Candelaria Road Traffic Calming Study

City of Albuquerque

Souder, Miller & Associates
Engineering • Environmental • Surveying
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Candelaria Road
Traffic Calming Study
COA Project No. 9044.13

Albuquerque, New Mexico

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City of Albuquerque

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1. INTRODUCTION

The City of Albuquerque – Department of Municipal Development (Engineering Division) has requested that Souder, Miller & Associates conduct a traffic calming study along Candelaria Road in northwest Albuquerque.

1.A. PROJECT PURPOSE

A traffic calming and speed study on Candelaria Road was conducted to determine the following:

- Evaluate the 85th percentile speed along Candelaria Road at three (3) locations
- Calculate average and daily peak hour traffic volumes on Candelaria Road
- Provide recommendations for any additional traffic calming measures based on speed characteristics

As part of this study, an evaluation and cataloging of existing roadway conditions, collection of ADT and crash data, and evaluation of survey data will be completed.

1.B. PROJECT DESCRIPTION

The project limits are a 0.58 mile (3062.40 LF) section of Candelaria road between the Rio Grande Nature Center and Rio Grande Boulevard. Figure 1.B.1. below displays the study limits and Figure 1.B.2. on page 2 displays the vicinity project limits.

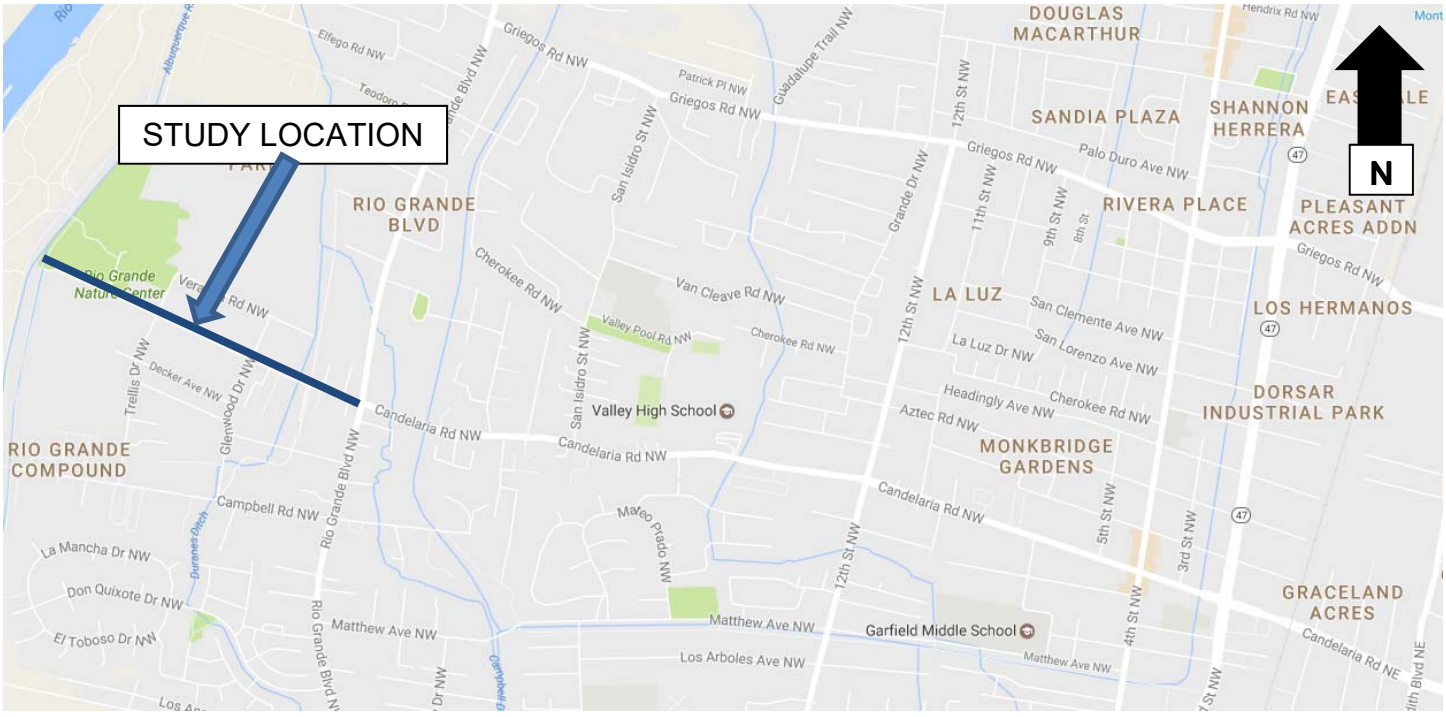

FIGURE 1.B.1.
LOCATION MAP

FIGURE 1.B.2.
STUDY LIMITS

Date: Jan 13, 2017 – 8:30am tay Layout: PROJECT LIMITS
Drawing Name: P:\7-COA 2015 OnCall Transportation and Storm Drainage (7423759)\T13-Candelaria Traffic Calming\Studies\CADD\Candelaria Exhibits.dwg

2. EXISTING CONDITIONS

2.A. FUNCTIONAL CLASSIFICATION

The section of Candelaria Road in this study is classified as a residential street per the Mid-Region Council of Government's (MRCOG) Current Roadway Functional Classification Map published in 2010.

2.B. EXISTING POSTED SPEED LIMITS

The existing posted speed limit for Candelaria Road in the study area is 25 mph.

2.C. EXISTING PEDESTRIAN / BICYCLE FACILITIES

Currently, Candelaria Road has striped bicycle lanes in both directions as well as sidewalks on both the north and south side of the road.

2.D. INTERSECTION TRAFFIC CONTROL

Currently, a two – way stop controlled intersection exists at Candelaria Road and Trellis Drive and an all – way stop sign controlled intersection exists at Candelaria Road and Glenwood Drive. There are three, three – legged intersections with side-street stop control along Candelaria Road; Camino Caballete, Camino Cepillo, and Colonmade Court. There are approximately 51 driveways within the study limits which provide access to residential homes.

2.E. EXISTING TYPICAL SECTIONS

Candelaria Road is currently a two-lane section with one travel lane in each direction with bicycle lanes and on-street parking. The typical section dimensions are two 10.5-foot through lanes, two 5-foot bike lanes, two 4.5-foot on-street parking lanes, standard curb and gutter, and 4-foot sidewalks. All lane widths are approximately measured from center of stripe. Figures 2.E.1. and 2.E.2. below display the typical sections.

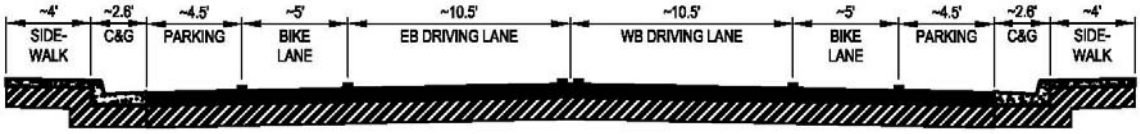

FIGURE 2.E.1.
EXISTING TYPICAL SECTION

FIGURE 2.E.2.
EXISTING TYPICAL SECTION PHOTO

There are currently four center islands within the study area. These sections include a two-lane section with bicycle lanes. The typical section is two 10.5-foot through lanes, two 5-foot bike lanes that extend through the gutter pan in the 8" standard curb and gutter section, and 4-foot sidewalks. Figures 2.E.3. and 2.E.4. below display the typical sections.

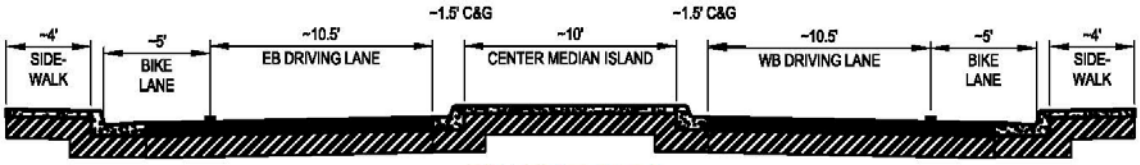

FIGURE 2.E.3.
EXISTING TYPICAL SECTION WITH CENTER ISLAND

FIGURE 2.E.4.
EXISTING TYPICAL SECTION WITH CENTER ISLAND PHOTO

Also present within the study area are eight bulbouts and these sections include a two-lane section with bicycle lanes. The typical section is two 10.5-foot through lanes, two 5-foot bike lanes, two 4.5' bulbouts, standard curb and gutter, and 4-foot sidewalks. Figures 2.E.5. and 2.E.6. below displays the typical sections with bulbouts.

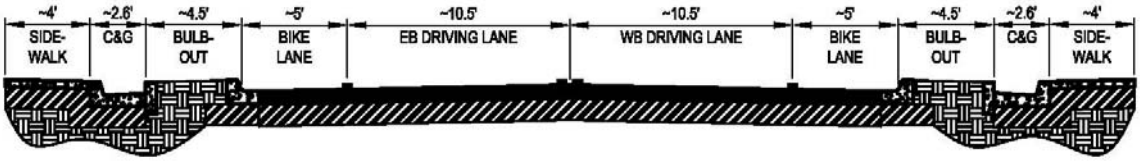

FIGURE 2.F.6.
EXISTING TYPICAL SECTION WITH BULBOUT

FIGURE 2.F.7.
EXISTING TYPICAL SECTION WITH BULBOUT PHOTO

2.F. EXISTING TRAFFIC CALMING MEASURES

There are existing traffic calming measures that have been implemented within the study area and they are shown in the pictures below:

1. On-Street Parking with Bicycle Lanes

FIGURE 2.F.1.
ON-STREET PARKING WITH BICYCLE LANES STRIPING PHOTO

2. Bulbouts with Landscaping

FIGURE 2.F.2.
EXISTING BULBOUTS WITH LANDSCAPING PHOTO

3. Center Median Islands with Landscaping

FIGURE 2.F.3.
EXISTING CENTER MEDIAN ISLAND WITH LANDSCAPING PHOTO

4. 25 MPH Speed Limit Signs

FIGURE 2.F.4.
EXISTING 25 MPH SPEED LIMIT PHOTO

Figures 2.F.5. through 2.F.7. on pages 11 to 13 display the existing traffic calming measures and their location within the study area, and Table 2.F.1. below lists the existing traffic calming measure and the approximate location in the study area.

Table 2.F.1.

Candelaria Road Existing Traffic Calming Measure Locations	
Existing Traffic Calming Measure	Approximate Location
Centerline / Edge Line / Lane Lane Striping	Rio Grande Nature Center to Rio Grande Boulevard
Bulbouts with Landscaping	350 feet west of Trellis Drive
Center Islands with Landscaping	Candelaria Drive / Trellis Drive intersection
25 MPH Speed Limit Sign	140 feet east of Trellis Drive
25 MPH Speed Limit Sign	280 feet east of Trellis Drive
Bulbouts with Landscaping	410 feet east of Trellis Drive
Bulbouts with Landscaping	350 feet west of Glenwood Drive
Center Islands with Landscaping	Candelaria Drive / Glenwood Drive intersection
Bulbouts with Landscaping	520 feet east of Glenwood Drive
25 MPH Speed Limit Sign	640 feet east of Glenwood Drive
Bulbouts with Landscaping	325 feet west of Rio Grande Boulevard
25 MPH Speed Limit Sign	300 feet west of Rio Grande Boulevard

FIGURE 2.F.5.
EXISTING TRAFFIC CALMING MEASURES

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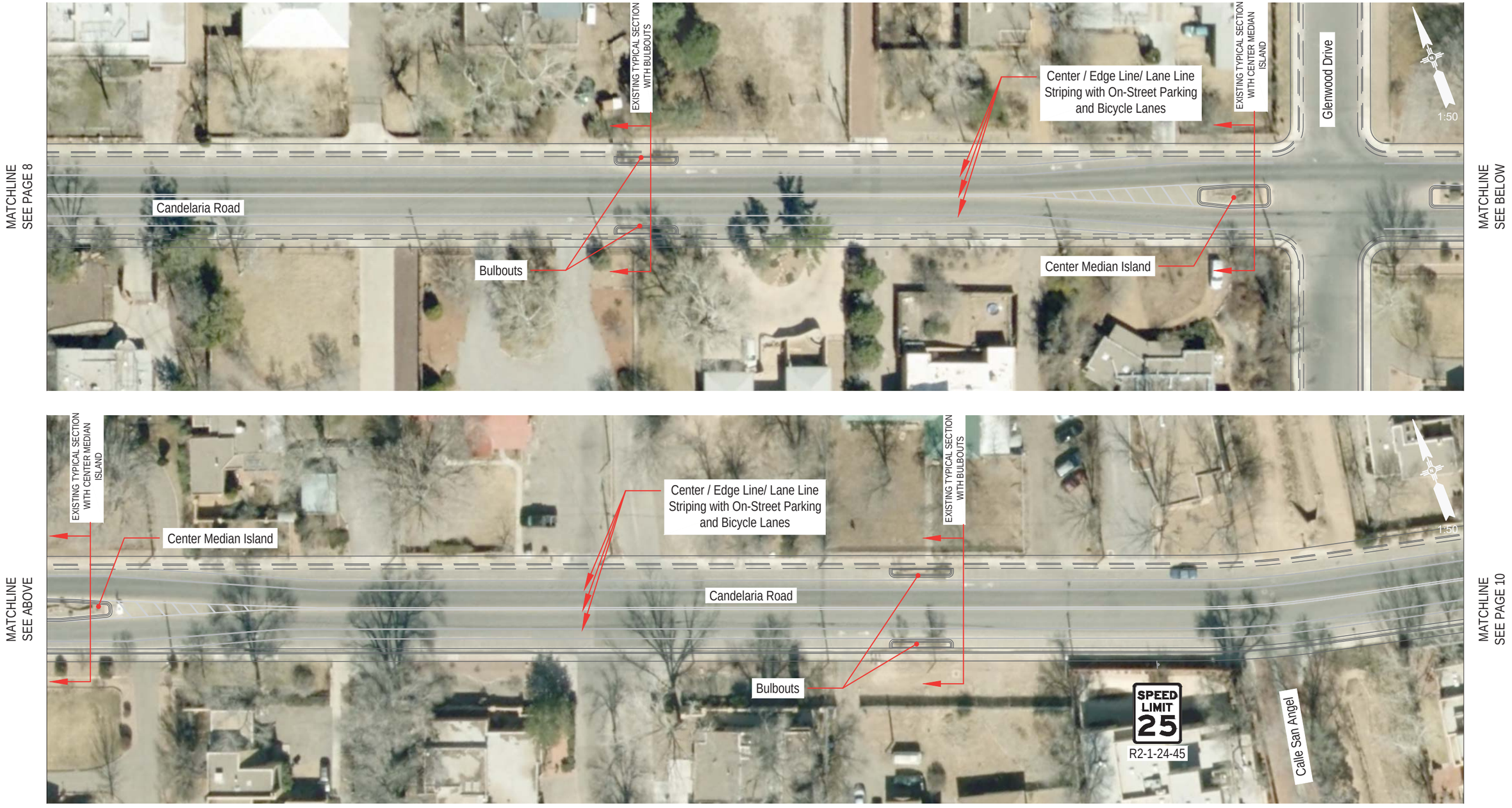

FIGURE 2.F.6.
EXISTING TRAFFIC CALMING MEASURES

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FIGURE 2.G.7.
EXISTING TRAFFIC CALMING MEASURES

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Drawing Name: P:\7-COA 2015 OnCall Transportation and Storm Drainage (7423759)\113-Candelaria Traffic Calming\Studies\CADD\Candelaria Existing Exhibits.dwg

3. DATA

The study area included three traffic/speed count locations:

- Candelaria Road West of Trellis Drive
- Candelaria Road West of Glenwood Drive
- Candelaria Road West of Calle San Angel

The counts were taken over a two day period from November 16, 2016 through November 17, 2016 with volume/speed tubes.

3.A. AVERAGE DAILY TRAFFIC VOLUMES (ADT)

The ADT for the three (3) count locations are listed below in Table 3.A.1.

Table 3.A.1.

Candelaria Road ADT			
Count Location	Westbound ADT	Eastbound ADT	ADT
West of Trellis	177	176	353
West of Calle San Angel	1067	959	2026
West of Glenwood	601	517	1118

The Candelaria Road study area ADT ranges from 353 to 2026 vehicles per day.

3.B. PEAK HOUR TRAFFIC VOLUMES

The peak hour volumes for the three (3) count locations are listed below in Table 3.B.1.

Table 3.B.1.

Candelaria Road Peak Hour Traffic Volumes (vph)		
Count Location	Westbound (Peak Hour)	Eastbound (Peak Hour)
West of Trellis AM Peak	49 (9:00 am - 10:00 am)	24 (11:00 am - 12:00 pm)
West of Trellis PM Peak	24 (1:45 pm - 2:45 pm)	42 (12:00 pm - 1:00 pm)
West of Glenwood AM Peak	80 (7:45 am - 8:45 am)	51 (8:00 am - 9:00 am)
West of Glenwood PM Peak	64 (3:15 pm - 4:15)	62 (1:45 pm - 2:45 pm)
West of Calle San Angel AM Peak	99 (6:45 am - 7:45 am)	96 (6:30 am - 7:30 am)
West of Calle San Angel PM Peak	130 (3:45 pm - 4:45 pm)	102 (12:45 pm - 1:45 pm)

The peak hour volumes for all three count locations are not above the City of Albuquerque's Neighborhood Traffic Management Program's criteria of "peak-hour traffic volume greater than 400 vehicles in one direction" to warrant a traffic calming measure.

3.C. SPEED STUDY RESULTS

The results of the speed study are displayed below in Table 3.C.1., Table 3.C.2, and Table 3.C.3.

Table 3.C.1.

Candelaria Road West of Trellis Speed Study			
Speed (mph)	Westbound	Eastbound	Total
Average	22.1	19.6	20.8
10 mph Pace	20.1 - 30.0	20.1 - 30.0	20.1 - 30.0
50th Percentile	23.5	21.7	22.6
67th Percentile	26.7	23.5	25.0
85th Percentile	28.9	27.5	28.5

Table 3.C.2.

Candelaria Road West of Glenwood Speed Study			
Speed (mph)	Westbound	Eastbound	Total
Average	29.0	27.7	28.4
10 mph Pace	25.0 - 34.9	25.0 - 34.9	25.0 - 34.9
50th Percentile	29.5	28.3	28.9
67th Percentile	32.0	30.9	31.5
85th Percentile	34.7	33.9	34.4

Table 3.C.3.

Candelaria Road West of Calle San Angel Speed Study			
Speed (mph)	Westbound	Eastbound	Total
Average	28.6	29.0	28.8
10 mph Pace	25.0 - 34.9	25.0 - 34.9	25.0 - 34.9
50th Percentile	28.7	29.5	29.1
67th Percentile	31.0	32.1	31.6
85th Percentile	34.0	34.7	34.4

When considering whether to establish a new posted speed limit or not, surveying the existing traffic speeds is crucial to determining a reasonable posted speed limit.

Before a posted speed limit can be adjusted, an analysis must be conducted to ascertain whether or not the speed limit can be adjusted without resulting in further increases of motorists' travel speeds. Motorists usually drive at speeds which they perceive as safe, based on the observable roadway conditions. A flat and straight roadway may result in a different travel speed than the posted speed limit due to the driver's observation of the roadway condition.

In relation to Candelaria Road, the posted speed limit is 25 mph, roadway conditions are consistent; controlled access, satisfactory pavement conditions, two travel lanes, bike lanes, on-street parking, center median islands, and

bulb outs. Table 3.C.4. displays that at all three count locations have recorded at least 32.7 percent of the corresponding ADT have recorded speeds greater than the posted speed limit of 25 mph.

Table 3.C.4..

Candelaria Road ADT ≥ 25 mph				
Speed (mph)	0 - 19.9	20.0 - 24.9	≥ 25	Avg. ADT
West of Trellis	112	124.5	115.5	353
%	31.7%	35.3%	32.7%	-
West of Glenwood	72	160.5	884.5	1118
%	6.4%	14.4%	79.1%	-
West of Calle San Angel	87.5	290.5	1647.5	2026
%	4.3%	14.3%	81.3%	-

3.D. CRASH DATA

Crash data was provided by the Mid-Region Council of Governments for the years 2012 – 2014. This is in accordance with the City of Albuquerque Neighborhood Traffic Management Program's minimum crash data guidance threshold which states that "reported crashes in the past 3 years that could be corrected with traffic calming". The 2015 crash data was not available from the Mid-Region Council of Governments. Tables 3.D.1. through 3.D.3 below display the crash location, cause of crash, crash analysis, and whether the crash could be corrected with traffic calming. Complete crash reports may be found in Appendix C.

Table 3.D.1.

Candelaria Road (Rio Grande Blvd. - Rio Grande Nature Center) 2012 Crash Summary				
Crash Location	Cause of Crash	Crash Analysis	Crash Severity	Crash Correction with Traffic Calming
3600 Trellis Drive	Missing Data	Parked Vehicle	Property Damage Only	NO
Candelaria Rd. / Rio Grande Blvd.	Improper Turn	Angle-1 Left	Property Damage Only	NO
Rio Grande Blvd. / Candelaria Rd.	Red Light Running	Angle-Straight	Property Damage Only	NO
Rio Grande Blvd. / Candelaria Rd.	Driver Inattention	Same Direction-One Stopped	Property Damage Only	NO
Rio Grande Blvd. / Candelaria Rd.	Improper Turn	-	Property Damage Only	NO
Rio Grande Blvd. / Candelaria Rd.	Red Light Running	Same Direction-Left Turn	Property Damage Only	NO

Table 3.D.2.

Candelaria Road (Rio Grande Blvd. - Rio Grande Nature Center) 2013 Crash Summary				
Crash Location	Cause of Crash	Crash Analysis	Crash Severity	Crash Correction with Traffic Calming
Candelaria Rd. / Trellis Drive	Driver Inattention	Fixed Object - Guard or Reflector Posts	Property Damage Only	NO
Rio Grande Blvd. / Candelaria Rd.	Improper Turn	Intersection - One Right Turn/Entering at Angle	Property Damage Only	NO
Rio Grande Blvd. / Candelaria Rd.	Following Too Closely	Invalid Code	Property Damage Only	NO
Camino Cepillo / Candelaria Rd.	Improper Backing	Vehicle Backed into Parked Vehicle	Property Damage Only	NO
Candelaria Rd. / Trellis Drive	Failure to Yield	Intersection - Not Stated	Property Damage Only	NO
Rio Grande Blvd. / Candelaria Rd.	Excessive Speed	Intersection - Both Going Straight/Entering at Angle	Injury Crash	NO

Table 3.D.3.

Candelaria Road (Rio Grande Blvd. - Rio Grande Nature Center) 2014 Crash Summary				
Crash Location	Cause of Crash	Crash Analysis	Crash Severity	Crash Correction with Traffic Calming
Candelaria Rd. / Trellis Drive	Failed to Yield to Right of Way	Intersection - From Opposite Direction	Injury Crash	NO
Candelaria Rd. / Rio Grande Blvd.	Missing Data	Intersection - From Opposite Direction	Property Damage Only	NO
Candelaria Rd. / Rio Grande Blvd.	Made Improper Turn	Invalid Code	Property Damage Only	NO
Candelaria Rd. / Rio Grande Blvd.	Disregarded Traffic Signal	Intersection - From Opposite Direction / Both Going Straight	Injury Crash	NO
Candelaria Rd. / Glenwood Drive	Failed to Yield to Right of Way	Intersection - From Opposite Direction/One Left Turn	Property Damage Only	NO

After evaluation of the 2012 – 2014 crash data, the majority of the crashes were caused by driver inattention and driver error. A large portion of the crashes occurred at the intersection of Candelaria Road and Rio Grande Boulevard which is not directly attributed to speeding through the study area.

4. U.S. LIMITS SPEED LIMITS PROGRAM

U.S. Limits is an FHWA sponsored program used to analyze speed limits. This program calculates a recommended speed limit based on the criteria given, which is listed on the website as follows:

- Density of surrounding development (e.g. high density, low density, or rural);
- Frequency of roadside access (e.g. number of residential driveways, commercial, industrial, shopping, and special activity properties, and the number and type of intersection roads);
- Road function (e.g. traffic movement vs. access to abutting properties);
- Road characteristics (e.g. paved width, divided or undivided, lane width, number and lanes, and sight restrictions);
- Road conditions and important high speed road characteristics (e.g. interchange spacing, AADT, and shoulders);
- Existing vehicle operating speeds;
- Adjoining speed limits: and
- Any special conditions that may exist on the road section (e.g. adverse alignment, pedestrian and roadside activities, high crash rates, etc.)

This analysis was used for Candelaria Road and based on the data entered into http://www.uslimits.com for the above-listed categories. Three segments were studied due to differences in ADT. The segments and results are as follows:

- Segment 1 – Rio Grande Nature Center to Trellis Drive
  - Existing posted speed limit – 25 mph
  - Recommended speed limit – 25 mph
- Segment 2 – Trellis Drive to Glenwood Drive
  - Existing posted speed limit – 25 mph
  - Recommended speed limit – 30 mph
- Segment 3 – Glenwood Drive to Rio Grande Boulevard
  - Existing posted speed limit – 25 mph
  - Recommended speed limit – 30 mph

The posted speed limit of 25 mph throughout the corridor is warranted per the U.S. Limits Speed Limits Program output sheets which are shown in Appendix C.

5. TRAFFIC CALMING DATA SUMMARY

After evaluating the volume, speed, and crash data, the summary of the traffic data analyses is provided in Table 5.1 through Table 5.3.

Table 5.1.

Candelaria Road - Rio Grande Nature Center to Trellis Drive Traffic Calming Warrants	
Description	Warranted?
Reported crashes in the past 3 years that could be corrected with traffic calming	NO
Peak-hour traffic volume greater than 400 vehicles in one direction	NO
25% of peak-hour traffic is non-local cut-through traffic	Not Studied
85th percentile speeds exceed the posted speed limit of 5 mph or more	NO

Table 5.2.

Candelaria Road - Trellis Drive to Glenwood Drive Traffic Calming Warrants	
Description	Warranted?
Reported crashes in the past 3 years that could be corrected with traffic calming	NO
Peak-hour traffic volume greater than 400 vehicles in one direction	NO
25% of peak-hour traffic is non-local cut-through traffic	Not Studied
85th percentile speeds exceed the posted speed limit of 5 mph or more	YES

Table 5.3.

Candelaria Road - Glenwood Drive to Rio Grande Boulevard Traffic Calming Warrants	
Description	Warranted?
Reported crashes in the past 3 years that could be corrected with traffic calming	NO
Peak-hour traffic volume greater than 400 vehicles in one direction	NO
25% of peak-hour traffic is non-local cut-through traffic	Not Studied
85th percentile speeds exceed the posted speed limit of 5 mph or more	YES

Based on the data collected and analyzed, Candelaria Road may warrant traffic calming measures from Trellis Drive to Rio Grande Boulevard. Section 6 on page 21 provides traffic calming measure recommendations in addition to the existing traffic calming measures on Candelaria Road that may potentially help decrease speeds and improve driver experience throughout the study corridor.

6. TRAFFIC CALMING RECOMMENDATIONS – GLENDWOOD DRIVE TO RIO GRANDE BOULEVARD

Based on the traffic analysis results, the following suggested recommendations could be installed to help reduce speeding along Candelaria Road, NW. Our recommendations do not suggest that all are to be implemented. One or a combination of any can be considered.

6.A. RECOMMENDATION 1 – SPEED LIMIT SIGNS

The first suggested recommendation for traffic calming devices along Candelaria Road is to install additional speed limit signs along the study corridor. Currently, there are 4 existing "Speed Limit 25" signs and Figures 6.A.1. through 6.A.1. on pages 22 through 24 displays an additional 6 speed limit signs. The additional speed limit signs have been located in accordance to the City of Albuquerque's Standard Details for Signing & Striping Speed Limit Sign Placement Details. Below are a description of the pros and cons associated with Recommendation 1.

Pros:
1. Provides clear definition of speed limit
2. Inexpensive
3. Does not inhibit emergency vehicles
4. Permanent installation
5. Quick installation

Cons:
1. No guarantee to calm traffic
2. Subject to vandalism
3. Maintenance
4. Effectiveness may be temporary

Approximate Cost: $2,600 - $3,300

FIGURE 6.A.1.
RECOMMENDATION 1 EXHIBIT

Date: Jan 12, 2017 - 3:04pm tay Layout: EX TC 1
Drawing Name: P:\7-COA 2015 OnCall Transportation and Storm Drainage (74237599)\T13-Candelaria Traffic Calming\Studies\CADD\Candelaria REC 1 Exhibits.dwg

FIGURE 6.A.2.
RECOMMENDATION 1 EXHIBIT

Date: Jan 12, 2017 - 3:05pm tay Layout: EX TC 2
Drawing Name: P:\7-COA 2015 OnCall Transportation and Storm Drainage (74237599)\T13-Candelaria Traffic Calming\Studies\CADD\Candelaria REC 1 Exhibits.dwg

FIGURE 6.A.3.
RECOMMENDATION 1 EXHIBIT

Date: Jan 12, 2017 – 3:06pm tay Layout: EX TC 3
Drawing Name: P:\7-COA 2015 OnCall Transportation and Storm Drainage (7423759)\T13-Candelaria Traffic Calming\Studies\CADD\Candelaria REC 1 Exhibits.dwg

6.B. RECOMMENDATION 2 – PERMANENT RADAR SPEED SIGNS

The second suggested traffic calming recommendation is to install permanent radar speed signs within the study area. A total of four radar speed signs would be installed between Glenwood Drive and Rio Grande Boulevard. Figures 6.B.2. through 6.B.4. from pages 26 to 28 display the approximate installation locations. The recommended installations are mid-block and located where there is adequate space between the back of existing sidewalk and right-of-way or obstruction. Below are descriptions of the pros and cons associated with recommendation 2.

Pros:
1. Real-time feedback of speed
2. Does not inhibit emergency vehicles
3. Permanent installation
4. May slow down responsible and unfamiliar drivers
5. Quick installation

Cons:
1. Requires electrical service or solar power
2. Subject to vandalism
3. Maintenance
4. Effectiveness may be temporary

Approximate Cost: $24,000 - $31,000 ($7,000 each)

FIGURE 6.B.1.
COMANCHE ROAD PERMANENT RADAR SPEED SIGN EXAMPLE

FIGURE 6.B.2.
RECOMMENDATION 2 EXHIBIT

Date: Jan 12, 2017 - 3:01pm tay Layout: EX TC 1
Drawing Name: P:\7-COA 2015 OnCall Transportation and Storm Drainage (74237591)\T13-Candelaria Traffic Calming\Studies\CADD\Candelaria REC 2 Exhibits.dwg

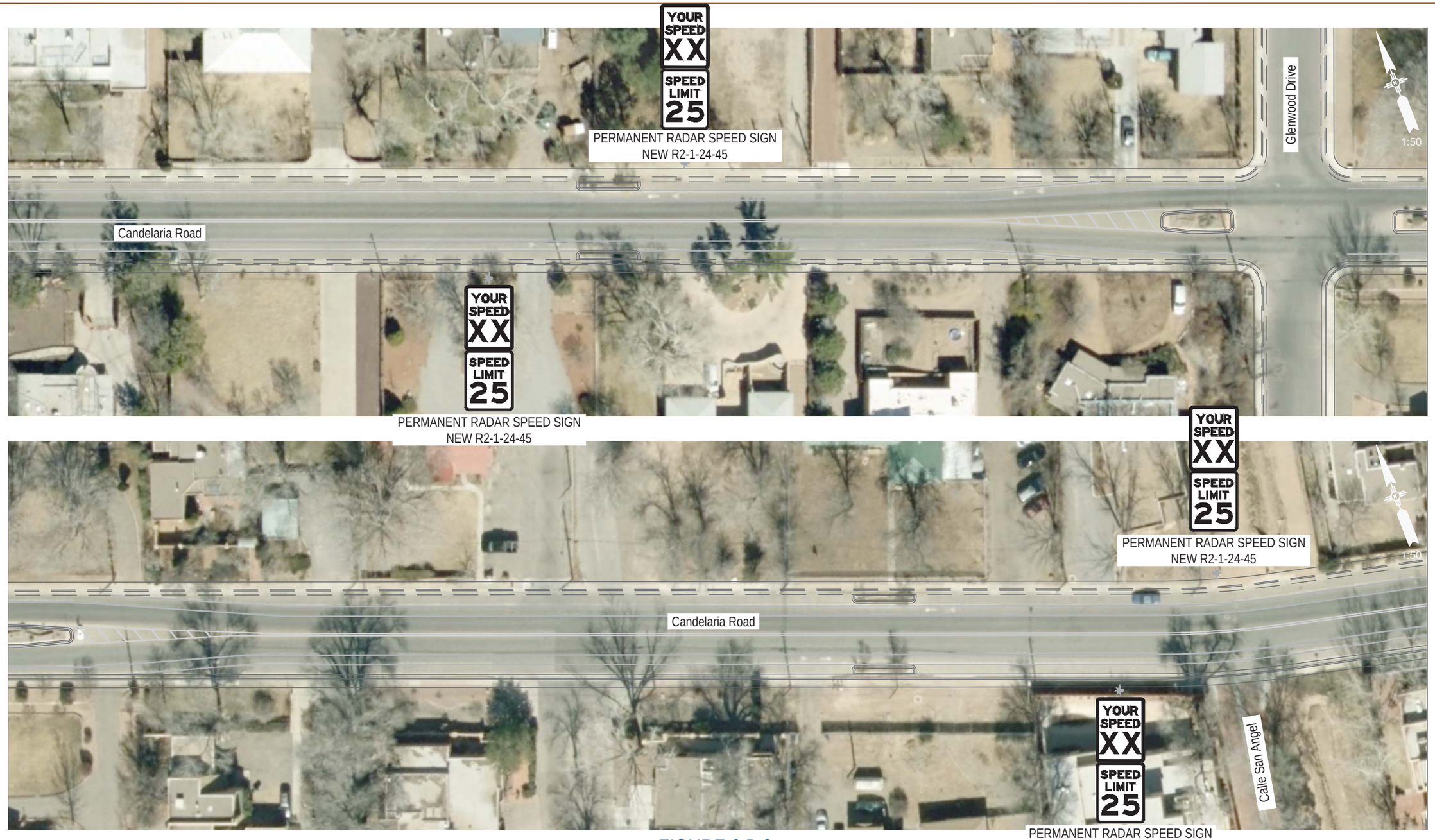

FIGURE 6.B.3.
RECOMMENDATION 2 EXHIBIT

Date: Jan 12, 2017 - 3:02pm tay Layout: EX TC 2
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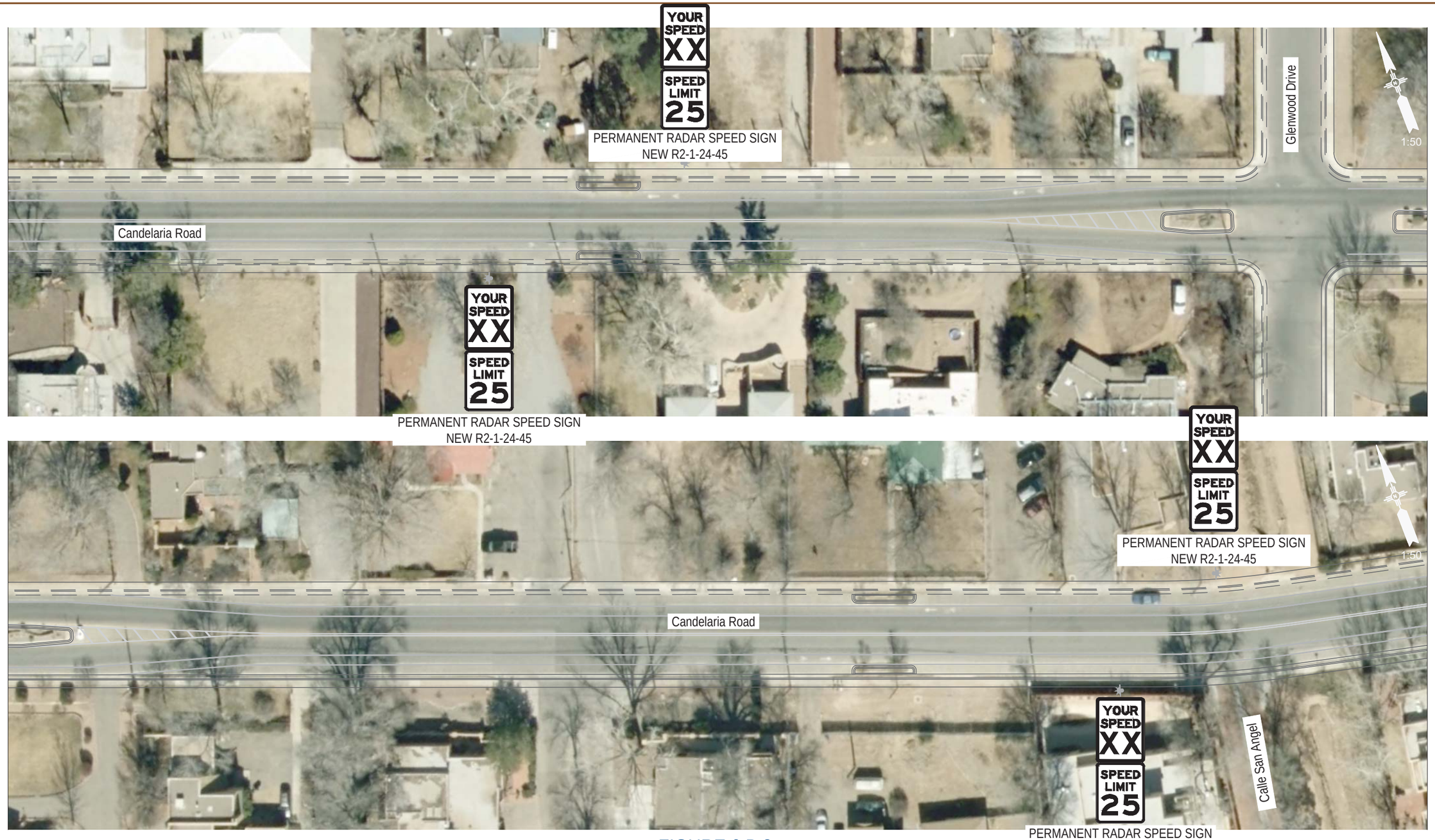

FIGURE 6.B.3.
RECOMMENDATION 2 EXHIBIT

Date: Jan 12, 2017 - 3:02pm tay Layout: EX TC 2
Drawing Name: P:\7-COA 2015 OnCall Transportation and Storm Drainage (7423759)\T13-Candelaria Traffic Calming\Studies\CADD\Candelaria REC 2 Exhibits.dwg

6.C. RECOMMENDATION 3 – SPEED TABLES

The third suggested recommendation for traffic calming along Candelaria is to install speed tables within the study area. Figures 6.C.2. through 6.C.4. from pages 30 to 32 displays the approximate location of the speed tables. Also shown in page 32 is a typical section of the speed tables. There are a total of four recommended speed tables and each has been places between the existing bulbouts. The speed tables are 3 inches in height, 10 feet in length, and 6-foot tapers on either side in the direction of traffic. Below are descriptions of the pros and cons associated with recommendation 3.

Pros:
1. Traffic calming effectiveness
2. No drainage impacts when placed between existing bulbouts

Cons:
1. Constructability
2. May increase traffic noise
3. Cost
4. Additional signing

Approximate Cost: $50,000 - $63,000

FIGURE 6.C.1.
SPEED TABLE EXAMPLE

FIGURE 6.C.2.
RECOMMENDATION 3 EXHIBIT

Date: Jan 12, 2017 - 3:11pm tay Layout: EX TC 1
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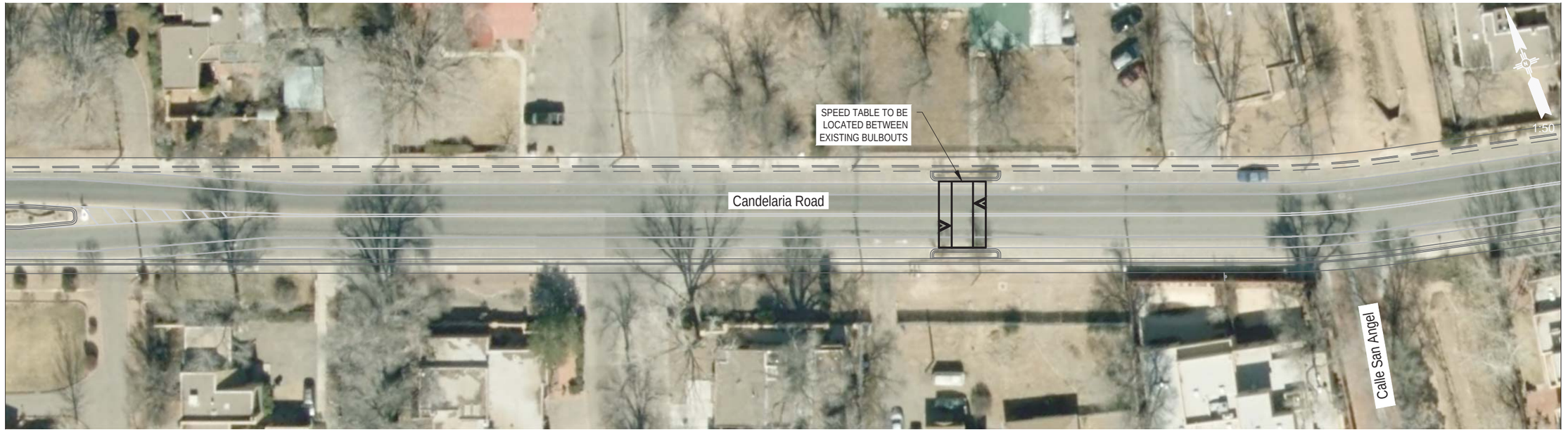

FIGURE 6.C.3.
RECOMMENDATION 3 EXHIBIT

Date: Jan 12, 2017 - 3:12pm tay Layout: EX TC 2
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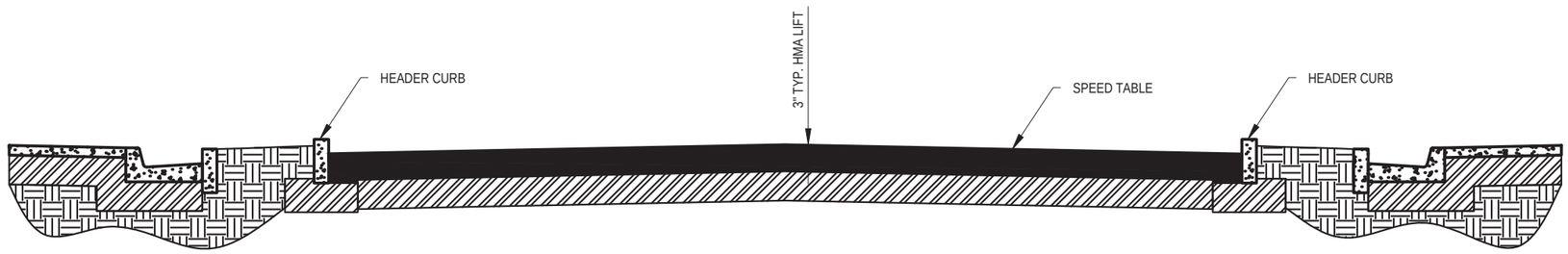

FIGURE 6.C.4.
RECOMMENDATION 3 EXHIBIT

Date: Jan 12, 2017 – 3:12pm tay Layout: EX TC 3
Drawing Name: P:\7-COA 2015 OnCall Transportation and Storm Drainage (7423759)\T13-Candelaria Traffic Calming\Studies\CADD\Candelaria REC 3 Exhibits.dwg

6.D. RECOMMENDATION 4 – RAISED INTERSECTIONS

The fourth suggested recommendation is to construct raised intersection at the intersections of Candelaria Road / Trellis Drive and at Candelaria Road / Glenwood Drive. Figures 6.D.2. and 6.D.3. on pages 34 and 35 displays a conceptual exhibit of the raised intersection. The raised intersection would be 3 inches in height with 6-foot tapers on all four intersection legs. Below are the pros and cons associated with recommendation 4.

Pros:
1. May improve pedestrian and motorist experience
2. Treats two streets at once
3. Aesthetic value

Cons:
1. Constructability
2. Cost
3. May increase traffic noise
4. Drainage impacts
5. May be less effective than speed tables
6. ADA impacts

Approximate Cost: $78,000 - $96,000

FIGURE 6.D.1.
RAISED INTERSECTION EXAMPLE

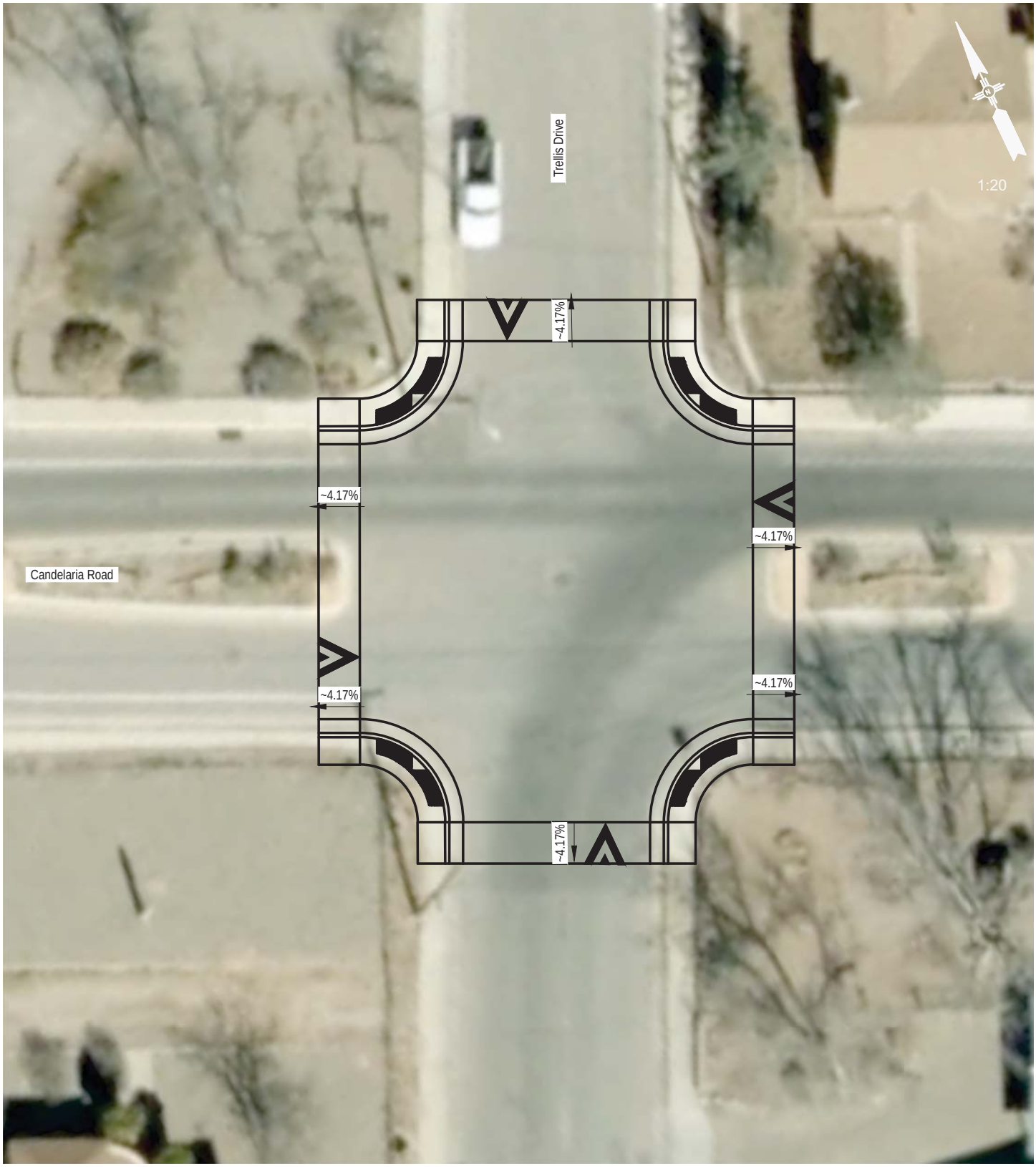

FIGURE 6.D.2.
RECOMMENDATION 4 EXHIBIT

Date: Jan 13, 2017 – 8:40am tay Layout: REC 4
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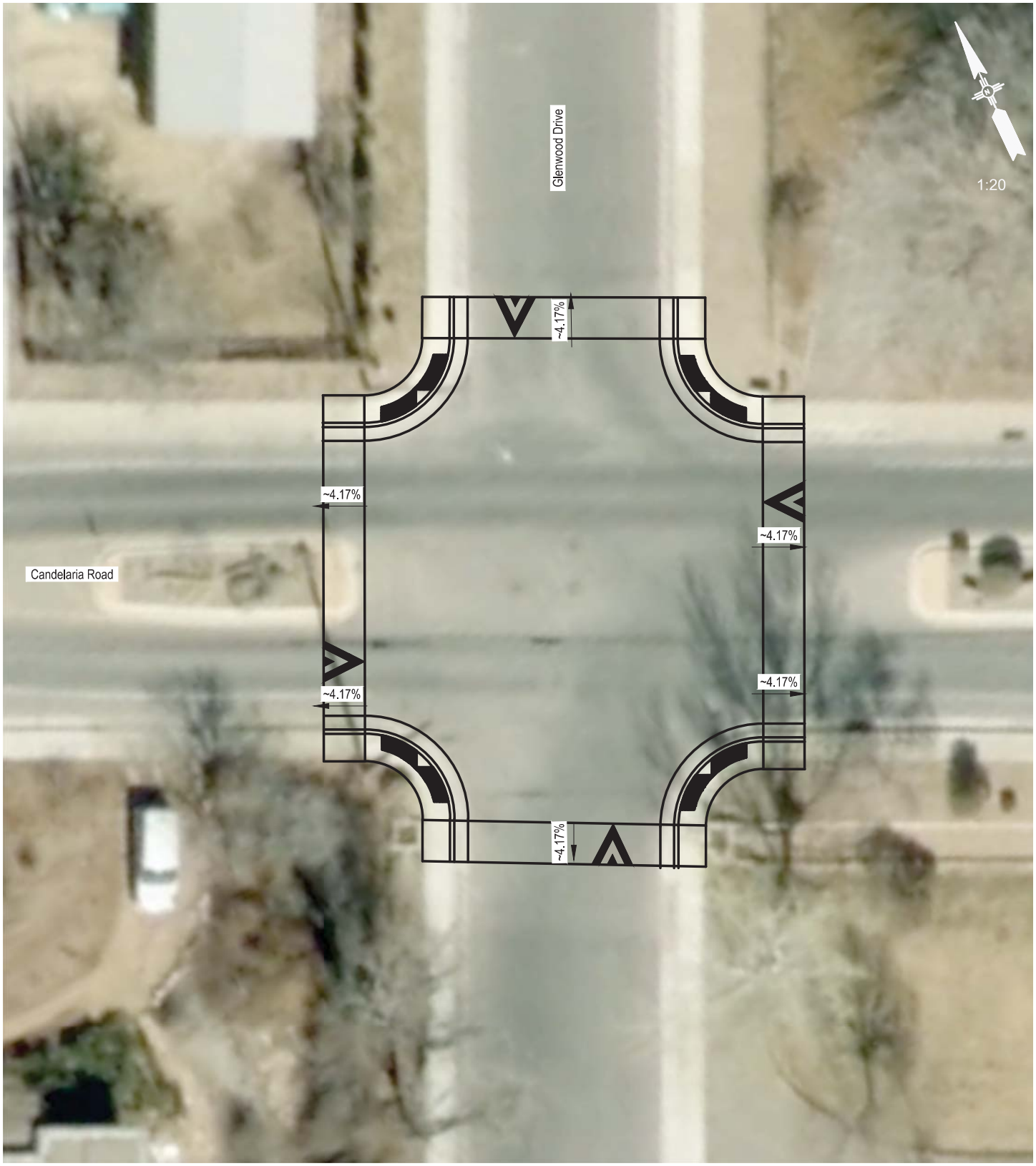


FIGURE 6.D.3.
RECOMMENDATION 4 EXHIBIT

Date: Jan 13, 2017 - 7:52am rll Layout: REC 4 2
Drawing Name: P:\7-COA 2015 OnCall Transportation and Storm Drainage (7423759)\T13-Candelaria Traffic Calming\Studies\CADD\Candelaria REC 4 Exhibits.dwg

6.E. RECOMMENDATION 5 – TRAFFIC CIRCLES

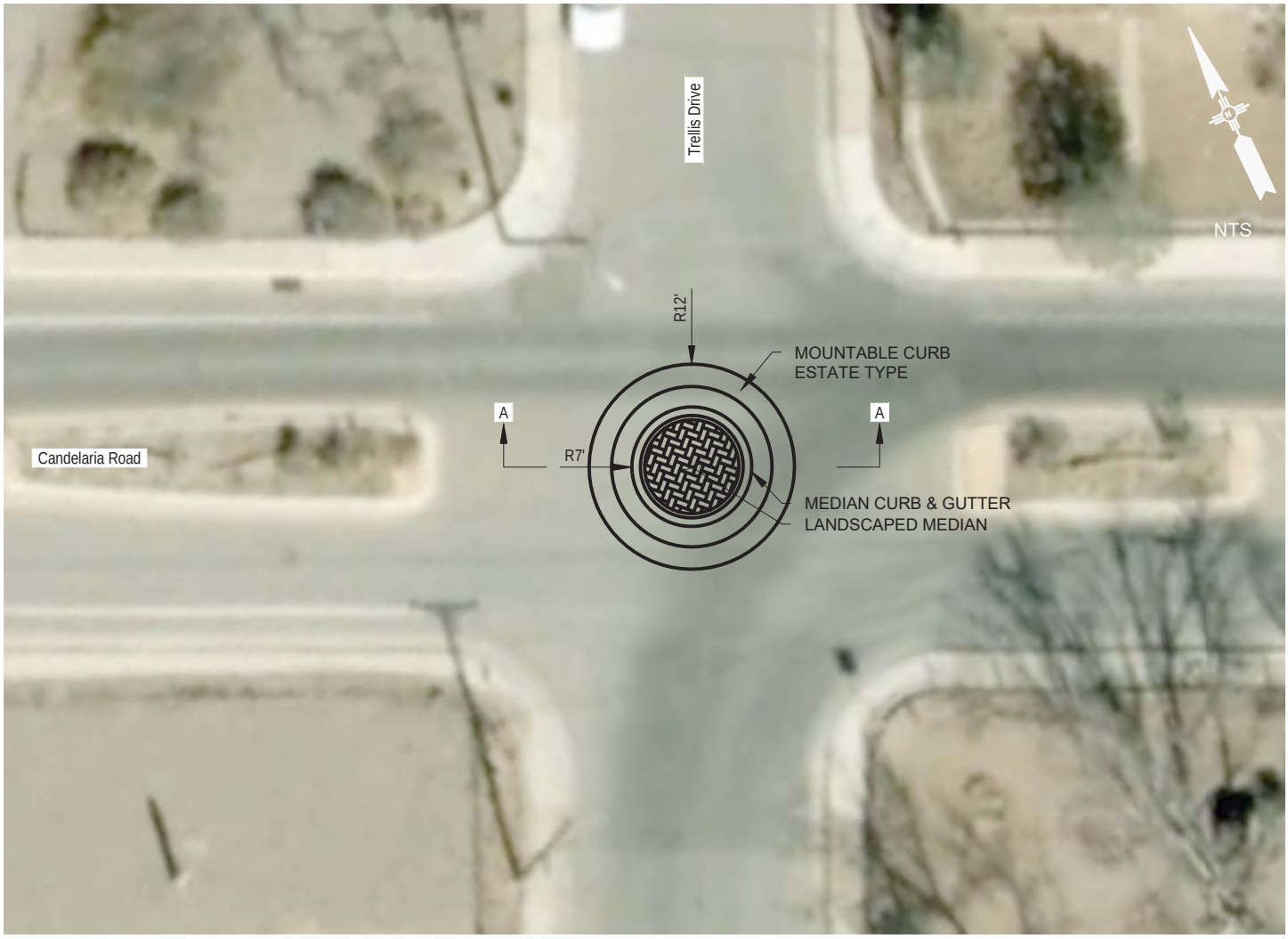
The fifth suggested recommendation is to construct traffic circles at the intersections of Candelaria Road / Trellis Drive and at Candelaria Road / Glenwood Drive. Figures 6.E.2. and 6.E.3. on pages 37 and 38 displays a conceptual exhibit of the traffic circles. The traffic circles' outer diameter is 12-feet with an inner diameter of 7-feet. Traffic circles differ from roundabouts due to their smaller inscribed diameter and they may be constructed at a residential intersection without needing right-of-way acquisition, unlike a roundabout. Traffic circles are designed to lower the motorist's speed as they circumnavigate the traffic circle and are meant to provide a horizontal defection to motorists traveling through the intersection. Below are the pros and cons associated with recommendation 5.

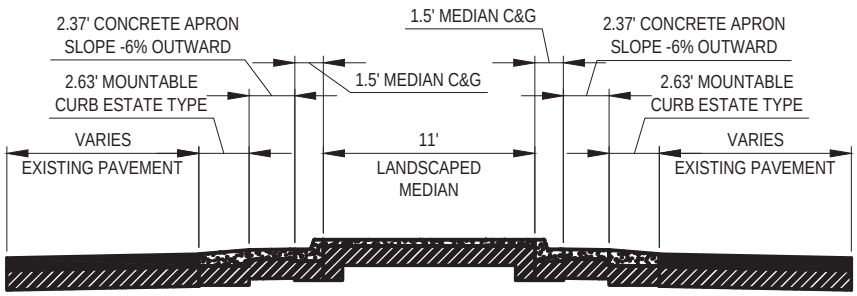
Pros:
1. Effectiveness in moderating speed
2. Aesthetic value
3. Increased access from the side street to main street
4. Breaks line of sight on straight streets

Cons:
1. Cost
2. May be difficult for larger vehicles to circumnavigate
3. Distinguishing right-of-way between vehicles
4. Bicycle lanes must merge with traffic lanes

Approximate Cost: $43,000 - $55,000

FIGURE 6.E.1.
TRAFFIC CIRCLE EXAMPLE





SECTION A-A

FIGURE 6.E.2.
RECOMMENDATION 5 EXHIBIT

Date: Jan 13, 2017 - 8:38am tay Layout: REC 5
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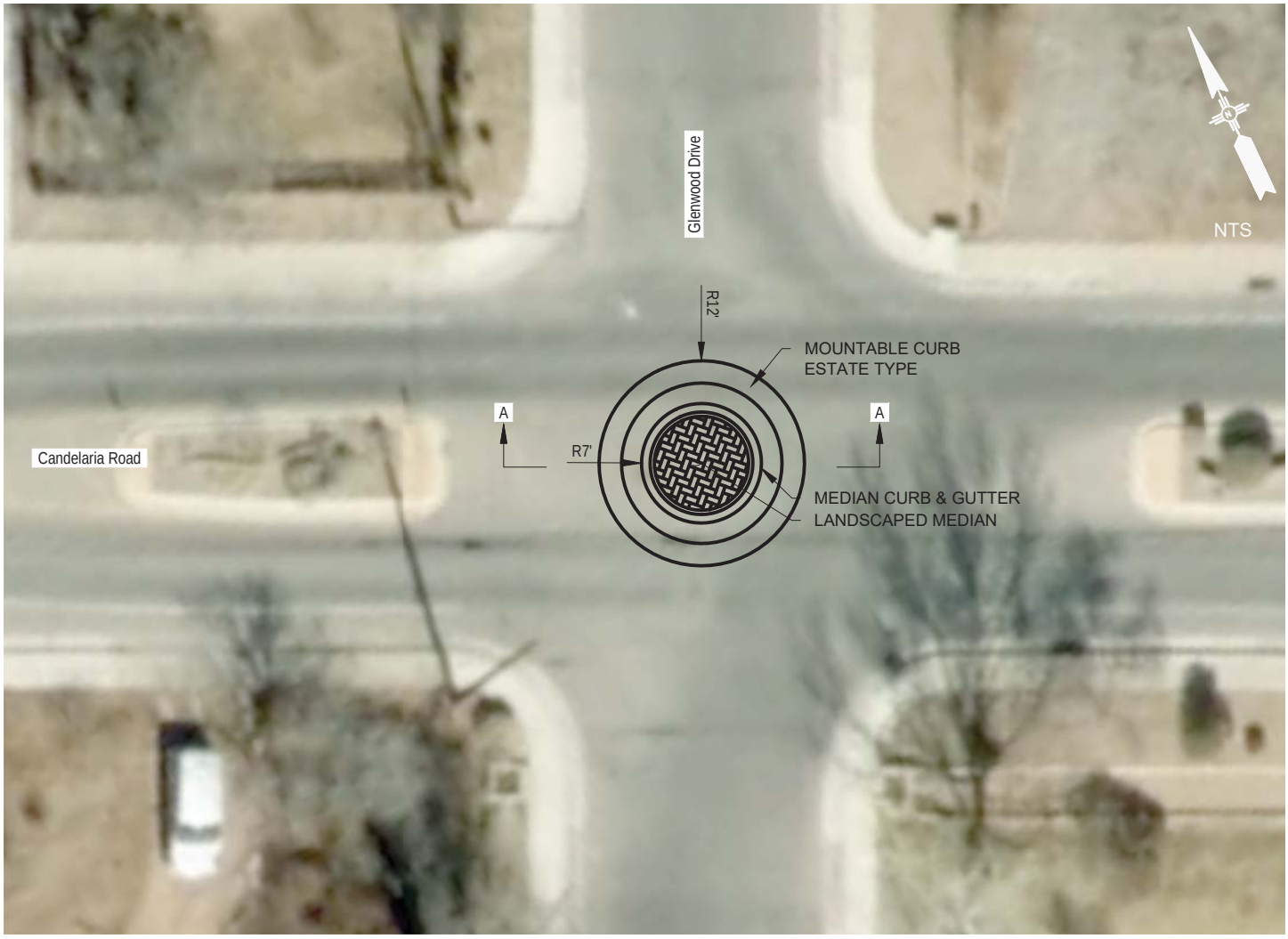

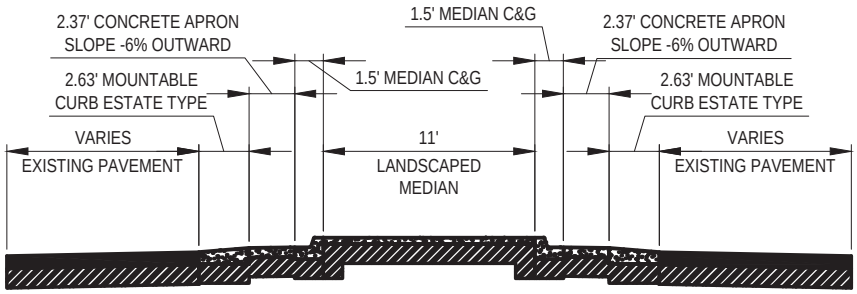

SECTION A-A

FIGURE 6.E.3.
RECOMMENDATION 5 EXHIBIT

Date: Jan 13, 2017 – 8:38am tay Layout: REC 5 2
Drawing Name: P:\7-COA 2015 OnCall Transportation and Storm Drainage (7423759)\T13-Candelaria Traffic Calming\Studies\CADD\Candelaria REC 5 Exhibits.dwg

6.F. RECOMMENDATION 6 – CENTERLINE STRIPING ERADICATION

The final recommendation is to eradicate the centerline striping from the Rio Grande Nature Center to Rio Grande Boulevard, excluding the striped tapers around center median islands near the project intersections. Figures 6.F.2. through 6.F.4. on pages 37 through 39 displays the conceptual exhibit of the centerline striping eradication. Below are the pros and cons associated with recommendation 6.

Pros:

1. May moderate speed (It is assumed that speed may be reduced. Currently, there is no known technical evidence such as studies or investigations that have been conducted to verify speed reduction by the removal of pavement markings that SMA is aware of.)

Cons:

1. Permanent scarring to roadway surface caused by removal
2. Diminished distinction of right-of-way between oncoming vehicles
3. Parking and bicycle lanes are designated but travel lanes are not
4. May increase driver speed due to wider single lane
5. May cause driver error resulting in vehicles traveling in wrong lane at center median islands due to eradicated centerline striping

Approximate Cost: $17,000 - $22,000

FIGURE 6.F.1.
CENTERLINE STRIPING ERADICATION CONCEPTUAL EXAMPLE

FIGURE 6.F.2.
RECOMMENDATION 6 EXHIBIT

Date: Jan 18, 2017 - 1:56pm tay Layout: REC 6 1
Drawing Name: P:\7-COA 2015 OnCall Transportation and Storm Drainage (74237591)\T13-Candelaria Traffic Calming\Studies\CADD\Candelaria REC 6 Exhibits.dwg

FIGURE 6.F.3.
RECOMMENDATION 6 EXHIBIT

Date: Jan 18, 2017 - 1:57pm tay Layout: REC 6 2
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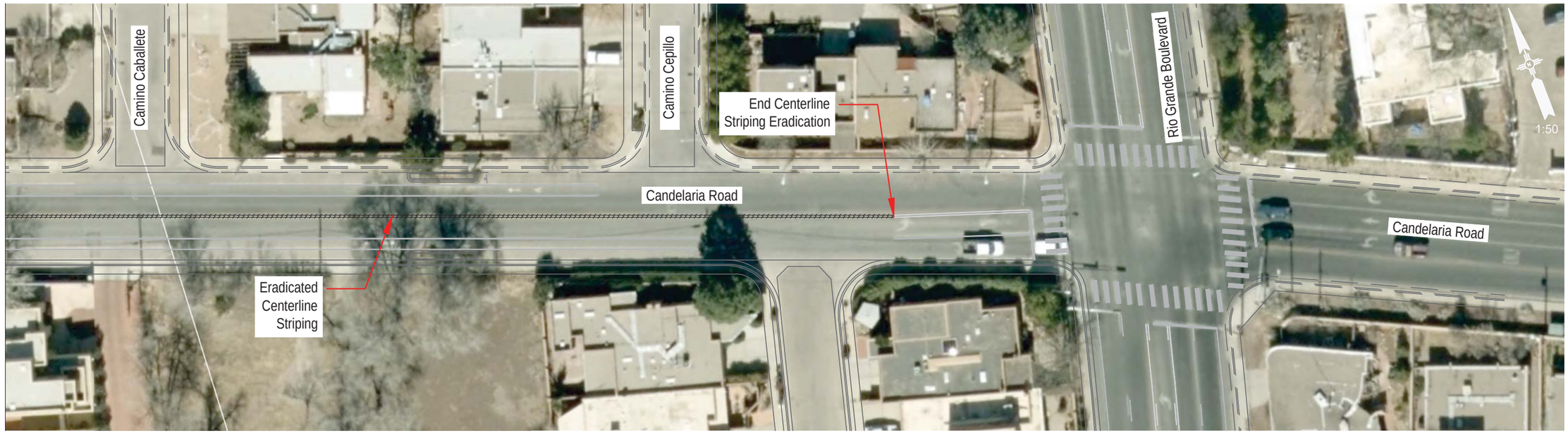

FIGURE 6.F.4.
RECOMMENDATION 6 EXHIBIT

Date: Jan 18, 2017 - 1:57pm tay Layout: REC 6 3
Drawing Name: P:\7-COA 2015 OnCall Transportation and Storm Drainage (7423759)\T13-Candelaria Traffic Calming\Studies\CADD\Candelaria REC 6 Exhibits.dwg

Appendices

- Appendix A – USLIMITS2 Speed Zoning Reports
- Appendix B – Volume and Speed Data
- Appendix C – Crash Data
- Appendix D – Background of Speed Limits

Appendix A

USLIMITS2 Speed Zoning Report

Project Name: Candelaria Road Traffic Calming Study

Analyst: Thaddeus Yazzie

Date: 11-28-2016

Basic Project Information
Project Number: COA 7852.00
Route Name: Candelaria Road
From: Rio Grande Nature Center
To: Trellis Drive
State: New Mexico
County: Bernalillo County
City: Albuquerque city
Route Type: Road Section in Developed Area
Route Status: Existing

Roadway Information
Section Length: .11 mile(s)
Statutory Speed Limit: 25 mph
Adverse Alignment: No
One-Way Street: No
Divided/Undivided: Undivided
Number of Through Lanes: 2
Area Type: Residential-Collector
Number of Driveways: 13
Number of Signals: 0

Crash Data Information
Crash Data Years: 3.25
Crash AADT: 353 veh/day
Total Number of Crashes: 3
Total Number of Injury Crashes: 1
Section Crash Rate: 6513 per 100 MVM
Section Injury Crash Rate: 2171 per 100 MVM
Crash Rate Average for Similar Roads: 263
Injury Rate Average for Similar Roads: 67

Traffic Information
85th Percentile Speed: 29 mph
50th Percentile Speed: 23 mph
AADT: 353 veh/day
On Street Parking and Usage: Not High
Pedestrian / Bicyclist Activity: Not High

Project Description: Segment 1 - Candelaria Road Traffic Calming Study from Rio Grande Nature Center to Trellis Drive.

Recommended Speed Limit:

Note: The section crash rate of 6513 per 100 MVM is above the critical rate (3296). The injury crash rate for the section of 2171 per 100 MVM is above the critical rate (2138). A comprehensive crash study should be undertaken to identify engineering and traffic control deficiencies and appropriate corrective actions. The speed limit should only be reduced as a last measure after all other treatments have either been tried or ruled out.

USLIMITS2 Speed Zoning Report

Project Name: Candelaria Road Traffic Calming Study

Analyst: Thaddeus Yazzie

Date: 11-28-2016

Basic Project Information
Project Number: COA 7852.00
Route Name: Candelaria Road
From: Trellis Drive
To: Glenwood Drive
State: New Mexico
County: Bernalillo County
City: Albuquerque city
Route Type: Road Section in Developed Area
Route Status: Existing

Roadway Information
Section Length: .22 mile(s)
Statutory Speed Limit: 25 mph
Adverse Alignment: No
One-Way Street: No
Divided/Undivided: Undivided
Number of Through Lanes: 2
Area Type: Residential-Collector
Number of Driveways: 28
Number of Signals: 0

Crash Data Information
Crash Data Years: 3.08
Crash AADT: 1118 veh/day
Total Number of Crashes: 1
Total Number of Injury Crashes: 0
Section Crash Rate: 361 per 100 MVM
Section Injury Crash Rate: 0 per 100 MVM
Crash Rate Average for Similar Roads: 263
Injury Rate Average for Similar Roads: 67

Traffic Information
85th Percentile Speed: 34 mph
50th Percentile Speed: 29 mph
AADT: 1118 veh/day
On Street Parking and Usage: Not High
Pedestrian / Bicyclist Activity: Not High

Project Description: Segment 2 - Candelaria Road Traffic Calming Study from Trellis Drive to Glenwood Drive

Recommended Speed Limit:

Note: The final recommended speed limit is higher than the statutory speed limit of **25 mph** for this type of road. An engineering study such as the one carried out with USLIMITS is usually required to set a speed limit above the statutory limit.

Note: The section crash rate of 361 per 100 MVM is more than 30 percent above the average for similar roads (263) but below the critical rate (1238). A comprehensive crash study should be undertaken to identify engineering and traffic control deficiencies and appropriate corrective actions. The speed limit should only be reduced as a last measure after all other treatments have either been tried or ruled out.

Note: A section length of .22 miles is too short for speed zoning on public streets and roads for the recommended speed limit. You may consider lengthening the speed zone (if that is possible) or using the speed limits from adjacent sections (if they are appropriate for this section). If the 85th percentile speeds and other data you provided are representative of conditions for this short section, then the speed limit noted above should be considered. If the data were taken in a road section with adverse horizontal and vertical alignment, in a construction zone, or in a area with unique geometric and/or traffic control features, then the above noted speed limit may not be appropriate because this expert system is not designed to recommend speed limits for sharp horizontal curves, within the limits of construction zones, or in other special traffic situations.

USLIMITS2 Speed Zoning Report

Project Name: Candelaria Road Traffic Calming Study

Analyst: Thaddeus Yazzie

Date: 11-28-2016

Basic Project Information
Project Number: COA 7852.00
Route Name: Candelaria Road
From: Glenwood Drive
To: Rio Grande Blvd.
State: New Mexico
County: Bernalillo County
City: Albuquerque city
Route Type: Road Section in Developed Area
Route Status: Existing

Roadway Information
Section Length: .26 mile(s)
Statutory Speed Limit: 25 mph
Adverse Alignment: No
One-Way Street: No
Divided/Undivided: Undivided
Number of Through Lanes: 2
Area Type: Residential-Collector
Number of Driveways: 21
Number of Signals: 0

Crash Data Information
Crash Data Years: 3.00
Crash AADT: 2026 veh/day
Total Number of Crashes: 1
Total Number of Injury Crashes: 0
Section Crash Rate: 173 per 100 MVM
Section Injury Crash Rate: 0 per 100 MVM
Crash Rate Average for Similar Roads: 263
Injury Rate Average for Similar Roads: 67

Traffic Information
85th Percentile Speed: 34 mph
50th Percentile Speed: 29 mph
AADT: 2026 veh/day
On Street Parking and Usage: Not High
Pedestrian / Bicyclist Activity: Not High

Project Description: Segment 3 - Candelaria Road Traffic Calming Study from Glenwood Drive to Rio Grande Boulevard

Recommended Speed Limit:

Note: The final recommended speed limit is higher than the statutory speed limit of **25 mph** for this type of road. An engineering study such as the one carried out with USLIMITS is usually required to set a speed limit above the statutory limit.

Note: A section length of .26 miles is too short for speed zoning on public streets and roads for the recommended speed limit. You may consider lengthening the speed zone (if that is possible) or using the speed limits from adjacent sections (if they are appropriate for this section). If the 85th percentile speeds and other data you provided are representative of conditions for this short section, then the speed limit noted above should be considered. If the data were taken in a road section with adverse horizontal and vertical alignment, in a construction zone, or in a area with unique geometric and/or traffic control features, then the above noted speed limit may not be appropriate because this expert system is not designed to recommend speed limits for sharp horizontal curves, within the limits of construction zones, or in other special traffic situations.

Appendix B

Special Speed Study Report: Candelaria West of Trellis

Station ID : Candelaria West of Trellis

Info Line 1 :
Info Line 2 : Albuquerque
GPS Lat/Lon :
DB File : WO TRELLIS 1WB.DB

Last Connected Device Type : Apollo
Version Number : 1.66
Serial Number :

Number of Lanes : 1
Posted Speed Limit : 0.0 mph

Lane #1 Configuration

#	Dir.	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
1.		Westbound	Ax-Ax	4.0 ft	6.0 ft	

Lane #1 Special Speed Study Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Date	Time	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
11/16/20	00:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Wed	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	06:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	07:00	3	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0	11
	08:00	1	6	10	1	2	0	0	0	0	0	0	0	0	0	0	0	20
	09:00	7	24	13	4	1	0	0	0	0	0	0	0	0	0	0	0	49
	10:00	4	5	9	0	1	0	0	0	0	0	0	0	0	0	0	0	19
	11:00	3	4	4	2	0	0	0	0	0	0	0	0	0	0	0	0	13
	12:00	6	8	3	2	0	0	0	0	0	0	0	0	0	0	0	0	19
	13:00	3	8	11	1	0	0	0	0	0	0	0	0	0	0	0	0	23
	14:00	5	7	6	0	0	0	0	0	0	0	0	0	0	0	0	0	18
	15:00	3	4	3	2	0	0	0	0	0	0	0	0	0	0	0	0	12
	16:00	7	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	17:00	4	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	6
	18:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	19:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	20:00	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
	21:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	22:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	23:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Daily Total :		50	74	70	15	5	0	0	0	0	0	0	0	0	0	0	0	214
Percent :		23%	35%	33%	7%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		23%	58%	91%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		2	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	9

Average Speed 22.2 mph 50% Speed : 23.8 mph 67% Speed : 26.5 mph 85% Speed : 28.9 mph
10mph Pace: 20.3 - 30.2 (67.3%)

Date	Time	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
11/17/20	00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thu	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	06:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	07:00	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	08:00	1	2	4	3	1	0	0	0	0	0	0	0	0	0	0	0	11
	09:00	6	15	12	2	0	0	0	0	0	0	0	0	0	0	0	0	35
	10:00	3	2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	11
	11:00	1	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	12:00	5	8	4	3	0	0	0	0	0	0	0	0	0	0	0	0	20
	13:00	4	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	12
	14:00	2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	15:00	1	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	8
	16:00	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	17:00	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	18:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	21:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	22:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	23:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Daily Total :		38	43	42	14	2	0	0	0	0	0	0	0	0	0	0	0	139
Percent :		27%	31%	30%	10%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		27%	58%	88%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	7

Average Speed 21.8 mph 50% Speed : 23.1 mph 67% Speed : 27.0 mph 85% Speed : 28.5 mph
10mph Pace: 21.2 - 31.1 (61.2%)

Lane #3 Configuration

#	Dir.	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
3.		Eastbound	Ax-Ax	4.0 ft	6.0 ft	

Lane #3 Special Speed Study Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Date	Time	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
11/16/20	00:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Wed	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	07:00	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	08:00	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	09:00	3	12	4	0	0	0	0	0	0	0	0	0	0	0	0	0	19
	10:00	7	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	11:00	7	14	3	0	0	0	0	0	0	0	0	0	0	0	0	0	24
	12:00	14	15	10	2	1	0	0	0	0	0	0	0	0	0	0	0	42
	13:00	10	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	21
	14:00	10	13	6	3	0	0	0	0	0	0	0	0	0	0	0	0	32
	15:00	11	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
	16:00	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	17:00	9	1	1	1	0	0	0	0	0	0	0	0	1	0	1	0	14
	18:00	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4
	19:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	20:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	21:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	22:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily Total :		87	84	33	8	1	0	0	0	0	0	0	1	1	0	1	0	216
Percent :		40%	39%	15%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		40%	79%	94%	98%	99%	99%	99%	99%	99%	99%	99%	99%	100%	100%	100%	100%	
Average :		4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9

Average Speed 19.4 mph 50% Speed : 21.4 mph 67% Speed : 23.3 mph 85% Speed : 27.2 mph
10mph Pace: 20.1 - 30.0 (54.2%)

Date	Time	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
11/17/20	00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thu	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	07:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	08:00	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	09:00	6	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	10:00	5	2	4	3	0	0	0	0	0	0	0	0	0	0	0	0	14
	11:00	4	3	4	4	0	0	0	0	0	0	0	0	0	0	0	0	15
	12:00	4	8	8	1	0	0	0	0	0	0	0	0	0	0	0	0	21
	13:00	4	6	4	1	0	0	0	0	0	0	0	0	0	0	0	0	15
	14:00	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
	15:00	2	7	2	2	0	0	0	0	0	0	0	0	0	0	0	0	13
	16:00	6	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	17:00	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	18:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	21:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	22:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	23:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Daily Total :		49	48	27	11	0	0	0	0	0	0	0	0	0	0	0	0	135
Percent :		36%	36%	20%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		36%	72%	92%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5

Average Speed 19.8 mph 50% Speed : 22.2 mph 67% Speed : 23.6 mph 85% Speed : 27.7 mph
10mph Pace: 21.1 - 31.0 (55.6%)

Special Speed Study Summary: Candelaria West of Trellis

Description	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
Grand Total #1:	88	117	112	29	7	0	0	0	0	0	0	0	0	0	0	0	353
Percent :	25%	33%	32%	8%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :	25%	58%	90%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	7

ADT = 176

Average Speed 22.1 mph 50% Speed : 23.5 mph 67% Speed : 26.7 mph 85% Speed : 28.9 mph
10mph Pace: 20.1 - 30.0 (64.9%)

Grand Total #3:	136	132	60	19	1	0	0	0	0	0	0	1	1	0	1	0	351
Percent :	39%	38%	17%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :	39%	76%	93%	99%	99%	99%	99%	99%	99%	99%	99%	99%	100%	100%	100%	100%	
Average :	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7

ADT = 175

Average Speed 19.6 mph 50% Speed : 21.7 mph 67% Speed : 23.5 mph 85% Speed : 27.5 mph
10mph Pace: 20.1 - 30.0 (54.7%)

Comb. Total :	224	249	172	48	8	0	0	0	0	0	0	1	1	0	1	0	704
Percent :	32%	35%	24%	7%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :	32%	67%	92%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :	5	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	15

ADT = 352

Average Speed 20.8 mph 50% Speed : 22.6 mph 67% Speed : 25.0 mph 85% Speed : 28.5 mph
10mph Pace: 20.1 - 30.0 (59.8%)

Special Speed Study Report: Candelaria West of Glenwood

Station ID : Candelaria West of Glenwood

Info Line 1 :
Info Line 2 : Albuquerque
GPS Lat/Lon :
DB File : WO.DB

Last Connected Device Type : Apollo
Version Number : 1.45
Serial Number : 93883

Number of Lanes : 1
Posted Speed Limit : 0.0 mph

Lane #1 Configuration

#	Dir.	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
1.		Westbound	Ax-Ax	4.0 ft	6.0 ft	

Lane #1 Special Speed Study Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Date	Time	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
11/16/20	00:00	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
Wed	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	05:00	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3
	06:00	0	1	4	4	0	1	0	0	0	0	0	0	0	0	0	0	10
	07:00	2	3	8	22	2	0	0	0	0	0	0	0	0	0	0	0	37
	08:00	1	4	33	30	7	1	1	0	0	0	0	0	0	0	0	0	77
	09:00	3	7	24	18	7	1	1	0	0	0	0	0	0	0	0	0	61
	10:00	4	3	13	15	3	0	1	0	0	0	0	0	0	0	0	0	39
	11:00	3	2	12	7	4	0	0	0	0	0	0	0	0	0	0	0	28
	12:00	5	3	11	16	3	1	0	0	0	0	0	0	0	0	0	0	39
	13:00	1	11	19	17	6	0	0	0	0	0	0	0	0	0	0	0	54
	14:00	3	4	26	18	4	0	0	0	0	0	0	0	0	0	0	0	55
	15:00	5	15	21	19	2	0	0	0	0	0	0	0	0	0	0	0	62
	16:00	5	6	20	21	4	0	0	0	0	0	0	0	0	0	0	0	56
	17:00	3	4	23	22	6	0	0	0	0	0	0	0	0	0	0	0	58
	18:00	3	7	11	3	0	0	0	0	0	0	0	0	0	0	0	0	24
	19:00	4	1	6	2	1	1	0	0	0	0	0	0	0	0	0	0	15
	20:00	0	2	3	3	2	0	0	0	0	0	0	0	0	0	0	0	10
	21:00	0	0	3	2	0	0	1	0	0	0	0	0	0	0	0	0	6
	22:00	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	3
	23:00	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
Daily Total :		42	74	241	224	52	7	4	0	0	0	0	0	0	0	0	0	644
Percent :		7%	11%	37%	35%	8%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		7%	18%	55%	90%	98%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		2	3	10	9	2	0	0	0	0	0	0	0	0	0	0	0	26

Average Speed 28.6 mph 50% Speed : 29.3 mph 67% Speed : 31.7 mph 85% Speed : 34.1 mph
10mph Pace: 25.0 - 34.9 (72.2%)

Date	Time	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
11/17/20	00:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Thu	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	05:00	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	06:00	1	2	3	1	1	0	1	0	0	0	0	0	0	0	0	0	9
	07:00	3	12	9	7	4	2	1	0	0	0	0	0	0	0	0	0	38
	08:00	1	2	24	27	10	2	0	0	0	0	0	0	0	0	0	0	66
	09:00	1	9	20	10	7	1	0	0	0	0	0	0	0	0	0	0	48
	10:00	1	5	11	9	5	2	0	0	0	0	0	0	0	0	0	0	33
	11:00	0	2	13	8	2	1	0	0	0	0	0	0	0	0	0	0	26
	12:00	4	5	13	19	5	0	0	0	0	0	0	0	0	0	0	0	46
	13:00	0	4	10	11	5	2	0	0	0	0	0	0	0	0	0	0	32
	14:00	0	2	11	14	5	0	0	0	0	0	0	0	0	0	0	0	32
	15:00	0	5	18	19	7	0	1	0	0	0	0	0	0	0	0	0	50
	16:00	1	5	22	14	6	0	0	0	0	0	0	0	0	0	0	0	48
	17:00	3	3	15	21	10	0	0	0	0	0	0	0	0	0	0	0	52
	18:00	3	7	9	9	3	1	0	0	0	0	0	0	0	0	0	0	32
	19:00	0	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	15
	20:00	0	1	7	3	2	1	0	0	0	0	0	0	0	0	0	0	14
	21:00	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	4
	22:00	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
	23:00	1	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	5
Daily Total :		22	69	196	180	75	12	3	0	0	0	0	0	0	0	0	0	557
Percent :		4%	12%	35%	32%	13%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		4%	16%	52%	84%	97%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		1	3	8	8	3	1	0	0	0	0	0	0	0	0	0	0	24

Average Speed 29.5 mph 50% Speed : 29.7 mph 67% Speed : 32.4 mph 85% Speed : 35.5 mph
10mph Pace: 25.0 - 34.9 (67.5%)

Lane #3 Configuration

#	Dir.	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
3.		Eastbound	Ax-Ax	4.0 ft	6.0 ft	

Lane #3 Special Speed Study Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Date	Time	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
11/16/20	00:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Wed	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	05:00	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	5
	06:00	1	6	2	3	0	0	0	0	0	0	0	0	0	0	0	0	12
	07:00	4	5	14	9	2	2	0	0	0	0	0	0	0	0	0	0	36
	08:00	2	7	16	18	8	0	0	0	0	0	0	0	0	0	0	0	51
	09:00	0	6	16	10	1	0	0	0	0	0	0	0	0	0	0	0	33
	10:00	4	7	12	8	2	0	0	0	0	0	0	0	0	0	0	0	33
	11:00	3	5	14	13	3	1	0	0	0	0	0	0	0	0	0	0	39
	12:00	6	7	26	16	3	2	1	0	0	0	0	0	0	0	0	0	61
	13:00	2	4	22	10	5	0	0	0	0	0	0	1	0	0	0	0	44
	14:00	3	13	27	8	2	3	0	0	0	0	0	0	0	0	0	0	56
	15:00	5	12	15	8	1	0	0	0	0	0	0	0	0	0	0	0	41
	16:00	7	8	14	9	4	0	0	0	0	0	0	0	0	0	0	0	42
	17:00	3	21	20	10	1	1	0	0	0	0	0	0	0	0	0	0	56
	18:00	3	4	8	5	0	0	0	0	0	0	0	0	0	0	0	0	20
	19:00	0	2	10	5	0	0	0	0	0	0	0	0	0	0	0	0	17
	20:00	1	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	7
	21:00	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3
	22:00	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	5
	23:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
Daily Total :		48	110	221	140	35	9	1	0	0	0	0	1	0	0	0	0	565
Percent :		8%	19%	39%	25%	6%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		8%	28%	67%	92%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		2	5	9	6	1	0	0	0	0	0	0	0	0	0	0	0	23

Average Speed 27.2 mph 50% Speed : 27.8 mph 67% Speed : 30.0 mph 85% Speed : 33.4 mph
10mph Pace: 25.0 - 34.9 (63.9%)

Date	Time	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
11/17/20	00:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Thu	01:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	05:00	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4
	06:00	4	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	9
	07:00	1	5	11	8	5	0	0	0	0	0	0	0	0	0	0	0	30
	08:00	3	5	18	17	2	0	0	0	0	0	0	0	0	0	0	0	45
	09:00	2	7	18	15	2	1	0	0	0	0	0	0	0	0	0	0	45
	10:00	0	4	10	12	3	0	0	0	0	0	0	0	0	0	0	0	29
	11:00	4	6	7	11	4	1	0	0	0	0	0	0	0	0	0	0	33
	12:00	5	3	17	9	2	1	0	0	0	0	0	0	0	0	0	0	37
	13:00	1	6	8	13	4	1	0	0	0	0	0	0	0	0	0	0	33
	14:00	3	8	13	7	3	0	0	0	0	0	0	0	0	0	0	0	34
	15:00	2	4	16	15	6	0	1	0	0	0	0	0	0	0	0	0	44
	16:00	2	7	19	9	2	0	0	0	0	0	0	0	0	0	0	0	39
	17:00	1	7	17	11	6	0	0	0	0	0	0	0	0	0	0	0	42
	18:00	1	1	8	5	2	0	0	0	0	0	0	0	0	0	0	0	17
	19:00	0	2	0	5	4	0	0	0	0	0	0	0	0	0	0	0	11
	20:00	0	0	3	1	0	1	1	0	0	0	0	0	0	0	0	0	6
	21:00	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
	22:00	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
	23:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Daily Total :		32	68	168	147	46	5	2	0	0	0	0	0	0	0	0	0	468
Percent :		7%	15%	36%	31%	10%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		7%	21%	57%	89%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		1	3	7	6	2	0	0	0	0	0	0	0	0	0	0	0	19

Average Speed 28.3 mph 50% Speed : 28.9 mph 67% Speed : 31.6 mph 85% Speed : 34.2 mph
10mph Pace: 25.0 - 34.9 (67.3%)

Special Speed Study Summary: Candelaria West of Glenwoo

Description	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
Grand Total #1:	64	143	437	404	127	19	7	0	0	0	0	0	0	0	0	0	1201
Percent :	5%	12%	36%	34%	11%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :	5%	17%	54%	87%	98%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :	1	3	9	8	3	0	0	0	0	0	0	0	0	0	0	0	24

ADT = 600

Average Speed 29.0 mph 50% Speed : 29.5 mph 67% Speed : 32.0 mph 85% Speed : 34.7 mph
10mph Pace: 25.0 - 34.9 (70.0%)

Grand Total #3:	80	178	389	287	81	14	3	0	0	0	0	1	0	0	0	0	1033
Percent :	8%	17%	38%	28%	8%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :	8%	25%	63%	90%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :	2	4	8	6	2	0	0	0	0	0	0	0	0	0	0	0	22

ADT = 516

Average Speed 27.7 mph 50% Speed : 28.3 mph 67% Speed : 30.9 mph 85% Speed : 33.9 mph
10mph Pace: 25.0 - 34.9 (65.4%)

Comb. Total :	144	321	826	691	208	33	10	0	0	0	0	1	0	0	0	0	2234
Percent :	6%	14%	37%	31%	9%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :	6%	21%	58%	89%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :	3	7	17	14	4	1	0	0	0	0	0	0	0	0	0	0	46

ADT = 1117

Average Speed 28.4 mph 50% Speed : 28.9 mph 67% Speed : 31.5 mph 85% Speed : 34.4 mph
10mph Pace: 25.0 - 34.9 (67.9%)

Special Speed Study Report: Candelaria West of Calle

Station ID : Candelaria West of Calle
Info Line 1 : San Angel
Info Line 2 : Albuquerque
GPS Lat/Lon : 35 07.5504,N / 106 40.5851,W
DB File : Candelaria West of Calle.DB

Last Connected Device Type : OmegaX3
Version Number : 1.30
Serial Number : 010116-0000 OX3
Number of Lanes : 2
Posted Speed Limit : 0.0 mph

Lane #1 Configuration

#	Dir.	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
1.		Westbound	Ax-Ax	4.0 ft	6.0 ft	

Lane #1 Special Speed Study Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Date	Time	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
11/16/16	00:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Wed	01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	02:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	03:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	04:00	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	4
	05:00	1	4	3	4	1	0	0	0	0	0	0	0	0	0	0	0	13
	06:00	2	5	20	20	4	0	0	0	0	0	0	0	0	0	0	0	51
	07:00	3	10	40	28	8	1	0	0	0	0	0	0	0	0	0	0	90
	08:00	8	13	32	14	9	2	0	0	0	0	0	0	0	0	0	0	78
	09:00	5	6	26	26	6	0	0	0	0	0	0	0	0	0	0	1	70
	10:00	2	4	21	18	2	0	1	0	1	0	0	0	0	0	0	0	49
	11:00	5	4	31	21	5	0	0	0	0	0	0	0	0	0	0	0	66
	12:00	2	14	37	33	7	0	0	0	0	0	0	0	0	0	0	0	93
	13:00	1	18	39	30	6	0	1	0	0	0	0	0	0	0	0	0	95
	14:00	1	20	41	37	4	1	0	0	0	0	0	0	0	0	0	0	104
	15:00	1	10	44	30	9	0	0	0	0	0	0	0	0	0	0	0	94
	16:00	5	22	54	28	6	0	0	0	0	0	0	0	0	0	0	0	115
	17:00	2	10	45	14	0	0	0	0	0	0	0	0	0	0	0	0	71
	18:00	2	11	16	8	0	0	0	0	0	0	0	0	0	0	0	0	37
	19:00	0	8	13	14	1	0	0	0	0	0	0	0	0	0	0	0	36
	20:00	1	8	7	4	1	0	0	0	0	0	0	0	0	0	0	0	21
	21:00	1	1	5	4	2	1	0	0	0	0	0	0	0	0	0	0	14
	22:00	0	2	2	5	0	0	0	0	0	0	0	0	0	0	0	0	9
	23:00	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
Daily Total :		44	173	476	341	75	5	2	0	1	0	0	0	0	0	0	1	1118
Percent :		4%	15%	43%	31%	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		4%	19%	62%	92%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		2	7	20	14	3	0	0	0	0	0	0	0	0	0	0	0	46

Average Speed 28.3 mph 50% Speed : 28.6 mph 67% Speed : 30.8 mph 85% Speed : 33.7 mph
10mph Pace: 25.0 - 34.9 (73.1%)

Date	Time	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
11/17/16	00:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Thu	01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	05:00	1	2	5	2	1	0	0	0	0	0	0	0	0	0	0	1	12
	06:00	2	7	13	14	6	2	0	0	0	0	0	0	0	0	0	0	44
	07:00	1	8	38	28	9	1	0	0	1	0	0	0	0	0	0	0	86
	08:00	2	11	26	21	7	1	0	0	0	0	0	1	0	0	0	0	69
	09:00	2	7	24	13	10	0	0	0	0	0	0	0	0	0	1	0	57
	10:00	2	3	22	21	4	1	0	0	0	0	0	0	0	0	0	0	53
	11:00	3	7	29	37	3	0	1	0	0	0	0	0	0	0	0	0	80
	12:00	2	9	20	16	6	1	0	0	0	0	0	0	0	0	0	0	54
	13:00	2	9	23	11	6	1	0	0	0	0	0	0	0	0	0	0	52
	14:00	4	8	40	25	4	1	0	0	0	0	0	0	0	0	0	0	82
	15:00	2	13	44	31	5	2	0	0	0	0	0	0	0	1	0	0	98
	16:00	0	12	40	42	11	2	0	0	0	0	0	0	0	0	0	0	107
	17:00	3	18	34	18	4	1	1	0	0	0	0	0	0	0	0	1	80
	18:00	4	12	27	10	0	1	0	0	0	0	0	0	0	0	0	0	54
	19:00	2	15	17	7	3	1	0	0	0	0	0	0	0	0	0	0	45
	20:00	0	2	4	2	0	0	0	0	0	0	0	0	0	0	0	0	8
	21:00	0	2	7	1	0	0	0	0	0	0	0	0	0	0	0	0	10
	22:00	1	1	7	5	1	1	0	0	0	0	0	0	0	0	0	0	16
	23:00	0	0	2	0	2	0	0	0	0	1	0	0	0	0	0	0	5
Daily Total :		33	146	424	304	83	16	2	1	1	1	0	1	0	1	1	2	1016
Percent :		3%	14%	42%	30%	8%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		3%	18%	59%	89%	97%	99%	99%	99%	99%	100%	100%	100%	100%	100%	100%	100%	
Average :		1	6	18	13	3	1	0	0	0	0	0	0	0	0	0	0	42

Average Speed 28.9 mph 50% Speed : 28.8 mph 67% Speed : 31.3 mph 85% Speed : 34.2 mph
10mph Pace: 25.0 - 34.9 (71.7%)

Lane #3 Configuration

#	Dir.	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
3.		Eastbound	Ax-Ax	6.0 ft	0.0 ft	

Lane #3 Special Speed Study Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Date	Time	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
11/16/16	00:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Wed	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	03:00	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	4
	04:00	0	0	3	3	0	1	0	0	0	0	0	0	0	0	0	0	7
	05:00	4	3	8	16	3	0	0	0	0	0	0	0	0	0	0	0	34
	06:00	8	13	33	25	8	2	0	0	0	0	0	0	0	0	0	1	90
	07:00	5	10	24	38	10	0	0	0	0	0	0	0	0	0	0	0	87
	08:00	3	11	25	26	4	0	0	0	0	0	0	0	0	0	0	0	69
	09:00	3	15	23	22	3	2	0	0	0	0	0	0	0	0	0	0	68
	10:00	3	4	27	28	4	1	1	0	0	0	0	0	0	0	0	0	68
	11:00	3	12	23	29	7	2	1	0	0	0	0	0	0	0	0	0	77
	12:00	9	9	29	25	10	2	0	1	0	0	0	0	0	0	0	0	85
	13:00	4	12	28	28	6	3	1	0	0	0	0	0	0	0	0	0	82
	14:00	3	10	34	23	5	0	0	0	0	0	0	0	0	0	0	0	75
	15:00	7	10	27	24	6	1	0	0	0	0	0	0	0	0	0	0	75
	16:00	4	8	43	25	2	0	0	0	0	0	0	0	0	0	0	0	82
	17:00	3	8	19	12	0	0	0	0	1	0	0	0	0	0	0	0	43
	18:00	0	6	10	12	3	0	0	0	0	0	0	0	0	0	0	0	31
	19:00	0	3	4	5	3	0	0	0	0	0	0	0	0	0	0	0	15
	20:00	1	1	1	4	1	1	0	0	0	0	0	0	0	0	0	0	9
	21:00	0	0	1	6	1	0	0	0	0	0	0	0	0	0	0	0	8
	22:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
	23:00	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	4
Daily Total :		61	137	363	354	79	16	4	1	1	0	0	0	0	0	0	1	1017
Percent :		6%	13%	36%	35%	8%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		6%	19%	55%	90%	98%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		3	6	15	15	3	1	0	0	0	0	0	0	0	0	0	0	43

Average Speed 28.6 mph 50% Speed : 29.1 mph 67% Speed : 31.8 mph 85% Speed : 34.2 mph
10mph Pace: 25.0 - 34.9 (70.5%)

Date	Time	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
11/17/16	00:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Thu	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	0	0	2	4	1	0	0	0	0	0	0	0	0	0	0	0	7
	05:00	0	4	7	10	2	1	0	0	0	0	0	0	0	0	0	1	25
	06:00	5	7	28	23	9	0	0	0	0	0	0	0	0	0	0	0	72
	07:00	0	12	37	31	7	0	0	0	0	0	0	0	0	0	0	0	87
	08:00	1	12	21	33	10	1	0	0	0	0	0	0	0	0	0	0	78
	09:00	1	8	14	28	11	2	0	0	0	0	0	0	0	0	0	0	64
	10:00	4	5	15	19	13	3	0	0	0	0	0	0	0	0	0	0	59
	11:00	2	11	19	30	7	3	0	0	0	0	0	0	0	0	0	0	72
	12:00	6	12	21	16	10	0	0	0	0	0	0	0	0	0	0	0	65
	13:00	9	10	21	11	7	3	0	0	0	0	0	0	0	0	0	0	61
	14:00	1	6	23	23	10	1	0	0	0	0	0	0	0	0	0	0	64
	15:00	5	8	31	21	5	2	0	0	0	0	0	0	0	0	0	0	72
	16:00	1	14	22	24	9	0	2	0	0	0	0	0	0	0	0	0	72
	17:00	1	5	14	11	8	1	0	0	0	0	0	0	0	0	0	0	40
	18:00	1	3	6	7	2	1	0	0	0	0	0	0	0	0	0	0	20
	19:00	0	5	5	4	3	0	0	0	0	0	0	0	0	0	0	0	17
	20:00	0	1	3	2	3	0	0	0	0	0	0	0	0	0	0	0	9
	21:00	0	0	3	2	1	0	0	0	0	0	0	0	0	0	0	0	6
	22:00	0	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	5
	23:00	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	3
Daily Total :		37	125	293	304	118	20	2	0	0	0	0	0	0	0	0	1	900
Percent :		4%	14%	33%	34%	13%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		4%	18%	51%	84%	97%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		2	5	12	13	5	1	0	0	0	0	0	0	0	0	0	0	38

Average Speed 29.4 mph 50% Speed : 29.9 mph 67% Speed : 32.4 mph 85% Speed : 35.4 mph
10mph Pace: 25.0 - 34.9 (66.3%)

Special Speed Study Summary: Candelaria West of Calle

Description	#1 0 - 19.9	#2 20 - 24.9	#3 25 - 29.9	#4 30 - 34.9	#5 35 - 39.9	#6 40 - 44.9	#7 45 - 49.9	#8 50 - 54.9	#9 55 - 59.9	#10 60 - 64.9	#11 65 - 69.9	#12 70 - 74.9	#13 75 - 79.9	#14 80 - 84.9	#15 85 - 89.9	#16 Other	Total
Grand Total #1:	77	319	900	645	158	21	4	1	2	1	0	1	0	1	1	3	2134
Percent :	4%	15%	42%	30%	7%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :	4%	19%	61%	91%	98%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :	2	7	19	13	3	0	0	0	0	0	0	0	0	0	0	0	44

ADT = 1067

Average Speed 28.6 mph | 50% Speed : 28.7 mph | 67% Speed : 31.0 mph | 85% Speed : 34.0 mph
10mph Pace: 25.0 - 34.9 (72.4%)

Grand Total #3:	98	262	656	658	197	36	6	1	1	0	0	0	0	0	0	2	1917
Percent :	5%	14%	34%	34%	10%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :	5%	19%	53%	87%	98%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :	2	5	14	14	4	1	0	0	0	0	0	0	0	0	0	0	40

ADT = 958

Average Speed 29.0 mph | 50% Speed : 29.5 mph | 67% Speed : 32.1 mph | 85% Speed : 34.7 mph
10mph Pace: 25.0 - 34.9 (68.5%)

Comb. Total :	175	581	1556	1303	355	57	10	2	3	1	0	1	0	1	1	5	4051
Percent :	4%	14%	38%	32%	9%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :	4%	19%	57%	89%	98%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :	4	12	32	27	7	1	0	0	0	0	0	0	0	0	0	0	83

ADT = 2025

Average Speed 28.8 mph | 50% Speed : 29.1 mph | 67% Speed : 31.6 mph | 85% Speed : 34.4 mph
10mph Pace: 25.0 - 34.9 (70.6%)

Basic Volume Report: Candelaria West of Trellis

Station ID : Candelaria West of Trellis
Info Line 1 :
Info Line 2 : Albuquerque
GPS Lat/Lon :
DB File : WO TRELLIS 1WB.DB

Last Connected Device Type : Apollo
Version Number : 1.66
Serial Number :
Number of Lanes : 1
Posted Speed Limit : 0.0 mph

Lane #1 Configuration

#	Dir.	Information	Volume Mode	Volume Sensors	Divide By 2	Comment
1.		Westbound	Normal	Veh.	No	

Lane #1 Basic Volume Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Date	Time	:00	:15	:30	:45	Total
11/16/201	00:00	1	0	0	0	1
Wed	01:00	0	0	0	0	0
	02:00	0	0	0	0	0
	03:00	0	0	0	0	0
	04:00	0	0	0	0	0
	05:00	0	0	0	0	0
	06:00	0	0	0	1	1
	07:00	0	3	1	7	11
	08:00	9	3	3	5	20
	09:00	11	8	17	13	49
	10:00	6	7	3	3	19
	11:00	5	3	4	1	13
	12:00	2	6	3	8	19
	13:00	4	5	4	10	23
	14:00	4	4	6	4	18
	15:00	3	3	3	3	12
	16:00	4	2	2	5	13
	17:00	2	1	2	1	6
	18:00	1	1	0	0	2
	19:00	1	1	0	0	2
	20:00	1	0	0	1	2
	21:00	1	0	0	0	1
	22:00	1	0	0	0	1
	23:00	0	0	0	1	1
Day Total :						214

AM Total :	114 (53.3%)	Peak AM Hour :	09:00 =	49 (22.9%)	Peak AM Factor :	0.721	Average Period : 2.2
PM Total :	100 (46.7%)	Peak PM Hour :	13:45 =	24 (11.2%)	Peak PM Factor :	0.600	Average Hour : 8.9

Date	Time	:00	:15	:30	:45	Total
11/17/201	00:00	0	0	0	0	0
Thu	01:00	0	0	0	0	0
	02:00	0	0	0	0	0
	03:00	0	0	0	0	0
	04:00	0	0	0	0	0
	05:00	0	0	0	0	0
	06:00	0	0	1	1	2
	07:00	0	3	4	3	10
	08:00	4	5	0	2	11
	09:00	9	6	10	10	35
	10:00	3	1	3	4	11
	11:00	2	3	2	0	7
	12:00	2	5	7	6	20
	13:00	2	2	5	3	12
	14:00	2	2	2	2	8
	15:00	0	2	5	1	8
	16:00	0	0	5	0	5
	17:00	2	0	1	1	4
	18:00	1	0	0	0	1
	19:00	0	0	0	0	0
	20:00	0	0	0	1	1
	21:00	0	0	1	0	1
	22:00	0	0	0	1	1
	23:00	0	1	0	1	2
Day Total :						139

AM Total :	76 (54.7%)	Peak AM Hour : 09:00 =	35 (25.2%)	Peak AM Factor : 0.875	Average Period : 1.4
PM Total :	63 (45.3%)	Peak PM Hour : 12:00 =	20 (14.4%)	Peak PM Factor : 0.714	Average Hour : 5.8

Lane #3 Configuration

#	Dir.	Information	Volume Mode	Volume Sensors	Divide By 2	Comment
3.		Eastbound	Normal	Veh.	No	

Lane #3 Basic Volume Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Date	Time	:00	:15	:30	:45	Total
11/16/201	00:00	1	0	0	0	1
Wed	01:00	0	0	0	0	0
	02:00	0	0	0	0	0
	03:00	0	0	0	0	0
	04:00	0	0	0	0	0
	05:00	0	0	0	0	0
	06:00	0	0	0	0	0
	07:00	0	1	3	0	4
	08:00	0	2	2	2	6
	09:00	4	6	2	7	19
	10:00	5	3	2	3	13
	11:00	4	6	8	6	24
	12:00	8	4	7	23	42
	13:00	3	1	5	12	21
	14:00	14	5	7	6	32
	15:00	3	3	5	9	20
	16:00	1	3	2	5	11
	17:00	7	2	5	0	14
	18:00	3	1	0	0	4
	19:00	0	1	0	0	1
	20:00	1	0	0	1	2
	21:00	1	0	0	0	1
	22:00	1	0	0	0	1
	23:00	0	0	0	0	0
Day Total :						216

AM Total :	67 (31.0%)	Peak AM Hour :	11:00 =	24 (11.1%)	Peak AM Factor :	0.750	Average Period : 2.3
PM Total :	149 (69.0%)	Peak PM Hour :	12:00 =	42 (19.4%)	Peak PM Factor :	0.457	Average Hour : 9.0

Date	Time	:00	:15	:30	:45	Total
11/17/201	00:00	0	0	0	0	0
Thu	01:00	0	0	0	0	0
	02:00	0	0	0	0	0
	03:00	0	0	0	0	0
	04:00	0	0	0	0	0
	05:00	0	0	0	0	0
	06:00	0	0	0	0	0
	07:00	0	0	2	0	2
	08:00	0	1	2	3	6
	09:00	4	4	2	1	11
	10:00	3	2	4	5	14
	11:00	3	4	6	2	15
	12:00	6	3	3	9	21
	13:00	8	1	3	3	15
	14:00	4	4	3	3	14
	15:00	3	6	1	3	13
	16:00	3	0	5	3	11
	17:00	6	0	1	1	8
	18:00	1	0	0	0	1
	19:00	0	0	0	0	0
	20:00	0	0	0	1	1
	21:00	0	0	1	0	1
	22:00	0	0	0	1	1
	23:00	0	1	0	0	1
Day Total :						135

AM Total :	48 (35.6%)	Peak AM Hour : 10:45 =	18 (13.3%)	Peak AM Factor : 0.750	Average Period : 1.4
PM Total :	87 (64.4%)	Peak PM Hour : 12:15 =	23 (17.0%)	Peak PM Factor : 0.639	Average Hour : 5.6

Basic Volume Summary: Candelaria West of Trellis

Grand Total For Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Lane	Total Count		# Of Days	ADT	Avg. Period	Avg. Hour	AM Total & Percent	PM Total & Percent
#1.	353	(50.1%)	2.00	177	1.8	7.4	190 (53.8%)	163 (46.2%)
#3.	351	(49.9%)	2.00	176	1.8	7.3	115 (32.8%)	236 (67.2%)
ALL	704		2.00	353	3.6	14.7	305 (43.3%)	399 (56.7%)

Lane	Peak AM Hour		Date	Peak AM Factor	Peak PM Hour		Date	Peak PM Factor
#1.	09:00 =	49	11/16/2016	0.721	13:45 =	24	11/16/2016	0.600
#3.	11:00 =	24	11/16/2016	0.750	12:00 =	42	11/16/2016	0.457

Basic Volume Report: Candelaria West of Glenwood

Station ID : Candelaria West of Glenwood
Info Line 1 :
Info Line 2 : Albuquerque
GPS Lat/Lon :
DB File : WO.DB

Last Connected Device Type : Apollo
Version Number : 1.45
Serial Number : 93883

Number of Lanes : 1
Posted Speed Limit : 0.0 mph

Lane #1 Configuration

#	Dir.	Information	Volume Mode	Volume Sensors	Divide By 2	Comment
1.		Westbound	Normal	Veh.	No	

Lane #1 Basic Volume Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Date	Time	:00	:15	:30	:45	Total
11/16/201	00:00	3	0	0	0	3
Wed	01:00	0	0	0	0	0
	02:00	0	0	1	0	1
	03:00	0	0	0	0	0
	04:00	0	0	0	0	0
	05:00	0	0	3	0	3
	06:00	0	0	5	5	10
	07:00	4	7	7	19	37
	08:00	24	20	17	16	77
	09:00	13	10	24	14	61
	10:00	11	13	9	6	39
	11:00	7	8	7	6	28
	12:00	8	10	5	16	39
	13:00	9	17	14	14	54
	14:00	15	13	20	7	55
	15:00	8	17	17	20	62
	16:00	10	13	17	16	56
	17:00	9	18	19	12	58
	18:00	4	7	5	8	24
	19:00	5	6	3	1	15
	20:00	3	4	1	2	10
	21:00	2	1	1	2	6
	22:00	2	0	1	0	3
	23:00	1	1	0	1	3
Day Total :						644

AM Total :	259 (40.2%)	Peak AM Hour : 07:45 =	80 (12.4%)	Peak AM Factor : 0.833	Average Period : 6.7
PM Total :	385 (59.8%)	Peak PM Hour : 15:15 =	64 (9.9%)	Peak PM Factor : 0.800	Average Hour : 26.8

Date	Time	:00	:15	:30	:45	Total
11/17/201	00:00	0	0	1	0	1
Thu	01:00	0	0	0	0	0
	02:00	1	0	0	0	1
	03:00	0	0	0	0	0
	04:00	0	0	0	0	0
	05:00	0	0	3	0	3
	06:00	0	0	3	6	9
	07:00	7	9	9	13	38
	08:00	21	23	8	14	66
	09:00	11	10	17	10	48
	10:00	8	7	8	10	33
	11:00	6	7	6	7	26
	12:00	8	9	18	11	46
	13:00	8	7	12	5	32
	14:00	11	5	6	10	32
	15:00	13	12	13	12	50
	16:00	11	6	20	11	48
	17:00	10	17	15	10	52
	18:00	11	8	6	7	32
	19:00	7	3	3	2	15
	20:00	5	4	3	2	14
	21:00	0	1	2	1	4
	22:00	1	0	1	0	2
	23:00	3	1	0	1	5
Day Total :						557

AM Total :	225 (40.4%)	Peak AM Hour : 07:30 =	66 (11.8%)	Peak AM Factor : 0.717	Average Period : 5.8
PM Total :	332 (59.6%)	Peak PM Hour : 16:30 =	58 (10.4%)	Peak PM Factor : 0.725	Average Hour : 23.2

Lane #3 Configuration

#	Dir.	Information	Volume Mode	Volume Sensors	Divide By 2	Comment
3.		Eastbound	Normal	Veh.	No	

Lane #3 Basic Volume Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Date	Time	:00	:15	:30	:45	Total
11/16/201	00:00	1	0	1	0	2
Wed	01:00	0	0	0	0	0
	02:00	0	0	0	0	0
	03:00	0	0	0	0	0
	04:00	0	0	0	0	0
	05:00	0	2	1	2	5
	06:00	1	4	2	5	12
	07:00	8	9	12	7	36
	08:00	12	13	17	9	51
	09:00	6	12	3	12	33
	10:00	8	9	8	8	33
	11:00	10	8	12	9	39
	12:00	13	12	9	27	61
	13:00	8	7	11	18	44
	14:00	23	6	15	12	56
	15:00	9	8	12	12	41
	16:00	9	7	12	14	42
	17:00	21	5	13	17	56
	18:00	9	5	1	5	20
	19:00	0	11	2	4	17
	20:00	3	1	1	2	7
	21:00	1	2	0	0	3
	22:00	1	1	2	1	5
	23:00	0	1	0	1	2
Day Total :						565

AM Total :	211 (37.3%)	Peak AM Hour :	08:00 =	51 (9.0%)	Peak AM Factor :	0.750	Average Period : 5.9
PM Total :	354 (62.7%)	Peak PM Hour :	13:45 =	62 (11.0%)	Peak PM Factor :	0.574	Average Hour : 23.5

Date	Time	:00	:15	:30	:45	Total
11/17/201	00:00	0	1	0	1	2
Thu	01:00	0	0	0	1	1
	02:00	0	0	0	0	0
	03:00	0	0	0	0	0
	04:00	0	0	0	0	0
	05:00	0	1	2	1	4
	06:00	2	3	1	3	9
	07:00	0	11	12	7	30
	08:00	12	10	13	10	45
	09:00	12	8	13	12	45
	10:00	12	4	4	9	29
	11:00	8	9	10	6	33
	12:00	13	5	5	14	37
	13:00	12	4	6	11	33
	14:00	7	11	11	5	34
	15:00	11	15	12	6	44
	16:00	7	6	14	12	39
	17:00	16	9	12	5	42
	18:00	8	4	3	2	17
	19:00	2	3	5	1	11
	20:00	0	4	0	2	6
	21:00	1	0	1	1	3
	22:00	0	1	0	2	3
	23:00	0	1	0	0	1
Day Total :						468

AM Total :	198 (42.3%)	Peak AM Hour : 08:00 =	45 (9.6%)	Peak AM Factor : 0.865	Average Period : 4.9
PM Total :	270 (57.7%)	Peak PM Hour : 16:30 =	51 (10.9%)	Peak PM Factor : 0.797	Average Hour : 19.5

Basic Volume Summary: Candelaria West of Glenwood

Grand Total For Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Lane	Total Count		# Of Days	ADT	Avg. Period	Avg. Hour	AM Total & Percent	PM Total & Percent
#1.	1201	(53.8%)	2.00	601	6.3	25.0	484 (40.3%)	717 (59.7%)
#3.	1033	(46.2%)	2.00	517	5.4	21.5	409 (39.6%)	624 (60.4%)
ALL	2234		2.00	1118	11.7	46.5	893 (40.0%)	1341 (60.0%)

Lane	Peak AM Hour		Date	Peak AM Factor	Peak PM Hour		Date	Peak PM Factor
#1.	07:45 =	80	11/16/2016	0.833	15:15 =	64	11/16/2016	0.800
#3.	08:00 =	51	11/16/2016	0.750	13:45 =	62	11/16/2016	0.574

Basic Volume Report: Candelaria West of Calle

Station ID : Candelaria West of Calle
Info Line 1 : San Angel
Info Line 2 : Albuquerque
GPS Lat/Lon : 35 07.5504,N / 106 40.5851,W
DB File : Candelaria West of Calle.DB

Last Connected Device Type : OmegaX3
Version Number : 1.30
Serial Number : 010116-0000 OX3

Number of Lanes : 2
Posted Speed Limit : 0.0 mph

Lane #1 Configuration

#	Dir.	Information	Volume Mode	Volume Sensors	Divide By 2	Comment
1.		Westbound	Normal	Veh.	No	

Lane #1 Basic Volume Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Date	Time	:00	:15	:30	:45	Total
11/16/16	00:00	1	0	1	0	2
Wed	01:00	0	0	1	0	1
	02:00	0	0	0	1	1
	03:00	0	0	1	0	1
	04:00	0	1	3	0	4
	05:00	0	0	7	6	13
	06:00	4	10	9	28	51
	07:00	25	27	19	19	90
	08:00	16	13	29	20	78
	09:00	18	17	16	19	70
	10:00	17	11	14	7	49
	11:00	11	15	12	28	66
	12:00	17	25	22	29	93
	13:00	25	17	33	20	95
	14:00	12	31	28	33	104
	15:00	16	19	26	33	94
	16:00	25	41	31	18	115
	17:00	19	15	21	16	71
	18:00	11	13	7	6	37
	19:00	11	8	6	11	36
	20:00	9	5	1	6	21
	21:00	4	5	3	2	14
	22:00	4	2	1	2	9
	23:00	0	1	1	1	3
Day Total :						1118

AM Total :	426 (38.1%)	Peak AM Hour : 06:45 =	99 (8.9%)	Peak AM Factor : 0.853	Average Period : 11.6
PM Total :	692 (61.9%)	Peak PM Hour : 15:45 =	130 (11.6%)	Peak PM Factor : 0.793	Average Hour : 46.6

Date	Time	:00	:15	:30	:45	Total
11/17/16	00:00	0	0	0	1	1
Thu	01:00	1	0	0	0	1
	02:00	0	0	0	0	0
	03:00	0	0	0	0	0
	04:00	0	0	2	0	2
	05:00	0	0	4	8	12
	06:00	6	9	8	21	44
	07:00	28	30	11	17	86
	08:00	18	15	25	11	69
	09:00	15	11	11	20	57
	10:00	12	12	10	19	53
	11:00	17	16	28	19	80
	12:00	15	13	17	9	54
	13:00	11	13	12	16	52
	14:00	13	21	29	19	82
	15:00	22	16	38	22	98
	16:00	22	42	21	22	107
	17:00	26	21	17	16	80
	18:00	20	12	11	11	54
	19:00	11	20	8	6	45
	20:00	1	2	2	3	8
	21:00	3	4	3	0	10
	22:00	5	2	3	6	16
	23:00	1	1	1	2	5
Day Total :						1016

AM Total :	405 (39.9%)	Peak AM Hour : 06:45 =	90 (8.9%)	Peak AM Factor : 0.750	Average Period : 10.6
PM Total :	611 (60.1%)	Peak PM Hour : 15:30 =	124 (12.2%)	Peak PM Factor : 0.738	Average Hour : 42.3

Lane #3 Configuration

#	Dir.	Information	Volume Mode	Volume Sensors	Divide By 2	Comment
3.		Eastbound	Normal	Veh.	No	

Lane #3 Basic Volume Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Date	Time	:00	:15	:30	:45	Total
11/16/16	00:00	1	0	0	0	1
Wed	01:00	0	0	0	0	0
	02:00	0	0	1	0	1
	03:00	1	0	1	2	4
	04:00	1	2	1	3	7
	05:00	4	11	7	12	34
	06:00	18	23	32	17	90
	07:00	22	25	21	19	87
	08:00	14	29	10	16	69
	09:00	15	24	13	16	68
	10:00	17	21	17	13	68
	11:00	14	21	8	34	77
	12:00	14	14	22	35	85
	13:00	30	14	23	15	82
	14:00	14	23	18	20	75
	15:00	19	11	21	24	75
	16:00	28	13	20	21	82
	17:00	18	10	8	7	43
	18:00	3	14	7	7	31
	19:00	4	2	6	3	15
	20:00	1	4	2	2	9
	21:00	1	2	3	2	8
	22:00	0	1	0	1	2
	23:00	0	2	1	1	4
Day Total :						1017

AM Total :	506 (49.8%)	Peak AM Hour : 06:30 =	96 (9.4%)	Peak AM Factor : 0.706	Average Period : 10.6
PM Total :	511 (50.2%)	Peak PM Hour : 12:45 =	102 (10.0%)	Peak PM Factor : 0.729	Average Hour : 42.4

Date	Time	:00	:15	:30	:45	Total
11/17/16	00:00	0	0	0	1	1
Thu	01:00	0	0	0	0	0
	02:00	0	0	0	1	1
	03:00	0	0	0	0	0
	04:00	1	3	1	2	7
	05:00	5	5	6	9	25
	06:00	10	20	22	20	72
	07:00	25	20	22	20	87
	08:00	21	14	24	19	78
	09:00	19	19	11	15	64
	10:00	15	14	18	12	59
	11:00	21	12	17	22	72
	12:00	19	8	20	18	65
	13:00	11	17	19	14	61
	14:00	21	18	15	10	64
	15:00	18	13	24	17	72
	16:00	25	15	18	14	72
	17:00	14	8	11	7	40
	18:00	6	5	8	1	20
	19:00	2	7	2	6	17
	20:00	6	1	1	1	9
	21:00	1	2	0	3	6
	22:00	1	1	3	0	5
	23:00	1	1	0	1	3
Day Total :						900

AM Total :	466 (51.8%)	Peak AM Hour : 06:15 =	87 (9.7%)	Peak AM Factor : 0.870	Average Period : 9.4
PM Total :	434 (48.2%)	Peak PM Hour : 15:30 =	81 (9.0%)	Peak PM Factor : 0.810	Average Hour : 37.5

Basic Volume Summary: Candelaria West of Calle

Grand Total For Data From: 00:00 - 11/16/2016 To: 23:59 - 11/17/2016

Lane	Total Count		# Of Days	ADT	Avg. Period	Avg. Hour	AM Total & Percent	PM Total & Percent
#1.	2134	(52.7%)	2.00	1067	11.1	44.5	831 (38.9%)	1303 (61.1%)
#3.	1917	(47.3%)	2.00	959	10.0	39.9	972 (50.7%)	945 (49.3%)
ALL	4051		2.00	2026	21.1	84.4	1803 (44.5%)	2248 (55.5%)

Lane	Peak AM Hour		Date	Peak AM Factor	Peak PM Hour		Date	Peak PM Factor
#1.	06:45 =	99	11/16/2016	0.853	15:45 =	130	11/16/2016	0.793
#3.	06:30 =	96	11/16/2016	0.706	12:45 =	102	11/16/2016	0.729

Appendix C

REPORT	DATE	MONTH	DAY
23312120	5/31/2012	May	Thursday
710065862	6/20/2012	June	Wednesday
710113927	6/9/2012	June	Saturday
710121603	9/17/2012	September	Monday
23361882	12/21/2012	December	Friday
710096378	1/29/2012	January	Sunday

REPORT	YEAR	TIME	HOUR
23312120	2012	19:30	19
710065862	2012	13:26	13
710113927	2012	18:13	18
710121603	2012	8:27	8
23361882	2012	15:45	15
710096378	2012	11:55	11

REPORT	CITY	COUNTY	AGENCY
23312120	Albuquerque	Bernalillo	STATION REPORT
710065862	Albuquerque	Bernalillo	ALBUQUERQUE POLICE DEPARTMENT
710113927	Albuquerque	Bernalillo	ALBUQUERQUE POLICE DEPARTMENT
710121603	Albuquerque	Bernalillo	ALBUQUERQUE POLICE DEPARTMENT
23361882	Albuquerque	Bernalillo	STATION REPORT
710096378	Albuquerque	Bernalillo	ALBUQUERQUE POLICE DEPARTMENT

REPORT	ASTREET	BSTREET	ROUTE
23312120	3600 TRELLIS DR NW	TRELLIS DR NW	
710065862	CANDELARIA RD NW	RIO GRANDE BLVD NW	
710113927	RIO GRANDE BLVD NW	CANDELARIA RD NW	
710121603	RIO GRANDE BLVD NW	CANDELARIA RD NW	
23361882	RIO GRANDE BLVD NW	CANDELARIA RD NW	
710096378	RIO GRANDE BLVD NW	CANDELARIA RD NW	

REPORT	MILEPOST	NVEH	TOTAL
23312120	0	1	1
710065862	0	2	3
710113927	0	2	2
710121603	0	2	2
23361882	0	2	2
710096378	0	3	4

REPORT	KILLED	CLASSA	CLASSB
23312120	0	0	0
710065862	0	0	0
710113927	0	0	0
710121603	0	0	0
23361882	0	0	0
710096378	0	0	0

REPORT	CLASSC	UNHURT	SEVERITY
23312120	0	1	Property Damage Only Crash
710065862	0	3	Property Damage Only Crash
710113927	0	2	Property Damage Only Crash
710121603	0	2	Property Damage Only Crash
23361882	0	2	Property Damage Only Crash
710096378	0	4	Property Damage Only Crash

REPORT	CLASS	TOPCFACC	ANALYSIS
23312120	Parked Vehicle	None	Parked Veh-Unk
710065862	Other Vehicle	Improper Turn	Angle-1 Left
710113927	Other Vehicle	Red Light Running	Angle-Straight
710121603	Other Vehicle	Driver Inattention	Sd-One Stopped
23361882	Other Vehicle	Improper Turn	
710096378	Other Vehicle	Red Light Running	Sd-One Left Turn

REPORT	HITRUN	LIGHT	WEATHER
23312120	Yes	Dusk	Clear
710065862	No	Daylight	Clear
710113927	No	Daylight	Clear
710121603	No	Daylight	Clear
23361882	No	Daylight	Clear
710096378	No	Daylight	Clear

REPORT	PEDINV	MCINV	PECINV
23312120	Not Involved	Not Involved	Not Involved
710065862	Not Involved	Not Involved	Not Involved
710113927	Not Involved	Not Involved	Not Involved
710121603	Not Involved	Not Involved	Not Involved
23361882	Not Involved	Not Involved	Not Involved
710096378	Not Involved	Not Involved	Not Involved

REPORT	ALCINV	DRUGINV	TRKINV
23312120	None Indicated	None Indicated	Not Involved
710065862	None Indicated	None Indicated	Not Involved
710113927	None Indicated	None Indicated	Not Involved
710121603	None Indicated	None Indicated	Not Involved
23361882	None Indicated	None Indicated	Not Involved
710096378	None Indicated	None Indicated	Not Involved

REPORT	HZINV	SYSTEM	ROADREL
23312120	Not Involved	Urban	ON ROADWAY
710065862	Not Involved	Urban	ON ROADWAY
710113927	Not Involved	Urban	ON ROADWAY
710121603	Not Involved	Urban	ON ROADWAY
23361882	Not Involved	Urban	ON ROADWAY
710096378	Not Involved	Urban	ON ROADWAY

REPORT	CHARACT	GRADE	TRANSDIST
23312120	STRAIGHT	LEVEL	3
710065862	STRAIGHT	LEVEL	3
710113927	STRAIGHT	LEVEL	3
710121603	STRAIGHT	LEVEL	3
23361882	STRAIGHT	LEVEL	3
710096378	STRAIGHT	LEVEL	3

REPORT	MAINTDIST	DIRECT	Intid
23312120	3		0
710065862	3		25031
710113927	3		25031
710121603	3		25031
23361882	3		25031
710096378	3		25031

REPORT	DATE	YEAR	Day
710120317	1/12/2013	2013	Saturday
710061802	5/14/2013	2013	Tuesday
710128124	6/28/2013	2013	Friday
23289529	9/20/2013	2013	Friday
710142633	9/22/2013	2013	Sunday
23331683	11/3/2013	2013	Sunday
710086588	12/13/2013	2013	Friday
710143549	12/27/2013	2013	Friday

REPORT	MONTH	TIME	HOUR
710120317	January	15:20	15
710061802	May	16:16	16
710128124	June	18:39	18
23289529	September	8:19	8
710142633	September	11:40	11
23331683	November	14:00	14
710086588	December	14:23	14
710143549	December	11:30	11

REPORT	AGENCY	COUNTY	CITY
710120317	ALBUQUERQUE POLICE DEPARTMENT	BERNALILLO	ALBUQUERQUE
710061802	ALBUQUERQUE POLICE DEPARTMENT	BERNALILLO	ALBUQUERQUE
710128124	ALBUQUERQUE POLICE DEPARTMENT	BERNALILLO	ALBUQUERQUE
23289529	ALBUQUERQUE POLICE DEPARTMENT	BERNALILLO	ALBUQUERQUE
710142633	ALBUQUERQUE POLICE DEPARTMENT	BERNALILLO	ALBUQUERQUE
23331683	STATION REPORT	BERNALILLO	ALBUQUERQUE
710086588	ALBUQUERQUE POLICE DEPARTMENT	BERNALILLO	ALBUQUERQUE
710143549	ALBUQUERQUE POLICE DEPARTMENT	BERNALILLO	ALBUQUERQUE

REPORT	ASTREET	BSTREET	LANDMARK
710120317	CANDELARIA RD NW	SAN ISIDRO ST NW	
710061802	CANDELARIA RD NW	TRELLIS DR NW	2901 CANDELARIA RD NW
710128124	RIO GRANDE BLVD NW	CANDELARIA RD NW	
23289529	RIO GRANDE NW	CANDELARIA DR NW	
710142633	CAMINO CEPILLO NW		CANDELARIA RD NW
23331683	CANDELARIA RD NW	TRELLIS	
710086588	SAN ISIDRO ST NW	CANDELARIA RD NW	
710143549	RIO GRANDE BLVD NW	CANDELARIA RD NW	

REPORT	ROUTE	MILE	NVEH
710120317		0	2
710061802		0	1
710128124		0	2
23289529		0	3
710142633		0	2
23331683		0	2
710086588		0	2
710143549		0	2

REPORT	TOTAL	KILLED	CLASSA
710120317	3	0	0
710061802	1	0	0
710128124	6	0	0
23289529	3	0	0
710142633	2	0	0
23331683	2	0	0
710086588	3	0	0
710143549	3	0	0

REPORT	CLASSB	CLASSC	INJURY
710120317	0	0	0
710061802	0	0	0
710128124	0	0	0
23289529	0	0	0
710142633	0	0	0
23331683	0	0	0
710086588	0	1	1
710143549	0	3	3

REPORT	UNHURT	SEVERITY	CLASS
710120317	3	Property Damage Only Crash	Other Vehicle
710061802	1	Property Damage Only Crash	Fixed Object
710128124	6	Property Damage Only Crash	Other Vehicle
23289529	3	Property Damage Only Crash	Vehicle on Other Road
710142633	2	Property Damage Only Crash	Parked Vehicle
23331683	2	Property Damage Only Crash	Other Vehicle
710086588	2	Injury Crash	Other Vehicle
710143549	0	Injury Crash	Other Vehicle

REPORT	ANALYSIS	TOPCFACC	WEATHER
710120317	Intersection - Not Stated	Failure To Yield	CLEAR
710061802	Fixed Object - Guard or Reflector Posts Intersection - One Right Turn/Entering	Driver Inattention	CLEAR
710128124	At Angle	Improper Turn	CLEAR
23289529	Invalid Code	Following Too Closely	CLEAR
710142633	Vehicle Backed Into Parked Vehicle	Improper Backing	CLEAR
23331683	Intersection - Not Stated Non-Intersection - From Same	Failure To Yield	CLEAR
710086588	Direction/Rear End Collision Intersection - Both Going	Driver Inattention	CLEAR
710143549	Straight/Entering At Angle	Excessive Speed	CLEAR

REPORT	LIGHTING	ALCINV	DRUGINV
710120317	Daylight	Not Involved	Not Involved
710061802	Daylight	Not Involved	Not Involved
710128124	Daylight	Not Involved	Not Involved
23289529	Daylight	Not Involved	Not Involved
710142633	Daylight	Not Involved	Not Involved
23331683	Daylight	Not Involved	Not Involved
710086588	Daylight	Not Involved	Not Involved
710143549	Daylight	Not Involved	Not Involved

REPORT	PEDINV	MCINV	PECINV
710120317	Not Involved	Not Involved	Not Involved
710061802	Not Involved	Not Involved	Not Involved
710128124	Not Involved	Not Involved	Not Involved
23289529	Not Involved	Not Involved	Not Involved
710142633	Not Involved	Not Involved	Not Involved
23331683	Not Involved	Not Involved	Not Involved
710086588	Not Involved	Not Involved	Not Involved
710143549	Not Involved	Not Involved	Not Involved

REPORT	TRKINV	HZINV	HITRUN
710120317	Not Involved	Not Involved	N
710061802	Not Involved	Not Involved	N
710128124	Not Involved	Not Involved	N
23289529	Not Involved	Not Involved	LB
710142633	Not Involved	Not Involved	N
23331683	Not Involved	Not Involved	N
710086588	Not Involved	Not Involved	N
710143549	Not Involved	Not Involved	N

REPORT	DOTPROP	SYSTEM	MAXDAM
710120317		URBAN	Disabling
710061802		URBAN	Disabling
710128124		URBAN	Appearance
23289529		URBAN	Appearance
710142633		URBAN	Appearance
23331683		URBAN	Unknown or N/A
710086588		URBAN	Functional
710143549		URBAN	Disabling

REPORT	ROADREL	CHARACTER	GRADE
710120317	ON ROADWAY	STRAIGHT	ON GRADE
710061802	OFF ROADWAY	STRAIGHT	LEVEL
710128124	ON ROADWAY	STRAIGHT	LEVEL
23289529	ON ROADWAY	STRAIGHT	LEVEL
710142633	ON ROADWAY	STRAIGHT	LEVEL
23331683	ON ROADWAY	STRAIGHT	
710086588	ON ROADWAY	STRAIGHT	LEVEL
710143549	ON ROADWAY	STRAIGHT	LEVEL

REPORT	NONLOCAL	MEASURE	MEAS_UNIT
710120317	Local Drivers		
710061802	Local Drivers	10 FT	
710128124	Local Drivers		
23289529	Local Drivers		
710142633	Local Drivers	50	FT
23331683	Local Drivers		
710086588	Local Drivers		
710143549	Local Drivers		

REPORT	DIRECT	TRANSDIST	MAINTDIST
710120317	LB	3	3
710061802	S	3	3
710128124	LB	3	3
23289529	LB	3	3
710142633	N	3	3
23331683	LB	3	3
710086588	LB	3	3
710143549	LB	3	3

REPORT	SPDIST
710120317	5
710061802	5
710128124	5
23289529	5
710142633	5
23331683	5
710086588	5
710143549	5

UCR	DATE	YEAR	MONTH
146292	5/26/2014	2014	May
23329008	8/20/2014	2014	August
23387442	9/21/2014	2014	September
710121687	2/12/2014	2014	February
710199581	7/25/2014	2014	July

UCR	TIME	HOUR	AGENCY
146292	19:43	7 p.m.	ALBUQUERQUE POLICE DEPARTMENT
23329008	14:45	2 p.m.	STATION REPORT
23387442	10:30	10 a.m.	STATION REPORT
710121687	17:11	5 p.m.	ALBUQUERQUE POLICE DEPARTMENT
710199581	12:46	12 p.m.	ALBUQUERQUE POLICE DEPARTMENT

UCR	COUNTY	CITY	ASTREET
146292	BERNALILLO	ALBUQUERQUE	CANDELARIA RD NW
23329008	BERNALILLO	ALBUQUERQUE	CANDELARIA
23387442	BERNALILLO	ALBUQUERQUE	CANDELARIA NW
710121687	BERNALILLO	ALBUQUERQUE	CANDELARIA RD NW
710199581	BERNALILLO	ALBUQUERQUE	CANDELARIA RD NW

UCR	BSTREET	LANDMARK	ROUTE
146292	TRELLIS DR NW		
23329008	RIO GRANDE		
23387442	RIO GRANDE		
710121687	RIO GRANDE AVE		
710199581	GLENWOOD DR NW		

UCR	MILEPOST	KILLED	CLASSA
146292		0	0
23329008		0	0
23387442		0	0
710121687		0	0
710199581		0	0

UCR	CLASSB	CLASSC	INJURIED
146292	0	1	1
23329008	0	0	0
23387442	0	0	0
710121687	0	3	3
710199581	0	0	0

UCR	UNHURT	TOTAL	NVEH
146292	1	2	2
23329008	3	3	2
23387442	2	2	2
710121687	0	3	2
710199581	3	3	2

UCR	SEVERITY	CLASS	ANALYSIS
146292	Injury Crash	Other Vehicle	Intersection - From Opposite Direction
23329008	Property Damage Only Crash	Other Vehicle	Intersection - From Opposite Direction
23387442	Property Damage Only Crash	Left Blank	Invalid Code
710121687	Injury Crash	Other Vehicle	Intersection - From Opposite Direction/Both Going
710199581	Property Damage Only Crash	Other Vehicle	Intersection - From Opposite Direction/One Left Turn

UCR	TOPCFACC	ALCINV	DRUGINV
146292	Failed to Yield Right of Way	Not Involved	Not Involved
23329008	Missing Data	Not Involved	Not Involved
23387442	Made Improper Turn	Not Involved	Not Involved
710121687	Disregarded Traffic Signal	Not Involved	Not Involved
710199581	Failed to Yield Right of Way	Not Involved	Not Involved

UCR	PEDINV	MCINV	PECINV
146292	Not Involved	Not Involved	Not Involved
23329008	Not Involved	Not Involved	Not Involved
23387442	Not Involved	Not Involved	Not Involved
710121687	Not Involved	Not Involved	Not Involved
710199581	Not Involved	Not Involved	Not Involved

UCR	TRKINV	HZINV	HITRUN
146292	Not Involved	Not Involved	No
23329008	Not Involved	Not Involved	No
23387442	Not Involved	Not Involved	No
710121687	Not Involved	Not Involved	No
710199581	Not Involved	Not Involved	No

UCR	WEATHER	LIGHT	SHDTPROP
146292	Clear	Dusk	
23329008	Left Blank	Left Blank	
23387442	Clear	Daylight	
710121687	Clear	Daylight	
710199581	Clear	Daylight	

UCR	SYSTEM	MAXDAM	CRASHOCC
146292	Urban	Disabling	On Roadway
23329008	Urban	Functional	On Roadway
23387442	Urban	Functional	On Roadway
710121687	Urban	Disabling	On Roadway
710199581	Urban	Disabling	On Roadway

UCR	CHARACTER	GRADE	NONLOCAL
146292	Straight	Level	Local Drivers
23329008	Left Blank	Left Blank	Local Drivers
23387442	Curve	Level	Local Drivers
710121687	Straight	Level	Local Drivers
710199581	Straight	Level	Local Drivers

UCR	DIRECTION	MEASURE	MEASUREUNI
146292	Left Blank		99
23329008	Left Blank		99
23387442	Left Blank		99
710121687	Left Blank		99
710199581	Left Blank		99

UCR	URBANRURAL	NAR	TRANSDIST
146292	URBAN		3
23329008	URBAN		3
23387442	URBAN		3
710121687	URBAN		3
710199581	URBAN		3

UCR	SPDIST	MAINTDIST
146292	5	3
23329008	5	3
23387442	5	3
710121687	5	3
710199581	5	3

Appendix D

BACKGROUND OF SPEED LIMITS

Speed limits are established on roadways of virtually all classifications, from interstate freeways to low volume local streets. The primary purpose of speed limits is to give motorists clear instruction as to what is a reasonable speed for them to drive at while traveling on a given roadway.

Among regulatory signage, speed limit signs arguably contain the most critical information that motorists need to be informed of while driving (next to stop signs, which are considered the highest impact regulatory sign). Drivers unfamiliar with a roadway often do not realize what characteristics the roadway has. Properly established speed limit signs give the driver the information they need to drive the roadway safely.

The NMDOT has guidelines for analyzing and establishing posted speed limits; the following text is based on one such example:

Realistic posted speed limits are of public importance for many reasons:

- They invite public compliance by conforming to the behavior or the driving majority
- They give clear reminders of safe and reasonable speeds to non-conforming violators
- They offer the most effective tool for law enforcement of safe driving
- They will minimize public antagonism toward law enforcement that results from unreasonable regulations

Improperly, or artificially low, posted speed limits can cause problems for state and local agencies for several reasons:

- They do not encourage voluntary compliance, since they do not reflect the behavior of the majority
- They make the behavior of the majority unlawful
- The maximize public antagonism toward law enforcement, since the perception is that the police are enforcing a “speed trap”
- They create a bad image for a community in the eyes of tourists / visitors

SETTING SPEED LIMITS

In accordance with Section 66-7-303 of the New Mexico Criminal and Traffic Law Manual, the speed limit on state highways shall be set by the Cabinet Secretary of the Department of Transportation, based on an engineering survey and traffic investigation that includes the following parameters.

- Spot speed studies (typically consisting of 100 vehicles)
- Roadway geometry/number of lanes
- Roadside environment and characteristics
- Building setbacks (if within a commercial business district)
- Driveway and intersection spacing/density
- Historical crash data for the roadway study area

Speed limits within the City of Albuquerque are set in accordance with Albuquerque Code of Ordinances Section 8-1-2-6, Authority to Determine Speed Limits, which states that “the mayor, or his designated representative, shall determine upon the basis of an engineering and traffic investigation, the speed upon any street or highway which is reasonable or safe under the conditions found to exist, and he shall declare a speed limit therat which shall be effective

at all times or during hours of daytime or nighttime or at such other times as may be determined when appropriate signs giving notice of the authorized speed are erected."

Many speed limits are established using the theory of 85th percentile. Out of the (typically) 100 vehicles surveyed, beginning with the fastest vehicle speed recorded, the 15th vehicle from that speed is determined to show where the 85th percentile speed is. This is assuming that most drivers (85%) drive within reasonable limits. The posted speed limit can be established by rounding the 85th percentile speed down to the nearest 5 mph increment.For example, if the 85th percentile speed has been determined by an engineering survey to be 57 mph, the posted speed would be 55 mph. This method of posting speed limits allows for a reasonable posted speed limit that can be enforced by local agencies, without creating a speed trap.

For surveys with a different amount than 100 vehicles, the 85th percentile speed is determined by the following formula: 100/15 = # of vehicles surveyed/x (where x = the vehicle at the 85th percentile). For example, a 50 vehicle survey would result in:

$$\frac{100}{15} = \frac{50}{x}$$

Where *x* = 7.5, or the 8th vehicle in the survey

Other methods are frequently used to further analyze the posting of speed limits – these are the mode, median, and geometric mean:

- Mode is the most frequently clocked vehicle speed in a given survey. For example, in a 100 vehicle survey where 12 vehicles were clocked traveling 55 mph and no other speed was observed more frequently, the mode is 55 mph.
- Median is the numerical midpoint of a given survey. For example, in a survey of 100 vehicles, the speeds of the 50th and 51st vehicles are added and divided by 2 to obtain the median speed. If the 50th vehicle of such a survey was traveling at 56 mph and the 51st vehicle was also traveling at 56 mph, the resulting median would be (56 + 56)÷2 = 112÷2 = 56 mph
- Geometric mean is described as follows: "an average of a set of numbers that is calculated by multiplying all the numbers ("n"), and taking the nth root of the total."

Formula for Geometric Mean:

$$Geometric\ Mean = ((X_1)(X_2) \dots \dots (X_n))^{1/N}$$

X = Individual score (speed)
N = Sample size (number of scores)

Geometric Mean Example:
Sample speeds = 51, 52, 55, 58, and 60 mph
Step 1: N = 5, the total number of values, $\frac{1}{N} = 0.2$
Step 2:Determine geometric mean using the formula.

$$Geometric\ Mean = ((51)(52)(55)(58)(60))^{0.2} = 55.09\ mph$$

In most cases, the geometric mean of a speed study will be of similar value of the median, often within 1 to 2 mph of either side of the median. In the above example, the median speed would be the third vehicle surveyed (55 mph), and the geometric mean is 55.09 mph.

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