

SOUTH DONAGHEY AVENUE ROAD SAFETY AUDIT FINDINGS REPORT

July 2025

FINAL REPORT



The information provided in this document is intended to be used for informational purposes only. No expressed or implied warranties are made by Metroplan, Kimley-Horn, Traffic Engineering Consultants, and Crafton Tull concerning the accuracy, completeness, reliability, and usability of this information. Further investigation such as field verification, site condition assessments, engineering analysis, and design are necessary prior to implementing any of the guidance contained herein.

This report was funded in part through grant(s) from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation. The views and opinions of the authors expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

Notice of Nondiscrimination

Metroplan complies with all civil rights provisions of the federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore, Metroplan does not discriminate on the basis of race, sex, color, age, national origin, religion, disability, or income status, in admission or access to and treatment in Metroplan's programs and activities, as well as Metroplan's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding Metroplan's nondiscrimination policies may be addressed to Sydney Dozier, Title VI/ADA/504 Coordinator, 501 West Markham Street, Suite B, Little Rock, AR 72201, (501) 372-3300, or the following e-mail address: sdozier@metroplan.org (Hearing and speech impaired may dial 711.)

This notice is available upon request from the Title VI/ADA/504 Coordinator in large print, audiotape or braille.

Table of Contents

Introduction.....	1
Central Arkansas Safety Action Plan.....	1
Road Safety Audit Process.....	1
Stakeholder Coordination.....	3
Pre-Audit Meeting.....	3
Field Review	4
Initial Findings Recap.....	4
Existing Conditions.....	5
General Roadway Characteristics.....	5
Historic Crash Data	7
Existing Plans.....	7
RSA Observations & Recommendations	8
Strengths	8
Suggested Improvements.....	9
Cost Estimates	30
Prioritization.....	32
Appendix A: Crash Diagram Maps.....	A-1
Appendix B: Unit Costs.....	B-1
Appendix C: Conceptual Layouts.....	C-1

List of Tables

Table 1: Pre-Audit Meeting Attendees	3
Table 2: Field Review Participants	4
Table 3: Initial Findings Meeting Attendees	5
Table 4: Field Review Observations and Suggested Improvements	11
Table 5: Example Cost Estimate for Suggested Improvement	30
Table 6: Summary of Suggested Improvement Cost Estimates by Timeframe.....	31
Table 7: Summary of Suggested Improvement Cost Estimates by Type.....	32
Table 8: Summary of Suggested Improvement Priorities	33

Introduction

Central Arkansas Safety Action Plan

Metroplan, the Metropolitan Planning Organization (MPO) for Central Arkansas, developed the Central Arkansas Safety Action Plan under the United States Department of Transportation (USDOT) Safe Streets and Roads for All (SS4A) Program. Adopted in November 2024, the Central Arkansas Safety Action Plan serves as the region's roadmap to ensure safe streets and roads for all travelers. The Safety Action Plan identifies key steps needed for Central Arkansas to achieve zero fatal and serious injuries on its roadways. The plan includes regional safety analysis and public engagement to identify safety issues, project and policy recommendations, and an implementation plan that prioritizes locations for deploying safety countermeasures.

The safety analysis, which reviewed historic crash data from 2018 through 2022, led to the development of a Regional High Injury Network (HIN). This HIN was created by selecting roadway segments and intersections with the highest density of fatal and serious injury crashes over the five-year analysis period. The HIN served as the basis for developing project recommendations and identifying locations for more detailed analysis and suggested improvements.

Following the completion of the Central Arkansas Safety Action Plan, Metroplan utilized the remaining funds from their SS4A grant to conduct road safety audits (RSAs) on roads in the four Metroplan counties. Metroplan staff coordinated with Faulkner County Judge Allen Dodson to select a corridor within Faulkner County for more detailed analysis and suggested improvements. This coordination resulted in the selection of a 1.8-mile road segment of South Donaghey Avenue, between Bruce Street and Favre Lane, for the RSA. Throughout this document, "South Donaghey Avenue" or "the study corridor" will refer to the segment of South Donaghey Avenue between Bruce Street and Favre Lane, unless otherwise noted.

Road Safety Audit Process

An RSA is a formal safety examination of a transportation facility that is performed by an independent, experienced, multidisciplinary RSA team. RSA teams are independent of the owner and operator of the facility and are proactive in nature, focusing not just on locations where crashes have occurred, but also locations that appear to have the potential for crashes. Although RSAs include a formal safety examination, it is important to note that an RSA is not a review for compliance with standards.

The Pratt Road RSA followed the 8-step RSA process as recommended by the FHWA and described in the FHWA Road Safety Audit Guidelines document (Publication FHWA-SA-06-06) and the Road Safety Audit Toolkit for Federal Land Management Agencies and Tribal Governments document (Publication FHWA-FLH-10-0011). A summary of the 8-step RSA process is provided in **Figure 1**.

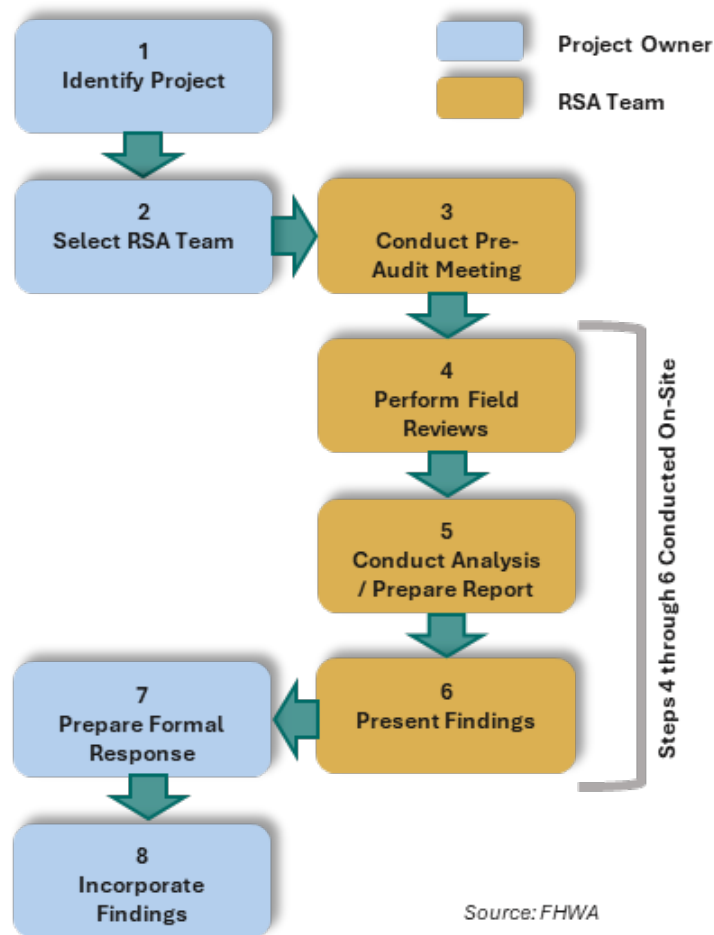


Figure 1: Road Safety Audit Process

The process assigns responsibility of the eight (8) steps to two (2) different groups: Project Owner and RSA team. The Project Owner for the South Donaghey Avenue RSA is the City of Conway, however the facilities included in the study are owned by either the City of Conway or the Arkansas Department of Transportation (ARDOT). A description of the eight (8) steps are as follows.

Step 1 – Identify Project: South Donaghey Avenue, between Bruce Street and Favre Lane, is on the High Injury Network in the Central Arkansas Safety Action Plan developed by Metroplan. Therefore, Metroplan and the Faulkner County Judge identified a need for an RSA on South Donaghey Avenue in order to proactively improve safety.

Step 2 – Select RSA Team: The RSA team was selected by the Faulkner County Judge and City of Conway staff during the Pre-Audit meeting. The team included representatives from Metroplan, Faulkner County, City of Conway, and the project consultants.

Step 3 – Conduct Pre-Audit Meeting: A general project Pre-Audit meeting was conducted virtually on February 24, 2025. The purpose of this meeting was to discuss the general RSA process, exchange data, and identify participants to include in subsequent activities.

Step 4 – Perform Field Reviews: The field review included an examination of South Donaghey Avenue, between Bruce Street and Favre Lane. The RSA team conducted their field review on April 14, 2025. The project consultants also drove and created a video log of the corridor during both daytime and nighttime conditions.

Step 5 – Conduct Analysis/Prepare Report: Following the field review, the RSA team developed a set of observations to present to representatives of Metroplan and the City of Conway. The RSA team identified suggested corridor-wide safety improvements for South Donaghey Avenue, in addition to improvements that applied to specific point locations along the corridor.

Step 6 – Present Findings: The observations and safety concerns that were identified during the RSA field review, as well as the additional suggested improvements developed by the consultant team after the field review, were presented to Metroplan and City of Conway staff during a virtual RSA Initial Findings meeting conducted on May 1, 2025. The consultant team then created a written report of the findings and provided the report to Metroplan and the City of Conway.

Step 7 – Prepare Formal Response: A formal response to the RSA was not prepared by the City of Conway, however the written report was sent to the City and staff were provided with an opportunity to review and comment on the report before it was finalized.

Step 8 – Incorporate Findings: The final step in the RSA process is for the City of Conway, as the owner of the project, to work towards implementing the agreed-upon suggested improvements from the RSA report in coordination with state and local partners.

Stakeholder Coordination

Pre-Audit Meeting

The South Donaghey Avenue RSA began with a virtual Pre-Audit meeting on February 24, 2025. This meeting included members of the RSA Team, including representatives from Metroplan, Faulkner County, and the City of Conway. All meeting attendees are listed in **Table 1**.

Table 1: Pre-Audit Meeting Attendees

Agency	Representative(s)
Faulkner County	Allen Dodson
City of Conway	Robbie Alberson Bart Castleberry Kurt Jones Jacob Reynolds Felicia Rogers
Metroplan	Hans Haustein
Kimley-Horn (RSA Team Consultant)	Tom Fowler Kate Reichard
TEC (RSA Team Subconsultant)	Finley Vinson

The purpose of the Pre-Audit meeting was to brief Faulkner County and City of Conway staff on the RSA process, as well as review the pre-audit crash data analyses, and obtain information from the County and City staff to assist the RSA team in conducting the RSA, such as identifying other City of Conway staff that should be included for the RSA field review. Faulkner County and City of Conway staff briefed the RSA team on a variety of topics that were useful in conducting the RSA, such as pedestrian tendencies and lack of consistent pedestrian infrastructure, particularly around Ellen Smith Elementary School.

Field Review

The South Donaghey Avenue RSA field review was conducted on April 14, 2025. The RSA team began by meeting at the City of Conway Fire Department Station 6 to brief the Faulkner County and City of Conway staff on the RSA purpose, process, and benefits. The team also discussed pre-audit data analyses and obtained additional information from attendees to assist the RSA team in conducting the RSA. All field review participants are listed in **Table 2**.

Table 2: Field Review Participants

Agency	Representative(s)
Faulkner County	Allen Dodson
City of Conway	Robbie Alberson Steven Culliford Kurt Jones Jacob Reynolds Shannon Riner
Metroplan	Hans Haustein
Kimley-Horn (RSA Team Consultant)	Tom Fowler Kate Reichard
TEC (RSA Team Subconsultant)	Melissa Banks

After the briefing, the RSA team went to the intersection of South Donaghey Avenue and Favre Lane to begin observations of South Donaghey Avenue. The RSA team then conducted observations from the south end of the study corridor to the north end, stopping at several key points along the way, such as the Stone Dam Creek bridge, the Dave Ward Drive intersection, the Robins Street intersection, and the Bruce Street intersection. The RSA team members identified safety concerns, strengths, weaknesses, and possible improvements along South Donaghey Avenue. Anecdotal experiences and recently completed and upcoming projects in the vicinity were discussed as well.

Initial Findings Recap

Upon completion of the RSA field review, the RSA team developed a set of identified observations and safety concerns to share with Metroplan and City of Conway staff at the Initial Findings meeting. This meeting was conducted virtually on May 1, 2025. All meeting attendees are listed in **Table 3**.

Table 3: Initial Findings Meeting Attendees

Agency	Representative(s)
City of Conway	Robbie Alberson Kurt Jones Bobby Kelly Jacob Reynolds
Metroplan	Hans Haustein
Kimley-Horn (RSA Team Consultant)	Tom Fowler Kate Reichard
TEC (RSA Team Subconsultant)	Finley Vinson

During the Initial Findings meeting, the RSA team presented the list of observations and safety concerns identified during the RSA field review. Preliminary suggested safety countermeasures were also discussed with Metroplan and City of Conway staff. This discussion allowed staff to provide feedback, ask questions, and suggest additional or alternative safety countermeasures.

Existing Conditions

General Roadway Characteristics

South Donaghey Avenue, between Bruce Street and Favre Lane, is a 1.8-mile corridor in central City of Conway. South Donaghey Avenue is owned and maintained by the City of Conway, as well as Bruce Street and Favre Lane, but Dave Ward Drive is owned and maintained by ARDOT. South Donaghey Avenue generally runs in the north-south direction, as shown in **Figure 2**. South Donaghey Avenue provides a connection to College Ave and Dave Ward Drive and runs relatively parallel to Harkrider Street and Salem Road.

South Donaghey Avenue is surrounded by a mix of land uses including primarily the University of Central Arkansas campus and student housing between Bruce Street and Dave Ward Drive, retail and restaurants around the Dave Ward Drive intersection, residential developments between Dave Ward Drive and Favre Lane, and Ellen Smith Elementary School at the southwest corner of the Favre Lane intersection.

Sidewalk exists along a majority of the study corridor, with continuous sidewalk along both sides of South Donaghey Avenue between Bruce Street and Woodland Springs Drive. Between Woodland Springs Drive and Springwood Drive, sidewalk only exists along the west side of South Donaghey Avenue. Sidewalk only exists along the east side of South Donaghey Avenue from the Regional Greenway Trail connection on the south side of Stone Dam Creek to Rosemary Drive, where it begins on the west side of South Donaghey and ends just south of the Favre Lane intersection. Between Bruce Street and Dave Ward Drive, a shared-use path exists along the east side of South Donaghey Avenue and a dedicated bike lane exists along the west side. There are no transit facilities along South Donaghey Avenue.



Figure 2: South Donaghey Avenue Study Corridor Extents

Between Bruce Street and Dave Ward Drive, South Donaghey Avenue consists of three lanes, with one lane in each direction separated by a two-way left-turn lane. Between Dave Ward Drive and Woodland Springs Drive, South Donaghey Avenue consists of five lanes, with two lanes in each direction and a center two-way left-turn lane. Between Woodland Springs Drive and Favre Lane, South Donaghey Avenue consists of two lanes, with one lane in each direction and no two-way left-turn lane. The study corridor has a posted speed limit of 30 miles per hour (mph) between Bruce Street and Dave Ward Drive and 40 mph between Dave Ward Drive and Favre Lane. A school zone with a reduced speed limit of 20 mph exists between Attwood Drive and Morning Glory Lane.

Average daily traffic (ADT) data provided by ARDOT's Interactive ADT Web App was analyzed along South Donaghey Avenue, as well as along Bruce Street and Favre Lane. ADT counts were taken most recently in 2023, when approximately 15,000 vehicles were counted on South Donaghey Avenue just north of the Hillman Street intersection and 8,500 vehicles were counted on South Donaghey Avenue just south of the Springwood Drive intersection. Along Bruce Street, approximately 4,700 vehicles were counted to the west of South Donaghey Avenue and 3,700 vehicles to the east of South Donaghey Avenue. Approximately 5,600 vehicles were counted on Favre Lane to the east of South Donaghey Avenue.

Historic Crash Data

The Central Arkansas Safety Action Plan used 2018 through 2022 crash data to develop the HIN, as it was the most recent full five years of data at the time the development of the HIN began. For the RSA, more recent crash data from 2019 through 2023 was analyzed. During this crash data analysis period, there were a total of 383 crashes along the 1.8-mile study corridor of South Donaghey Avenue. Detailed crash diagram maps are included in **Appendix A**.

Among the 2019 through 2023 crashes along South Donaghey Avenue, five resulted in suspected serious injuries, 67 resulted in suspected or potential minor injuries, and there were no fatalities. Approximately 75 percent of all crashes were reported as at an intersection, including all five serious injury crashes, two of which involved bicyclists. The most common crash manner was rear-end crashes, making up over half of all crashes along the corridor. About 70 percent of all crashes between Bruce Street and Hillman Street were rear-ends, likely related to the safety concerns City of Conway staff expressed regarding speeding and high volumes of pedestrians crossing South Donaghey Avenue.

Over half of all crashes along the study corridor occurred within about 250-feet of the Dave Ward Drive intersection, including three serious injury crashes. Over half of all crashes within this intersection were rear-ends and almost a quarter were angle crashes. Over a quarter of all crashes within this intersection occurred during nighttime hours, between dusk and dawn, including about half of the suspected minor injury crashes that occurred at this intersection.

Existing Plans

Existing plans for future construction or safety improvements on South Donaghey Avenue were not identified during the RSA study. The RSA team did note that construction equipment appeared to be staged at the southeast corner of South Donaghey Avenue and Favre Lane. It was not clear what, if anything, was being constructed on this corner.

RSA Observations & Recommendations

Strengths

During the South Donaghey Avenue RSA field review, several positive aspects of the study corridor were recognized by the RSA team and are worth noting. It is recommended that efforts be made to ensure these features continue to be strengths during future maintenance and operation of South Donaghey Avenue. Additionally, these features should be incorporated elsewhere along the study corridor and into the design and construction of new roads in the City of Conway.

Rectangular Rapid Flashing Beacons (RRFBs)

South Donaghey Avenue, along the University of Central Arkansas campus between Bruce Street and Dave Ward Drive, has three crossings with rectangular rapid flashing beacons (RRFBs) to alert drivers of pedestrians crossing South Donaghey Avenue midblock. Two of these RRFBs include raised concrete pedestrian refuge islands, one of which is shown in **Figure 3**, to provide pedestrians with a protected landing to wait for vehicles to stop in case the drivers on the opposite side do not see the crossing pedestrian. Providing high visibility crossing infrastructure is essential for safety in high pedestrian areas.



Figure 3: Rectangular Rapid Flashing Beacon

Directional Ramps

All the observed existing pedestrian crossings along South Donaghey Avenue included directional ramps and none had diagonal ramps. Directional ramps offer clearly defined and accessible routes for pedestrians to cross roadways and driveways. Unlike diagonal ramps, directional ramps guide pedestrians towards more direct and designated crossing points, reducing crossing distances, the risk of jaywalking, and the risk of conflict with vehicles in the middle of an intersection.

Dedicated Bike Lanes/Shared-Use Path

Between Bruce Street and Dave Ward Drive, South Donaghey Avenue consists of a sidewalk and dedicated bike lane with delineators creating a buffer between bicyclists and vehicles along the entire west side and the southern portion of the east side. On the northern portion of the east side there is a shared-use path with a brick

centerline to provide separation between pedestrians and bicyclists. Dedicated bike lanes and shared-use paths greatly enhance transportation safety by physically dividing different types of traffic, thereby reducing the potential for collisions between motorists, cyclists, and pedestrians.

Trees and Lamp Posts

The existing tall trees and lamp posts along both sides of South Donaghey Avenue on the University of Central Arkansas campus between Bruce Street and Dave Ward Drive, as shown in **Figure 4**, alert drivers to a change in their surroundings and create a visual narrowing effect, subconsciously encouraging drivers to reduce their speed. This perceived narrowing of the road heightens driver awareness and caution, leading to more controlled and safer driving behaviors. Additionally, the aesthetic appeal of tree-lined and well-lit streets contributes to a calmer and more pleasant driving environment, further promoting cautious and responsible driving both during the day and at night.



Figure 4: Trees and Lamp Posts

Roundabout

The existing roundabout at the intersection of South Donaghey Avenue and Favre Lane did not have any fatal, suspected serious injury, or suspected minor injury crashes within 250-feet of it from 2019 through 2023. Roundabouts improve transportation safety by reducing the probability and severity of collisions compared to traditional intersections. Their design decreases the number of conflict points for drivers by eliminating high-speed, head-on, and perpendicular angle crashes, while promoting continuous, one-way traffic flow at lower speeds. The central islands and deflecting curves naturally slow down vehicles, leading to safer pedestrian crossings and overall improved traffic safety.

Suggested Improvements

The RSA team identified suggested improvements based on the daytime and nighttime field reviews of South Donaghey Avenue as well as discussions with the staff representing Metroplan, Faulkner County, and the City of Conway. Suggested improvements are provided for corridor-wide issues as well as specific locations along the study segment of South Donaghey Avenue. The following information is provided for each of the 24 corridor-wide and location-specific suggested improvements in **Table 4**.

- **Location:** Location is defined as either a corridor-wide improvement which is applied to large parts or the entirety of the South Donaghey Avenue RSA study segment, between Bruce Street and Favre Lane, or a specific location along the study segment. For location-specific suggested improvements, road segment or intersection details are provided.
- **Observations:** A summary of the observations made by the RSA team and relevant crash data is provided for each suggested improvement.
- **Suggested Improvements:** Suggested improvements are provided for a range of implementation timeframes identified below. Generally, immediate suggested improvements are considered to be lower-cost countermeasures that address immediate safety issues, such as signing a sharp turn that requires a reduction in speed. Long-term suggested improvements are generally higher-cost improvements that may require additional capital programming or development of engineering plans, such as the reconfiguration of an intersection.
 - Immediate: Less than 1 year
 - Short-Term: 1 – 2 years
 - Mid-Term: 2 – 5 years
 - Long-Term: 5+ years
- **Cost Estimates for Suggested Improvements:** An opinion of probable cost for each suggested improvement is provided. The cost estimation methodology is described in the following section and a list of the unit costs for individual pay items used to develop the cost estimates is provided in **Appendix B**.
- **Photos:** Photos, when available, have been provided to assist the reader in visualizing the described observations and suggested improvements.
- **Conceptual Layouts:** A note is included in the recommendation table if a conceptual layout was developed for the recommendation. Conceptual layouts are included in **Appendix C**.

Table 4: Field Review Observations and Suggested Improvements

1. Retroreflective Signage

Location: Corridor-Wide

Observations

- Several signs along South Donaghey Avenue are not retroreflective. This is more prevalent on the south end of the study corridor.

Immediate Improvements

- Replace all existing signs and object markers on South Donaghey Avenue that are not retroreflective with signs that meet the MUTCD retroreflectivity requirements.

Cost Estimate

Immediate: \$14,000

Notes: The cost estimate assumes replacement of 20 signs and four object markers on the South Donaghey Avenue corridor.



Figure 5: Northbound approach to the school zone warning sign at Favre Lane is not retroreflective and the SCHOOL pavement marking is faded.

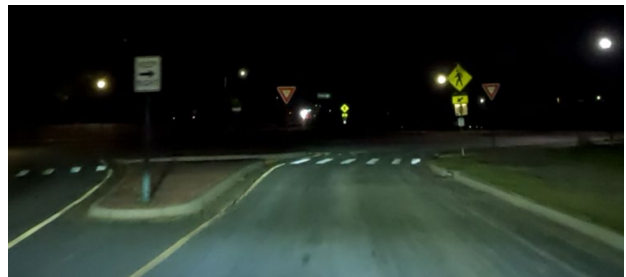


Figure 6: The keep right sign, yield signs, and one way arrow sign at the northbound approach to the roundabout at South Donaghey Avenue and Favre Lane are not retroreflective.

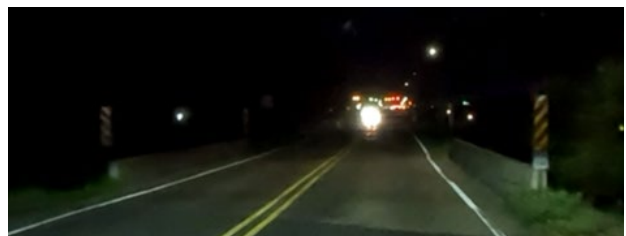


Figure 7: Object markers on both sides of the northbound approach to Stone Dam Creek bridge on South Donaghey Avenue are not retroreflective.

2. Retroreflective Backplates

Location: Corridor-Wide

Observations

- Retroreflective yellow backplates are installed on traffic signal heads for the bike lanes, but not on most other traffic signal heads.
- The City noted they have been installing retroreflective backplates on all other traffic signal heads in the City when constructing a new signal or reconstructing an existing signal and are open to adding retroreflective backplates along the South Donaghey Avenue corridor.

Immediate Improvements

- Install retroreflective backplates on all traffic signal heads along South Donaghey Avenue.

Cost Estimate

Short-Term: \$11,000



Figure 8: Traffic signal heads for the northbound approach of South Donaghey Avenue to Bruce Street.

3. Intersection Lighting

Location: Corridor-Wide

Observations

- Most intersections appear dark, even when lighting is present at the intersection as the light being cast often does not light up the entire intersection.
- Several of the intersection crashes that occurred during the five-year study period occurred at night.

Mid-Term Improvements

- Add additional intersection lighting along the corridor to fully illuminate intersections.

Cost Estimate

Mid-Term: \$98,700

Note: The cost estimate assumes upgrades or addition of lighting at up to three intersections. Intersection lighting at the intersection of South Donaghey Avenue and Dave Ward Drive is specifically addressed in suggested improvement number 16.

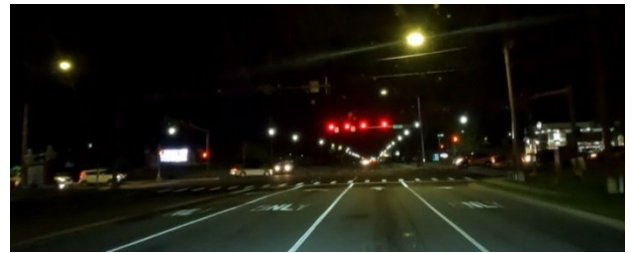


Figure 9: Northbound approach of South Donaghey Avenue to Dave Ward Drive.

4. Speed Enforcement and Traffic Calming

Location: Corridor-Wide

Observations

- The City Conway and Ellen Smith Elementary representatives expressed concern regarding speeding along South Donaghey Avenue. Potential causes of speeding noted by the representatives include the flat and straight nature of the corridor, long distance between signals/roundabouts south of Dave Ward Drive, and possible driver frustration with series of RRFBs near the University of Central Arkansas.
- Conway Police officers assist with speed enforcement and traffic control during morning drop off and afternoon pick up at Ellen Smith Elementary school, however there are not enough police resources to dedicate an officer every day for both peak periods.
- Conway Police have done several enforcement efforts in the past, which have a positive impact on speed reduction, but they noted speeding usually returns about three weeks after the enforcement efforts are completed.
- The City of Conway has installed some permanent speed feedback signs throughout the City, but noted that drivers have quickly become immune to them or even speed up to see how high they can get the feedback display number.

Short-Term Improvements

- Increase presence of Conway Police officers for speed enforcement.
- Restripe centerline, lane lines, and edge lines with 6" pavement markings to make lanes feel narrower and discourage speeding. As part of the restriping effort, consider making the lanes narrower to provide more shoulder space and possibly reduce speeds by making lanes feel more restricted.

Cost Estimate

Short-Term: \$60,500

Note: The cost estimate includes striping cost, but not law enforcement cost.



Figure 10: Southbound approach of South Donaghey Avenue to Dave Ward Drive has wide lanes leading to a wide intersection.

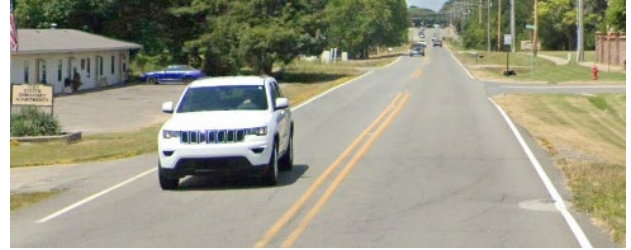


Figure 11: Northbound approach of South Donaghey Avenue to Massee Gardens is flat and straight with wide lanes.

5. Pedestrian Crossing Education Campaign

Location: Corridor-Wide

Observations

- Several pedestrians were observed pushing the RRFB buttons near the University of Central Arkansas and crossing without looking up to check that cars have stopped. This was especially common with students looking at smartphones.
- Some pedestrians were observed checking that the closest lane of traffic had stopped before stepping into the road, but did not check the other lanes or other direction of vehicular traffic once they began crossing.
- Some pedestrians at the RRFB crossings were observed crossing without pushing the button to activate the RRFB.

Short-Term Improvements

- Create and deliver an educational campaign for students and other pedestrians to slow down and look before crossing, particularly when using RRFBs.
- Consider adding sidewalk stickers at crossings to encourage pedestrians to look up from their phones and check that vehicles have stopped.

Cost Estimate

Short-Term: \$3,300

Note: The cost estimate assumes addition of sidewalk stickers or markings at three RRFB crossings.

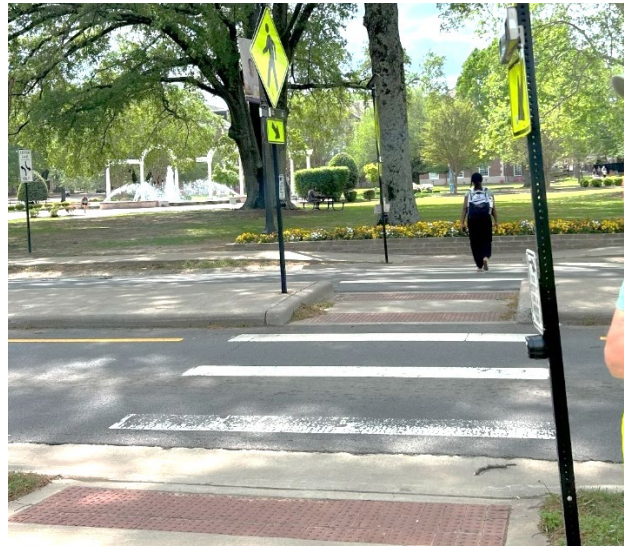


Figure 12: Student observed wearing headphones and crossing South Donaghey Avenue without pushing the button to activate the flashers at an RRFB near the University of Central Arkansas.

6. Sidewalk Realignment

Location: Corridor-Wide

Observations

- Several sidewalks on campus or along streets that intersect South Donaghey Avenue across from the University of Central Arkansas direct students to cross at locations without marked or protected crossings.
- Pedestrians were observed crossing where the sidewalks from campus buildings meet South Donaghey Avenue even if there was not a marked or protected crossing.
- Many of the sidewalks on campus lead to marked crosswalks, so students may be used to crossing a road directly from where a sidewalk meets the road.

Mid-Term Improvements

- Realign sidewalks to create more direct paths from buildings on the University of Arkansas campus to RRFBs and signalized intersections with protected pedestrian crossings.

Cost Estimate

Long-Term: \$111,400

Note: The cost estimate assumes 600-feet of sidewalk.



Figure 13: Student crossing South Donaghey Avenue at a location with no crosswalk from a sidewalk leading from the College of Business building to the sidewalk along the east side of South Donaghey Avenue, north of Torreyson Street.



Figure 14: Sidewalks connecting the University of Central Arkansas PBS building to the sidewalk along the west side of South Donaghey Avenue do not align with the RRFB crossing.



Figure 15: Many sidewalks on the University of Central Arkansas campus appear to lead to marked crosswalks.

7. Flashing Yellow Arrow Left-Turn Signal Head

Location: Bruce Street Intersection

Observations

- The traffic signal green ball for left-turns may be confusing for drivers turning left, causing them to mistakenly assume they have the right-of-way to turn left without looking for pedestrians in the crosswalk who have the walk signal at the same time.

Mid-Term Improvements

- Replace existing left-turn traffic signal heads with flashing yellow arrow left-turn signal heads.

Cost Estimate

Mid-Term: \$16,300



Figure 16: Traffic signal heads for the northbound approach of South Donaghey Avenue to Bruce Street.

8. Bike Lane Maintenance

Location: Between Bruce Street and Dave Ward Drive

Observations

- Some delineators for the bike lane along the west side of South Donaghey Avenue are missing. For example, several are missing near RRFB between Bruce Street and Alumni Circle.
- University of Central Arkansas has an agreement with the City of Conway to maintain the bike lane along the west side of South Donaghey Avenue, but the City often gets complaints about debris in the bike lane which the City sweeper machines cannot access due to the delineators.
- City of Conway staff mentioned considering replacing the existing flex post delineators with something similar to raised pavement markers for easier maintenance.
- The RSA team observed bicyclists biking on the sidewalk along the west side of South Donaghey Avenue instead of using the bike lane.

Immediate Improvements

- Replace the missing delineators for the bike lane along South Donaghey Avenue between Bruce Street and Dave Ward Drive.
- Encourage the University of Central Arkansas to maintain bike lanes which will promote use of the lanes and separation of bicyclists and pedestrians.

Cost Estimate

Immediate: \$13,600

Note: The cost estimate assumes replacement of approximately 800-feet of delineators.



Figure 17: Several delineators for the bike lane are missing along the west side of South Donaghey Avenue near the RRFB closest to Bruce Street.

9. Pedestrian Infrastructure

Location: Alumni Circle/South Boulevard Intersection

Observations

- A fence on the northwest corner of South Donaghey Avenue and Alumni Circle/South Boulevard blocks pedestrians from crossing South Donaghey Avenue or Alumni Circle/South Boulevard at this intersection. There is also no crossing for pedestrians on the north side of Alumni Circle/South Boulevard to cross to the south side and access the RRFB for crossing South Donaghey Avenue.
- It appears there may be some drainage issues that may have made creating a safe pedestrian crossing across Alumni Circle/South Boulevard more costly.

Mid-Term Improvements

- Remove the fence and add pedestrian accommodations including ramps and crosswalk.

Cost Estimate

Long-Term: \$136,600



Figure 18: Fence at the northwest corner of South Donaghey Avenue and Alumni Circle/South Boulevard.

10. Turning Vehicles Yield Sign

Location: Robins Street Intersection

Observations

- A sign on the traffic signal mast arm for southbound vehicles on South Donaghey Street approaching Robins Street states “turning vehicles yield to pedestrians and bikes.” The sign has an arrow pointing to the right, but turning right is not a possible movement at this intersection which may be confusing to drivers.

Immediate Improvements

- Remove the sign stating “turning vehicles yield to pedestrians and bikes” for the southbound approach of South Donaghey Avenue to Robins Street.

Cost Estimate

Immediate: \$600

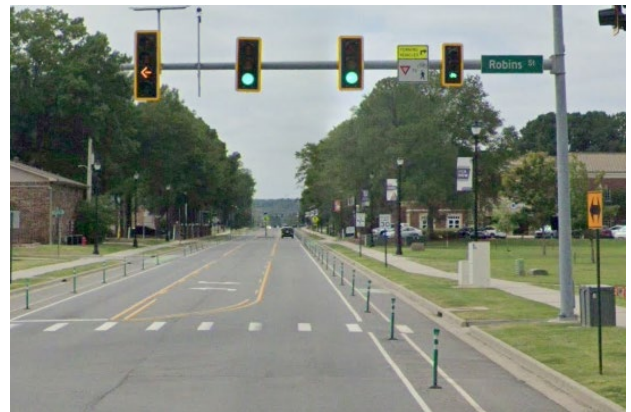


Figure 19: Traffic signals and signs for the southbound approach of South Donaghey Avenue to Robins Street.

11. Intersection Lighting Maintenance

Location: Robins Street Intersection

Observations

- The intersection lighting on the traffic signal poles was not operational at night, making it very difficult to see the crosswalk pavement markings and determine if pedestrians were in the road, particularly for the crosswalk across Robins Street.

Immediate Improvements

- Ensure existing intersection lighting is operational.

Cost Estimate

Immediate: NA

Note: Cost to be determined based on further investigation into the cause of the lighting not being operational.



Figure 20: Existing intersection lighting on traffic signal poles at the South Donaghey Avenue and Robins Street intersection.

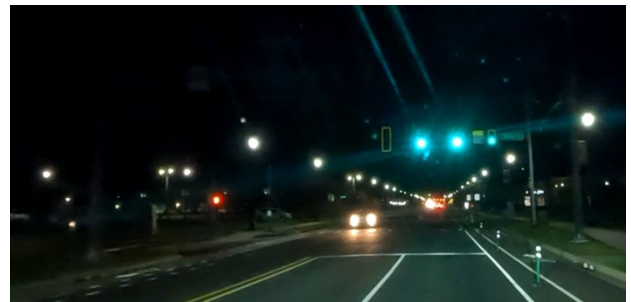


Figure 21: South Donaghey Avenue and Robins Street intersection at night.

12. Shared Lane Pavement Marking

Location: Dave Ward Drive Intersection

Observations

- The bike lane along the west side of South Donaghey Avenue ends abruptly at the southbound approach to Dave Ward Drive.
- There is an existing BIKE LANE ENDS sign at the location.

Immediate Improvements

- Add an in-lane share the road pavement marking at the end of the bike lane.

Cost Estimate

Immediate: \$600

*Note: A conceptual drawing of suggested improvements at South Donaghey Avenue and Dave Ward Drive, including the bike lane improvement, is included in **Appendix C**.*



Figure 22: Bike lane ends signage at the southbound approach of South Donaghey Avenue to Dave Ward Drive.

13. Sidewalk Hazards

Location: Dave Ward Drive Intersection

Observations

- A section of sidewalk is missing on the east side of South Donaghey Avenue at the northbound approach to Dave Ward Drive.
- A water line access cover in the middle of the sidewalk along Dave Ward Drive near the southeast corner is raised 1.75" above the surface of the sidewalk and is a tripping hazard.

Short-Term Improvements

- Fill in the gap in the sidewalk on the east side of South Donaghey Avenue.
- Lower the water line access cover, or raise the sidewalk, so the cover and sidewalk surface are flush.

Cost Estimate

Short-Term: \$12,200

*Note: A conceptual drawing of the suggested improvements at South Donaghey Avenue and Dave Ward Drive, including the sidewalk water line location, is included in **Appendix C**.*



Figure 23: Section of sidewalk is missing on the east side of South Donaghey Avenue south of Dave Ward Drive.



Figure 24: Water line access cover raised 1.75" above sidewalk surface near the southeast corner of South Donaghey Avenue and Dave Ward Drive.

14. Pedestrian Detection and Signals

Location: Dave Ward Drive Intersection

Observations

- Several pedestrian signal heads and accessible pedestrian signals (APS) at the intersection of South Donaghey Avenue and Dave Ward Drive appeared to be malfunctioning when tested in the field. The following issues were noted, but not every pedestrian signal head and APS was tested.
 - Orange hand on signal head for eastbound pedestrians at the north leg of the intersection was not flashing when counting down and the walk symbol did not come on.
 - Audio for the APS at the northwest corner was very quiet and difficult to hear over traffic noise.
 - Audio for the APS at the northeast corner was unclear.

Short-Term Improvements

- Test and repair or replace all pedestrian signal heads and APS units.

Cost Estimate

Short-Term: \$28,000

Note: The cost estimate assumes replacement of pedestrian signal equipment for two crossings (two pedestrian signal heads per crossing.)



Figure 25: The APS push button for the crossing Dave Ward Drive at the east leg of the intersection.

15. Intersection Pedestrian Crossing Distance

Location: Dave Ward Drive Intersection

Observations

- RSA team members noted the pedestrian signal timing felt short when crossing all legs of the intersection and a do not cross message appears even when there seems to be time left for safe crossing. This may lead pedestrians to think they do not have sufficient time to cross and unnecessarily stop in the narrow refuge islands that exist for the Dave Ward Drive crossings to wait for the next cycle. City of Conway representatives noted that the pedestrian signal poles in the narrow refuge island regularly get hit by vehicles, so providing adequate pedestrian crossing time for pedestrians to fully cross the road is important.
- Pedestrian signal timings were timed at some locations as follows:
 - Approximately 5 seconds walk and 20 seconds of countdown for crossing South Donaghey Avenue at the north leg. The distance across the north leg is approximately 92-feet.
 - Approximately 6 seconds of walk and 15 seconds of countdown for crossing Dave Ward Drive at the west leg. The distance across the west leg is approximately 124-feet.
- The FHWA Manual on Uniform Traffic Control Devices states that a “walk interval should be at least 7 seconds.”
- The existing pedestrian refuge islands are curb cuts in a raised concrete median and feel very narrow at a width of 4-feet and offer minimum protection to pedestrians that stop at the islands.
- The minimum width for pedestrian refuge island is 4-feet according to FHWA, but the National Association of City Transportation Officials recommends a minimum of 6-feet. Both agencies have a preferred width of 8-feet.

Immediate Improvements

- Adjust the pedestrian walk phase to allow adequate time for a pedestrian to cross Dave Ward Drive and not have to use the pedestrian refuge island.

Mid-Term Improvements

- Option 1: Reconstruct existing pedestrian refuge islands along Dave Ward Drive to be at least 6-feet wide to provide more buffer between pedestrians waiting on the refuge island and vehicles moving through the intersection.

– OR –



Figure 26: Southbound pedestrian crossing for crossing Dave Ward Drive at the east leg of the intersection.

- Option 2: Complete Option 1 and construct pedestrian refuge islands for crossing the South Donaghey Avenue approaches. The pedestrian islands would also provide an opportunity to narrow lanes and provide traffic calming for northbound vehicles on South Donaghey Avenue prior to entering onto the University of Central Arkansas campus.

Cost Estimate

Immediate: NA

Mid-Term (Option 1): \$142,600

Mid-Term (Option 2): \$591,000

*Note: A conceptual drawing of the suggested improvements at South Donaghey Avenue and Dave Ward Drive, including the pedestrian refuge island improvements, is included in **Appendix C**.*

16. Intersection Lighting

Location: Dave Ward Drive Intersection

Observations

- Seven out of 15 fatal, suspected serious injury, and suspected minor injury crashes at the intersection of South Donaghey Avenue and Dave Ward Drive were reported as occurring in dark light conditions.
- Lighting exists along both approaches of South Donaghey Avenue to Dave Ward Drive, but trees cast shadows, and some lights seemed dim at night.
- Intersection lighting exists at the northeast, southeast, and southwest corners and is angled perpendicular to the approaches. The existing lights do not extend over the middle of the intersection and only cast light on the one or two lanes the light is directly over.

Short-Term Improvements

- Improve and/or add additional lighting to the intersection of South Donaghey Avenue and Dave Ward Drive.

Cost Estimate

Short-Term: \$65,800



Figure 27: Intersection lighting exists at the northeast, southeast, and southwest corners of South Donaghey Avenue and Dave Ward Drive.

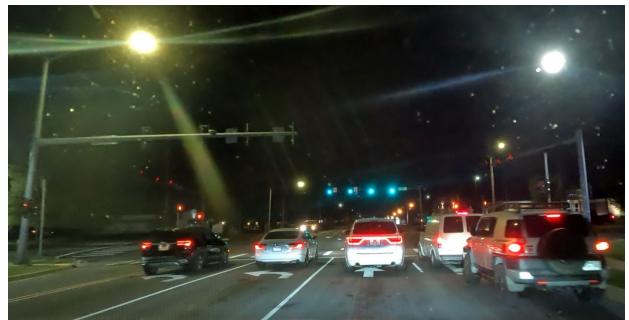


Figure 28: The existing intersection lighting does not illuminate the middle of the intersection or cast light over all lanes at all approaches.

17. Right-Turn Sight Distance

Location: Dave Ward Drive Intersection

Observations

- Fixed objects and vegetation obstruct visibility of oncoming traffic for right-turning drivers at several corners.
 - Bank sign at the southwest corner reduces northbound South Donaghey Avenue right-turn driver sight distance to approximately 182-feet. (AASHTO right-turn vehicle intersection sight distance at 50 mph is 480-feet.)
 - Shrub at northwest corner reduces eastbound Dave Ward Drive right-turn driver sight distance to approximately 222-feet. (AASHTO right-turn vehicle intersection sight distance at 30 mph is 290-feet.)
 - Brick wall at the northeast corner reduces southbound South Donaghey Avenue right-turn driver visibility to approximately 187-feet. (AASHTO right-turn vehicle intersection sight distance at 50 mph is 480-feet.)

Immediate Improvements

- Trim or remove vegetation at the northwest corner of South Donaghey Avenue and Dave Ward Drive.

Short-Term Improvements

- Add NO RIGHT TURN ON RED signage for northbound right-turn and southbound right-turn drivers on South Donaghey Avenue.

Mid-Term Improvements

- Remove or relocate the bank sign on the southwest corner and brick wall on the northeast corner of South Donaghey Avenue and Dave Ward Drive to provide sufficient sight distance for right-turning vehicles.

Cost Estimate

Immediate: NA

Short-Term: \$2,600

Mid-Term: \$280,000



Figure 29: Visibility for right-turn vehicles at the southbound approach of South Donaghey Avenue to Dave Ward Drive is limited by a brick wall at the northeast corner of the intersection.

18. Parking Lot Connection

Location: Between Dave Ward Drive and Moix Boulevard

Observations

- Several fatal, suspected serious injury, and suspected minor injury crashes occurred along South Donaghey Avenue just south of Dave Ward Drive near the offset driveways and minor street intersections.
- Northbound left-turn vehicles that want to access the shopping/business center at the southwest corner of South Donaghey Avenue and Dave Ward Drive can only legally turn left at Moix Boulevard and loop all the way around and back track to get to shopping/businesses, or turn into the bank driveway which does not connect to the parking lots of the other businesses.

Mid-Term Improvements

- Consider connecting the bank parking lot to the shopping/business center driveway so northbound vehicles can safely turn left at the bank rather than turning illegally to the south.

Cost Estimate

Mid-Term: \$60,900



Figure 30: Aerial of the southwest corner block between South Donaghey Avenue, Dave Ward Drive, and Moix Boulevard.

19. Right-Turn Deceleration Lane

Location: University Park Apartments Driveway Intersection

Observations

- Existing RIGHT LANE MUST TURN RIGHT sign for the southbound right-turn lane along South Donaghey Avenue for turning at the University Park Apartments Driveway is posted approximately 1,000-feet from the curb of the turn and about 700-feet from where the cross hatching for the right-turn lane begins. The sign is posted approximately 150-feet north of Moix Boulevard and may mislead drivers into thinking they have to turn right onto Moix Boulevard.
- The existing lane line markings for the lane that becomes right-turn only change directly from white dashes to the cross hatching.
- The existing raised concrete channelization island and pavement markings for the southbound right-turn lane for the University Park Apartments Driveway do not align.

Immediate Improvements

- Relocate the existing RIGHT LANE MUST TURN RIGHT sign south of Moix Boulevard and closer to the start of the dedicated right-turn lane.
- Restripe the approach to the right-turn lane to provide a transition section between the existing dashes and cross hatch using white dots then a solid white line (see example in **Figure 34**).
- Add a right-turn arrow ONLY sign where the solid white line begins.
- Extend the raised concrete channelization island for southbound right-turn lane to guide vehicles through the turn.

Cost Estimate

Short-Term: \$29,600



Figure 31: Right lane must turn right sign posted for southbound right-turn lane for University Park Apartments Driveway is posted in advance of Moix Boulevard, where cars were observed turning right.



Figure 32: White dashed lane lines leading up to the southbound right-turn lane for the University Park Apartments Driveway.



Figure 33: Raised concrete channelization island and pavement markings for the southbound right-turn lane along South Donaghey Avenue for the University Park Apartments Driveway.

Figure 3B-11. Examples of Applications of Conventional Road Lane-Drop Markings
(Sheet 1 of 2)

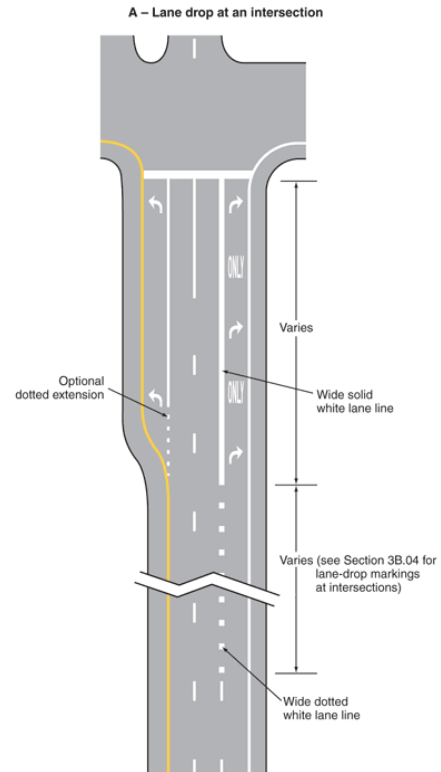


Figure 34: Example turn lane striping.

20. Centerline Pavement Markings

Location: Between Springwood Drive and Favre Lane

Observations

- Dashed white pavement markings exist along the solid double yellow centerline pavement markings of South Donaghey Avenue for approximately 3,100-feet between Springwood Drive and Favre Lane.
- The dashed white pavement marking may have been temporary striping that was put down and has not faded.

Immediate Improvements

- Remove dashed white pavement markings along the centerline of South Donaghey Avenue.

Cost Estimate

Short-Term: \$7,800



Figure 35: White dashed pavement marking along the centerline striping of South Donaghey Avenue near the northbound approach to Attwood Drive.

21. Sidewalk on Bridge

Location: Stone Dam Creek Bridge

Observations

- The nearest greenway trail crossing for greenway users to get from the south side of Stone Dam Creek to the north side is approximately 0.2-miles west of South Donaghey Avenue.
- A pedestrian was observed crossing the bridge and City of Conway representatives noted they regularly see pedestrians crossing the bridge.
- A footpath was observed worn into the grass along the west side of South Donaghey Avenue south of the bridge, where no sidewalk is present.
- A pedestrian was observed walking along the west side of South Donaghey Avenue where there is a gap in the sidewalk near Sugar Creek Drive.

Mid-Term Improvements

- Create a pedestrian and bicyclist crossing along the west side of the bridge. This could be a cantilever type bridge added to the existing bridge, or a bridge added adjacent to the existing bridge. Additional study of the bridge is needed.
- Construct sidewalk along the west side of South Donaghey Avenue to fill in the missing sidewalk gap.

Cost Estimate

Long-Term: \$1,000,000*

**Additional study is needed to determine the feasibility of a pedestrian bridge and the cost of the bridge and sidewalk. The \$1,000,000 cost estimate is a very high-level estimate and the actual cost could vary significantly.*



Figure 36: Pedestrian crossing Stone Dam Creek bridge in the narrow shoulder.



Figure 37: Pedestrian observed walking along the west side of South Donaghey Avenue where there is a gap in the sidewalk near Sugar Creek Drive.



Figure 38: Example of a pedestrian bridge added to an existing bridge in Buchanan County, Iowa. (Photo courtesy of Buchanan County)

22. Retroreflective Object Markers on Bridge

Location: Stone Dam Creek Bridge

Observations

- Reflectors do not exist along the bridge walls of Stone Dam Creek Bridge on South Donaghey Avenue.
- A small shoulder buffer is present between the edge line and bridge walls.
- Street lighting was observed to be very dim along the bridge.

Immediate Improvements

- Install reflectors along the bridge walls to increase visibility of bridge.

Cost Estimate

Immediate: \$400

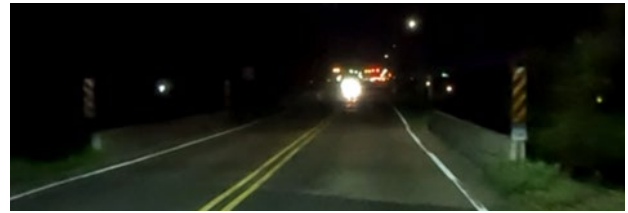


Figure 39: Reflectors do not exist along the bridge walls of Stone Dam Creek Bridge.

23. Corridor Lighting

Location: Between Stone Dam Creek Bridge and Favre Lane

Observations

- Lighting exists consistently along the west side of South Donaghey Avenue. Some lighting also exists along the east side, but all existing corridor lighting is very dim, set back from roadway, and very spaced out between Stone Dam Creek Bridge and Favre Lane.
- Concern was expressed by the Principal of Ellen Smith Elementary regarding students walking to the school in the dark.
- Pedestrians were observed by the RSA team walking at night along the northbound edge line of South Donaghey Avenue near Attwood Drive, where the corridor lighting is very spaced out and the road is very dark.

Mid-Term Improvements

- Replace existing corridor lighting with lighting that provides more illumination, particularly within the school zone at the northbound and southbound approaches to Favre Lane.

Cost Estimate

Mid-Term: \$298,400



Figure 40: The existing streetlight at the Stone Creek Dam bridge is very dim.

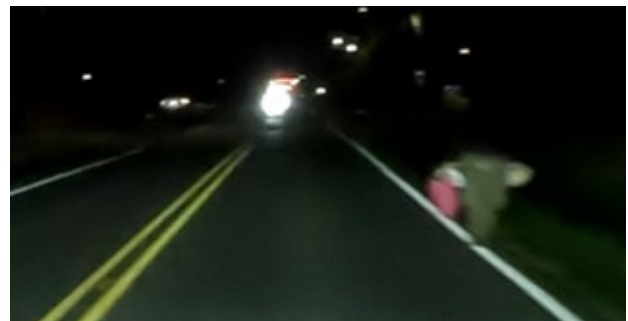


Figure 41: Pedestrian walking on the northbound edge line of South Donaghey Avenue at night near Attwood Drive, where the corridor lighting is very spaced out and the road is very dark.

24. School Zone Signage

Location: Favre Lane Intersection

Observations

- The Principal of Ellen Springs Elementary noted concern about school zone signage spacing.
- At the northbound approach of South Donaghey Avenue to Favre Lane, the school zone ahead sign is 364-feet from the flashing beacon, the flashing beacon is 308-feet to the school fence, and the school fence is 210-feet to the exit driveway.
- At the southbound approach of South Donaghey Avenue to Favre Lane, the school zone ahead sign is 15-feet to the flashing beacon, the flashing beacon is 288-feet to the school zone speed limit sign, and the school zone speed limit sign is 556-feet to the school sidewalk.
- School zone ahead sign for southbound vehicles blocks visibility of the flashing beacons.
- The school zone is not consistently signed in both directions of South Donaghey Avenue.

Short-Term Improvements

- Update all school zone signage to standard school zone signing in both directions, using either the ARDOT standards for school zone or City or County standards if they exist.

Cost Estimate

Short-Term: \$56,000



Figure 42: The school zone ahead warning sign on southbound South Donaghey Avenue blocks the view of the flashing beacons for southbound vehicles approaching Favre Lane.

Cost Estimates

An opinion of probable cost was developed for each of the suggested improvements. Estimated quantities for developing costs were derived through a combination of observations from the RSA field review, reference to aerial imagery, and engineering judgement. The quantities that were used in the cost estimates are preliminary and are not based on engineering design. The RSA team relied on several guidance documents to develop quantities including the *FHWA Manual on Uniform Traffic Control (MUTCD)* as well as ARDOT standards.

The cost estimates provide the City of Conway with a planning level cost for high-level budgeting and should only be considered approximate. Cost estimates utilize unit pricing based on average unit costs seen on similar road and safety projects. These costs will vary based on local construction costs, size of the project, mobilization costs, and other factors. The unit costs for the pay items used for developing the cost estimates for each suggested improvement are presented in **Appendix B**.

An example of a cost estimate calculation worksheet that was prepared for one of the suggested improvements is provided in **Table 5**. To account for engineering, mobilization, traffic control, and other costs associated with construction, cost estimates were increased by 40 percent. The 40 percent factor used is inclusive of all costs beyond the unit cost used for the suggested improvement costed items.

Table 5: Example Cost Estimate for Suggested Improvement

19. Right-Turn Deceleration Lane (University Park Apartments Driveway Intersection)										
Itemized Recommendation Costs										
Improvement	Unit	Unit Cost	Immediate		Short-Term		Mid-Term		Long-Term	
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
Replace/Relocate Standard Sign	Per Sign	\$ 900	1	\$ 900		\$ -		\$ -		\$ -
Add/Improve Pavement Markings	Per Approach Lane	\$ 930	1	\$ 930		\$ -		\$ -		\$ -
Add In-Lane Pavement Marking	Per Marking	\$ 390	1	\$ 390		\$ -		\$ -		\$ -
Construct Raised Concrete Median	Square Yard	\$ 270	70	\$ 18,900		\$ -		\$ -		\$ -
Engineering, Mobilization, Traffic Control, Etc.	40%			\$ 8,450		\$ -		\$ -		\$ -
Recommendation Cost Summary										
Total Cost by Timeframe				Immediate	Short-Term	Mid-Term	Long-Term			
				\$ 29,600	\$ -	\$ -	\$ -			
Total Recommendation Cost				\$						29,600

A summary of all suggested improvement cost estimates is provided in **Table 6**. A view of the cost aggregated by type of cost (Signing, Pavement Markings and Striping, and Other) is provided in **Table 7**. This view is provided should the City want to address all signing or pavement marking and striping improvements through a corridor-wide type project.

Table 6: Summary of Suggested Improvement Cost Estimates by Timeframe

No.	Suggested Improvement	Cost Estimate by Implementation Timeframe			
		Immediate	Short-Term	Mid-Term	Long-Term
1	Retroreflective Signage	\$14,000	-	-	-
2	Retroreflective Backplates	-	\$11,000	-	-
3	Intersection Lighting	-	-	\$98,700	-
4	Speed Enforcement and Traffic Calming	-	\$60,500	-	-
5	Pedestrian Crossing Education Campaign	-	\$3,300	-	-
6	Sidewalk Realignment	-	-	-	\$111,400
7	Flashing Yellow Arrow Left-Turn Signal Head (Bruce Street)	-	-	\$16,300	-
8	Bike Lane Maintenance (Between Bruce Street and Dave Ward Drive)	\$13,600	-	-	-
9	Pedestrian Infrastructure (Alumni Circle/South Boulevard)	-	-	-	\$138,600
10	Turning Vehicles Yield Sign (Robins Street)	\$600	-	-	-
11	Intersection Lighting Maintenance (Robins Street)	NA	NA	NA	NA
12	Shared Lane Pavement Marking (Dave Ward Drive)	\$600	-	-	-
13	Sidewalk Hazards (Dave Ward Drive)	-	\$12,200	-	-
14	Pedestrian Detection and Signals (Dave Ward Drive)	-	\$28,000	-	-
15	Intersection Pedestrian Crossing Distance (Dave Ward Drive)	-	\$142,600	-	-
	Option 1: Reconstruct Refuge Islands	-	\$591,000	-	-
	Option 2: Option 1 and Construct Additional Refuge Islands	-	-	-	-
16	Intersection Lighting (Dave Ward Drive)	-	\$65,800	-	-
17	Right-Turn Sight Distance (Dave Ward Drive)	-	\$2,600	\$280,000	-
18	Parking Lot Connection (Between Dave Ward Drive and Moix Boulevard)	-	-	\$60,900	-
19	Right-Turn Deceleration Lane (University Park Apartments Driveway)	-	\$29,600	-	-
20	Centerline Pavement Markings (Between Springwood Drive and Favre Lane)	-	\$7,800	-	-
21	Sidewalk on Bridge (Stone Dam Creek Bridge)	-	-	-	\$1,000,000
22	Retroreflective Object Markers on Bridge (Strone Dam Creek Bridge)	\$400	-	-	-
23	Corridor Lighting (Between Stone Dam Creek Bridge and Favre Lane)	-	-	\$298,400	-
24	School Zone Signage (Favre Lane)	-	\$56,000	-	-

Table 7: Summary of Suggested Improvement Cost Estimates by Type

No.	Suggested Improvement	Cost Estimate by Type		
		Signing	Pavement Markings	Other
1	Retroreflective Signage	\$14,000	-	-
2	Retroreflective Backplates	-	-	\$11,000
3	Intersection Lighting	-	-	\$98,700
4	Speed Enforcement and Traffic Calming	-	\$60,500	-
5	Pedestrian Crossing Education Campaign	-	\$3,300	-
6	Sidewalk Realignment	-	-	\$111,400
7	Flashing Yellow Arrow Left-Turn Signal Head (Bruce Street)	-	-	\$16,300
8	Bike Lane Maintenance (Between Bruce Street and Dave Ward Drive)	-	-	\$13,600
9	Pedestrian Infrastructure (Alumni Circle/South Boulevard)	-	\$12,600	\$126,000
10	Turning Vehicles Yield Sign (Robins Street)	\$600	-	-
11	Intersection Lighting Maintenance (Robins Street)	NA	NA	NA
12	Shared Lane Pavement Marking (Dave Ward Drive)	-	\$600	-
13	Sidewalk Hazards (Dave Ward Drive)	-	-	\$12,200
14	Pedestrian Detection and Signals (Dave Ward Drive)	-	-	\$28,000
15	Intersection Pedestrian Crossing Distance (Dave Ward Drive)	-	\$2,700	\$140,000
	Option 1: Reconstruct Refuge Islands	-	\$5,300	\$585,300
	Option 2: Option 1 and Construct Additional Refuge Islands			
16	Intersection Lighting (Dave Ward Drive)	-	-	\$65,800
17	Right-Turn Sight Distance (Dave Ward Drive)	\$2,600	-	\$280,000
18	Parking Lot Connection (Between Dave Ward Drive and Moix Boulevard)	-	-	\$60,900
19	Right-Turn Deceleration Lane (University Park Apartments Driveway)	\$1,300	\$1,900	\$26,500
20	Centerline Pavement Markings (Between Springwood Drive and Favre Lane)	-	\$7,800	-
21	Sidewalk on Bridge (Stone Dam Creek Bridge)	-	-	\$1,000,000
22	Retroreflective Object Markers on Bridge (Strone Dam Creek Bridge)	\$400	-	-
23	Corridor Lighting (Between Stone Dam Creek Bridge and Favre Lane)	-	-	\$298,400
24	School Zone Signage (Favre Lane)	\$56,000	-	-

Prioritization

Suggested improvements are categorized as high, medium, or low priorities. Prioritization is based on the RSA team's assessment of each safety issue and the impact that the suggested improvements is expected to have on

improving safety. Engineering judgement regarding the potential for future crash rate reduction and crash severity reduction were considered when prioritizing the suggested improvements.

While all the suggested improvements are considered important and expected to have a positive impact on safety, it is recommended that the City of Conway consider focusing on high priority recommendations first as they may yield the greatest impact on safety along South Donaghey Avenue. Error! Reference source not found. organizes each suggested improvement by implementation priority (high, medium, or low). The City may use this prioritization if fiscal constraints and personnel availability prohibit the City from implementing all the suggested improvements in a timely manner.

Table 8: Summary of Suggested Improvement Priorities

No.	Suggested Improvement	Improvement Timeframe
High Priority Suggested Improvements		
1	Retroreflective Signage	Immediate
2	Retroreflective Backplates	Short-Term
7	Flashing Yellow Arrow Left-Turn Signal Head (Bruce Street)	Mid-Term
8	Bike Lane Maintenance (Between Bruce Street and Dave Ward Drive)	Immediate
11	Intersection Lighting Maintenance (Robins Street)	Immediate
13	Sidewalk Hazards (Dave Ward Drive)	Short-Term
14	Pedestrian Detection and Signals (Dave Ward Drive)	Short-Term
15	Intersection Pedestrian Crossing Distance (Dave Ward Drive)	Immediate/Mid-Term
17	Right-Turn Sight Distance (Dave Ward Drive)	Immediate/Short-Term/Mid-Term
21	Sidewalk on Bridge (Stone Dam Creek Bridge)	Long-Term
24	School Zone Signage (Favre Lane)	Short-Term
Medium Priority Suggested Improvements		
3	Intersection Lighting	Mid-Term
4	Speed Enforcement and Traffic Calming	Short-Term
5	Pedestrian Crossing Education Campaign	Short-Term
9	Pedestrian Infrastructure (Alumni Circle/South Boulevard)	Long-Term
10	Turning Vehicles Yield Sign (Robins Street)	Immediate
12	Shared Lane Pavement Marking (Dave Ward Drive)	Immediate
16	Intersection Lighting (Dave Ward Drive)	Short-Term
18	Parking Lot Connection (Between Dave Ward Drive and Moix Boulevard)	Mid-Term
22	Retroreflective Object Markers on Bridge (Stone Dam Creek Bridge)	Immediate
23	Corridor Lighting (Between Stone Dam Creek Bridge and Favre Lane)	Mid-Term
Low Priority Suggested Improvements		
6	Sidewalk Realignment	Long-Term
19	Right-Turn Deceleration Lane (University Park Apartments Driveway)	Short-Term
20	Centerline Pavement Markings (Between Springwood Drive and Favre Lane)	Short-Term

Appendix A: Crash Diagram Maps

SITE: SOUTH DONAGHEY AVE

Bruce St to Favre Ln (1.8 Miles)

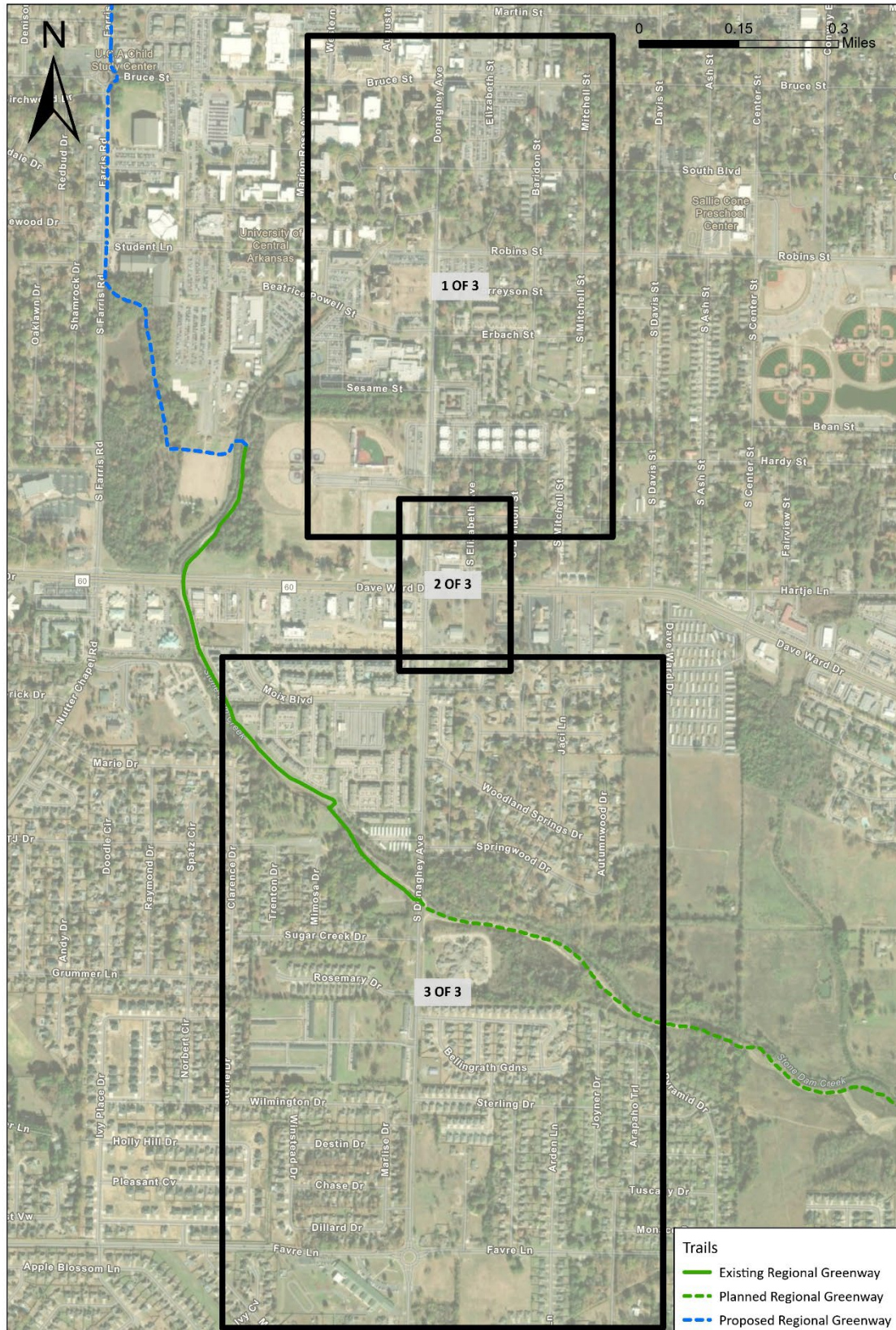
2019 - 2023 Crash Data: 5 KA Crash Count (383 Total Crash Count)



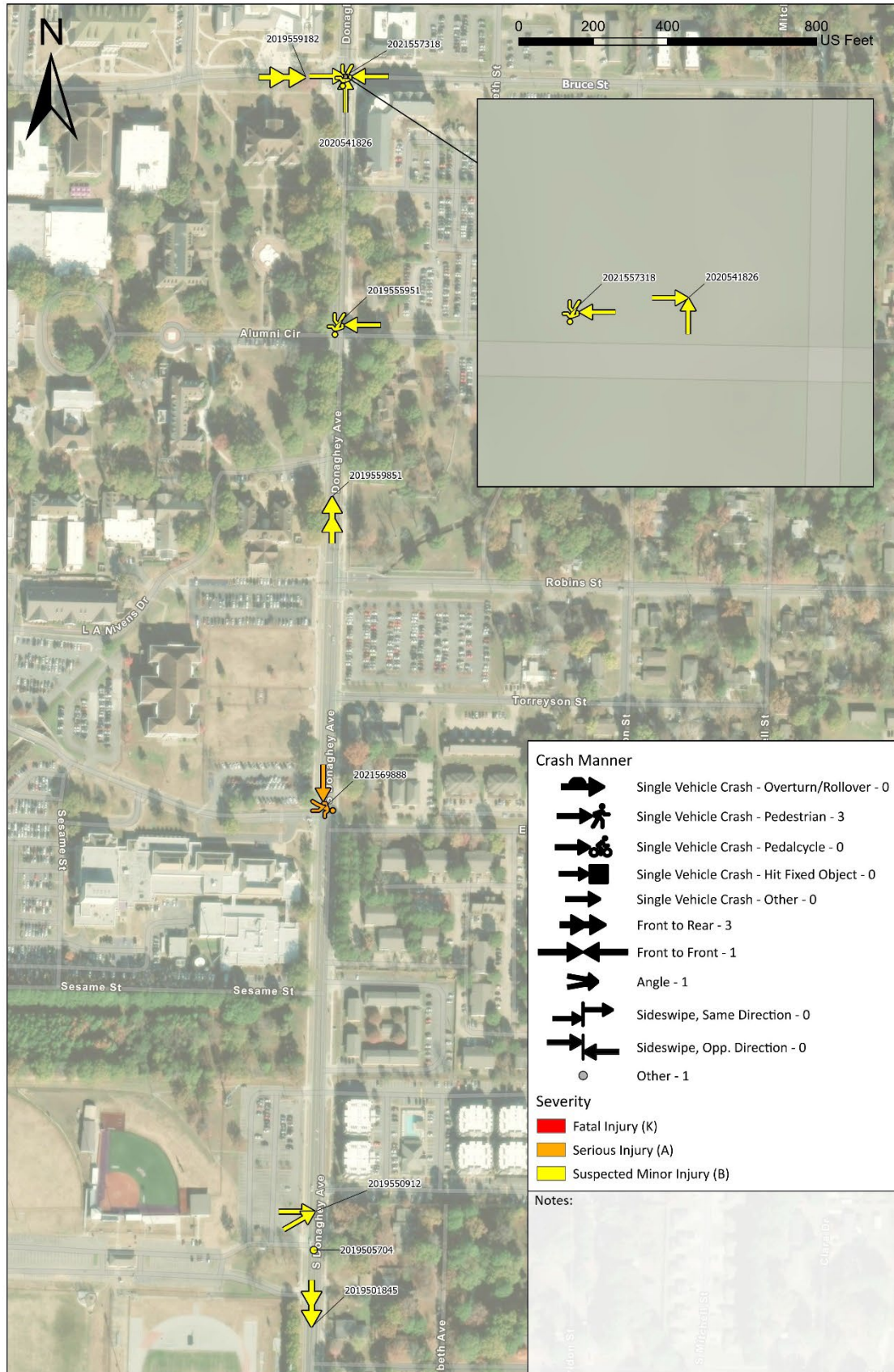
SITE: SOUTH DONAGHEY AVE

Bruce St to Favre Ln (1.8 Miles)

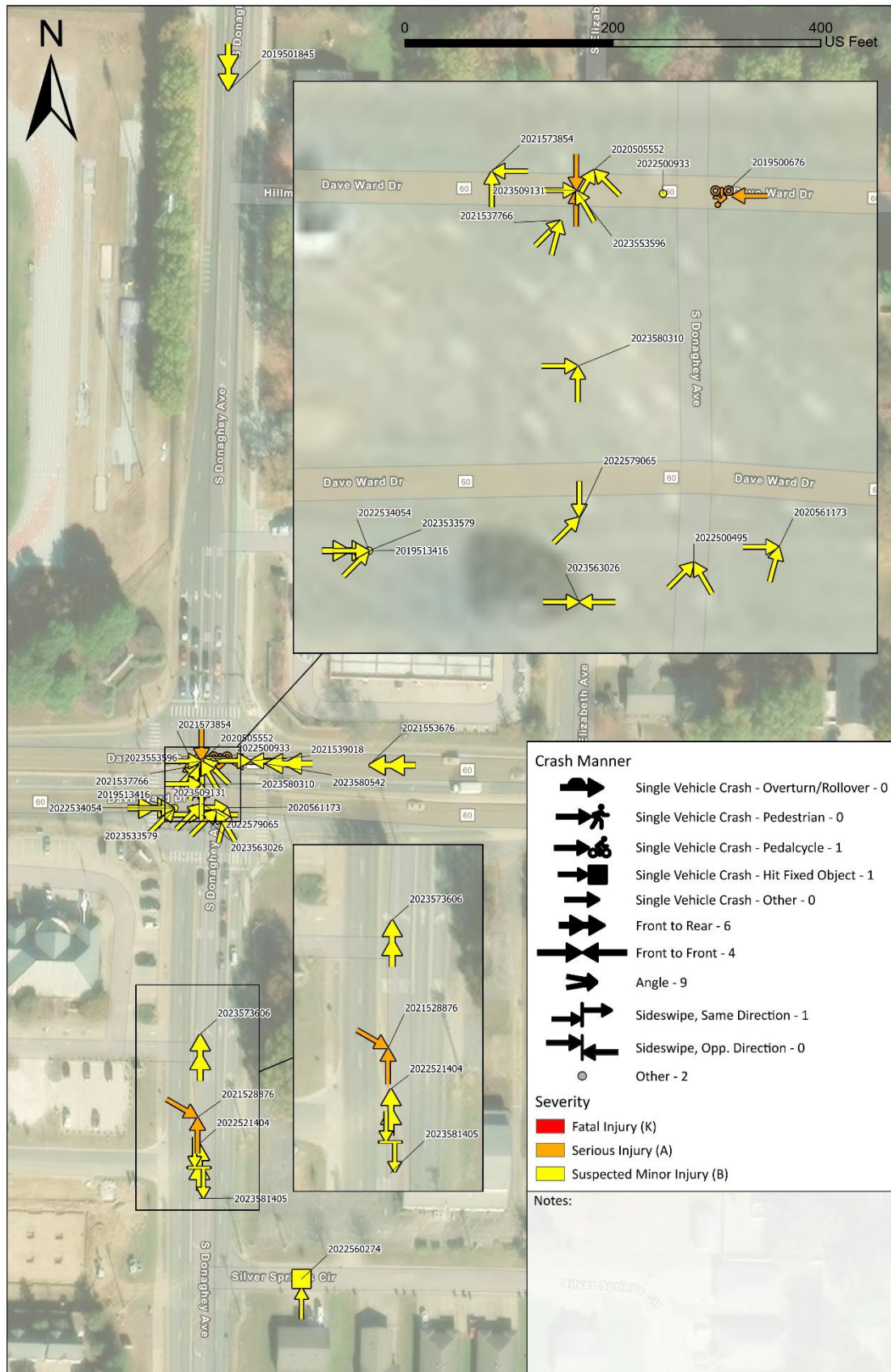
2019 - 2023 Crash Data: 5 KA Crash Count (383 Total Crash Count)



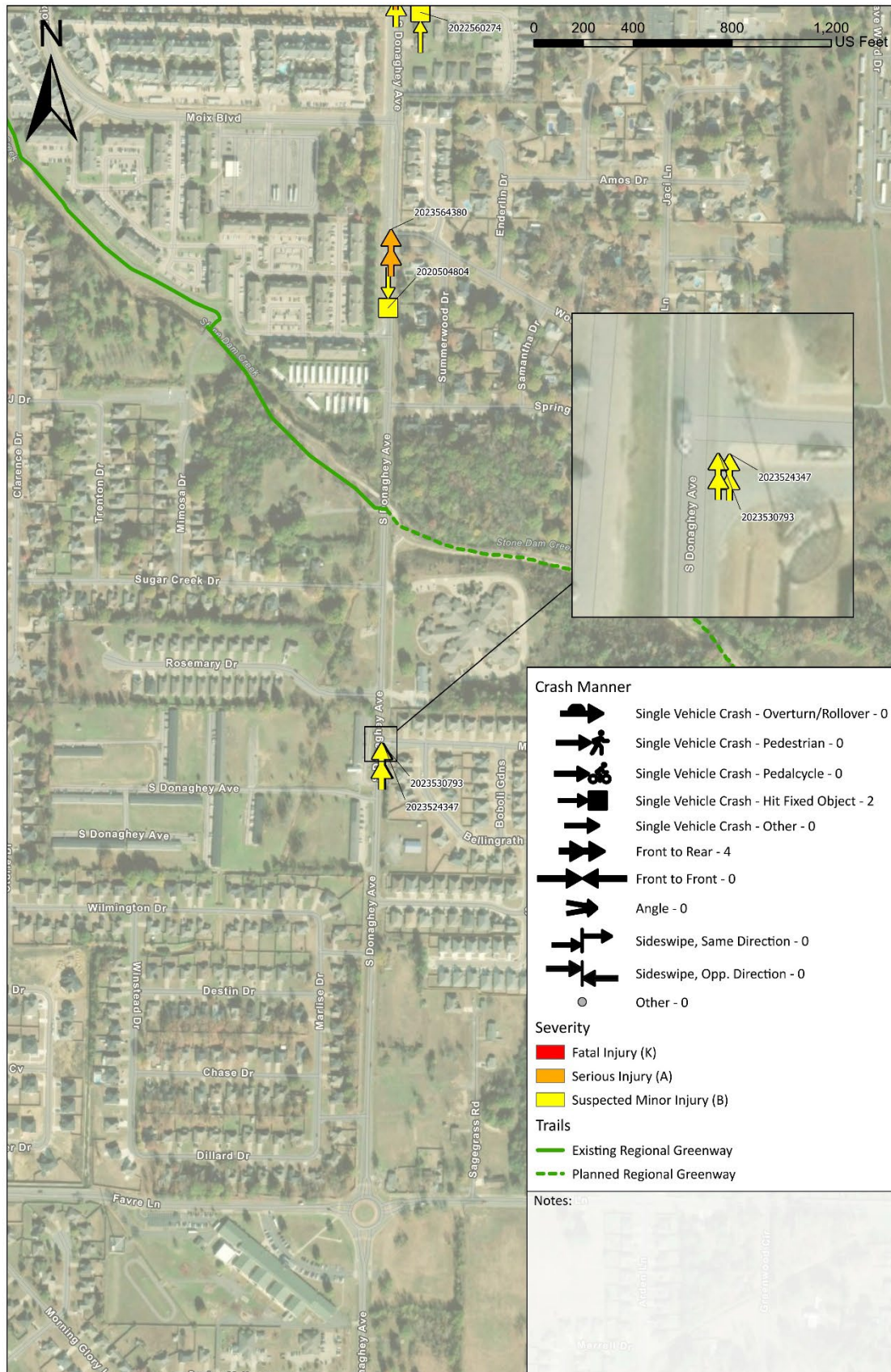
SITE: SOUTH DONAGHEY AVE (1 OF 3)



SITE: SOUTH DONAGHEY AVE (2 OF 3)



SITE: SOUTH DONAGHEY AVE (3 OF 3)



SOUTH DONAGHEY AVENUE

SUMMARY TABLE

2019-2023 Crash Data: 5 KA Crash Count (383 Total Crash Count)

Crash Severity	Crash Manner	Lighting Condition	Surface Condition
(K) FATAL INJURY - 0	SINGLE VEHICLE CRASH - 2 (27)	DAYLIGHT - 3 (294)	DRY - 4 (313)
(A) SUSPECTED SERIOUS INJURY - 5	FRONT-TO-REAR - 1 (216)	DAWN - 0 (4)	WET/WATER - 0 (65)
(B) SUSPECTED MINOR INJURY - (31)	FRONT-TO-FRONT - 1 (16)	DUSK - 0 (7)	SNOW - 0 (4)
(C) POTENTIAL MINOR INJURY - (36)	ANGLE - 1 (73)	DARK - LIGHTED - 1 (70)	SLUSH - 0 (0)
(O) NO APPARENT INJURY - (311)	SIDESWIPE, SAME DIRECTION - 0 (38)	DARK - NOT LIGHTED - 1 (6)	ICE/FROST - 0 (1)
	SIDESWIPE, OPP. DIRECTION - 0 (6)	DARK - OTHER/UNKNOWN - 0 (2)	UNKNOWN - 0 (0)
	OTHER - 0 (1)		

KAB Crash Detail Table

State Case Number	Crash Date	Crash Day	Crash Time*	Crash Severity	Crash Manner	Lighting Condon	Surface Condition
2019500676	2019-01-05	SAT	04:48	SUSPECTED SERIOUS INJURY	SINGLE VEHICLE CRASH - COLLISION WITH PEDALCYCLE	DAYLIGHT	DRY
2019501845	2019-01-12	SAT	04:32	SUSPECTED MINOR INJURY	FRONT-TO-REAR	DAYLIGHT	WET
2019505704	2019-02-06	WED	07:48	SUSPECTED MINOR INJURY	OTHER	DAYLIGHT	DRY
2019513416	2019-03-22	FRI	10:22	SUSPECTED MINOR INJURY	OTHER	DARK - LIGHTED	DRY
2019550912	2019-10-09	WED	07:49	SUSPECTED MINOR INJURY	ANGLE	DAYLIGHT	DRY
2019555951	2019-10-25	FRI	01:00	SUSPECTED MINOR INJURY	SINGLE VEHICLE CRASH - COLLISION WITH PEDESTRIAN	DAYLIGHT	WET
2019559182	2019-11-08	FRI	01:00	SUSPECTED MINOR INJURY	FRONT-TO-REAR	DAYLIGHT	DRY
2019559851	2019-11-15	FRI	11:11	SUSPECTED MINOR INJURY	FRONT-TO-REAR	DAYLIGHT	DRY
2020504804	2020-01-22	WED	19:45	SUSPECTED MINOR INJURY	SINGLE VEHICLE CRASH - COLLISION WITH DITCH	DARK - NOT LIGHTED	WET
2020505552	2020-02-01	SAT	15:49	SUSPECTED MINOR INJURY	ANGLE	DAYLIGHT	DRY
2020541826	2020-08-24	MON	20:35	SUSPECTED MINOR INJURY	FRONT-TO-FRONT	DARK - LIGHTED	DRY
2020561173	2020-11-20	FRI	18:00	SUSPECTED MINOR INJURY	ANGLE	DARK - LIGHTED	DRY
2021528876	2021-05-19	WED	20:35	SUSPECTED SERIOUS INJURY	ANGLE	DARK - NOT LIGHTED	WET
2021537766	2021-06-26	SAT	12:18	SUSPECTED MINOR INJURY	ANGLE	DARK - LIGHTED	DRY
2021539018	2021-07-01	THU	17:36	SUSPECTED MINOR INJURY	FRONT-TO-FRONT	DAYLIGHT	DRY
2021553676	2021-09-07	TUE	10:20	SUSPECTED MINOR INJURY	FRONT-TO-REAR	DAYLIGHT	DRY
2021557318	2021-09-22	WED	13:34	SUSPECTED MINOR INJURY	SINGLE VEHICLE CRASH - COLLISION WITH PEDESTRIAN	DAYLIGHT	DRY
2021569888	2021-11-09	TUE	10:48	SUSPECTED SERIOUS INJURY	SINGLE VEHICLE CRASH - COLLISION WITH OTHER NON-MOTORIST	DAYLIGHT	DRY
2021573854	2021-11-23	TUE	19:26	SUSPECTED MINOR INJURY	FRONT-TO-FRONT	DARK - LIGHTED	DRY
2022500495	2022-01-04	TUE	18:35	SUSPECTED MINOR INJURY	ANGLE	DARK - LIGHTED	DRY
2022500933	2022-01-03	MON	08:18	SUSPECTED MINOR INJURY	OTHER	DAYLIGHT	DRY
2022521404	2022-04-14	THU	18:08	SUSPECTED MINOR INJURY	FRONT-TO-REAR	DAYLIGHT	DRY
2022534054	2022-06-08	WED	13:53	SUSPECTED MINOR INJURY	FRONT-TO-REAR	DAYLIGHT	WET
2022560274	2022-10-09	SUN	10:00	SUSPECTED MINOR INJURY	SINGLE VEHICLE CRASH - COLLISION WITH CURB	DAYLIGHT	DRY
2022579065	2022-12-21	WED	10:39	SUSPECTED MINOR INJURY	ANGLE	DAYLIGHT	DRY
2023509131	2023-02-13	MON	21:05	SUSPECTED SERIOUS INJURY	FRONT-TO-FRONT	DARK - LIGHTED	DRY
2023524347	2023-04-25	TUE	17:20	SUSPECTED MINOR INJURY	FRONT-TO-REAR	DAYLIGHT	WET
2023530793	2023-05-22	MON	15:49	SUSPECTED MINOR INJURY	FRONT-TO-REAR	DAYLIGHT	DRY
2023533579	2023-06-04	SUN	20:00	SUSPECTED MINOR INJURY	ANGLE	DAYLIGHT	DRY
2023553596	2023-09-06	WED	19:00	SUSPECTED MINOR INJURY	ANGLE	DAYLIGHT	DRY
2023563026	2023-10-17	TUE	10:07	SUSPECTED MINOR INJURY	FRONT-TO-FRONT	DAYLIGHT	DRY
2023564380	2023-10-21	SAT	15:15	SUSPECTED SERIOUS INJURY	FRONT-TO-REAR	DAYLIGHT	DRY
2023573606	2023-11-27	MON	08:46	SUSPECTED MINOR INJURY	FRONT-TO-REAR	DAYLIGHT	DRY
2023580310	2023-12-24	SUN	01:23	SUSPECTED MINOR INJURY	ANGLE	DARK - LIGHTED	WET
2023580542	2023-12-26	TUE	14:53	SUSPECTED MINOR INJURY	FRONT-TO-REAR	DAYLIGHT	DRY
2023581405	2023-12-31	SUN	15:12	SUSPECTED MINOR INJURY	SIDESWIPE, SAME DIRECTION	DAYLIGHT	DRY




*Note that some crashes were reported in military time and some crashes were reported using a 12-hour clock system without indicating AM or PM. Therefore, crashes with a time reported as 1300 and later can be assumed to be PM, but crashes with a time reported as earlier than 1300 may have occurred in the AM or PM. Please utilize the date and lighting condition columns to help determine if the crash occurred in the AM or PM.

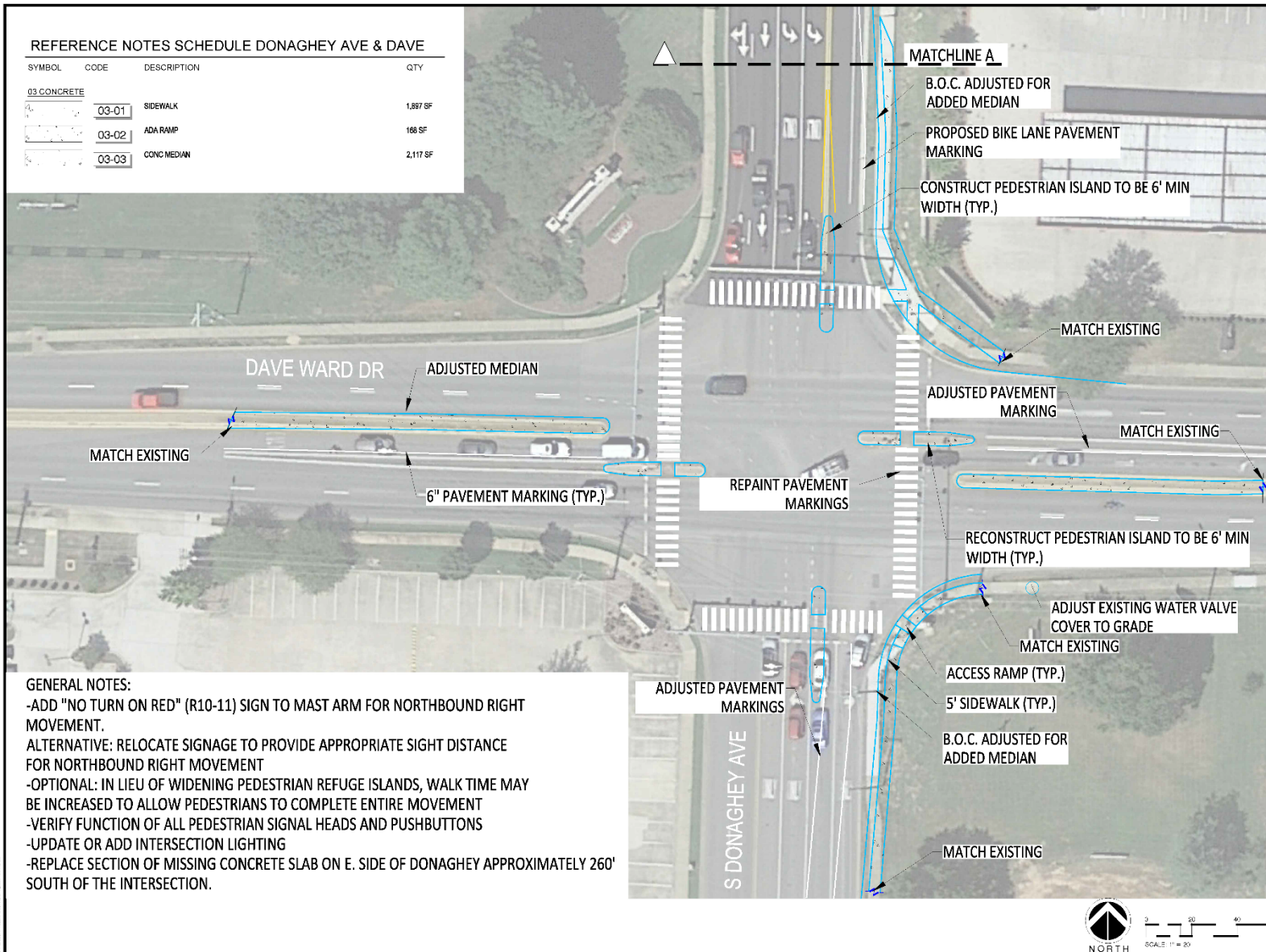
Appendix B: Unit Costs

Item	Unit Cost	Unit	Notes
Add High Visibility Crosswalk Pavement Markings	\$3,000	Per Crossing	
Add/Improve Pavement Markings	\$930	Per Approach Lane	
Convert 4-inch Striping to 6-inch Striping (3 lane)	\$24,000	Per Mile (Full Road Width)	This cost estimate assumes two edge lines and TWLTL centerline.
Convert 4-inch Striping to 6-inch Striping (2 lane)	\$18,500	Per Mile (Full Road Width)	This cost estimate assumes two edge lines and centerline.
Add In-Lane Pavement Marking	\$390	Per Marking	This cost estimate may be used for "STOP AHEAD", share the road symbol, or lane use arrow in-lane pavement markings.
Add Reflective Object Markers (large for culverts)	\$150	Per Marker	
Add Reflective Object Markers on Guardrail	\$120	Per 100-Feet	
Install Standard Sign	\$470	Per Sign	This cost estimate includes signs such as no parking signs, warning signs, or speed limit signs.
Replace/Relocate Standard Sign	\$900	Per Sign	This cost estimate includes signs such as no parking signs, warning signs, or speed limit signs.
Remove Standard Sign	\$430	Per Sign	This cost estimate includes signs such as no parking signs, warning signs, or speed limit signs.
Add Advance Warning Signage (with Flashing Beacon)	\$20,000	Per Approach	This cost estimate assumes two static signs with a flashing beacon on each sign.
Install Delineators for Bike Lane	\$64,000	Per Mile	This cost estimate assumes 20-foot spacing between each delineator.
Add Sidewalk	\$700,000	Per Mile (one side)	This cost estimate assumes the reconstruction of existing driveways but does not include costs for right-of-way acquisition, utility relocation, or site modifications.
Remove Sidewalk	\$170	Per Square Yard	This cost estimate assumes backfilling and planting grass in the affected area, specifically as part of the recommended realignment of the sidewalk along South Donaghey Avenue to align with the RRFBs.
Convert Diagonal Ramps to Directional Ramps	\$30,000	Per Corner	This cost estimate assumes converting a single ramp into two directional ramps.
Add Pedestrian Refuge Medium/Island	\$20,000	Per Crossing	
Pavement Repair	\$290	Per Square Yard	
Construct Raised Concrete Median	\$270	Square Yard	
Construct Curb and Gutter	\$2,500,000	Per Mile	This cost estimate assumes adding underground drainage and asphalt overlay.
Add 4' Shoulder	\$190,000	Per Mile	
Add Retroreflective Backplates	\$300	Per Backplate	
Update Left-Turn Signal to Flashing Yellow Arrow	\$2,900	Per Approach	This cost estimate assumes the existing cabinet and controller are capable of Flashing Yellow Arrow operation.
Add Pedestrian Signal at Signalized Intersection	\$10,000	Per Crossing	This cost estimate assumes one signal on each side of the crossing and would require four signals to cover all legs of a four-way intersection.
Add Intersection Lighting	\$47,000	Per Intersection	This cost estimate assumes the use of two existing utility poles for intersection lighting.
Add Corridor Lighting	\$375,000	Per Mile	This cost estimate assumes the installation of new poles spaced every 200 feet.
Remove fixed-objects	\$675	Per Foot	

Appendix C: Conceptual Layouts

REFERENCE NOTES SCHEDULE DONAGHEY AVE & DAVE

SYMBOL	CODE	DESCRIPTION	QTY
03 CONCRETE			
	03-01	SIDEWALK	1,897 SF
	03-02	ADA RAMP	166 SF
	03-03	CONC MEDIAN	2,117 SF

DONALD LY AVL
& DAVE WARD

L2.01



0 20 40 60 feet

SCALE: 1" = 20'



SOUTH
DOXAGHEY AVE

This document, and the ideas and design in, contained herein, are the intellectual property of Carlson, Tull & Associates, Inc., and are loaned to you, in whole or in part, for any other project, without further authorization of Carlson, Tull & Associates, Inc.

TECHNICAL ASSISTANT
DATE: 06/20/2025
OFFICE: D. Roberto
CRAFT TIL & L

[illegible]

L2.02