APPENDIX F

HIGHWAY SAFETY MANUAL ANALYSIS MEMORANDUM (FHU)

BOULDER VISION ZERO ACTION PLAN

Intersection Crash Analysis Report

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1. INTRODUCTION

Vision Zero describes the City of Boulder's goal to eliminate traffic-related fatalities and serious injuries. At its core, this goal is inspired by the belief that traffic collisions are preventable, and even one fatality is too many. To help achieve Vision Zero, Boulder has developed several iterations of Vision Zero Action Plans. The updated Boulder Vision Zero Action Plan seeks to identify and prioritize tangible safety improvements to the transportation network in the City of Boulder and provide a clear methodology for implementing improvements throughout the city.

Purpose and Need

Safety improvement recommendations for the updated Boulder Vision Zero Action Plan are based on analyses of the existing roadway network. First, systemic safety analysis was conducted throughout the city to identify risk factors related to fatal and serious injury crashes and locations where those risk factors are most prominent. Recommendations developed from the systemic analysis are often applicable to several locations based on site characteristics. Systemic recommendations can be seen as proactive or forward-looking since they do not rely on recent crash history to be warranted.

Second, intersection crash analyses were conducted at key locations within the city to assess the magnitude and nature of the safety problem within the project limits. Additionally, intersection crash analyses relate crash causality to several factors such as roadway geometrics, roadside features, traffic control devices, traffic operations, driver behavior, and vehicle type. Review of crash history may identify patterns that are not functions of risk factors present at the intersections. Recommendations developed from the crash analysis are typically site specific but can have applications outside of the study intersections.

This Intersection Crash Analysis Report summarizes the results of intersection crash analyses for the Boulder Vision Zero Action Plan.

Study Area

Through consultation with City of Boulders staff, 29 signalized intersections were chosen for crash analysis. Selected intersections often included at least one cross street on the Core Arterial Network (CAN), and typically had several risk factors from the systemic safety analysis. **Figure 1** displays the location of all 29 study intersections.

Table 1 lists all 29 study intersections, including the major street, minor street, and average annual daily traffic volume (AADT). Traffic volumes shown in the table are from 2017-2019.

Table 1. Study Intersections

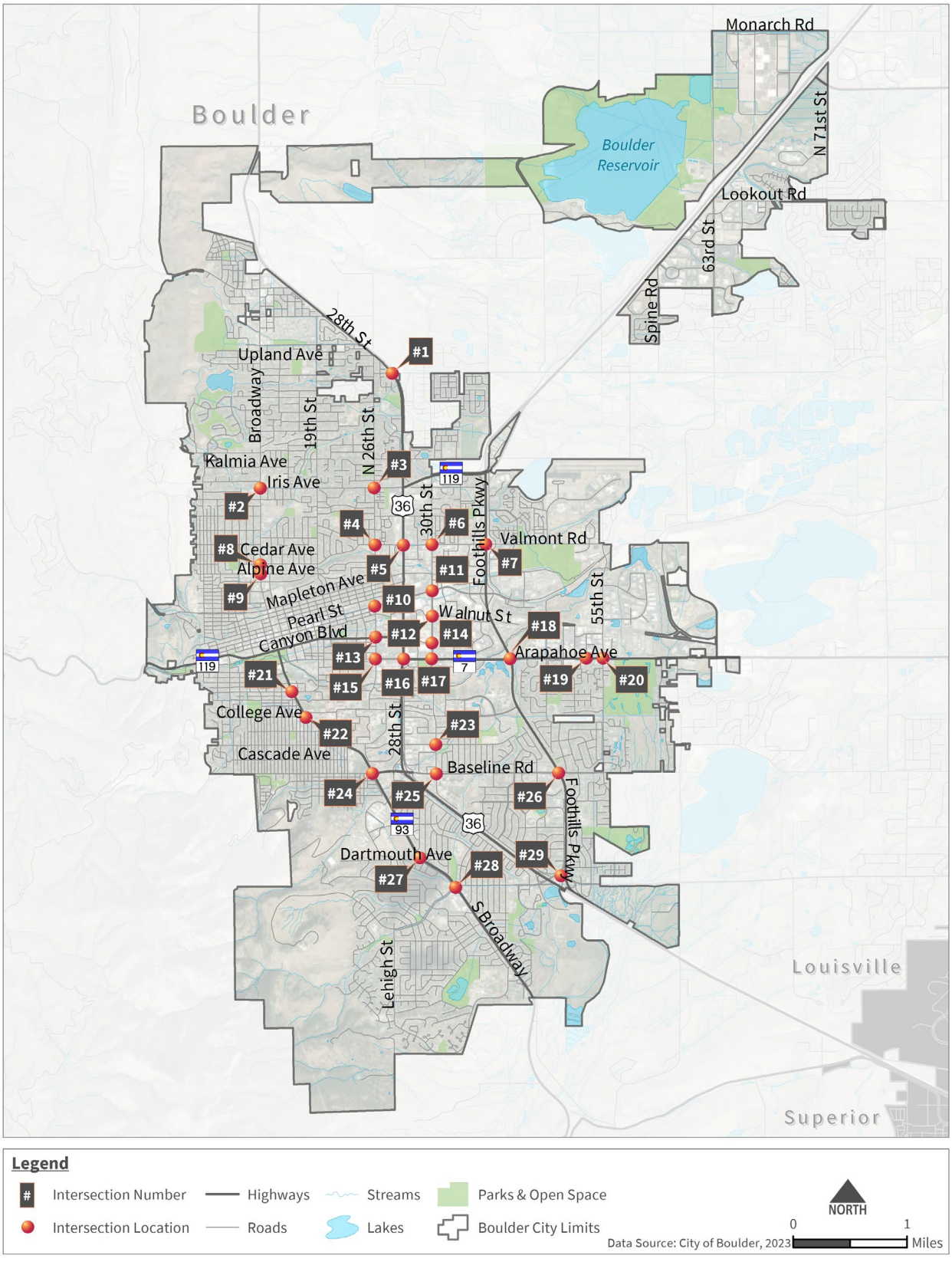
#	Major Street	Minor Street	Major Street AADT (vpd)	Minor Street AADT (vpd)
1	28th Street	Jay Road	29,200	14,500
2	Broadway	Iris Avenue	29,700	17,700
3	Iris Avenue	Folsom Street	27,400	12,100
4	Folsom Street	Valmont Road	16,800	12,700
5	28th Street	Valmont Road	29,800	18,100
6	30th Street	Valmont Road	24,400	21,900
7	Foothills Parkway	Valmont Road	56,900	23,400

Table 1. Study Intersections

#	Major Street	Minor Street	Major Street AADT (vpd)	Minor Street AADT (vpd)
8	Broadway	Balsam Street	28,200	8,400
9	Broadway	Alpine Street	23,600	4,200
10	Folsom Street	Pearl Street	19,900	19,000
11	30th Street	Pearl Street	31,000	25,200
12	30th Street	Walnut Street	30,000	12,700
13	Canyon Boulevard	Folsom Street	26,500	20,500
14	30th Street	Canyon Boulevard	25,700	6,900
15	Arapahoe Avenue	Folsom Street	27,300	18,200
16	Arapahoe Avenue	28th Street	43,000	29,800
17	Arapahoe Avenue	30th Street	33,500	26,000
18	Foothills Parkway	Arapahoe Avenue	61,300	42,300
19	Arapahoe Avenue	Conestoga Street	32,400	4,200
20	Arapahoe Avenue	55th Street	34,700	25,100
21	Broadway	University Avenue	35,000	8,600
22	Broadway	College Avenue	37,100	3,400
23	30th Street	Aurora Avenue	22,600	2,500
24	Broadway	Baseline Road	39,600	31,700
25	Baseline Road	30th Street	29,500	22,200
26	Foothills Parkway	Baseline Road	48,300	27,000
27	Broadway	Dartmouth Street	36,400	2,400
28	Broadway	Table Mesa Drive	39,000	29,500
29	Table Mesa Drive	Foothills Parkway SB Off-Ramp	34,700	11,900

Notes: AADT values shown were collected between 2017 and 2019

Figure 1. Intersection Crash Analysis Locations



II. METHODOLOGY

The goal of this crash analysis process is to determine the magnitude of and nature of existing intersection safety problems using data-driven techniques and statistical analyses. Safety Performance Functions were used to evaluate the magnitude of safety problems. Pattern Recognition and Diagnostic techniques were used to assess the nature of safety problems.

Safety Performance Functions & Level of Service of Safety

The magnitude of existing intersection safety problems on highway segments was assessed using Safety Performance Functions (SPFs). The SPF reflects the relationship between traffic exposure, measured in average annual daily traffic (AADT), and crash frequency measured in crashes per year. The SPF models provide an estimate of the expected crash frequency and severity for a range of AADT among similar intersection types. Two kinds of SPFs were used: the first addresses the total crash frequency while the second only considers the frequency of crashes involving an injury or fatality (severe crashes). These SPFs aid in assessing the magnitude of existing intersection safety problems from the frequency and severity standpoint.

Development of SPFs leads to the conceptual formulation of the Level of Service of Safety (LOSS). The concept of level of service uses qualitative measures that characterize safety of a roadway segment in reference to its expected performance. If the level of safety predicted by the SPF represents an expectation of crash frequency at a specific level of AADT, selected percentiles within the frequency distribution can be stratified to represent specific levels of safety relative to the expectation of the SPF.

- **LOSS I** – Below 20th Percentile
  - Indicates a low potential for crash reduction.
- **LOSS II** – 20th Percentile to Mean
  - Indicates a low to moderate potential for crash reduction.
- **LOSS III** – Mean to 80th Percentile
  - Indicates a moderate to high potential for crash reduction.
- **LOSS IV** – Above 80th Percentile
  - Indicates a high potential for crash reductions.

LOSS boundaries are calibrated by computing the 20th and the 80th percentiles using the Gamma Distribution Probability Density Function. Gradual change in the degree of deviation of the LOSS boundary line from the fitted model mean reflects the observed increase of variability in crash frequency as AADT increases. This increase is consistent with a Gamma Distribution error structure.

LOSS reflects how the intersection is performing with respect to its expected crash frequency and severity at a specific level of AADT. It only provides a crash frequency and severity comparison with the expected norm. It does not provide any information related to the nature of the safety problem itself. If the safety problem is present, LOSS will only describe its magnitude from the frequency and severity standpoint.

Correcting for Regression to the Mean Bias

The average of several years of crash history of an intersection provides an estimate of what is likely to be observed in the future. The precision of this estimate, however, can be improved by correcting for the Regression to the Mean (RTM) bias. RTM phenomenon reflects the tendency for random event occurrences, such as crashes, to move toward the average during an experiment or over time. For instance, if an intersection exhibits unusually high or unusually low crash frequency in a particular year,

RTM bias recognizes that over the long run the true average is closer to the mean representing safety performance of similar intersections.

The existence of the RTM bias has been long recognized and is now effectively addressed by using the Empirical Bayes (EB) method. The EB method is based on combining the information contained in the known crash history with information regarding the safety of similar intersection types using the expected mean value and over-dispersion parameter associated with the SPF. EB corrected values of frequency and severity of crashes are used in the SPF analysis to assess the magnitude of the existing safety problems.

Direct Diagnostics

The crash history of study intersections was evaluated to identify patterns related to crash type, severity, direction of travel, road conditions, time of day and behavioral attributes. The distribution of crash types and causal factors from the crash history was compared to the distributions of data that was used in the formation of SPFs for similar intersection types. Using the binomial distribution, each crash type and factor was evaluated to determine if the frequency of occurrence at a study intersection was significantly greater than the average frequency observed at similar intersections. Any crash type or factor with at least five occurrences and exceeding the 95 percent confidence level of the binomial distribution is considered a diagnostic pattern.

Data Collection

Crash History

Crash history data was collected from the City of Boulder for all crashes at or related to the study intersections (generally all crashes within 250 feet of an intersection were included). At several study locations, crashes occurred at driveways to businesses or parking lots located near the primary intersection. Generally, these crashes were included in the intersection crash history if the occurred upstream of the intersection (involved traffic units approaching the intersection versus departing from the intersection).

Traffic Counts

Traffic counts from 2017-2019 were collected from the City of Boulder and were used to establish the expected crash frequency for SPFs. Turning movement counts and K-Factors were used to convert traffic counts from design hourly volume to AADT.

SPFs and Diagnostic Norms

The *Vision Zero Suite* software from DiExSys was used to develop SPF models and baseline values for diagnostic pattern analyses. This software collects crash history from several agencies in Colorado to develop a comprehensive database that can be used to calibrate SPF models and diagnostic norms for several different intersection types based on geometric configuration, geographic setting, and traffic control.

III. INTERSECTION ANALYSIS

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1. 28th St & Jay Rd

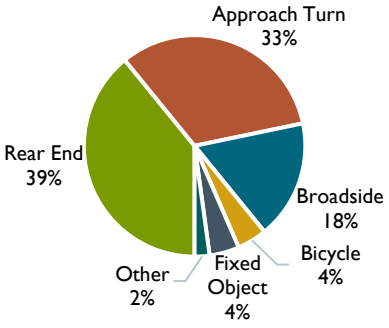
Classification: Urban 2-Lane Divided Signalized 4-Leg Intersection
Major Street: 28th Street **AADT:** 29,200 vpd
Minor Street: Jay Road **AADT:** 14,500 vpd
2015-2019 Crash History: 46 crashes (21 injury)
LOSS: II (Total), III (Severe)
Diagnostic Patterns: Injury, Broadside, Approach Turn

Both 28th Street and Jay Road are two-lane roads. Between 2015 and 2019, 46 total crashes were recorded at the 28th Street & Jay Road intersection. This is consistent with LOSS II conditions, indicating a low to moderate potential for crash reduction. Rear End crashes were most common (39%), followed by Approach Turn (33%) and Broadside (18%).

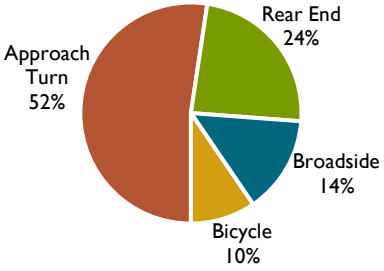
21 severe crashes were recorded at the intersection, consistent with LOSS III conditions, indicating a moderate to high potential for severe crash reduction. Severe crash types included Approach Turn (52%), Rear End (24%), and Broadside (14%).

Total crash frequency was highest from Noon – 3:00 PM (24%) and from 3:00 PM – 6:00 PM (26%). Severe crash frequency was highest from Noon – 3:00 PM (33%).

Total Crashes



Severe Crashes



Injury Crashes

21 crashes occurred at the 28th Street & Jay Road intersection that resulted in injury. Approach Turn crashes were the most common Injury crash type (11 of 21). 7 of 21 Injury crashes occurred during Dawn/Dusk or Dark-Lighted conditions. Weather was not a factor in any of the Injury crashes. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 7 of 21 Injury crashes.

Broadside Crashes

8 Broadside crashes occurred at the 28th Street & Jay Road intersection, including 3 that resulted in injury. Broadside crashes involved several different vehicle maneuvers:

- Northbound motorist ran red light and collided with westbound right-turning motorist
- Northbound motorist ran red light and collided with westbound motorist
- Northbound left-turning motorist ran red light and collided with westbound left-turning motorist
- Eastbound motorist ran red light and collided with southbound motorist
- Southbound motorist ran red light and collided with eastbound motorist (3 times)
- Southbound motorist ran red light and collided with westbound motorist

Weather was not a contributing factor in any of the Broadside crashes. 1 of 8 Broadside crashes occurred during Dawn/Dusk conditions. 4 of 8 crashes occurred between 7:00 AM – 10:00 AM and 4 of 8 crashes occurred between 8:00 AM – 11:00 AM.

Approach Turn Crashes

15 Approach Turn crashes occurred at the 28th Street & Jay Road intersection, 11 of which resulted in injury. Crashes involved several approach directions/vehicle maneuvers:

- Southbound left-turning motorist, northbound motorist: 12 crashes (10 injury)
- Westbound left-turning motorist, eastbound motorist: 3 crashes (1 injury)

Approach Turn crashes were most common between 5:00 PM – 7:00 PM (6 of 15). Dark-Lighted, Dark-Unlighted or Dawn/Dusk conditions were present for 8 of 15 Approach Turn crashes. Weather was not a contributing factor in any of the Approach Turn crashes. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 8 of 15 Approach Turn crashes.

2. Broadway & Iris Ave

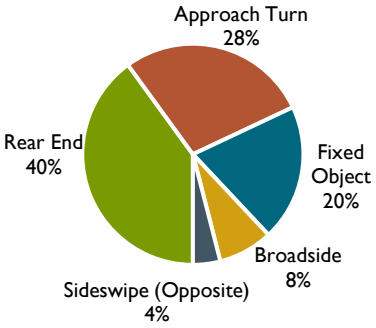
Classification: Urban 4-Lane Divided Signalized 3-Leg Intersection
Major Street: Broadway **AADT:** 29,700 vpd
Minor Street: Iris Street **AADT:** 17,700 vpd
2015-2019 Crash History: 25 crashes (10 injury)
LOSS: II (Total), II (Severe)
Diagnostic Patterns: Off Road, Approach Turn, Fixed Object

Broadway is a four-lane road, while Iris Street is a two-lane road. Between 2015 and 2019, 25 total crashes were recorded at the Broadway & Iris Street intersection. This is consistent with LOSS II conditions, indicating a low to moderate potential for crash reduction. Rear End crashes were most common (40%), followed by Approach Turn (28%) and Fixed Object (20%).

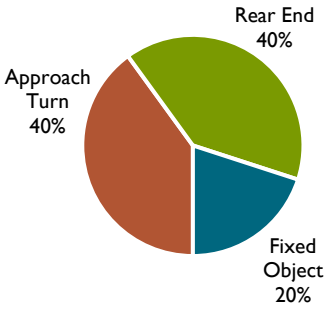
10 severe crashes were recorded at the intersection, consistent with LOSS I conditions, indicating a low to moderate potential for severe crash reduction. Severe crash types included Approach Turn (40%), Rear End (40%), and Fixed Object (20%).

Total crash frequency was highest from 3:00 PM – 6:00 PM (32%). Severe crash frequency was also highest from 3:00 PM – 6:00 PM (40%).

Total Crashes



Severe Crashes



Off Road Crashes

5 Off Road crashes occurred at the Broadway & Iris Street intersection, 2 of which resulted in injury. Off Road crashes involved motorists driving in several different directions:

- Northbound right-turning motorist did not turn properly and collided with landscaping and traffic signal equipment in the northeast corner of the intersection
- Southbound left-turning motorist did not turn properly and collided with the south curb of Iris Street before bouncing back into the roadway and striking other vehicles
- Southbound left-turning motorist did not turn properly and collided with traffic signal equipment in the southeast corner of the intersection
- Westbound motorist collided with a fence on the west side of the intersection
- Westbound right-turning motorist slid on the icy roadway and collided with a curb and tree in the median north of the intersection

2 of 5 Off Road crashes occurred during Dark-Lighted conditions. 1 of 5 Off Road crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 4 of 5 crashes.

Approach Turn Crashes

7 Approach Turn crashes occurred at the Broadway & Iris Street intersection, 4 of which resulted in injury. All 7 crashes involved southbound left-turning motorists and northbound motorists. Approach Turn crashes were most common between Noon – 5:00 PM (4 of 7); the remaining crashes occurred between 5:00 AM – 9:00 AM. Dark-Lighted or Dawn/Dusk conditions were present for 2 of 7 Approach Turn crashes. 1 of 7 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 2 of 7 Approach Turn crashes.

Fixed Object Crashes

5 Fixed Object crashes occurred at the Broadway & Iris Street intersection, 2 of which resulted in injury. All 5 Fixed Object crashes occurred Off-Road and are described in the preceding section.

3. Iris Ave & Folsom St

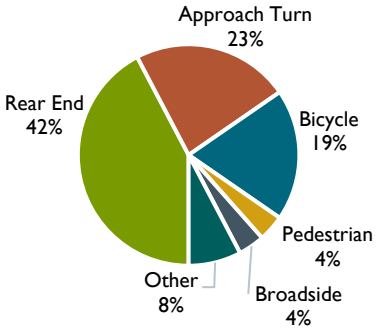
Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: Iris Avenue **AADT:** 27,400 vpd
Minor Street: Folsom Street **AADT:** 12,100 vpd
2015-2019 Crash History: 26 crashes (8 injury)
LOSS: I (Total), I (Severe)
Diagnostic Patterns: Bicycle, Dark-Lighted

Iris Avenue is a four-lane road, while Folsom Street is a two-lane road. Between 2015 and 2019, 26 total crashes were recorded at the Iris Avenue & Folsom Street intersection. This is consistent with LOSS I conditions, indicating a low potential for crash reduction. Rear End crashes were most common (42%), followed by Approach Turn (23%) and Bicycle (19%).

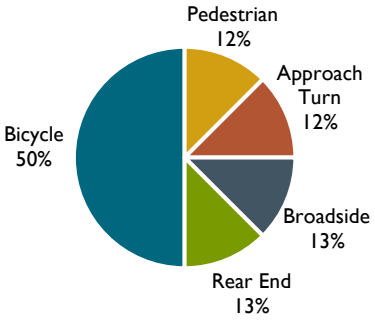
8 severe crashes were recorded at the intersection, consistent with LOSS I conditions, indicating a low potential for severe crash reduction. Bicycle crashes were the most common severe crash type (50%).

Total crash frequency was highest from 3:00 PM – 6:00 PM (35%). Severe crash frequency was also highest from 3:00 PM – 6:00 PM (38%).

Total Crashes



Severe Crashes



Bicycle Crashes

5 Bicycle crashes occurred at the Iris Avenue & Folsom Street intersection, 4 of which resulted in injury. Several different types of collisions were recorded:

- Northbound right-turning motorist collided with a westbound cyclist in the south crosswalk (3 times)
- Westbound left-turning motorist collided with eastbound cyclist (2 times)

Weather was not a factor in any of the Bicycle crashes. Dark-Lighted conditions were present for 2 of 5 Bicycle crashes. 3 of 5 crashes occurred between 4:00 PM – 7:00 PM.

Dark-Lighted Crashes

Dark-Lighted conditions were present for 9 crashes at the Iris Avenue & Folsom Street intersection, 2 of which resulted in injury. Several crash types occurred involving Dark-Lighted conditions, including Rear End (3 of 9), Approach Turn (2 of 9), and Bicycle (2 of 9). 5 of 9 crashes occurred between 5:00 PM – 8:00 PM, and 2 crashes occurred during inclement weather.

4. Folsom St & Valmont Rd

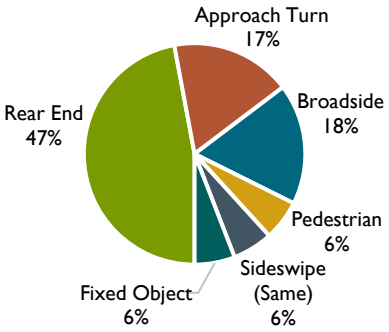
Classification: Urban 2-Lane Divided Signalized 4-Leg Intersection
Major Street: Folsom Street **AADT:** 16,800 vpd
Minor Street: Valmont Road **AADT:** 12,700 vpd
2015-2019 Crash History: 17 crashes (8 injury)
LOSS: I (Total), II (Severe)
Diagnostic Patterns: Injury

Folsom Street is a two-lane road. West of Folsom Street, Edgewood Drive is a two-lane road. East of Folsom Street, Valmont Road becomes a four-lane road. Between 2015 and 2019, 17 total crashes were recorded at the Folsom Street & Valmont Road intersection. This is consistent with LOSS I conditions, indicating a low potential for crash reduction. Rear End crashes were most common (47%), followed by Broadside (18%) and Approach Turn (17%).

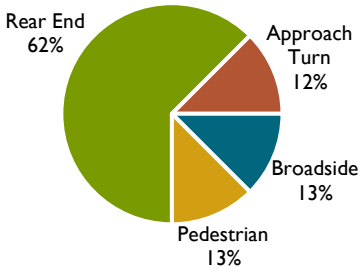
8 severe crashes were recorded at the intersection, consistent with LOSS II conditions, indicating a low to moderate potential for severe crash reduction. Rear End crashes were the most common severe crash type (62%).

Total crash frequency was highest from Noon – 3:00 PM (29%). Severe crash frequency was highest from 6:00 AM – 9:00 AM (25%), from Noon – 3:00 PM (25%), and from 6:00 PM – 9:00 PM (25%).

Total Crashes



Severe Crashes



Injury Crashes

8 crashes occurred at the Folsom Street & Valmont Road intersection that resulted in injury. Rear End crashes were the most common Injury crash type (5 of 8). Pedestrian (1 of 5), Broadside (1 of 5), and Approach Turn (1 of 5) Injury crashes were also recorded. 3 of 8 Injury crashes occurred during Dawn/Dusk or Dark-Lighted conditions. Only 1 Injury crash occurred in inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 3 of 8 Injury crashes.

5. 28th St & Valmont Rd

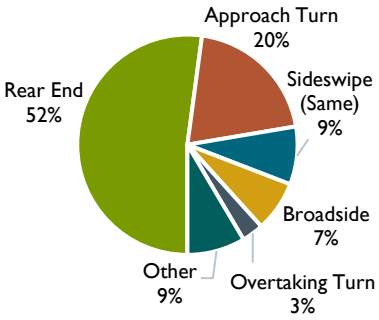
Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: 28th Street **AADT:** 29,800 vpd
Minor Street: Valmont Road **AADT:** 18,100 vpd
2015-2019 Crash History: 94 crashes (26 injury)
LOSS: III (Total), III (Severe)
Diagnostic Patterns: None

Both 28th Street and Valmont Road are four-lane roads. Between 2015 and 2019, 94 total crashes were recorded at the 28th Street & Valmont Road intersection. This is consistent with LOSS III conditions, indicating a moderate to high potential for crash reduction. Rear End crashes were most common (52%), followed by Approach Turn (20%).

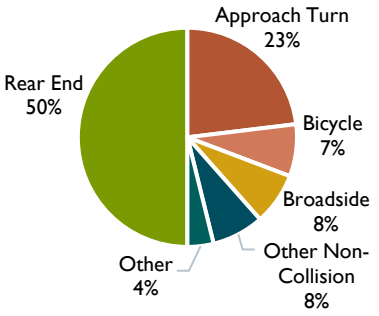
26 severe crashes were recorded at the intersection, consistent with LOSS III conditions, indicating a moderate to high potential for severe crash reduction. Rear End crashes were the most common severe crash type (50%), followed by Approach Turn (23%).

Total crash frequency was highest from Noon – 3:00 PM (25%) and from 3:00 PM – 6:00 PM (25%). Severe crash frequency was highest from 9:00 AM – Noon (32%) and from 3:00 PM – 6:00 PM (28%).

Total Crashes



Severe Crashes



No crashes were identified as diagnostic patterns, however, 19 Approach Turn crashes occurred at the intersection (6 injury). Approach Turn crashes involved all approach directions/vehicle maneuvers:

- Southbound left-turning motorist, northbound motorist: 7 crashes (2 injury)
- Westbound left-turning motorist, eastbound motorist: 5 crashes (1 injury)
- Eastbound left-turning motorist, westbound motorist: 4 crashes (1 injury)
- Northbound left-turning motorist, southbound motorist: 3 crashes (1 injury)

Approach Turn crashes were most common between 9:00 AM – 3:00 PM (10 of 19). Dark-Lighted conditions were present for 6 of 19 Approach Turn crashes. 2 of 19 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 6 of 18 Approach Turn crashes.

6. 30th St & Valmont Rd

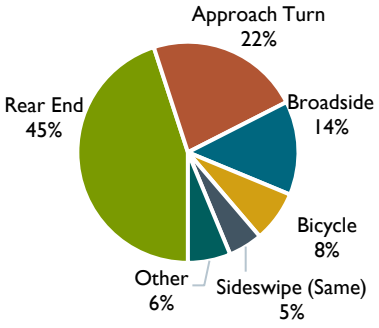
Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: 30th Street **AADT:** 24,400 vpd
Minor Street: Valmont Road **AADT:** 21,900 vpd
2015-2019 Crash History: 80 crashes (26 injury)
LOSS: III (Total), III (Severe)
Diagnostic Patterns: Approach Turn, Bicycle

Both 30th Street and Valmont Road are four-lane roads. Between 2015 and 2019, 80 total crashes were recorded at the 30th Street & Valmont Road intersection. This is consistent with LOSS III conditions, indicating a moderate to high potential for crash reduction. Rear End crashes were most common (45%), followed by Approach Turn (22%) and Broadside (14%).

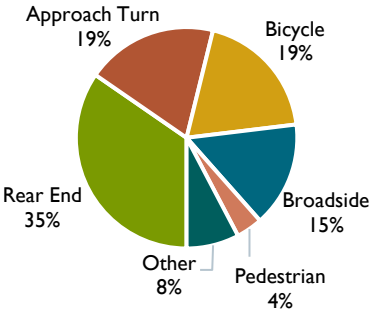
26 severe crashes were recorded at the intersection, consistent with LOSS III conditions, indicating a moderate to high potential for severe crash reduction. Rear End crashes were the most common severe crash type (35%) followed by Approach Turn (19%) and Bicycle (19%).

Total crash frequency was highest from Noon – 3:00 PM (31%). Severe crash frequency was highest from 9:00 AM – Noon (38%) and from Noon – 3:00 PM (35%).

Total Crashes



Severe Crashes



Approach Turn Crashes

18 Approach Turn crashes occurred at the 30th Street & Valmont Road intersection, 5 of which resulted in injury. Crashes involved several approach directions/vehicle maneuvers:

- Northbound left-turning motorist, southbound motorist: 9 crashes (4 injury)
- Southbound left-turning motorist, northbound motorist: 5 crashes (1 injury)
- Eastbound left-turning motorist, westbound motorist: 2 crashes
- Westbound left-turning motorist, eastbound motorist: 2 crashes

Approach Turn crashes were most common between Noon – 6:00 PM (13 of 18). Dawn/Dusk or Dark-Lighted conditions were present for 4 of 18 Approach Turn crashes. Only 1 of 18 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 2 of 18 Approach Turn crashes.

Bicycle Crashes

6 Bicycle crashes occurred at the 30th Street & Valmont Road intersection, 5 of which resulted in injury. All 6 Bicycle crashes involved turning motorists:

- Westbound right-turning motorist collided with southbound cyclist in the east crosswalk
- Northbound right-turning motorist collided with westbound cyclist in the south crosswalk
- Westbound left-turning motorist collided with eastbound cyclist in the south crosswalk
- Eastbound right-turning motorist collided with westbound cyclist in the south crosswalk
- Southbound right-turning motorist collided with southbound cyclist in the bike lane (2 times)

1 of 6 Bicycle crashes occurred in inclement weather. 5 of 6 crashes occurred during daylight hours.

7. Foothills Pkwy & Valmont Rd

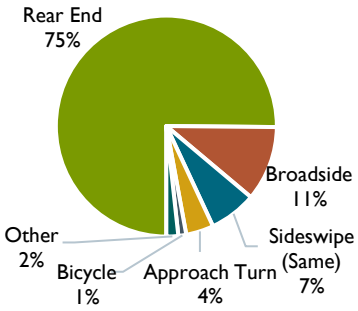
Classification: Urban 6-Lane Divided Signalized 4-Leg Intersection
Major Street: Foothills Parkway **AADT:** 56,900 vpd
Minor Street: Valmont Road **AADT:** 23,400 vpd
2015-2019 Crash History: 173 crashes (45 injury)
LOSS: III (Total), IV (Severe)
Diagnostic Patterns: Rear End, Dawn/Dusk, Snow/Sleet/Hail

Foothills Parkway is a six-lane road, while Valmont Road is a four-lane road. Between 2015 and 2019, 173 total crashes were recorded at the Foothills Parkway & Valmont Road intersection. This is consistent with LOSS III conditions, indicating a moderate to high potential for crash reduction. Rear End crashes were most common (75%), followed by Broadside (11%).

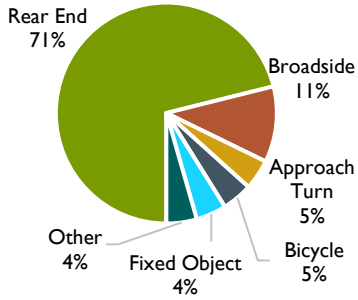
45 severe crashes were recorded at the intersection, consistent with LOSS IV conditions, indicating a high potential for severe crash reduction. Rear End crashes were the most common severe crash type (71%) followed by Broadside (11%).

Total crash frequency was highest from 3:00 PM – 6:00 PM (30%). Severe crash frequency was also highest from 3:00 PM – 6:00 PM (27%).

Total Crashes



Severe Crashes



Rear End

130 Rear End crashes occurred at the Foothills Parkway & Valmont Road intersection, 32 of which resulted in injury. Crashes occurred on all intersection approaches:

- Northbound Foothills Parkway: 51 crashes (10 injury)
  - 28 crashes in the channelized right-turn lane
- Southbound Foothills Parkway: 28 crashes (5 injury)
  - 14 crashes in the channelized right-turn lane
- Westbound Arapahoe Avenue: 8 crashes (3 injury)
  - 4 crashes in the channelized right-turn lane
- Eastbound Arapahoe Avenue: 41 crashes (14 injury)
  - 39 crashes in the channelized right-turn lane

Rear End crashes were most common between 3:00 PM – 6:00 PM (40 of 130). Dark-Lighted, Dark-Unlighted, or Dawn/Dusk conditions were present for 27 of 130 Rear End crashes. 15 of 130 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 30 of 130 Rear End crashes.

Dawn/Dusk

13 crashes occurred at the Foothills Parkway & Valmont Road intersection during Dawn/Dusk conditions, 2 of which resulted in injury. Rear End crashes were the most common Dawn/Dusk crash type (10 of 13); the remaining crashes included Broadside (1 of 13), Approach Turn (1 of 13), and Bicycle (1 of 13). 10 of 13 Dawn/Dusk crashes occurred between 4:00 PM – 8:00 PM, while the remaining crashes occurred between 4:00 AM – 7:00 AM. Sun glare was not noted in any of the Dawn/Dusk crash reports.

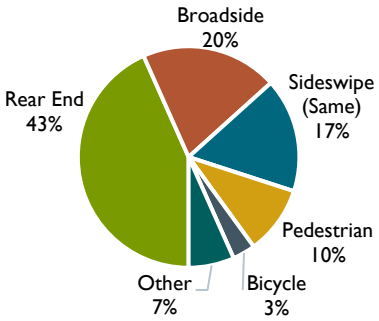
Snow/Sleet/Hail

13 crashes occurred at the Foothills Parkway & Valmont Road intersection during Snow/Sleet/Hail, 3 of which resulted in injury. Rear End crashes were the most common Dawn/Dusk crash type (8 of 13); the remaining crashes included Broadside (3 of 13), Head On (1 of 13), and Fixed Object (1 of 13). 5 of 13 crashes occurred during Dark-Lighted, Dark-Unlighted, or Dawn/Dusk conditions. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 2 of 13 Snow/Sleet/Hail crashes.

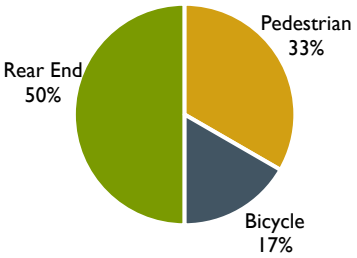
8. Broadway & Balsam St

Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: Broadway **AADT:** 28,200 vpd
Minor Street: Balsam Street **AADT:** 8,400 vpd
2015-2019 Crash History: 30 crashes (6 injury)
LOSS: I (Total), I (Severe)
Diagnostic Patterns: Sideswipe (Same Direction), Dawn/Dusk

Total Crashes



Severe Crashes



Broadway is a four-lane road, while Balsam Street is a two-lane road. Between 2015 and 2019, 30 total crashes were recorded at the Broadway & Balsam Street intersection. This is consistent with LOSS I conditions, indicating a low potential for crash reduction. Rear End crashes were most common (43%), followed by Broadside (20%) and Sideswipe (Same Direction) (17%).

6 severe crashes were recorded at the intersection, consistent with LOSS I conditions, indicating a low potential for severe crash reduction. Severe crash types included Rear End (50%), Pedestrian (33%), and Bicycle (17%).

Total crash frequency was highest from 6:00 PM – 9:00 PM (33%). Severe crash frequency was highest from 9:00 AM – Noon (33%) and from 6:00 PM – 9:00 PM (33%).

Sideswipe (Same Direction) Crashes

5 Sideswipe (Same Direction) crashes occurred at the Broadway & Balsam Street intersection, all of which were PDO. Crashes occurred in all approach directions:

- Southbound Broadway: 2 crashes
- Northbound Broadway: I crash
- Eastbound Balsam Street: I crash
- Westbound Balsam Street: I crash

Dark-Lighted conditions were present for I of 5 Sideswipe (Same Direction) crashes. Weather was not a factor in any of the Sideswipe (Same Direction) crashes. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in I of 5 crashes. Drivers were making turning maneuvers in 3 of 5 Sideswipe (Same Direction) crashes, lane changing maneuvers in 2 of 5 crashes.

Dawn/Dusk Crashes

6 crashes occurred at the Broadway & Balsam Street intersection during Dawn/Dusk conditions, I of which resulted in injury. Rear End crashes were the most common Dawn/Dusk crash type (3 of 6); the remaining crashes included Broadside (2 of 5) and Approach Turn (I of 5). All 5 Dawn/Dusk crashes occurred 5:00 PM – 9:00 PM. Sun glare was not noted in any of the Dawn/Dusk crash reports.

9. Broadway & Alpine St

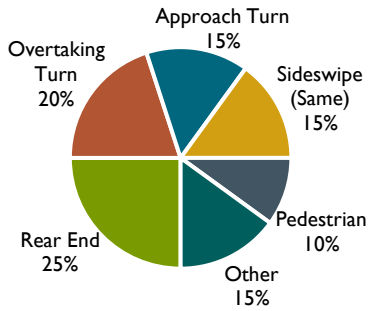
Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: Broadway **AADT:** 23,600 vpd
Minor Street: Alpine Street **AADT:** 4,200 vpd
2015-2019 Crash History: 20 crashes (3 injury)
LOSS: II (Total), I (Severe)
Diagnostic Patterns: None

Broadway is a four-lane road, while Alpine Street is a two-lane road. Between 2015 and 2019, 20 total crashes were recorded at the Broadway & Alpine Street intersection. This is consistent with LOSS II conditions, indicating a low to moderate potential for crash reduction. Rear End crashes were most common (25%), followed by Overtaking Turn (20%).

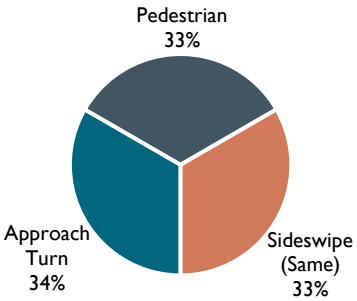
3 severe crashes were recorded at the intersection, consistent with LOSS I conditions, indicating a low potential for severe crash reduction. Severe crash types included Approach Turn, Pedestrian, and Sideswipe (Same Direction).

Total crash frequency was highest from 3:00 PM – 6:00 PM (35%). Severe crash frequency was also highest from 3:00 PM – 6:00 PM (67%).

Total Crashes



Severe Crashes



10. Folsom St & Pearl St

Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: Folsom Street **AADT:** 19,900 vpd
Minor Street: Pearl Street **AADT:** 19,000 vpd
2015-2019 Crash History: 38 crashes (11 injury)
LOSS: I (Total), II (Severe)
Diagnostic Patterns: None

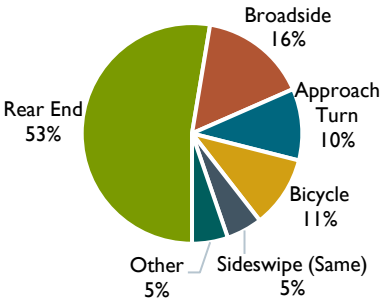
Both Folsom Street and Pearl Street are four-lane roads. Between 2015 and 2019, 38 total crashes were recorded at the Folsom Street & Pearl Street intersection. This is consistent with LOSS I conditions, indicating a low potential for crash reduction. Rear End crashes were most common (53%), followed by Broadside (16%).

11 severe crashes were recorded at the intersection, consistent with LOSS II conditions, indicating a low to moderate potential for severe crash reduction. Rear End crashes were the most common severe crash type (46%).

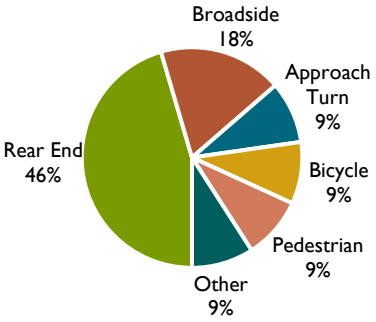
Total crash frequency was highest from 3:00 PM – 6:00 PM (32%). Severe crash frequency was highest from Noon – 3:00 PM (45%).

No crashes were identified as diagnostic patterns, however, 5 Bicycle/Pedestrian crashes occurred at the intersection (2 injury). Several different types of collisions were recorded:

Total Crashes



Severe Crashes



- Northbound right-turning motorist collided with a northbound cyclist in the bike lane
- Northbound left-turning motorist collided with a northbound left-turning cyclist in the travel lanes
- Southbound left-turning motorist collided with a northbound cyclist in the bike lane
- Northbound right-turning motorist collided with a northbound cyclist in the bike lane at a driveway just south of the intersection
- Southbound left-turning motorist collided with a northbound pedestrian in the east crosswalk

Dark-Unlighted conditions were present for 1 of 5 Bicycle/Pedestrian crashes. Inclement weather was not present in any of the crashes. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 3 of 5 Bicycle/Pedestrian crashes.

11. 30th St & Pearl St

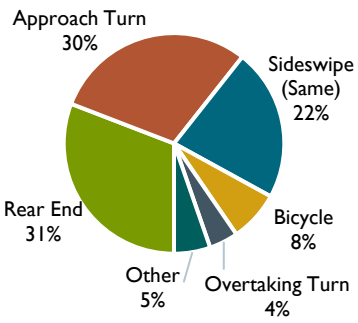
Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: 30th Street **AADT:** 31,000 vpd
Minor Street: Pearl Street **AADT:** 25,200 vpd
2015-2019 Crash History: 94 crashes (24 injury)
LOSS: II (Total), II (Severe)
Diagnostic Patterns: Sideswipe (Same Direction), Approach Turn, Bicycle

Both 30th Street and Pearl Street are four-lane roads. Between 2015 and 2019, 94 total crashes were recorded at the 30th Street & Pearl Street intersection. This is consistent with LOSS II conditions, indicating a low to moderate potential for crash reduction. Rear End crashes were most common (31%), followed by Approach Turn (30%) and Sideswipe (Same Direction) (22%).

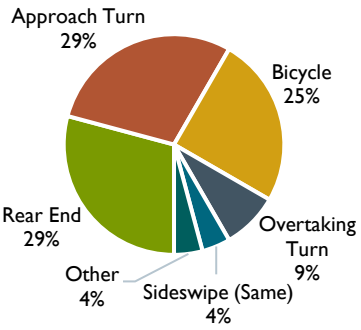
24 severe crashes were recorded at the intersection, consistent with LOSS II conditions, indicating a low to moderate potential for severe crash reduction. Rear End and Approach Turn crashes were the most common severe crash type (29% each), followed by Bicycle crashes (25%).

Total crash frequency was highest from 3:00 PM – 6:00 PM (27%). Severe crash frequency was highest from 6:00 PM – 9:00 PM (33%).

Total Crashes



Severe Crashes



Sideswipe (Same Direction) Crashes

21 Sideswipe (Same Direction) crashes occurred at the 30th Street & Pearl Street intersection, 1 of which resulted in injury. Crashes occurred in all approach directions:

- Westbound Pearl Street: 12 crashes
- Eastbound Pearl Street: 3 crashes
- Southbound 30th Street: 2 crashes (1 injury)
- Northbound 30th Street: 2 crashes

Dark-Lighted conditions were present for 4 of 21 Sideswipe (Same Direction) crashes. Inclement weather was present in 2 of 21 Sideswipe (Same Direction) crashes. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 2 of 21 crashes. Drivers were making turning maneuvers in 8 of 21 Sideswipe (Same Direction) crashes, versus lane changing/passing maneuvers in 13 of 21 crashes.

Approach Turn Crashes

28 Approach Turn crashes occurred at the 30th Street & Pearl Street intersection, 7 of which resulted in injury. Crashes involved several approach directions/vehicle maneuvers:

- Southbound left-turning motorist, northbound motorist: 10 crashes (2 injury)
- Northbound left-turning motorist, southbound motorist: 7 crashes (3 injury)
- Westbound left-turning motorist, eastbound motorist: 6 crashes
- Eastbound left-turning motorist, westbound motorist: 5 crashes (2 injury)

Approach Turn crashes were most common between 5:00 PM – 10:00 PM (14 of 28). Dawn/Dusk or Dark-Lighted conditions were present for 10 of 28 Approach Turn crashes. 2 of 28 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 5 of 28 Approach Turn crashes.

Bicycle Crashes

7 Bicycle crashes occurred at the 30th Street & Pearl Street intersection, 6 of which resulted in injury. All 6 Bicycle crashes involved turning motorists:

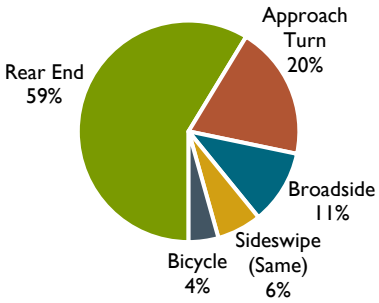
- Northbound right-turning motorist collided with northbound cyclist in the bike lane
- Westbound left-turning motorist collided with westbound cyclist on the south crosswalk
- Eastbound right-turning motorist (from the through lane) collided with eastbound cyclist in the bike lane
- Northbound left-turning motorist collided with southbound cyclist in the bike lane
- Southbound right-turning motorist collided with southbound cyclist in the west crosswalk
- Eastbound right-turning motorist collided with southbound cyclist in the bike lane at the driveway access just north of the intersection (2 times)

2 of 7 Bicycle crashes occurred in inclement weather. 2 of 7 crashes occurred during Dark-Lighted conditions. Bicycle crashes were most common between 8:00 AM – 9:00 AM (3 of 7) and between 7:00 PM – 11:00 PM (3 of 7). Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 1 of 7 Bicycle crashes.

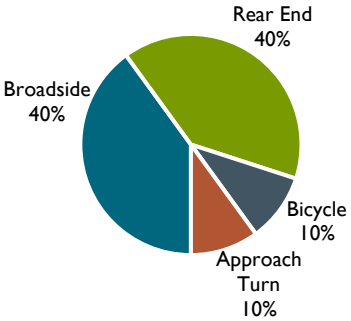
12. 30th St & Walnut St

Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: 30th Street **AADT:** 30,000 vpd
Minor Street: Walnut Street **AADT:** 12,700 vpd
2015-2019 Crash History: 46 crashes (10 injury)
LOSS: II (Total), II (Severe)
Diagnostic Patterns: None

Total Crashes



Severe Crashes



30th Street is a four-lane road, while Walnut Street is a two-lane road. Between 2015 and 2019, 46 total crashes were recorded at the 30th Street & Walnut Street intersection. This is consistent with LOSS II conditions, indicating a low to moderate potential for crash reduction. Rear End crashes were most common (59%), followed by Approach Turn (20%) and Broadside (11%).

10 severe crashes were recorded at the intersection, consistent with LOSS II conditions, indicating a low to moderate potential for severe crash reduction. Broadside (40%) and Rear End (40%) crashes were the most common severe crash type.

Total crash frequency was highest from 3:00 PM – 6:00 PM (35%). Severe crash frequency was highest from Noon – 3:00 PM (50%).

No crashes were identified as diagnostic patterns, however, 9 Approach Turn crashes occurred at the intersection (1 injury). 7 of 9 Approach Turn crashes involved southbound left-turning motorists and northbound through motorists.

Additionally, 5 Broadside crashes occurred (4 injury). Broadside crashes involved several approach directions/vehicle maneuvers:

- Northbound motorist & westbound motorist (2 times)
- Southbound motorist & westbound motorist (2 times)
- Southbound motorist & eastbound motorist

13. Canyon Blvd & Folsom St

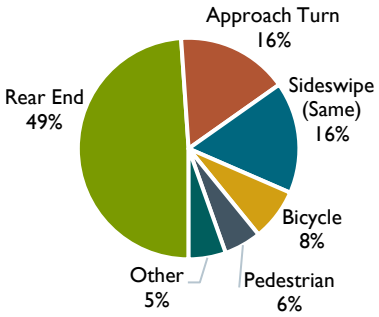
Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: Canyon Boulevard **AADT:** 26,500 vpd
Minor Street: Folsom Street **AADT:** 20,500 vpd
2015-2019 Crash History: 92 crashes (27 injury, 1 fatal)
LOSS: III (Total), III (Severe)
Diagnostic Patterns: Pedestrian, Sideswipe (Same Direction), Bicycle

Both Canyon Boulevard and Folsom Street are four-lane roads. Between 2015 and 2019, 92 total crashes were recorded at the Canyon Boulevard & Folsom Street intersection. This is consistent with LOSS III conditions, indicating a moderate to high potential for crash reduction. Rear End crashes were most common (49%), followed by Approach Turn (16%) and Sideswipe (Same Direction) (16%).

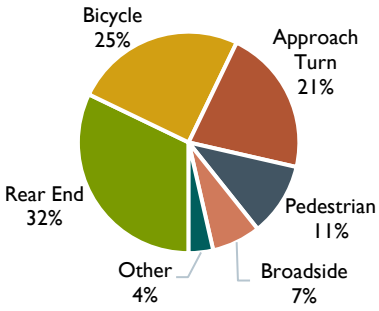
28 severe crashes were recorded at the intersection, consistent with LOSS III conditions, indicating a moderate to high potential for severe crash reduction. Rear End crashes were the most common severe crash type (32%) followed by Bicycle (25%) and Approach Turn (21%).

Total crash frequency was highest from 3:00 PM – 6:00 PM (32%). Severe crash frequency was also highest from 3:00 PM – 6:00 PM (32%).

Total Crashes



Severe Crashes



Fatal Crash

One fatal crash occurred at the Canyon Boulevard & Folsom Street intersection. A southbound left-turning motorist collided with a northbound pedestrian in the east crosswalk. The southbound motorist had a flashing yellow left-turn arrow at the time of the crash, the status of the pedestrian signal was not noted. The crash occurred during daylight with no inclement weather. No driver contributing factors were cited.

Pedestrian Crashes

5 Pedestrian crashes occurred at the Canyon Boulevard & Folsom Street intersection, 2 of which resulted in injury, and one of which resulted in a fatality (discussed above). Several different types of collisions were recorded:

- Southbound left-turning motorist collided with northbound pedestrian in the east crosswalk (2 times)
- Northbound left-turning motorist collided with pedestrian standing in median
- Southbound right-turning motorist collided with southbound pedestrian in west crosswalk
- Eastbound left-turning motorist collided with eastbound pedestrian in north crosswalk

1 of 5 Pedestrian crashes occurred in inclement weather. 4 of 5 crashes occurred during daylight hours.

Sideswipe (Same Direction) Crashes

15 Sideswipe (Same Direction) crashes occurred at the Canyon Boulevard & Folsom Street intersection, 1 of which resulted in injury. Crashes occurred in all approach directions:

- Eastbound Canyon Boulevard: 4 crashes (1 injury)

- Westbound Canyon Boulevard: 5 crashes
- Northbound Folsom Street: 3 crashes
- Southbound Folsom Street: 3 crashes

Sideswipe (Same Direction) crashes were most common between Noon – 6:00 PM (8 of 15). Dawn/Dusk, Dark-Unlighted, or Dark-Lighted conditions were present for 3 of 15 crashes. 2 of 15 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 4 of 15 crashes. Drivers were making turning maneuvers in 6 of 15 Sideswipe (Same Direction) crashes, versus passing/lane changing maneuvers in 9 of 15 crashes.

Bicycle Crashes

7 Bicycle crashes occurred at the Canyon Boulevard & Folsom Street intersection, all of which resulted in injury. Several different types of collisions were recorded:

- Westbound right-turning motorist collided with southbound cyclist in the east crosswalk
- Westbound right-turning motorist collided with westbound cyclist in the bike lane
- Westbound motorist collided with northbound cyclist in the east crosswalk
- Southbound left-turning motorist collided with northbound cyclist in the east crosswalk
- Southbound left-turning motorist collided with northbound cyclist in the bike lane
- Southbound left-turning motorist collided with southbound cyclist in the east crosswalk
- Northbound right-turning motorist collided with northbound cyclist in the bike lane

Weather was not a factor in any of the Bicycle crashes. Dawn/Dusk or Dark-Lighted conditions were present for 3 of 7 crashes.

14. 30th St & Canyon Blvd

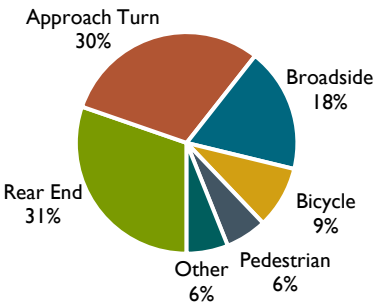
Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: 30th Street **AADT:** 25,700 vpd
Minor Street: Canyon Boulevard **AADT:** 6,900 vpd
2015-2019 Crash History: 33 crashes (12 injury)
LOSS: II (Total), III (Severe)
Diagnostic Patterns: Approach Turn

30th Street is a four-lane road, while Canyon Boulevard is a two-lane road. Between 2015 and 2019, 33 total crashes were recorded at the 30th Street & Canyon Boulevard intersection. This is consistent with LOSS II conditions, indicating a low to moderate potential for crash reduction. Rear End crashes were most common (31%), followed by Approach Turn (30%) and Broadside (18%).

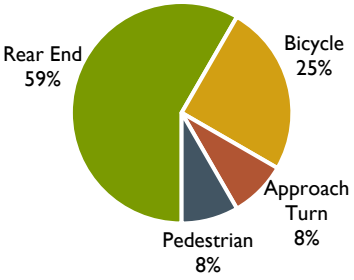
12 severe crashes were recorded at the intersection, consistent with LOSS III conditions, indicating a moderate to high potential for severe crash reduction. Rear End crashes were the most common severe crash type (59%) followed by Bicycle crashes (25%).

Total crash frequency was highest from 3:00 PM – 6:00 PM (33%). Severe crash frequency was highest from Noon – 3:00 PM (25%), from 3:00 PM – 6:00 PM (25%), and from 6:00 PM – 9:00 PM (25%).

Total Crashes



Severe Crashes



Approach Turn Crashes

10 Approach Turn crashes occurred at the 30th Street & Canyon Boulevard intersection, 1 of which resulted in injury. Crashes involved several approach directions/vehicle maneuvers:

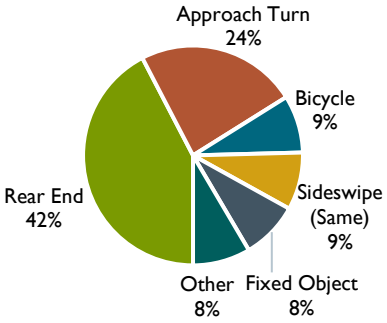
- Northbound left-turning motorist, southbound motorist: 6 crashes (1 injury)
- Southbound left-turning motorist, northbound motorist: 2 crashes
- Westbound left-turning motorist, eastbound motorist: 2 crashes

Approach Turn crashes were most common between 3:00 PM – 8:00 PM (7 of 10). Dark-Lighted conditions were present for 4 of 10 Approach Turn crashes. 3 of 10 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 4 of 10 Approach Turn crashes.

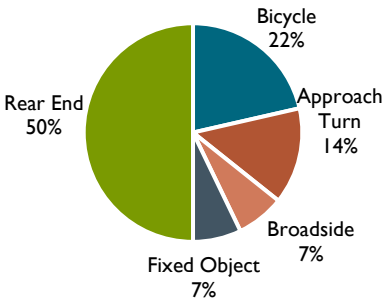
15. Arapahoe Ave & Folsom St

Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: Arapahoe Avenue **AADT:** 27,300 vpd
Minor Street: Folsom Street **AADT:** 18,200 vpd
2015-2019 Crash History: 59 crashes (14 injury)
LOSS: II (Total), II (Severe)
Diagnostic Patterns: Off Road, Approach Turn, Bicycle, Fixed Object

Total Crashes



Severe Crashes



Arapahoe Avenue is a four-lane road east of Folsom Street, but a two-lane road west of Folsom Street. Folsom Street is a four-lane road north of Arapahoe Avenue, but a two-lane road south of Arapahoe Avenue. Between 2015 and 2019, 59 total crashes were recorded at the Arapahoe Avenue & Folsom Street intersection. This is consistent with LOSS II conditions, indicating a low to moderate potential for crash reduction. Rear End crashes were most common (42%), followed by Approach Turn (24%).

14 severe crashes were recorded at the intersection, consistent with LOSS II conditions, indicating a low to moderate potential for severe crash reduction. Rear End crashes were the most common severe crash type (50%) followed by Bicycle (21%) and Approach Turn (14%).

Total crash frequency was highest from 3:00 PM – 6:00 PM (37%) and from Noon – 3:00 PM (36%). Severe crash frequency was highest from Noon – 3:00 PM (43%).

Off Road Crashes

5 Off Road crashes occurred at the Arapahoe Avenue & Folsom Street intersection, 1 of which resulted in injury. Off Road crashes involved motorists driving in several different directions:

- Southbound left-turning motorist did not turn properly, causing adjacent southbound left-turning motorist to collide with the curb on the south side of the intersection
- Southbound left-turning motorist did not turn properly and collided with the median on the east side of the intersection
- Northbound motorist collided with the median and a tree on the south side of the intersection
- Westbound motorist attempted to avoid a rear end crash and collided with the median on the west side of the intersection
- Westbound motorist collided with the north curb and landscaping just west of the intersection

3 of 5 Off Road crashes occurred during Dark-Lighted conditions. Weather was not a factor in any of the Off Road crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 2 of 5 crashes.

Approach Turn Crashes

14 Approach Turn crashes occurred at the Arapahoe Avenue & Folsom Street intersection, 2 of which resulted in injury. Crashes involved several approach directions/vehicle maneuvers:

- Westbound left-turning motorist, eastbound motorist: 7 crashes (1 injury)
- Eastbound left-turning motorist, westbound motorist: 6 crashes (1 injury)

- Northbound left-turning motorist, southbound motorist: 1 crash

Approach Turn crashes were most common between 2:00 PM – 8:00 PM (9 of 14). Dark-Lighted conditions were present for 7 of 14 Approach Turn crashes. 2 of 14 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 4 of 14 Approach Turn crashes.

Bicycle Crashes

5 Bicycle crashes occurred at the Arapahoe Avenue & Folsom Street intersection, 3 of which resulted in injury. Several different types of collisions were recorded:

- Northbound right-turning motorist collided with westbound cyclist in the south crosswalk
- Eastbound right-turning motorist collided with westbound cyclist in the south crosswalk
- Southbound right-turning motorist collided with southbound cyclist in the bike lane
- Northbound right-turning motorist collided with westbound cyclist on the sidewalk at a driveway west of the intersection
- Southbound right-turning motorist collided with southbound cyclist in the bike lane at a driveway south of the intersection

Inclement weather was present in 1 of 5 Bicycle crashes. Dark-Lighted conditions were present for 2 of 5 crashes.

Fixed Object Crashes

5 Fixed Object crashes occurred at the Arapahoe Avenue & Folsom Street intersection, 1 of which resulted in injury. All 5 Fixed Object crashes occurred Off-Road and are described in the preceding section.

16. Arapahoe Ave & 28th St

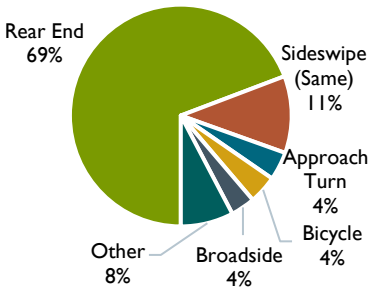
Classification: Urban 6-Lane Divided Signalized 4-Leg Intersection
Major Street: Arapahoe Avenue **AADT:** 43,000 vpd
Minor Street: 28th Street **AADT:** 29,800 vpd
2015-2019 Crash History: 169 crashes (32 injury, 1 fatal)
LOSS: IV (Total), III (Severe)
Diagnostic Patterns: Rear End, Bicycle

Both Arapahoe Avenue and 28th Street are six-lane roads. Between 2015 and 2019, 169 total crashes were recorded at the Arapahoe Avenue & 28th Street intersection. This is consistent with LOSS IV conditions, indicating a high potential for crash reduction. Rear End crashes were most common (69%), followed by Sideswipe (Same Direction) (11%).

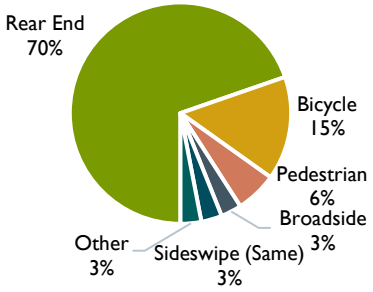
33 severe crashes were recorded at the intersection, consistent with LOSS III conditions, indicating a moderate to high potential for severe crash reduction. Rear End crashes were the most common severe crash type (70%), followed by Bicycle (15%) and Pedestrian (6%).

Total crash frequency was highest from 3:00 PM – 6:00 PM (31%). Severe crash frequency was also highest from 3:00 PM – 6:00 PM (39%).

Total Crashes



Severe Crashes



Fatal Crash

One fatal crash occurred at the Arapahoe Avenue & 28th Street intersection. A northbound right-turning motorist (driving a truck) collided with a cyclist who was travelling northbound on the east sidewalk. The northbound motorist had a green light at the time of the crash, the pedestrian signal for the east crosswalk was counting down for the Flashing Don't Walk phase at the time of the crash. The cyclist collided with the trailer of the truck after the motorist had nearly completed their turning maneuver. The crash occurred during Dark-Lighted conditions with no inclement weather. No driver contributing factors were cited.

Rear End Crashes

117 Rear End crashes occurred at the Arapahoe Avenue & 28th Street intersection, 23 of which resulted in injury. Crashes occurred on all intersection approaches:

- Westbound Arapahoe Avenue: 41 crashes (8 injury)
  - 19 crashes in the channelized right-turn lane
- Northbound 28th Street: 32 crashes (7 injury)
- Southbound 28th Street: 22 crashes (5 injury)
- Eastbound Arapahoe Avenue: 21 crashes (3 injury)
  - 8 crashes in the channelized right-turn lane

Rear End crashes were most common between 3:00 PM – 6:00 PM (39 of 117). Dawn/Dusk or Dark-Lighted conditions were present for 14 of 117 Rear End crashes. 7 of 117 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 34 of 117 Rear End crashes.

Bicycle Crashes

7 Bicycle crashes occurred at the Arapahoe Avenue & 28th Street intersection, 4 of which resulted in injury, and one of which resulted in a fatality (discussed above). Several different types of collisions were recorded:

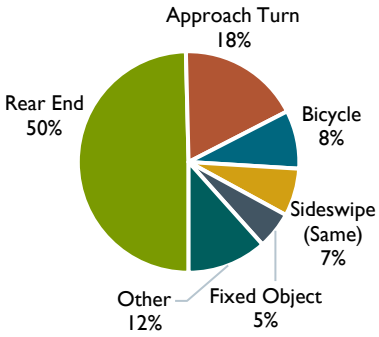
- Westbound right-turning motorist collided with southbound cyclist in the crosswalk of the northeast channelized right-turn lane
- Westbound right-turning motorist collided with northbound cyclist in the crosswalk of the northeast channelized right-turn lane
- Northbound right-turning motorist collided with northbound cyclist in the east crosswalk
- Northbound right-turning motorist collided with westbound cyclist in the south crosswalk (2 times)
- Eastbound right-turning motorist collided with southbound cyclist in the crosswalk of the southwest channelized right-turn lane
- Eastbound right-turning motorist collided with northbound cyclist in the crosswalk of the southwest channelized right-turn lane

Weather was not a factor in any of the Bicycle crashes. Dark-Lighted conditions were present for 2 of 7 crashes. 4 of 7 crashes occurred between 2:00 PM – 6:00 PM.

17. Arapahoe Ave & 30th St

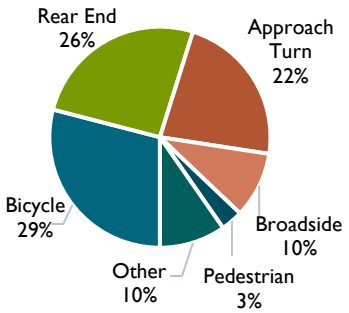
Classification: Urban 6-Lane Divided Signalized 4-Leg Intersection
Major Street: Arapahoe Avenue **AADT:** 33,500 vpd
Minor Street: 30th Street **AADT:** 26,000 vpd
2015-2019 Crash History: 129 crashes (31 injury)
LOSS: IV (Total), III (Severe)
Diagnostic Patterns: Bicycle, Fixed Object, Dawn/Dusk, Dark-Unlighted

Total Crashes



Arapahoe Avenue is a six-lane road, while 30th Street is a four-lane road. Between 2015 and 2019, 129 total crashes were recorded at the Arapahoe Avenue & 30th Street intersection. This is consistent with LOSS IV conditions, indicating a high potential for crash reduction. Rear End crashes were most common (50%), followed by Approach Turn (18%) and Bicycle (8%).

Severe Crashes



31 severe crashes were recorded at the intersection, consistent with LOSS III conditions, indicating a moderate to high potential for severe crash reduction. Bicycle crashes were the most common severe crash type (29%), followed by Rear End (26%) and Approach Turn (22%).

Total crash frequency was highest from Noon – 3:00 PM (24%) and from 3:00 PM – 6:00 PM (25%). Severe crash frequency was highest from Noon – 3:00 PM (20%), from 3:00 PM – 6:00 PM (20%), and from 6:00 PM – 9:00 PM (20%).

Bicycle Crashes

11 Bicycle crashes occurred at the Arapahoe Avenue & 30th Street intersection, 9 of which resulted in injury. Several different types of collisions were recorded:

- Westbound right-turning motorist collided with westbound cyclist in the crosswalk of the northeast channelized right-turn lane
- Object from an eastbound cyclist in the westbound lanes collided with westbound motorist
- Southbound right-turning motorist at driveway east of the intersection collided with eastbound cyclist on the north sidewalk
- Northbound cyclist crossing against the signal collided with westbound motorist (2 times)
- Westbound left-turning motorist collided with westbound cyclist in the south crosswalk (2 times)
- Southbound cyclist crossing against the signal collided with eastbound motorist
- Southbound right-turning motorist collided with eastbound cyclist in the north crosswalk
- Eastbound right-turning motorist at driveway north of the intersection collided with southbound cyclist
- Eastbound left-turning motorist collided with eastbound cyclist in the north crosswalk

Weather was not a factor in any of the Bicycle crashes. Dark-Lighted or Dark-Unlighted conditions were present for 6 of 11 crashes. 6 of 11 crashes occurred between 6:00 PM – Midnight.

Fixed Object Crashes

7 Fixed Object crashes occurred at the Arapahoe Avenue & 30th Street intersection, 1 of which resulted in injury. 4 crashes involved eastbound motorists; 3 crashes involved southbound motorists. 1 of 7 Fixed Object crashes occurred during Dark-Lighted conditions. 2 of 7 Fixed Object crashes occurred in inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 3 of 7 Fixed Object crashes.

Dawn/Dusk Crashes

8 crashes occurred at the Arapahoe Avenue & 30th Street intersection during Dawn/Dusk conditions, 3 of which resulted in injury. Rear End crashes were the most common Dawn/Dusk crash type (7 of 8); 1 Sideswipe (Same Direction) crash also occurred. 7 of 8 Dawn/Dusk crashes occurred in the afternoon/evening. Sun glare was not noted in any of the Dawn/Dusk crash reports.

Dark-Unlighted Crashes

Despite existing overhead lighting, 5 crashes occurred at the Arapahoe Avenue & 30th Street intersection during Dark-Unlighted conditions, 3 of which resulted in injury. Bicycle crashes were the most common Dark-Unlighted crash type (2 of 5), followed by Approach Turn (2 of 5) and Broadside (1 of 5). 3 of 5 Dark-Unlighted crashes involved southbound motorists attempting to make turning maneuvers.

18. Foothills Pkwy & Arapahoe Ave

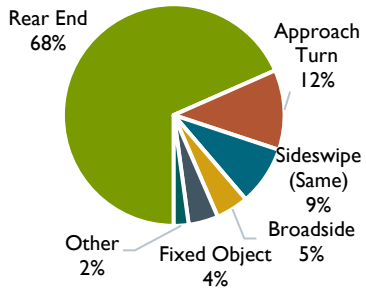
Classification: Urban 6-Lane Divided Signalized 4-Leg Intersection
Major Street: Foothills Parkway **AADT:** 61,300 vpd
Minor Street: Arapahoe Avenue **AADT:** 42,300 vpd
2015-2019 Crash History: 231 crashes (61 injury, 1 fatal)
LOSS: IV (Total), IV (Severe)
Diagnostic Patterns: Off Road-Median, Rear End, Dark-Unlighted, Snow/Sleet/Hail, Driver Inexperience

Arapahoe Avenue is a six-lane road, while Foothills Parkway is a five-lane road (2 northbound lanes, 3 southbound lanes). Between 2015 and 2019, 231 total crashes were recorded at the Foothills Parkway & Arapahoe Avenue intersection. This is consistent with LOSS IV conditions, indicating a high potential for crash reduction. Rear End crashes were most common (68%), followed by Approach Turn (12%).

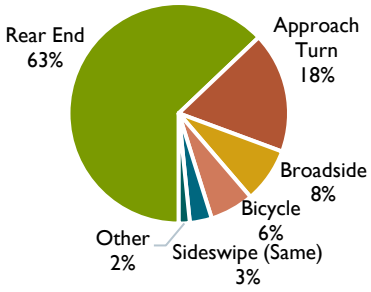
62 severe crashes were recorded at the intersection, consistent with LOSS IV conditions, indicating a high potential for severe crash reduction. Rear End crashes were the most common severe crash type (63%), followed by Approach Turn (18%).

Total crash frequency was highest 3:00 PM – 6:00 PM (25%). Severe crash frequency was highest from Noon – 3:00 PM (26%).

Total Crashes



Severe Crashes



Fatal Crash

One fatal crash occurred at the Foothills Parkway & Arapahoe Avenue intersection. A westbound motorist rear ended two other motorists who were stopped at a red signal. The crash occurred during Dark-Lighted conditions with no inclement weather. Drug use was suspected in the crash record but not cited as a contributing factor.

Off Road-Median Crashes

7 Off Road-Median crashes occurred at the Foothills Parkway & Arapahoe Avenue intersection, all of which were PDO. Off Road-Median crashes involved motorists driving in several different directions:

- Northbound motorist crashed into the channelizing island on the southeast corner of the intersection (3 times)
- Southbound right-turning motorist did not turn properly and collided with the median on the west leg of the intersection (2 times)
- Northbound motorist collided with the median on the north leg of the intersection
- Eastbound motorist collided with the median on the east leg of the intersection

4 of 7 Off Road-Median crashes occurred during Dark-Lighted or Dawn/Dusk conditions. 4 of 7 Off Road-Median crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 1 of 7 crashes.

Rear End Crashes

158 Rear End crashes occurred at the Foothills Parkway & Arapahoe Avenue intersection, 39 of which resulted in injury, and 1 of which resulted in a fatality (described above). Crashes occurred on all intersection approaches:

- Northbound Foothills Parkway: 63 crashes (16 injury)
  - 15 crashes in the channelized right-turn lane
- Southbound Foothills Parkway: 51 crashes (12 injury)
  - 6 crashes in the channelized right-turn lane
- Westbound Arapahoe Avenue: 23 crashes (8 injury, 1 fatal)
  - 7 crashes in the channelized right-turn lane
- Eastbound Arapahoe Avenue: 20 crashes (2 injury)
  - 7 crashes in the channelized right-turn lane

Rear End crashes were most common between 3:00 PM – 6:00 PM (41 of 158). Dark-Lighted, Dark-Unlighted, or Dawn/Dusk conditions were present for 24 of 158 Rear End crashes. 19 of 158 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 49 of 158 Rear End crashes.

Dark-Unlighted Crashes

5 Dark-Unlighted crashes occurred at the Foothills Parkway & Arapahoe Avenue intersection despite the presence of overhead lighting, all of which were PDO. 3 Dark-Unlighted crashes involved southbound motorists, 2 involved southbound motorists. Inclement weather was not present for any of the crashes. 3 Dark-Unlighted crashes involved motorists making right-turns.

Snow/Sleet/Hail Crashes

22 crashes occurred at the Foothills Parkway & Arapahoe Avenue intersection during Snow/Sleet/Hail conditions, 2 of which resulted in injury. Rear End crashes were most common (11 of 22), followed by Fixed Object (4 of 22) and Sideswipe (Same Direction) (4 of 22). Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 9 of 22 Snow/Sleet/Hail crashes.

Driver Inexperience Crashes

Driver Inexperience was cited as a contributing factor in 23 crashes, 4 of which resulted in injury. Rear End crashes were most common (15 of 23), followed by Sideswipe (Same Direction) (3 of 23). 5 of 23 crashes occurred during Dark-Lighted or Dawn/Dusk conditions. Inclement weather was present in 12 of 23 Driver Inexperience crashes.

19. Arapahoe Ave & Conestoga St

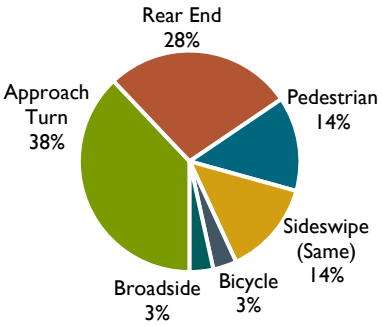
Classification: Urban 6-Lane Divided Signalized 4-Leg Intersection
Major Street: Arapahoe Avenue **AADT:** 32,400 vpd
Minor Street: Conestoga Street **AADT:** 4,200 vpd
2015-2019 Crash History: 29 crashes (10 injury)
LOSS: II (Total), II (Severe)
Diagnostic Patterns: Approach Turn

Arapahoe Avenue is a six-lane road. Conestoga Street is a two-lane road north of Arapahoe Avenue and a two-lane private driveway south of Arapahoe Avenue

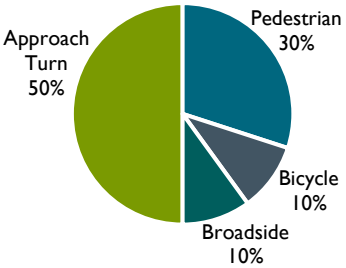
Between 2015 and 2019, 29 total crashes were recorded at the Arapahoe Avenue & Conestoga Street intersection. This is consistent with LOSS II conditions, indicating a low to moderate potential for crash reduction. Approach Turn crashes were most common (38%), followed by Rear End (28%).

10 severe crashes were recorded at the intersection, consistent with LOSS II conditions, indicating a low to moderate potential for severe crash reduction. Approach Turn crashes were the most common severe crash type (50%), followed by Pedestrian (30%).

Total Crashes



Severe Crashes



Total crash frequency was highest from Noon – 3:00 PM (29%) and from 3:00 PM – 6:00 PM (29%). Severe crash frequency was highest from 3:00 PM – 6:00 PM (40%).

Approach Turn Crashes

11 Approach Turn crashes occurred at the Arapahoe Avenue & Conestoga Street intersection, 5 of which resulted in injury. Crashes involved several approach directions/vehicle maneuvers:

- Westbound left-turning motorist, eastbound motorist: 8 crashes (4 injury)
- Eastbound left-turning motorist, westbound motorist: 3 crashes (1 injury)

Approach Turn crashes were most common between 5:00 PM – 8:00 PM (6 of 11). Dark-Lighted or Dawn/Dusk conditions were present for 3 of 11 Approach Turn crashes. 1 of 11 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 1 of 11 Approach Turn crashes.

20. Arapahoe Ave & 55th St

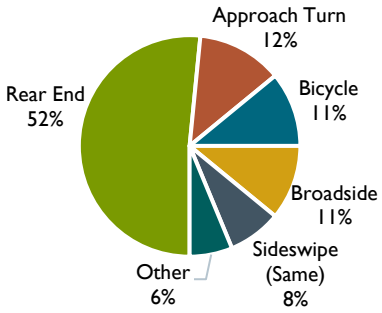
Classification: Urban 6-Lane Divided Signalized 4-Leg Intersection
Major Street: Arapahoe Avenue **AADT:** 34,700 vpd
Minor Street: 55th Street **AADT:** 25,100 vpd
2015-2019 Crash History: 64 crashes (21 injury)
LOSS: II (Total), II (Severe)
Diagnostic Patterns: Bicycle, Dawn/Dusk

Arapahoe Avenue is a six-lane road. 55th Street is a four-lane road north of Arapahoe Avenue and a two-lane road south of Arapahoe Avenue. Between 2015 and 2019, 64 total crashes were recorded at the Arapahoe Avenue & 55th Street intersection. This is consistent with LOSS II conditions, indicating a low to moderate potential for crash reduction. Rear End crashes were most common (52%), followed by Approach Turn (12%) and Bicycle (11%).

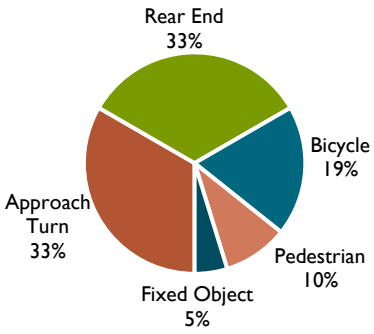
21 severe crashes were recorded at the intersection, consistent with LOSS II conditions, indicating a low to moderate potential for severe crash reduction. Approach Turn crashes were the most common severe crash type (33%), followed by Rear End (33%) and Bicycle (19%).

Total crash frequency was highest from 3:00 PM – 6:00 PM (27%). Severe crash frequency was also highest from 3:00 PM – 6:00 PM (29%).

Total Crashes



Severe Crashes



Bicycle Crashes

7 Bicycle crashes occurred at the Arapahoe Avenue & 55th Street intersection, 4 of which resulted in injury. Several different types of collisions were recorded:

- Southbound right-turning motorist collided with eastbound cyclist in the north crosswalk (2 times)
- Eastbound right-turning motorist collided with a cyclist who was standing on the southwest corner of the intersection
- Northbound right-turning motorist collided with northbound cyclist in the bike lane
- Westbound right-turning motorist collided with eastbound cyclist in the north crosswalk
- Eastbound left-turning motorist collided with westbound cyclist in the north crosswalk
- Northbound right-turning motorist at driveway west of the intersection collided with westbound cyclist on the south sidewalk

Inclement weather was a factor in 2 of 7 Bicycle crashes. Dark-Lighted or Dark-Unlighted conditions were present for 2 of 7 crashes. 3 of 7 crashes occurred between 5:00 PM – 7:00 PM.

Dawn/Dusk Crashes

5 crashes occurred at the Arapahoe Avenue & 55th Street intersection during Dawn/Dusk conditions, 2 of which resulted in injury. Rear End crashes were the most common Dawn/Dusk crash type (4 of 5); the remaining crash was a Bicycle. 4 of 5 Dawn/Dusk crashes occurred in the afternoon/evening; the Bicycle crash occurred during the morning. Sun glare was not noted in any of the Dawn/Dusk crash reports.

21. Broadway & University Ave

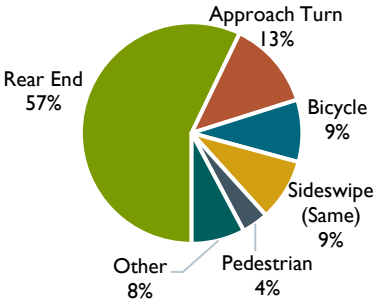
Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: Broadway **AADT:** 35,000 vpd
Minor Street: University Avenue **AADT:** 8,600 vpd
2015-2019 Crash History: 77 crashes (26 injury)
LOSS: III (Total), IV (Severe)
Diagnostic Patterns: Bicycle

Broadway is a four-lane road, while University Avenue is a two-lane road. Between 2015 and 2019, 77 total crashes were recorded at the Broadway & University Avenue intersection. This is consistent with LOSS III conditions, indicating a moderate to high potential for crash reduction. Rear End crashes were most common (57%), followed by Approach Turn (13%).

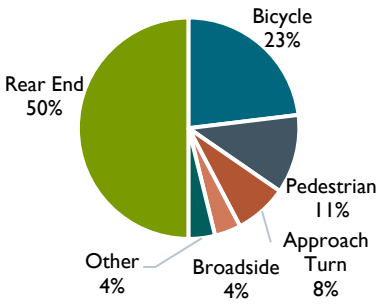
26 severe crashes were recorded at the intersection, consistent with LOSS IV conditions, indicating a high potential for severe crash reduction. Rear End crashes were the most common severe crash type (50%), followed by Bicycle (23%) and Pedestrian (11%).

Total crash frequency was highest from 3:00 PM – 6:00 PM (29%). Severe crash frequency was highest from Noon – 3:00 PM (27%) and from 3:00 PM – 6:00 PM (27%).

Total Crashes



Severe Crashes



Bicycle Crashes

7 Bicycle crashes occurred at the Broadway & University Avenue intersection, 6 of which resulted in injury. Several different types of collisions were recorded:

- Westbound right-turning motorist collided with southbound cyclist in the east crosswalk
- Northbound motorist collided with eastbound cyclist in the south crosswalk who was crossing against the traffic signal
- Northbound right-turning motorist collided with northbound cyclist in the crosswalk of the southeast channelized right-turn lane (3 times)
- Northbound right-turning motorist collided with southbound cyclist in the crosswalk of the southeast channelized right-turn lane
- Eastbound motorist collided with westbound left-turning cyclist who was going towards the west sidewalk

Weather was not a factor in any of the Bicycle crashes. Dark-Lighted or Dark-Unlighted conditions were present for 1 of 7 crashes. All 7 Bicycle crashes occurred between 12:00 PM – 8:00 PM.

22. Broadway & College Ave

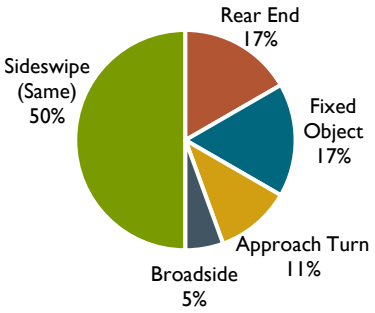
Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: Broadway **AADT:** 37,100 vpd
Minor Street: College Avenue **AADT:** 3,400 vpd
2015-2019 Crash History: 18 crashes (1 fatal)
LOSS: II (Total), I (Severe)
Diagnostic Patterns: Sideswipe (Same Direction)

Broadway is a four-lane road, while College Avenue is a two-lane road. Between 2015 and 2019, 18 total crashes were recorded at the Broadway & College Avenue intersection. This is consistent with LOSS II conditions, indicating a low to moderate potential for crash reduction. Sideswipe (Same Direction) crashes were most common (50%).

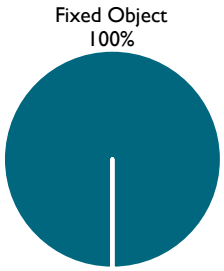
1 severe crash were recorded at the intersection, consistent with LOSS I conditions, indicating a low potential for severe crash reduction. The severe crash was a Fixed Object crash.

Total crash frequency was highest from 6:00 PM – 9:00 PM (28%). The Severe crash frequency was highest from Midnight – 3:00 AM (100%).

Total Crashes



Severe Crashes



Fatal Crashes

One fatal crash occurred at the Broadway & College Avenue intersection. A southbound motorist left the roadway Off Right and struck several Fixed Objects including the west curb, a utility pole, and a concrete barrier for a staircase. The crash occurred during Dark-Lighted conditions with no inclement weather. Alcohol was cited in the crash record as a contributing factor.

Sideswipe (Same Direction)

9 Sideswipe (Same Direction) crashes occurred at the Broadway & College Avenue intersection, all of which were PDO. Crashes occurred in all approach directions:

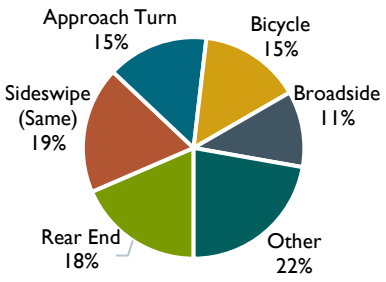
- Northbound Broadway: 7 crashes
- Southbound Broadway: 2 crashes

Dawn/Dusk, Dark-Unlighted, or Dark-Lighted conditions were present for 3 of 9 crashes. 1 of 9 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 5 of 9 crashes. Drivers were making passing/lane changing maneuvers in all 9 Sideswipe (Same Direction) crashes.

23. 30th St & Aurora Ave

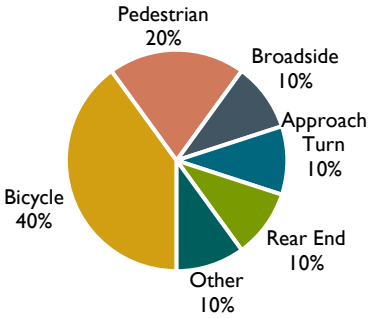
Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: 30th Street **AADT:** 22,600 vpd
Minor Street: Aurora Avenue **AADT:** 2,500 vpd
2015-2019 Crash History: 27 crashes (10 injury)
LOSS: III (Total), IV (Severe)
Diagnostic Patterns: 3+ Vehicles, Sideswipe (Same Direction)

Total Crashes



30th Street is a four-lane road while Aurora Avenue is a two-lane road. Between 2015 and 2019, 27 total crashes were recorded at the 30th Street & Aurora Avenue intersection. This is consistent with LOSS III conditions, indicating a moderate to high potential for crash reduction. Several different crash types were recorded, including Rear End (18%), followed by Sideswipe (Same Direction) (19%), Approach Turn (15%) and Bicycle (15%).

Severe Crashes



10 severe crashes were recorded at the intersection, consistent with LOSS IV conditions, indicating a high potential for severe crash reduction. Bicycle crashes were the most common severe crash type (40%), followed by Pedestrian (20%).

Total crash frequency was highest from 6:00 AM – 9:00 AM (22%) and from 3:00 PM – 6:00 PM (22%). Severe crash frequency was also highest from 6:00 AM – 9:00 AM (30%) and from 3:00 PM – 6:00 PM (30%).

3+ Vehicle Crashes

5 crashes occurred at the 30th Street & Aurora Avenue that involved three or more vehicles, one of which resulted in injury. 3+ Vehicle crash types included Rear End (2 of 5), Sideswipe (Opposite Direction) (1 of 5), Bicycle (1 of 5), and Parked Vehicle (1 of 5). 2 of 5 crashes with 3+ Vehicles occurred in Dark-Lighted or Dawn/Dusk conditions. 4 of 5 crashes with 3+ Vehicles occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 3 of 5 crashes.

Sideswipe (Same Direction) Crashes

5 Sideswipe (Same Direction) crashes occurred at the 30th Street & Aurora Avenue intersection, 1 of which resulted in injury. Crashes occurred in several approach directions:

- Eastbound Aurora Avenue: 1 crash
- Northbound 30th Street: 2 crashes (1 injury)
- Southbound 30th Street: 2 crashes

All 5 Sideswipe (Same Direction) crashes occurred during Daylight. More specifically, 3 of 5 crashes occurred between 3:00 PM – 7:00 PM. Inclement weather was not a contributing factor in any of the Sideswipe (Same Direction) crashes. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 1 of 5 crashes. Drivers were making passing/lane changing maneuvers in 4 of 5 Sideswipe (Same Direction) crashes, versus leaving a parked position in 1 of 5 crashes.

Bike/Ped

24. Broadway & Baseline Rd

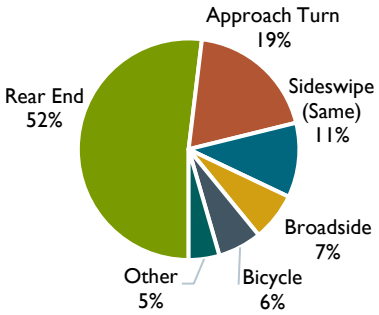
Classification: Urban 6-Lane Divided Signalized 4-Leg Intersection
Major Street: Broadway **AADT:** 39,600 vpd
Minor Street: Baseline Road **AADT:** 31,700 vpd
2015-2019 Crash History: 156 crashes (42 injury)
LOSS: IV (Total), IV (Severe)
Diagnostic Patterns: Bicycle, Dawn/Dusk

Broadway is a six-lane arterial, while Baseline Road is a four-lane road to the west and a two-lane road to the east. Between 2015 and 2019, 156 total crashes were recorded at the Broadway & Baseline Road intersection. This is consistent with LOSS IV conditions, indicating a high potential for crash reduction. Rear End crashes were most common (52%), followed by Approach Turn (19%) and Sideswipe (Same Direction) (11%).

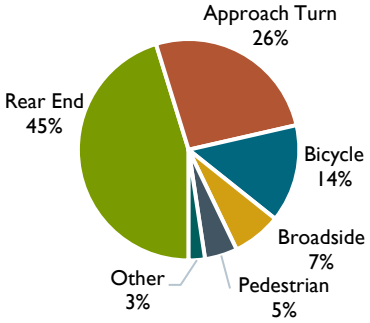
42 severe crashes were recorded at the intersection, consistent with LOSS IV conditions, indicating a high potential for severe crash reduction. Rear Ends were the most common severe crash type (45%), followed by Approach Turn (26%) and Bicycle (14%).

Total crash frequency was highest from 3:00 PM – 6:00 PM (27%). Severe crash frequency was highest from Noon – 3:00 PM (24%) and from 3:00 PM – 6:00 PM (24%).

Total Crashes



Severe Crashes



Bicycle Crashes

10 Bicycle crashes occurred at the Broadway & Baseline Road intersection, 6 of which resulted in injury. Several different types of collisions were recorded:

- Westbound right-turning motorist collided with westbound cyclist in the crosswalk of the northeast channelized right-turn lane
- Eastbound motorist collided with northbound cyclist in the east crosswalk
- Northbound right-turning motorist collided with northbound cyclist in the east crosswalk
- Eastbound right-turning motorist collided with westbound cyclist in the south crosswalk
- Eastbound motorist collided with northbound cyclist in the west crosswalk (2 times)
- Westbound left-turning motorist collided with eastbound cyclist in the intersection
- Southbound motorist collided with eastbound cyclist in the north crosswalk
- Eastbound left-turning motorist collided with eastbound cyclist in the north crosswalk
- Eastbound cyclist's wheel stuck in a pavement gap and overturned

Weather was not a factor in any of the Bicycle crashes. Of the recorded Bicycle crashes, 6 occurred during daylight hours. More specifically, 5 crashes occurred between 3:00 PM – 5:00 PM.

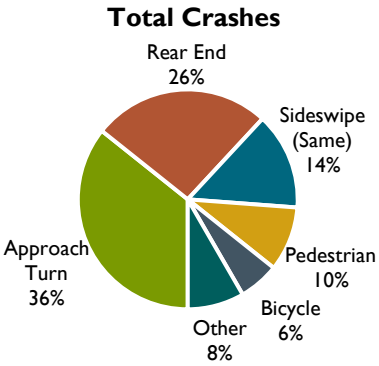
Dawn/Dusk Crashes

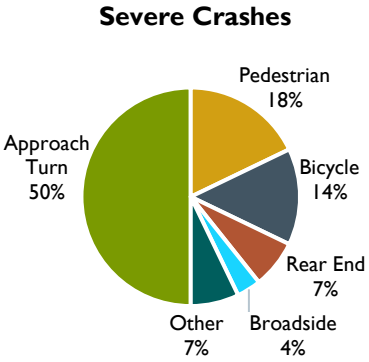
10 crashes occurred at the Broadway & Baseline Road intersection during Dawn/Dusk conditions, 3 of which resulted in injury. Rear End crashes were the most common Dawn/Dusk crash type (5 of 10), followed by Approach Turn (2 of 10) and Sideswipe (Same Direction) (2 of 10). All of the Dawn/Dusk

crashes occurred in the afternoon/evening. Sun glare was not noted in any of the Dawn/Dusk crash reports.

25. Baseline Rd & 30th St

Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: Baseline Road **AADT:** 29,500 vpd
Minor Street: 30th Street **AADT:** 22,200 vpd
2015-2019 Crash History: 84 crashes (28 injury)
LOSS: II (Total), III (Severe)
Diagnostic Patterns: Pedestrian, Sideswipe (Same Direction), Approach Turn, Bicycle, Dark-Lighted, Rain





Baseline Road is a four-lane road. 30th Street is a four-lane road north of Baseline Road and a two-lane road south of Baseline Road. Between 2015 and 2019, 84 total crashes were recorded at the Baseline Road & 30th Street intersection. This is consistent with LOSS II conditions, indicating a low to moderate potential for crash reduction. Approach Turn crashes were most common (36%), followed by Rear End (26%) and Sideswipe (Same Direction) (14%).

28 severe crashes were recorded at the intersection, consistent with LOSS III conditions, indicating a moderate to high potential for severe crash reduction. Approach Turns were the most common severe crash type (50%), followed by Pedestrian (18%) and Bicycle (14%).

Total crash frequency was highest from 6:00 PM – 9:00 PM (23%). Severe crash frequency was highest from 9:00 AM – Noon (36%).

Pedestrian Crashes

8 Pedestrian crashes occurred at the Baseline Road & 30th Street intersection, 5 of which resulted in injury. Several different types of collisions were recorded:

- Southbound left-turning motorist collided with southbound pedestrian in the east crosswalk (2 times)
- Southbound left-turning motorist collided with northbound pedestrian in the east crosswalk
- Northbound right-turning motorist collided with northbound pedestrian in the east crosswalk
- Northbound right-turning motorist collided with westbound pedestrian in the south crosswalk
- Northbound left-turning motorist collided with northbound pedestrian in the west crosswalk
- Eastbound left-turning motorist collided with westbound pedestrian in the north crosswalk
- Eastbound left-turning motorist collided with eastbound pedestrian in the north crosswalk

2 of 5 Pedestrian crashes occurred in inclement weather. 3 of 5 crashes occurred during Dark-Lighted conditions.

Sideswipe (Same Direction) Crashes

12 Sideswipe (Same Direction) crashes occurred at the Baseline Road & 30th Street intersection, 1 of which resulted in injury. Crashes occurred in several approach directions:

- Eastbound Baseline Road: 6 crashes
- Southbound 30th Street: 3 crashes (1 injury)
- Northbound 30th Street: 2 crashes

- Westbound Baseline Road: 1 crash

2 of 12 Sideswipe (Same Direction) crashes occurred during Dark-Lighted conditions. Inclement weather was not a contributing factor in any of the Sideswipe (Same Direction) crashes. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 2 of 12 crashes. Drivers were making passing/lane changing maneuvers in 6 of 12 Sideswipe (Same Direction) crashes, versus turning maneuvers in 6 of 12 crashes.

Approach Turn Crashes

30 Approach Turn crashes occurred at the Baseline Road & 30th Street intersection, 14 of which resulted in injury. Crashes involved several approach directions/vehicle maneuvers:

- Eastbound left-turning motorist, westbound motorist: 17 crashes (10 injury)
- Northbound left-turning motorist, southbound motorist: 9 crashes (3 injury)
- Westbound left-turning motorist, eastbound motorist: 3 crashes (1 injury)
- Southbound left-turning motorist, northbound motorist: 1 crash

Approach Turn crashes were most common between 6:00 PM – 11:00 PM (15 of 30). Dark-Lighted or Dawn/Dusk conditions were present for 18 of 30 Approach Turn crashes. 3 of 30 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 5 of 30 Approach Turn crashes.

Bicycle Crashes

5 Bicycle crashes occurred at the Baseline Road & 30th Street intersection, 4 of which resulted in injury. Several different types of collisions were recorded:

- Southbound left-turning motorist collided with northbound cyclist in the east crosswalk
- Northbound right-turning motorist collided with westbound cyclist in the south crosswalk (2 times)
- Northbound left-turning motorist collided with southbound cyclist in the west crosswalk
- Eastbound left-turning motorist collided with eastbound cyclist in the north crosswalk

Inclement weather was cited in 2 of 5 Bicycle crashes. Of the recorded Bicycle crashes, 3 occurred during daylight hours. More specifically, 3 crashes occurred between 11:00 AM – 2:00 PM and 2 crashes occurred between 10:00 PM – Midnight.

Dark-Lighted Crashes

Dark-Lighted conditions were present for 28 crashes at the Baseline Road & 30th Street intersection, 6 of which resulted in injury. Several crash types occurred involving Dark-Lighted conditions, including Approach Turn (16 of 28), Rear End (5 of 28), and Pedestrian (3 of 28). 24 of 28 crashes occurred between 6:00 PM – Midnight, and 6 crashes occurred during inclement weather.

Rain Crashes

Active Rain events were present for 7 crashes at the Baseline Road & 30th Street intersection, 2 of which resulted in injury. Several crash types occurred involving Rainy weather, including Approach Turn (2 of 7), Rear End (2 of 7), Bicycle (2 of 7), and Pedestrian (1 of 7). 5 of 7 crashes occurred during Dark-Lighted conditions.

26. Foothills Pkwy & Baseline Rd

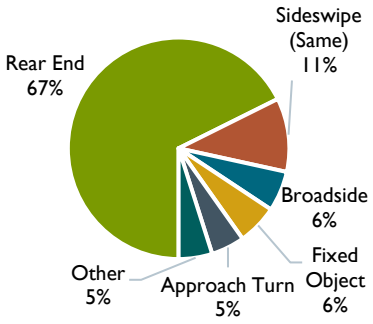
Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: Foothills Parkway **AADT:** 48,300 vpd
Minor Street: Baseline Road **AADT:** 27,000 vpd
2015-2019 Crash History: 102 crashes (16 injury)
LOSS: IV (Total), IV (Severe)
Diagnostic Patterns: Off Road-Right, Rear End, Driver Unfamiliar with Area

Foothills Parkway and Baseline Road are both four-lane arterials. Between 2015 and 2019, 102 total crashes were recorded at the Foothills Parkway & Baseline Road intersection. This is consistent with LOSS IV conditions, indicating a high potential for crash reduction. Rear End crashes were most common (67%), followed by Sideswipe (Same Direction) (11%).

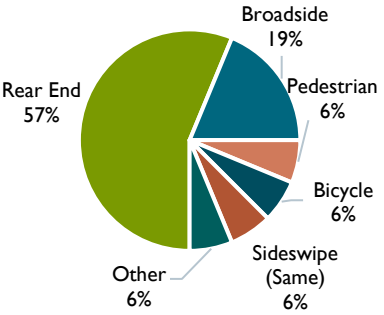
16 severe crashes were recorded at the intersection, consistent with LOSS IV conditions, indicating a high potential for severe crash reduction. Rear Ends were the most common severe crash type (57%), followed by Broadside (19%).

Total crash frequency was highest from 9:00 AM – Noon (25%) and from Noon – 3:00 PM (23%). Severe crash frequency was highest from 9:00 AM – Noon (31%) and from Noon – 3:00 PM (25%).

Total Crashes



Severe Crashes



Off Road-Right Crashes

5 Off-Road Right crashes occurred at the Foothills Parkway & Baseline Road intersection, all of which were Fixed Object crashes. 3 crashes involved southbound motorists, and 2 crashes involved northbound motorists. Snow/Sleet/Hail was a contributing factor in 2 of the crashes. Dark-Lighted conditions were present in 2 of the crashes.

Rear End Crashes

69 Rear End crashes occurred at the Foothills Parkway & Baseline Road intersection, 9 of which resulted in injury. Crashes occurred in all approach directions:

- Northbound Foothills Parkway: 33 crashes (4 injury)
  - 13 crashes in the channelized right-turn lane
- Southbound Foothills Parkway: 15 crashes (1 injury)
  - 2 crashes in the channelized right-turn lane
- Eastbound Baseline Road: 12 crashes (1 injury)
  - 4 crashes in the channelized right-turn lane
- Westbound Baseline Road: 9 crashes (2 injury)
  - 1 crash in the channelized right-turn lane

Rear End crashes were most common between 9:00 AM – Noon (19 of 69) and between Noon – 3:00 PM (17 of 69). Dawn/Dusk or Dark-Lighted conditions were present for 9 of 69 Rear End crashes. 4 of 69 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 16 of 69 Rear End crashes.

Driver Unfamiliar with Area Crashes

Driver Unfamiliarity was cited as a contributing factor in 5 crashes at the Foothills Parkway & Baseline Road intersection, though none resulted in injury. Several crash types occurred involving unfamiliar drivers, including Rear End (2 of 5), Approach Turn (1 of 5), Overtaking Turn (1 of 5), and Sideswipe (Same Direction) (1 of 5). Dark-Lighted conditions were present for 2 crashes, and 1 crash occurred during inclement weather.

27. Broadway & Dartmouth St

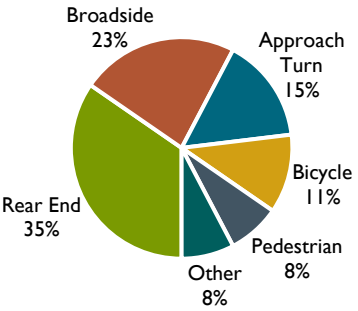
Classification: Urban 6-Lane Divided Signalized 4-Leg Intersection
Major Street: Broadway **AADT:** 36,400 vpd
Minor Street: Dartmouth Avenue **AADT:** 2,400 vpd
2015-2019 Crash History: 26 crashes (9 injury)
LOSS: II (Total), II (Severe)
Diagnostic Patterns: Broadside

Broadway is a six-lane road, while Dartmouth Street is a two-lane road. Between 2015 and 2019, 26 total crashes were recorded at the Broadway & Dartmouth Street intersection. This is consistent with LOSS II conditions, indicating a low to moderate potential for crash reduction. Rear End crashes were most common (35%), followed by Broadside (23%) and Approach Turn (15%).

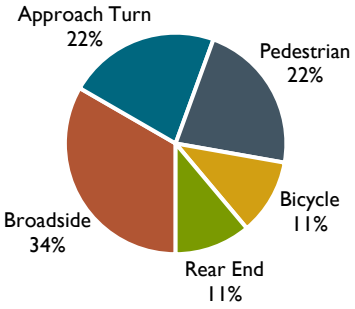
9 severe crashes were recorded at the intersection, consistent with LOSS II conditions, indicating a low to moderate potential for severe crash reduction. Broadside crashes were the most common severe crash type (34%), followed by Approach Turn (22%) and Pedestrian (22%).

Total crash frequency was highest from Noon – 3:00 PM (35%). Severe crash frequency was also highest from Noon – 3:00 PM (44%).

Total Crashes



Severe Crashes



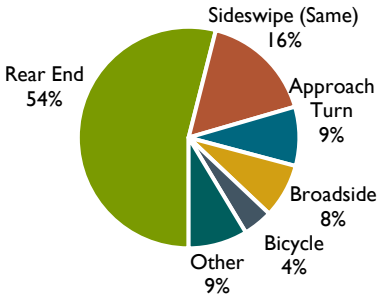
Broadside Crashes

6 Broadside crashes were recorded at the Broadway & Dartmouth Street intersection, 3 of which resulted in injury. 4 crashes involved southbound motorists running the red light and striking an eastbound motorist; 2 crashes involved northbound motorists running the red light and striking a westbound motorist. 1 of 6 crashes occurred during inclement weather. All 6 Broadside crashes occurred during daylight hours. More specifically, 4 of 6 crashes occurred between Noon – 2:00 PM and 2 of 6 crashes occurred between 8:00 AM – 11:00 AM.

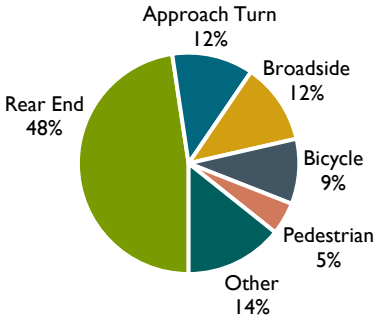
28. Broadway & Table Mesa Dr

Classification: Urban 4-Lane Divided Signalized 4-Leg Intersection
Major Street: Broadway **AADT:** 39,000 vpd
Minor Street: Table Mesa Drive **AADT:** 29,500 vpd
2015-2019 Crash History: 139 crashes (42 injury)
LOSS: III (Total), IV (Severe)
Diagnostic Patterns: Sideswipe (Same Direction), Bicycle

Total Crashes



Severe Crashes



Broadway and Table Mesa Drive are both four-lane arterials at this intersection. Between 2015 and 2019, 139 total crashes were recorded at the Broadway & Table Mesa Drive intersection. This is consistent with LOSS III conditions, indicating a moderate to high potential for crash reduction. Rear End crashes were most common (54%), followed by Sideswipe (Same Direction) (16%) and Approach Turn (9%).

42 severe crashes were recorded at the intersection, consistent with LOSS IV conditions, indicating a high potential for severe crash reduction. Rear Ends were the most common severe crash type (48%), followed by Approach Turn (12%) and Broadside (12%).

Total crash frequency was highest from Noon – 3:00 PM (26%) and from 3:00 PM – 6:00 PM (24%). Similarly, Severe crash frequency was also highest from Noon – 3:00 PM (24%) and from 3:00 PM – 6:00 PM (24%).

Sideswipe (Same Direction) Crashes

23 Sideswipe (Same Direction) crashes occurred at the Broadway & Table Mesa Drive intersection, 1 of which resulted in injury. Crashes occurred in all approach directions:

- Westbound Table Mesa Drive: 7 crashes
- Southbound Broadway: 6 crashes
- Northbound Broadway: 5 crashes
- Eastbound Table Mesa Drive: 5 crashes (1 injury)

Sideswipe (Same Direction) crashes were most common between Noon – 6:00 PM (11 of 23). Dawn/Dusk or Dark-Lighted conditions were present for 3 of 23 Sideswipe (Same Direction) crashes. 3 of 23 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 5 of 23 crashes. Drivers were making turning maneuvers in 9 of 23 Sideswipe (Same Direction) crashes, versus passing/lane changing maneuvers in 14 of 23 crashes.

Bicycle Crashes

6 Bicycle crashes occurred at the Broadway & Table Mesa Drive intersection, 4 of which resulted in injury. All 6 Bicycle crashes involved right-turning motorists:

- Westbound right-turning motorist collided with southbound cyclist in the crosswalk of the northeast channelized right-turn lane
- Northbound right-turning motorist collided with northbound cyclist in the east crosswalk
- Northbound right-turning motorist collided with southbound cyclist in the east crosswalk (2 times)

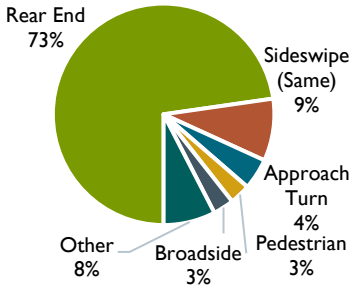
- Southbound motorist collided with southbound cyclist in the crosswalk of the northwest channelized right-turn lane (2 times)

Weather was not a factor in any of the Bicycle crashes. Of the recorded Bicycle crashes, 5 occurred during daylight hours. More specifically, 5 of 6 crashes occurred between 3:00 PM – 7:00 PM.

29. Table Mesa Dr & Foothills Pkwy Southbound Off-Ramp

Classification: Urban 4-Lane Divided Signalized 4-Leg Ramp Intersection
Major Street: Table Mesa Drive **AADT:** 34,700 vpd
Minor Street: Foothills Parkway SB Off-Ramp **AADT:** 11,900 vpd
2015-2019 Crash History: 66 crashes (25 injury)
LOSS: III (Total), IV (Severe)
Diagnostic Patterns: Injury, Rear End

Total Crashes



Severe Crashes

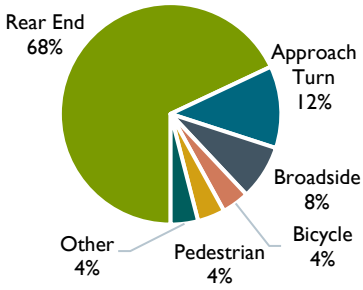


Table Mesa Drive is a four-lane road, while the Foothills Parkway ramp is a two-lane facility. Between 2015 and 2019, 66 total crashes were recorded at the Table Mesa Drive & Foothills Parkway Southbound Off-Ramp intersection. This is consistent with LOSS III conditions, indicating a moderate to high potential for crash reduction. Rear End crashes were most common (73%), followed by Sideswipe (Same Direction) (9%).

25 severe crashes were recorded at the intersection, consistent with LOSS IV conditions, indicating a high potential for severe crash reduction. Rear Ends were the most common severe crash type (68%), followed by Approach Turn (12%) and Broadside (8%).

Total crash frequency was highest from 3:00 PM – 6:00 PM (35%). Severe crash frequency was highest from 9:00 AM – Noon (32%) and from 3:00 PM – 6:00 PM (32%).

Injury Crashes

25 crashes occurred at the Table Mesa Drive & Foothills Parkway Southbound Off-Ramp intersection that resulted in injury. Rear End crashes were the most common Injury crash type (17 of 25). 5 of 25 Injury crashes occurred during Dawn/Dusk or Dark-Lighted conditions. Only 1 Injury crash occurred in inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 6 of 25 Injury crashes.

Rear End Crashes

48 Rear End crashes occurred at the Table Mesa Drive & Foothills Parkway Southbound Off-Ramp intersection, 17 of which resulted in injury. Crashes occurred on several intersection approaches:

- Southbound Foothills Parkway: 27 crashes (9 injury)
  - 21 crashes in the channelized right-turn lane
- Westbound Table Mesa Drive: 15 crashes (4 injury)
- Eastbound Table Mesa Drive: 6 crashes (4 injury)

Rear End crashes were most common between 3:00 PM – 6:00 PM (17 of 48) and between 9:00 AM – Noon (13 of 48). Dawn/Dusk or Dark-Lighted conditions were present for 7 of 48 Rear End crashes. 3 of 48 crashes occurred during inclement weather. Driver contributing factors (such as distraction, fatigue, inexperience, etc.) were cited in 10 of 48 Rear End crashes.

IV. SUMMARY

Table 2 displays a summary of crash history for each intersection that was evaluated in this report. The summary table includes 2015-2019 crash history aggregated by crash severity, LOSS for total and severe crashes, and all patterns that were identified through the direct diagnostic procedure.

Table 2. Summary of Intersection Crash Histories

#	Intersection	2015-2019 Crash History				LOSS		Diagnostic Patterns
		PDO	INJ	FAT	Total	Total	Severe	
1	28th St & Jay Road	25	21	0	46	II	III	Injury Broadside Approach Turn
2	Broadway & Iris Ave	15	10	0	25	II	II	Off Road Approach Turn Fixed Object
3	Iris Ave & Folsom St	18	8	0	26	I	I	Bicycle Dark-Lighted
4	Folsom St & Valmont Rd	9	8	0	17	I	II	Injury
5	28th St & Valmont Rd	68	26	0	94	III	III	None
6	30th St & Valmont Rd	54	26	0	80	III	III	Approach Turn Bicycle
7	Foothills Pkwy & Valmont Rd	128	45	0	173	III	IV	Rear End Dawn/Dusk Snow/Sleet/Hail
8	Broadway & Balsam St	24	6	0	30	I	I	Sideswipe (Same) Dawn/Dusk
9	Broadway & Alpine St	17	3	0	20	II	I	None
10	Folsom St & Pearl St	27	11	0	38	I	II	None
11	30th St & Pearl St	70	24	0	94	II	II	Sideswipe (Same) Approach Turn Bicycle
12	30th St & Walnut St	36	10	0	46	II	II	None
13	Canyon Blvd & Folsom St	64	27	1	92	III	III	Pedestrian Sideswipe (Same) Bicycle
14	30th St & Canyon Blvd	21	12	0	33	II	II	Approach Turn
15	Arapahoe Ave & Folsom St	45	14	0	59	II	II	Off Road Approach Turn Bicycle Fixed Object

Table 2. Summary of Intersection Crash Histories

#	Intersection	2015-2019 Crash History				LOSS		Diagnostic Patterns
		PDO	INJ	FAT	Total	Total	Severe	
16	Arapahoe Ave & 28th St	136	32	1	169	IV	III	Rear End Bicycle
17	Arapahoe Ave & 30th St	98	31	0	129	IV	III	Bicycle Fixed Object Dawn/Dusk Dark Unlighted
18	Foothills Pkwy & Arapahoe Ave	169	61	1	231	IV	IV	Off Road Median Rear End Dark Unlighted Snow/Sleet/Hail Driver Inexperience
19	Arapahoe Ave & Conestoga Ave	19	10	0	29	II	II	Approach Turn
20	Arapahoe Ave & 55th St	43	21	0	64	II	II	Bicycle Dawn/Dusk
21	Broadway & University Ave	51	26	0	77	III	IV	Bicycle
22	Broadway & College Ave	17	0	1	18	II	I	Sideswipe (Same)
23	30th St & Aurora Ave	17	10	0	27	III	IV	3+ Vehicle Crash Sideswipe (Same
24	Broadway & Baseline Rd	114	42	0	156	IV	IV	Bicycle Dawn/Dusk
25	Baseline Rd & 30th St	56	28	0	84	II	III	Pedestrian Sideswipe (Same) Approach Turn Bicycle Dark-Lighted Rain
26	Foothills Pkwy & Baseline Rd	86	16	0	102	IV	IV	Off Road Right Rear End Driver Unfamiliarity
27	Broadway & Dartmouth Rd	17	9	0	26	II	II	Broadside
28	Broadway & Table Mesa Dr	97	42	0	139	III	IV	Sideswipe (Same) Bicycle
29	Table Mesa Dr & Foothills Pkwy SB Off-Ramp	41	25	0	66	III	IV	Injury Rear End

APPENDIX A. INTERSECTION CRASH ANALYSIS WORKSHEETS

28th Street & Jay Road

Classification:	Urban 2-Lane Divided Signalized 4-Leg Intersection		
Major Street:	28th Street	**AADT:**	29,200
Minor Street:	Jay Road	**AADT:**	14,500

2015-2019 Crash History

PDO	Injury	Fatality	Total
25	21	0	46

Level of Service of Safety

Total	Severe
II	III

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	18	39.1%
Approach Turn	15	32.6%
Broadside	8	17.4%
Bicycle	2	4.3%
Fixed Object	2	4.3%

Top 5 Crash Types (Severe)

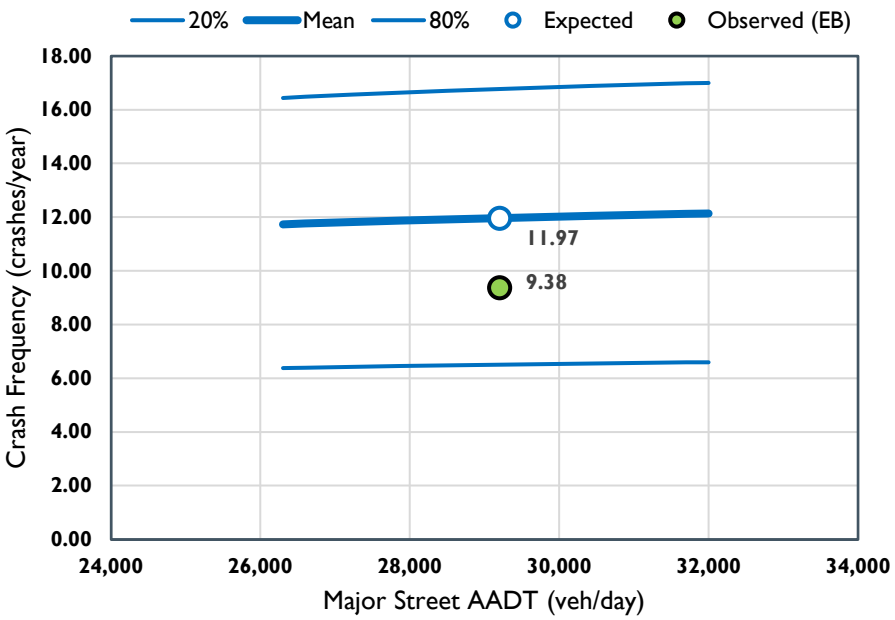
Crash Type	#	%
Approach Turn	11	52.4%
Rear End	5	23.8%
Broadside	3	14.3%
Bicycle	2	9.5%

Diagnostic Patterns

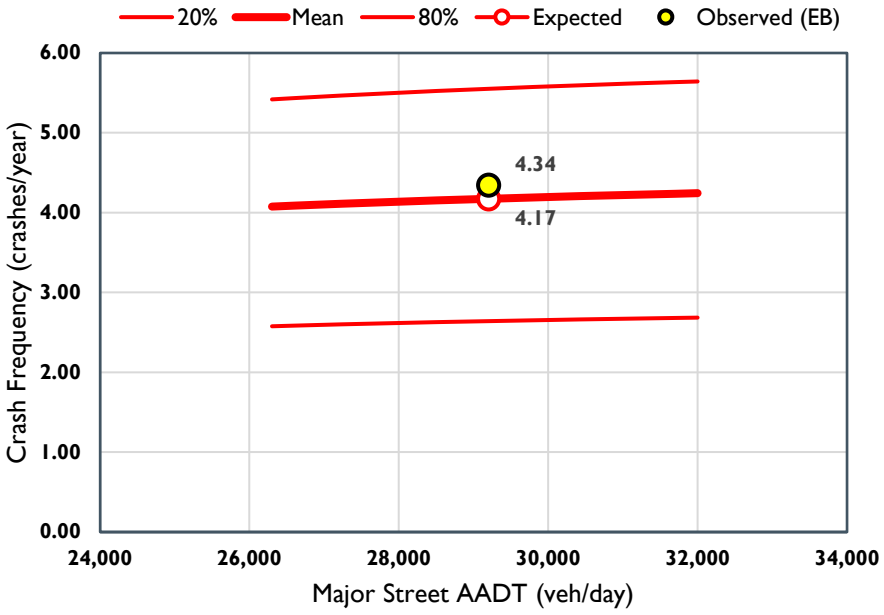
Category	#	Prob.
INJ	21	99.3%
Broadside	8	99.2%
Approach Turn	15	99.6%

Safety Performance Functions

Total SPF



Severe SPF



Broadway & Iris Street

Classification:	Urban 4-Lane Divided Signalized 3-Leg Intersection		
Major Street:	Broadway	**AADT:**	29,700
Minor Street:	Iris Street	**AADT:**	17,700

2015-2019 Crash History

PDO	Injury	Fatality	Total
15	10	0	25

Level of Service of Safety

Total	Severe
II	II

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	10	40.0%
Approach Turn	7	28.0%
Fixed Object	5	20.0%
Broadside	2	8.0%
Sideswipe (Opposite)	1	4.0%

Top 5 Crash Types (Severe)

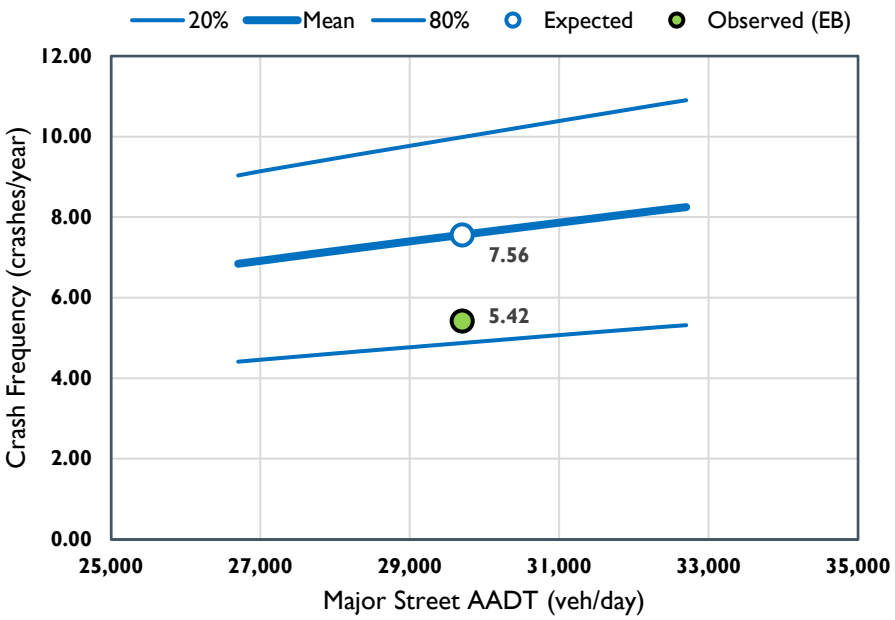
Crash Type	#	%
Approach Turn	4	40.0%
Rear End	4	40.0%
Fixed Object	2	20.0%

Diagnostic Patterns

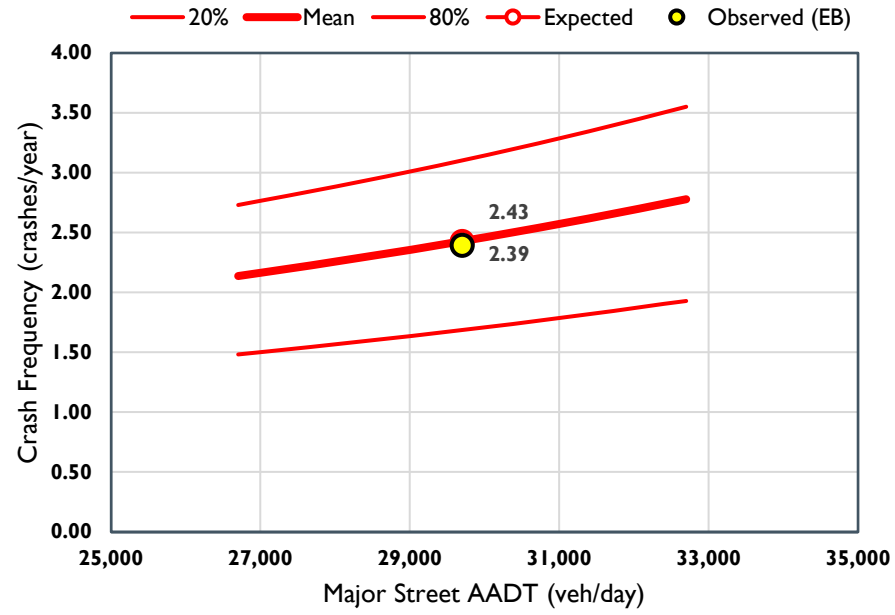
Category	#	Prob.
Off Road	5	97.9%
Approach Turn	7	96.4%
Fixed Object	5	98.4%

Safety Performance Functions

Total SPF



Severe SPF



Iris Avenue & Folsom Street

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Iris Avenue	**AADT:**	27,400
Minor Street:	Folsom Street	**AADT:**	12,100

2015-2019 Crash History

PDO	Injury	Fatality	Total
18	8	0	26

Level of Service of Safety

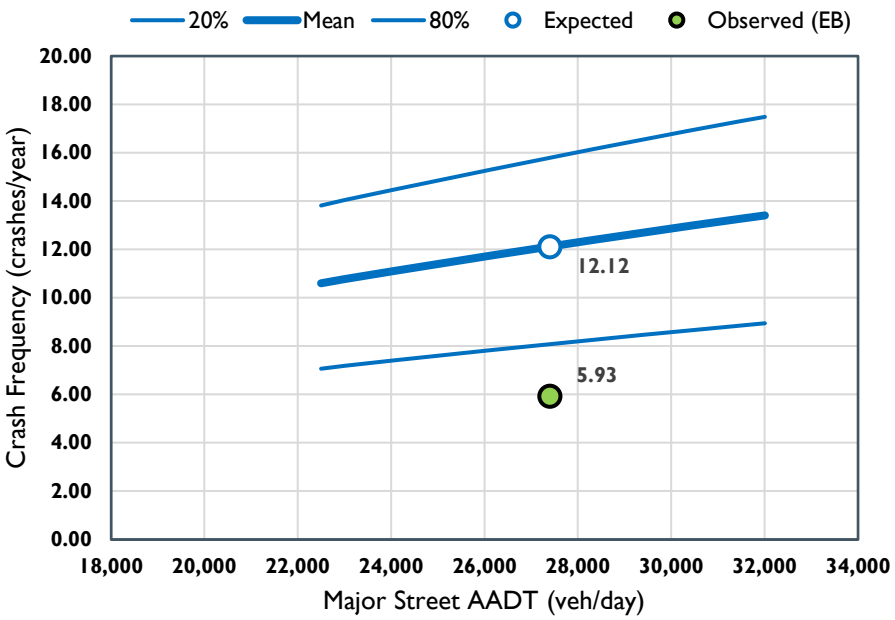
Total	Severe
I	I

Top 5 Crash Types (Total)

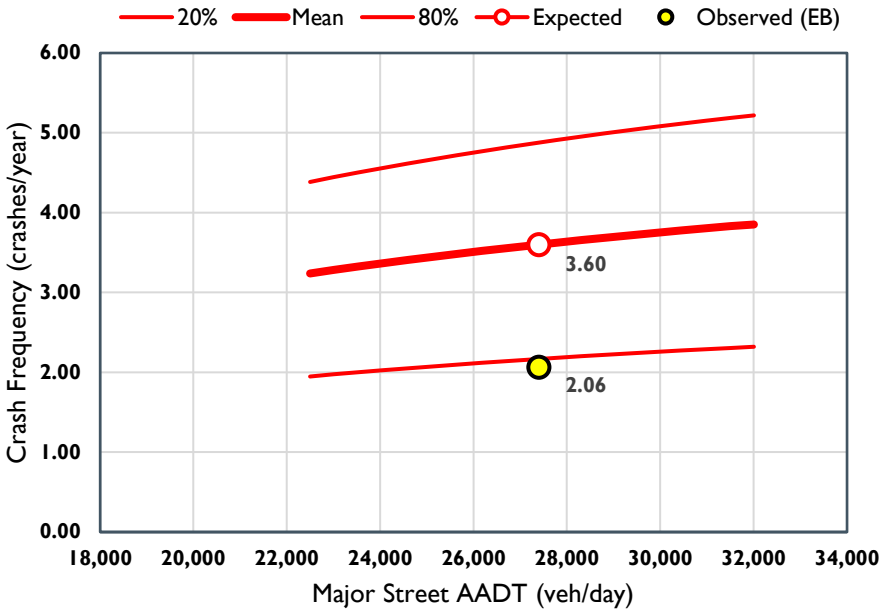
Crash Type	#	%
Rear End	11	42.3%
Approach Turn	6	23.1%
Bicycle	5	19.2%
Pedestrian	1	3.8%
Broadside	1	3.8%

Safety Performance Functions

Total SPF



Severe SPF



Top 5 Crash Types (Severe)

Crash Type	#	%
Bicycle	4	50.0%
Pedestrian	1	12.5%
Approach Turn	1	12.5%
Broadside	1	12.5%
Rear End	1	12.5%

Diagnostic Patterns

Category	#	Prob.
Bicycle	5	100.0%
Dark Lighted	9	95.5%

Folsom Street & Valmont Road

Classification:	Urban 2-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Folsom Street	**AADT:**	16,800
Minor Street:	Valmont Road	**AADT:**	12,700

2015-2019 Crash History

PDO	Injury	Fatality	Total
9	8	0	17

Level of Service of Safety

Total	Severe
I	II

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	8	47.1%
Approach Turn	3	17.6%
Broadside	3	17.6%
Pedestrian	1	5.9%
Sideswipe (Same)	1	5.9%

Top 5 Crash Types (Severe)

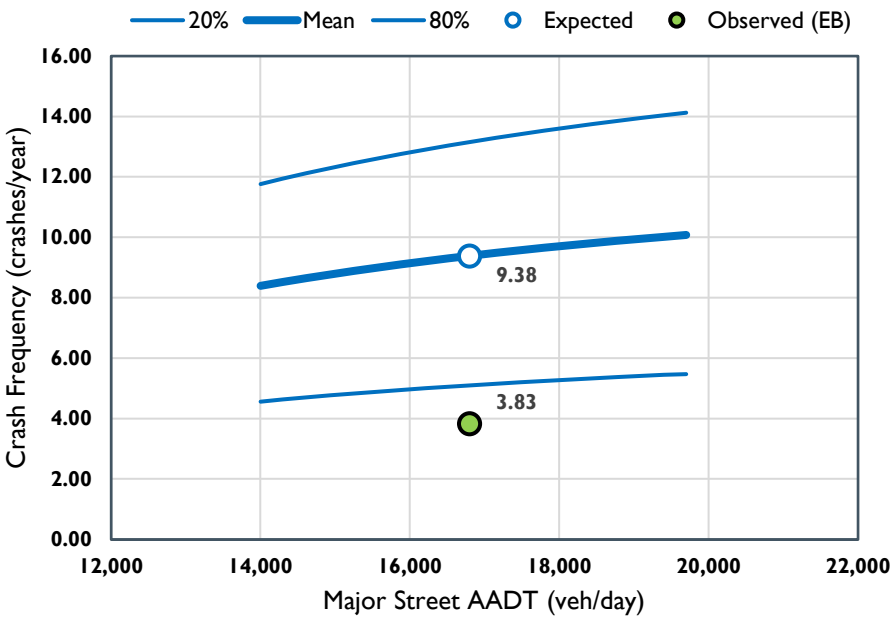
Crash Type	#	%
Rear End	5	62.5%
Approach Turn	1	12.5%
Broadside	1	12.5%
Pedestrian	1	12.5%

Diagnostic Patterns

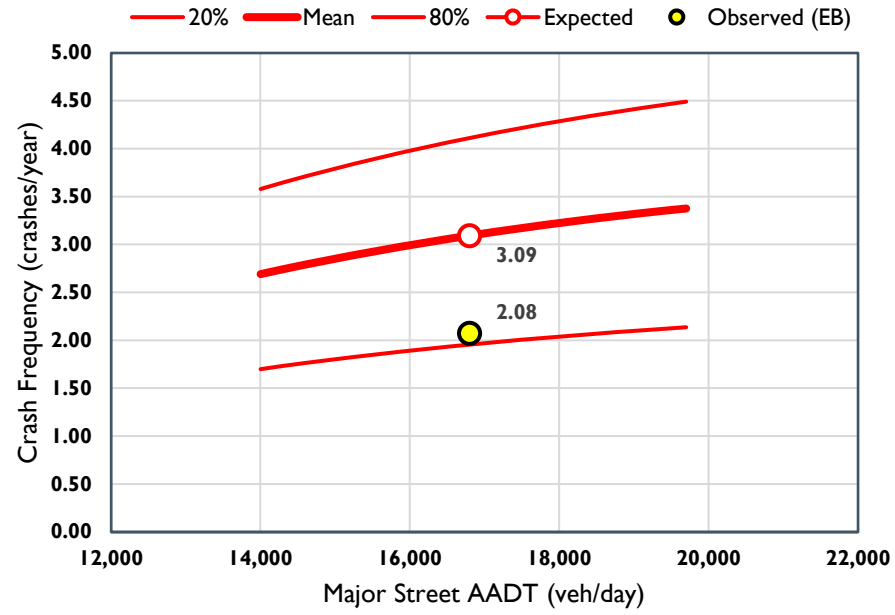
Category	#	Prob.
Injury	8	96.4%

Safety Performance Functions

Total SPF



Severe SPF



28th Street & Valmont Road

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	28th Street	**AADT:**	29,800
Minor Street:	Valmont Road	**AADT:**	18,100

2015-2019 Crash History

PDO	Injury	Fatality	Total
68	26	0	94

Level of Service of Safety

Total	Severe
III	III

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	49	52.1%
Approach Turn	19	20.2%
Sideswipe (Same)	8	8.5%
Broadside	7	7.4%
Overtaking Turn	3	3.2%

Top 5 Crash Types (Severe)

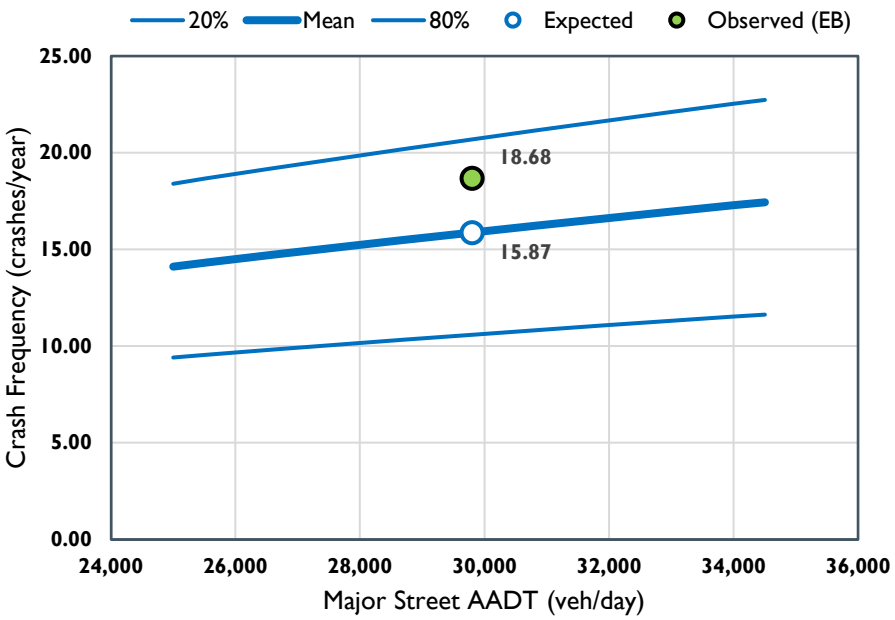
Crash Type	#	%
Rear End	13	50.0%
Approach Turn	6	23.1%
Bicycle	2	7.7%
Broadside	2	7.7%
Other Non-Collision	2	7.7%

Diagnostic Patterns

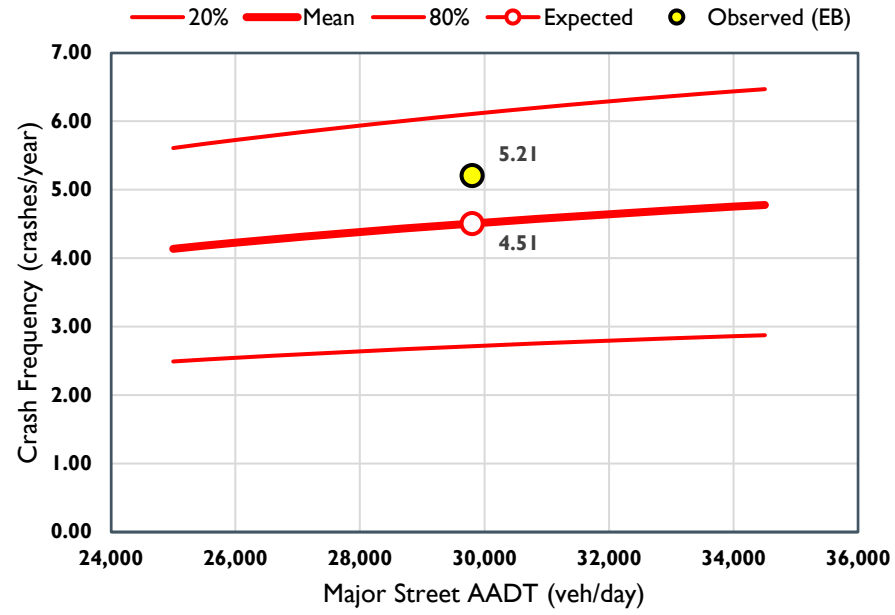
Category	#	Prob.

Safety Performance Functions

Total SPF



Severe SPF



30th Street & Valmont Road

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	30th Street	**AADT:**	24,400
Minor Street:	Valmont Road	**AADT:**	21,900

2015-2019 Crash History

PDO	Injury	Fatality	Total
54	26	0	80

Level of Service of Safety

Total	Severe
III	III

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	36	45.0%
Approach Turn	18	22.5%
Broadside	11	13.8%
Bicycle	6	7.5%
Sideswipe (Same)	4	5.0%

Top 5 Crash Types (Severe)

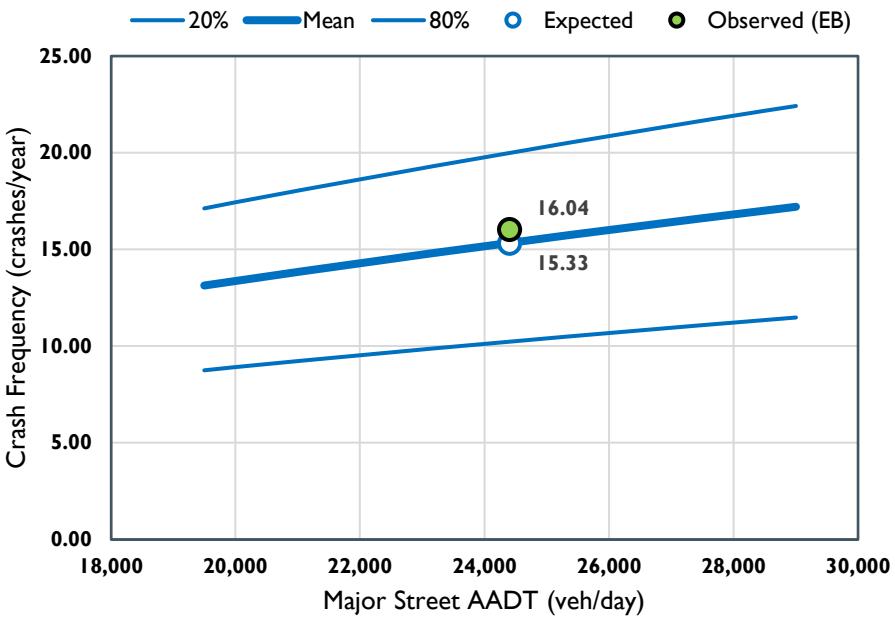
Crash Type	#	%
Rear End	9	34.6%
Approach Turn	5	19.2%
Bicycle	5	19.2%
Broadside	4	15.4%
Pedestrian	1	3.8%

Diagnostic Patterns

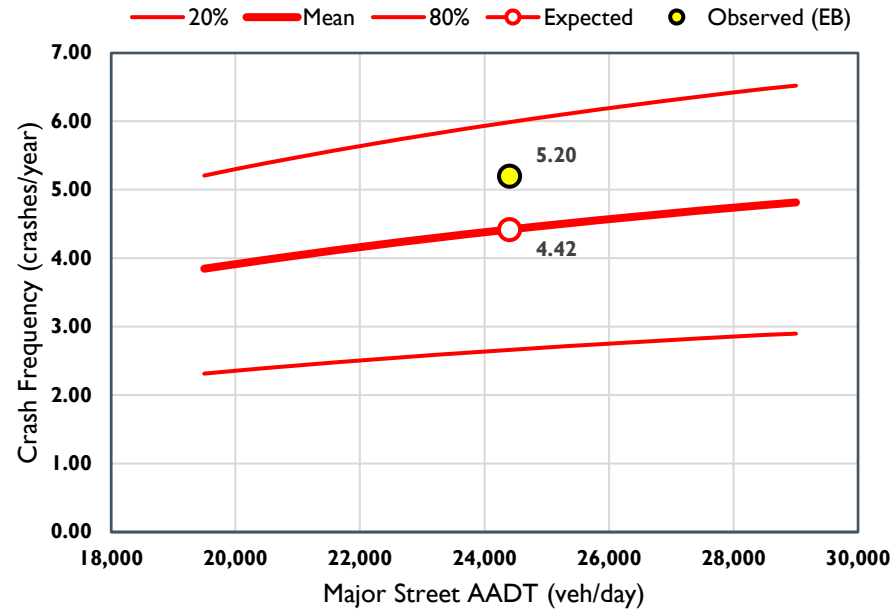
Category	#	Prob.
Approach Turn	18	95.3%
Bicycle	6	99.9%

Safety Performance Functions

Total SPF



Severe SPF



Foothills Parkway & Valmont Road

Classification:	Urban 6-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Foothills Parkway	**AADT:**	56,900
Minor Street:	Valmont Road	**AADT:**	23,400

2015-2019 Crash History

PDO	Injury	Fatality	Total
128	45	0	173

Level of Service of Safety

Total	Severe
III	IV

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	130	75.1%
Broadside	19	11.0%
Sideswipe (Same)	12	6.9%
Approach Turn	7	4.0%
Bicycle	2	1.2%

Top 5 Crash Types (Severe)

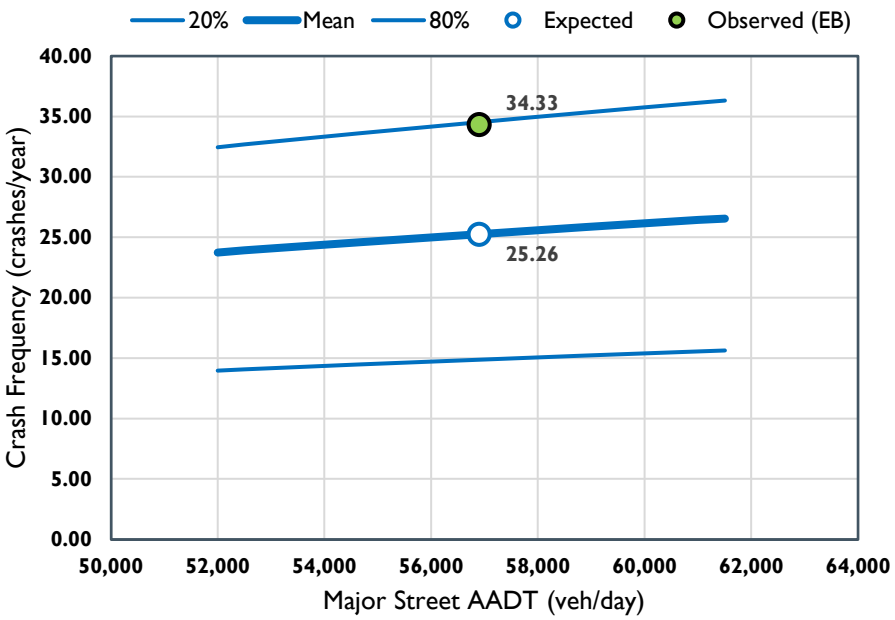
Crash Type	#	%
Rear End	32	71.1%
Broadside	5	11.1%
Approach Turn	2	4.4%
Bicycle	2	4.4%
Fixed Object	2	4.4%

Diagnostic Patterns

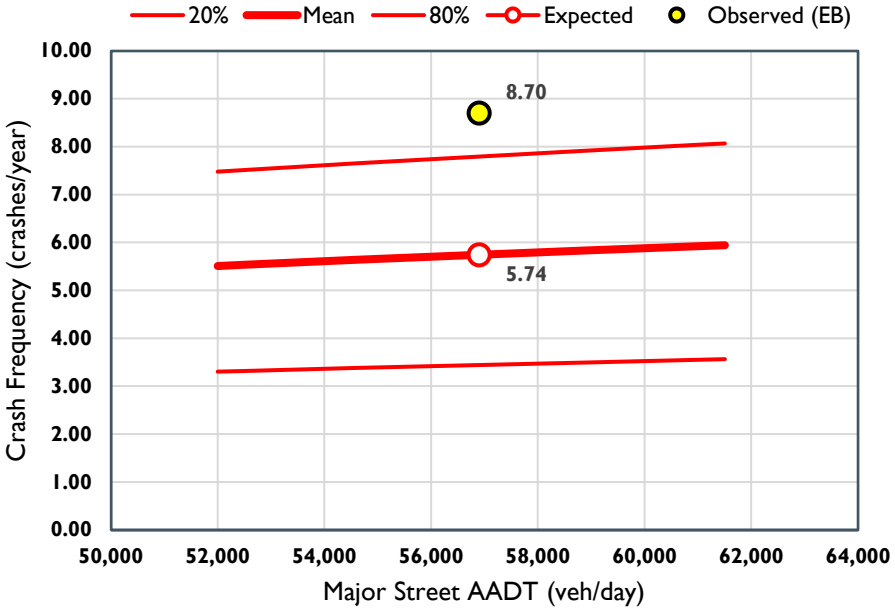
Category	#	Prob.
Rear End	130	100.0%
Dawn/Dusk	13	97.4%
Snow/Sleet/Hail	13	97.6%

Safety Performance Functions

Total SPF



Severe SPF



Broadway & Balsam Avenue

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Broadway	**AADT:**	28,200
Minor Street:	Balsam Avenue	**AADT:**	8,400

2015-2019 Crash History

PDO	Injury	Fatality	Total
24	6	0	30

Level of Service of Safety

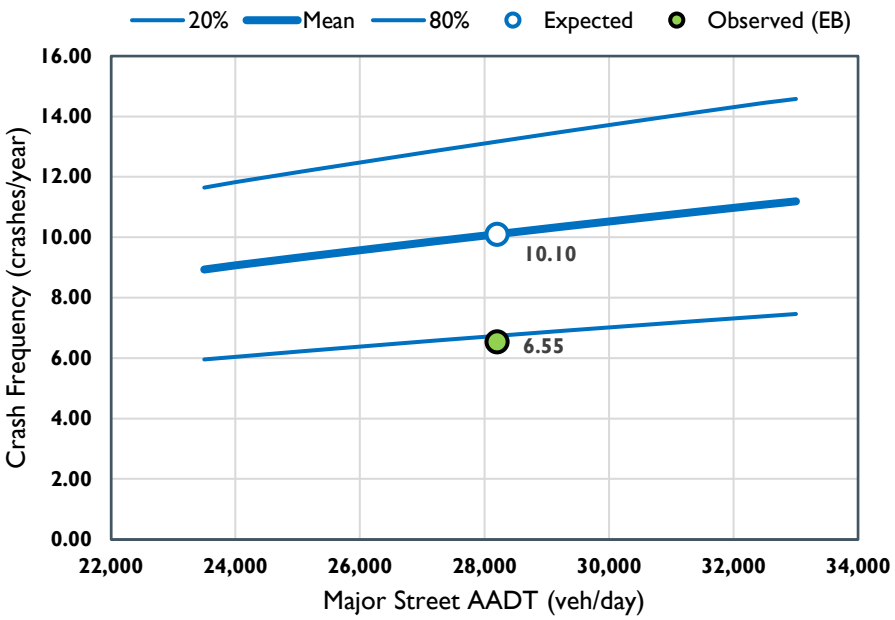
Total	Severe
I	I

Top 5 Crash Types (Total)

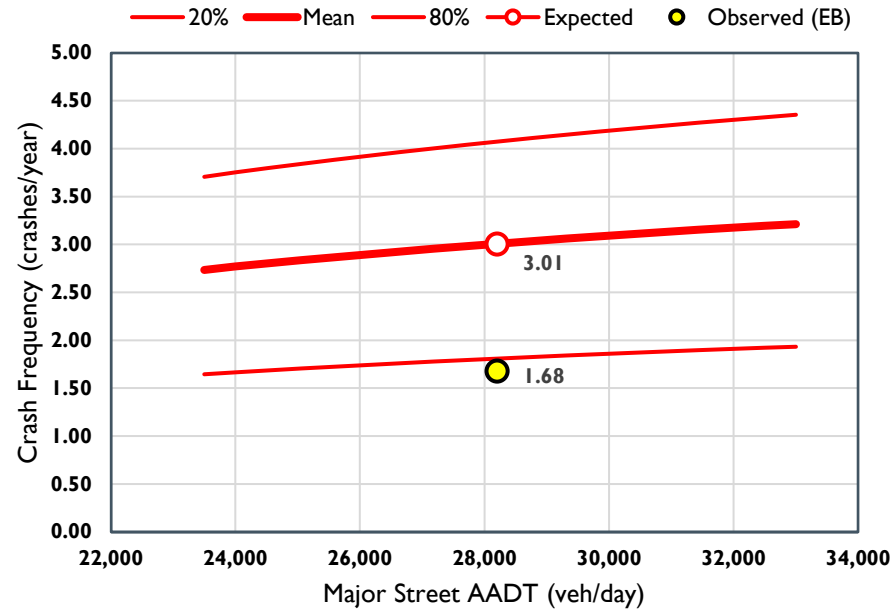
Crash Type	#	%
Rear End	13	43.3%
Broadside	6	20.0%
Sideswipe (Same)	5	16.7%
Pedestrian	3	10.0%
Bicycle	1	3.3%

Safety Performance Functions

Total SPF



Severe SPF



Top 5 Crash Types (Severe)

Crash Type	#	%
Rear End	3	50.0%
Pedestrian	2	33.3%
Bicycle	1	16.7%

Diagnostic Patterns

Category	#	Prob.
Sideswipe (Same)	5	95.7%
Dawn/Dusk	6	100.0%

Broadway & Alpine Avenue

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Broadway	**AADT:**	23,600
Minor Street:	Alpine Avenue	**AADT:**	4,200

2015-2019 Crash History

PDO	Injury	Fatality	Total
17	3	0	20

Level of Service of Safety

Total	Severe
II	I

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	5	25.0%
Overtaking Turn	4	20.0%
Approach Turn	3	15.0%
Sideswipe (Same)	3	15.0%
Pedestrian	2	10.0%

Top 5 Crash Types (Severe)

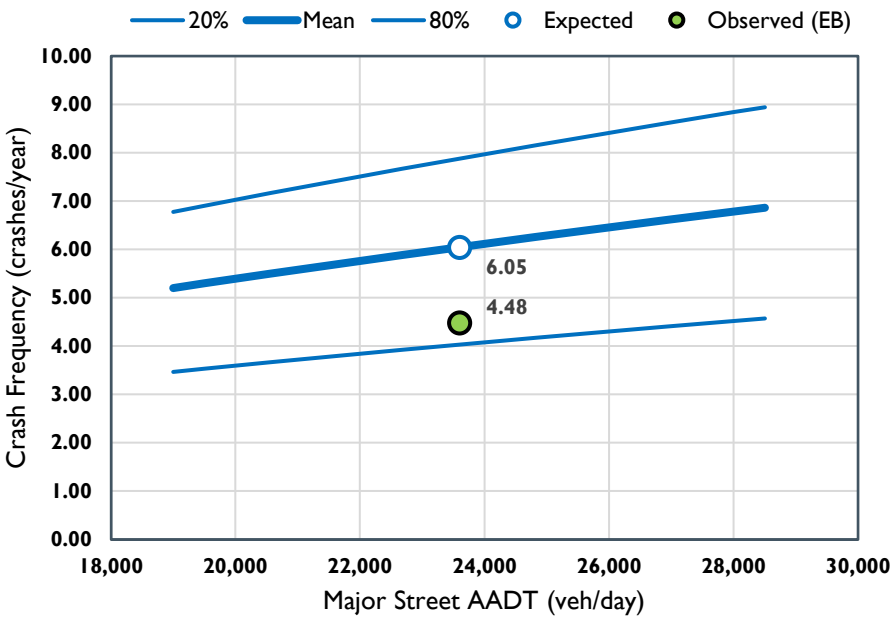
Crash Type	#	%
Approach Turn	1	33.3%
Pedestrian	1	33.3%
Sideswipe (Same)	1	33.3%

Diagnostic Patterns

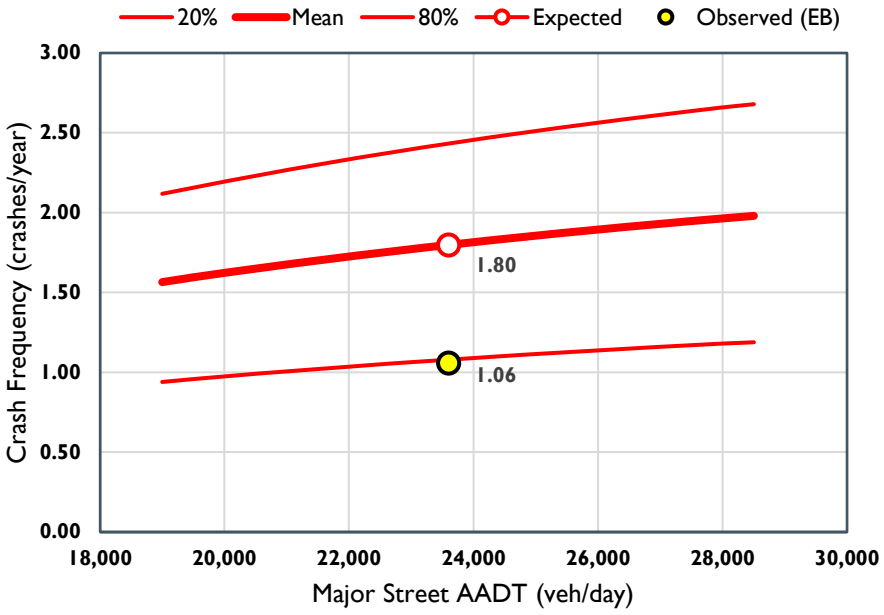
Category	#	Prob.

Safety Performance Functions

Total SPF



Severe SPF



Folsom Street & Pearl Street

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Folsom Street	**AADT:**	19,900
Minor Street:	Pearl Street	**AADT:**	19,000

2015-2019 Crash History

PDO	Injury	Fatality	Total
27	11	0	38

Level of Service of Safety

Total	Severe
I	II

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	20	52.6%
Broadside	6	15.8%
Approach Turn	4	10.5%
Bicycle	4	10.5%
Sideswipe (Same)	2	5.3%

Top 5 Crash Types (Severe)

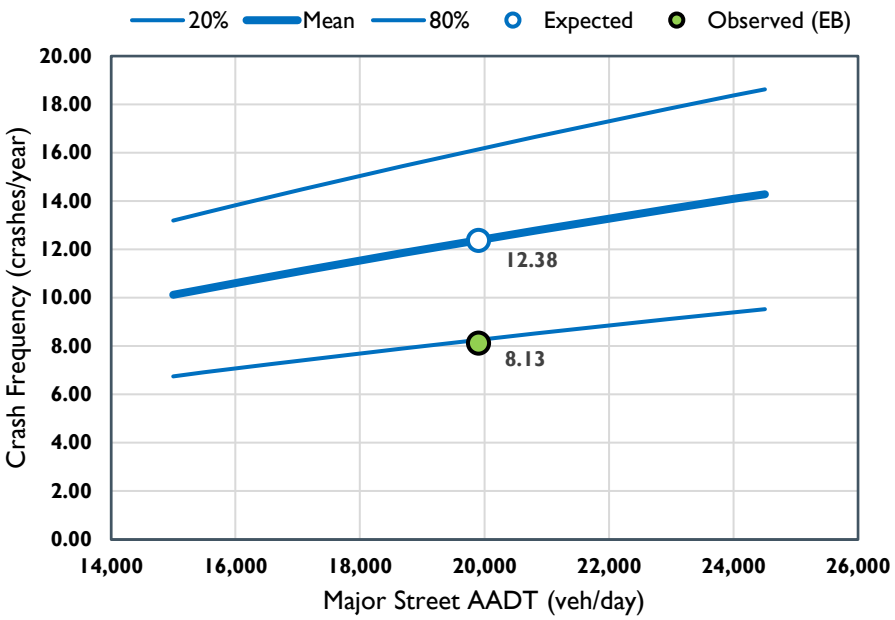
Crash Type	#	%
Rear End	5	45.5%
Broadside	2	18.2%
Approach Turn	1	9.1%
Bicycle	1	9.1%
Pedestrian	1	9.1%

Diagnostic Patterns

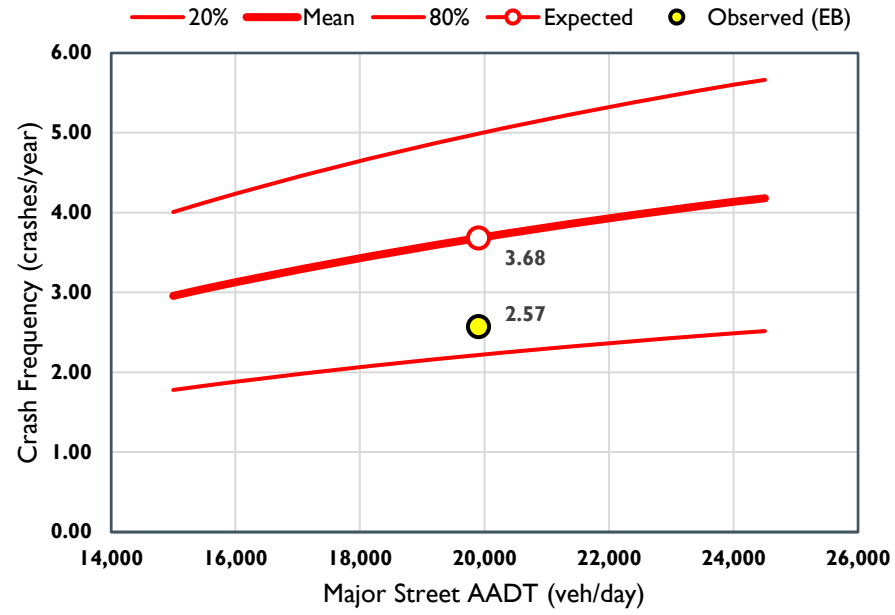
Category	#	Prob.

Safety Performance Functions

Total SPF



Severe SPF



30th Street & Pearl Street

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	30th Street	**AADT:**	31,000
Minor Street:	Pearl Street	**AADT:**	25,200

2015-2019 Crash History

PDO	Injury	Fatality	Total
70	24	0	94

Level of Service of Safety

Total	Severe
II	II

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	29	30.9%
Approach Turn	28	29.8%
Sideswipe (Same)	21	22.3%
Bicycle	7	7.4%
Overtaking Turn	4	4.3%

Top 5 Crash Types (Severe)

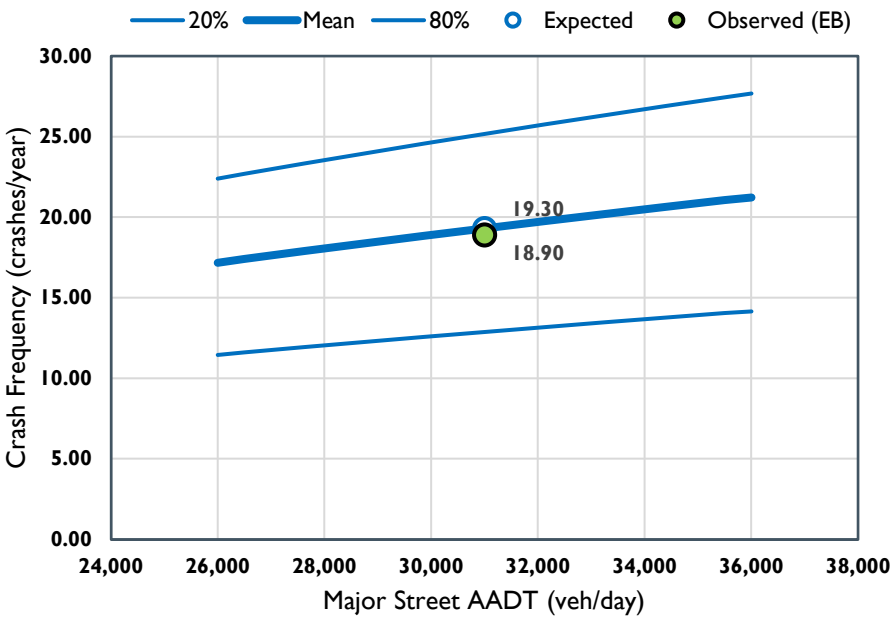
Crash Type	#	%
Rear End	7	29.2%
Approach Turn	7	29.2%
Bicycle	6	25.0%
Overtaking Turn	2	8.3%
Sideswipe (Same)	1	4.2%

Diagnostic Patterns

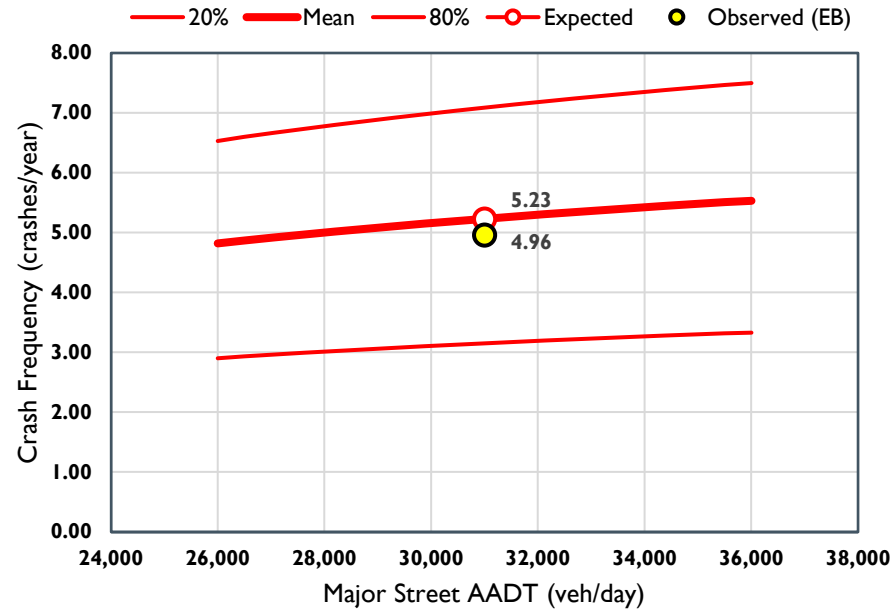
Category	#	Prob.
Sideswipe (Same)	21	100.0%
Approach Turn	28	100.0%
Bicycle	7	100.0%

Safety Performance Functions

Total SPF



Severe SPF



30th Street & Walnut Street

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	30th Street	**AADT:**	30,000
Minor Street:	Walnut Street	**AADT:**	12,700

2015-2019 Crash History

PDO	Injury	Fatality	Total
36	10	0	46

Level of Service of Safety

Total	Severe
II	II

Top 5 Crash Types (Total)

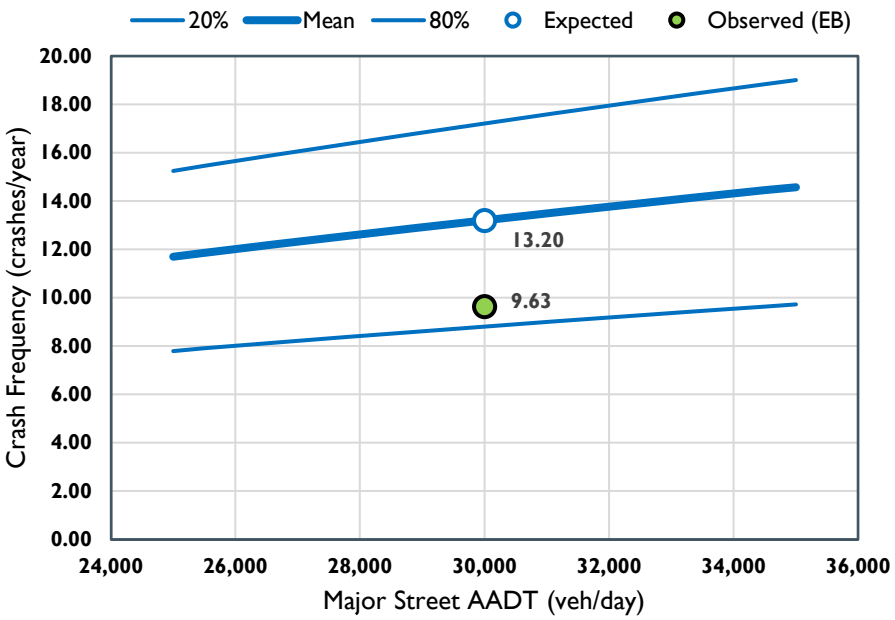
Crash Type	#	%
Rear End	27	58.7%
Approach Turn	9	19.6%
Broadside	5	10.9%
Sideswipe (Same)	3	6.5%
Bicycle	2	4.3%

Top 5 Crash Types (Severe)

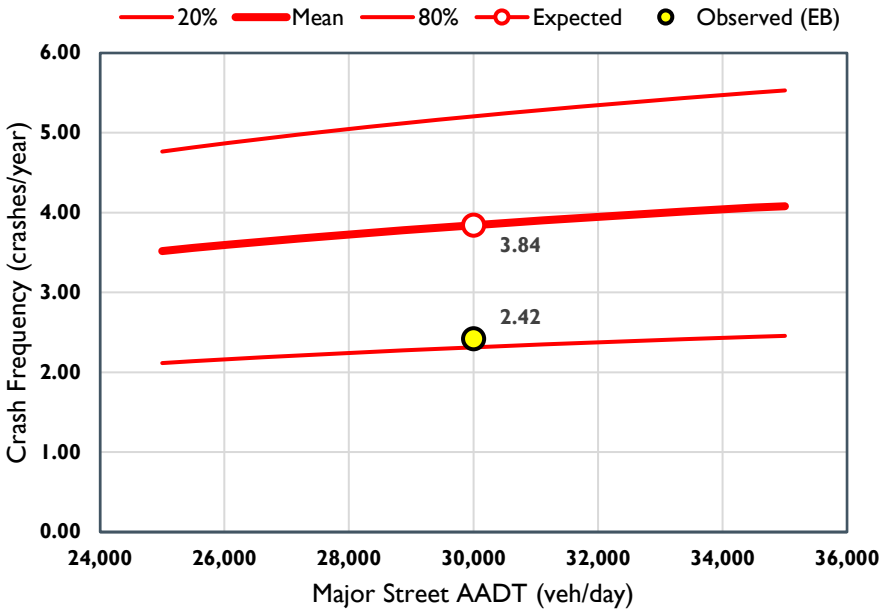
Crash Type	#	%
Broadside	4	40.0%
Rear End	4	40.0%
Bicycle	1	10.0%
Approach Turn	1	10.0%

Safety Performance Functions

Total SPF



Severe SPF



Diagnostic Patterns

Category	#	Prob.

Canyon Boulevard & Folsom Street

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Canyon Boulevard	**AADT:**	26,500
Minor Street:	Folsom Street	**AADT:**	20,500

2015-2019 Crash History

PDO	Injury	Fatality	Total
64	27	1	92

Level of Service of Safety

Total	Severe
III	III

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	45	48.9%
Approach Turn	15	16.3%
Sideswipe (Same)	15	16.3%
Bicycle	7	7.6%
Pedestrian	5	5.4%

Top 5 Crash Types (Severe)

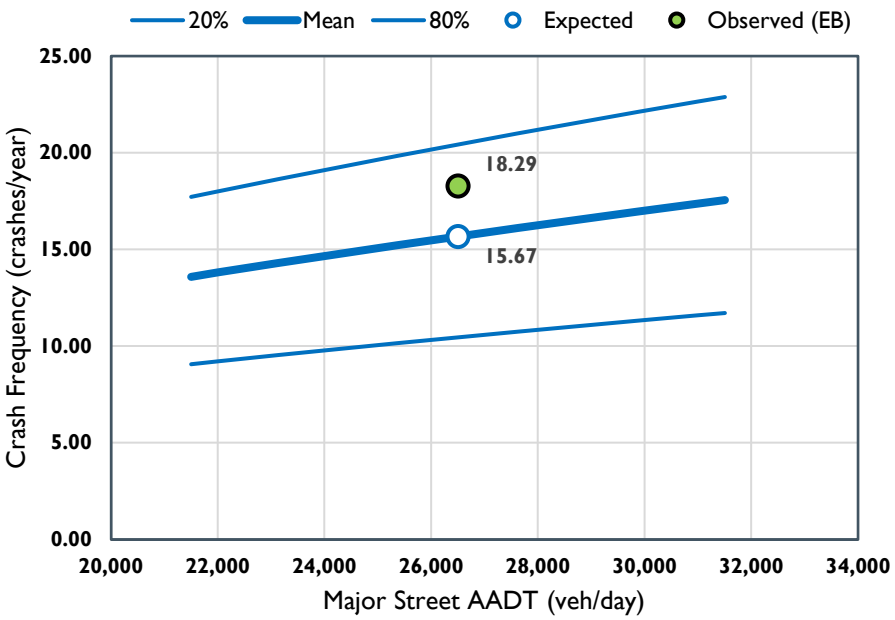
Crash Type	#	%
Rear End	9	32.1%
Bicycle	7	25.0%
Approach Turn	6	21.4%
Pedestrian	3	10.7%
Broadside	2	7.1%

Diagnostic Patterns

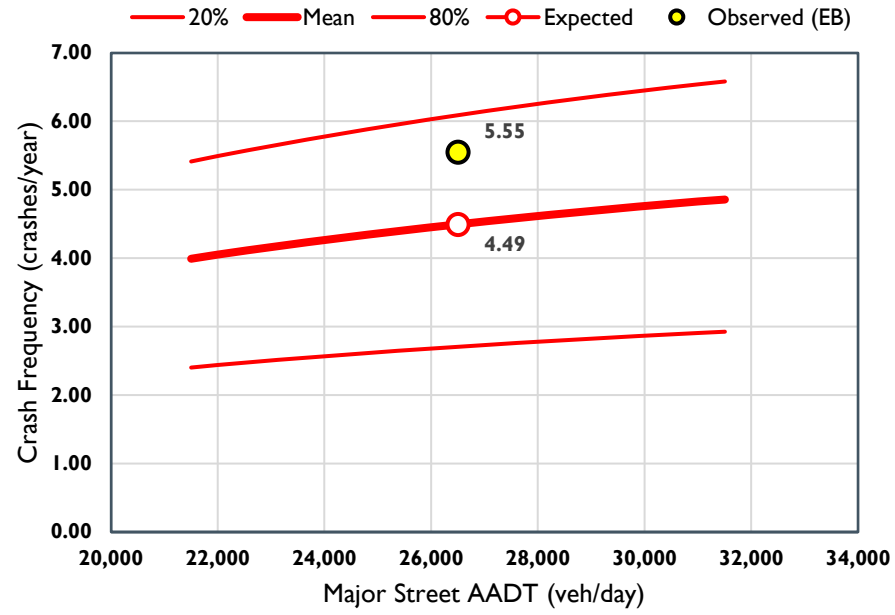
Category	#	Prob.
Pedestrian	5	99.3%
Sideswipe (Same)	15	99.4%
Bicycle	7	100.0%

Safety Performance Functions

Total SPF



Severe SPF



30th Street & Canyon Boulevard

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	30th Street	**AADT:**	25,700
Minor Street:	Canyon Boulevard	**AADT:**	6,900

2015-2019 Crash History

PDO	Injury	Fatality	Total
21	12	0	33

Level of Service of Safety

Total	Severe
II	III

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	10	30.3%
Approach Turn	10	30.3%
Broadside	6	18.2%
Bicycle	3	9.1%
Pedestrian	2	6.1%

Top 5 Crash Types (Severe)

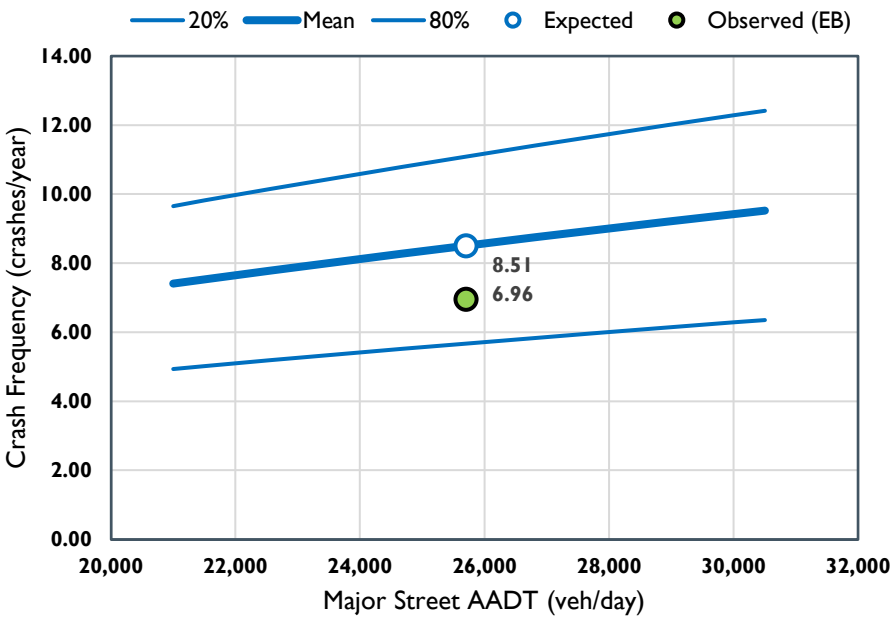
Crash Type	#	%
Rear End	7	58.3%
Bicycle	3	25.0%
Approach Turn	1	8.3%
Pedestrian	1	8.3%

Diagnostic Patterns

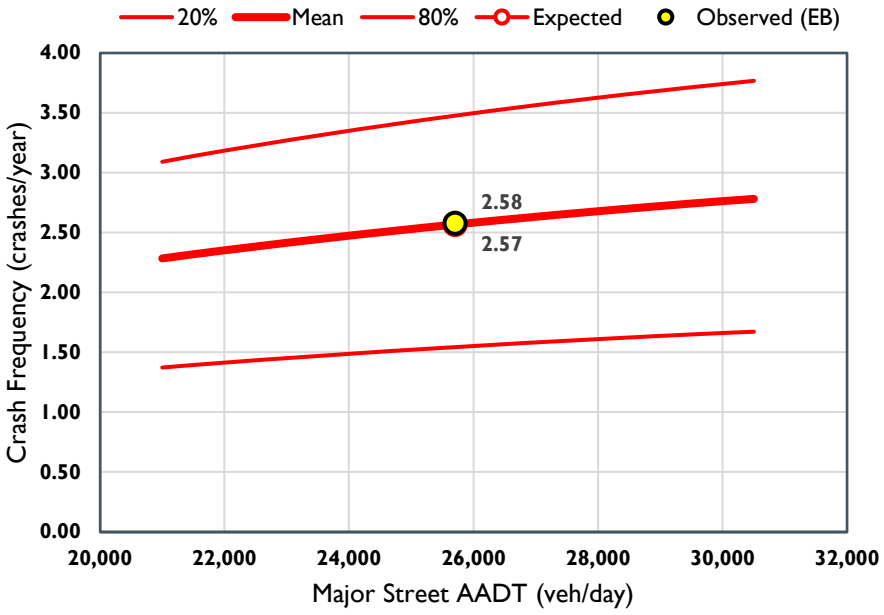
Category	#	Prob.
Approach Turn	10	98.9%

Safety Performance Functions

Total SPF



Severe SPF



Arapahoe Avenue & Folsom Street

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Arapahoe Avenue	**AADT:**	27,300
Minor Street:	Folsom Street	**AADT:**	18,200

2015-2019 Crash History

PDO	Injury	Fatality	Total
45	14	0	59

Level of Service of Safety

Total	Severe
II	II

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	25	42.4%
Approach Turn	14	23.7%
Bicycle	5	8.5%
Sideswipe (Same)	5	8.5%
Fixed Object	5	8.5%

Top 5 Crash Types (Severe)

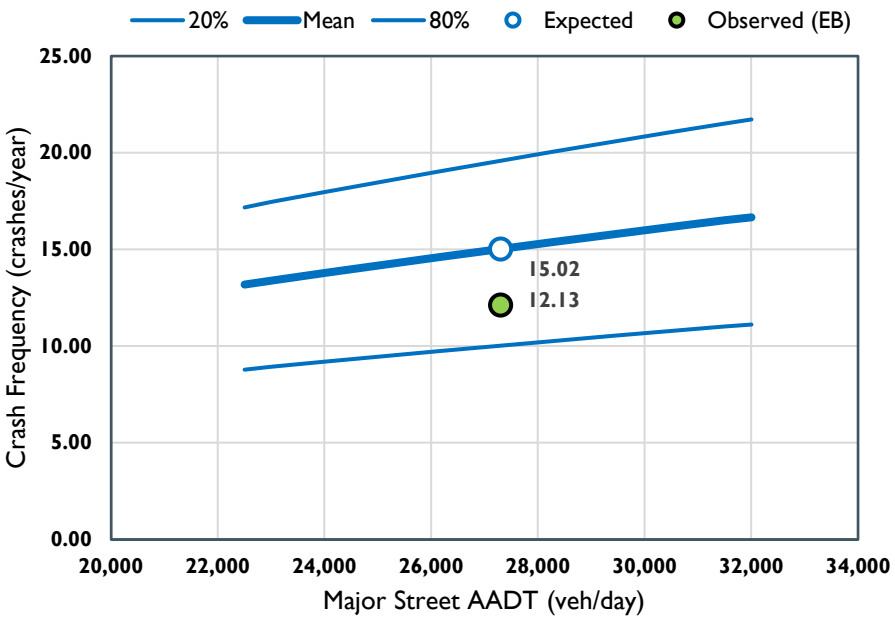
Crash Type	#	%
Rear End	7	50.0%
Bicycle	3	21.4%
Approach Turn	2	14.3%
Broadside	1	7.1%
Fixed Object	1	7.1%

Diagnostic Patterns

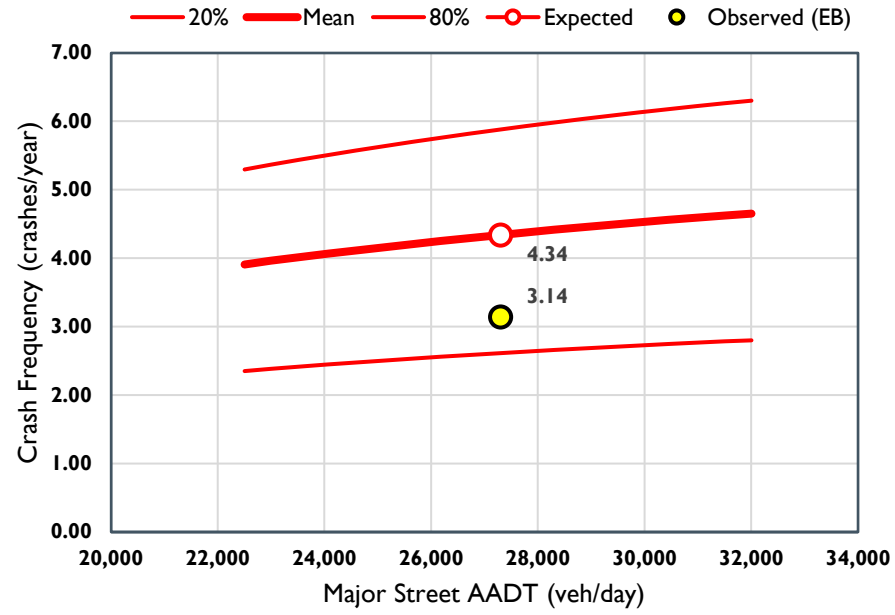
Category	#	Prob.
Off Road	5	96.3%
Approach Turn	14	95.8%
Bicycle	5	99.9%
Fixed Object	5	97.0%

Safety Performance Functions

Total SPF



Severe SPF



Arapahoe Avenue & 28th Street

Classification:	Urban 6-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Arapahoe Avenue	**AADT:**	43,000
Minor Street:	28th Street	**AADT:**	29,800

2015-2019 Crash History

PDO	Injury	Fatality	Total
136	32	1	169

Level of Service of Safety

Total	Severe
IV	III

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	117	69.2%
Sideswipe (Same)	19	11.2%
Approach Turn	7	4.1%
Bicycle	7	4.1%
Broadside	6	3.6%

Top 5 Crash Types (Severe)

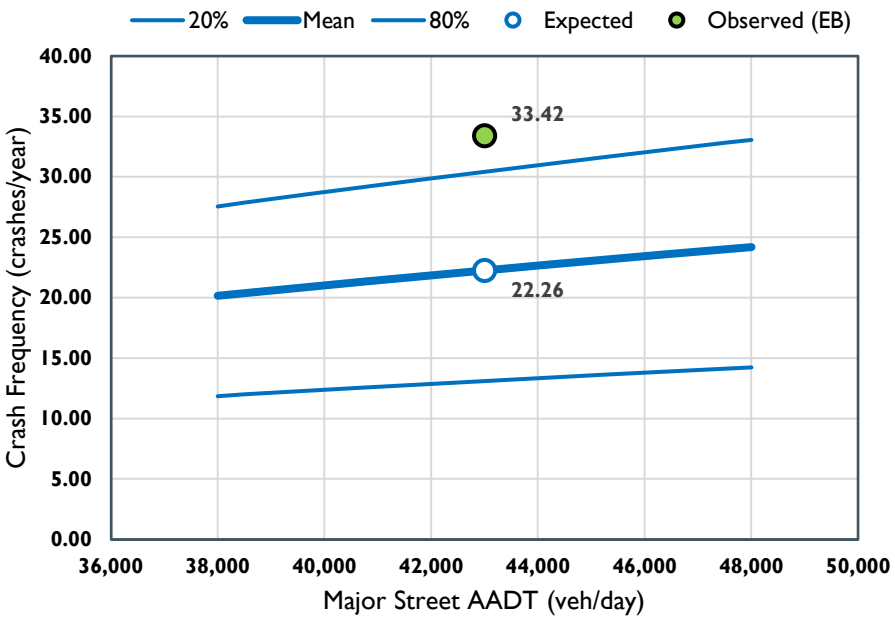
Crash Type	#	%
Rear End	23	69.7%
Bicycle	5	15.2%
Pedestrian	2	6.1%
Broadside	1	3.0%
Sideswipe (Same)	1	3.0%

Diagnostic Patterns

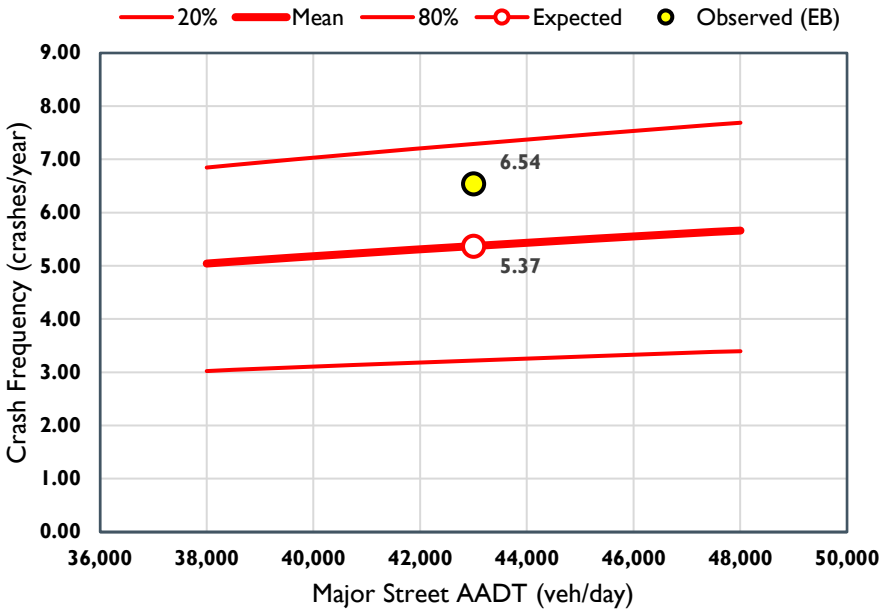
Category	#	Prob.
Rear End	117	100.0%
Bicycle	7	98.4%

Safety Performance Functions

Total SPF



Severe SPF



Arapahoe Avenue & 30th Street

Classification:	Urban 6-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Arapahoe Avenue	**AADT:**	33,500
Minor Street:	30th Street	**AADT:**	26,000

2015-2019 Crash History

PDO	Injury	Fatality	Total
98	31	0	129

Level of Service of Safety

Total	Severe
IV	III

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	64	49.6%
Approach Turn	23	17.8%
Bicycle	11	8.5%
Sideswipe (Same)	9	7.0%
Fixed Object	7	5.4%

Top 5 Crash Types (Severe)

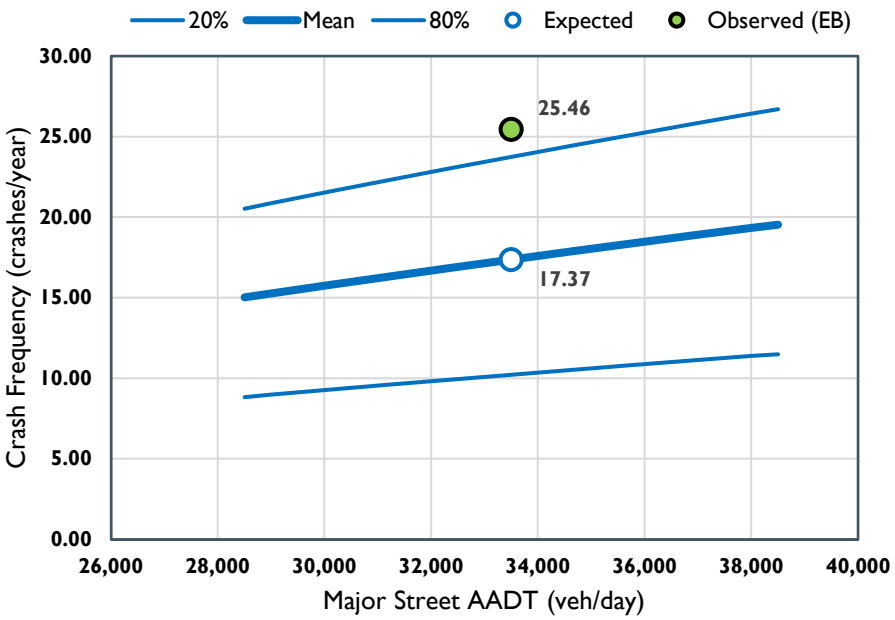
Crash Type	#	%
Bicycle	9	29.0%
Rear End	8	25.8%
Approach Turn	7	22.6%
Broadside	3	9.7%
Pedestrian	1	3.2%

Diagnostic Patterns

Category	#	Prob.
Bicycle	11	100.0%
Fixed Object	7	96.1%
Dawn/Dusk	8	95.2%
Dark Unlighted	5	99.9%

Safety Performance Functions

Total SPF



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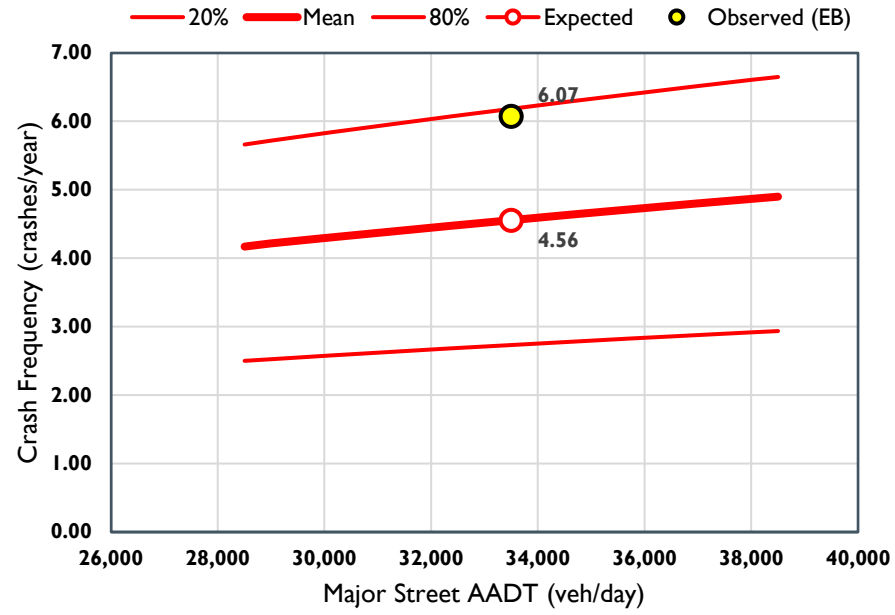


Foothills Parkway & Arapahoe Avenue

Classification:	Urban 6-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Foothills Parkway	**AADT:**	61,300
Minor Street:	Arapahoe Avenue	**AADT:**	42,300

2015-2019 Crash History

PDO	Injury	Fatality	Total
169	61	1	231

Level of Service of Safety

Total	Severe
IV	IV

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	158	68.4%
Approach Turn	27	11.7%
Sideswipe (Same)	20	8.7%
Broadside	11	4.8%
Fixed Object	10	4.3%

Top 5 Crash Types (Severe)

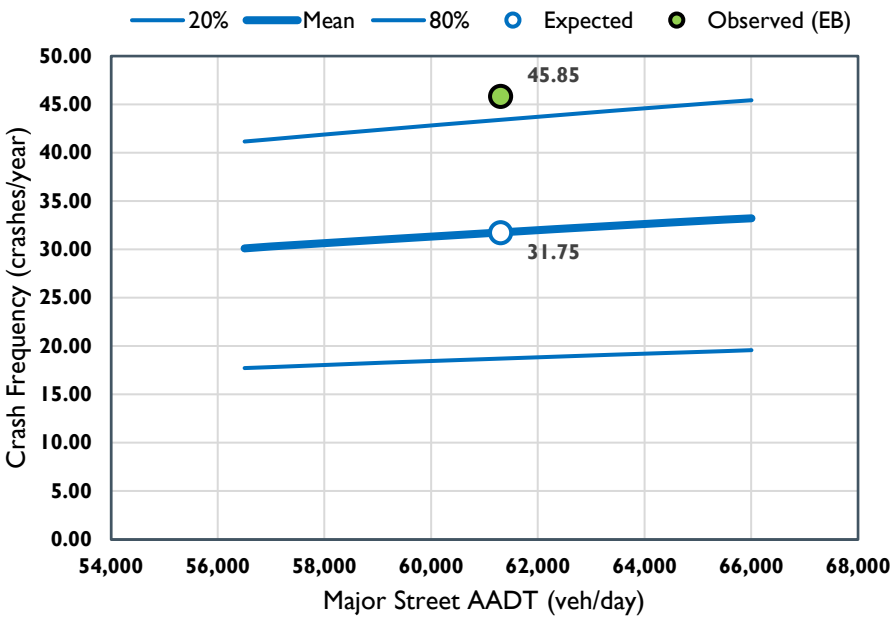
Crash Type	#	%
Rear End	39	62.9%
Approach Turn	11	17.7%
Broadside	5	8.1%
Bicycle	4	6.5%
Sideswipe (Same)	2	3.2%

Diagnostic Patterns

Category	#	Prob.
Off Median	7	100.0%
Rear End	158	100.0%
Dark Unlighted	5	99.4%
Snow/Sleet/Hail	22	100.0%
Inexperience	23	99.2%

Safety Performance Functions

Total SPF



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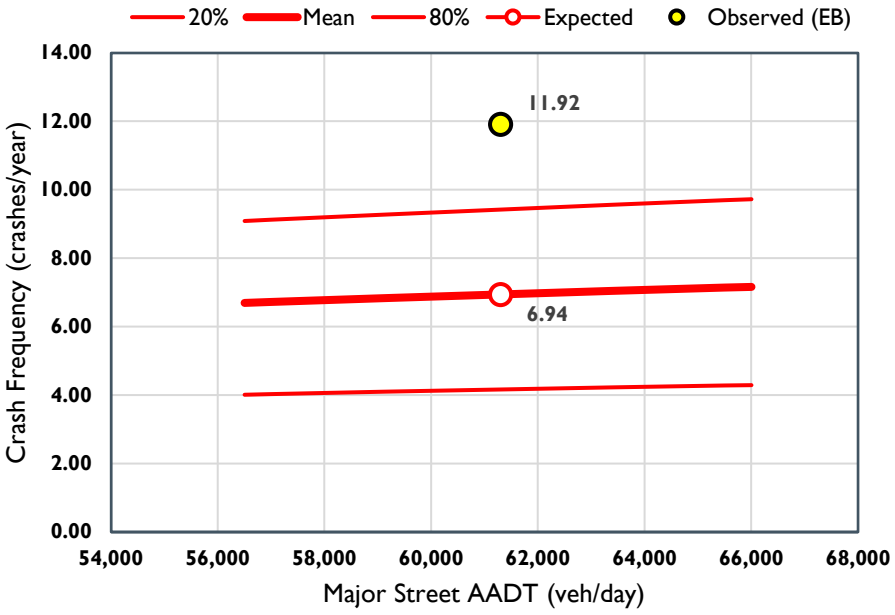


Arapahoe Avenue & Conestoga Street

Classification:	Urban 6-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Arapahoe Avenue	**AADT:**	32,400
Minor Street:	Conestoga Street	**AADT:**	4,200

2015-2019 Crash History

PDO	Injury	Fatality	Total
19	10	0	29

Level of Service of Safety

Total	Severe
II	II

Top 5 Crash Types (Total)

Crash Type	#	%
Approach Turn	11	37.9%
Rear End	8	27.6%
Pedestrian	4	13.8%
Sideswipe (Same)	4	13.8%
Bicycle	1	3.4%

Top 5 Crash Types (Severe)

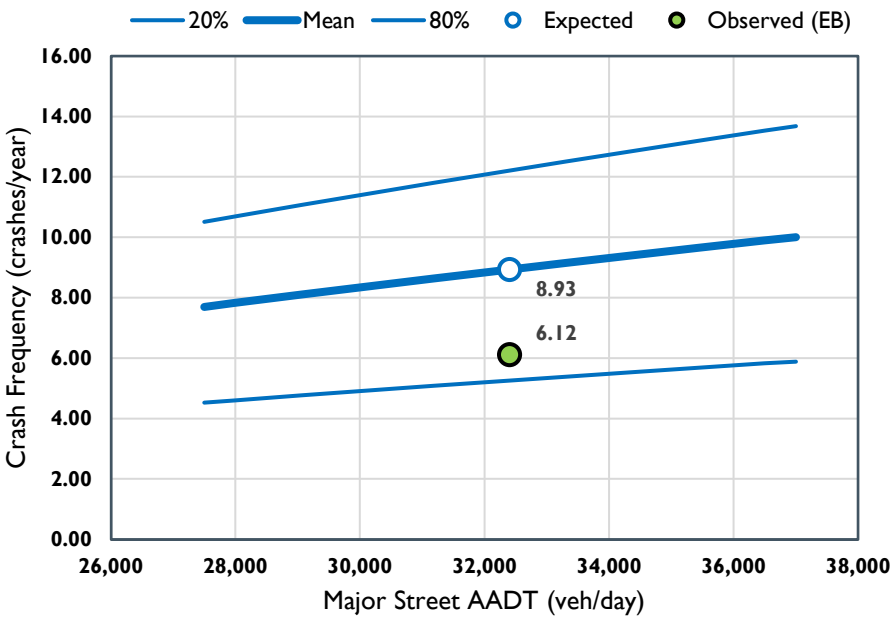
Crash Type	#	%
Approach Turn	5	50.0%
Pedestrian	3	30.0%
Bicycle	1	10.0%
Broadside	1	10.0%

Diagnostic Patterns

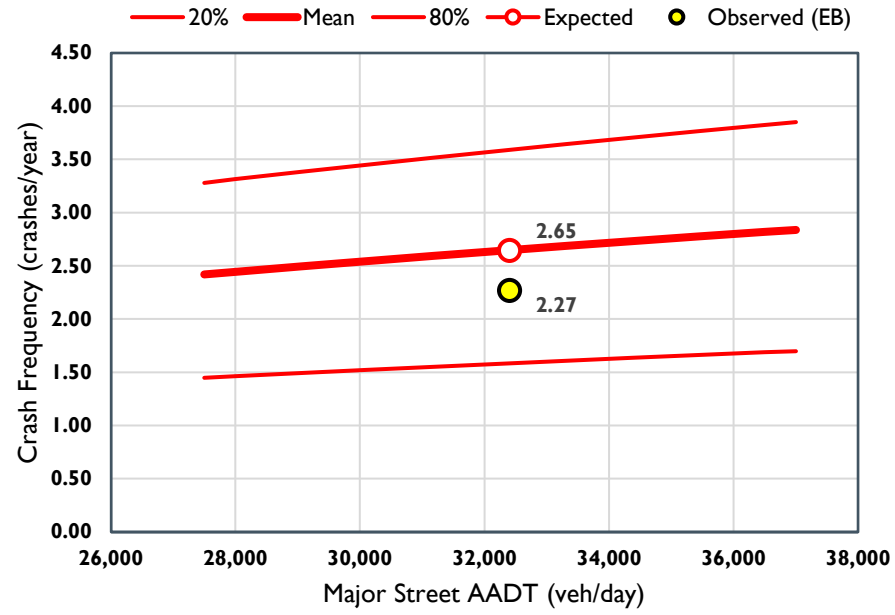
Category	#	Prob.
Approach Turn	11	99.8%

Safety Performance Functions

Total SPF



Severe SPF



Arapahoe Avenue & 55th Street

Classification:	Urban 6-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Arapahoe Avenue	**AADT:**	34,700
Minor Street:	55th Street	**AADT:**	25,100

2015-2019 Crash History

PDO	Injury	Fatality	Total
43	21	0	64

Level of Service of Safety

Total	Severe
II	II

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	33	51.6%
Approach Turn	8	12.5%
Bicycle	7	10.9%
Broadside	7	10.9%
Sideswipe (Same)	5	7.8%

Top 5 Crash Types (Severe)

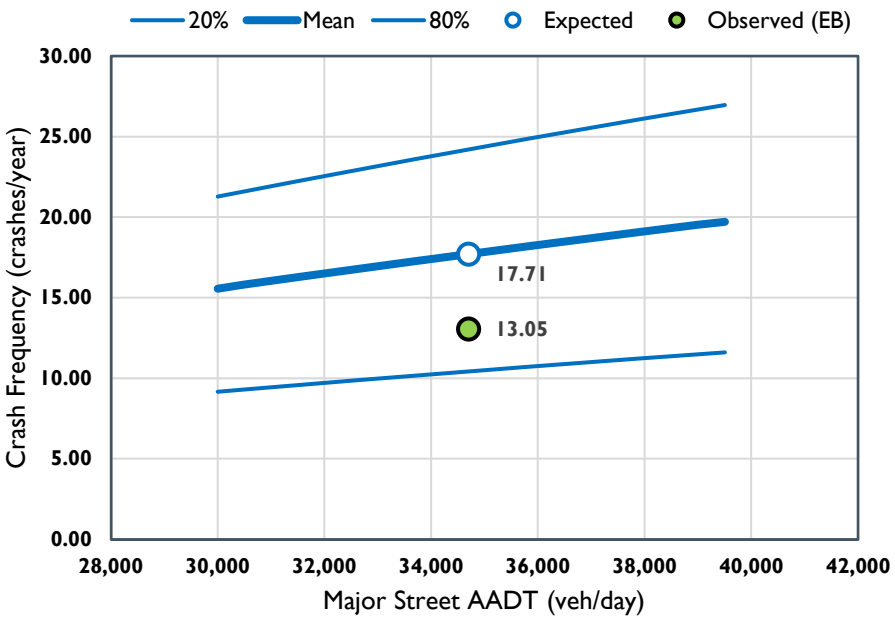
Crash Type	#	%
Approach Turn	7	33.3%
Rear End	7	33.3%
Bicycle	4	19.0%
Pedestrian	2	9.5%
Fixed Object	1	4.8%

Diagnostic Patterns

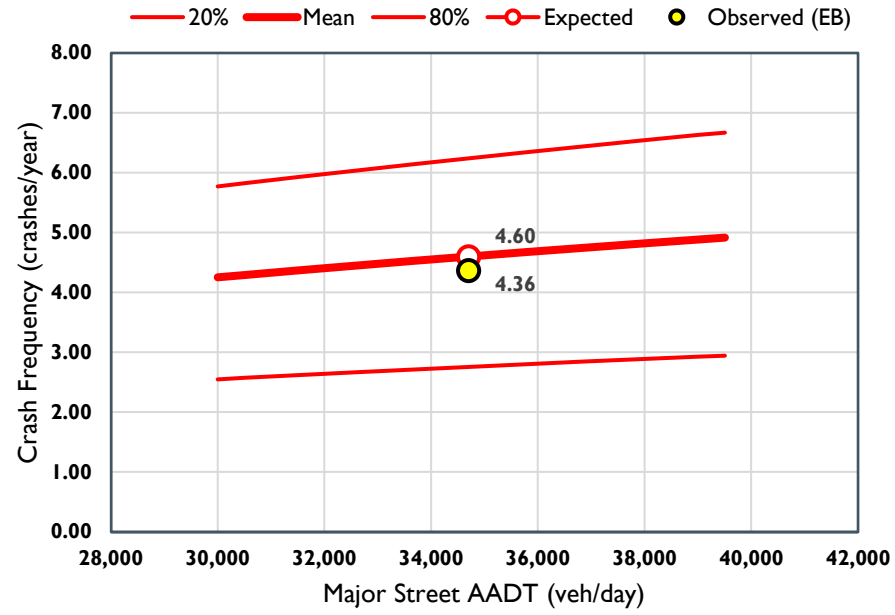
Category	#	Prob.
Bicycle	7	100.0%
Dawn/Dusk	5	97.1%

Safety Performance Functions

Total SPF



Severe SPF



Broadway & University Avenue

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Broadway	**AADT:**	35,000
Minor Street:	University Avenue	**AADT:**	8,600

2015-2019 Crash History

PDO	Injury	Fatality	Total
51	26	0	77

Level of Service of Safety

Total	Severe
III	IV

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	44	57.1%
Approach Turn	10	13.0%
Bicycle	7	9.1%
Sideswipe (Same)	7	9.1%
Pedestrian	3	3.9%

Top 5 Crash Types (Severe)

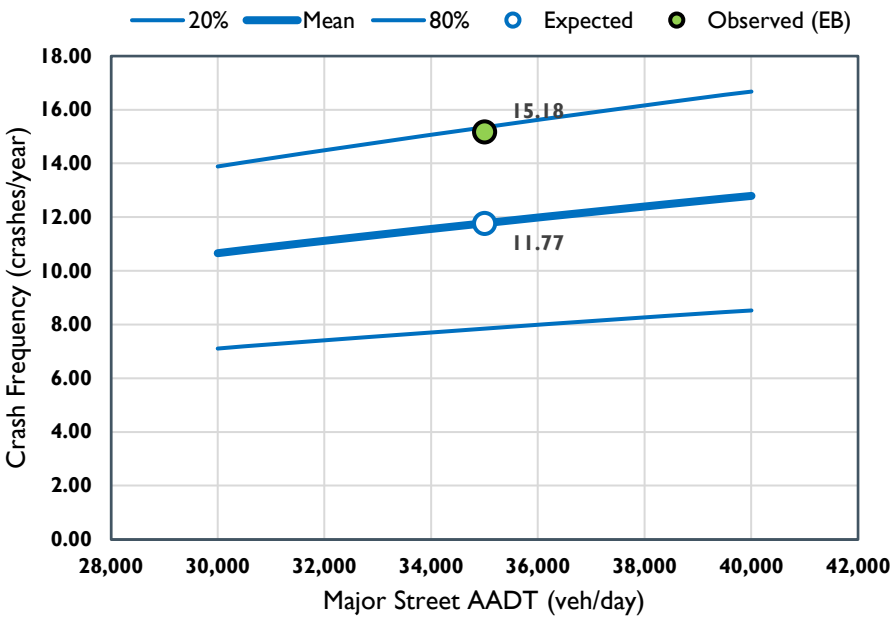
Crash Type	#	%
Rear End	13	50.0%
Bicycle	6	23.1%
Pedestrian	3	11.5%
Approach Turn	2	7.7%
Broadside	1	3.8%

Diagnostic Patterns

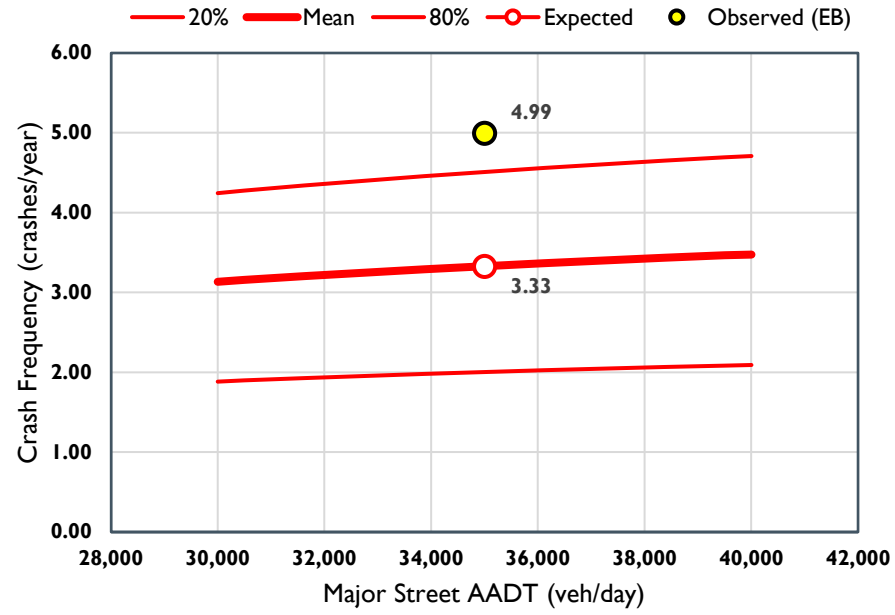
Category	#	Prob.
Bicycle	7	100.0%

Safety Performance Functions

Total SPF



Severe SPF



Broadway & College Ave

Classification:	Urban 4-Lane Divided Signalized 3-Leg Intersection		
Major Street:	Broadway	**AADT:**	37,100
Minor Street:	College Ave	**AADT:**	3,400

2015-2019 Crash History

PDO	Injury	Fatality	Total
17	0	1	18

Level of Service of Safety

Total	Severe
II	I

Top 5 Crash Types (Total)

Crash Type	#	%
Sideswipe (Same)	9	50.0%
Rear End	3	16.7%
Fixed Object	3	16.7%
Approach Turn	2	11.1%
Broadside	1	5.6%

Top 5 Crash Types (Severe)

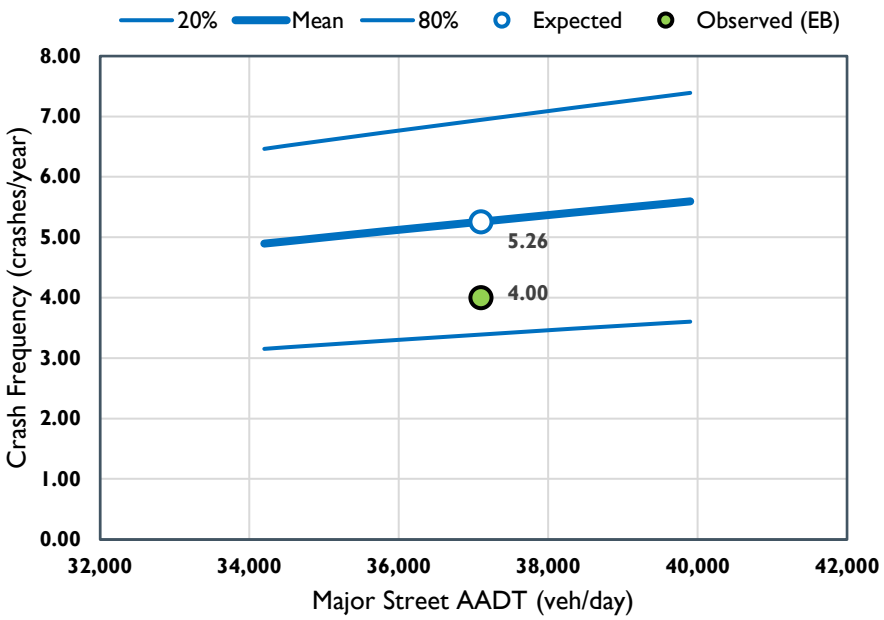
Crash Type	#	%
Fixed Object	1	100.0%

Diagnostic Patterns

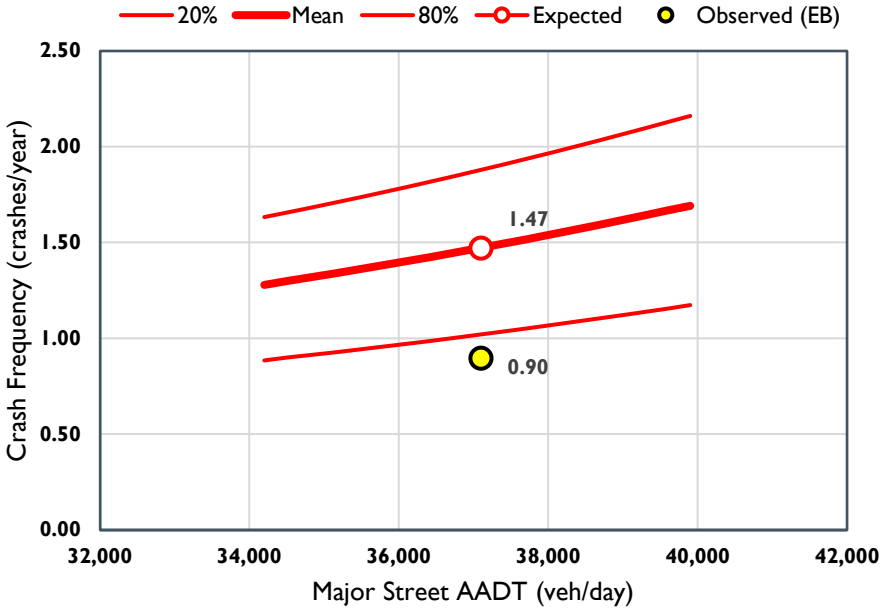
Category	#	Prob.
Sideswipe (Same)	9	100.0%

Safety Performance Functions

Total SPF



Severe SPF



30th Street & Aurora Avenue

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	30th Street	**AADT:**	22,600
Minor Street:	Aurora Avenue	**AADT:**	2,500

2015-2019 Crash History

PDO	Injury	Fatality	Total
17	10	0	27

Level of Service of Safety

Total	Severe
III	IV

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	5	18.5%
Sideswipe (Same)	5	18.5%
Approach Turn	4	14.8%
Bicycle	4	14.8%
Broadside	3	11.1%

Top 5 Crash Types (Severe)

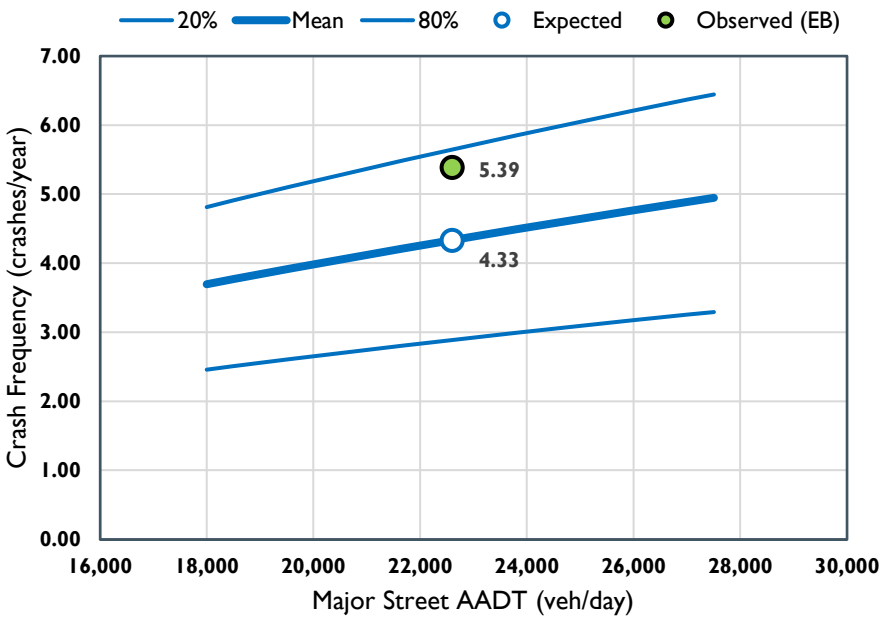
Crash Type	#	%
Bicycle	4	40.0%
Pedestrian	2	20.0%
Broadside	1	10.0%
Approach Turn	1	10.0%
Rear End	1	10.0%

Diagnostic Patterns

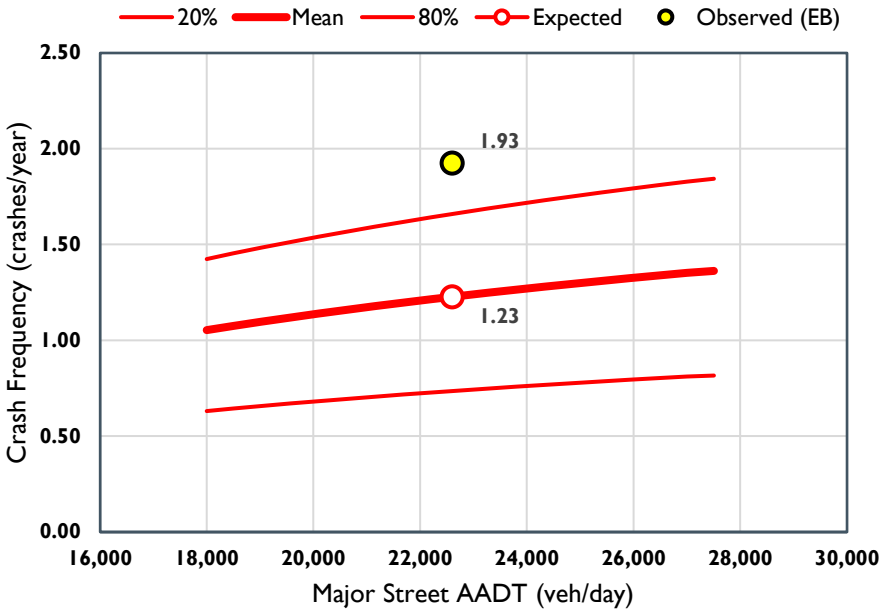
Category	#	Prob.
3+ Vehicle Crash	5	98.5%
Sideswipe (Same)	5	97.4%

Safety Performance Functions

Total SPF



Severe SPF



Broadway & Baseline Road

Classification:	Urban 6-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Broadway	**AADT:**	39,600
Minor Street:	Baseline Road	**AADT:**	31,700

2015-2019 Crash History

PDO	Injury	Fatality	Total
114	42	0	156

Level of Service of Safety

Total	Severe
IV	IV

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	81	51.9%
Approach Turn	30	19.2%
Sideswipe (Same)	17	10.9%
Broadside	11	7.1%
Bicycle	10	6.4%

Top 5 Crash Types (Severe)

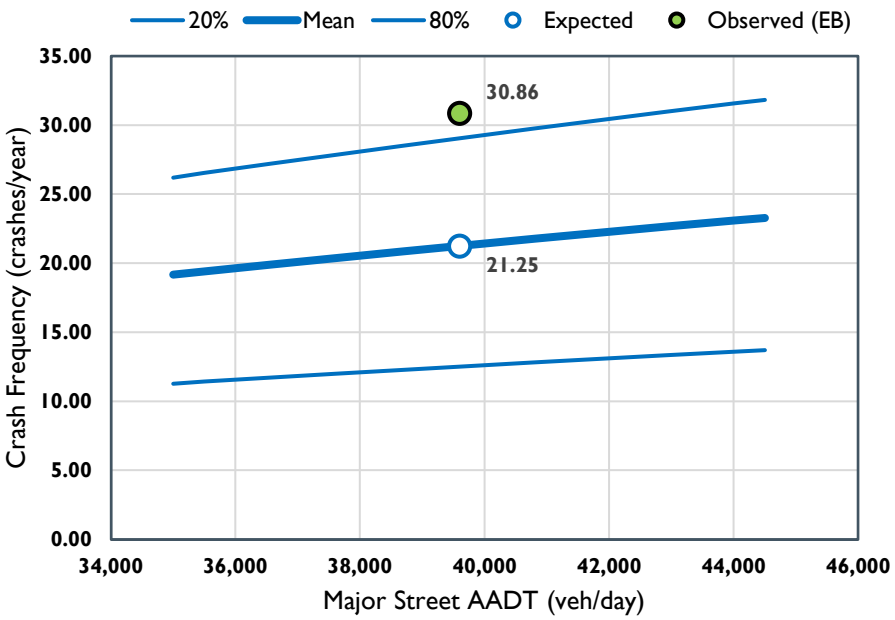
Crash Type	#	%
Rear End	19	45.2%
Approach Turn	11	26.2%
Bicycle	6	14.3%
Broadside	3	7.1%
Pedestrian	2	4.8%

Diagnostic Patterns

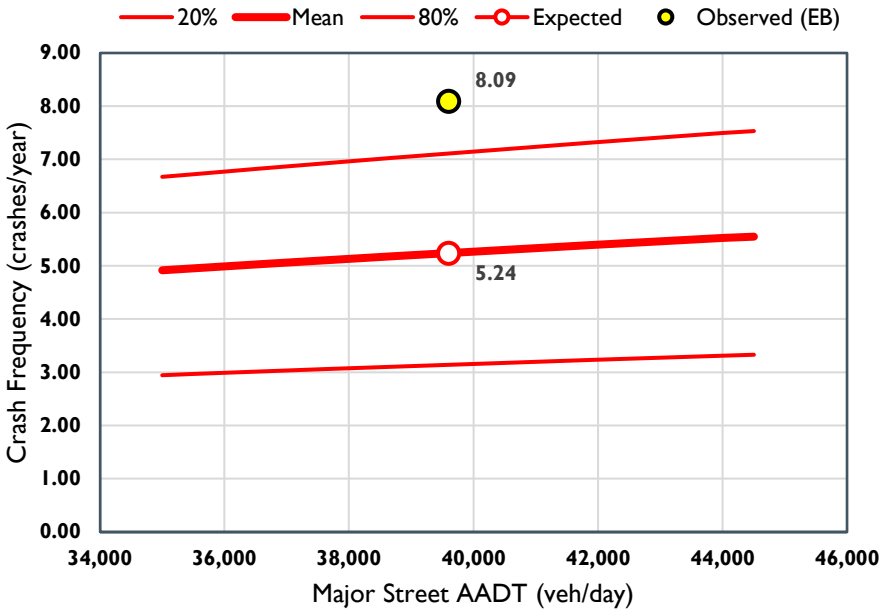
Category	#	Prob.
Bicycle	10	100.0%
Dawn/Dusk	10	97.1%

Safety Performance Functions

Total SPF



Severe SPF



Baseline Road & 30th Street

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Baseline Road	**AADT:**	29,500
Minor Street:	30th Street	**AADT:**	22,200

2015-2019 Crash History

PDO	Injury	Fatality	Total
56	28	0	84

Level of Service of Safety

Total	Severe
II	III

Top 5 Crash Types (Total)

Crash Type	#	%
Approach Turn	30	35.7%
Rear End	22	26.2%
Sideswipe (Same)	12	14.3%
Pedestrian	8	9.5%
Bicycle	5	6.0%

Top 5 Crash Types (Severe)

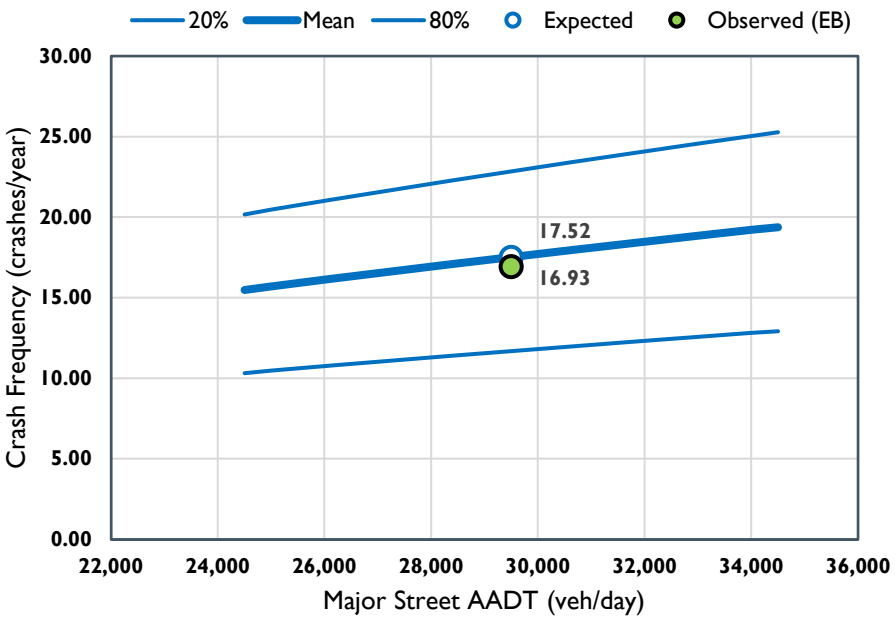
Crash Type	#	%
Approach Turn	14	50.0%
Pedestrian	5	17.9%
Bicycle	4	14.3%
Rear End	2	7.1%
Broadside	1	3.6%

Diagnostic Patterns

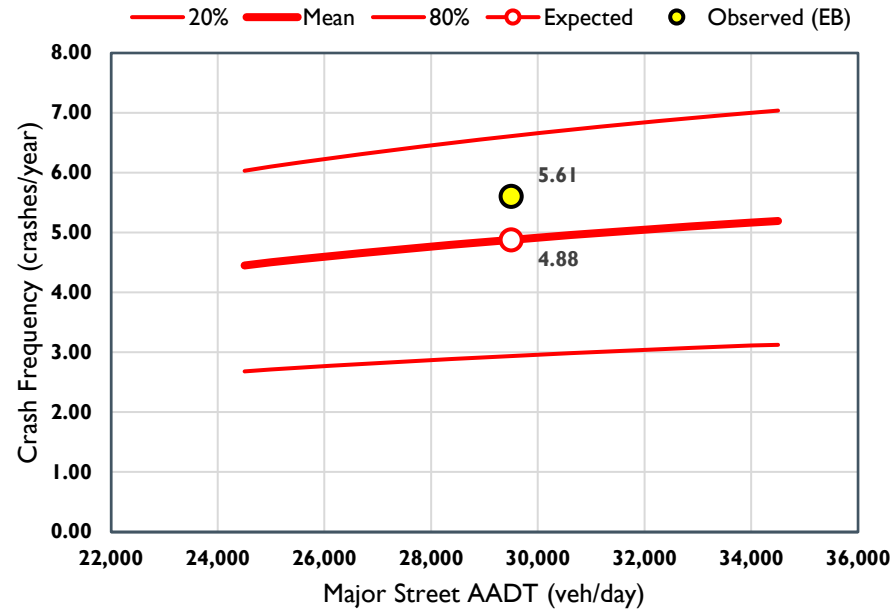
Category	#	Prob.
Pedestrian	8	100.0%
Sideswipe (Same)	12	97.0%
Approach Turn	30	100.0%
Bicycle	5	99.5%
Dark Lighted	28	99.4%
Rain	7	98.1%

Safety Performance Functions

Total SPF



Severe SPF



Foothills Parkway & Baseline Road

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Foothills Parkway	**AADT:**	48,300
Minor Street:	Baseline Road	**AADT:**	27,000

2015-2019 Crash History

PDO	Injury	Fatality	Total
86	16	0	102

Level of Service of Safety

Total	Severe
IV	IV

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	69	67.6%
Sideswipe (Same)	11	10.8%
Broadside	6	5.9%
Fixed Object	6	5.9%
Approach Turn	5	4.9%

Top 5 Crash Types (Severe)

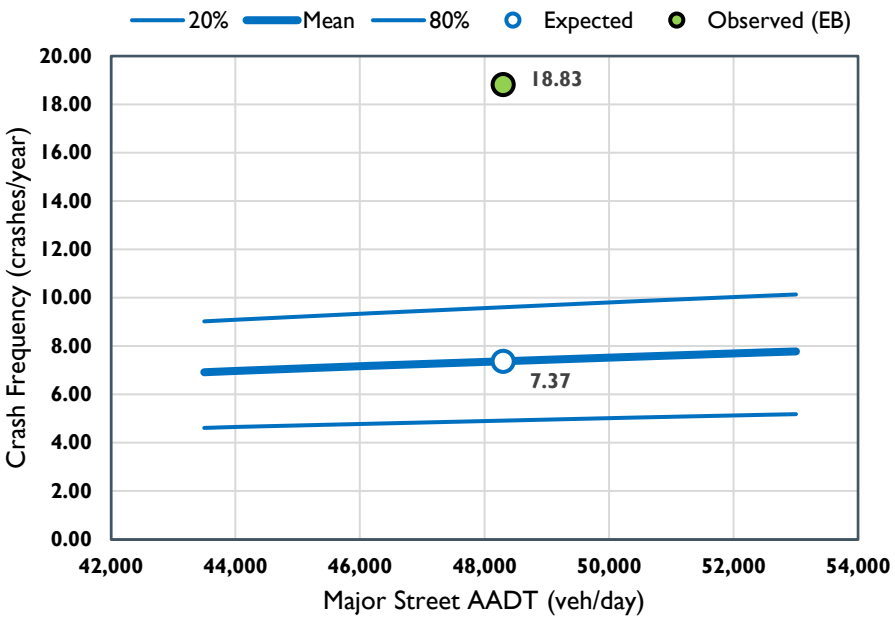
Crash Type	#	%
Rear End	9	56.3%
Broadside	3	18.8%
Pedestrian	1	6.3%
Bicycle	1	6.3%
Sideswipe (Same)	1	6.3%

Diagnostic Patterns

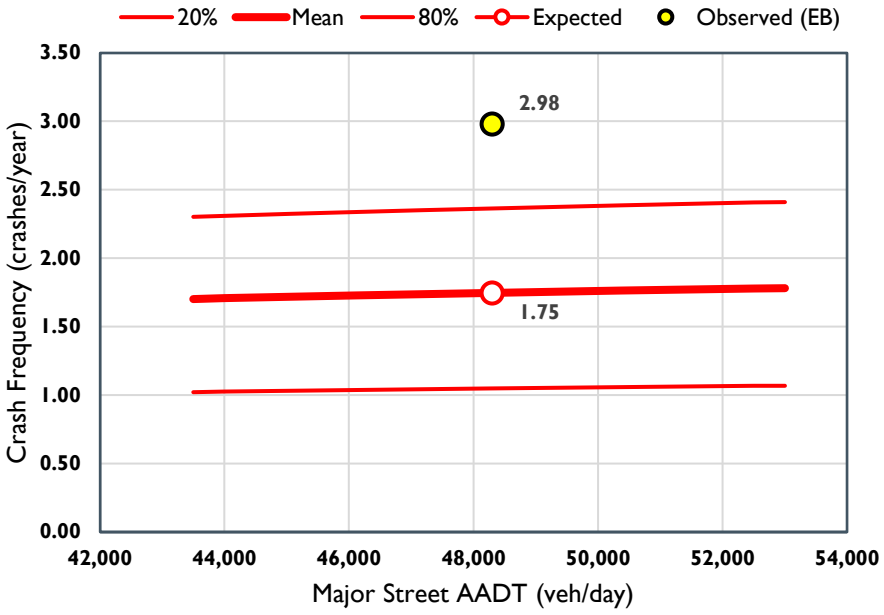
Category	#	Prob.
Off Right	5	99.1%
Rear End	69	99.4%
Unfamiliar w/ Area	5	95.2%

Safety Performance Functions

Total SPF



Severe SPF



Broadway & Dartmouth Avenue

Classification:	Urban 6-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Broadway	**AADT:**	36,400
Minor Street:	Dartmouth Avenue	**AADT:**	2,400

2015-2019 Crash History

PDO	Injury	Fatality	Total
17	9	0	26

Level of Service of Safety

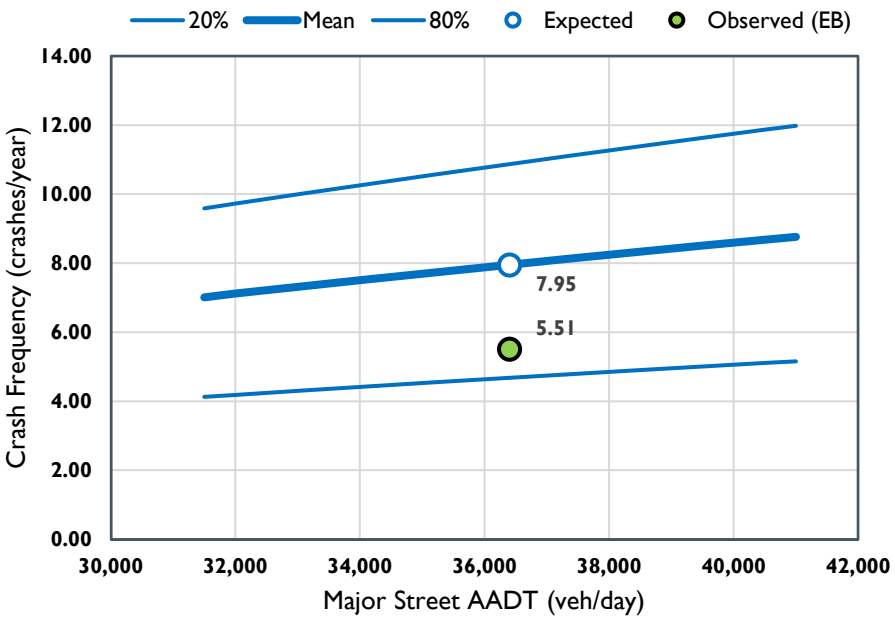
Total	Severe
II	II

Top 5 Crash Types (Total)

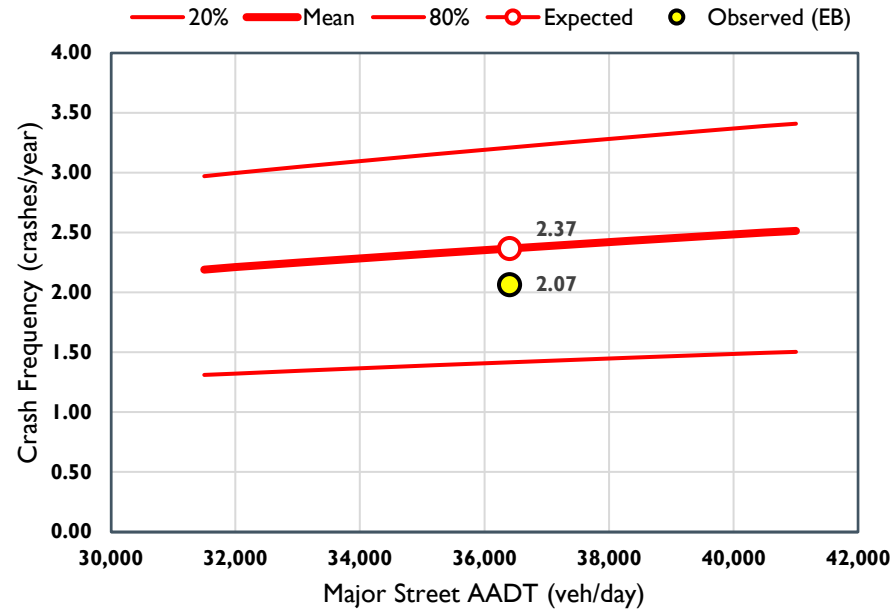
Crash Type	#	%
Rear End	9	34.6%
Broadside	6	23.1%
Approach Turn	4	15.4%
Bicycle	3	11.5%
Pedestrian	2	7.7%

Safety Performance Functions

Total SPF



Severe SPF



Top 5 Crash Types (Severe)

Crash Type	#	%
Broadside	3	33.3%
Approach Turn	2	22.2%
Pedestrian	2	22.2%
Bicycle	1	11.1%
Rear End	1	11.1%

Diagnostic Patterns

Category	#	Prob.
Broadside	6	97.8%

Broadway & Table Mesa Drive

Classification:	Urban 4-Lane Divided Signalized 4-Leg Intersection		
Major Street:	Broadway	**AADT:**	39,000
Minor Street:	Table Mesa Drive	**AADT:**	29,500

2015-2019 Crash History

PDO	Injury	Fatality	Total
97	42	0	139

Level of Service of Safety

Total	Severe
III	IV

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	75	54.0%
Sideswipe (Same)	23	16.5%
Approach Turn	12	8.6%
Broadside	11	7.9%
Bicycle	6	4.3%

Top 5 Crash Types (Severe)

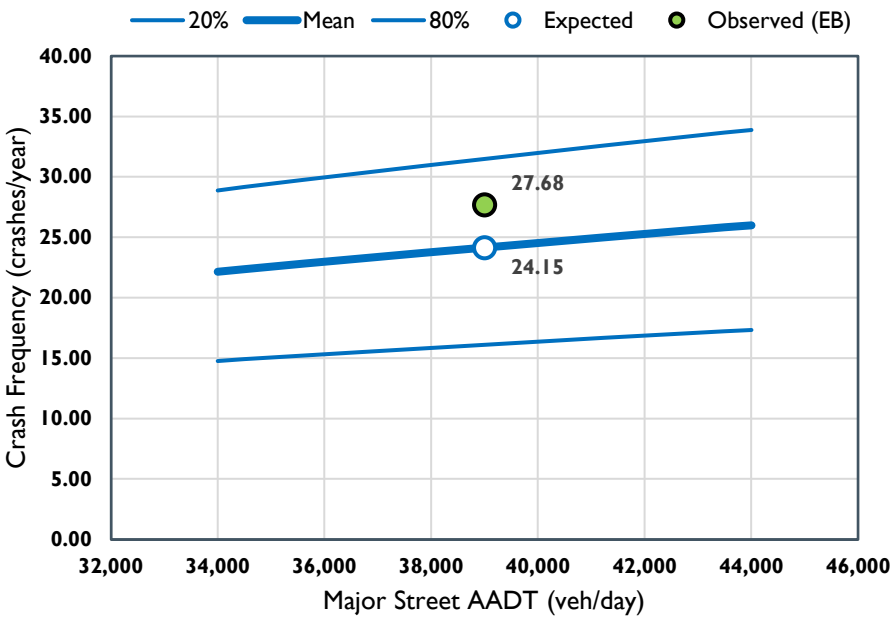
Crash Type	#	%
Rear End	20	47.6%
Approach Turn	5	11.9%
Broadside	5	11.9%
Bicycle	4	9.5%
Pedestrian	2	4.8%

Diagnostic Patterns

Category	#	Prob.
Sideswipe (Same)	23	99.7%
Bicycle	6	99.8%

Safety Performance Functions

Total SPF



Severe SPF

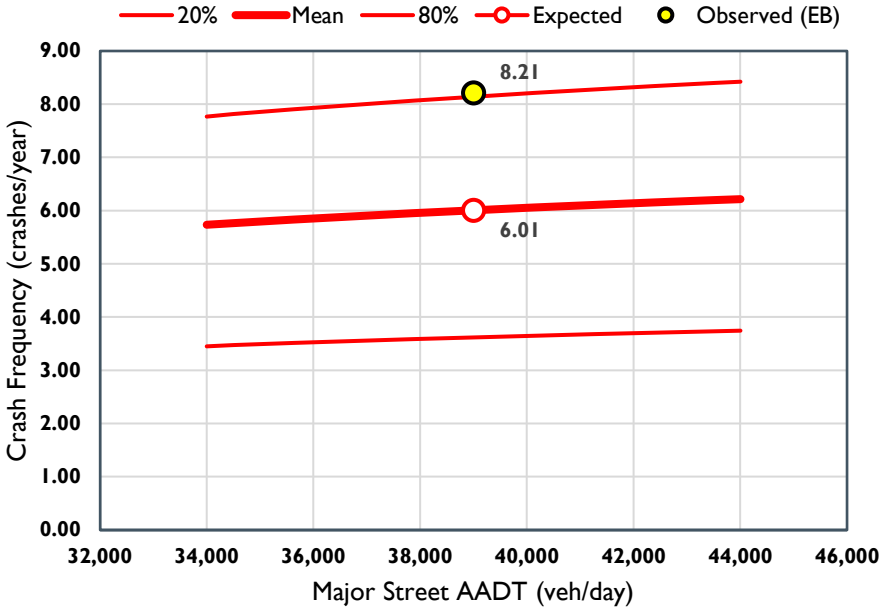


Table Mesa Drive & Foothills Parkway SB Off-Ramp

Classification:	Urban 4-Lane Divided Signalized 4-Leg Ramp Intersection		
Major Street:	Table Mesa Drive	**AADT:**	34,700
Minor Street:	Foothills Parkway SB Off-Ramp	**AADT:**	11,900

2015-2019 Crash History

PDO	Injury	Fatality	Total
41	25	0	66

Level of Service of Safety

Total	Severe
III	IV

Top 5 Crash Types (Total)

Crash Type	#	%
Rear End	48	72.7%
Sideswipe (Same)	6	9.1%
Approach Turn	3	4.5%
Pedestrian	2	3.0%
Broadside	2	3.0%

Top 5 Crash Types (Severe)

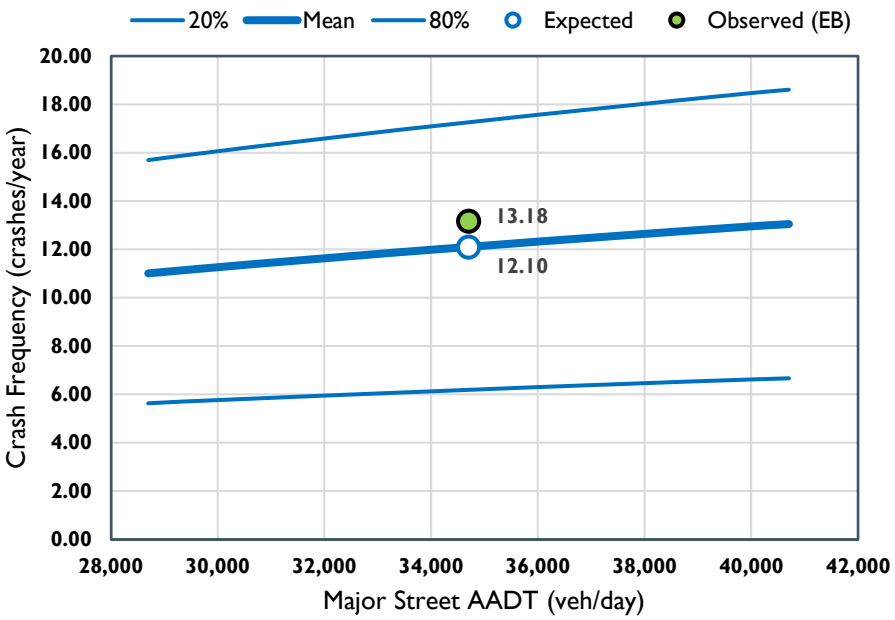
Crash Type	#	%
Rear End	17	68.0%
Approach Turn	3	12.0%
Broadside	2	8.0%
Bicycle	1	4.0%
Pedestrian	1	4.0%

Diagnostic Patterns

Category	#	Prob.
INJ	25	96.9%
Rear End	48	100.0%

Safety Performance Functions

Total SPF



Severe SPF