City and County of Denver

Vision Zero Road Safety Audit

Colorado Boulevard: Mississippi Avenue to Iliff Avenue

August 2025

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NOT FOR CONSTRUCTION – Recommendations contained in this document are intended ONLY for use by the local agency in determining possible future changes at the Road Safety Audit (RSA) location.

The information provided in this report does not reflect the opinion of any one team member. The recommendations reflect the collective suggestions of all team members based on their individual education, training, and experience.

Road Safety Audit Team

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1. City and County of Denver Road Safety Audit Process

The Denver Vision Zero program provides traffic safety professionals a unique opportunity to work as part of a dedicated traffic safety improvement program by collaborating with law enforcement, first responders, government officials, and other stakeholders. As part of the Vision Zero initiative, the City and County of Denver (CCD) has identified the High Injury Network (HIN) as the network of corridors with the highest number of fatal and serious injury crashes for all travel modes. The Colorado Boulevard corridor is part of this HIN.

The choice of Road Safety Audit (RSA) corridors is driven by their proximity to the Equity Index Areas, areas of Denver where more vulnerable populations live. As stated in Denver's Vision Zero statement, these areas are places with higher speeds, in closer proximity to schools and high school density, elderly populations, people with disabilities, and those without vehicles. **Figure 1** shows the project location. The study area includes both travel directions of Colorado Boulevard between Mississippi Avenue and Iliff Avenue in Denver.

Figure 1. Project Location Map

2. Road Safety Audit Team

Gaurav Vasisht of Felsburg Holt & Ullevig (FHU) led the independent multidisciplinary RSA team, which included:

- Gaurav Vasisht, PE, PTOE, RSP2(IB), FHU (RSA Lead)
- Philip Dunham, PE, PTOE, FHU
- Yory Moncada, EI, FHU
- Omar Aboughazala, FHU
- Terrington Smith, PE, FHU
- Ben Waldman, PE, Consor Engineers
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- Melissa Gende, PE, PTOE, RSP1, Y2K Engineering

The RSA team conducted this audit to the best of their ability within the time allotted. Initial recommendations are based on background information provided during the Pre-Audit presentation and discussion with stakeholders, an evaluation of historic crash data, and both day and night field reviews. This information assisted the RSA team in identifying potential opportunities to improve the safety performance of Colorado Boulevard from Mississippi Avenue to Iliff Avenue. The RSA team presented this information to stakeholders at the Preliminary Findings Meeting. While every attempt has been made to identify potential safety issues, the safety performance of the roadway remains the responsibility of the roadway owner and roadway users.

Figure 2. Road Safety Audit Team Members

3. Background Information, Observations, and Recommendations

The following sections provide corridor background information, details on team meetings, field observations, intersection crash data, and recommendations for the corridor and individual intersections. **Appendix A** includes a comprehensive list of all recommendations, including location, countermeasures, and planning-level cost estimates.

3.1 Pre-Audit Meeting

The Pre-Audit meeting for Colorado Boulevard took place virtually on Monday, May 5, 2025, on Microsoft Teams. The Pre-Audit meeting introduced all team members and stakeholders involved in the project with the existing roadway conditions and information regarding the preceding field visit. Stakeholders had the opportunity to share known corridor concerns.

The following stakeholders and RSA team members participated in the Pre-Audit meeting:

- Sam Beneck, City and County of Denver
- Emma De Vos Tidd, City and County of Denver
- Rolf Eisinger, City and County of Denver
- Phoebe Fooks, City and County of Denver
- Molly Lanphier, City and County of Denver
- Steven Marfitano, City and County of Denver
- Mitch Ries, City and County of Denver
- Michael Wallin, City and County of Denver
- Paul Frank, Colorado Department of Transportation
- Ben Waldman, Consor Engineers
- George Shackil, Consor Engineers
- Gaurav Vasisht, FHU
- Ryan Saline, FHU
- Yory Moncada, FHU
- Omar Aboughazala, FHU
- Terrington Smith, FHU
- Matthew Downey, FHU
- Rae Stephani, Y2K Engineering
- Melissa Gende, Y2K Engineering

Appendix B includes the RSA Pre-Audit intent memo and the Pre-Audit meeting presentation

3.2 Field Observations

The RSA team collected field observations the week of May 5, 2025, as follows:

- Tuesday, May 6, 2025: 3:30 PM to 6:30 PM (PM Peak)
- Tuesday, May 6, 2025: 7:30 PM to 9 PM (Nighttime)
- Wednesday, May 7, 2025: 7 AM to 10 AM (AM Peak)
- Wednesday, May 7, 2025: 11 AM to 1 PM (Mid-day)

Appendix C provides additional information about site visits. The weather through most of the week of observations was rainy. The purpose of the field observations was to note potential safety concerns and improvements. Observations included roadway geometry, roadway striping, signage, signal timing and operations, pedestrian facilities, bicycle facilities, vehicle and pedestrian activity, transit amenities, lighting, and traffic patterns.

The RSA team obtained field observations by walking, driving, and recording dashcam videos. The team observed the entire corridor on foot to collect detailed information and measurements. Select individuals drove the corridor to collect observations on the conditions of navigating the corridor and making turning movements at each intersection. The RSA team observed all midblock, unsignalized, and signalized intersections. Team members met after the mid-day observation period on May 7, 2025, to summarize findings and discuss recommendations. Observations for the corridor and individual intersections can be found in their respective sections throughout this document.

3.3 Recommendation Process

The recommendations and concepts developed as part of this project are based on analyzed crash data, field observations, and feedback received during the Pre- and Post-Audit meetings. Recommendations represent the compilation of contributions from all team members. All road users were considered when developing recommendations.

Time frames were developed to categorize recommendations based on how quickly recommendations could be implemented, as follows:

Map Symbol	Recommended Time Frame
	Short-term: Less than 1 year, denoted by a green circle
	Medium-term: 1 to 3 years, denoted by a blue square
	Long-term: Greater than 3 years, denoted by a black diamond

Appendix A summarizes the recommendations and includes a planning level cost estimate. This estimate is based on the following assumptions:

- **Low:** Operational Improvements
- **Medium**: Up to $100,000
- **High**: Greater than $100,000

The Post-Audit meeting presented recommendations and concepts to the RSA team and stakeholders virtually on Microsoft Teams, Wednesday, May 14, 2025. Stakeholders provided background information and suggestions for the recommendations and concepts during this meeting. **Appendix D** includes the presentation slides from the Post-Audit meeting. The refined recommendations and concepts for each location can be found in their respective sections throughout this document.

3.4 Colorado Boulevard Corridor

This section presents existing conditions information for Colorado Boulevard, including a general overview, crash data, geometry, general comments, field observations, and corridor-wide recommendations.

3.4.1 Corridor Overview

Colorado Boulevard is a major arterial that includes intersections and midblock locations between and including Mississippi Avenue to Iliff Avenue. In the southbound direction, the roadway consists of three lanes from Mississippi Avenue to Florida Avenue, widens to four lanes between Florida Avenue and the Interstate 25 (I-25) northbound ramps, and then narrows back to three lanes from the I-25 ramps to Iliff Avenue. In the northbound direction, there are three lanes from Iliff Avenue to Buchtel Boulevard/E Colorado Center Drive, four lanes from Buchtel Boulevard/E Colorado Center Drive to Iowa Avenue, and then three lanes from Iowa Avenue to Mississippi Avenue. The Colorado Boulevard study area runs north-south for a total of 1.5 miles. A curbed median is present for the entire length of the corridor, with breaks at intersection and midblock auxiliary turn lanes.

The corridor is currently surrounded primarily by commercial/retail land use with a mix of residential.

Traffic Overview

The corridor includes 11 signalized intersections and 2 unsignalized intersections. The speed limit along Colorado Boulevard is 35 miles per hour (MPH) in both northbound and southbound directions throughout the study area.

The RSA team collected 24 hour speed and volume data along the corridor on April 30, 2025 at several locations to understand existing conditions as shown on **Figure 3**. The RSA team collected 85th percentile speed data, which is the speed at which or below 85 percent of vehicles were recorded traveling, at two locations along Colorado Boulevard. The 85th percentile speed in the northern portion of the study area was observed to be 36 MPH in both the northbound and southbound directions. In the southern portion of the study area, the 85th percentile speed was observed to be 38 MPH in the northbound direction and 36 MPH in the southbound direction. These speeds indicate that most drivers are traveling near or slightly above the posted speed limit of 35 MPH along Colorado Boulevard, suggesting relatively moderate speeding behavior.

The Average Daily Traffic (ADT) along Colorado Boulevard is 33,125 vehicles per day (vpd) in the northern portion of the corridor and 25,500 vpd in the southern portion.

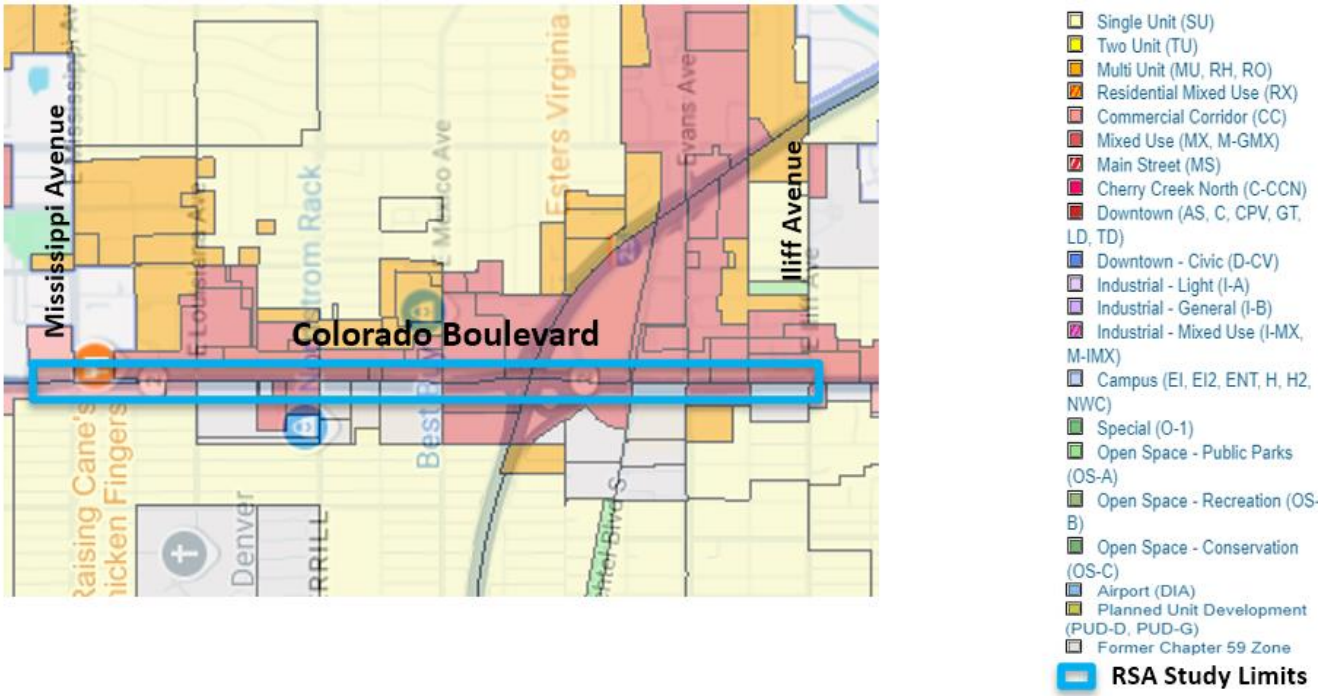
Figure 3. Colorado Boulevard Speed and Volume

3.4.2 Land Uses

The corridor and surrounding area are fairly developed. **Figure 4** and **Figure 5** display the 2020 existing land uses and the proposed land uses from Blueprint Denver, respectively. Blueprint Denver is the City of Denver's adopted land use and transportation plan updated in 2019.

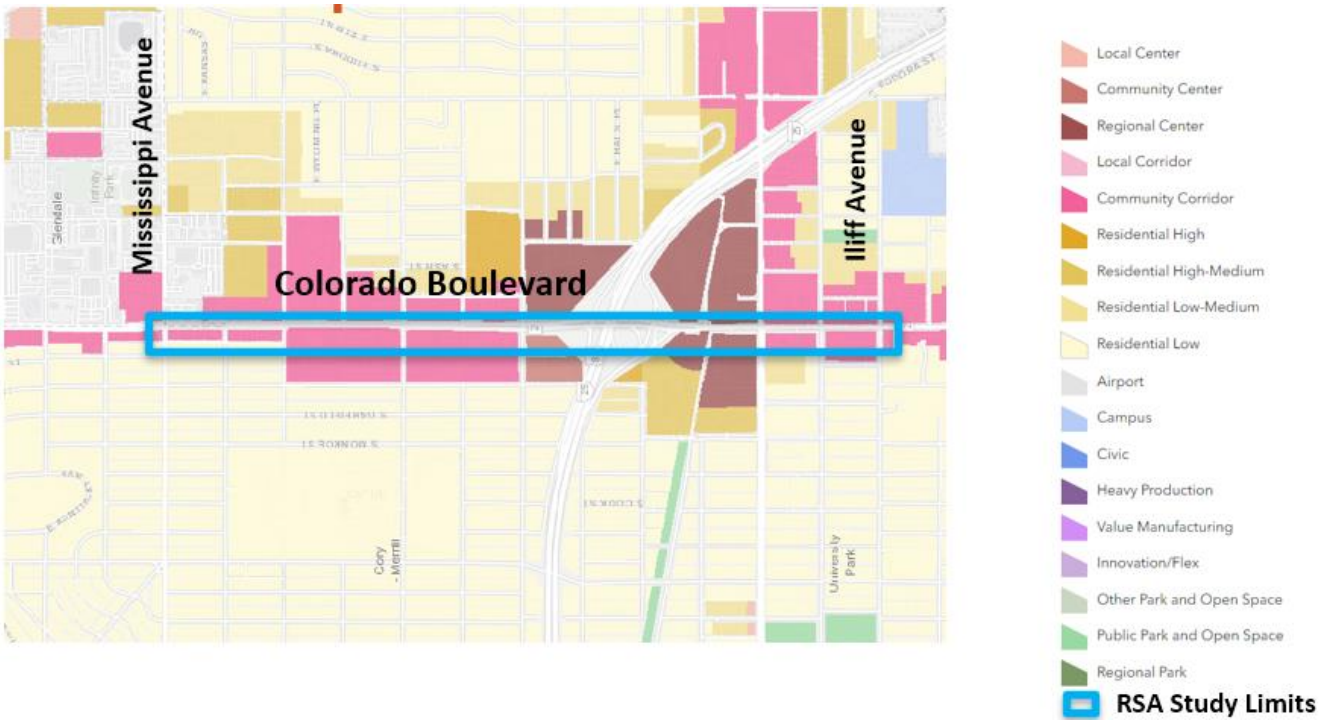
The study area currently consists primarily of commercial land uses. Two schools are located within one-half mile of Colorado Boulevard. A notable addition to the land uses is a new King Soopers grocery store, currently being constructed just east of Colorado Boulevard between Louisiana Avenue and Arkansas Avenue. These existing and planned land uses influence travel patterns in the corridor by generating steady commercial traffic, concentrated pedestrian activity near schools, and additional turning movements associated with the grocery store. Current land uses were considered in preparing the field observations and in developing recommendations. The future land uses along the corridor are not expected to change significantly.

Figure 4. Existing Land Uses on Colorado Boulevard Between Mississippi Avenue and Iliff Avenue



Source: Denver Open Data Catalog: Existing Land Use 2020

Figure 5. Future Land Uses on Colorado Boulevard Between Mississippi Avenue and Iliff Avenue



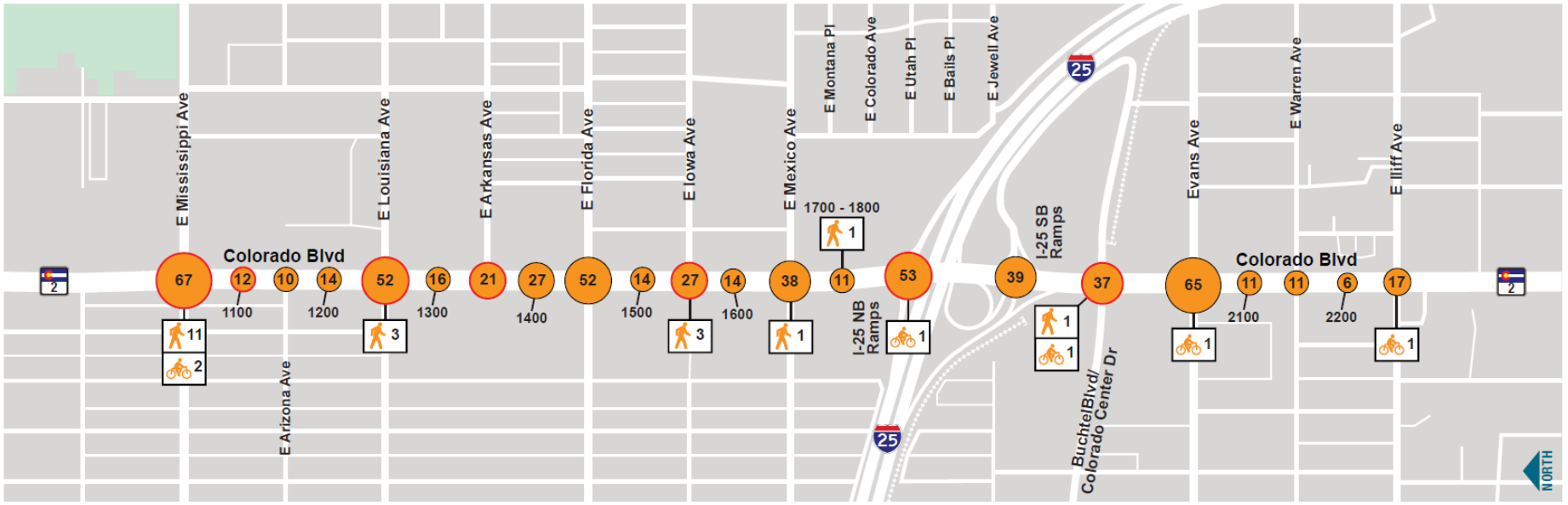
Source: Denver Open Data Catalog: Blueprint Denver Future Places

3.4.3 Corridor Crash Review

Crash data from January 2020 through December 2024 analyzed for Colorado Boulevard indicate 638 crashes during the study period. **Figure 6** and **Table 1** show the total crashes, injury crashes, pedestrian crashes, and bicycle crashes by location. **Figure 7** shows a graph of the Property Damage Only (PDO) and Killed or Seriously Injured (KSI) crashes by intersection and midblock locations. Key crash information includes:

- No fatal crashes were reported.
- 10 serious injury crashes were reported.
- 20 crashes involved pedestrians.
- 6 crashes involved bicycles.
- 40 percent of all crashes were rear end crashes; 20 percent, sideswipe crashes; and 18 percent, broadside crashes.
- 40 percent of KSI crashes were broadside crashes, with 20 percent being rear end crashes.
- 9 AM to 12 PM was the most common time period for KSI crashes.
- The Colorado Boulevard and Mississippi Avenue intersection had the most crashes of all intersections, with a total of 67 crashes, including 1 KSI crash.

Figure 6. Corridor Crash Map



Legend

- Number of Crashes
- Serious Injury Crash
- Pedestrian Crashes
- Bicycle Crashes
- XXXX Block Number

Table 1 Crashes by Location

Location	Total Crashes	Injury Crashes	Pedestrian Crashes	Bicycle Crashes
Colorado Boulevard/Mississippi Avenue	67	1	11	2
1100 Block Colorado Boulevard	12	2	0	0
Colorado Boulevard/Arizona Avenue	10	0	0	0
1200 Block Colorado Boulevard	14	0	0	0
Colorado Boulevard/Louisiana Avenue	52	1	3	0
1300 Block Colorado Boulevard	16	0	0	0
Colorado Boulevard/Arkansas Avenue	21	1	0	0
1400 Block Colorado Boulevard	27	0	0	0
Colorado Boulevard/Florida Avenue	52	0	0	0
1500 Block Colorado Boulevard	14	0	0	0
Colorado Boulevard/Iowa Avenue	27	2	3	0
1600 Block Colorado Boulevard	14	0	0	0
Colorado Boulevard/Mexico Avenue	38	0	1	0
1700-1800 Block Colorado Boulevard	11	0	1	0
Colorado Boulevard/I-25 Northbound Ramps	53	1	0	1
Colorado Boulevard/I-25 Southbound Ramps	39	0	0	0
Colorado Boulevard/Buchtel Boulevard/Colorado Center Drive	37	2	1	1
Colorado Boulevard/Evans Avenue	65	0	0	1
2100 Block Colorado Boulevard	11	0	0	0
Colorado Boulevard/Warren Avenue	11	0	0	0
2200 Block Colorado Boulevard	6	0	0	0
Colorado Boulevard/Iliff Avenue	17	0	0	1

Figure 7. Crashes by Intersection and Midblock

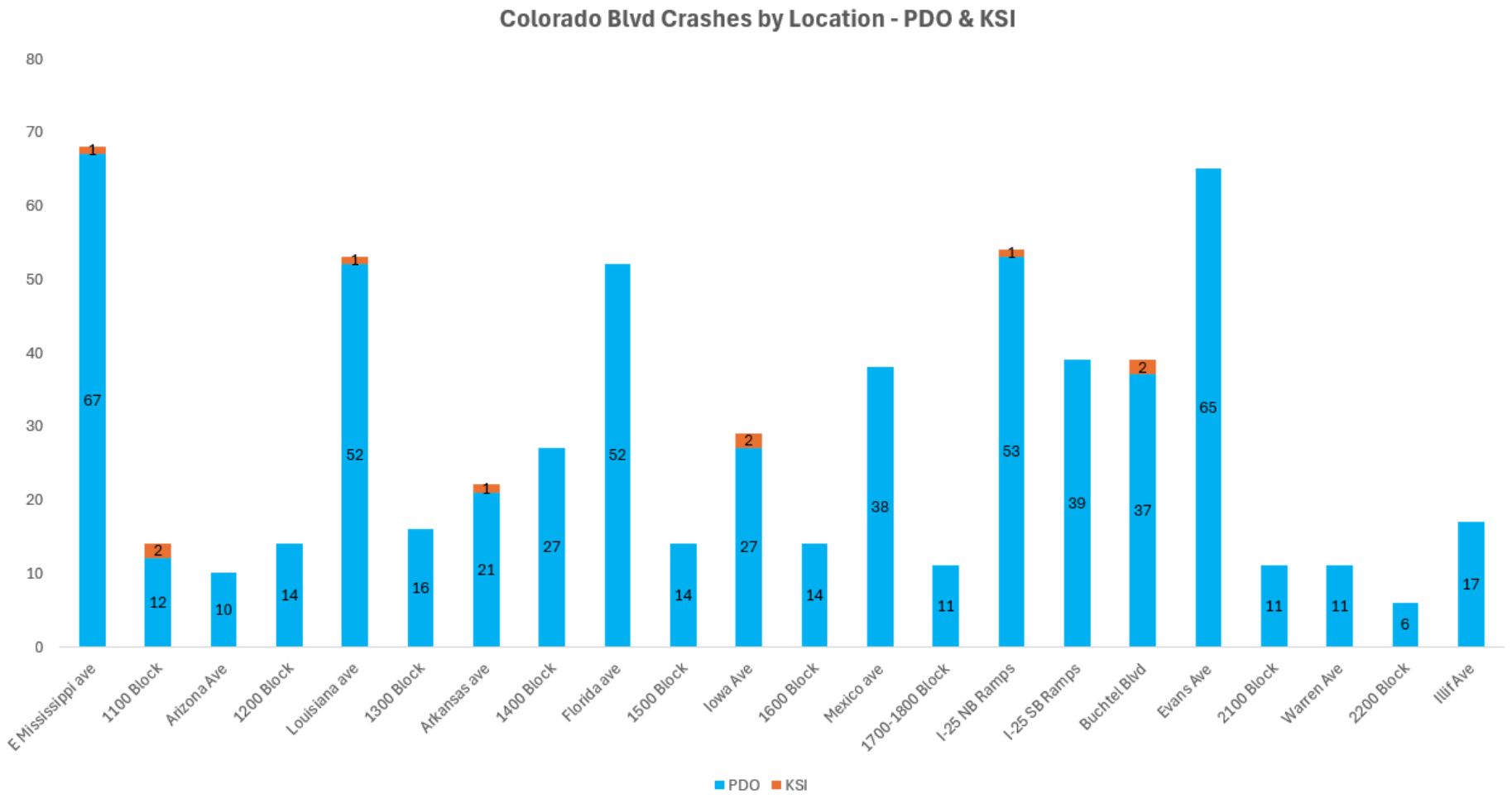
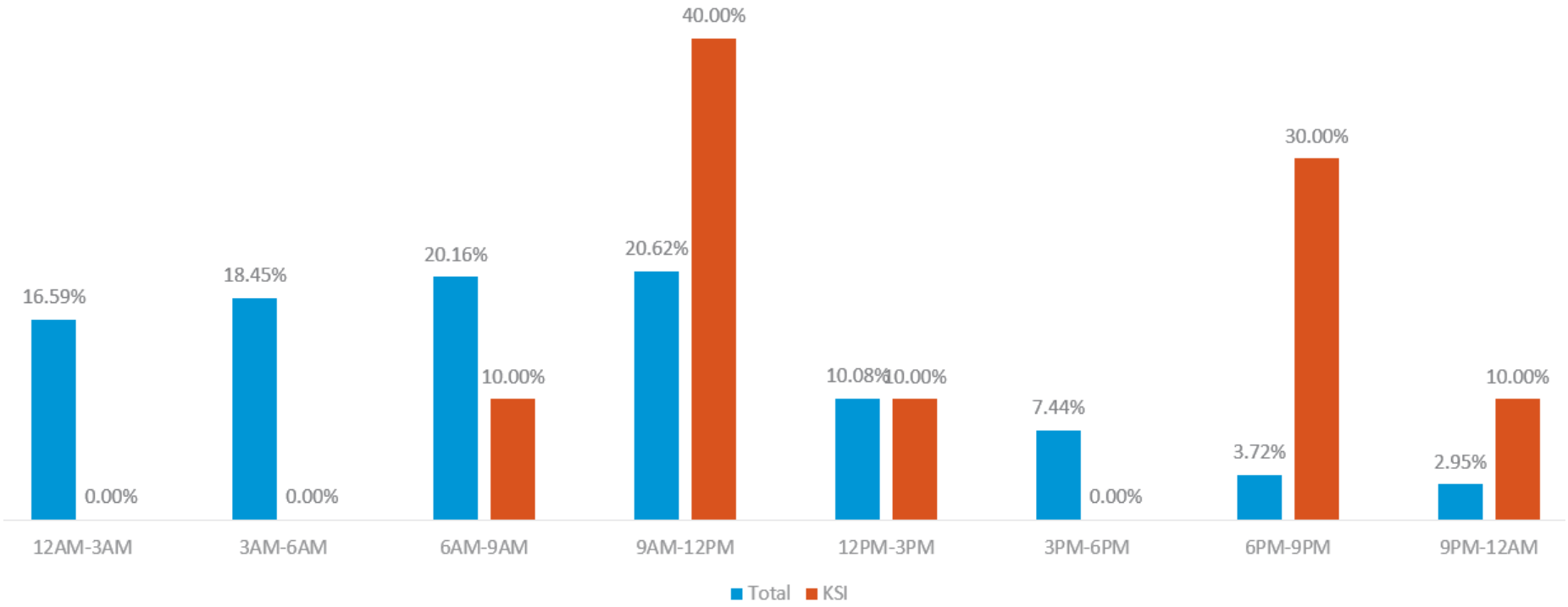


Figure 8 Crashes by Time of Day



3.4.4 Crash Data Summary

- Rear end, sideswipe, and broadside crashes represent the most common crash types during the study period. The most common movement for sideswipe crashes was changing lanes, making up 53 percent of all sideswipe crashes. Broadside crashes and approach turn crashes accounted for a combined 24 percent of all crashes. The most common movement for broadside crashes was going straight, making up 64 percent of all broadside crashes, indicating a possible red light running issue throughout the corridor.
- Broadside crashes made up 40 percent of all KSI crashes, followed by rear end crashes, which made up 20 percent of all KSI crashes.
- Crashes occurred at the highest frequency during the hours of 9 AM–12 PM. Similarly, 9 AM–12 PM had the highest frequency of KSI crashes.
- The Colorado Boulevard and Mississippi Avenue intersection had the highest number of overall crashes, with 67 crashes occurring during the 5-year study period.

3.4.5 City Staff and RSA Stakeholder Comments

City staff and stakeholders provided the following comments during the Pre-Audit meeting:

- CDOT and DOTI are studying Bus Rapid Transit (BRT) on Colorado Boulevard. No design has been selected yet.
- Use of acceleration and deceleration lanes on Colorado Boulevard, particularly by transit vehicles, should be analyzed throughout the corridor.
- An updated bicycle network map is available showing plans for new bicycle networks in the nearby region.
- Mid-day crash frequency was noted as a concern, with discussions around potential contributing factors such as age group involvement.
- Colorado Boulevard & Buchtel Boulevard/Colorado Center Drive will receive improvements under a separate project.
- The Colorado & Evans intersection has improvement plans from a previous Evans Avenue RSA. However, these plans are currently on hold due to right-of-way (ROW) issues.
- A new King Soopers grocery store development is proposed near Arkansas Avenue.

3.4.6 Field Observations

Road Users

During field observations, the RSA team observed the following types of road users along Colorado Boulevard, as shown on **Figure 9**:

- Pedestrians
- Bicyclists
- Passenger Cars
- Trucks
- RTD Buses
- School buses
- Motorcycles
- Scooters
- Emergency vehicles
- Construction vehicles

Figure 9. Observed Road Users

3.4.7 Planned Improvements

Various locations throughout the corridor have planned improvement projects, as summarized in the following subsections.

Colorado Boulevard Bus Rapid Transit

Colorado Boulevard has been identified as a future Bus Rapid Transit (BRT) corridor. It is currently understood that CDOT and DOTI have not identified a preferred design. The Colorado Boulevard Corridor Plan evaluates potential BRT design options along Colorado Boulevard. Four scenarios were evaluated: no build, mixed-traffic running, side running BRT, and center running BRT. This evaluation identified side running BRT and center running BRT as the top two options for future BRT along Colorado Boulevard, citing safety as a factor. This plan did not identify a preferred alternative, as this will be decided through a future BRT analysis.

In addition to the Corridor Plan, CDOT completed a separate assessment titled the *Colorado Boulevard Bus Rapid Transit Existing Conditions Safety Assessment Report* (July 2024). This document provides a detailed analysis of crash history and safety concerns along the corridor, using Safety Performance Functions (SPF) and Level of Service of Safety (LOSS) methodologies to identify statistically significant crash patterns. Many of the crash trends highlighted in the Safety Assessment overlap with those identified through the Road Safety Audit (RSA) completed for this report.

Denver Moves: Bikes

The recently updated Denver Moves: Bikes Plan includes new proposed bike facilities throughout the study area, summarized as follows:

- **Louisiana Avenue**: Identified as a future protected bike lane facility. No current bike facility exists along Louisiana Avenue.
- **Florida Avenue**: Identified as a future protected bike lane facility east of Colorado Boulevard, with future upgrades planned to the existing buffered bike lane west of Colorado Boulevard.
- **Mexico Avenue**: Identified as a future neighborhood bikeway. No current bike facility exists along Mexico Avenue.

- **Buchtel Boulevard/Colorado Center Drive:** Identified as a future protected bike lane facility. There is currently a buffered bike lane along Buchtel Avenue west of Colorado Boulevard.
- **Colorado Boulevard:** DOTI, CDOT, and RTD are actively evaluating the feasibility of multiuse paths that can accommodate bikes in certain areas of Colorado Boulevard as part of the Colorado Boulevard BRT project.

Colorado Boulevard/Buchtel Boulevard Intersection

The Colorado Boulevard/Buchtel Boulevard intersection has planned improvements identified through the Buchtel Complete Streets project. Proposed improvements were considered when developing recommendations for this interaction in **Section 4.10** and include the following:

- Add a curb extension in the northeast corner of the intersection along Colorado Boulevard.
- Reconfigure the westbound bike lane approach design to keep the existing bike lane in the outside lanes, moving the right turn lane inside the bike lane. This design includes a raised barrier approaching the intersection, along with a curb island at the intersection.
- Rebuild the southeast corner to reduce the northbound right turn radius.

Colorado Boulevard/Evans Avenue

This intersection has planned improvements identified through the Evans Avenue RSA project, completed in 2023. Proposed improvements were considered when developing recommendations for this interaction in **Section 4.11**. Major proposed improvements at this intersection are as follows:

- Install near side, side mount signals.
- Extend curbs on northwest, southeast, and southwest corners to narrow the crossing of Evans Avenue; eliminate the westbound right turn drop lane.
- Extend curb and fix drainage of the northeast corner to narrow the crossing of Colorado Boulevard.
- Install raised medians on both the north and the south legs of the intersection.

3.4.8 Colorado Boulevard Corridor-wide Observations and Recommendations

The RSA team developed recommendations for common themes throughout the corridor based on the field visit and walkthrough. These recommendations discuss corridor-wide safety updates rather than individual intersection safety issues. **Section 4** discusses recommendations specific to individual intersections.

Signing and Striping

- **Observations**
  - Inconsistent signing and striping was observed, leading to driver confusion and possible lane violations.
    - Pavement markings are fading and difficult to see at several locations.
    - The location and size of lane assignment signage is inconsistent throughout the corridor.
    - Inconsistency regarding the pavement striping was also observed, mainly with the lane assignment pavement markings (**Figure 10**).
- **Recommendations**
  - Restripe locations with unclear pavement markings.
  - Provide consistent and appropriate signage and pavement markings for auxiliary turn lanes.
  - Provide more lane assignment signage and pavement arrows at intersections.

Figure 10 Signing and Striping Conditions

Sidewalks and Pedestrian Facilities

The RSA team also evaluated pedestrian facilities as part of the field visit. While this effort did not include a comprehensive Americans with Disabilities Act (ADA) compliance audit, the RSA team considered good ADA and pedestrian facility design practices and recommendations. The team recorded the following observations:

- **Observations**
  - **Pedestrian Sidewalks**: Sidewalks are provided on both sides of Colorado Boulevard through most of the study area. Sidewalks are missing along portions of the eastern side of Colorado Boulevard south of Buchtel Boulevard, as shown on **Figure 11**.
  - **ADA Compliance**: In several places, sidewalks are not ADA compliant due to maintenance issues such as lifted tree roots, uneven surfaces, and lack of sidewalks.
  - **Pedestrian Clearance Intervals**: Some locations have "Flash Don't Walk" phases that are too short for the crossing distances. **Appendix E** presents recommendations for pedestrian crossing intervals.
  - **Pedestrian Signals**: Most signalized intersections have pedestrian signals with countdown timers; however, some have broken displays or are not functioning properly.
  - **Pedestrian Push Button Locations**: Most intersections have functioning pedestrian push buttons in close proximity to the crossings. A few locations have pedestrian push buttons that are too far from the pavement, are inaccessible to reach, or are on the wrong side of the sidewalk per Manual on Uniform Traffic Control Devices (MUTCD) requirements.
  - **Pedestrian Ramps**: Most pedestrian ramps were observed to be in good condition, with minimal damage and draining issues despite the rainy conditions during field visits. The condition of the pedestrian ramps worsens south of the I-25 ramps, with many not being ADA compliant and several lacking truncated domes and direction ramps.

Figure 11. Pedestrian Facility Conditions

- **Recommendations**
  - Extend median nose further into the intersections along Colorado Boulevard to force slower left turns from cross streets.
  - Conduct general maintenance on curb ramps to remove debris.
  - Conduct general maintenance on sidewalks along Colorado Boulevard.
  - Provide extended pedestrian push buttons at all signalized intersections.
  - Install sidewalk to fill existing gaps on the east side of Colorado Boulevard.
  - Reconstruct non-ADA compliant ramps.
  - Install raised medians on the north and south legs of all intersections.

Lighting

- **Observations**
  - Signal pole mounted luminaires are oriented over the mast arms at all intersections. This results in shadows over the pedestrian curb ramps and a significant portion of the crosswalk resulting in low visibility.
  - Additional lighting observations and existing lighting layouts can be found in **Appendix F**.
- **Recommendations**
  - The "silhouetting effect" results in reduced visibility, particularly in nighttime conditions, making it harder for drivers to perceive pedestrians as distinct objects. Update DOTI standards to allow luminaries to be oriented into the intersection so that there is no mast arm shadow on curb ramps and crosswalks and so that pedestrians are illuminated from the side thereby improving pedestrian visibility by eliminating the silhouetting effect.

Traffic and Transit Operations

- **Observations**
  - Southbound traffic was higher in most observed periods. As shown in **Figure 12**, southbound traffic would often extend past the intersection, causing higher delays and posing safety concerns.
  - Lane utilization imbalances, especially in the southbound direction, create long queues, potentially contributing to the rear end crash frequency throughout the corridor. This lane utilization imbalance is due to the location of the northbound and southbound I-25 entrance ramps.
  - Several right turn lanes along Colorado Boulevard are underutilized, leading to longer pedestrian distances, bus merging issues, and further lane imbalances.
  - Lane utilization issues were also observed for dual left-turn lanes throughout the corridor.
  - Side street right turn lanes are often underused.
  - Northbound U-turns are restricted at most intersections but are observed frequently.

Figure 12. Traffic and Transit Operations

- **Recommendations**
  - Update pedestrian crossing times to better reflect the geometry of crosswalks.
  - Evaluate opportunities to remove or repurpose underused right turn lanes along Colorado Boulevard.
  - Update left-turn phasing to better reflect traffic conditions.
  - Incorporate median noses and pedestrian refuge islands throughout the corridor where possible, to improve pedestrian safety, reduce conflict with turning vehicles, and improve compliance with U-turn restrictions.

Left Turn Phasing

During the field visit, the team observed and recorded left-turn phasing. Locations with permissive left-turn phasing were evaluated to determine if a protected left turn phase should be added, considering Denver's Left-Turn Warrant Flow Chart, as shown on **Figure 13**.

Corridor-wide recommendations were developed to improve left-turn operations, including a general recommendation to replace the existing five-section signal heads with Flashing Yellow Arrows (FYA) at locations where permitted left turns are allowed. **Table 2** indicates the **recommended left turn phasing** on the corridor. **Appendix E** presents the signal timing operation recommendations.

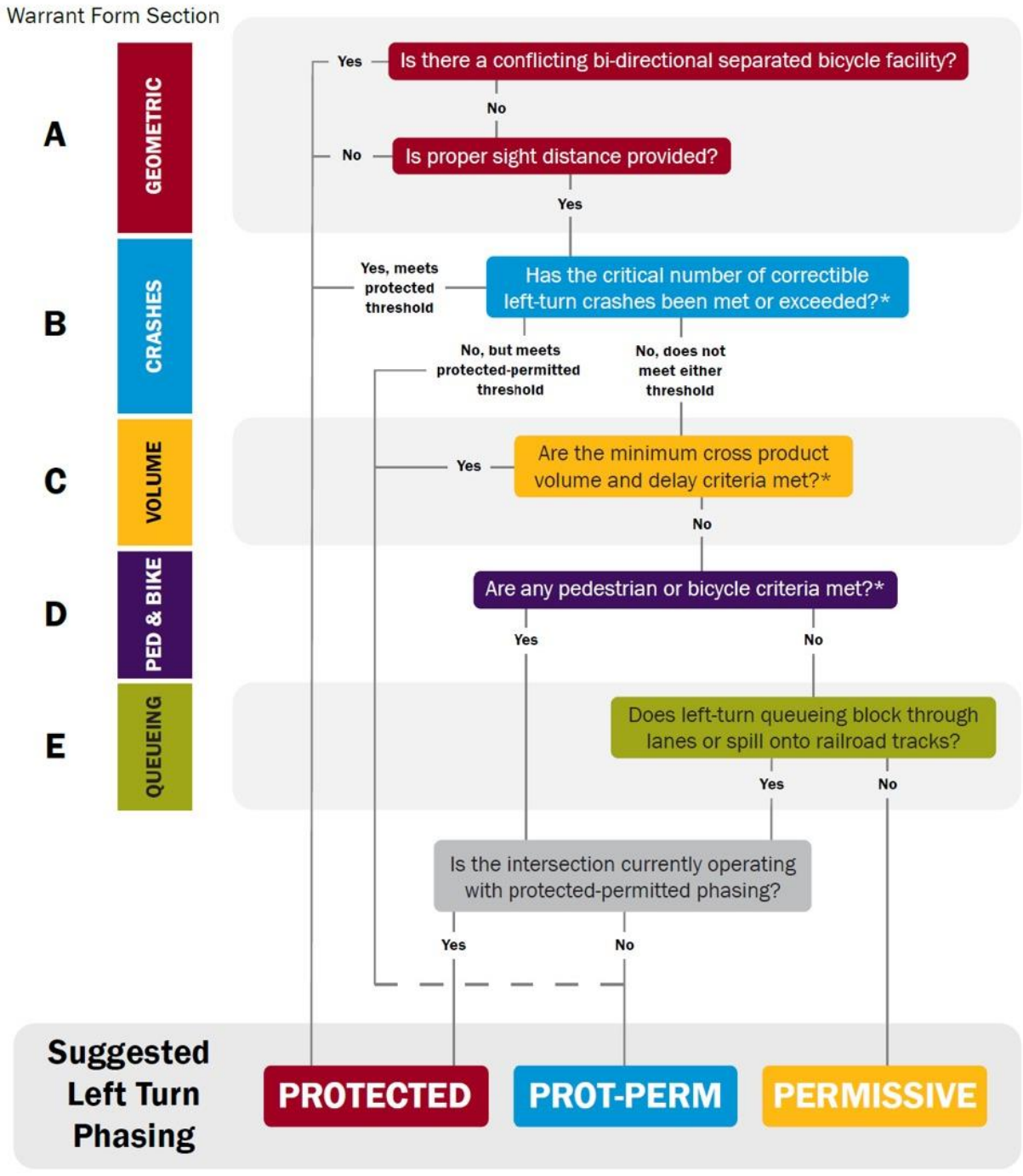
Table 2. Recommended Left-Turn Phasing

Street	Northbound	Southbound	Eastbound	Westbound
Mississippi Avenue	Prot/Perm	Prot/Perm	Prot/Perm	Prot/Perm **Prot ONLY**
Louisiana Avenue	~~Perm~~ ***Prot by TOD (PM)**	Prot/Perm	Perm	Perm
Arkansas Avenue	Prot	Prot	Perm	Perm
Florida Avenue	Prot	Prot	Prot/Perm ***Prot by TOD (School)**	Prot/Perm ***Prot by TOD (School)**
Iowa Avenue	Prot	Prot	Perm	Perm
Mexico Avenue	Prot	Prot	Prot/Perm	~~Prot/Perm~~ **Prot ONLY**
I-25 NB Ramps	Prot	N/A	N/A	Prot
I-25 SB Ramps	N/A	N/A	Prot	Prot
Buchtel Boulevard (Existing Conditions)	Prot	Prot	Prot	Prot
Buchtel Boulevard (Proposed Configuration)	**Prot/Perm**	**Prot/Perm**	**Prot/Perm**	**Prot/Perm**
Evans Avenue	Prot	Prot	Prot/Perm	Prot/Perm
Iliff Avenue	~~Perm~~ ***Prot/Perm by TOD (PM)**	~~Perm~~ ***Prot/Perm by TOD (PM)**	Perm	Perm

*Protected by time of day only

Figure 13. City of Denver Left-Turn Warrant Flow Chart

This flow chart is intended to be used in conjunction with the DOTI Left Turn Warrant Procedure document.



*See warrant form for specific details.

Note: These guidelines should be used by the City Traffic Engineer or those acting on the behalf of the City Traffic Engineer to assess a location on a peak period only, full-time, or other time of day condition on a case by case basis.

4. Intersection Summaries

This section summarizes intersections within the study area. Each summary includes background information, geometry, accesses, pedestrian facilities, crash data, City staff and stakeholder comments, field observations, recommendations, and concepts. It should be noted that crash data was analyzed for several midblock sections. Many recommendations associated with midblock sections are addressed in the corridor-wide recommendations. This section focuses primarily on signalized and unsignalized intersections. **Appendix A** presents all recommendations by intersection and includes planning level cost estimates as part of the recommendations.

4.1 Colorado Boulevard and Mississippi Avenue

4.1.1 Background Information

The Colorado Boulevard and Mississippi Avenue intersection is a four-leg signalized intersection as shown on **Figure 14**. Commercial units primarily surround the intersection, with residential units west of the intersection. There are far-side transit stops in the northbound and southbound directions of the intersection and in the westbound direction along Mississippi Avenue. There is one near-side bus stop in the eastbound direction.

The south leg of Colorado Boulevard has one left turn lane, three through lanes, and one right turn lane. The north leg of Colorado Boulevard has one left turn lane, two through lanes, and one shared through/right turn lane. The east leg of Mississippi Avenue has dual left turn lanes, one through lane, and one right turn lane, while the west leg has one left turn lane and one shared through/right turn lane. The speed limit on Colorado Boulevard through this intersection is 35 MPH in both directions. The speed limit on Mississippi Avenue is 30 MPH in the westbound direction and 25 MPH in the eastbound direction.

Figure 14. Colorado Boulevard and Mississippi Avenue Intersection

4.1.2 Crash Review

Between January 2020 and December 2024, there were 67 crashes at the intersection of Colorado Boulevard and Mississippi Avenue, as summarized in **Table 3**.

- One KSI crash at this location involved a northbound left turning driver striking a southbound traveling bicyclist.
- 11 pedestrian crashes account for 16 percent of all crashes. The following summaries provide an overview of the available crash narratives; however, one pedestrian crash narrative was not available for review.
  - 6 pedestrian crashes involved a westbound left turning vehicle.
    - A pedestrian crash occurred when a westbound left turning driver failed to yield right-of-way and struck a pedestrian crossing westbound.
    - A pedestrian hit-and-run crash occurred after a westbound left turning driver struck a pedestrian crossing westbound in the south crosswalk.
    - A pedestrian crash occurred when a westbound left turning driver struck a pedestrian crossing westbound.
    - A pedestrian hit-and-run crash occurred when a westbound left turning vehicle struck a pedestrian.
    - A pedestrian crash occurred when a westbound left turning vehicle failed to yield right-of-way and struck a pedestrian.
    - A pedestrian crash occurred when a westbound left turning vehicle struck a pedestrian due to careless driving.
  - 3 pedestrian crashes involved a southbound left turning vehicle.
    - A pedestrian crash occurred when a southbound left turning vehicle failed to yield right-of-way and struck a pedestrian due to careless driving.
    - A pedestrian crash occurred when a southbound left turning vehicle struck a pedestrian crossing westbound in the southern crosswalk due to careless driving.
    - A pedestrian crash occurred when a southbound left turning vehicle struck a pedestrian.
  - A pedestrian crash occurred when a northbound left turning vehicle struck a pedestrian in the southern crosswalk who crossed against the signal.
- 21 rear end crashes account for 31 percent of all crashes.
- 15 broadside crashes account for 22 percent of all crashes.
- 8 approach turn crashes account for 12 percent of all crashes.

Table 3. Colorado Boulevard and Mississippi Avenue Crash Summary

Category	Type of Event	Severity*			Direction**			
		All	KSI	Fatal	EB	WB	NB	SB
Most Harmful Event	Rear End	31%	0%	0%	19%	10%	14%	48%
	Broadside	22%	0%	0%	13%	20%	27%	40%
	Pedestrian	16%	0%	0%	0%	73%	0%	9%
	Approach Turn	12%	0%	0%	0%	0%	56%	44%
	Bicycle	3%	100%	0%	0%	0%	0%	100%
Driver Action	Followed too Closely	19%	0%	0%	15%	15%	15%	54%
	Failed to Yield ROW	16%	0%	0%	0%	45%	36%	18%
	Failed to Stop at Signal	9%	0%	0%	17%	0%	33%	50%
	Speeding	6%	0%	0%	50%	0%	0%	50%
Movement	Going Straight	33%	100%	0%	9%	9%	18%	59%
	Making Left Turn	27%	0%	0%	0%	56%	28%	17%
	Slowing	20%	0%	0%	29%	29%	0%	43%
	Changing Lanes	6%	0%	0%	0%	0%	75%	25%
Total Crashes		**67**	**1**	**0**	**9%**	**24%**	**24%**	**32%**

*Percentages are for the Severity column total. Because only the top Crash Types, Driver Actions, and Movements are shown, percentages may not add up to 100%.

**Percentages are for the Crash Type/Driver Action/Left-Turn Movement row total. Due to crash data limitations, columns may occasionally not add up to 100%.

4.1.3 City Staff and RSA Stakeholder Pre-Audit Comments

City staff expressed concerns over the east-west pedestrian crossings and left turn conflicts throughout the corridor. Given the high pedestrian related crashes at this intersection, extra considerations to east-west pedestrian crossings were given to this intersection.

4.1.4 Observations

The RSA team observed conditions at Colorado Boulevard and Mississippi Avenue on May 6, 2025, and May 7, 2025, during morning, afternoon, evening, and nighttime periods. The observations are as follows:

- **Road Design**
  - Westbound left turn design leads to sight distance challenges for the opposing through volumes and the southern pedestrian crosswalk. The negative left turn offset results in unsafe driving conditions.
  - Drivers in the outside lane often cut inside across the guidance markings for the westbound left turn movement due to off-tracking.
  - The westbound left turn offset causes drivers to make this movement with uncertainty.
- **Pedestrian Facilities**
  - The crosswalks on the west and south sides of the intersections are significantly skewed possibly due to the conversion from diagonal to directional curb ramps.
  - The permitted phase for the westbound left turn movement poses risks for crossing in the southern crosswalk. Westbound left turn angles cause visibility issues with pedestrians in the crosswalk.

- **Multimodal and Traffic Operations**
  - Minimal vehicles are getting through during the permitted phase for the dual westbound left turns due to the offset and challenging sight distances.
  - Northbound right turn lane is underutilized.
  - Westbound right turn lane is very underutilized with low westbound right turn volumes.
  - Northbound U-turns are frequently observed at this intersection.
  - Queues from buses stopping at far side stops back into the intersection in the northbound and westbound directions.
- **Signing and Striping**
  - Signage is provided for all auxiliary turn lanes this intersection.
  - Lane markings for auxiliary turn lanes are missing, aside from the westbound approach.

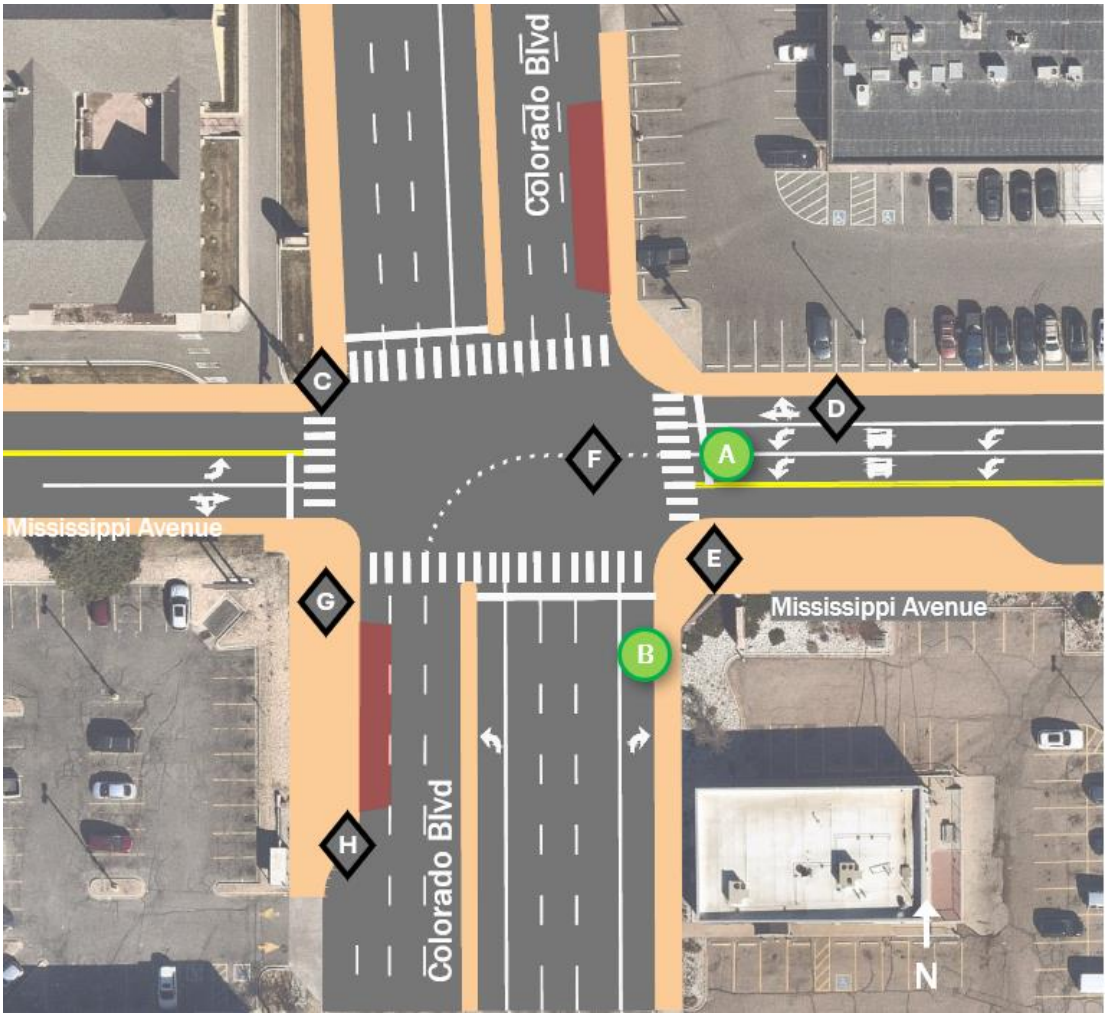
4.1.5 Recommendations

Table 4 lists recommendations for the Colorado Boulevard and Mississippi Avenue intersection, and **Figure 15** shows the locations of the recommendations.

Table 4. Colorado Boulevard and Mississippi Avenue Recommendations

Map Letter	Time Frame	Recommendation
A	Short Term	Operate the dual westbound left turn as protected only or a single left as permissive.
B	Short Term	Provide bus queue jump in northbound right lane.
C	Medium Term	Remove northbound right turn lane and provide and shorten pedestrian crossing distance by moving the east curb to the edge of northbound travel lane.
D	Long Term	Rebuild curb ramps in the northwest corner to remove the skewed crosswalk and tighten turn radius. Consider closing curb cut in this corner on Mississippi.
E	Long Term	Consolidate westbound through and right turn lanes, and shift all west leg lanes to the north by approximately 10 ft to align the eastbound through approach and receiving lanes.
F	Long Term	Add curb extension at southeast corner. Coordinate with RTD to move near side bus stop.
G	Long Term	Restripe guidance marking for westbound left turn lane once the west leg is reconfigured.
H	Long Term	Add curb extension in the southwest corner and combine this extension with the far side bus stop.
I	Long Term	Consider removing 4th outside southbound lane from Mississippi Avenue to Arizona Avenue.

Figure 15. Recommendations Map for the Colorado Boulevard and Mississippi Avenue Intersection



4.2 Colorado Boulevard and Arizona Avenue

4.2.1 Background Information

The Colorado Boulevard and Arizona Avenue intersection is a three-leg unsignalized intersection, as shown on **Figure 16**. The side street of Arizona Avenue is on the west side of Colorado Boulevard with only right-in/right-out southbound movements permitted. Commercial developments primarily surround the intersection on Colorado Boulevard, with residential units further west along Arizona Avenue.

The south leg of Colorado Boulevard at this intersection has three (southbound) through lanes, while the north leg has three through lanes, and one right turn lane onto Arizona Avenue. The west leg has one right turn only lane. The northeast corner does not provide for a directional ramp resulting in a skewed pedestrian crossing with no crosswalk markings. The speed limit on Colorado Boulevard through this intersection is 35 MPH in both directions.

Figure 16. Colorado Boulevard and Arizona Avenue Intersection

4.2.2 Crash Review

Between January 2020 and December 2024, there were 10 crashes at the intersection of Colorado Boulevard and Arizona Avenue, as summarized in **Table 5**.

- There were no KSI crashes at this location.
- 4 rear end crashes account for 40 percent of all crashes.
- 3 broadside crashes account for 30 percent of all crashes.
- 2 sideswipe crashes account for 20 percent of all crashes.

Table 5. Colorado Boulevard and Arizona Avenue Crash Summary

Category	Type of Event	Severity*			Direction**			
		All	KSI	Fatal	EB	WB	NB	SB
Most Harmful Event	Rear End	40%	0%	0%	0%	0%	25%	0%
	Broadside	30%	0%	0%	100%	0%	0%	0%
	Sideswipe	20%	0%	0%	0%	0%	0%	100%
	Approach Turn	10%	0%	0%	0%	0%	100%	0%
Driver Action	Failed to Yield ROW	40%	0%	0%	75%	0%	25%	0%
	Lane Violation	20%	0%	0%	0%	0%	0%	100%
	Careless Driving	10%	0%	0%	0%	0%	100%	0%
Movement	Making Left Turn	30%	0%	0%	67%	0%	33%	0%
	Changing Lanes	20%	0%	0%	0%	0%	0%	100%
	Making Right Turn	10%	0%	0%	100%	0%	0%	0%
	Going Straight	10%	0%	0%	0%	0%	100%	0%
Total Crashes		**10**	**0**	**0**	**27%**	**0%**	**18%**	**18%**

*Percentages are for the Severity column total. Because only the top Crash Types, Driver Actions, and Movements are shown, percentages may not add up to 100%.

**Percentages are for the Crash Type/Driver Action/Left-Turn Movement row total. Due to crash data limitations, columns may occasionally not add up to 100%.

4.2.3 City Staff and RSA Stakeholder Pre-Audit Comments

City staff and stakeholders provided no comments for this intersection at the Pre-Audit meeting.

4.2.4 Observations

The RSA team observed the following conditions at Colorado Boulevard and Arizona Avenue on May 6, 2025, and May 7, 2025, during morning, afternoon, evening, and nighttime periods. The observations are as follows:

- **Road Design**
  - Southbound right turn lane is very wide; vehicles were observed taking this movement with high speeds.
  - The intersection has a combination of directional (southwest corner) and diagonal (northwest corner) ramps.
- **Pedestrian Facilities**
  - Jaywalking was observed at this location crossing Colorado Boulevard. The nearest controlled crossing location is located 650 feet away.
- **Multimodal and Traffic Operations**
  - Southbound right turn lane is underutilized.
- **Signing and Striping**
  - No painted pedestrian crosswalk is present on Arizona Avenue.

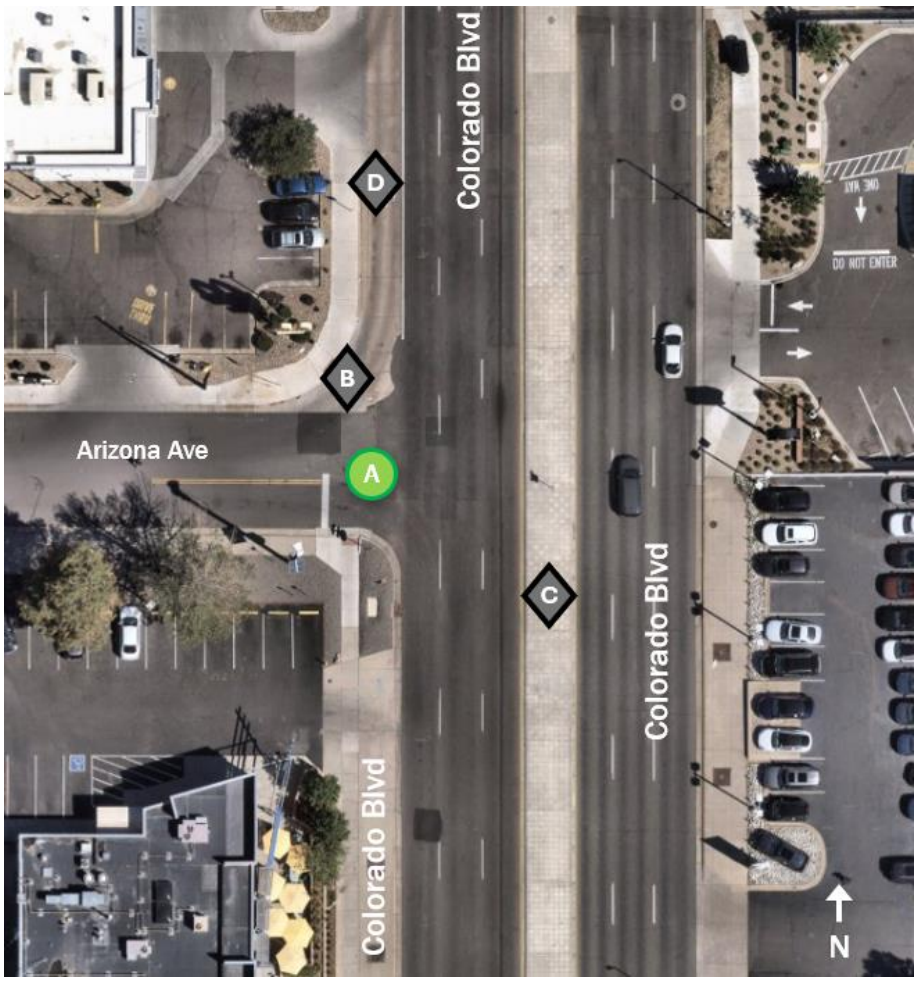
4.2.5 Recommendations

Table 6 lists recommendations for the Colorado Boulevard and Arizona Avenue intersection, and **Figure 17** shows the locations of the recommendations.

Table 6. Colorado Boulevard and Arizona Avenue Recommendations

Map Letter	Time Frame	Recommendation
A	Short Term	Move eastbound stop bar and provide pedestrian crosswalk markings on Arizona Avenue.
B	Long Term	Add curb extension on Arizona Avenue and rebuild the northwest corner curb ramp to provide for ADA compliant pedestrian crossing.
C	Long Term	Consider adding a median opening and a pedestrian signal to cross Colorado Boulevard.
D	Long Term	Consider removing 4th outside southbound lane from Mississippi Avenue to Arizona Avenue.

Figure 17. Recommendations Map for the Colorado Boulevard and Arizona Avenue Intersection



4.3 Colorado Boulevard and Louisiana Avenue

4.3.1 Background Information

The Colorado Boulevard and Louisiana Avenue intersection is a four-leg signalized intersection as shown on **Figure 18**. Primarily commercial developments surround the intersection. There are far-side transit stops in the northbound and southbound directions of the intersection, with the northbound transit stop approximately 185 ft from the northeast corner.

Both the north and south legs of Colorado Boulevard have one left turn lane, three through lanes, and one right turn lane. The east leg of Louisiana Avenue has one left turn lane, one through lane, and one right turn lane, while the west leg has one left turn lane and one shared through/right turn lane. The speed limit on Colorado Boulevard through this intersection is 35 MPH in both directions. The speed limit on Louisiana Avenue is 25 MPH in the eastbound direction and 30 MPH in the westbound direction.

Figure 18. Colorado Boulevard and Louisiana Avenue Intersection

4.3.2 Crash Review

Between January 2020 and December 2024, there were 52 crashes at the intersection of Colorado Boulevard and Louisiana Avenue, as summarized in **Table 7**.

- A broadside crash resulted in a serious injury when a westbound left-turning vehicle struck a northbound through vehicle.
- Two pedestrian crashes occurred when eastbound right turning drivers failed to yield right-of-way and struck a pedestrian.
- A pedestrian crash occurred when a westbound left turning driver struck a pedestrian due to careless driving.
- 24 rear end crashes account for 46 percent of all crashes.
- 10 approach turn crashes account for 19 percent of all crashes.
- 7 broadside crashes account for 13 percent of all crashes.

Table 7. Colorado Boulevard and Louisiana Avenue Crash Summary

Category	Type of Event	Severity*			Direction**			
		All	KSI	Fatal	EB	WB	NB	SB
Most Harmful Event	Rear End	46%	0%	0%	8%	4%	50%	29%
	Approach Turn	19%	0%	0%	0%	20%	20%	60%
	Broadside	13%	100%	0%	57%	29%	0%	14%
	Sideswipe	10%	0%	0%	0%	20%	40%	40%
Driver Action	Followed too Closely	31%	0%	0%	6%	6%	56%	31%
	Failed to Yield ROW	27%	0%	0%	36%	14%	7%	43%
	Careless Driving	13%	0%	0%	14%	14%	29%	43%
	Failed to Stop at Signal	8%	0%	0%	25%	25%	25%	25%
Movement	Going Straight	35%	0%	0%	6%	11%	33%	50%
	Making Left Turn	27%	100%	0%	29%	36%	7%	29%
	Making Right Turn	12%	0%	0%	50%	0%	17%	33%
	Slowing	10%	0%	0%	0%	0%	100%	0%
Total Crashes		**52**	**1**	**0**	**15%**	**13%**	**30%**	**32%**

*Percentages are for the Severity column total. Because only the top Crash Types, Driver Actions, and Movements are shown, percentages may not add up to 100%.

**Percentages are for the Crash Type/Driver Action/Left-Turn Movement row total. Due to crash data limitations, columns may occasionally not add up to 100%.

4.3.3 City Staff and RSA Stakeholder Pre-Audit Comments

City Staff advised that a King Soopers grocery store will be constructed east of this intersection between Louisiana Avenue and Arkansas Avenue. Future traffic volumes from this development should be considered when developing recommendations.

4.3.4 Observations

The RSA team observed the following conditions at Colorado Boulevard and Louisiana Avenue on May 6, 2025, and May 7, 2025, during morning, afternoon, evening, and nighttime periods:

- **Road Design**
  - Side street receiving lanes along Louisiana Avenue are very wide.
  - Driveway access points along Louisiana Avenue are located close to the intersection; vehicles were observed making prohibited movements moving in/out of these access points.
  - Southbound right turn design is very wide; vehicles were observed taking this movement at high speeds.
- **Pedestrian Facilities**
  - Median noses along Colorado Boulevard extend into pedestrian crosswalks.
- **Multimodal and Traffic Operations**
  - Southbound right turn lane is underutilized.
- **Signing and Striping**
  - Pavement markings for all auxiliary turn lanes are missing.

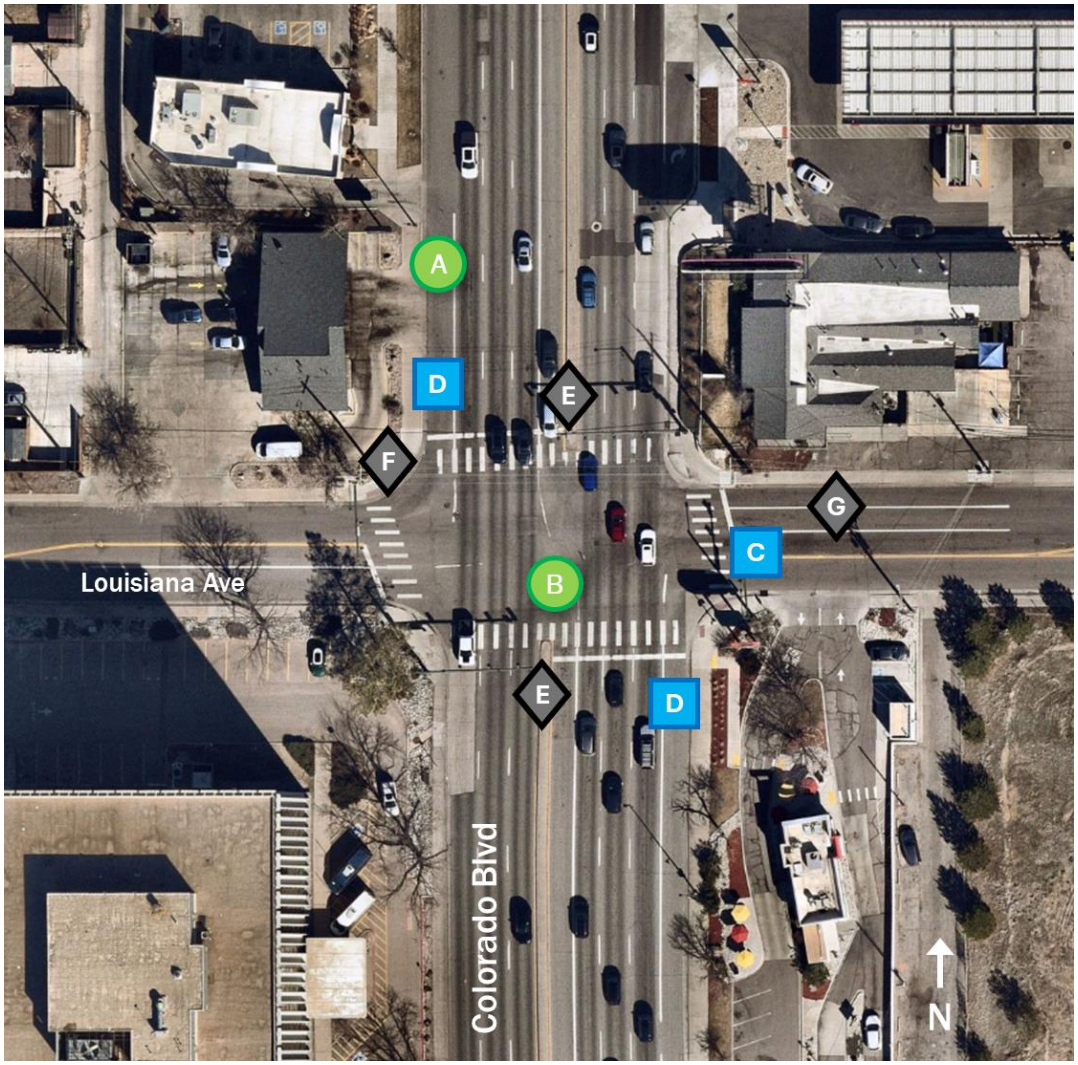
4.3.5 Recommendations

Table 8 presents the list of recommendations for the Colorado Boulevard and Louisiana Avenue intersection, and **Figure 19** shows the locations of the recommendations.

Table 8 Colorado Boulevard and Louisiana Avenue Recommendations

Map Letter	Time Frame	Recommendation
A	Short Term	Add lane assignment/striping for auxiliary turn lanes.
B	Short-Term	Consider conducting a warrant study to operate the northbound left turn as protected during the PM peak hour.
C	Medium Term	Install hardened centerline along Louisiana Avenue to control driveway access.
D	Medium Term	Provide bus queue jumps in the northbound and southbound right turn lanes.
E	Long Term	Reconstruct median ends to avoid encroachment into pedestrian crosswalks.
F	Long Term	Consider removing the southbound right turn lane. Also, provide a curb extension in the northwest corner to reduce pedestrian crossing distance on the north leg, and reconstruct curb ramps. Coordinate with future BRT and bike lane projects.
G	Long Term	Consider consolidating westbound through/right turn lanes in accordance with projected volumes with the new King Soopers.

Figure 19. Recommendations Map for the Colorado Boulevard and Louisiana Avenue Intersection



4.4 Colorado Boulevard and Arkansas Avenue

4.4.1 Background Information

The Colorado Boulevard and Arkansas Avenue intersection is a four-leg signalized intersection, as shown on **Figure 20**. There are primarily commercial developments in the surrounding intersection area. The western leg of this intersection provides direct access to a commercial development parking lot.

Both north and south legs of Colorado Boulevard have one left turn lane, two through lanes, and one shared through/right turn lane. The east leg has one left turn lane and one shared through/right turn lane, while the west leg has one lane for left, through, and right movements. The west leg is more than 45 ft wide at the curb-return and results in vehicle movement path ambiguity. The speed limit on Colorado Boulevard through this intersection is 35 MPH in both directions. The speed limit on Arkansas Avenue is 20 MPH in both directions.

Figure 20. Colorado Boulevard and Arkansas Avenue Intersection

4.4.2 Crash Review

Between January 2020 and December 2024, there were 21 crashes at the intersection of Colorado Boulevard and Arkansas Avenue, as summarized in **Table 9**.

- One KSI crash at this location involved a rear end southbound right turning driver failing to yield right-of-way and colliding with a southbound through motorcyclist.
- 13 rear end crashes account for 62 percent of all crashes.
- 6 sideswipe crashes account for 29 percent of all crashes.
- 2 broadside crashes account for 10 percent of all crashes.

Table 9. Colorado Boulevard and Arkansas Avenue Crash Summary

Category	Type of Event	Severity*			Direction**			
		All	KSI	Fatal	EB	WB	NB	SB
Most Harmful Event	Rear End	62%	100%	0%	0%	8%	46%	46%
	Sideswipe	29%	0%	0%	0%	0%	50%	50%
	Broadside	10%	0%	0%	0%	0%	0%	100%
Driver Action	Followed too Closely	43%	0%	0%	0%	11%	44%	44%
	Lane Violation	24%	0%	0%	0%	0%	60%	40%
	Careless Driving	10%	0%	0%	0%	0%	100%	0%
	Failed to Yield ROW	5%	100%	0%	0%	0%	0%	100%
Movement	Going Straight	48%	0%	0%	0%	10%	40%	50%
	Changing Lanes	29%	0%	0%	0%	0%	50%	50%
	Slowing	19%	0%	0%	0%	0%	50%	50%
	Making Right Turn	5%	100%	0%	0%	0%	0%	100%
Total Crashes		**21**	**1**	**0**	**0%**	**5%**	**41%**	**50%**

*Percentages are for the Severity column total. Because only the top Crash Types, Driver Actions, and Movements are shown, percentages may not add up to 100%.

**Percentages are for the Crash Type/Driver Action/Left-Turn Movement row total. Due to crash data limitations, columns may occasionally not add up to 100%.

4.4.3 City Staff and RSA Stakeholder Pre-Audit Comments

City staff advised that a King Soopers grocery store will be constructed east of this intersection between Louisiana Avenue and Arkansas Avenue. Future traffic volumes from this development should be considered when developing recommendations.

4.4.4 Observations

The RSA team observed the following conditions at Colorado Boulevard and Arkansas Avenue on May 6, 2025, and May 7, 2025, during morning, afternoon, evening, and nighttime periods.

- **Road Design**
  - The stop bar in the eastbound approach is located too close to the intersection.
  - There are currently two signal heads for the westbound approach; however, there is no clear lane assignment striping or signage.
  - Eastbound receiving lane is very wide, creating sight distance issues for pedestrians in the southeast corner.
- **Pedestrian Facilities**
  - No painted crosswalk is provided for the western leg.

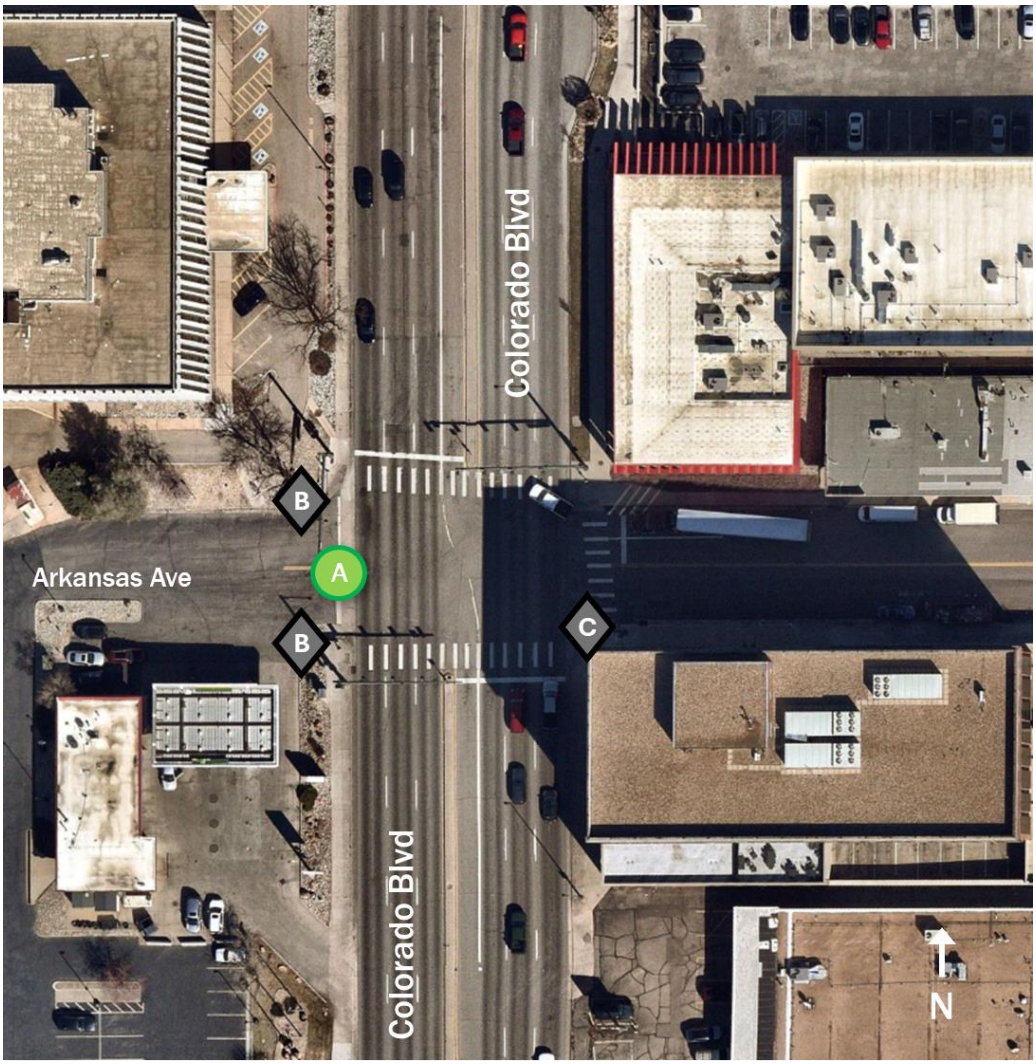
4.4.5 Recommendations

Table 10 lists recommendations for the Colorado Boulevard and Arkansas Avenue intersection, and **Figure 21** shows the locations of the recommendations.

Table 10 Colorado Boulevard and Arkansas Avenue Recommendations

Map Letter	Time Frame	Recommendation
A	Short Term	Relocate the stop bar in the western leg further west from the intersection and provide a painted crosswalk.
B	Long Term	Reduce the driveway width on the west leg to reduce pedestrian crossing distance and turning speeds. As an interim project, consider using flexible posts to narrow lanes. Consider truck turning movements to/from the gas station.
C	Long Term	Install a bulb out in the southeast corner to slow turning vehicles and shorten pedestrian crossing distance.

Figure 21. Recommendations Map for the Colorado Boulevard and Arkansas Avenue Intersection



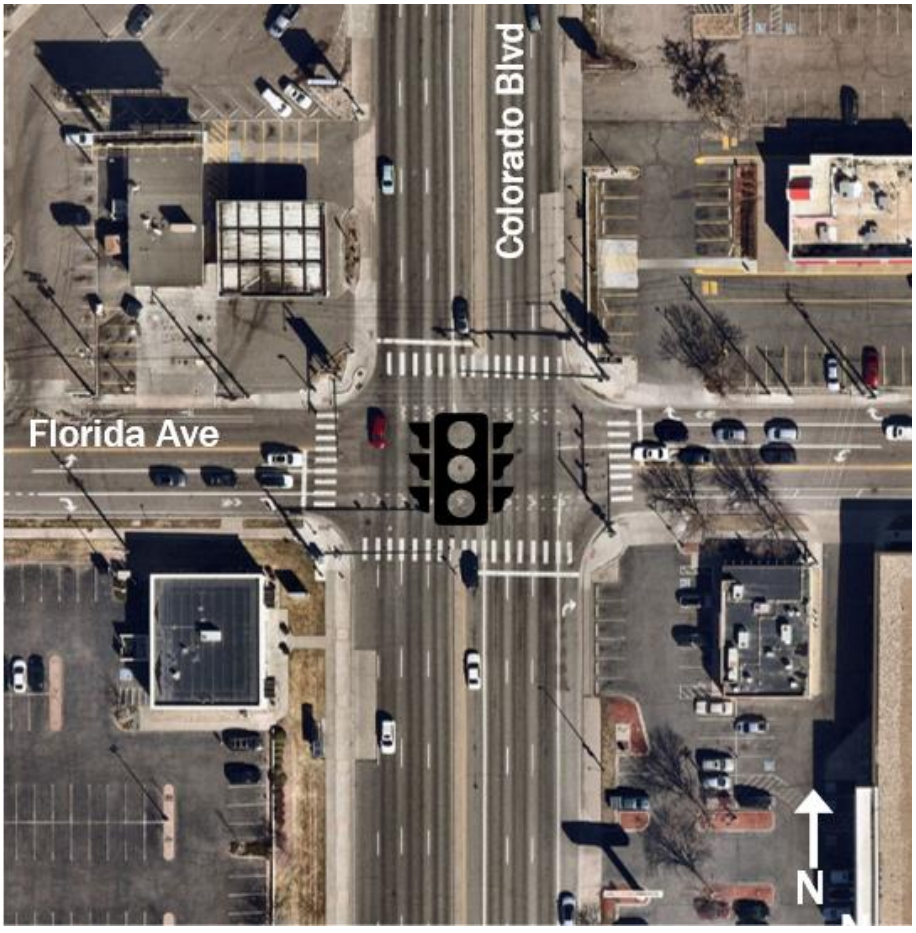
4.5 Colorado Boulevard and Florida Avenue

4.5.1 Background Information

The Colorado Boulevard and Florida Avenue intersection is a four-leg signalized intersection, as shown on **Figure 22**. The intersection is surrounded mainly by commercial land uses. Merrill Middle School is located approximately one-half-mile west of this intersection along Florida Avenue. There are far-side transit stops in the northbound and southbound directions at the intersection. Florida Avenue has buffered bike lanes in the eastbound and westbound directions. At the intersection, the eastbound and westbound bike lanes merge with the right turn lanes and operate as a shared bikeway. This bike lane has been identified in the Denver Moves Bike Plan as a future protected bike lane facility.

The north leg of Colorado Boulevard has one left turn lane, two through lanes, and one shared through/right turn lane. The south leg of Colorado Boulevard has one left turn lane, three through lanes, and one right turn lane. The west leg of Florida Avenue has one left turn lane, one through lane, one right turn lane, and a protected bike lane, while the east leg of Florida Avenue has one left turn lane, one through lane, and one right turn lane. The speed limit on Colorado Boulevard through this intersection is 35 MPH in both directions. The speed limit on Florida Avenue is 30 MPH in the westbound direction and 25 MPH in the eastbound direction through the intersection.

Figure 22. Colorado Boulevard and Florida Avenue Intersection



4.5.2 Crash Review

Between January 2020 and December 2024, there were 52 crashes at the intersection of Colorado Boulevard and Florida Avenue, as summarized in **Table 11**.

- There were no KSI crashes at this location.
- 26 rear end crashes account for 50 percent of all crashes.
- 11 broadside crashes account for 21 percent of all crashes.
- 10 sideswipe crashes account for 19 percent of all crashes.

Table 11. Colorado Boulevard and Florida Avenue Crash Summary

Category	Type of Event	Severity*			Direction**			
		All	KSI	Fatal	EB	WB	NB	SB
Most Harmful Event	Rear End	50%	0%	0%	0%	0%	46%	46%
	Broadside	21%	0%	0%	9%	0%	36%	55%
	Sideswipe	19%	0%	0%	0%	10%	60%	20%
	Approach Turn	4%	0%	0%	0%	0%	100%	0%
Driver Action	Followed too Closely	27%	0%	0%	0%	0%	64%	36%
	Careless Driving	21%	0%	0%	9%	0%	45%	45%
	Failed to Stop at Signal	17%	0%	0%	11%	0%	33%	56%
	Lane Violation	13%	0%	0%	0%	14%	71%	14%
Movement	Going Straight	52%	0%	0%	4%	0%	44%	52%
	Changing Lanes	17%	0%	0%	0%	0%	78%	22%
	Slowing	12%	0%	0%	0%	0%	67%	33%
	Making Left Turn	8%	0%	0%	25%	25%	50%	0%
Total Crashes		**52**	**0**	**0**	**4%**	**2%**	**48%**	**38%**

*Percentages are for the Severity column total. Because only the top Crash Types, Driver Actions, and Movements are shown, percentages may not add up to 100%.

**Percentages are for the Crash Type/Driver Action/Left-Turn Movement row total. Due to crash data limitations, columns may occasionally not add up to 100%.

4.5.3 City Staff and RSA Stakeholder Pre-Audit Comments

City staff expressed concerns over the east-west pedestrian crossings and left turn conflicts throughout the corridor. Given the high pedestrian traffic related to the nearby middle school, extra considerations to east-west pedestrian crossings were given to this intersection.

4.5.4 Observations

The RSA team observed the following conditions at Colorado Boulevard and Florida Avenue on May 6, 2025, and May 7, 2025, during morning, afternoon, evening, and nighttime periods.

- **Road Design**
  - A lane addition on the southbound departure leg of the intersection continues for approximately 2,500 ft to the I-25 southbound exit ramp.
- **Pedestrian Facilities**
  - There are elementary/middle schools to the west. School children were observed crossing at this location.

- **Multimodal and Traffic Operations**
  - Business accesses on side street are located close to the intersection and must cross over the existing bicycle lane.
  - Queuing occasionally reaches back from the I-25 ramps to this location and blocks side street movements and access movements.
  - Eastbound and westbound movements operate with protected-permitted left turn phasing.
- **Signing and Striping**
  - There is limited signage to manage access movements located close to the intersection.
  - A buffered bicycle lane crosses east/west at this location and uses out-of-date conflict striping.

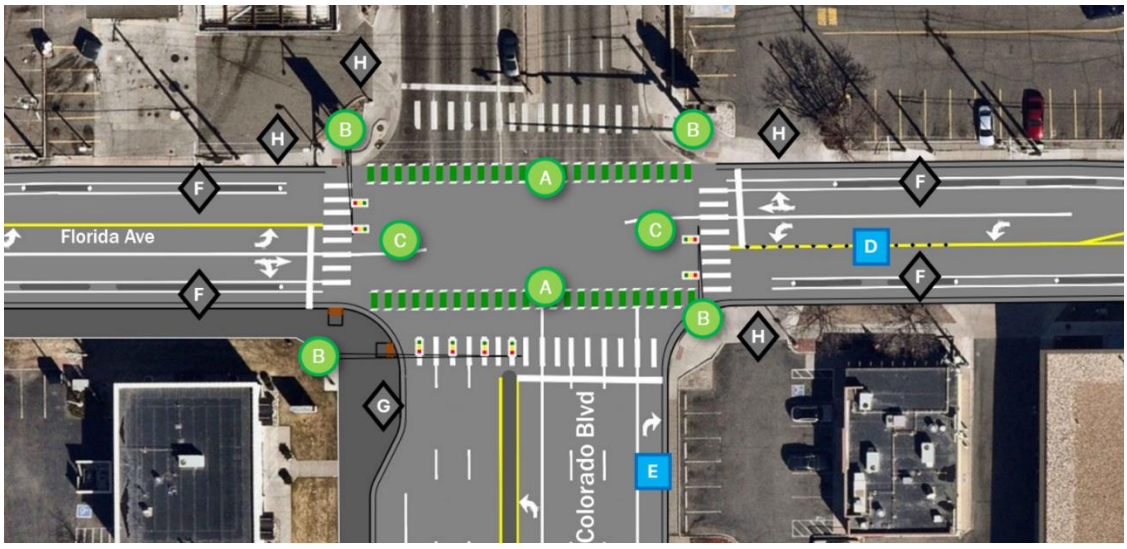
4.5.5 Recommendations

Table 12 presents the list of recommendations for the Colorado Boulevard and Florida Avenue intersection, and **Figure 23** shows the locations of the recommendations.

Table 12 Colorado Boulevard and Florida Avenue Recommendations

Map Letter	Time Frame	Recommendation
A	Short Term	Upgrade existing bicycle striping to green conflict striping.
B	Short Term	Install S1-1 School Crossing signs on all mast arms.
C	Short Term	Update eastbound left and westbound left movements to protected-only by TOD to improve safety for school crossings.
D	Medium Term	Install hardened centerlines on Florida for access control.
E	Medium Term	Provide bus queue jump in the northbound right lane.
F	Long Term	Install vertical elements to protect the bicycle lane at this intersection.
G	Long Term	Install a curb extension on the southwest corner using the lane addition to reduce the pedestrian crossing distance and provide protection for bus stop.
H	Long Term	Consider consolidating parcel access in the northwest, northeast, and southeast corners. Remove driveways near the intersection, if possible.

Figure 23. Recommendations Map for the Colorado Boulevard and Florida Avenue Intersection



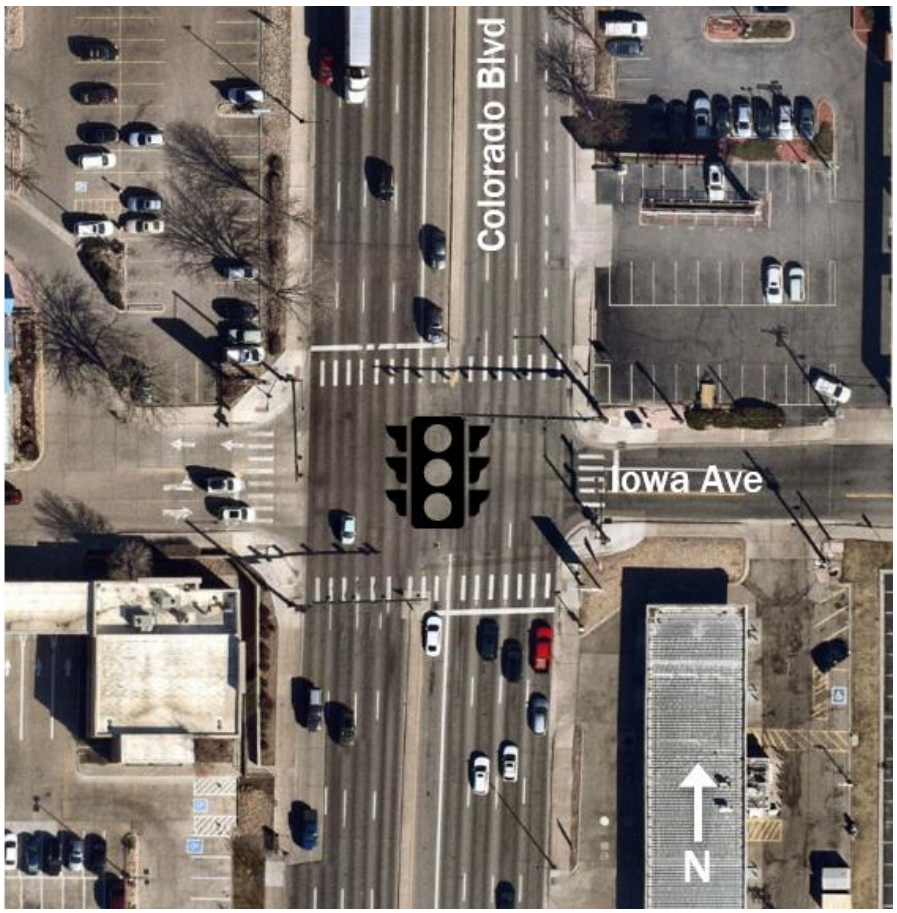
4.6 Colorado Boulevard and Iowa Avenue

4.6.1 Background Information

The Colorado Boulevard and Iowa Avenue intersection is a four-leg signalized intersection as shown on **Figure 24**. There are primarily commercial developments in the intersection area. The west leg of this intersection provides direct access into the commercial development on the west side of the intersection. The westbound departure design into the commercial developments results in driver confusion due to access to two separate developments within approximately three car lengths of the entry.

Both the north and south legs of Colorado Boulevard have a left turn lane, three through lanes, and a shared through/right lane. Both the east and west legs of Iowa Avenue have one left turn lane and one shared through/right turn lane. The speed limit on Colorado Boulevard through this intersection is 35 MPH in both directions. The speed limit on Iowa Avenue is 20 MPH in both directions.

Figure 24. Colorado Boulevard and Iowa Avenue Intersection



4.6.2 Crash Review

Between January 2020 and December 2024, there were 27 crashes at the intersection of Colorado Boulevard and Iowa Avenue, as summarized in **Table 13**.

- A broadside crash resulted in a serious injury when a southbound vehicle struck an eastbound left turning vehicle due to careless driving.
- A pedestrian crash resulted in a serious injury when a southbound left turning vehicle struck a pedestrian who crossed against the signal.

- A pedestrian crash occurred when a northbound traveling vehicle struck a pedestrian. Insufficient information is available for this crash.
- A pedestrian crash occurred when a westbound left turning vehicle failed to yield right-of-way-- and struck a pedestrian in the crosswalk.
- 13 rear end crashes account for 48 percent of all crashes.
- 7 broadside crashes account for 26 percent of all crashes.
- 3 pedestrian crashes account for 11 percent of all crashes.

Table 13. Colorado Boulevard and Iowa Avenue Crash Summary

Category	Type of Event	Severity*			Direction**			
		All	KSI	Fatal	EB	WB	NB	SB
Most Harmful Event	Rear End	48%	0%	0%	0%	0%	31%	62%
	Broadside	26%	50%	0%	0%	0%	57%	43%
	Pedestrian	11%	50%	0%	0%	67%	0%	0%
	Approach Turn	7%	0%	0%	0%	0%	50%	50%
Driver Action	Followed too Closely	26%	0%	0%	0%	0%	29%	71%
	Careless Driving	19%	50%	0%	0%	0%	20%	80%
	Failed to Yield ROW	15%	0%	0%	0%	25%	75%	0%
	Failed to Stop at Signal	15%	0%	0%	0%	0%	50%	50%
Movement	Going Straight	48%	50%	0%	0%	0%	23%	77%
	Slowing	15%	0%	0%	0%	0%	50%	50%
	Making Left Turn	15%	0%	0%	0%	25%	50%	25%
	Changing Lanes	7%	0%	0%	0%	0%	100%	0%
Total Crashes		**27**	**2**	**0**	**0%**	**7%**	**36%**	**46%**

*Percentages are for the Severity column total. Because only the top Crash Types, Driver Actions, and Movements are shown, percentages may not add up to 100%.

**Percentages are for the Crash Type/Driver Action/Left-Turn Movement row total. Due to crash data limitations, columns may occasionally not add up to 100%.

4.6.3 City Staff and RSA Stakeholder Pre-Audit Comments

City staff and stakeholders provided no comments about this intersection in the Pre-Audit meeting.

4.6.4 Observations

The RSA team observed the following conditions at Colorado Boulevard and Iowa Avenue on May 6, 2025, and May 7, 2025, during morning, afternoon, evening, and nighttime periods.

- **Road Design**
  - East and west legs are configured in ways that provide extra lane width, which contributes to increased pedestrian crossing distances.
  - Median noses are pulled back from crosswalks.
- **Pedestrian Facilities**
  - A near miss pedestrian crash was witnessed during nighttime observations when a pedestrian, with right--of-way, was crossing eastbound on the south leg and a westbound left vehicle nearly struck the pedestrian.

- **Multimodal and Traffic Operations**
  - Minimum green times on side streets felt low when driving through the intersection.
- **Signing and Striping**
  - Lane assignment striping on the west leg does not meet MUTCD or CCD standards.

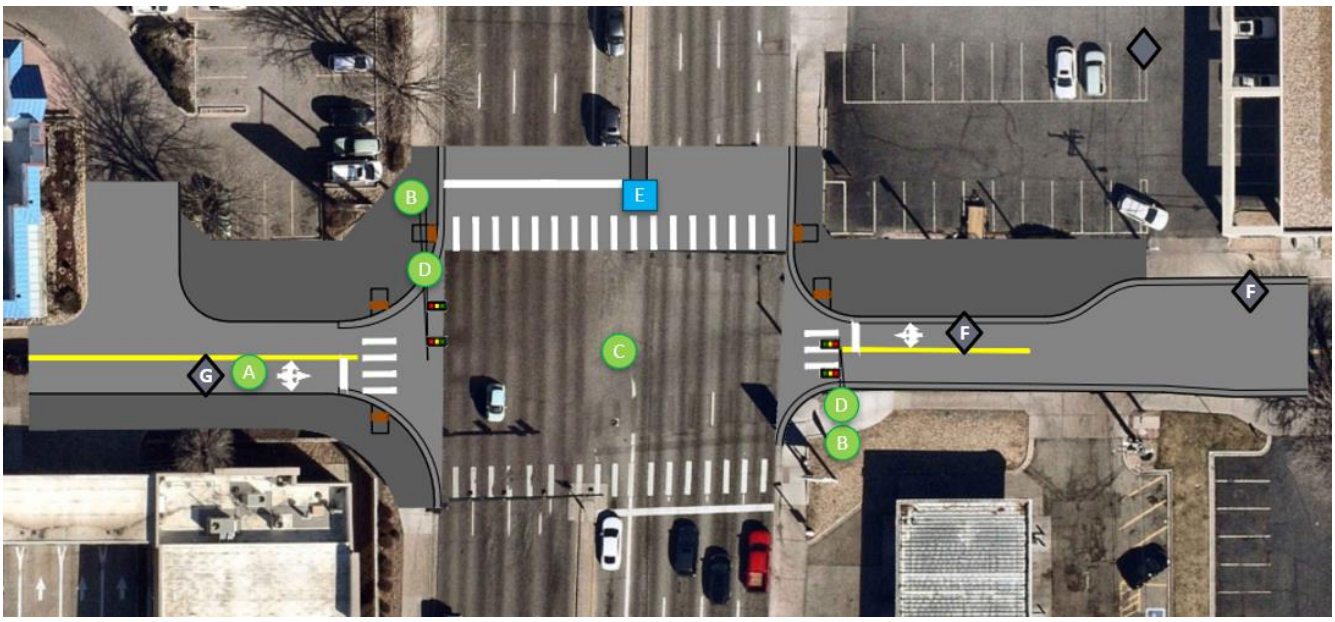
4.6.5 Recommendations

Table 14 lists recommendations for the Colorado Boulevard and Iowa Avenue intersection, and **Figure 25** shows the locations of the recommendations.

Table 14 Colorado Boulevard and Iowa Avenue Recommendations

Map Letter	Time Frame	Recommendation
A	Short Term	Update striping on the west leg to meet standards.
B	Short Term	Review signal timing and detection on Iowa Avenue.
C	Short Term	Improve pedestrian level lighting through the intersection.
D	Short Term	Consider updating to protected-only phasing in the interim for all left turn movements to protected pedestrian movements.
E	Medium Term	Reconstruct median noses closer to the intersection to help reduce instances of left turning vehicles cutting over the crosswalk. Bring crosswalk and curb ramps on the north leg further south to tighten intersection
F	Long Term	Combine east leg movements and build curb extension. Maintain parking on Iowa east of access.
G	Long Term	Compress west leg to reduce pedestrian crossing distances, realign movements, and eliminate ambiguity.

Figure 25. Recommendations Map for the Colorado Boulevard and Iowa Avenue Intersection



4.7 Colorado Boulevard and Mexico Avenue

4.7.1 Background Information

The Colorado Boulevard and Mexico Avenue intersection is a four-leg signalized intersection, as shown on **Figure 26**. There are primarily commercial developments in the intersection area.

The north leg of Colorado Boulevard has one left turn lane, three through lanes, and one shared through/right turn lane. The south leg of Colorado Boulevard has dual left turn lanes, four through lanes, and one channelized right turn lane. The west leg of Mexico Avenue has one left turn lane, one through lane, and one right turn lane, while the east leg of Mexico Avenue has dual left turn lanes with short storage lengths, one through lane, and one right turn lane. The speed limit on Colorado Boulevard through this intersection is 35 MPH in both directions. The speed limit on Mexico Avenue is 25 MPH in the westbound direction and 30 MPH in the eastbound direction through the intersection.

Figure 26. Colorado Boulevard and Mexico Avenue Intersection

4.7.2 Crash Review

Between January 2020 and December 2024, there were 38 crashes at the intersection of Colorado Boulevard and Mexico Avenue, as summarized in **Table 15**.

- There were no KSI crashes at this location.
- A pedestrian crash occurred when a southbound left turning vehicle failed to yield right-of-way and struck a pedestrian in the crosswalk.
- 12 sideswipe crashes account for 32 percent of all crashes.
- 11 rear end crashes account for 29 percent of all crashes.
- 10 broadside crashes account for 26 percent of all crashes.

Table 15. Colorado Boulevard and Mexico Avenue Crash Summary

Category	Type of Event	Severity*			Direction**			
		All	KSI	Fatal	EB	WB	NB	SB
Most Harmful Event	Sideswipe	32%	0%	0%	8%	8%	8%	58%
	Rear End	29%	0%	0%	0%	27%	9%	55%
	Broadside	26%	0%	0%	20%	20%	20%	40%
	Fixed Object	5%	0%	0%	0%	0%	100%	0%
Driver Action	Followed too Closely	24%	0%	0%	0%	33%	11%	56%
	Lane Violation	21%	0%	0%	0%	13%	25%	63%
	Failed to Stop at Signal	16%	0%	0%	17%	17%	33%	33%
	Improper Turn	8%	0%	0%	33%	33%	0%	33%
Movement	Going Straight	29%	0%	0%	0%	9%	27%	64%
	Making Left Turn	21%	0%	0%	25%	38%	0%	38%
	Changing Lanes	18%	0%	0%	0%	14%	14%	71%
	Slowing	11%	0%	0%	0%	50%	0%	50%
Total Crashes		**38**	**0**	**0**	**8%**	**18%**	**15%**	**46%**

*Percentages are for the Severity column total. Because only the top Crash Types, Driver Actions, and Movements are shown, percentages may not add up to 100%.

**Percentages are for the Crash Type/Driver Action/Left-Turn Movement row total. Due to crash data limitations, columns may occasionally not add up to 100%.

4.7.3 City Staff and RSA Stakeholder Pre-Audit Comments

City staff and stakeholders provided no comments about this intersection at the Pre-Audit meeting.

4.7.4 Observations

The RSA team observed the following conditions at Colorado Boulevard and Mexico Avenue on May 6, 2025, and May 7, 2025, during morning, afternoon, evening, and nighttime periods.

- **Road Design**
  - Storage lengths do not seem adequate for the high demand westbound left turn movement.
- **Pedestrian Facilities**
  - The northeast corner pedestrian signal is damaged and faces south. The signal shows a walk signal that is visible from the wrong direction (311 case submitted).
  - The pedestrian crossing timing over the east and west legs is noticeably short.
- **Multimodal and Traffic Operations**
  - Lane imbalances were noted for the northbound left movement due to one of the receiving lanes on Mexico dropping downstream.
- **Signing and Striping**
  - A Yield sign on the southwest corner is left over from a previous channelized right turn lane.

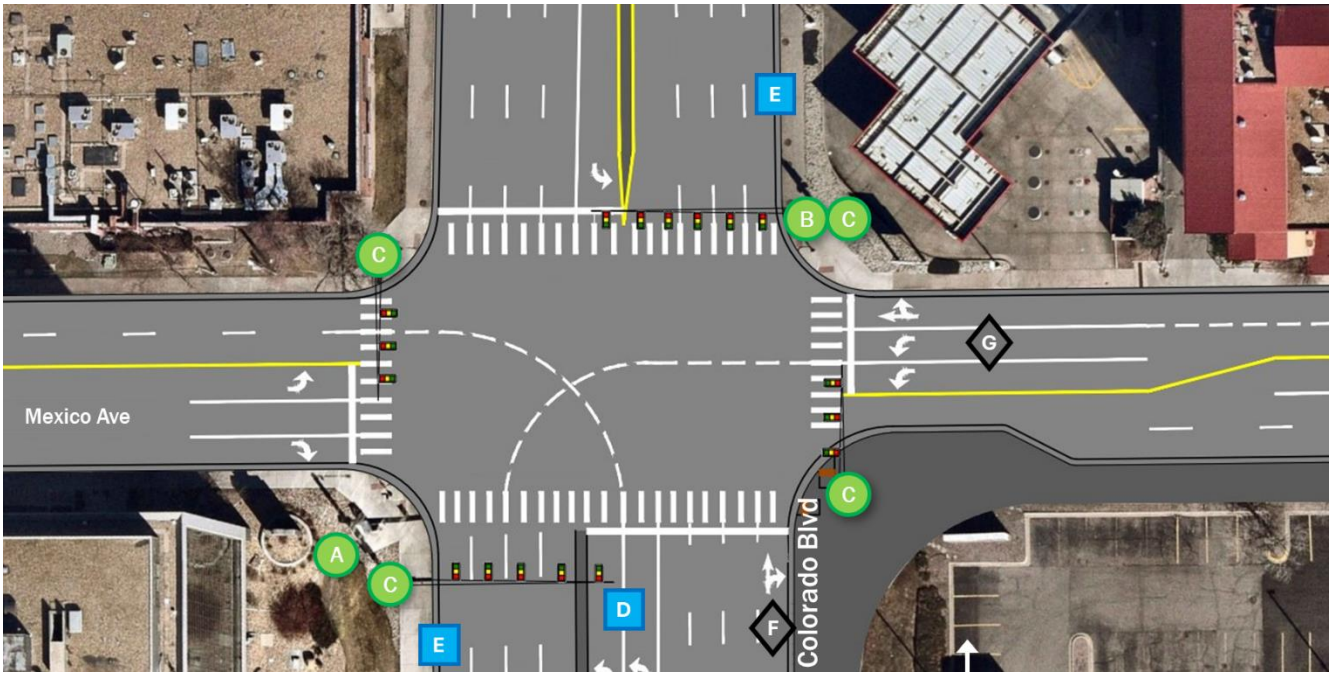
4.7.5 Recommendations

Table 16 lists recommendations for the Colorado Boulevard and Mexico Avenue intersection, and **Figure 27** shows the locations of recommendations.

Table 16 Colorado Boulevard and Mexico Avenue Recommendations

Map Letter	Time Frame	Recommendation
A	Short Term	Remove old eastbound Yield sign on Mexico Avenue.
B	Short Term	Fix pedestrian signal on northeast corner (311 case submitted).
C	Short Term	Review pedestrian signal timing.
D	Medium Term	Review northbound left operations and consider reducing to a single northbound left turn lane if operations permit.
E	Medium Term	Consider relocating bus stops north of Mexico Avenue closer to the signalized intersection. Far side bus stops are preferred. Coordinate this improvement with planned BRT projects.
F	Long Term	Review access code requirements, remove northbound channelized right turn lane, and convert to northbound through/right turn lane if possible. Coordinate this change with upstream lane configuration at the northbound I-25 ramp terminal.
G	Long Term	Combine the westbound through and westbound right movements, move the westbound left lanes further north to increase storage, provide a curb extension, and better align eastbound through movement with receiving lanes.

Figure 27. Recommendations Map for the Colorado Boulevard and Mexico Avenue Intersection



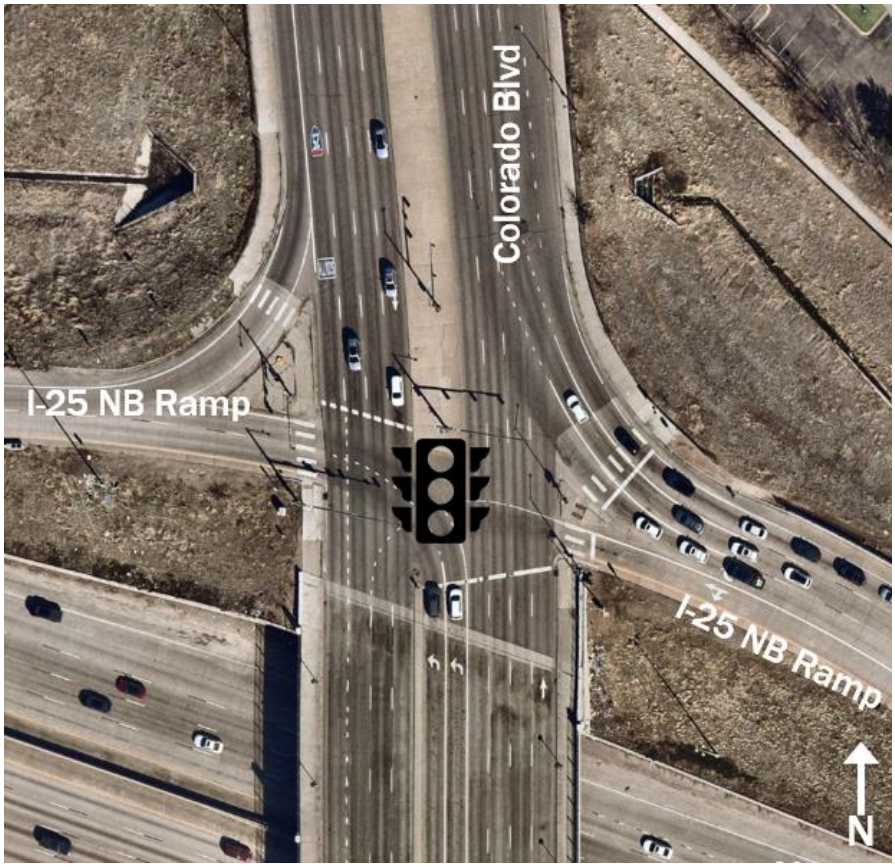
4.8 Colorado Boulevard and I-25 Northbound Ramps

4.8.1 Background Information

The Colorado Boulevard and I-25 Northbound Ramps intersection is a four-leg signalized ramp intersection, as shown on **Figure 28**. Commercial and office land uses are located in the vicinity.

The east leg has three right turn lanes and one shared through/left turn lane. The south leg has two left turn lanes and four through lanes, while the north leg has one channelized right turn lane onto I-25 northbound and four through lanes. The speed limit on Colorado Boulevard through this intersection is 35 MPH in both directions.

Figure 28. Colorado Boulevard and I-25 Northbound Ramps Intersection



4.8.2 Crash Review

Between January 2020 and December 2024, there were 53 crashes at the intersection of Colorado Boulevard and I-25 Northbound Ramps, as summarized in **Table 17**.

- A sideswipe crash resulted in a serious injury due to a careless driver traveling northbound colliding with a northbound vehicle.
- One bicycle crash occurred at this intersection. However, insufficient information is available for this crash.
- 19 rear end crashes account for 36 percent of all crashes.
- 12 broadside crashes account for 23 percent of all crashes.
- 11 sideswipe crashes account for 21 percent of all crashes.

Table 17. Colorado Boulevard and I-25 Northbound Ramps Crash Summary

Category	Type of Event	Severity*			Direction**			
		All	KSI	Fatal	EB	WB	NB	SB
Most Harmful Event	Rear End	36%	0%	0%	0%	16%	37%	37%
	Broadside	23%	0%	0%	0%	25%	17%	50%
	Sideswipe	21%	100%	0%	0%	27%	45%	27%
	Approach Turn	8%	0%	0%	0%	0%	25%	75%
Driver Action	Followed too Closely	23%	0%	0%	0%	17%	42%	42%
	Careless Driving	21%	100%	0%	0%	18%	64%	9%
	Failed to stop at Signal	15%	0%	0%	0%	0%	25%	75%
	Lane Violation	11%	0%	0%	0%	17%	17%	67%
Movement	Going Straight	42%	0%	0%	0%	14%	36%	45%
	Changing Lanes	13%	0%	0%	0%	0%	43%	57%
	Making Right Turn	11%	0%	0%	0%	50%	0%	50%
	Making Left Turn	9%	0%	0%	0%	40%	40%	20%
Total Crashes		**53**	**1**	**0**	**0%**	**17%**	**33%**	**35%**

*Percentages are for the Severity column total. Because only the top Crash Types, Driver Actions, and Movements are shown, percentages may not add up to 100%.

**Percentages are for the Crash Type/Driver Action/Left-Turn Movement row total. Due to crash data limitations, columns may occasionally not add up to 100%.

4.8.3 City Staff and RSA Stakeholder Pre-Audit Comments

City staff and stakeholders provided no comments for this intersection at the Pre-Audit meeting.

4.8.4 Observations

The RSA team observed the following conditions at Colorado Boulevard and the I-25 Northbound Ramps on May 6, 2025, and May 7, 2025, during morning, afternoon, evening, and nighttime periods.

- **Road Design**
  - Channelized southbound right turn encourages high speeds and poses challenges for pedestrian visibility in the crosswalk.
- **Pedestrian Facilities**
  - Visibility of pedestrians in the crosswalk is challenging for the southbound right turn movement.
- **Multimodal and Traffic Operations**
  - Aggressive and unpredictable lane changes between the two outside-most lanes on Colorado Boulevard were observed in the northbound direction for vehicles turning right onto Colorado Boulevard.
- **Signing and Striping**
  - Guidance markings for the westbound right turn movement are split into two lanes for the outside-most lane, possibly contributing to the aggressive and unpredictable lane changes observed.
  - No pedestrian or yield signage is present for the crosswalk in the channelized southbound right turn lane.

4.8.5 Recommendations

Table 18 lists recommendations for the Colorado Boulevard and I-25 Northbound Ramps intersection, and **Figure 29** shows the locations of recommendations.

Table 18 Colorado Boulevard and I-25 Northbound Ramps

Map Letter	Time Frame	Recommendation
A	Short Term	Revise signal timing to meet northbound left turn volumes demand.
B	Short-Term	Add pedestrian yield signage for the pedestrian crosswalk located in the channelized southbound right turn lane.
C	Medium-Term	Add transverse rumble strips for southbound and westbound channelized right turn approaches before the pedestrian crossings.
D	Long-Term	Consider installing raised crosswalks with RRFB or pedestrian signals at the channelized southbound and westbound right turn lanes.
E	Long-Term	Rebuild the southbound right channelized island to slow turning speeds and increase pedestrian visibility.
F	Long Term	Remove/repurpose the fourth outside through lane on Colorado Boulevard and extend this lane removal to Mexico Avenue. Realign the westbound off-ramp lane with the right-most northbound lane at Mexico Avenue. Coordinate with proposed BRT.

Figure 29. Recommendations Map for the Colorado Boulevard and I-25 Northbound Ramps Intersection

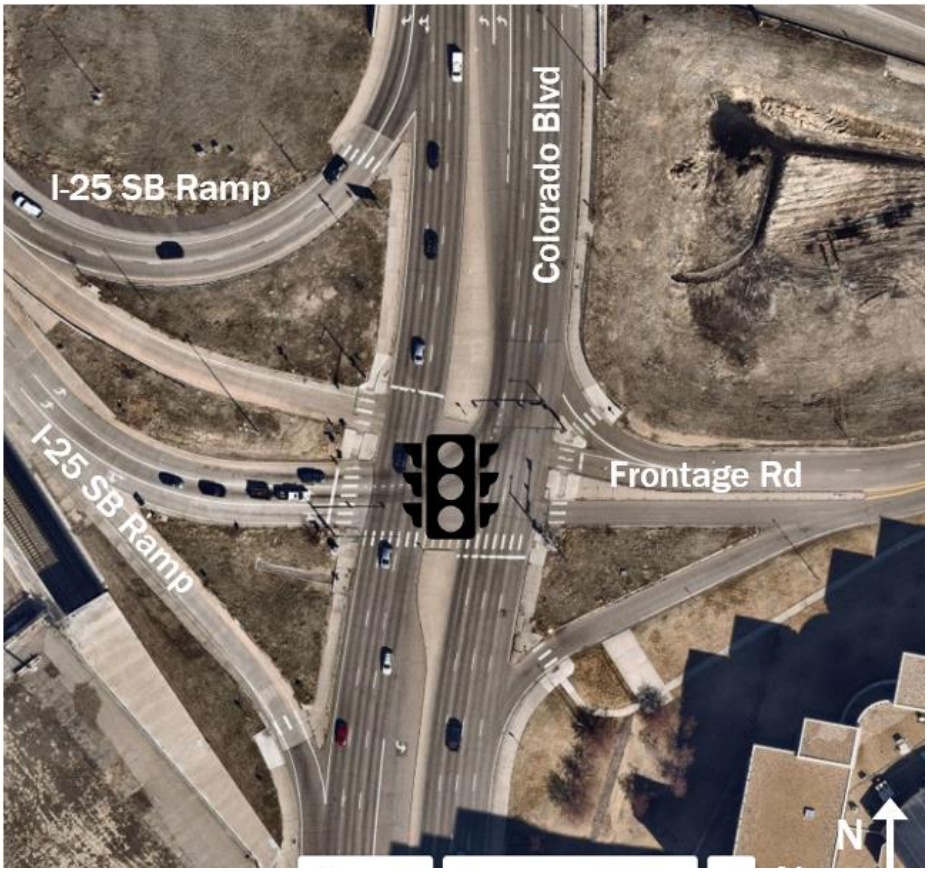
4.9 Colorado Boulevard and I-25 Southbound Ramps

4.9.1 Background Information

The Colorado Boulevard and I-25 Southbound Ramps intersection is a four-leg signalized intersection, as shown on **Figure 30**.

The east and west legs of Colorado Boulevard have three through lanes, with the outermost right lane being a shared through/right. The north leg has two through lanes, one shared through/right turn lane, and one right turn only lane via a channelized right turn onto I-25 southbound. The south leg has four through lanes and one channelized right turn lane. The west leg (I-25 southbound off-ramp) has two left turn lanes, one shared through/right turn lane, and one channelized right turn lane. The east leg has one left turn lane and one right turn lane. The speed limit on Colorado Boulevard through this intersection is 35 MPH in both directions.

Figure 30. Colorado Boulevard and I-25 Southbound Ramps Intersection



4.9.2 Crash Review

Between January 2020 and December 2024, there were 39 crashes at the intersection of Colorado Boulevard and I-25 Southbound Ramps, as summarized in **Table 19**.

- There were no KSI crashes at this intersection
- 14 sideswipe crashes account for 36 percent of all crashes.
- 14 rear end crashes account for 36 percent of all crashes.
- 5 broadside crashes account for 13 percent of all crashes.

Table 19. Colorado Boulevard and I-25 Southbound Ramps Crash Summary

Category	Type of Event	Severity*			Direction**			
		All	KSI	Fatal	EB	WB	NB	SB
Most Harmful Event	Sideswipe	36%	0%	0%	0%	0%	0%	86%
	Rear End	36%	0%	0%	0%	0%	0%	93%
	Broadside	13%	0%	0%	20%	0%	40%	40%
	Fixed Object	5%	0%	0%	0%	0%	0%	50%
Driver Action	Careless Driving	26%	0%	0%	0%	0%	0%	100%
	Followed too Closely	26%	0%	0%	0%	0%	0%	90%
	Lane Violation	13%	0%	0%	20%	0%	0%	80%
	Failed to Stop at Signal	8%	0%	0%	0%	0%	67%	33%
Movement	Going Straight	51%	0%	0%	10%	0%	10%	70%
	Changing Lanes	15%	0%	0%	0%	0%	0%	83%
	Slowing	13%	0%	0%	0%	0%	0%	100%
Total Crashes		**39**	**0**	**0**	**5%**	**0%**	**5%**	**73%**

*Percentages are for the Severity column total. Because only the top Crash Types, Driver Actions, and Movements are shown, percentages may not add up to 100%.

**Percentages are for the Crash Type/Driver Action/Left-Turn Movement row total. Due to crash data limitations, columns may occasionally not add up to 100%.

4.9.3 City Staff and RSA Stakeholder Pre-Audit Comments

City staff and stakeholders provided no comments about this intersection at the Pre-Audit meeting.

4.9.4 Observations

The RSA team observed the following conditions at Colorado Boulevard and the I-25 Southbound Ramps on May 6, 2025, and May 7, 2025, during morning, afternoon, evening, and nighttime periods.

- **Road Design**
  - Sight distance for pedestrians in the crosswalk of the southbound right turn on-ramp is very poor, with minimal vehicle yielding observed due to speeds and late visibility.
- **Multimodal and Traffic Operations**
  - Only two signal heads are present for three travel lanes in the southbound direction.
  - Only three signal heads are present for four travel lanes in the northbound direction.
  - There are no green through arrow signal indications or no left turn signage next to the signal heads, which are both present at the Colorado Boulevard and I-25 northbound ramp intersection.
  - Due to the shared through/right turn lane for the channelized southbound right turn onto I-25 southbound, driver behavior is difficult to predict for pedestrians in the crosswalk.

4.9.5 Recommendations

Table 20 lists recommendations for the Colorado Boulevard and I-25 Southbound Ramps intersection, and **Figure 31** shows the locations of the recommendations.

Table 20 Colorado Boulevard and I-25 Southbound Ramps Recommendations

Map Letter	Time Frame	Recommendation
A	Short Term	Add "Yield Here to Pedestrians" signage for channelized right turn movements.
B	Short Term	Add straight-through arrow signals and "No Left Turn" signs for southbound and northbound approaches.
C	Medium Term	Southbound right turn: Convert inside shared through/right turn lane into a right turn only lane. Allow buses to continue straight and add "Right turns only except buses" sign.
D	Long Term	Modify southbound right channelized island to extend it further north into the off-ramp gore. Move the crosswalk further north on the modified channelizing island to improve pedestrian visibility in the crosswalk.
E	Long Term	Consider constructing a raised crosswalk with RRFB and advance signing for the crosswalk in the southbound right turn.
F	Long Term	Remove eastbound, westbound, and northbound right turn lanes, and bring right turns to the intersection in shared lanes.

Figure 31. Recommendation Maps for the Colorado Boulevard and I-25 Southbound Ramps Intersection

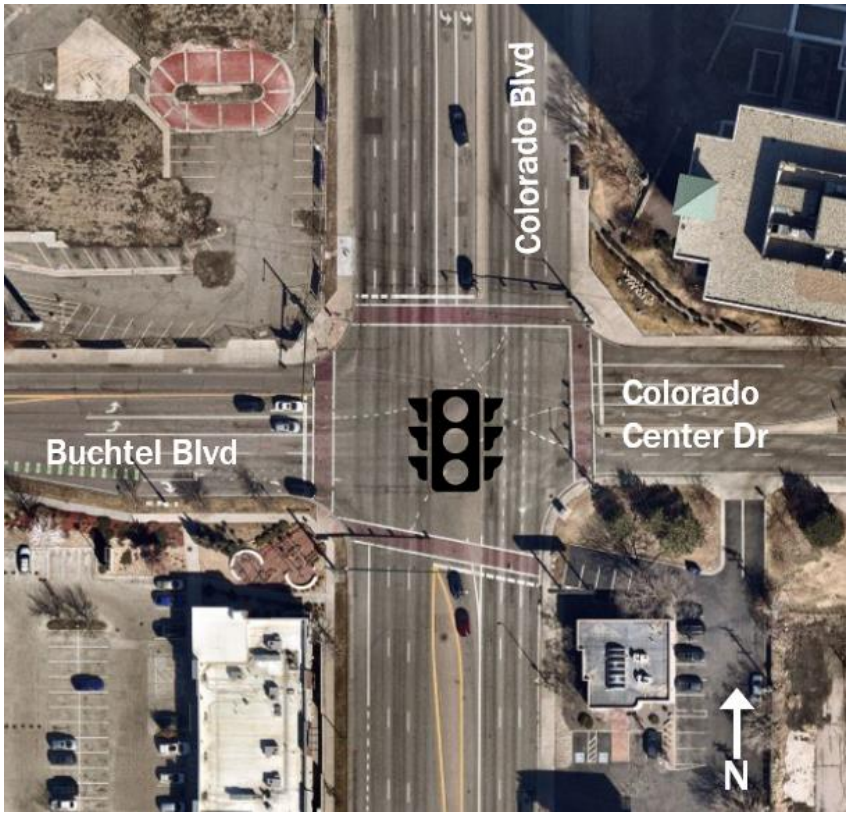
4.10 Colorado Boulevard and Buchtel Boulevard/ Colorado Center Drive

4.10.1 Background Information

The Colorado Boulevard and Buchtel Boulevard/Colorado Center Drive intersection is a four-leg signalized intersection, as shown on **Figure 32**. Commercial units primarily surround the intersection. Buchtel Boulevard has an eastbound protected bike lane that ends at the intersection.

The north leg of Colorado Boulevard has two left turn lanes, three through lanes, and one shared through/right turn lane. The south leg of Colorado Boulevard has one left turn lane, two through lanes, and one shared through/right turn lane. The west leg of Buchtel Boulevard has two left turns, two through lanes, a protected bike lane, and a right turn lane. The east leg of Colorado Center Drive has two left turn lanes, one through lane, and one right turn lane. The speed limit on Colorado Boulevard through this intersection is 35 MPH in both directions. There are no auxiliary lanes at this intersection.

Figure 32. Colorado Boulevard and Buchtel Boulevard/Colorado Center Drive Intersection



4.10.2 Crash Review

Between January 2020 and December 2024, there were 37 crashes at the intersection of Colorado Boulevard and Buchtel Boulevard/Colorado Center Drive, as summarized in **Table 21**.

- A broadside crash resulted in a serious injury when a northbound driver failed to stop at the signal and struck an eastbound traveling vehicle.
- A fixed object crash resulted in a serious injury when a northbound driver struck a light pole due to careless driving.

- One bicycle crash occurred when a southbound vehicle failed to yield to right-of-way-- and struck a westbound traveling cyclist.
- One pedestrian crash occurred at this intersection. However, insufficient information is available for this crash.
- 10 rear end crashes account for 27 percent of all crashes.
- 9 sideswipe crashes account for 24 percent of all crashes.
- 9 broadside crashes account for 24 percent of all crashes.

Table 21. Colorado Boulevard and Buchtel Boulevard/Colorado Center Drive Crash Summary

Category	Type of Event	Severity*			Direction**			
		All	KSI	Fatal	EB	WB	NB	SB
Most Harmful Event	Rear End	27%	0%	0%	10%	0%	30%	60%
	Sideswipe	24%	0%	0%	22%	0%	11%	67%
	Broadside	24%	50%	0%	11%	0%	22%	56%
	Fixed Object	11%	50%	0%	0%	0%	75%	25%
Driver Action	Lane Violation	19%	0%	0%	14%	0%	29%	57%
	Careless Driving	16%	50%	0%	0%	0%	50%	50%
	Followed too Closely	16%	0%	0%	0%	0%	33%	67%
	Failed to Stop at Signal	16%	50%	0%	0%	0%	33%	67%
Movement	Going Straight	49%	100%	0%	0%	0%	50%	50%
	Changing Lanes	19%	0%	0%	14%	0%	0%	86%
	Slowing	8%	0%	0%	0%	0%	0%	100%
	Making Left Turn	8%	0%	0%	67%	33%	0%	0%
Total Crashes		**37**	**2**	**0**	**11%**	**3%**	**24%**	**53%**

*Percentages are for the Severity column total. Because only the top Crash Types, Driver Actions, and Movements are shown, percentages may not add up to 100%.

**Percentages are for the Crash Type/Driver Action/Left-Turn Movement row total. Due to crash data limitations, columns may occasionally not add up to 100%.

4.10.3 City Staff and RSA Stakeholder Pre-Audit Comments

This intersection will undergo design improvements identified through a separate project. City staff provided these improvement plans to the RSA team.

4.10.4 Observations

The RSA team observed the following conditions at Colorado Boulevard and Buchtel Boulevard/Colorado Center Drive on May 6, 2025, and May 7, 2025, during morning, afternoon, evening, and nighttime periods.

- **Maintenance**
  - The team noted that a bollard placed to protect a fire hydrant in the northwest corner had been struck.
- **Road Design**
  - Southbound and eastbound legs have two left turn lanes but only one signal head for each approach.
  - Crosswalk striping is not per MUTCD or CCD standards.
  - Large skew for the south crosswalk due to the location of the curb ramp in the southeast corner.

- **Multimodal and Traffic Operations**
  - The eastbound right turn queue often blocks the bike lane.
  - Colorado Center attracts eastbound and westbound multimodal activity.

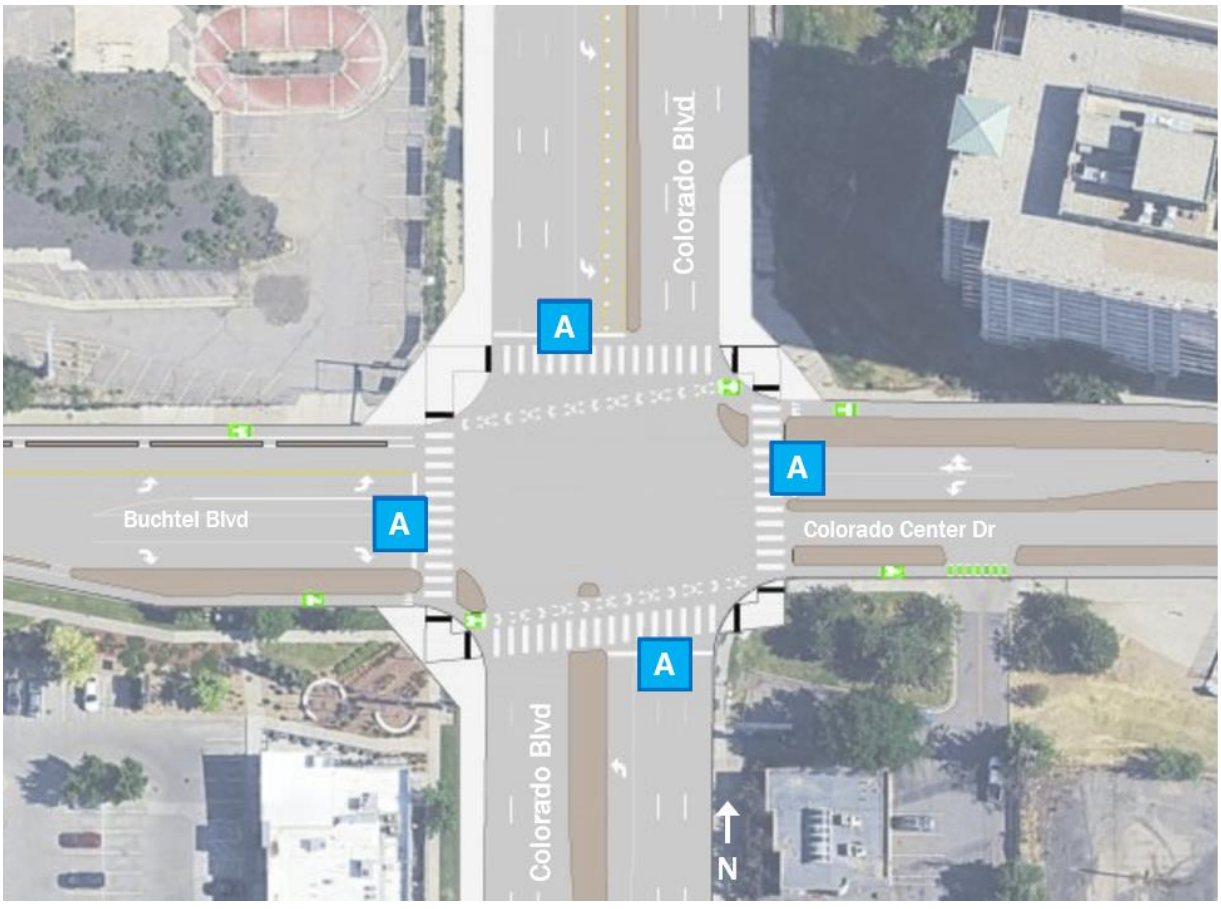
4.10.5 Recommendations

Table 22 lists recommendations for the Colorado Boulevard and Buchtel Boulevard/Colorado Center Drive intersection, and **Figure 33** shows the locations of the recommendations.

Table 22 Colorado Boulevard and Buchtel Boulevard/Colorado Center Drive Recommendations

Map Letter	Time Frame	Recommendation
A	Medium Term	Build on the current plans for the intersection to further reduce vehicle lanes, providing additional space for bicycle protection. ▪ Convert eastbound approach to right/through/left. ▪ Remove additional southbound through lane with a curb bulb out. ▪ Convert westbound approach to shared through right/left. ▪ Remove additional northbound receiving lane through curb bulb out.

Figure 33. Recommendations Map for the Colorado Boulevard and Buchtel Boulevard/Colorado Center Drive Intersection



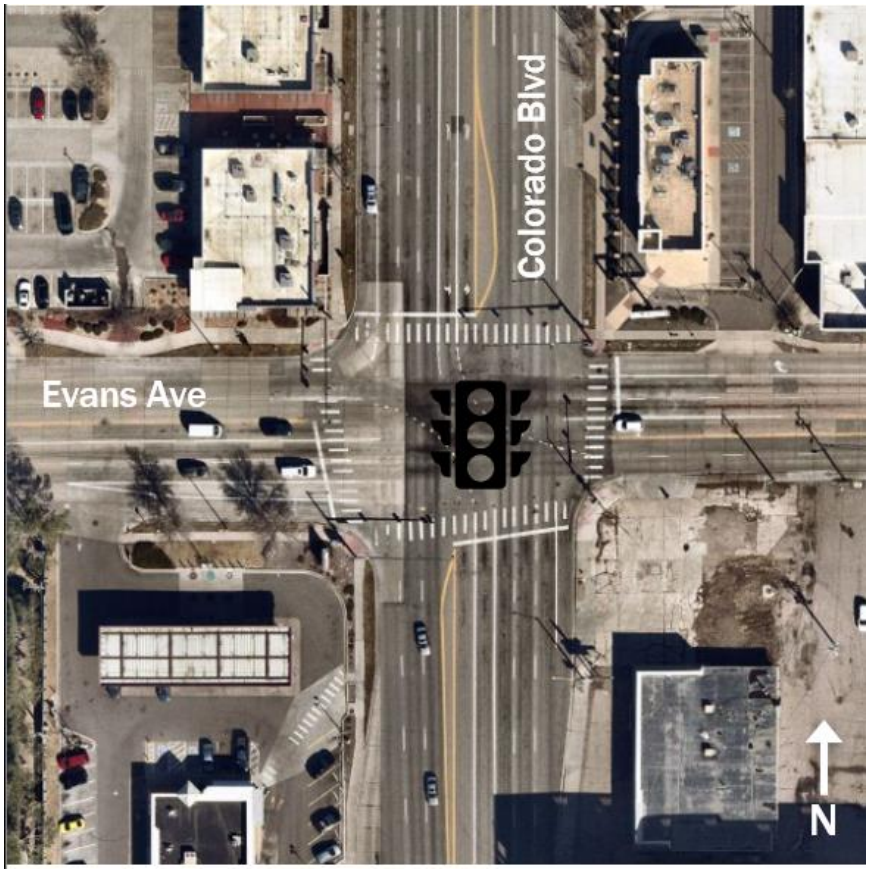
4.11 Colorado Boulevard and Evans Avenue

4.11.1 Background Information

The Colorado Boulevard and Evans Avenue intersection is a four-leg signalized intersection, as shown on **Figure 34**. Commercial units primarily surround the intersection.

Both the north and south legs of Colorado Boulevard have two left turn lanes, three through lanes, and one right turn lane. Both the west and east legs of Evans Avenue have one left turn lane, two through lanes, and one right turn lane. The speed limit on both Colorado Boulevard and Evans Avenue through this intersection is 35 MPH in all directions.

Figure 34. Colorado Boulevard and Evans Avenue Intersection



4.11.2 Crash Review

Between January 2020 and December 2024, there were 65 crashes at the intersection of Colorado Boulevard and Evans Avenue, as summarized in **Table 23**.

- There were no KSI crashes at this location.
- 16 broadside crashes account for 25 percent of all crashes.
- 15 approach turn crashes account for 23 percent of all crashes.
- 15 sideswipe crashes account for 23 percent of all crashes.
- 13 rear end crashes account for 20 percent of all crashes.

Table 23. Colorado Boulevard and Evans Avenue Crash Summary

Category	Type of Event	Severity*			Direction**			
		All	KSI	Fatal	EB	WB	NB	SB
Most Harmful Event	Broadside	25%	0%	0%	19%	6%	44%	19%
	Approach Turn	23%	0%	0%	27%	40%	13%	20%
	Sideswipe	23%	0%	0%	40%	27%	27%	0%
	Rear End	20%	0%	0%	31%	23%	38%	8%
Driver Action	Failed to Yield ROW	23%	0%	0%	33%	27%	33%	7%
	Followed too Closely	17%	0%	0%	45%	27%	27%	0%
	Failed to Stop at Signal	15%	0%	0%	30%	20%	30%	20%
	Lane Violation	12%	0%	0%	37%	25%	38%	0%
Movement	Going Straight	40%	0%	0%	35%	19%	31%	15%
	Making Left Turn	28%	0%	0%	28%	33%	22%	17%
	Slowing	8%	0%	0%	60%	20%	20%	0%
	Making Right Turn	6%	0%	0%	50%	25%	25%	0%
Total Crashes		**65**	**0**	**0**	**30%**	**21%**	**27%**	**12%**

*Percentages are for the Severity column total. Because only the top Crash Types, Driver Actions, and Movements are shown, percentages may not add up to 100%.

**Percentages are for the Crash Type/Driver Action/Left-Turn Movement row total. Due to crash data limitations, columns may occasionally not add up to 100%.

4.11.3 City Staff and RSA Stakeholder Pre-Audit Comments

This intersection will undergo improvements identified through the Evans Avenue Roadway Safety Audit. City staff provided these improvement plans to the RSA team.

4.11.4 Observations

The RSA team observed the following conditions at Colorado Boulevard and Evans Avenue on May 6, 2025, and May 7, 2025, during morning, afternoon, evening, and nighttime periods.

- **Road Design**
  - Large turning radii may be encouraging fast turning speeds.
- **Pedestrian Facilities**
  - Pedestrian crossings are long and unprotected.
  - During and after precipitation, standing water limits accessibility at corners.
- **Multimodal and Traffic Operations**
  - Signal timing or visibility may be contributing to red light running at the intersection.

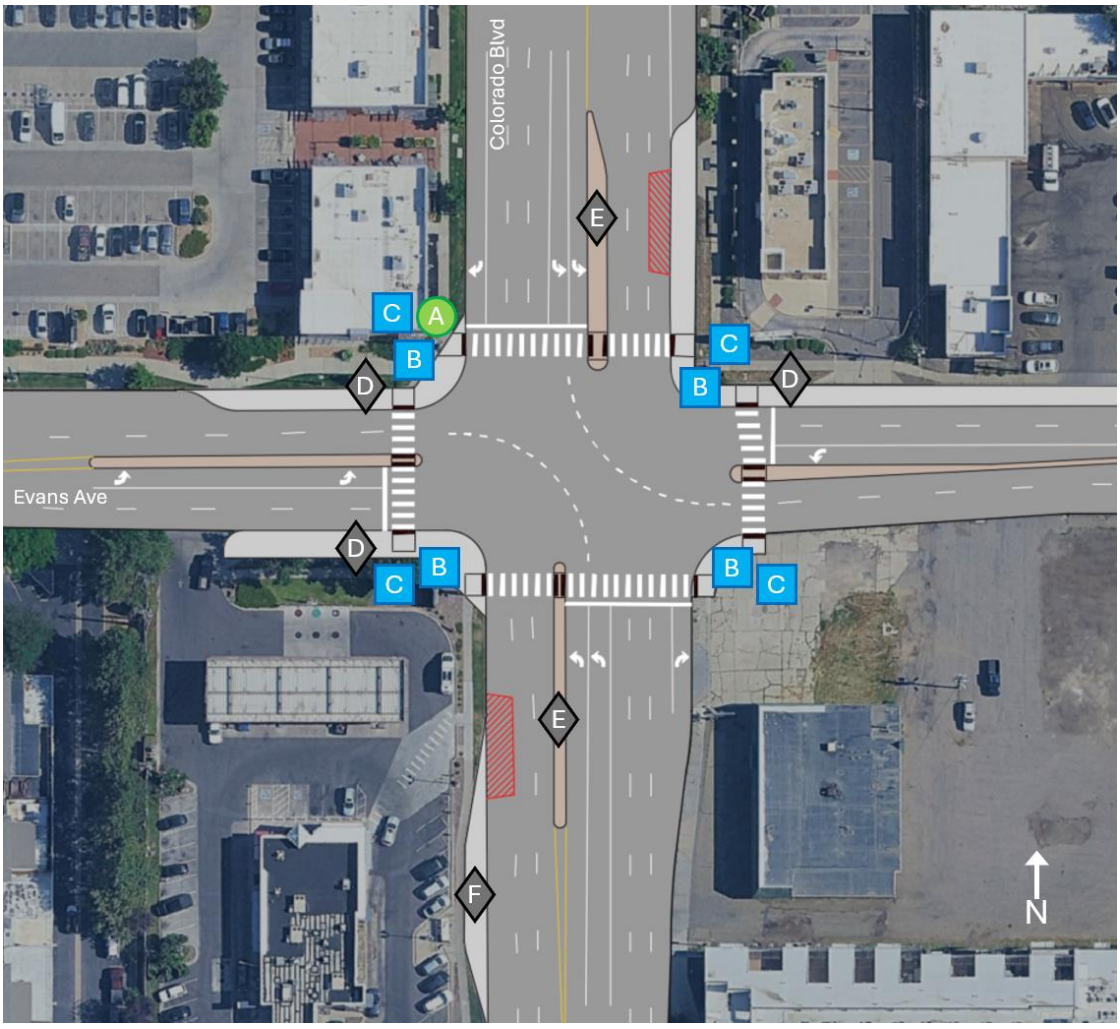
4.11.5 Recommendations

Table 24 lists recommendations for the Colorado Boulevard and Evans Avenue intersection, and **Figure 35** shows the locations of recommendations, which is consistent with the previously completed Evans Avenue RSA report and current planning documents.

Table 24 Colorado Boulevard and Evans Avenue Recommendations

Map Letter	Time Frame	Recommendation
A	Short Term	Install a pedestrian countdown timer on the northwest corner.
B	Medium Term	Install near side, side mount signals.
C	Medium Term	Install or upgrade luminaires on all corners to have two on each corner over each crosswalk.
D	Long Term	Extend curbs on the northeast and southwest corners to remove right turn lanes and extend curb on northwest corner to narrow the crossing on Evans Avenue.
E	Long Term	Install raised medians on the north and south legs of the intersection.
F	Long Term	Remove the southbound bus pullout and relocate bus stop closer to the intersection.

Figure 35. Recommendations Map for the Colorado Boulevard and Evans Avenue Intersection



4.12 Colorado Boulevard and Warren Avenue

4.12.1 Background Information

The Colorado Boulevard and Warren Avenue intersection is a four-leg unsignalized intersection with the side streets operating by stop control, as shown on **Figure 36**. Commercial units primarily surround the intersection.

The north and south legs of Colorado Boulevard have one left turn pocket each, two through lanes, and one shared through/right turn lane. The west and east legs of Warren Avenue have one shared left/through/right lane. The speed limit on Colorado Boulevard through this intersection is 35 MPH in both directions. The speed limit on Warren Avenue through this intersection is 20 MPH in both directions.

Figure 36. Colorado Boulevard and Warren Avenue Intersection

4.12.2 Crash Review

Between January 2020 and December 2024, there were 11 crashes at the intersection of Colorado Boulevard and Warren Avenue, as summarized in **Table 25**.

- There were no KSI crashes at this location.
- 6 broadside crashes account for 55 percent of all crashes.
- 3 rear end crashes account for 27 percent of all crashes.
- 2 approach turn crashes account for 18 percent of all crashes.

Table 25. Colorado Boulevard and Warren Avenue Crash Summary

Category	Type of Event	Severity*			Direction**			
		All	KSI	Fatal	EB	WB	NB	SB
Most Harmful Event	Broadside	55%	0%	0%	67%	33%	0%	0%
	Rear End	27%	0%	0%	0%	0%	33%	33%
	Approach Turn	18%	0%	0%	50%	0%	0%	50%
Driver Action	Failed to Yield ROW	73%	0%	0%	37%	37%	11%	16%
	Followed too Closely	18%	0%	0%	17%	33%	8%	25%
Movement	Going Straight	39%	0%	0%	27%	29%	11%	22%
	Making Left Turn	27%	0%	0%	32%	48%	10%	10%
	Changing Lanes	10%	0%	0%	27%	27%	18%	27%
Total Crashes		**11**	**0**	**0**	**24%**	**33%**	**17%**	**13%**

*Percentages are for the Severity column total. Because only the top Crash Types, Driver Actions, and Movements are shown, percentages may not add up to 100%.

**Percentages are for the Crash Type/Driver Action/Left-Turn Movement row total. Due to crash data limitations, columns may occasionally not add up to 100%.

4.12.3 City Staff and RSA Stakeholder Pre-Audit Comments

City staff and stakeholders provided no comments about this intersection at the Pre-Audit meeting.

4.12.4 Observations

The RSA team observed the following conditions at Colorado Boulevard and Warren Avenue on May 6, 2025, and May 7, 2025, during morning, afternoon, evening, and nighttime periods.

- **Pedestrian Facilities**
  - Pedestrian infrastructure is lacking across the minor street.

4.12.5 Recommendations

Table 26 lists recommendations for the Colorado Boulevard and Warren Avenue intersection, and **Figure 37** shows the locations of the recommendations.

Table 26 Colorado Boulevard and Warren Avenue Recommendations

Map Letter	Time Frame	Recommendation
A	Short Term	Add pedestrian crosswalks and stop bars on eastbound and westbound approaches.
B	Medium Term	Construct median on Colorado Boulevard to restrict minor street through/left movements and remove the southbound left movement.
C	Medium Term	Add a pedestrian crossing on Colorado Blvd north of Warren Ave.
D	Long Term	Extend curb on minor street legs to narrow crossings on Warren Ave.

Figure 37. Recommendations Map for the Colorado Boulevard and Warren Avenue Intersection

4.13 Colorado Boulevard and Iliff Avenue

4.13.1 Background Information

The Colorado Boulevard and Iliff Avenue intersection is a four-leg signalized intersection, as shown on **Figure 38**. Commercial units primarily surround the intersection.

The north and south legs of Colorado Boulevard have one left turn each, two through lanes, and one shared through/right turn lane. The west and east legs of Iliff Avenue have one left turn pocket and one shared through/right turn lane. The speed limit on Colorado Boulevard through this intersection is 35 MPH in both directions. The speed limit on Iliff Avenue through this intersection is 20 MPH in both directions. Two schools are located within one-half mile of this intersection; The Denver Academy school is approximately one-quarter mile to the east, and University Park Elementary is approximately one-half mile to the west.

Figure 38. Colorado Boulevard and Iliff Avenue Intersection

4.13.2 Crash Review

Between January 2020 and December 2024, there were 17 crashes at the intersection of Colorado Boulevard and Iliff Avenue, as summarized in **Table 27**.

- There were no KSI crashes at this location.
- 10 broadside crashes account for 59 percent of all crashes.
- 3 rear end crashes account for 18 percent of all crashes.
- 2 approach turn crashes account for 12 percent of all crashes.

Table 27. Colorado Boulevard and Iliff Avenue Crash Summary

Category	Type of Event	Severity*			Direction**			
		All	KSI	Fatal	EB	WB	NB	SB
Most Harmful Event	Broadside	59%	0%	0%	30%	10%	40%	20%
	Rear End	18%	0%	0%	0%	0%	67%	33%
	Approach Turn	12%	0%	0%	0%	0%	50%	50%
Driver Action	Failed to Yield ROW	29%	0%	0%	18%	45%	9%	18%
	Failed to Stop at Signal	29%	0%	0%	20%	20%	40%	20%
	Followed too Closely	12%	0%	0%	33%	50%	17%	0%
Movement	Going Straight	44%	0%	0%	30%	45%	5%	15%
	Making Left Turn	24%	0%	0%	18%	9%	36%	27%
	Making Right Turn	13%	0%	0%	0%	33%	50%	0%
Total Crashes		**17**	**0**	**0**	**22%**	**29%**	**22%**	**13%**

*Percentages are for the Severity column total. Because only the top Crash Types, Driver Actions, and Movements are shown, percentages may not add up to 100%.

**Percentages are for the Crash Type/Driver Action/Left-Turn Movement row total. Due to crash data limitations, columns may occasionally not add up to 100%.

4.13.3 City Staff and RSA Stakeholder Pre-Audit Comments

City staff and stakeholders provided no comments about this intersection at the Pre-Audit meeting.

4.13.4 Observations

The RSA team observed the following conditions at Colorado Boulevard and Iliff Avenue on May 6, 2025, and May 7, 2025, during morning, afternoon, evening, and nighttime periods.

- **Road Design**
  - Wide receiving lane widths along Iliff Avenue encourage high turning speeds.
- **Pedestrian Facilities**
  - No sidewalk is provided on the east side of Colorado Boulevard south of this intersection.
- **Signing and Striping**
  - No school crossing safety signage is provided at the intersection.

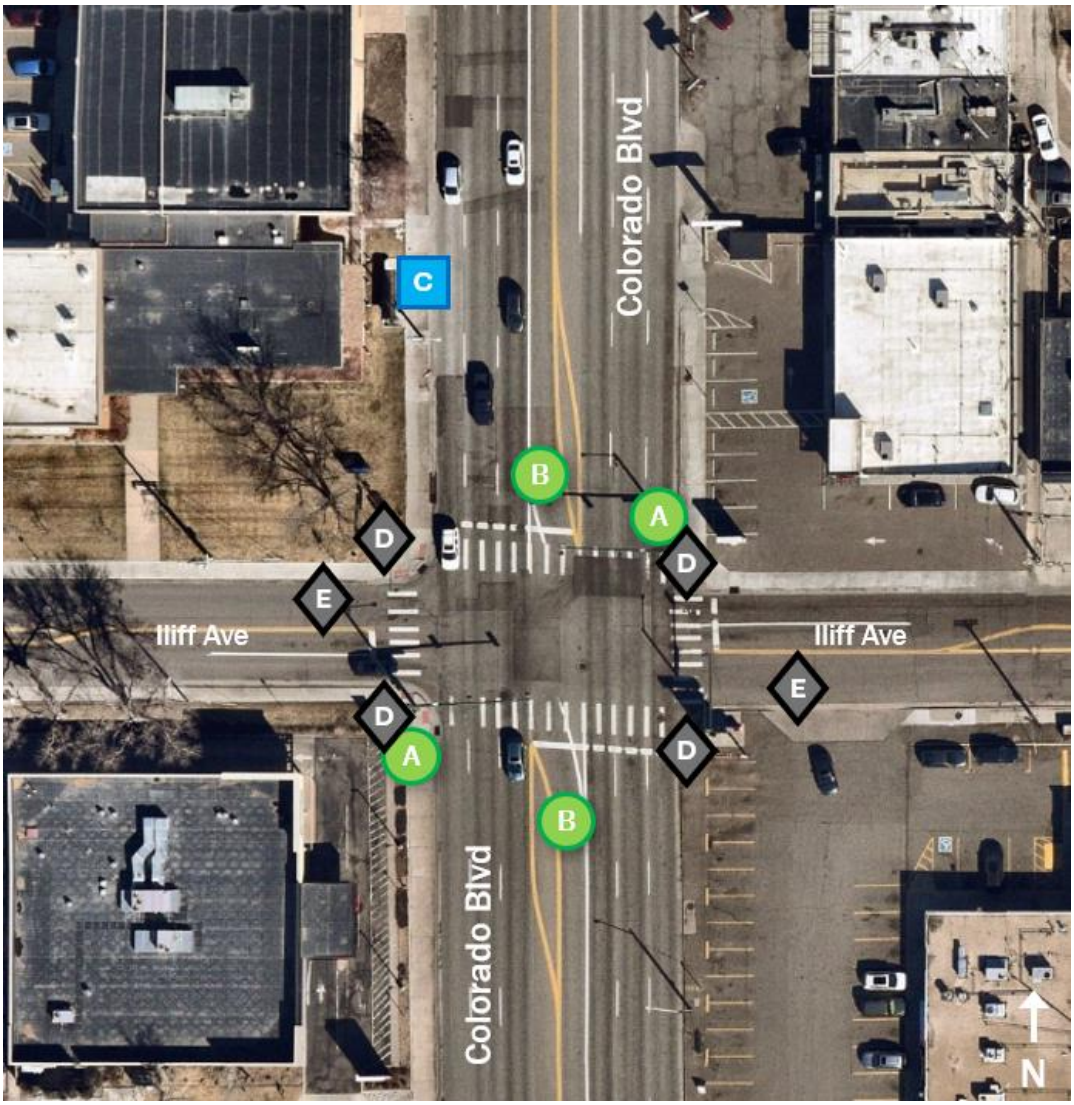
4.13.5 Recommendations

Table 28 lists recommendations for the Colorado Boulevard and Iliff Avenue intersection, and **Figure 39** shows the locations of recommendations.

Table 28 Colorado Boulevard and Iliff Avenue Recommendations

Map Letter	Time Frame	Recommendation
A	Short Term	Add school crossing signage for improved pedestrian visibility.
B	Short Term	Introduce protected northbound and southbound left-turn phases during school hours.
C	Medium Term	Consider relocating bus stops further from the intersection for safety.
D	Long Term	Install bulb outs at all corners to shorten crossings and reduce turning speeds with consideration of future plans to add protected bike lanes on Iliff Avenue.
E	Long Term	Reduce eastbound and westbound receiving lane widths.

Figure 39 Recommendations Map for the Colorado Boulevard and Iliff Avenue Intersection



Appendix A. Road Safety Audit Recommendations Table

Appendix B. Road Safety Audit Pre-Audit Meeting Presentation

Appendix C. Road Safety Audit Intent Memorandum

Appendix D. Preliminary Findings (Post-Audit) Presentation

Appendix E. Signal Timing Operation Recommendations

Appendix F. Intersection Lighting