side - 4' paved & dirt/gravel west
27	Good	Residential, commercial	Bus stop SB on Dysart Rd-south of Thomas Rd, vehicles travelling approx 45 mph, posted speed of 50 mph seems too high	Signal at Thomas and Encanto	Good	Good	Vertical curb both sides
28	Good	Commercial		Signals at McDowell/I-10 and McDowell/Rancho Santa Fe	Good	Good	Vertical curb both sides
29	Good	I-10 interchange on north end, commercial		Signals at I-10 interchange, and Coldwater Plaza. 4-way stop at Van Buren	Good/fair	Good	Vertical curb both sides
30	Good	Vacant, commercial	Railroad crossing with gates and flashing lights, 35 mph speed limit is south of Riley	Signal at Van Buren, Signal at Riley	Fair	Good	Vertical curb
31	Good	Residential, businesses	School Zone and School Crossings at Junior High School, portable school zone signing for 15 mph, crosswalk at City Hall	Signal at Van Buren, All-way stop at La Canada	Good	Good	Vertical curb
32	Good	Elementary school	Railroad crossing with gates and flashing lights, school crosswalk, elementary school	Signal at Western	Good	None	Vertical curb
33	Good	Residential (homes face street)	Observed 'Meals on Wheels' route, bicyclists, *segment needs attention regarding speed	Signal at Main, 2-way stop at Lower Buckeye	Good	Good	Vertical curb
34	Good	Some commercial, vacant	Striping poor at 103rd, 103rd to 99th-intermittent vert curb, urban and high density, 40 mph appropriate, irrigation channel-south side (~12'-15' clearance)	Int'n Under Const at 99th, Signal @ 130th	Varies	Varies	Intermittent vertical curb
35	Good	Commercial at 107th	Vehicles travel at higher speeds in vicinity of bridge where there is no development, irrigation channel protected by vertical curb on north side (~10'-20' behind curb)	Signal at 107th, Signal at 111th	Good	Good	Vertical curb
36	Good	Vacant, water treatment plant, commercial	Vehicles travel at higher speeds in vicinity of bridge where there is no development	Signal at Dysart Rd.	Good	Good	Vertical Curb - north side, dirt/gravel - south side
37	Good	Vacant	street constructed wide, 45 mph seems appropriate	at 99th (single WBT/R lane & WBL)	Good	Good	Some vertical curb-south side, gravel-north side
38	Good	Vacant, homes on other side of canal	Observed several school buses, 45 mph seems appropriate, irrigation channel on north side	All-way at 107th	Good	Good	Gravel
39	Good	Subdivisions	Half street section, vacant east of 115th, 45 mph seems appropriate	All-way at 115th	Good	Good	Vertical curb
40	Good	Vacant north, residential & school		Signals at Dysart Rd and Litchfield Rd (City boundary)	Good	Good	Vertical curb both sides
41	Good	Vacant, apartments, commercial	45 mph seems appropriate, irrigation channel south side from 101st to 107th (10'-12' clearance)	Future signal at 103rd, All-way at 107th	Fair	Good	North side-curb, south side-none
42	Good	Vacant, subdivision, commercial	Irrigation channel south side (10'-12' clearance except only few feet clearance in front of John Deere business)	Future signal at 115th	Good	Good	North side-curb, south side-none
43	Good	Vacant, apartments	Sidewalk, curb and lighting in front of apartment complex, Palm Meadows, vehicles travel at higher speeds in vicinity of bridge	Signals at 115th and Dysart	Good	Good	Gravel

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMP
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
21	Good	None	No Restrictions		Minimal	No		No		No		No
22	Good	None	No Restrictions		Minimal	No		No		No		No
23	Excellent	None	Prohibited		Minimal	No		No		No		Dips
24	Fair	None	No Restrictions		Minimal	No		No		No		No
25	Fair	None	No Restrictions		Minimal	No		No		No		No
26	Good	Yes	Prohibited		Minimal	No		Meandering at half street		Not signed		No
27	Good	Yes	Prohibited		Minimal	No		Meandering		No		No
28	Good	Yes	Prohibited		Minimal	No		Meandering		Yes		No
29	Good	Yes	Prohibited		Minimal	Intermittent southbound		Meand. NB Van Buren to Coldwater Springs		No		No
30	Good	Yes	Prohibited		Minimal	Intermittent	Yes	No		No		No
31	Good	Yes	Prohibited		Minimal	Yes		No		No		No
32	Good	Yes	Prohibited		Minimal	Yes		No		No		No
33	Good	Yes	Prohibited		Medium (observed bicyclists)	Yes		No		No		No
34	Good	None	Prohibited		Minimal	No		In front of new development		No		No
35	Good	Yes	Prohibited		Minimal	No		Yes		No		No
36	Good	Near 127th Avenue	Prohibited		Minimal	No		Meandering		No		No
37	Good	Yes	Prohibited		Minimal	Meandering on south side, none on north side						No
38	Good	None	Prohibited		Minimal	No		No		No		No
39	Good	Yes	Prohibited		Minimal	No		Meandering		Yes		No
40	Good	Yes	Prohibited		Low (school)	No		Meand	No	No		No
41	Good	Yes	Prohibited		Minimal	No		North side only-Meandering		No		No
42	Good	Yes	Prohibited		Minimal	No		Meandering near new dev't		No		No
43	Good	None except for in front of apts	Prohibited		Minimal	No		No		No		No

AVONDALE SPEED LIMIT SURVEY 2002

#	STREET / LOCATION	FROM	TO	STREET TYPE (RESIDENTIAL, COLLECTOR, ARTERIAL)	LN. FEET	LN. MILES	POSTED SPEED LIMIT		VEHICLE LANES		MEDIAN TYPE (NONE, RAISED, TWLTL)		LANE WIDTHS		DRIVEWAY DENSITY	SCHOOL ZONE	ROADWAY ALIGNMENT OBSERVATIONS (GRADE, CURVES)
							NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
44	McDowell Road	Dysart Road	Rancho Santa Fe Trail	Arterial	1,800	0.34	45	45	2	2	Raised	~12'	~12'	High	No	Level, straight	
45	Van Buren Street	107th Avenue	99th Avenue	Arterial	5,280	1.00	50	NP	1	1	None	12'	12'	Low	No	Level, straight	
46	Van Buren Street	115th Avenue	111th Avenue	Arterial	2,640	0.50	50	50	1	1	None	12'	12'	Medium	No	Level, straight	
47	Van Buren Street	115th Avenue	west to the bridge	Arterial	6,336	1.20	45	45	1	1	None	12'	12'	Low	No	Level, straight	
48	Van Buren Street	west end of the bridge	Dysart Road	Arterial	3,168	0.60	40	40	2	2	TWLTL	12'	12'	Low	No	Straight, vertical curve	
49	Van Buren Street	Dysart Road	La Jolla Boulevard	Arterial	3,911	0.74	40	NP	2	2	TWLTL	12'	12'	Medium	No	Level, straight	
50	Western Avenue	Fourth Avenue	Central Avenue	Arterial	1,584	0.30	25	25	2	2	TWLTL	12'	12'	High	Yes	None	
51	Western Avenue	Central Avenue	Dysart Road	Arterial	2,112	0.40	25	25	1	1	None	12'	12'	High	No	None	
52	MC 85 / Main Street	Litchfield Road	Central Avenue	Arterial	3,100	0.59	NP	40	2	2	TWLTL	12'	12'	Low	No	Level, straight	
53	MC 85 / Main Street	Central Avenue	west end of bridge	Arterial	5,700	1.08	40	40	2	2	TWLTL	12'	12'	High	No	Level, straight Straight, horizontal curve	
54	Buckeye Road	west end of bridge	El Mirage Road	Arterial	2,600	0.49	55	55	2	2	TWLTL	12'	12'	Medium	No		
55	Buckeye Road	107th Avenue	115th Avenue	Arterial	5,280	1.00	45	45/55*	2	2	TWLTL	12'	12'	Medium	No	Level, straight	
56	Buckeye Road	El Mirage Road	115th Avenue	Arterial	5,280	1.00	55	NP	2*	2	TWLTL	12'	12'	Low	No**	Level, straight	
57	Lower Buckeye Road	Litchfield Road	Fourth Street	Arterial	4,000	0.76	45	45	1	1,2	None	12'	12'	Low	No	Level, straight	
58	Lower Buckeye Road	Fourth Street	El Mirage Road	Arterial	6,500	1.23	45*	45*	1	1	None	12'	12'	Low	No	Slight vertical curve at bridge	
59	Lower Buckeye Road	El Mirage Road	115th Avenue	Arterial	5,280	1.00	45	45	1	1	None	12'	12'	Low	No	Level, Straight	
60	Lower Buckeye Road	115th Avenue	107th Avenue	Arterial	5,280	1.00	45	45	1	1	None	12'	12'	Low	No	Slight horizontal curves, level	
61	Southern Avenue	107th Avenue	115th Avenue	Arterial	5,280	1.00	Not Posted		1	1	None	12'	12'	High	No	Level, straight	
62	Indian Springs Road	El Mirage Road (123rd Ave.)	west one mile	Arterial	5,280	1.00	55	55	1	1	None	12'	12'	None	No	Vertical curves	

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGHT DISTANCE OBSERVATIONS	DESCRIPTION OF ROADSIDE DEVELOPMENT AND ENVIRONMENT	ADDITIONAL REMARKS	TRAFFIC CONTROLS DESCRIPTION	PAVEMENT CONDITION	STRIPING CONDITION	TYPE OF SHOULDER (CURB, PAVED, GRASS) AND CONDITION
44	Good	Commercial at Dysart	45 mph seems appropriate	Signal at Dysart Road	Good	Good	Vertical curb
45	Good	Agricultural, residential	Under construction just west of 99th Avenue (improvements to north side)	4-way stop at 107th	Fair	Good	Paved and dirt/gravel
46	Good	Agricultural, commercial	Agricultural north side, commercial south side (warehouse/distribution)	4-way stop at 115th Avenue	Fair	Fair	Paved and dirt/gravel, vertical curb north side in front of comm.
47	Good, up to bridge	Residential, golf course south, vacant north	Tractor traffic, poor sight distance over bridge	4-way stop at 115th Avenue	Fair	Good	Dirt/gravel north and south sides
48	Good, up to bridge	Commercial		Signal at Dysart Road	Good	Good	Vertical curb both sides
49	Good	Commercial, vacant		Signal At Litchfield Road, Dysart Road and Central Avenue	Good/Fair	Good	Intermittent vertical curb, dirt/gravel.
50	Fair	Elementary school, commercial	Drop-off in front of school, separate lane adjacent to street, school xing	Signal at Central	Good	Good	Vertical curb
51	Fair	Old town atmosphere	Old town, commercial, bus stops, ped xings. Good traffic calming (angle parking and medians)	Signal at Central, 2-way stop at Dysart	Good	Good	Vertical curb
52	Good	Commercial, train tracks	Bus stops	Signal at Litchfield Road, signal at Central	Good	Good	Vertical curb
53	Good	Commercial, park	55 mph speed limit traveling EB just before bridge, bus stops	Signal at Central	Good	Good	Vertical curb
54	Good	Vacant, train tracks, golf course	Train tracks on north side	Signal at Dysart , WB stop at El Mirage Road	Fair	Good	Dirt/gravel, some vertical curb on south side
55	Good	Commercial, vacant	Train tracks on north side, several business driveways between 111th and 115th, posted speed increases to 55 mph just east of signal at 115th, recommend that speed limit not be increased, there is a school off of 115th Avenue, area is mostly rural especially east of 111th where speed is posted 55 mph	Signal at 107th, 111th, and 115th Avenues	Good	Good	Vertical curb
56	Good	Residential, vacant	*Plus auxiliary third right turn lane, **School zone at 115th Avenue. No apparent crossing E/W	Northbound stop at 119th Avenue, signal at 115th Avenue	Fair	Good	Dirt/gravel
57	Good	Agricultural, residential, commercial	Lose 2nd WB lane, side walk and bike lane at new residential development	WB stop at Litchfield Road	Good	Good	development, dirt/gravel on south side
58	Good	Vacant, park	*35 mph west of El Mirage (35 mph appropriate due to vert curve and park), crosswalk at 125th Avenue w/playground and crossing sign, bus stops intermittent along segment, rural, minimal shoulder	4-way stop at El Mirage Road	Good	Good	Paved
59	Good	Agricultural, residential	rural, minimal shoulder	4-way stop at 115th Avenue	Good	Good	Paved
60	Good	Residential, new development	New half-street in at new development, rural, minimal shoulder except at new development	None	Fair	Fair	Paved and dirt/gravel
61	Good	Agricultural, residential	45 mph east of 107th Avenue, north half is city jurisdiction and south half is county jurisdiction	4-way stop at 115th Avenue	Fair	Fair	Paved and dirt/gravel
62	Fair	Estuary, PIR parking, vacant	PIR at east end	TWLTL @ El Mirage, none for remainder of section	Fair	Good/fair	Paved

AVONDALE SPEED LIMIT SURVEY 2002

#	SIGNING CONDITIONS	STREET LIGHTING	ON-STREET PARKING		PEDESTRIAN ACTIVITY	SIDEWALK ADJACENT TO CURB		SIDEWALK SETBACK FROM CURB		BICYCLE LANES		SPEED BUMP OR HUMPS
			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	
44	Good	Yes	Prohibited		Minimal	No		Yes		Yes		No
45	Good	None	No Restrictions		Minimal	No		No		No		No
46	Good	Yes	No Restrictions		Minimal	Yes	No	No		No		No
47	Good	Street lighting only to bridge	Prohibited	No Restrictions	Minimal	No		Meand	No	No		No
48	Good	Street lighting only to bridge	Prohibited		Minimal	Minimal	Yes	No		No		No
49	Good/signing old	Yes	No Restrictions	Prohibited	Minimal	In Front of Development		No		No		No
50	Good	Yes	No Restrictions		Minimal	No		Yes		No		No
51	Good	Yes	Angle		Minimal	No		Yes		No		No
52	Good	Yes	Prohibited		Minimal	Yes		No		No		No
53	Good	Yes	Prohibited		Minimal	Yes		No		No		No
54	Good	None	No Restrictions		Minimal	No		No		No		No
55	Good	Only on signal poles	No Restrictions		Minimal	No		No		No		No
56	Good	West of 119th Avenue	No Restrictions		Minimal	No		No		No		No
57	Good	Yes	No Restrictions		Minimal	Intermit.	No	No		Intermit	No	No
58	Good	None	No Restrictions		Minimal	No		No		No		No
59	Good	None	No Restrictions		Minimal	No		No		No		No
60	Good	None	No Restrictions		Minimal	No		No		No		No
61	Good	None	No Restrictions		Minimal	No		No		No		No
62	Good	None	No Restrictions		Minimal	No		No		No		No

APPENDIX G

PERTINENT EXCERPTS FROM AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREET

**A POLICY
on
GEOMETRIC DESIGN
of
HIGHWAYS
and
STREETS**

2001



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ISBN: 1-56051-156-7

right and encroach upon the shoulder. While such shoulder encroachments are undesirable, this does not warrant the elimination of the surfaced shoulder because of factors such as high-volume traffic and truck usage.

Shoulder Contrast

It is desirable that the color and texture of shoulders be different from those of the traveled way. This contrast serves to clearly define the traveled way at all times, particularly at night and during inclement weather, while discouraging the use of shoulders as additional through lanes. Bituminous, crushed stone, gravel, and turf shoulders all offer excellent contrast with concrete pavements. Satisfactory contrast with bituminous pavements is more difficult to achieve. Various types of stone aggregates and turf offer good contrast. Several states have attempted to achieve contrast by seal-coating shoulders with lighter color stone chips. Unfortunately, the color distinction may diminish in a few years. The use of edge lines as described in the *Manual on Uniform Traffic Control Devices (MUTCD)* (8) reduces the need for shoulder contrast. Edge lines should be applied where shoulder use by bicycles is expected. Some states have provided depressed rumble strips in the shoulder to provide an audible alert to the motorists that they have crossed over onto the shoulder. This is particularly effective at night and during inclement weather. However, care should be used if the shoulders are to be used by bicyclists.

Turnouts

It is not always economically practical to provide wide shoulders continuously along the highway, especially where the alignment passes through deep rock cuts or where other conditions limit the cross-section width. In such cases, consideration should be given to the use of intermittent sections of shoulder or turnouts along the highway. Such turnouts provide an area for emergency stops and also allow slower moving vehicles to pull out of the through lane to permit following vehicles to pass.

Proper design of turnouts should consider turnout length, including entry and exit tapers, turnout width, and the location of the turnout with respect to horizontal and vertical curves where sight distance is limited. Turnouts should be located so that approaching drivers have a clear view of the entire turnout in order to determine whether the turnout is available for use (9). Where bicycle traffic is expected, turnouts should be paved so bicyclists may move aside to allow faster traffic to pass.

HORIZONTAL CLEARANCE TO OBSTRUCTIONS

The term "clear zone" is used to designate the unobstructed, relatively flat area provided beyond the edge of the traveled way for the recovery of errant vehicles. The clear zone includes any shoulders or auxiliary lanes.

The AASHTO *Roadside Design Guide* (10) discusses clear zone widths as related to speed, volume, and embankment slope. The Guide may be used as a reference for determination of

clear-zone widths for freeways, rural arterials, and high-speed rural collectors. For low-speed rural collectors and rural local roads, a minimum clear-zone width of 3.0 m [10 ft] should be provided.

For urban arterials, collectors, and local streets where curbs are utilized, space for clear zones is generally restricted. A minimum offset distance of 500 mm [18 in] should be provided beyond the face of the curb, with wider offsets provided where practical. This "operational" offset will generally permit curbside parking and will not have a negative impact on traffic flow. However, since most curbs do not have a significant capability to redirect vehicles, a minimum clear zone distance commensurate with prevailing traffic volumes and vehicle speeds should be provided where practical.

CURBS

General Considerations

The type and location of curbs affects driver behavior and, in turn, the safety and utility of a highway. Curbs serve any or all of the following purposes: drainage control, roadway edge delineation, right-of-way reduction, aesthetics, delineation of pedestrian walkways, reduction of maintenance operations, and assistance in orderly roadside development. A curb, by definition, incorporates some raised or vertical element.

Curbs are used extensively on all types of low-speed urban highways. In the interest of safety, caution should be exercised in the use of curbs on high-speed rural highways. Where curbs are needed along high-speed rural highways due to drainage considerations, the need for access control, restricted right-of-way, or other reasons, they should always be located at the outside edge of the shoulder.

While cement concrete curbs are installed by some highway agencies, granite curbs are used where the local supply makes them economically competitive. Because of its durability, granite is preferred over cement concrete where deicing chemicals are used for snow and ice removal.

Conventional concrete or bituminous curbs offer little visible contrast to normal pavements, particularly during fog or at night when surfaces are wet. The visibility of channelizing islands with curbs and of continuous curbs along the edges of the traveled way may be improved through the use of reflectorized markers that are attached to the top of the curb.

In another form of high-visibility treatment, reflectorized paints or other reflectorized surfaces, such as applied thermoplastic, can make curbs more conspicuous. However, to be kept fully effective, reflectorized curbs need periodic cleaning or repainting, which usually involves substantial maintenance costs. Curb markings should be placed in accordance with the MUTCD (8).

Right-of-Way Width

The provision of right-of-way widths that accommodate construction, adequate drainage, and proper maintenance of a highway is a very important part of the overall design. Wide rights-of-way permit the construction of gentle slopes, resulting in greater safety for the motorist and providing for easier and more economical maintenance. The procurement of sufficient right-of-way at the time of the initial improvement permits the widening of the roadway and the widening and strengthening of the pavement at a reasonable cost as traffic volumes increase.

In developed areas, it may be desirable to limit the right-of-way width. However, the right-of-way width should not be less than that required for all the elements of the design cross sections, utility accommodation, and appropriate border areas.

Foreslopes

The maximum rate of foreslope depends on the stability of local soils as determined by soil investigation and local experience. Slopes should be as flat as practical, and other factors should be considered to determine the design slope. Flat foreslopes increase safety by providing a maneuver area in emergencies, are more stable than steep slopes, aid in the establishment of plant growth, and simplify maintenance work. Vehicles that leave the traveled way can often be kept under control if slopes are gentle and drainage ditches are well-rounded. Such recovery areas should be provided where terrain and right-of-way controls permit.

Combinations of rate and height of slope should provide for vehicle recovery. Where controlling conditions (such as high fills, right-of-way restrictions, or the presence of rocks, watercourses, or other roadside features) make this impractical, consideration should be given to the provision of guardrail, in which case the maximum rate of foreslope could be used.

Cut sections should be designed with adequate ditches. Preferably, the foreslope should not be steeper than 1V:2H, and the ditch bottom and slopes should be well-rounded. The backslope should not exceed the maximum required for stability.

Horizontal Clearance to Obstructions

A clear zone of 2 to 3 m [7 to 10 ft] or more from the edge of the traveled way, appropriately graded with relatively flat slopes and rounded cross-sectional design, is desirable. An exception may be made where guardrail protection is provided. The recovery area should be clear of all unyielding objects such as trees, sign supports, utility poles, light poles, and any other fixed objects that might severely damage an out-of-control vehicle.

To the extent practical, where another highway or railroad passes over, the structure should be designed so that the pier or abutment supports have lateral clearance as great as the clear roadside area on the approach roadway. For further information on providing roadside lateral clearance, see the *AASHTO Roadside Design Guide* (3).

width provided, crash history, traffic volumes, remaining life of the structure, design speed, and other pertinent factors.

Metric			US Customary		
Design volume (veh/day)	Design loading structural capacity	Minimum clear roadway width (m) ^a	Design volume (veh/day)	Design loading structural capacity	Minimum clear roadway width (ft) ^a
under 400	MS 13.5	6.6	under 400	H 15	22
400 to 1500	MS 13.5	6.6	400 to 1500	H 15	22
1500 to 2000	MS 13.5	7.2	1500 to 2000	H 15	24
over 2000	MS 13.5	8.4	over 2000	H 15	28

^a Clear width between curbs or railings, whichever is less, should be equal to or greater than the approach traveled way width, wherever practical.

Exhibit 6-7. Structural Capacities and Minimum Roadway Widths for Bridges to Remain in Place

Vertical Clearance

Vertical clearance at underpasses should be at least 4.3 m [14 ft] over the entire roadway width, with an additional allowance for future resurfacing.

Horizontal Clearance to Obstructions

For rural collector roads with a design speed of 70 km/h [45 mph] or less, a minimum clear zone of 3 m [10 ft] measured from the edge of the traveled way should be provided. This recovery area should be clear of all unyielding objects such as trees, sign supports, utility poles, light poles, and other fixed objects. The benefits of removing these obstructions should be weighed against any environmental and aesthetic effects.

For rural collector roads with a design speed of 80 km/h [50 mph] or more, the AASHTO *Roadside Design Guide* (3) should be used for guidance in selecting an appropriate clear zone width.

The approach roadway (traveled way plus shoulders) should be carried across an overpass or bridge, where practical. Approach roadside barriers, anchored to the bridge rails or parapets, should be provided. Sidewalks should extend across a bridge if the approach roadway has sidewalks or sidewalk areas. To the extent practical, where another highway or railroad passes over the roadway, the overpass structure should be designed so that the pier or abutment supports have lateral clearance as great as the clear zone on the approach roadway. Where a setback beyond the clear zone is not practical, roadside barrier protection should be provided at the piers.

Horizontal Clearance to Obstructions

Roadside obstructions on urban collector streets should preferably be located at or near the right-of-way line and outside of the sidewalks. On urban collector streets that have curbs but no shoulders, a clearance of 0.5 m [1.5 ft] or more beyond the face of the curb should be provided to roadside obstructions, where practical. Where a continuous parking lane is provided, no clearance is needed, but a setback of 0.5 m [1.5 ft] to obstructions is desirable to avoid interference with opening car doors. In areas of dense pedestrian traffic, the provision of vertical curbing between the traveled way and adjacent street fixtures will discourage drivers from encroaching on the sidewalk. Urban collector streets with shoulders and without curbs should have clear zones, as described previously for rural collectors.

Roadside obstacles, such as trees, that might seriously damage out-of-control vehicles should be removed wherever practical. However, the potential benefits of removing such obstacles should be weighed against the adverse environmental and aesthetic effects of their removal. Therefore, trees should be removed only when considered essential for safety. However, it may only be practical to remove those fixed objects in very vulnerable locations. For further information, see the section on "Horizontal Clearance to Obstructions" in Chapter 4.

A wide and level border area should be provided along collector streets for the safety of the motorist and pedestrian, as well as for aesthetic reasons. However, the preservation and enhancement of the environment are of major importance in the design and construction of collector streets and may preclude provision of a border area. The street alignment should be selected to minimize cut and fill slopes.

Roadside barriers are not used extensively on urban collector streets except where there are safety concerns or environmental considerations such as along sections with steep foreslopes and at approaches to structures. Roadside barriers may also be needed to shield vehicles from overcrossing structures.

Right-of-Way Width

The right-of-way width should be sufficient to accommodate the ultimate planned roadway, including median, shoulder, grass border, sidewalks, bicycle facilities, public utilities, and outer slopes. The width of right-of-way for a two-lane urban collector street should generally range from 12 to 18 m [40 to 60 ft], depending on the conditions listed above.

Provision for Utilities

In addition to the primary purpose of serving vehicular traffic, urban collector streets may accommodate public utility facilities within the street right-of-way in accordance with state law or municipal ordinance. Use of the right-of-way by utilities should be planned to minimize interference with traffic using the street. The AASHTO *Guide for Accommodating Utilities Within Highway Right-of-Way* (10) presents general principles for utility location and

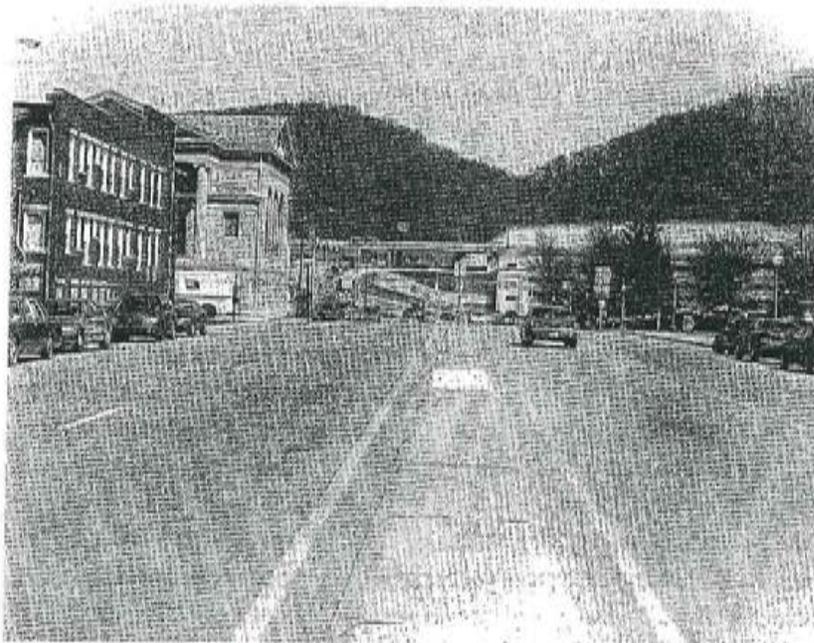


Exhibit 7-14. Divided Arterial Street With Parking Lanes

Roadway Width for Bridges

The minimum clear width for new bridges on arterial streets should be the same as the curb-to-curb width of the street. On long bridges, defined as bridges with overall lengths in excess of 60 m [200 ft], the offsets to parapets, rails, or barriers may be reduced to 1.2 m [4 ft] where shoulders or parking lanes are provided on the arterial. For further relevant discussion, see the sections on "Curbs," "Sidewalks," "Traffic Barriers," and "Bridge Railings" in Chapter 4.

Bridges to Remain in Place

Reasonable attempts should be made to improve existing structures that do not meet current design policies or guidelines, but are otherwise suitable for retention. When making this decision, an important consideration is the extent to which such features that do not meet current policies and guidelines are likely to contribute to crash frequency and operational deficiencies. Other factors to be considered include the remaining life, the cost of improvements and/or rehabilitation compared to replacement, and the historical significance, aesthetic value, and notoriety of the structure.

Horizontal Clearance to Obstructions

Clear roadside design is recommended for urban arterials whenever practical. On curbed street sections, clear roadsides are often impractical, particularly in restricted areas. In such areas, a clearance between curb face and object of 0.5 m [1.5 ft] (or wider where practical) should be provided. A 1.0-m [3-ft] clearance to roadside objects should be provided particularly near

turning radii at intersections and driveways. This offset provides sufficient clearance to keep the overhang of a truck from striking an object. Where pedestrians are not a factor, obstructions should be set well back, protected, or provided with breakaway features. For further guidance, refer to the *AASHTO Roadside Design Guide (3)*.

Right-of-Way Width

The width of right-of-way for the complete development of an arterial street is influenced by traffic demands, topography, land use, cost, intersection design, and the extent of ultimate expansion. The width of right-of-way should be the summation of the various cross-sectional elements: through traveled ways, medians, auxiliary lanes, shoulders, borders, and, where appropriate, frontage roads, roadside clear zones, sideslopes, drainage facilities, utility appurtenances, and retaining walls. The width of right-of-way should be based on the preferable dimensions of each element to the extent practical in developed areas. The designer is confronted with the problem of providing an overall cross section that will give maximum service within a limited width of right-of-way. Right-of-way widths in urban areas are governed primarily by economic considerations, physical obstructions, or environmental concerns. Along any arterial route, conditions of development and terrain vary, and accordingly, the availability of right-of-way varies. For this reason, the right-of-way on a given facility should not be a fixed width predetermined on the basis of the most critical point along the facility. Instead, every opportunity should be taken to provide a desirable right-of-way width along most, if not all, of the facility.

Traffic Barriers

Traffic barriers are sometimes used on urban arterials in restricted areas, at separations, and in medians. The barrier should be compatible with the desired visual quality and should be installed in accordance with accepted practice. Exposed ends should be treated with crashworthy designs or other appropriate means. For further information, refer to the *AASHTO Roadside Design Guide (3)*.

Access Management

General Features

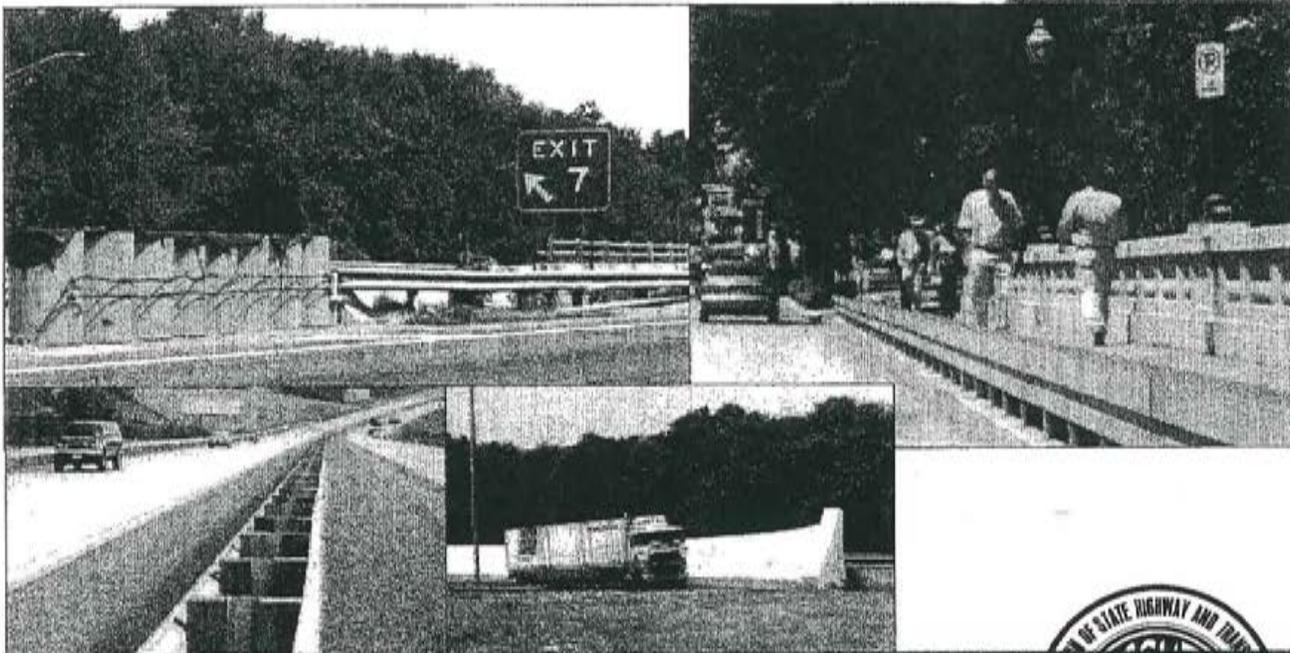
Partial control of access and the application of access management techniques are highly desirable on an urban or suburban arterial. Effective access management will not only enhance the initial level of service of a facility but may also preserve that original level of service as further development occurs. While access to abutting property may be required, it should be carefully regulated to limit the number of access points and their locations. Access management is especially important on intersection approaches on both the arterial and cross streets where auxiliary and storage lanes may be needed.

APPENDIX H

PERTINENT EXCERPTS FROM AASHTO ROADSIDE DESIGN GUIDE

Roadside Design Guide

2002



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and Transportation Officials



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ISBN: 1-56051-132-X

EXAMPLE #1
 1V:6H FORESLOPE
 (FILL SLOPE)
 100 km/h
 5000 vpd

ANSWER:
 CLEAR ZONE
 WIDTH = 9 m

EXAMPLE #2
 1V:6H BACKSLOPE
 (CUT SLOPE)
 100 km/h
 750 vpd

ANSWER:
 CLEAR ZONE
 WIDTH = 6 m

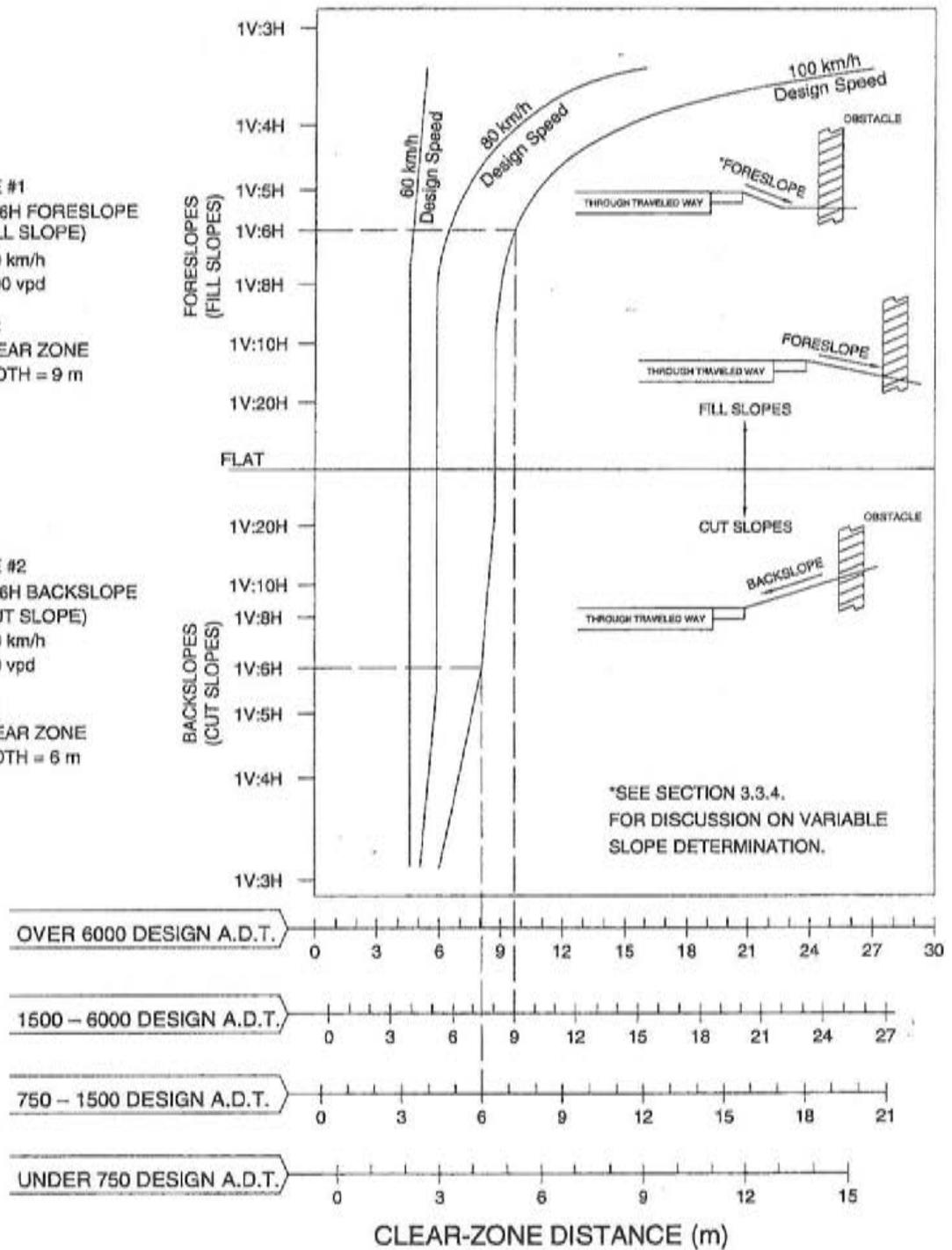


FIGURE 3.1a Clear-zone distance curves [metric units]

EXAMPLE #1
 6H:1V FORESLOPE
 (FILL SLOPE)
 60 mph
 5000 vpd

ANSWER:
 CLEAR ZONE
 WIDTH = 30 ft

EXAMPLE #2
 8H:1V BACKSLOPE
 (CUT SLOPE)
 60 mph
 750 vpd

ANSWER:
 CLEAR ZONE
 WIDTH = 20 ft

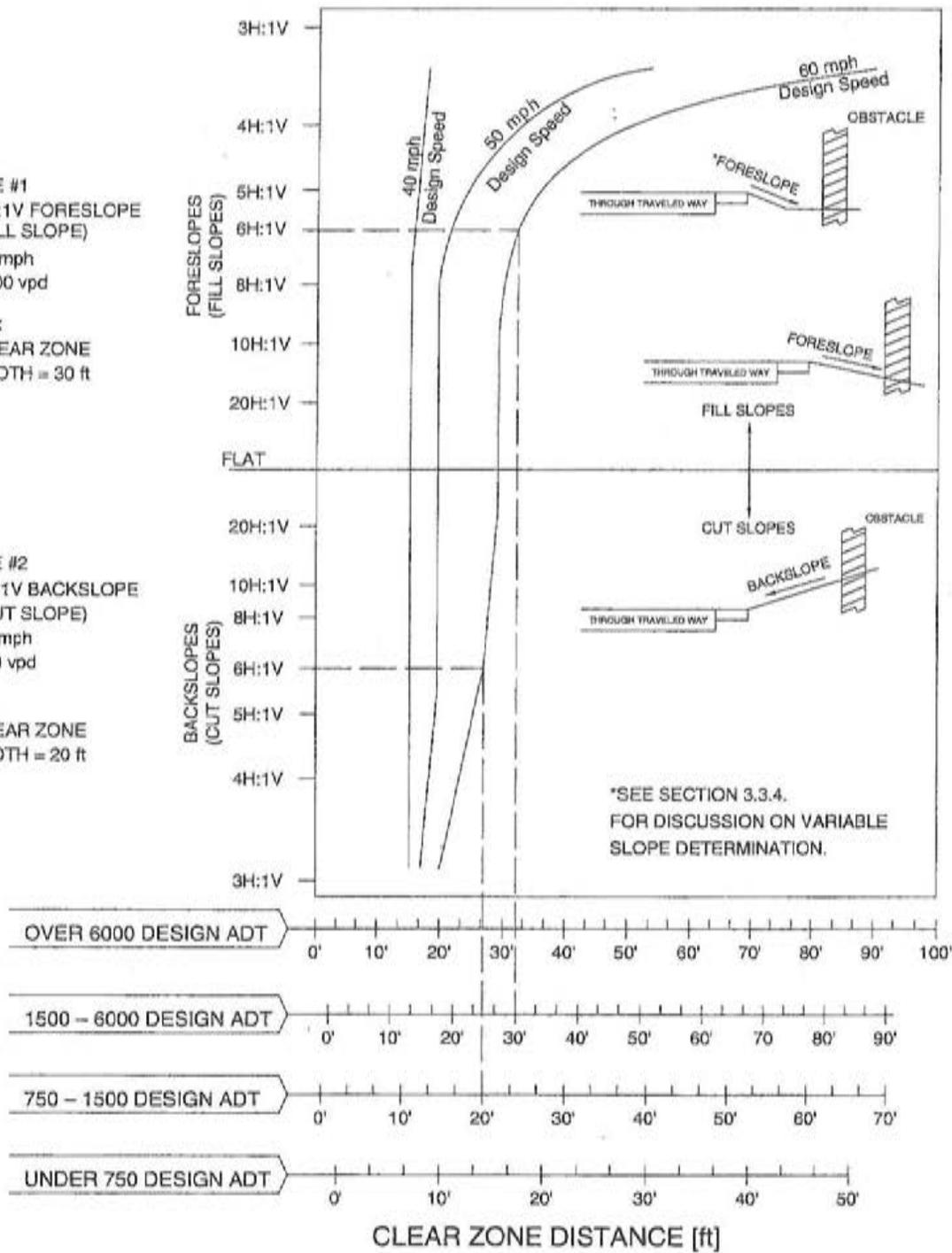


FIGURE 3.1b Clear-zone distance curves [U.S. customary units]

TABLE 3.1 Clear-zone distances in meters [feet] from edge of through traveled way

		Metric Units					
DESIGN SPEED	DESIGN ADT	FORESLOPES			BACKSLOPES		
		1V:6H or flatter	1V:5H TO 1V:4H	1V:3H	1V:3H	1V:5H TO 1V:4H	1V:6H or flatter
60 km/h or less	UNDER 750	2.0-3.0	2.0-3.0	**	2.0-3.0	2.0-3.0	2.0-3.0
	750-1500	3.0-3.5	3.5-4.5	**	3.0-3.5	3.0-3.5	3.0-3.5
	1500-6000	3.5-4.5	4.5-5.0	**	3.5-4.5	3.5-4.5	3.5-4.5
	OVER 6000	4.5-5.0	5.0-5.5	**	4.5-5.0	4.5-5.0	4.5-5.0
70-80 km/h	UNDER 750	3.0-3.5	3.5-4.5	**	2.5-3.0	2.5-3.0	3.0-3.5
	750-1500	4.5-5.0	5.0-6.0	**	3.0-3.5	3.5-4.5	4.5-5.0
	1500-6000	5.0-5.5	6.0-8.0	**	3.5-4.5	4.5-5.0	5.0-5.5
	OVER 6000	6.0-6.5	7.5-8.5	**	4.5-5.0	5.5-6.0	6.0-6.5
90 km/h	UNDER 750	3.5-4.5	4.5-5.5	**	2.5-3.0	3.0-3.5	3.0-3.5
	750-1500	5.0-5.5	6.0-7.5	**	3.0-3.5	4.5-5.0	5.0-5.5
	1500-6000	6.0-6.5	7.5-9.0	**	4.5-5.0	5.0-5.5	6.0-6.5
	OVER 6000	6.5-7.5	8.0-10.0*	**	5.0-5.5	6.0-6.5	6.5-7.5
100 km/h	UNDER 750	5.0-5.5	6.0-7.5	**	3.0-3.5	3.5-4.5	4.5-5.0
	750-1500	6.0-7.5	8.0-10.0*	**	3.5-4.5	5.0-5.5	6.0-6.5
	1500-6000	8.0-9.0	10.0-12.0*	**	4.5-5.5	5.5-6.5	7.5-8.0
	OVER 6000	9.0-10.0*	11.0-13.5*	**	6.0-6.5	7.5-8.0	8.0-8.5
110 km/h	UNDER 750	5.5-6.0	6.0-8.0	**	3.0-3.5	4.5-5.0	4.5-5.0
	750-1500	7.5-8.0	8.5-11.0*	**	3.5-5.0	5.5-6.0	6.0-6.5
	1500-6000	8.5-10.0*	10.5-13.0*	**	5.0-6.0	6.5-7.5	8.0-8.5
	OVER 6000	9.0-10.5*	11.5-14.0*	**	6.5-7.5	8.0-9.0	8.5-9.0

* Where a site specific investigation indicates a high probability of continuing crashes, or such occurrences are indicated by crash history, the designer may provide clear-zone distances greater than the clear-zone shown in Table 3.1. Clear zones may be limited to 9 m for practicality and to provide a consistent roadway template if previous experience with similar projects or designs indicates satisfactory performance.

** Since recovery is less likely on the unshielded, traversable 1V:3H slopes, fixed objects should not be present in the vicinity of the toe of these slopes. Recovery of high-speed vehicles that encroach beyond the edge of the shoulder may be expected to occur beyond the toe of slope. Determination of the width of the recovery area at the toe of slope should take into consideration right-of-way availability, environmental concerns, economic factors, safety needs, and crash histories. Also, the distance between the edge of the through traveled lane and the beginning of the 1V:3H slope should influence the recovery area provided at the toe of slope. While the application may be limited by several factors, the foreslope parameters which may enter into determining a maximum desirable recovery area are illustrated in Figure 3.2.

TABLE 3.1 (Cont'd)

[U.S. Customary Units]

DESIGN SPEED	DESIGN ADT	FORESLOPES			BACKSLOPES		
		1V:6H of flatter	1V:5H TO 1V:4H	1V:3H	1V:3H	1V:5H TO 1V:4H	1V:6H or Flatter
40 mph or less	UNDER 750	7 - 10	7 - 10	**	7 - 10	7 - 10	7 - 10
	750 - 1500	10 - 12	12 - 14	**	10 - 12	10 - 12	10 - 12
	1500 - 6000	12 - 14	14 - 16	**	12 - 14	12 - 14	12 - 14
	OVER 6000	14 - 16	16 - 18	**	14 - 16	14 - 16	14 - 16
45-50 mph	UNDER 750	10 - 12	12 - 14	**	8 - 10	8 - 10	10 - 12
	750 - 1500	12 - 14	16 - 20	**	10 - 12	12 - 14	14 - 16
	1500 - 6000	16 - 18	20 - 26	**	12 - 14	14 - 16	16 - 18
	OVER 6000	18 - 20	24 - 28	**	14 - 16	18 - 20	20 - 22
55 mph	UNDER 750	12 - 14	14 - 18	**	8 - 10	10 - 12	10 - 12
	750 - 1500	16 - 18	20 - 24	**	10 - 12	14 - 16	16 - 18
	1500 - 6000	20 - 22	24 - 30	**	14 - 16	16 - 18	20 - 22
	OVER 6000	22 - 24	26 - 32 *	**	16 - 18	20 - 22	22 - 24
60 mph	UNDER 750	16 - 18	20 - 24	**	10 - 12	12 - 14	14 - 16
	750 - 1500	20 - 24	26 - 32 *	**	12 - 14	16 - 18	20 - 22
	1500 - 6000	26 - 30	32 - 40 *	**	14 - 18	18 - 22	24 - 26
	OVER 6000	30 - 32 *	36 - 44 *	**	20 - 22	24 - 26	26 - 28
65-70 mph	UNDER 750	18 - 20	20 - 26	**	10 - 12	14 - 16	14 - 16
	750 - 1500	24 - 26	28 - 36 *	**	12 - 16	18 - 20	20 - 22
	1500 - 6000	28 - 32 *	34 - 42 *	**	16 - 20	22 - 24	26 - 28
	OVER 6000	30 - 34 *	38 - 46 *	**	22 - 24	26 - 30	28 - 30

* Where a site specific investigation indicates a high probability of continuing crashes, or such occurrences are indicated by crash history, the designer may provide clear-zone distances greater than the clear-zone shown in Table 3.1. Clear zones may be limited to 30 ft for practicality and to provide a consistent roadway template if previous experience with similar projects or designs indicates satisfactory performance.

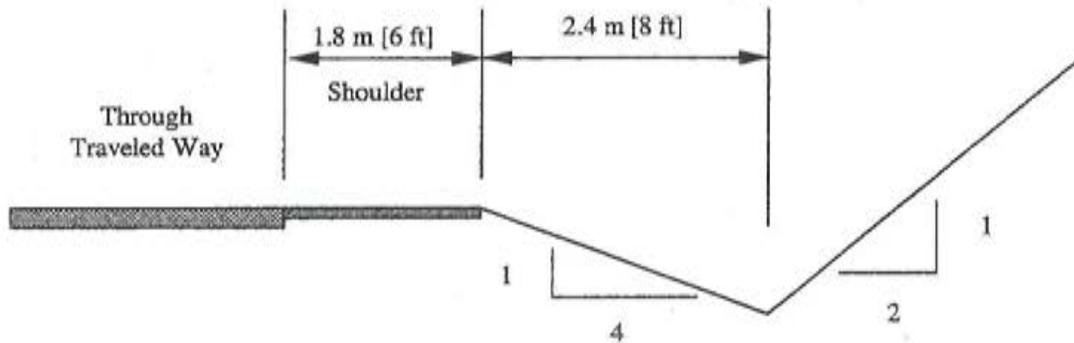
** Since recovery is less likely on the unshielded, traversable 1V:3H slopes, fixed objects should not be present in the vicinity of the toe of these slopes. Recovery of high-speed vehicles that encroach beyond the edge of the shoulder may be expected to occur beyond the toe of slope. Determination of the width of the recovery area at the toe of slope should take into consideration right-of-way availability, environmental concerns, economic factors, safety needs, and crash histories. Also, the distance between the edge of the through traveled lane and the beginning of the 1V:3H slope should influence the recovery area provided at the toe of slope. While the application may be limited by several factors, the foreslope parameters which may enter into determining a maximum desirable recovery area are illustrated in Figure 3.2.

EXAMPLE H

Design ADT: 800

Design Speed: 80 km/h [50 mph]

Recommended clear-zone distance for 1V:4H foreslope: 5 m to 6 m [16 ft to 20 ft] (from Table 3.1)



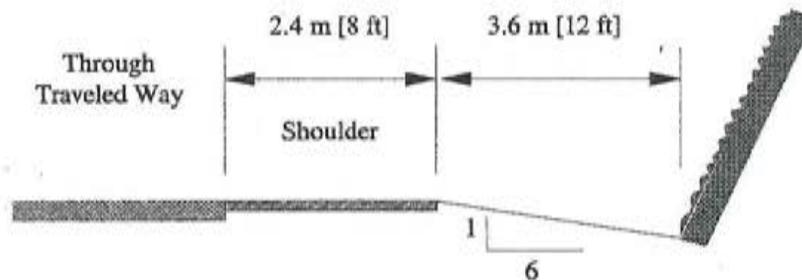
Discussion: The ditch is not within the preferred cross section area of Figure 3.6 and is 0.6 m to 1.8 m [2 ft to 6 ft] less than the recommended clear-zone distance. However, if the ditch bottom and backslope are free of obstacles, no additional improvement is suggested. A similar cross section on the outside of a curve where encroachments are more likely and the angle of impact is sharper would probably be flattened if practical.

EXAMPLE I

Design ADT: 3000

Design Speed: 100 km/h [60 mph]

Recommended clear-zone distance for 1V:6H foreslope: 8.0 to 9.0 m [26 to 30 ft] (from Table 3.1)



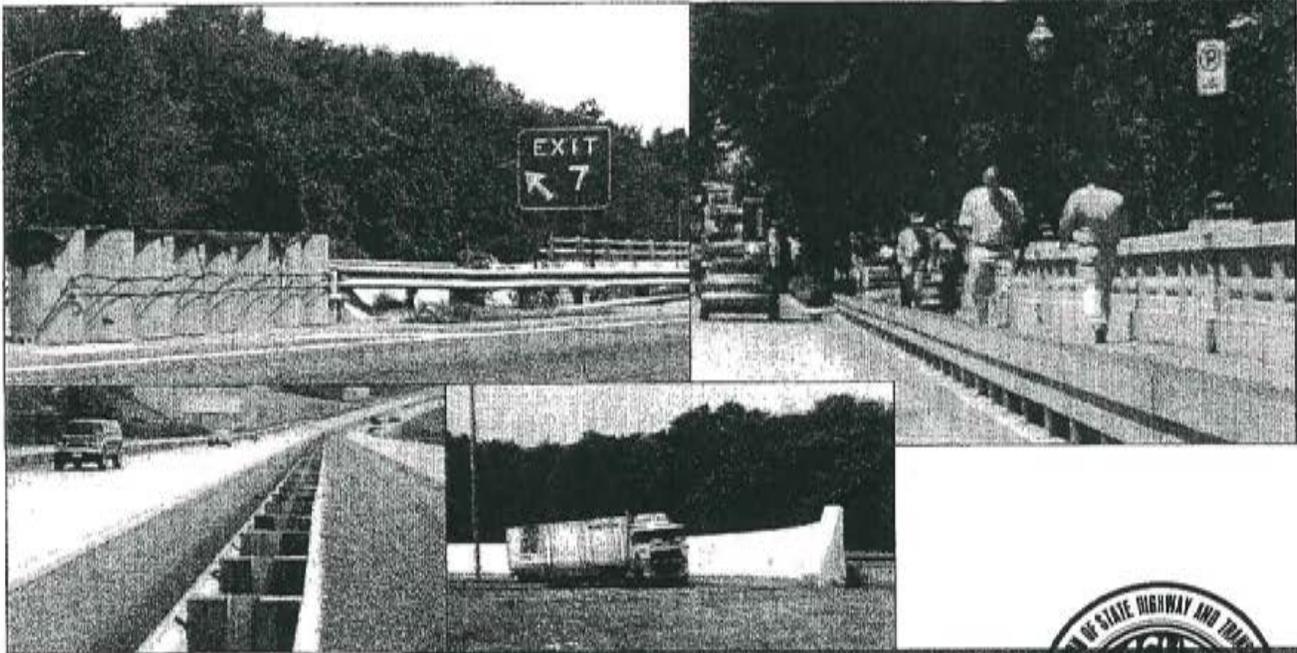
Discussion: The rock cut is within the given clear-zone distance but would probably not warrant removal or shielding unless the potential for snagging, pocketing, or overturning a vehicle is high. Steep backslopes are clearly visible to motorists during the day, thus lessening the risk of encroachments. Roadside delineation of sharper than average curves through cut sections can be an effective countermeasure at locations having a significant crash history or potential.

APPENDIX H

PERTINENT EXCERPTS FROM AASHTO ROADSIDE DESIGN GUIDE

Roadside Design Guide

2002



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ISBN: 1-56051-132-X

EXAMPLE #1
 1V:6H FORESLOPE
 (FILL SLOPE)
 100 km/h
 5000 vpd

ANSWER:
 CLEAR ZONE
 WIDTH = 9 m

EXAMPLE #2
 1V:6H BACKSLOPE
 (CUT SLOPE)
 100 km/h
 750 vpd

ANSWER:
 CLEAR ZONE
 WIDTH = 6 m

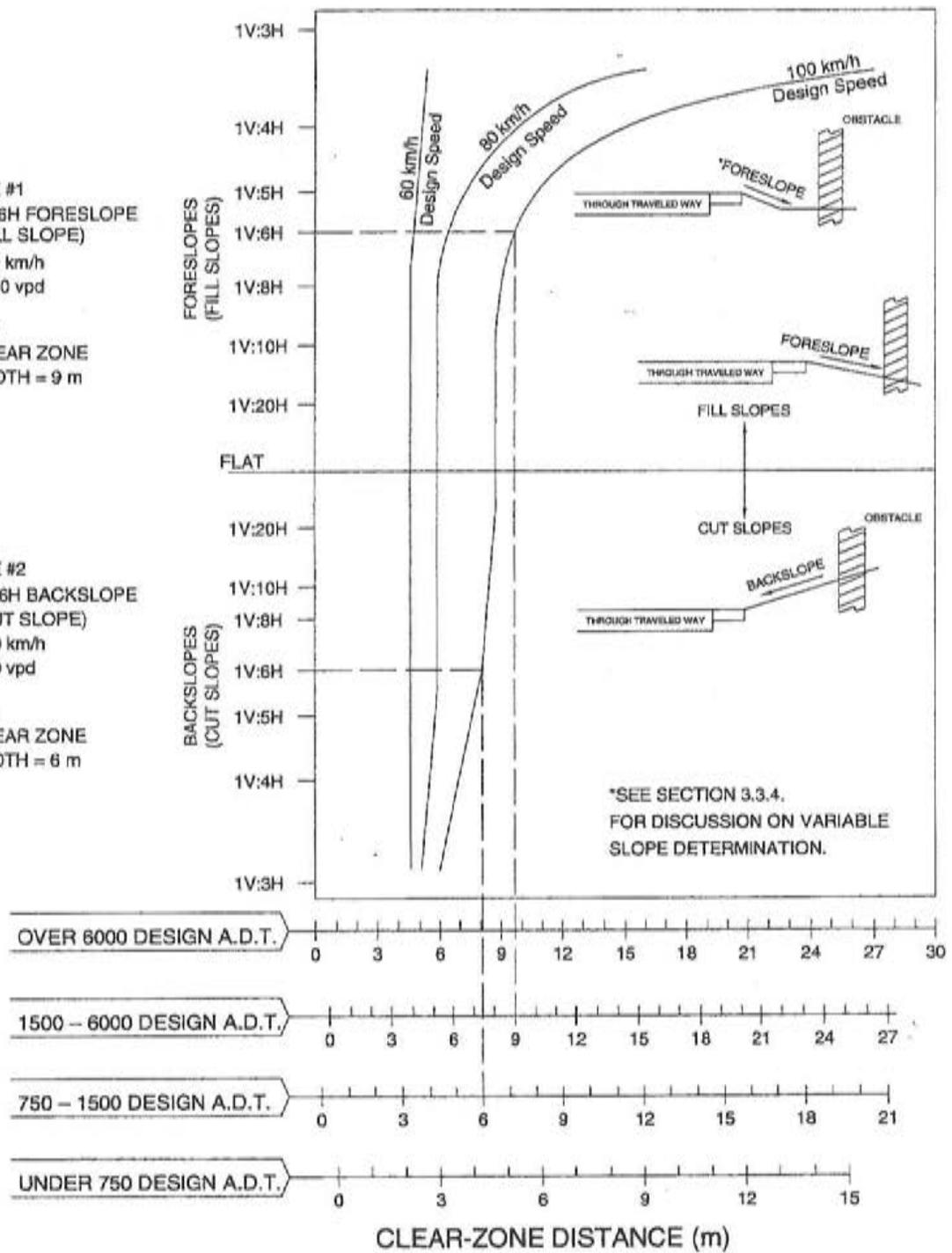


FIGURE 3.1a Clear-zone distance curves [metric units]

EXAMPLE #1
 6H:1V FORESLOPE
 (FILL SLOPE)
 60 mph
 5000 vpd

ANSWER:
 CLEAR ZONE
 WIDTH = 30 ft

EXAMPLE #2
 6H:1V BACKSLOPE
 (CUT SLOPE)
 60 mph
 750 vpd

ANSWER:
 CLEAR ZONE
 WIDTH = 20 ft

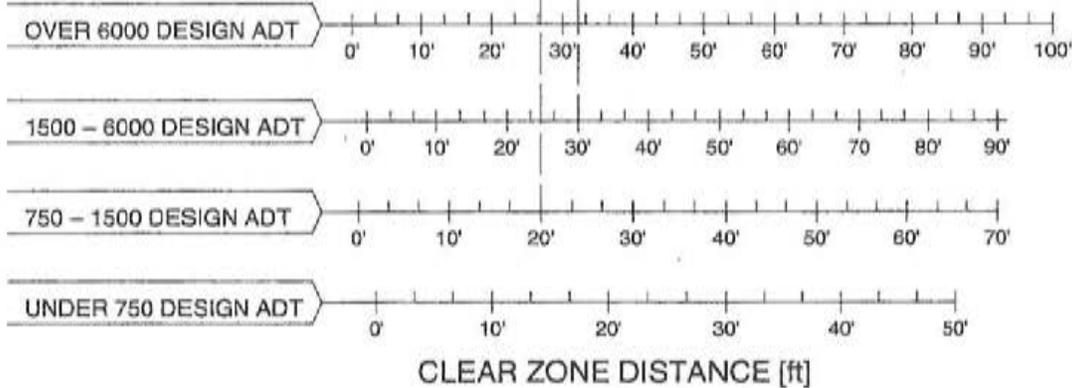
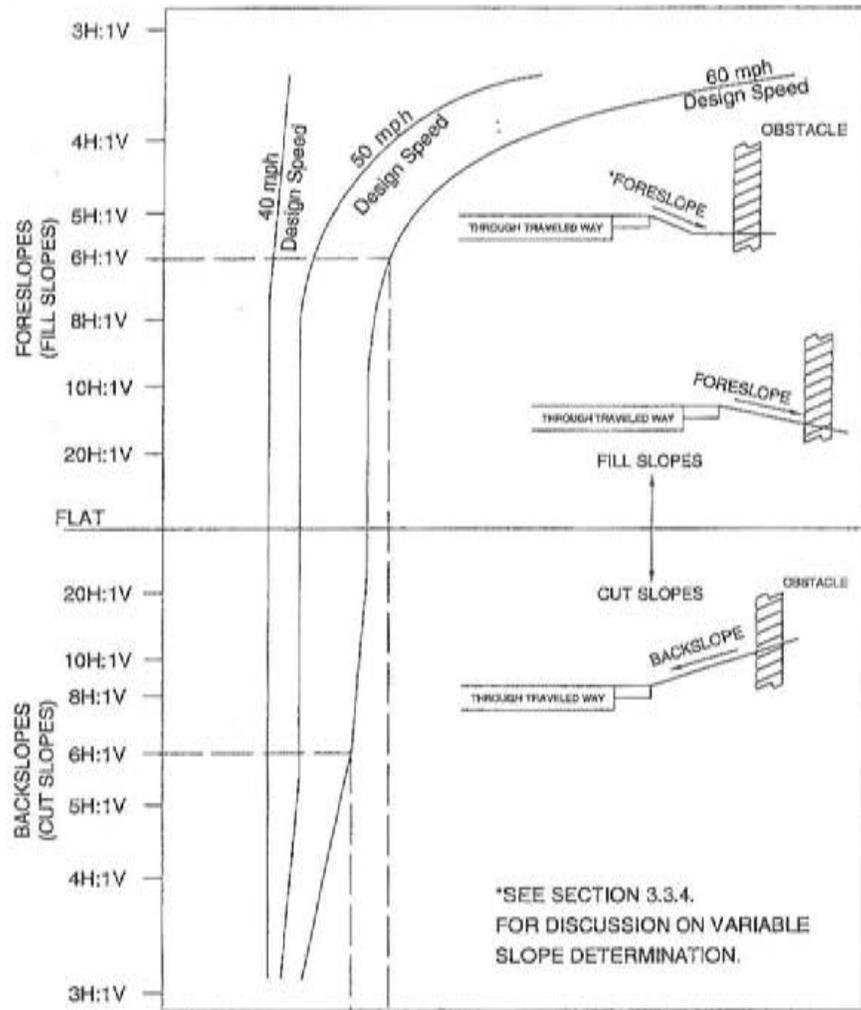


FIGURE 3.1b Clear-zone distance curves [U.S. customary units]

TABLE 3.1 Clear-zone distances in meters [feet] from edge of through traveled way

DESIGN SPEED	DESIGN ADT	Metric Units					
		FORESLOPES			BACKSLOPES		
		1V:6H or flatter	1V:5H TO 1V:4H	1V:3H	1V:3H	1V:5H TO 1V:4H	1V:6H or flatter
60 km/h or less	UNDER 750	2.0-3.0	2.0-3.0	**	2.0-3.0	2.0-3.0	2.0-3.0
	750-1500	3.0-3.5	3.5-4.5	**	3.0-3.5	3.0-3.5	3.0-3.5
	1500-6000	3.5-4.5	4.5-5.0	**	3.5-4.5	3.5-4.5	3.5-4.5
	OVER 6000	4.5-5.0	5.0-5.5	**	4.5-5.0	4.5-5.0	4.5-5.0
70-80 km/h	UNDER 750	3.0-3.5	3.5-4.5	**	2.5-3.0	2.5-3.0	3.0-3.5
	750-1500	4.5-5.0	5.0-6.0	**	3.0-3.5	3.5-4.5	4.5-5.0
	1500-6000	5.0-5.5	6.0-8.0	**	3.5-4.5	4.5-5.0	5.0-5.5
	OVER 6000	6.0-6.5	7.5-8.5	**	4.5-5.0	5.5-6.0	6.0-6.5
90 km/h	UNDER 750	3.5-4.5	4.5-5.5	**	2.5-3.0	3.0-3.5	3.0-3.5
	750-1500	5.0-5.5	6.0-7.5	**	3.0-3.5	4.5-5.0	5.0-5.5
	1500-6000	6.0-6.5	7.5-9.0	**	4.5-5.0	5.0-5.5	6.0-6.5
	OVER 6000	6.5-7.5	8.0-10.0*	**	5.0-5.5	6.0-6.5	6.5-7.5
100 km/h	UNDER 750	5.0-5.5	6.0-7.5	**	3.0-3.5	3.5-4.5	4.5-5.0
	750-1500	6.0-7.5	8.0-10.0*	**	3.5-4.5	5.0-5.5	6.0-6.5
	1500-6000	8.0-9.0	10.0-12.0*	**	4.5-5.5	5.5-6.5	7.5-8.0
	OVER 6000	9.0-10.0*	11.0-13.5*	**	6.0-6.5	7.5-8.0	8.0-8.5
110 km/h	UNDER 750	5.5-6.0	6.0-8.0	**	3.0-3.5	4.5-5.0	4.5-5.0
	750-1500	7.5-8.0	8.5-11.0*	**	3.5-5.0	5.5-6.0	6.0-6.5
	1500-6000	8.5-10.0*	10.5-13.0*	**	5.0-6.0	6.5-7.5	8.0-8.5
	OVER 6000	9.0-10.5*	11.5-14.0*	**	6.5-7.5	8.0-9.0	8.5-9.0

* Where a site specific investigation indicates a high probability of continuing crashes, or such occurrences are indicated by crash history, the designer may provide clear-zone distances greater than the clear-zone shown in Table 3.1. Clear zones may be limited to 9 m for practicality and to provide a consistent roadway template if previous experience with similar projects or designs indicates satisfactory performance.

** Since recovery is less likely on the unshielded, traversable 1V:3H slopes, fixed objects should not be present in the vicinity of the toe of these slopes. Recovery of high-speed vehicles that encroach beyond the edge of the shoulder may be expected to occur beyond the toe of slope. Determination of the width of the recovery area at the toe of slope should take into consideration right-of-way availability, environmental concerns, economic factors, safety needs, and crash histories. Also, the distance between the edge of the through traveled lane and the beginning of the 1V:3H slope should influence the recovery area provided at the toe of slope. While the application may be limited by several factors, the foreslope parameters which may enter into determining a maximum desirable recovery area are illustrated in Figure 3.2.

TABLE 3.1 (Cont'd)

[U.S. Customary Units]

DESIGN SPEED	DESIGN ADT	FORESLOPES			BACKSLOPES		
		1V:6H of flatter	1V:5H TO 1V:4H	1V:3H	1V:3H	1V:5H TO 1V:4H	1V:6H or Flatter
40 mph or less	UNDER 750	7 - 10	7 - 10	**	7 - 10	7 - 10	7 - 10
	750 - 1500	10 - 12	12 - 14	**	10 - 12	10 - 12	10 - 12
	1500 - 6000	12 - 14	14 - 16	**	12 - 14	12 - 14	12 - 14
	OVER 6000	14 - 16	16 - 18	**	14 - 16	14 - 16	14 - 16
45-50 mph	UNDER 750	10 - 12	12 - 14	**	8 - 10	8 - 10	10 - 12
	750 - 1500	12 - 14	16 - 20	**	10 - 12	12 - 14	14 - 16
	1500 - 6000	16 - 18	20 - 26	**	12 - 14	14 - 16	16 - 18
	OVER 6000	18 - 20	24 - 28	**	14 - 16	18 - 20	20 - 22
55 mph	UNDER 750	12 - 14	14 - 18	**	8 - 10	10 - 12	10 - 12
	750 - 1500	16 - 18	20 - 24	**	10 - 12	14 - 16	16 - 18
	1500 - 6000	20 - 22	24 - 30	**	14 - 16	16 - 18	20 - 22
	OVER 6000	22 - 24	26 - 32 *	**	16 - 18	20 - 22	22 - 24
60 mph	UNDER 750	16 - 18	20 - 24	**	10 - 12	12 - 14	14 - 16
	750 - 1500	20 - 24	26 - 32 *	**	12 - 14	16 - 18	20 - 22
	1500 - 6000	26 - 30	32 - 40 *	**	14 - 18	18 - 22	24 - 26
	OVER 6000	30 - 32 *	36 - 44 *	**	20 - 22	24 - 26	26 - 28
65-70 mph	UNDER 750	18 - 20	20 - 26	**	10 - 12	14 - 16	14 - 16
	750 - 1500	24 - 26	28 - 36 *	**	12 - 16	18 - 20	20 - 22
	1500 - 6000	28 - 32 *	34 - 42 *	**	16 - 20	22 - 24	26 - 28
	OVER 6000	30 - 34 *	38 - 46 *	**	22 - 24	26 - 30	28 - 30

* Where a site specific investigation indicates a high probability of continuing crashes, or such occurrences are indicated by crash history, the designer may provide clear-zone distances greater than the clear-zone shown in Table 3.1. Clear zones may be limited to 30 ft for practicality and to provide a consistent roadway template if previous experience with similar projects or designs indicates satisfactory performance.

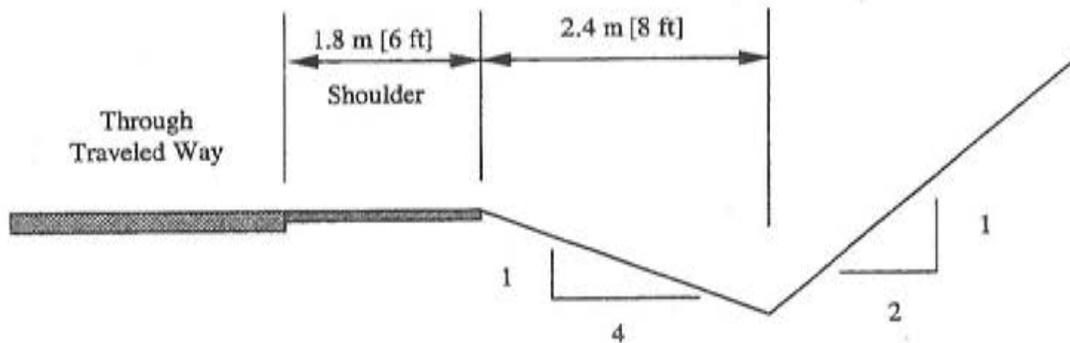
** Since recovery is less likely on the unshielded, traversable 1V:3H slopes, fixed objects should not be present in the vicinity of the toe of these slopes. Recovery of high-speed vehicles that encroach beyond the edge of the shoulder may be expected to occur beyond the toe of slope. Determination of the width of the recovery area at the toe of slope should take into consideration right-of-way availability, environmental concerns, economic factors, safety needs, and crash histories. Also, the distance between the edge of the through traveled lane and the beginning of the 1V:3H slope should influence the recovery area provided at the toe of slope. While the application may be limited by several factors, the foreslope parameters which may enter into determining a maximum desirable recovery area are illustrated in Figure 3.2.

EXAMPLE H

Design ADT: 800

Design Speed: 80 km/h [50 mph]

Recommended clear-zone distance for 1V:4H foreslope: 5 m to 6 m [16 ft to 20 ft] (from Table 3.1)



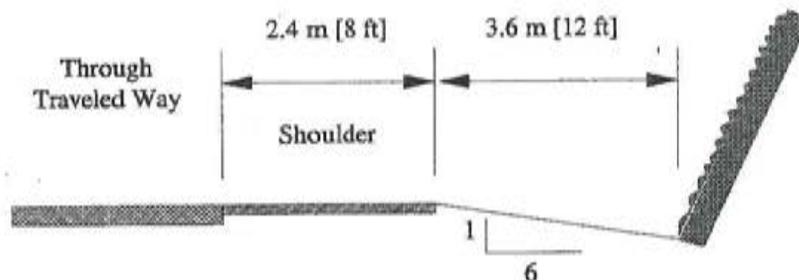
Discussion: The ditch is not within the preferred cross section area of Figure 3.6 and is 0.6 m to 1.8 m [2 ft to 6 ft] less than the recommended clear-zone distance. However, if the ditch bottom and backslope are free of obstacles, no additional improvement is suggested. A similar cross section on the outside of a curve where encroachments are more likely and the angle of impact is sharper would probably be flattened if practical.

EXAMPLE I

Design ADT: 3000

Design Speed: 100 km/h [60 mph]

Recommended clear-zone distance for 1V:6H foreslope: 8.0 to 9.0 m [26 to 30 ft] (from Table 3.1)



Discussion: The rock cut is within the given clear-zone distance but would probably not warrant removal or shielding unless the potential for snagging, pocketing, or overturning a vehicle is high. Steep backslopes are clearly visible to motorists during the day, thus lessening the risk of encroachments. Roadside delineation of sharper than average curves through cut sections can be an effective countermeasure at locations having a significant crash history or potential.