



# **Augustine Cut Off Bicycle and Pedestrian Network Improvements Phase 1 (Contract No. T202101501)**

---

**CONCEPT DESIGN REPORT**

*March 2024*



*This page intentionally left blank*

# Table of Contents

---

<b>1</b>	<b>Study Area .....</b>	<b>1</b>
<b>2</b>	<b>Concept Report .....</b>	<b>3</b>
2.1	Project Description and Purpose .....	3
2.2	Existing Conditions .....	3
2.3	Project Justification .....	4
2.4	Description of Proposed Improvements .....	5
2.5	Concept Design .....	10
2.6	Conclusion .....	18
<b>3</b>	<b>Public Involvement .....</b>	<b>19</b>
3.1	Timeline .....	19
3.2	Communication with Elected Officials .....	19
3.3	Public Workshops .....	19
3.4	Written Public Feedback .....	20
3.5	Upcoming Public Outreach .....	22
<b>4</b>	<b>Photo Log .....</b>	<b>23</b>
<b>5</b>	<b>CTP Estimate .....</b>	<b>30</b>
<b>6</b>	<b>Appendices .....</b>	<b>38</b>
	Appendix A. Comments, Questions, and Answers from March 2, 2022, Public Workshop .....	39
	Appendix B. 2022 Public Survey Responses .....	45
	Appendix C. 2023 Public Survey Responses .....	50

## Table of Figures

---

Figure 1. Study area.....	1
Figure 2. Study phases .....	2
Figure 3. Existing shared use paths in study area showing the start and end of the study area .....	4
Figure 5. Automobile conflict points at Augustine Cut Off/Wawaset Street intersection after installation of proposed improvements.....	7
Figure 4. Existing automobile conflict points at Augustine Cut Off/Wawaset Street intersection.....	7
Figure 6. Existing conflict points between automobiles and bicycles/pedestrians at Augustine Cut Off/Wawaset Street intersection.....	8
Figure 7. Conflict points between automobiles and bicycles/pedestrians at Augustine Cut Off/Wawaset Street intersection after installation of proposed improvements .....	8
Figure 8. Proposed improvements, vicinity of Lovering Avenue and Wawaset Street intersections .....	11
Figure 9. Proposed improvements along Wawaset Street .....	12
Figure 10. Proposed improvements, Augustine Cut Off Bridge.....	13
Figure 11. Proposed improvements from Augustine Cut Off Bridge to 18th Street .....	14
Figure 12. Proposed improvements between 18th Street and Stone Hill Road .....	15
Figure 13. Proposed improvements, north of Stone Hill Road approaching Cantera Road .....	16
Figure 14. Proposed improvements, vicinity of Cantera Road intersection .....	17
Figure 15. 2022 public survey responses and written public comments, by whether their overall sentiment was negative, neutral, or positive towards the project .....	21
Figure 16. Southbound side of Lovering Avenue at Augustine Cut Off, looking southeast (towards CSX bridge and N. Dupont Street).....	23
Figure 17. Southbound side of Lovering Avenue at Augustine Cut Off, looking northeast (towards Wawaset Street).23	
Figure 18. North corner of Lovering Avenue-Augustine Cut Off intersection, looking southeast (across Augustine Cut Off).....	24
Figure 19. Northbound side of Lovering Avenue at Augustine Cut Off, looking southeast (across Augustine Cut Off towards CSX bridge).....	24
Figure 20. Augustine Cut Off at Lovering Avenue, looking northeast (towards Wawaset Street).....	24
Figure 21. Augustine Cut Off at Wawaset Street, looking northeast (across Wawaset Street towards Augustine Cut Off Bridge).....	25
Figure 22. Augustine Cut Off between Wawaset Street and Augustine Cut Off Bridge, looking southwest (towards Wawaset Street).....	25
Figure 23. Southwest end of Augustine Cut Off Bridge, looking northeast.....	25
Figure 24. Northeast end of Augustine Cut Off Bridge, looking southwest.....	26
Figure 25. Northeast end of Augustine Cut Off Bridge, looking northeast (towards 18th Street intersection) .....	27
Figure 26. South end of Incyte shared use path, looking northeast (towards 18th Street intersection).....	28
Figure 27. Southbound side of Augustine Cut Off just north of 18th Street intersection, looking east (towards informal parking lane between 18th Street and 1812 Augustine Cut Off) .....	28
Figure 28. Southbound side of Augustine Cut Off, looking south (towards Stone Hill Road intersection).....	29
Figure 29. Southbound side of Augustine Cut Off between Stone Hill Road and Cantera Road, looking south .....	29

## List of Tables

---

Table 1. Automobile conflict points under existing conditions and after installation of proposed improvements .....	9
Table 2. Conflict points between automobiles and bicycles/pedestrians under existing conditions and after installation of proposed improvements.....	9



# 1 Study Area

Figure 1 shows the overall Augustine Cut Off Bicycle and Pedestrian Improvements study area. This overall area consists of Augustine Cut Off from Lovering Avenue to Edgewood Road. However, the study is broken into two phases.

Figure 2 shows the portion of the corridor addressed during each phase. This report presents the concept designs developed for Phase 1. Initially Phase 1 was planned to be combined with the Dupont & Lovering Pedestrian Improvements TAP project, however, the City of Wilmington has elected to not advance that project at the date of publication of this report.

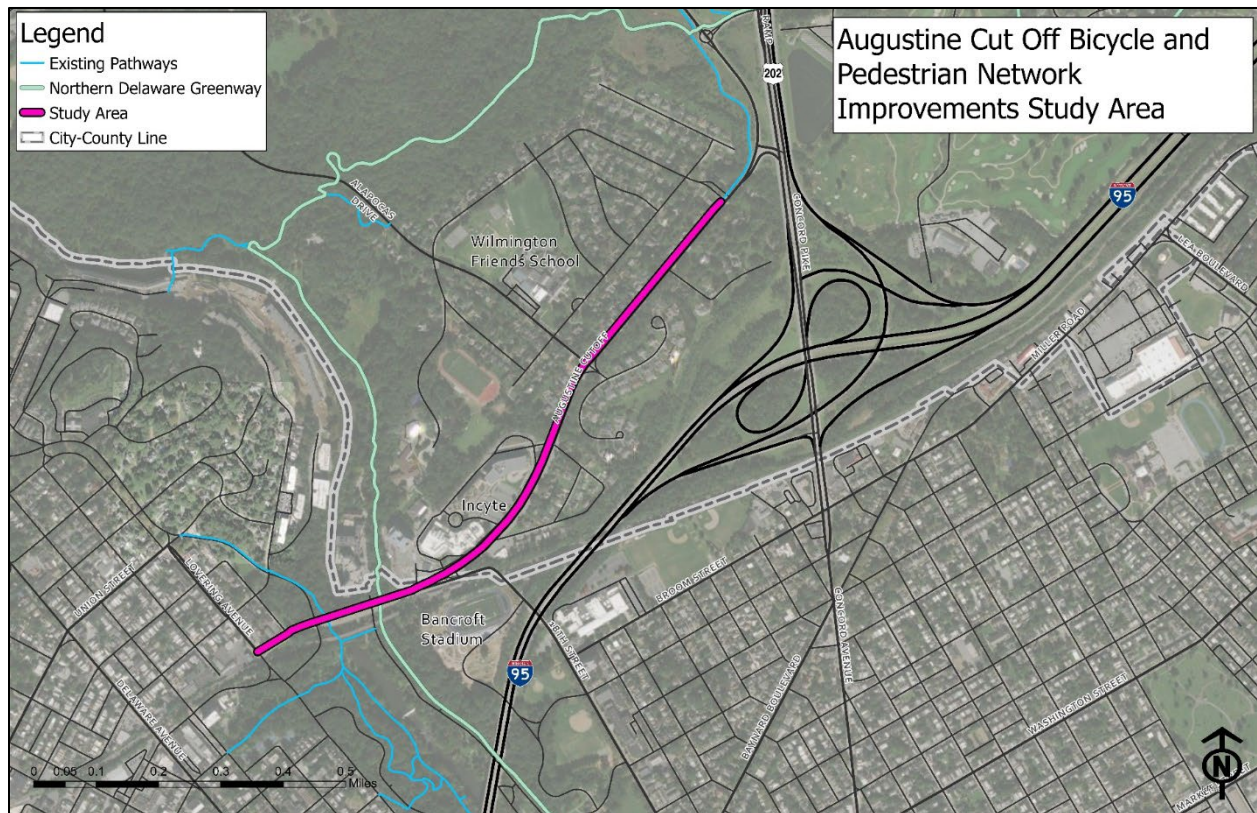


Figure 1. Study area



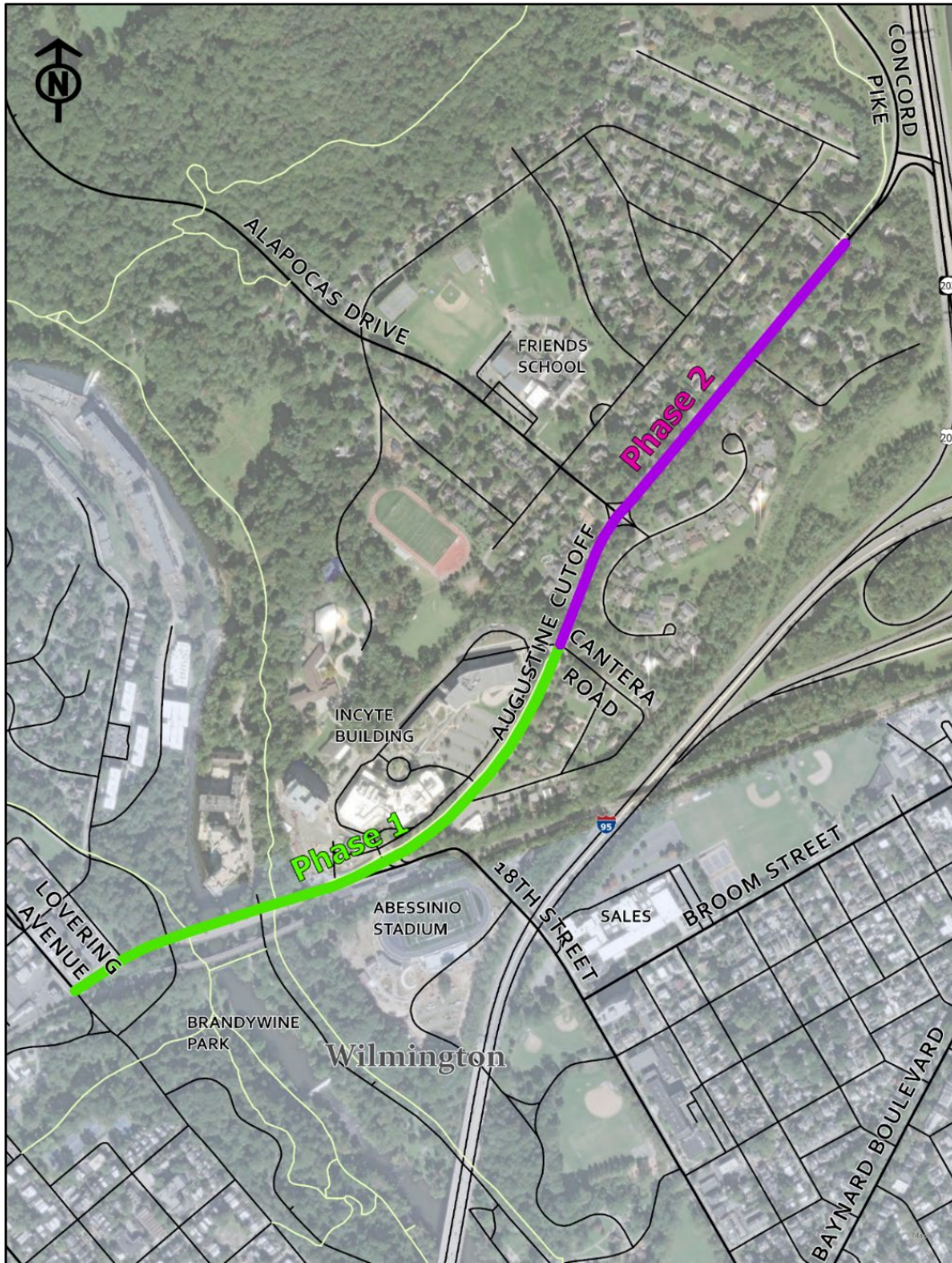


Figure 2. Study phases

## 2 Concept Report

---

### 2.1 PROJECT DESCRIPTION AND PURPOSE

The Augustine Cut Off Bicycle and Pedestrian Network Improvements Phase 1 Concept Design Report (ACO Study) explored options for bicycle and pedestrian improvements along Augustine Cut Off.

The purpose of this effort was to develop concepts for a low-stress/traffic separated bicycle connection and improved pedestrian facilities on Augustine Cut Off.

With funding support through the Delaware Bicycle Council's Cycling Infrastructure Innovations Grant Program, New Castle County and the City of Wilmington completed a trail feasibility study for the Augustine Cut Off area in 2018.

The [New Castle County Bicycle Plan](#) (2020) and [City of Wilmington Bike Plan](#) (2019) identified improved bicycle facilities on Augustine Cut Off as a priority. In 2020, WILMAPCO submitted an Augustine Cut Off Bicycle/Pedestrian Improvements project to DelDOT to be prioritized for funding under DelDOT's Statewide Bicycle and Pedestrian Program (Bike/Ped Pool). Of the seven New Castle County bicycle/pedestrian projects [prioritized for the Bike/Ped Pool in 2020](#), Augustine Cut Off ranked the highest in terms of the results of DelDOT's Bicycle Mobility Modeling analysis. DelDOT selected the project to move forward to concept design, which began in Fiscal Year (FY) 2022. This report summarizes the concept design process and presents the concepts.

### 2.2 EXISTING CONDITIONS

The study area comprises Augustine Cut Off between Edgewood Road and Lovering Avenue. Most of the corridor is a two-way, two-lane street.

#### 2.2.1 Lovering Avenue to 18<sup>th</sup> Street

Between Lovering Avenue and 18<sup>th</sup> Street, there are sidewalks on both sides of the street. There are 8' shoulders with bike lane markings on the bridge over Brandywine Creek, but not between the bridge and Lovering Ave or between the Bridge and 18<sup>th</sup> Street. There is a small section of a shared right-turn bike lane on the southbound frontage of the Incyte facility. The posted speed limit on this portion of Augustine Cut Off is 25 mph, but observed travel speeds are considerably higher in some cases.

#### 2.2.2 18<sup>th</sup> Street to Cantera Road

On the southbound side of the street between 18<sup>th</sup> Street and Cantera Road, there is a shared use path (shown in Figure 3) and standard bike lane that varies between 5-8' wide, with pocket-bike lanes at the entrances to the Incyte facility. On the northbound side of the street between 18<sup>th</sup> Street and Stone Hill Road, there is a 10' shoulder with signage prohibiting stopping or parking. However, through public input, it was identified that this parking regulation is typically not enforced, and the shoulder is frequently used for parking. On the northbound side of the street between Stone Hill Road and Cantera Road, there is a shoulder that varies between 10-18', which is not regulated for parking except for a 150' immediately north of Stone Hill Road where stopping and parking is prohibited. The posted speed limit on this portion of Augustine Cut Off is 35 mph.



### 2.2.3 Land Uses

Land uses along the corridor include a mixed-use urban neighborhood around Lovering Avenue, strip commercial between Brandywine Creek and Stone Hill Road, a pharmaceutical campus between Brandywine Creek and Cantera Road, and suburban single-family houses north of Stone Hill Road.

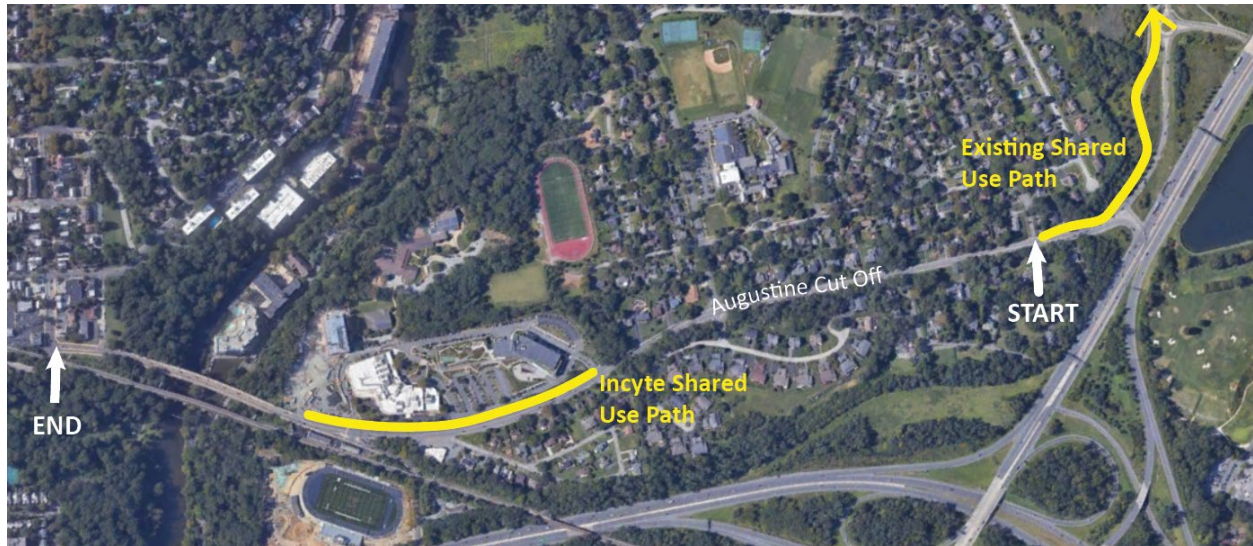


Figure 3. Existing shared use paths in study area showing the start and end of the study area

## 2.3 PROJECT JUSTIFICATION

Currently, the only low-stress bicycle/pedestrian connection between the City of Wilmington and North Wilmington’s pathway system is via Alapocas Run State Park, which requires traversing a steep grade. A low-stress bike/pedestrian facility along Augustine Cut Off below Edgewood Road would connect the city to shared use path that begins on Augustine Cut Off north of Edgewood Road. It would also provide a low-stress connection between the state’s two largest population centers, the City of Wilmington and Brandywine Hundred.

## 2.4 DESCRIPTION OF PROPOSED IMPROVEMENTS

This section includes a description of the proposed improvements. The concept designs described in this section are shown in plan view in section 2.5.

### 2.4.1 Improve Signals and Pedestrian and Bicycle Facilities in Vicinity of Lovering Avenue to Wawaset Street Intersections

It is recommended to improve signals and pedestrian and bicycle facilities on Augustine Cut Off in the vicinity of Lovering Avenue and Wawaset Street and on Lovering Avenue between Augustine Cut Off and N. Dupont Street. This concept is shown in Figure 8. Proposed improvements, vicinity of Lovering Avenue and Wawaset Street intersections. It includes the following improvements:

1. New traffic signal at the Lovering Avenue/Augustine Cut Off intersection, including ADA accessible, signalized pedestrian crossings, and geometric modifications to calm traffic around this intersection.
2. Unsignalized pedestrian crossing of Augustine Cut Off at Wawaset Street
3. Shared use path along the eastbound side of Lovering Avenue between the proposed Lovering Street crosswalk and N. Dupont Street
4. Shared use path along the southbound side of Augustine Cut Off between Lovering Avenue and the Augustine Cut Off Bridge
5. Narrower travel lanes to calm traffic
6. Improved bus stops

*Conversion of Wawaset Street at Augustine Cut Off to right-in/right-out only. As illustrated in Figure 8-*

*Figure 7 and*

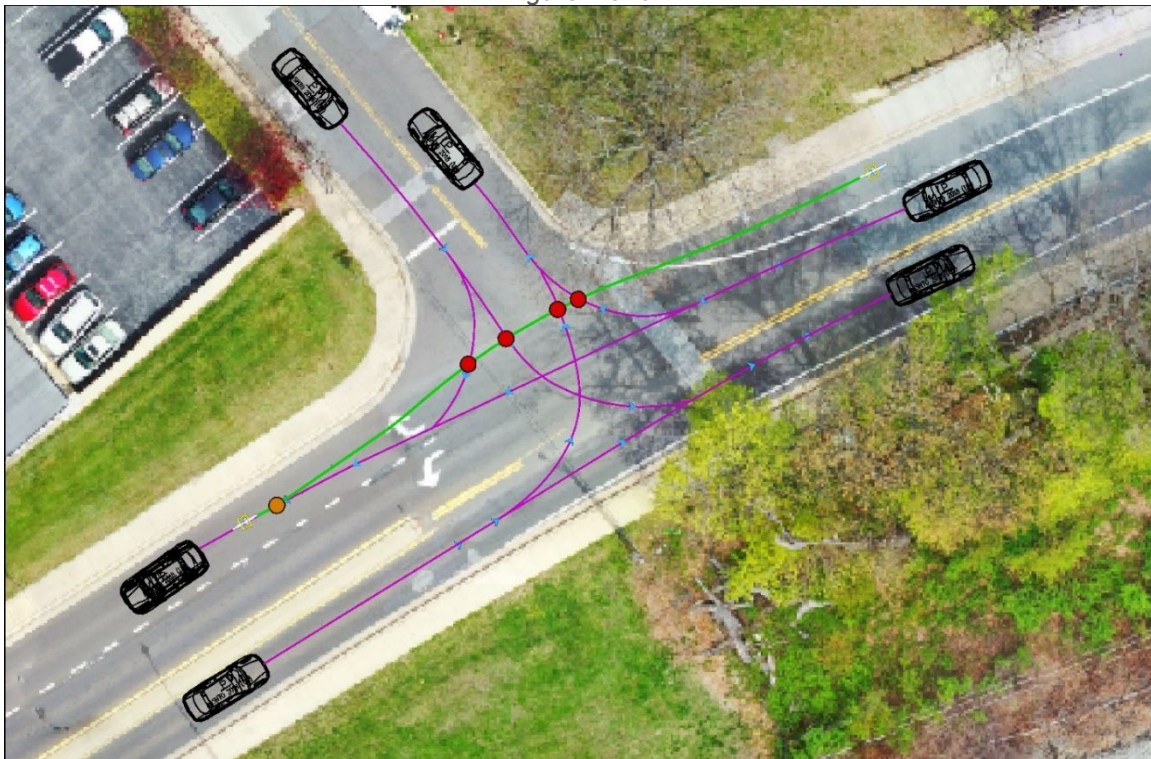




Figure 6. Existing conflict points between automobiles and bicycles/pedestrians at Augustine Cut Off/Wawaset Street intersection

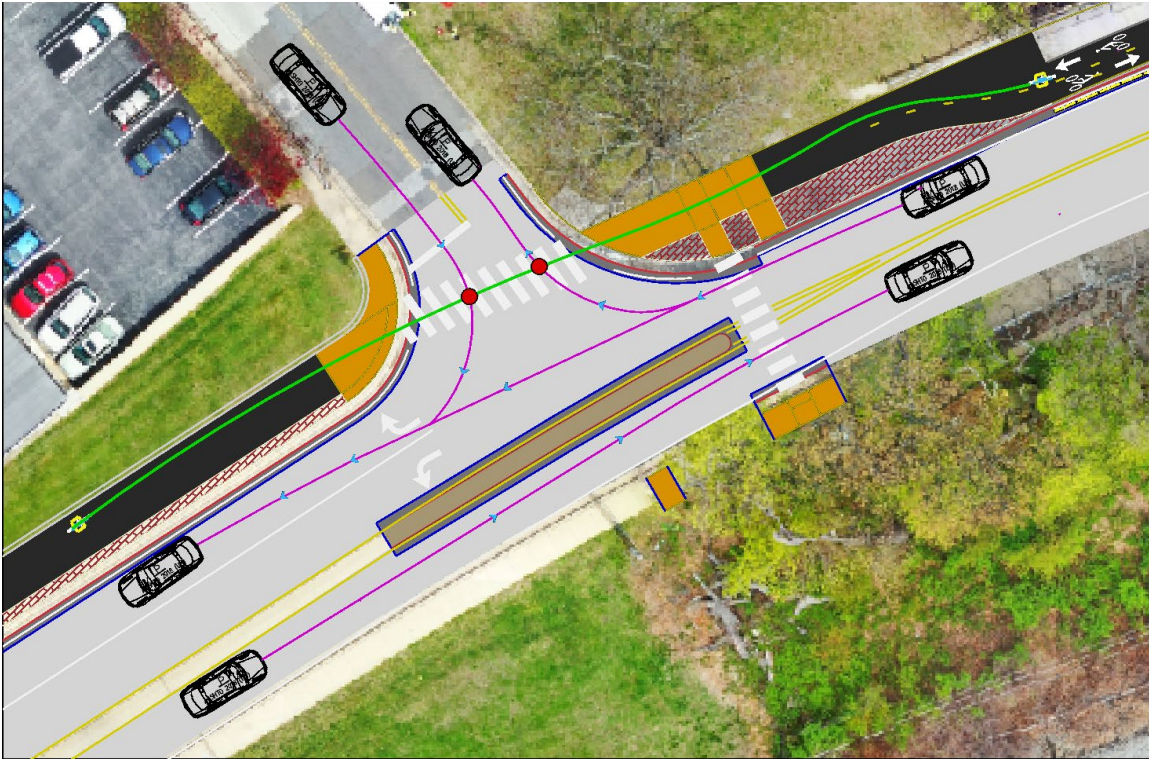


Figure 7. Conflict points between automobiles and bicycles/pedestrians at Augustine Cut Off/Wawaset Street intersection after installation of proposed improvements

7. Table 1-Table 2, this conversion would reduce the number of automobile-automobile conflict points and the number of conflict points between automobiles and bicycles/pedestrians. Conflict points are locations where turning vehicles may overlap, causing a crash. As shown in Figure 8, the conversion would include the extension of Augustine Cut Off's median across the intersection to prevent left turns.
8. Dedicated right turn lane on westbound Lovering Avenue at Augustine Cut Off intersection



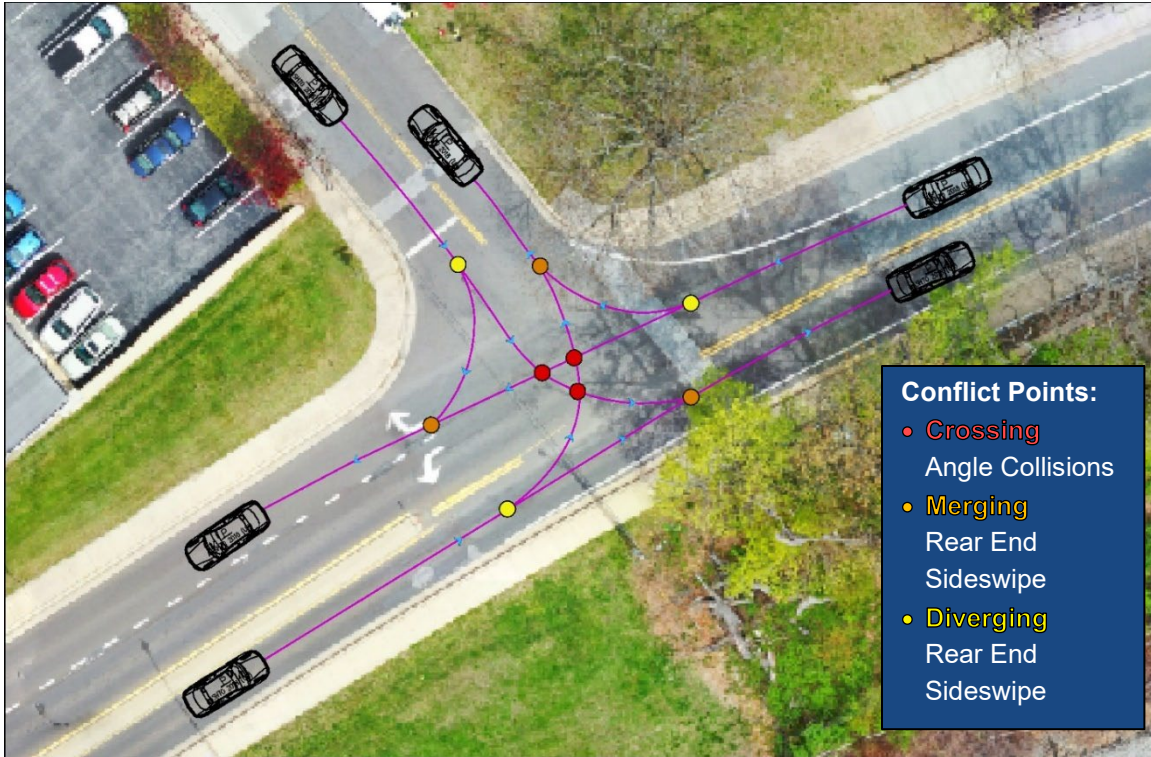


Figure 4. Existing automobile conflict points at Augustine Cut Off/Wawaset Street intersection

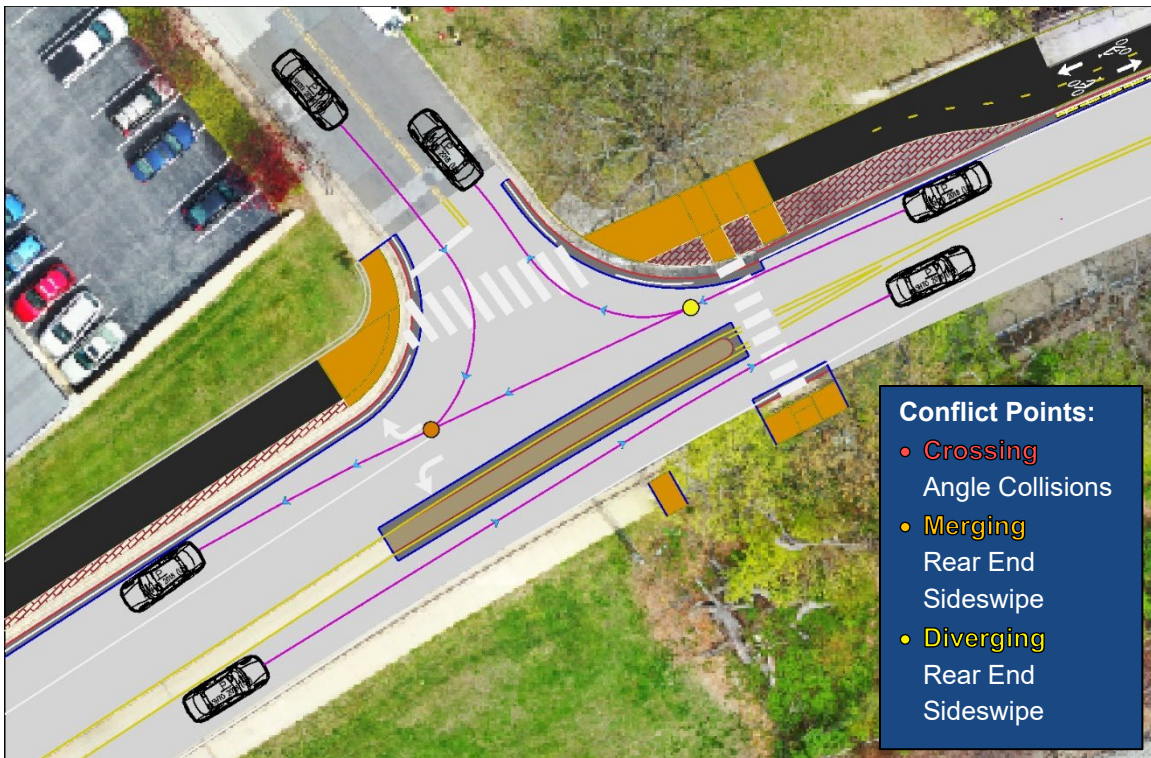


Figure 5. Automobile conflict points at Augustine Cut Off/Wawaset Street intersection after installation of proposed improvements



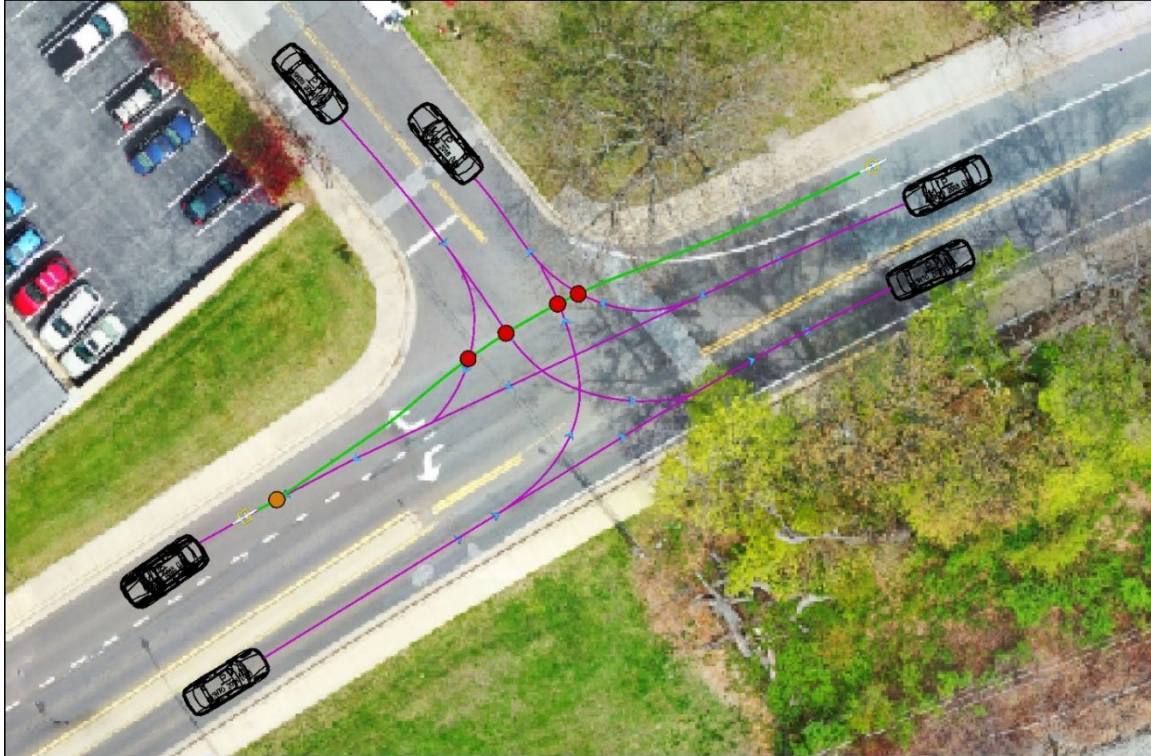


Figure 6. Existing conflict points between automobiles and bicycles/pedestrians at Augustine Cut Off/Wawaset Street intersection

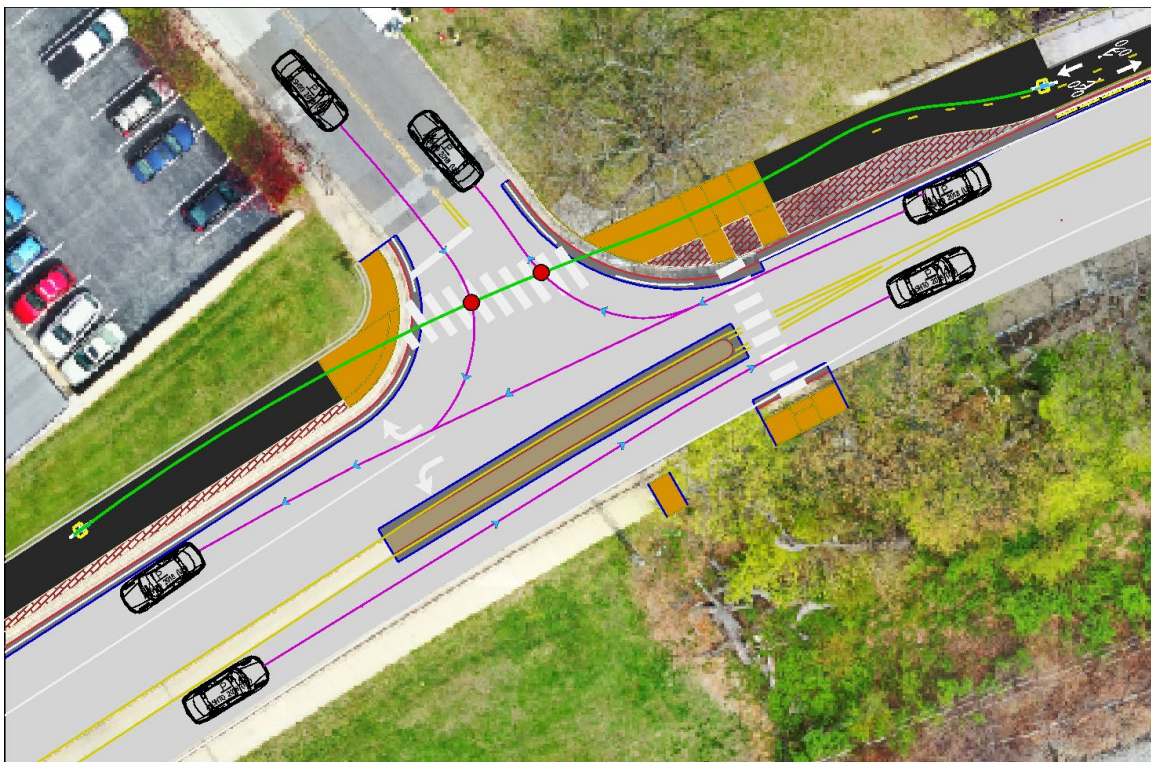


Figure 7. Conflict points between automobiles and bicycles/pedestrians at Augustine Cut Off/Wawaset Street intersection after installation of proposed improvements



Table 1. Automobile conflict points under existing conditions and after installation of proposed improvements

Conflict type	Existing	Proposed	Change
Crossing	3	0	-3
Merging	3	1	-2
Diverging	3	1	-3

Table 2. Conflict points between automobiles and bicycles/pedestrians under existing conditions and after installation of proposed improvements

Conflict type	Existing	Proposed	Change
Crossing	4	2	-2
Merging	1 (bikes only)	0	-1
Diverging	0	0	0

### 2.4.2 Provide a Shared Use Path along Wawaset Street into Brandywine Park

It is recommended to provide a shared use path along westbound Wawaset Street to N. Scott Street, and along northbound N. Scott Street to S. Park Drive, tying into an existing paved bike and pedestrian trail to Brandywine Park. This concept is shown in Figure 9. Proposed improvements along Wawaset Street. This improvement would be constructed on land owned by the City of Wilmington but operated by Delaware State Parks, in coordination with the City and State Parks.

### 2.4.3 Provide Two-Way Separated Bike Lane Across Bridge

It is recommended to provide a 10' wide two-way separated bike lane, or cycle track, across the Augustine Cut Off Bridge along the southbound traffic lane, with a 2' buffer. The cycle track would connect to the proposed shared use path at the south end of the bridge (between Lovering and Wawaset Streets) and the existing shared use path at the north end of the bridge. This concept is shown in Figure 8, Figure 10, and Figure 11.

The cycle track is proposed to be protected by a modular delineator system buffer. Using this system, curb units can be fastened to the bridge deck and bollards can be added, removed, or replaced.

### 2.4.4 Provide a Bike Lane along Bridge Northbound through 18<sup>th</sup> Street

It is recommended to provide a continuous northbound bike lane on Augustine Cut Off on the bridge through 18<sup>th</sup> Street. The bike lane would be 8' wide on the bridge tapering to 5' wide approaching 18<sup>th</sup> Street. This concept is shown in Figure 11. It includes the following improvements:

- Modification of pavement markings and 18<sup>th</sup> Street channelization island to provide a continuous northbound bike lane

- A through bike lane (also known as a “bicycle pocket lane”) at the 18<sup>th</sup> Street intersection to help safely position bicyclists as they cross from the outside to the inside of the slip lane onto 18<sup>th</sup> Street.

#### 2.4.5 Provide Bike Lane and Parking Between 18<sup>th</sup> Street and Cantera Road

It is recommended to provide a continuous northbound bicycle lane between 18<sup>th</sup> Street and Cantera Road and to create a formal parking lane between 18<sup>th</sup> Street and Stone Hill Road. This concept is shown in Figure 12 and Figure 13. It includes the following improvements:

- Modification of pavement markings to provide 5'-wide bike lanes in both directions and an 8'-wide parking lane on the northbound side of the street
- Removal of existing un-enforced 'No Stopping Standing or Parking' signs
- Construction of sidewalk on the northbound side of the street alongside the proposed parking lane and in front of the commercial building at 1812-1822 Augustine Cut Off
- Construction of stairs and potentially an ADA-compliant switchback ramp to accommodate pedestrian movements between Augustine Cut Off and 18<sup>th</sup> Street
  - This improvement would consist of a staircase and potentially an ADA-accessible ramp connecting the proposed sidewalk to a new midblock crossing across 18<sup>th</sup> Street
    - To be ADA-compliant, the ramp would need to include multiple switchbacks, the construction of which would have significant impacts on existing vegetation and the cost of the project
    - If the ramp is not constructed, the improvement would not be ADA-compliant and would therefore require executive approval for a design exception

#### 2.4.6 Provide Northbound Bike Lane at Pinch Point North of Cantera Road Intersection

It is recommended to provide a northbound bike lane from Cantera Road extending approximately 170' north. This bike lane will connect the proposed bike lane south of Cantera Road to the wide shoulder that begins approximately 170' north of Cantera Road. This concept is shown in Figure 14. It includes the following improvements:

- Extension of pavement approximately 7' outwards on the northbound side of Augustine Cut Off from Cantera Road northward for approximately 170' to accommodate a northbound bike lane through the existing pinch point
- Modification of pavement markings to provide the northbound bike lane segment

## 2.5 CONCEPT DESIGN

The improvements described in section 2.4 are shown in plan view below.







NOVEMBER 2023

### Augustine Cut Off - Phase 1

CONTRACT NO. T202220002  
NEW CASTLE COUNTY



Figure 9. Proposed improvements along Wawaset Street





Figure 10. Proposed improvements, Augustine Cut Off Bridge



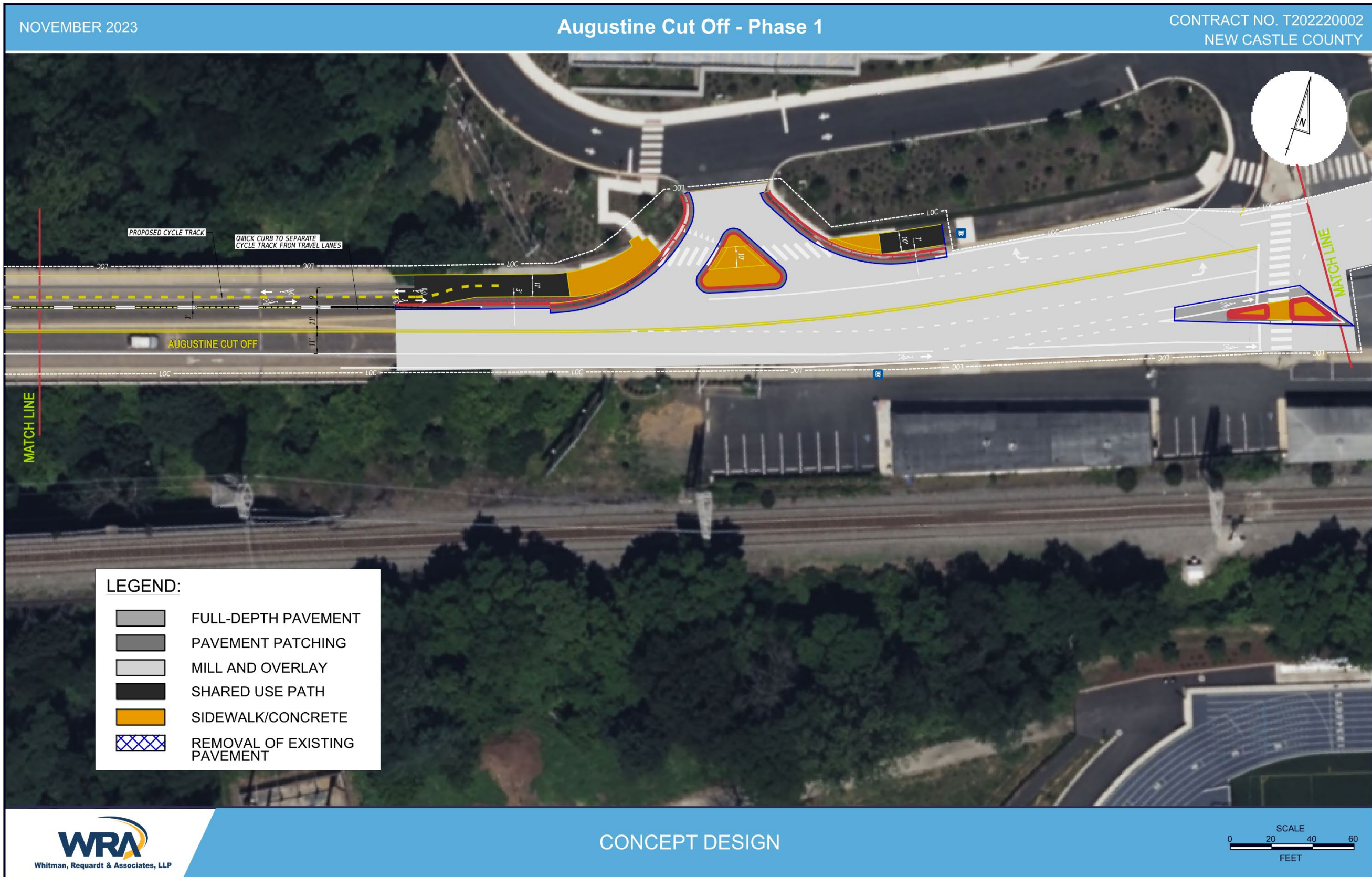


Figure 11. Proposed improvements from Augustine Cut Off Bridge to 18th Street





Figure 12. Proposed improvements between 18th Street and Stone Hill Road





Figure 13. Proposed improvements, north of Stone Hill Road approaching Cantera Road





Figure 14. Proposed improvements, vicinity of Cantera Road intersection

Based on public feedback and existing conditions research, the project team identified several potential impacts and challenges related to the implementation of the Augustine Cut Off concept designs.

### 2.5.1 Residential Impacts

- **Driveways**

No impacts to residential properties are anticipated with Phase 1 concepts. The bike lane improvements between Stone Hill Drive and Cantera road are limited to pavement markings, which will not impact the accessibility of driveways.

### 2.5.2 Construction Challenges

- **Potential drainage impacts**

Currently, most of Augustine Cut Off has no curb. Therefore, any improvements that add curb where it doesn't currently exist would affect existing drainage patterns. However, this is a common factor in DeIDOT's projects, and therefore DeIDOT has significant prior experience addressing project impacts on drainage.

- **Bridge inspection requirements**

The improvements proposed for Augustine Cut Off Bridge have been reviewed by DeIDOT's Bridge and Maintenance section, and a concept design was selected which allows for regular maintenance of the structure.

### 2.5.3 Policy Challenges

- **Maintenance responsibilities**

The concepts in this report are for facilities along state-maintained roads. Because these facilities would be on state-maintained roads, they would be added to DeIDOT's tiered snow removal prioritization scheme. Equipment and techniques used, as well as the frequency and prioritization of snow removal, will depend on the facility.

A maintenance agreement will be developed between DeIDOT and DNREC for the pathways built in park lands, but DeIDOT will be responsible for maintaining the delineator systems and new sections of shared-use path constructed along Augustine Cut Off.

Property Owners along Augustine Cut Off will not be responsible for routine or seasonal maintenance of the bike lanes or shared-use pathways that are constructed,

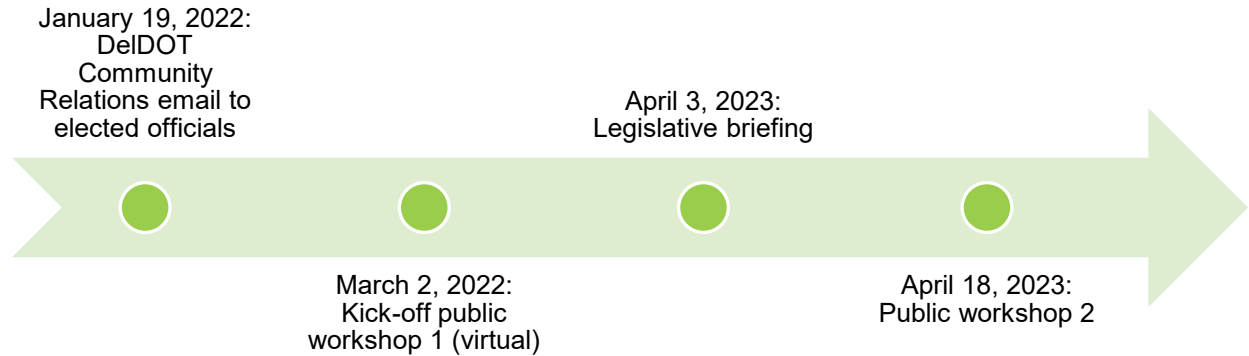
## 2.6 CONCLUSION

Currently, Augustine Cut Off's Bicycle Level of Traffic Stress is LTS 3 or 4, meaning that only highly confident cyclists are comfortable biking on it. There are some existing bicycle and pedestrian facilities, but they are discontinuous.

The concepts presented in this report can improve the safety of people walking and bicycling along the corridor. Improvements that result in narrower vehicle travel lanes may also slow traffic, thereby improving safety not only for people walking and biking but also for vehicles traveling on the corridor and entering and exiting driveways.

## 3 Public Involvement

### 3.1 TIMELINE



### 3.2 COMMUNICATION WITH ELECTED OFFICIALS

On January 19, 2022, DeIDOT Community Relations contacted area elected officials via email. In the email, DeIDOT provided information about the project and the upcoming virtual public workshop and encourage the elected officials to share the information with their constituents.

On April 3, 2023, DeIDOT briefed area legislators on the project status and upcoming public workshop.

### 3.3 PUBLIC WORKSHOPS

#### 3.3.1 Public Workshop 1, March 2, 2022

A “kick-off” virtual public workshop was held on March 2, 2022.

Public notice of the public workshop was published in *the News Journal* on Tuesday, February 15, 2022, and the *Newark Post* on Friday, February 18, 2022. Public notice of the workshop was also posted on the [project website](#) and the state’s public meeting calendar. Finally, members of the project team dropped off flyers to all properties along the corridor on Wednesday, February 23, one week in advance of the public workshop.

Sixty people pre-registered for the workshop and seventy-four people attended.

The workshop consisted of a slide presentation and a question-and-answer session. Comments, questions, and answers from the workshop are provided in Appendix A.

The project team presented information on the study area limits, study background, existing conditions, the Bicycle Level of Traffic Stress framework, and select bicycle facility types that may be appropriate in the project area. The presenters noted that the project is a planning-level study.



A PDF of the workshop presentation was posted on the project website on March 4. A recording of the presentation was posted on the project website on March 7. The website also includes a pdf that provides a summary of responses to the 2022 public survey; comments, questions, and answers from the 2022 public workshop Q&A session; and emails received during the 2022 public comment period.

### 3.3.2 Public Workshop 2, April 18, 2023

A second public workshop was held on April 18, 2023. This workshop addressed both the ACO Study and the Dupont & Lovering Pedestrian Improvements TAP project.

Public notice of the public workshop was published in *the News Journal* on Tuesday, April 7, 2023, and the *Newark Post* on Tuesday, April 7, 2023. Public notice of the workshop was posted on the project website and the state's public meeting calendar. Members of the project team also dropped off flyers to all properties along the corridor in advance of the public workshop.

The workshop was held in person at the Blue Ball Barn and was streamed via Zoom. The workshop consisted of a slide presentation and question-and-answer session for in-person and virtual attendees and an interactive session with printed concept plans for in-person attendees.

The project team presented preliminary concept designs for the ACO Study and the Dupont & Lovering TAP project. These concepts are presented in Section 0 of this report.

All workshop materials and a recording of the workshop were posted on the project website after the workshop.

## 3.4 WRITTEN PUBLIC FEEDBACK

A public survey and public comment period were conducted in conjunction with each of the two public workshops described above. The project team reviewed the public comments and completed surveys to assess whether each respondent's sentiment toward the project was negative, neutral, or positive. Figure 15 summarizes the results of this assessment.

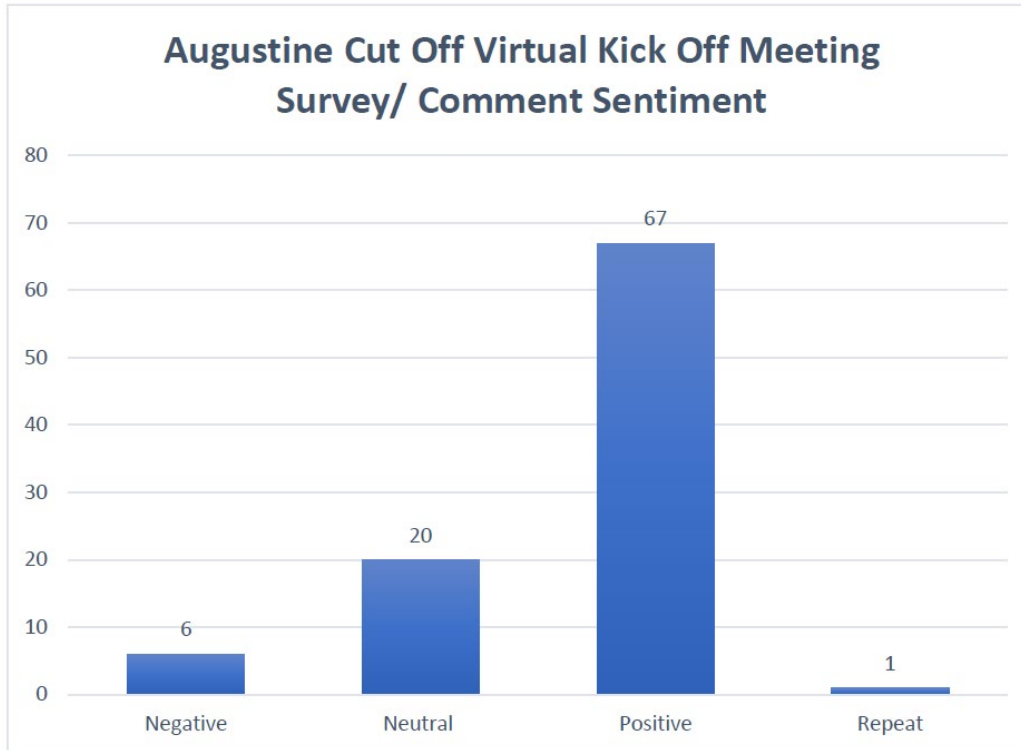


Figure 15. 2022 public survey responses and written public comments, by whether their overall sentiment was negative, neutral, or positive towards the project

### 3.4.1 Summary of Responses to the 2022 Public Survey

A public survey was conducted in conjunction with the March 2022 public workshop. The survey was available online from February 22 through March 16, 2022. Eighty-three completed surveys were submitted. Most survey responses were submitted after the public workshop.

Summary charts of responses to each survey question are provided in Appendix A. Note that responses to the two open-ended survey questions (questions 7 and 8) were placed into categories to allow for summarization in chart format.

### 3.4.2 Summary of Responses to the 2023 Public Survey

A second public survey was conducted in conjunction with the April 2023 public workshop. The survey was available online from April 18 to May 18, 2023. QR codes linking to the online survey and printed copies of the survey were available at the April public workshop. Twenty-three completed surveys were submitted.

Like the 2023 workshop, the survey addressed the study areas of both the ACO Study and the Dupont & Lovering Pedestrian Improvements TAP project. For this survey, a multiple-choice question asking whether each proposed improvement would improve conditions for people walking, biking, and driving was paired with an open-ended question requesting feedback. 70% of respondents agreed or strongly agreed that the proposed improvements would improve conditions for the traveling public. The feedback was also incorporated into plan revisions, which were minimal. Survey results are provided in Appendix C.

### 3.4.3 Other Written Public Feedback

In addition to the public survey responses discussed above, some members of the public provided comments via mail and email.

During the 2022 public comment period, DeIDOT received eleven written comments. Six of the comments expressed opposition to the project, three expressed support, and two were neutral. The written feedback was considered when refining the proposed design.

## 3.5 UPCOMING PUBLIC OUTREACH

Preliminary design work for Phase 1 of the ACO project is expected to begin in 2024. Another public workshop will be held as part of this preliminary design process.

## 4 Photo Log

---



Figure 16. Southbound side of Lovering Avenue at Augustine Cut Off, looking southeast (towards CSX bridge and N. Dupont Street)



Figure 17. Southbound side of Lovering Avenue at Augustine Cut Off, looking northeast (towards Wawaset Street)





Figure 19. Northbound side of Lovering Avenue at Augustine Cut Off, looking southeast (across Augustine Cut Off towards CSX bridge)

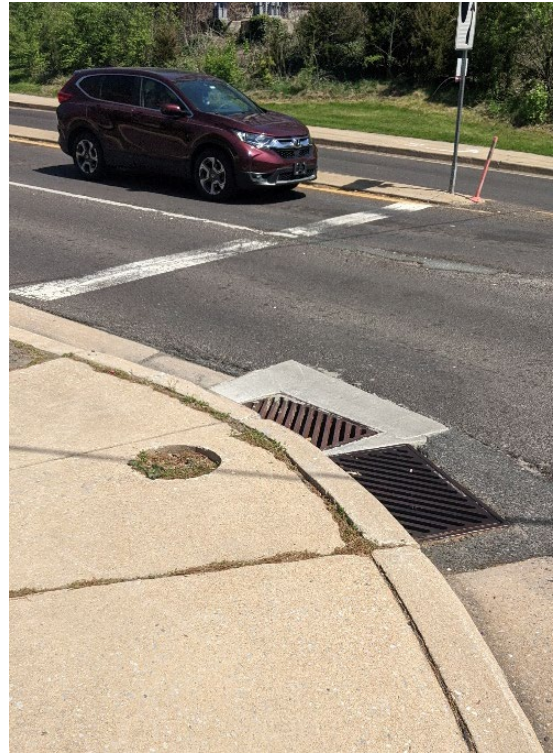


Figure 18. North corner of Lovering Avenue-Augustine Cut Off intersection, looking southeast (across Augustine Cut Off)



Figure 20. Augustine Cut Off at Lovering Avenue, looking northeast (towards Wawaset Street)





Figure 21. Augustine Cut Off at Wawaset Street, looking northeast (across Wawaset Street towards Augustine Cut Off Bridge)



Figure 22. Augustine Cut Off between Wawaset Street and Augustine Cut Off Bridge, looking southwest (towards Wawaset Street)



Figure 23. Southwest end of Augustine Cut Off Bridge, looking northeast





Figure 24. Northeast end of Augustine Cut Off Bridge, looking southwest



Figure 25. Northeast end of Augustine Cut Off Bridge, looking northeast (towards 18th Street intersection)





Figure 26. South end of Incyte shared use path, looking northeast (towards 18th Street intersection)



Figure 27. Southbound side of Augustine Cut Off just north of 18th Street intersection, looking east (towards informal parking lane between 18th Street and 1812 Augustine Cut Off)





Figure 28. Southbound side of Augustine Cut Off, looking south (towards Stone Hill Road intersection)



Figure 29. Southbound side of Augustine Cut Off between Stone Hill Road and Cantera Road, looking south

## 5 CTP Estimate

---



<b>CAPITAL TRANSPORTATION PROJECT COST ESTIMATE</b>			
1. NAME OF PROJECT <u>Augustine Cut Off - Phase 1</u>		<u>New Castle</u>	
Subdivision or Road Name		County	
<b>2. LIMITS</b>			
Street Name or Road Number	From	To	Length
<u>Augustine Cut off</u>	<u>Lovering Ave</u>	<u>Cantera Road</u>	<u>0.6 Miles</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
<b>3. ESTIMATE REQUESTED BY:</b> _____ for (check one) <input type="checkbox"/> Project initiation			
Name		<input type="checkbox"/> Estimate only Section or Legis. Dist. _____	
<b>4. DESCRIPTION OF IMPROVEMENT:</b>			
<b>4. PROJECT IN C.I.P.</b> Yes <input type="checkbox"/> No <input type="checkbox"/> If "Yes", indicate year F. Y. _____			
<b>5. TYPICAL SECTION</b>			
<b>6. STATE MAINTAINED</b> <input type="checkbox"/> <b>CITY MAINTAINED</b> <input type="checkbox"/> <b>PRIVATE</b> <input type="checkbox"/> <b>OTHE</b> <input type="checkbox"/> (specify) _____			
<b>7. COST ESTIMATE:</b>			
		from C.I.P. estimate form	Estimate prepared by: _____ Date: _____
a. Location and Environmental Studies (Part I to be included only for class "I" and "III" projects)	\$0	Part I	_____
b. Preliminary Engineering	\$399,300	Part II	_____
c. Real Estate	\$0	Part III	_____
d. Construction *	\$2,773,088	Part IV	_____
e. TOTAL ESTIMATED PROJECT COST	\$3,172,388		
* Includes Utilities, Traffic, and C.E.			
<b>APPROVED</b>			
Valid thru _____	Assistant Director, M&O/Transportation Solutions/Planning		Date _____
Date _____			

<b>CAPITAL TRANSPORTATION PROJECT COST ESTIMATE</b>			
(Current Dollars)			
			Part I of V
Contract No. <u>T20222002</u>		Project Title: <u>Augustine Cut Off - Phase 1</u>	
<b>PART I - LOCATION &amp; ENVIRONMENTAL STUDIES (N/A)</b>			
(Part I to be included only for class "I" & "III" projects)			
<b>A. ENGINEERING</b>	_____	<b>E. HISTORIC</b>	\$0
(Includes NEPA)			
<b>B. ARCHAEOLOGY</b>	\$0	1. Phase 1 (study)	_____
1. Phase 1 (study)	_____	2. Phase 2 (study)	_____
2. Phase 2 (study)	_____	3. Mitigation (by loc./env.)	_____
3. Phase 3 (mitigation)	_____	4. Mitigation (by design)	yes <input type="checkbox"/> no <input type="checkbox"/>
<b>C. WETLANDS</b>	\$0	<b>F. NOISE</b>	\$0
1. Delineation (study)	_____	1. Studies	_____
2. Permit preparation	_____	2. Mitigation (by design)	yes <input type="checkbox"/> no <input type="checkbox"/>
3. Mitigation (design)	_____	<b>G. OTHER</b>	\$0
<b>D. HAZARDOUS MATERIAL</b>	\$0	1. _____	_____
1. Phase 1 (study)	_____	2. _____	_____
2. Phase 2 (study)	_____		
3. Phase 3 (remediation)	_____		
<b>TOTAL COSTS FOR PART I (A thru G) ROUNDED</b>			\$0
<b>CONTINGENCY COSTS</b>			\$0
(normally 5% for large projects and 10% for small projects - to be approved by section head)			_____ (% used)
<b>TOTAL LOCATION AND ENVIRONMENTAL STUDIES COSTS</b>			\$0
(also total for Construction Project Estimate form line 7a)			
Estimator: _____	Date: _____		



<b>CAPITAL TRANSPORTATION PROJECT COST ESTIMATE</b>			
(Current Dollars)			
			Part II of V
Contract No. <u>T20222002</u>		Project Title: <u>Augustine Cut Off - Phase 1</u>	
<b>PART II - PRELIMINARY ENGINEERING</b>			
<b>A. SURVEYS</b>	<u>\$85,000</u>	8. Subdivision	<u>\$0</u>
1. Inhouse		a. Inhouse	
2. Consultant	<u>\$85,000</u>	b. Consultant	
		c. Railroad P.E.	
<b>B. DESIGN ENGINEERING</b>	<u>\$278,000</u>	9. Other (specify)	<u>\$0</u>
1. Design	<u>\$163,000</u>	a. _____	
a. Inhouse		b. _____	
b. Consultant	<u>\$163,000</u>	<b>C. ENVIRON. ASSESSMENT</b>	<u>\$0</u>
2. Traffic	<u>\$50,000</u>	(use for class "II" projects only)	
a. Inhouse		1. Wetlands	
b. Consultant	<u>\$50,000</u>	2. Hazardous Materials	
3. Real Estate Plan Preparation	<u>\$0</u>	3. Noise	
a. Inhouse		4. Historic	
b. Consultant		5. Archaeology	
4. Utilities	<u>\$65,000</u>	6. Other	
a. Inhouse		a. _____	
b. Consultant	<u>\$50,000</u>	b. _____	
c. Test Holes	<u>\$15,000</u>	Loc/Environ	
d. Utility Company		Estimator: _____	Date: _____
5. Materials & Research		<b>D. CONTRACT ADMINISTRATION</b>	
6. Borings		Cont/Admin	
7. Pile Load Tests		Estimator: _____	Date: _____
<b>TOTAL COSTS FOR PART II (A thru D) ROUNDED</b>			<u>\$363,000</u>
<b>CONTINGENCY COSTS</b>			<u>10%</u>
(normally 5% for large projects and 10% for small projects - to be approved by section head)			<u>(% used)</u>
<b>TOTAL PRELIMINARY ENGINEERING</b>			<u>\$399,300</u>
(also total for Construction Project Estimate form line 7b)			
Estimator: _____		Date: _____	

<b>CAPITAL TRANSPORTATION PROJECT COST ESTIMATE</b>			
(Current Dollars)			
			Part III of V
Contract No. <u>T20222002</u>		Project Title: <u>Augustine Cut Off - Phase 1</u>	
PART III - REAL ESTATE			
<b>A. REAL PROPERTY</b>	<u>\$0</u>	<b>C. ASBESTOS PROGRAM</b>	<u>\$0</u>
1. Total acquisitions	<u>          </u>	1. Testing	<u>          </u>
2. Partial acquisitions	<u>          </u>	2. Abatement	<u>          </u>
3. Permanent easements	<u>          </u>	<b>D. DEMOLITION</b>	<u>          </u>
4. Temporary easements	<u>          </u>	<b>E. APPRAISAL FEES</b>	<u>          </u>
5. Wetland mitigation	<u>          </u>	<b>F. STAFF</b>	<u>          </u>
Other (specify)	<u>          </u>	<b>G. SETTLEMENT</b>	<u>          </u>
6. <u>                                  </u>	<u>          </u>	<b>H. REAL ESTATE ENG.</b>	<u>\$0</u>
7. <u>                                  </u>	<u>          </u>	1. Consultant survey	<u>          </u>
<b>B. RELOCATION</b>	<u>\$0</u>	2. As acquired plans	<u>          </u>
1. Residential	<u>          </u>	<b>I. CONDEMNATION</b>	<u>          </u>
2. Business	<u>          </u>	<b>J. OTHER (specify)</b>	<u>\$0</u>
Other (specify)	<u>          </u>	1. <u>                                  </u>	<u>          </u>
3. <u>                                  </u>	<u>          </u>	2. <u>                                  </u>	<u>          </u>
4. <u>                                  </u>	<u>          </u>		
<b>TOTAL COSTS FOR PART III (A thru J) ROUNDED</b>			<u>\$0</u>
<b>CONTINGENCY COSTS</b>			<u>\$0</u>
(normally 5% for large projects and 10% for small projects - to be approved by section head) <u>          </u> (% used)			
<b>TOTAL REAL ESTATE COSTS</b>			<u>\$0</u>
(also total for Construction Project Estimate form line 7c)			
Estimator: <u>                                  </u>		Date: <u>                                  </u>	

<b>CAPITAL TRANSPORTATION PROJECT COST ESTIMATE</b>			
(Current Dollars)			
			Part IV-A of V
Contract No. <u>T20222002</u>		Project Title <u>Augustine Cut Off - Phase 1</u>	
<b>PART IV -CONSTRUCTION</b>			
<b>A. ROADWAY/APPROACH CONSTRUCTION</b>		<b>B. STRUCTURE CONSTRUCTION</b>	
	<u>\$1,107,136</u>		<u>\$112,500</u>
1. Grading		1. New Bridge	
a. Excavation (includes SWM pond)	<u>\$18,106</u>	a. Type	
b. Borrow	<u>\$5,280</u>	b. Size	
2. Drainage	<u>\$21,000</u>	c. \$/s.f.	
3. Pavement		2. Old Structure Rem.	
a. Surface	<u>\$774,300</u>	a. Type	
b. Base	<u>\$36,400</u>	b. Size	
c. Subbase	<u>\$55,130</u>	c. \$/c.y.	
4. Erosion/Sed. Cont.	<u>\$3,900</u>	3. Retaining Wall	<u>\$112,500</u>
5. Miscellaneous		a. Type	
a. Curb/Gutter	<u>\$73,400</u>	b. Size	
b. Sidewalk	<u>\$111,120</u>	c. \$/c.y.	
c. Guardrail		4. Box Culvert	
d. C.P.M. Schedule		a. Type	
e. Clear/Grubb	<u>\$8,500</u>	b. Size	
f. Field Office		c. \$/s.f.	
Other (specify)		<b>C. LANDSCAPING</b>	<u>\$5,000</u>
g.		1. Beautification	<u>\$5,000</u>
h.		2. Noise Mitigation	
i.		3. Visual Mitigation	
j.		4. Tree Mitigation	
k.		<b>D. MAINTENANCE OF TRAFFIC</b>	<u>\$191,932</u>
l.			
m.			

(refer to Capital Improvement Project form, Part IV - Continued)

<b>CAPITAL TRANSPORTATION PROJECT COST ESTIMATE</b>		
(Current Dollars)		
		Part IV-B of V
Contract No. <u>T20222002</u>	Project Title <u>Augustine Cut Off - Phase 1</u>	
<b>PART IV -CONSTRUCTION (CONTINUED)</b>		
<b>E. PROJECT TRAFFIC ITEMS</b>	<u>\$225,200</u>	
1. Signing Structures		
a. Overhead Bridges		
b. Cantilever Supports		
2. Roadway Lighting		
3. Pavement Markings	<u>\$78,200</u>	
Other (specify)		
4. Qwick Curb	<u>\$147,000</u>	
<b>F. WETLAND MITIGATION</b>		
<b>G. UTILITY RELOC. IN CONTRACT</b>	<u>\$0</u>	
1. Water		
2. Sanitary Sewer		
Other (specify)		
3.		
<b>H. SUBTOTAL (A thru G) ROUNDED</b>	<u>\$1,642,000</u>	
<b>I. MISC. ITEMS</b>	<u>\$328,400</u>	
(15% of H for large projects and 20% for small)		
(At SF submission use 10% and 5%)		
	20%	
	(% used)	
<b>J. CONTRACTOR'S CONST. ENG.</b>	<u>\$49,260</u>	
(normally 5% of H)		
	3%	
	(% used)	
<b>K. INITIAL EXPENSE</b>	<u>\$49,260</u>	
(normally 5% of H)		
	3%	
	(% used)	
<b>L. CONSTRUCTION CONTINGENCY</b>	<u>\$164,200</u>	
(normally 10% of H)		
	10%	
	(% used)	
<b>M. TOTAL CONSTRUCTION COSTS (H thru L)</b>		<u>\$2,233,120</u>
(Enter on PNR funding line 5)		
<b>N. CONSTRUCTION ENGINEERING (normally 15% of construction costs)</b>		<u>\$334,968</u>
(Enter on PNR funding line 4)		
	15%	
	(% used)	
<b>O. TOTAL CONSTRUCTION COSTS (Construction Costs + Construction Engineering)</b>		<u>\$2,568,088</u>
(use this total + Q + P for Construction Project Estimate from line 7d)		
Estimator: _____	Date: _____	

<b>P. REIMBURSABLE UTILITY RELOCATIONS BY OTHERS</b>	<u>\$0</u>	
(Enter on PNR funding line 7)		
1. Water		
2. Sanitary Sewer		
3. Electric		
4. Telephone		
5. Gas		
6. CATV		
Other (specify)		
7.		
8.		
Utilities		
Estimator: _____		Date: _____

<b>Q. TRAFFIC SECTION ITEMS</b>	<u>\$205,000</u>	
(Enter on PNR funding line 6)		
1. Signing		<u>\$5,000</u>
2. Signals		<u>\$200,000</u>
3. Detour Signing		
4. DelTrac		
Other (specify)		
5.		
Traffic		
Estimator: _____		Date: _____



<b>CAPITAL TRANSPORTATION PROJECT COST ESTIMATE</b>	
(Current Dollars)	Part V of V
Contract No. <u>T20222002</u>	Project Title: <u>Augustine Cut Off - Phase 1</u>
<b>SUMMARY</b>	
<b>PART I - LOCATION AND ENVIRONMENTAL STUDIES</b> (Part I to be included only for class "I" and "III" projects)	<u>\$0</u>
<b>PART II - PRELIMINARY ENGINEERING</b>	<u>\$399,300</u>
<b>PART III - REAL ESTATE</b>	<u>\$0</u>
<b>PART IV - CONSTRUCTION</b>	<u>\$2,773,088</u>
<b>TOTAL ESTIMATED PROJECT COSTS</b> (also total for Construction Project Estimate from line 7c)	<u>\$3,172,388</u>
_____ Project Manager	Date: _____
<b>REVIEWED &amp; CONCURRED IN:</b>	
_____ Section Head	Date: _____
<p>NOTE: Concurring section heads are to forward the original estimate copy to the Director of Transportation Solutions with one estimate copy each to the Assistant Director of Project Development, Assistant Director of Design Support, and the Cost Estimate Engineer.</p>	

# 6 Appendices

---



## APPENDIX A. COMMENTS, QUESTIONS, AND ANSWERS FROM MARCH 2, 2022, PUBLIC WORKSHOP

During the March 2, 2022, virtual public workshop, attendees were able to submit comments and questions via the virtual meeting's chat function. The project team answered the questions verbally or in the chat.

Comments, questions, and the project team's answers are summarized below. Questions and answers are organized by topic. Comments and questions have been lightly edited for clarity, and the answers include a summary of the response provided during the workshop along with additional information for clarity.

### Questions and Answers

#### General

- Q. How long has this project been under study?**
- A. Although the idea for this project has been around for several years, this is the public kick-off and beginning of the study.
- Q. Why are you pursuing this project now? Salesianum and other schools have had cross country and track for over 40 years.**
- A. This idea for a project along this corridor has been around for several years and has been incorporated in several plans including the [New Castle County Bicycle Plan](#) and the [City of Wilmington Bike Plan](#). The DeIDOT Bike/Pedestrian Program has only been around in its current form for a few years, and the method of [identifying and prioritizing projects](#) described at the workshop was only established in 2018. There are many bike and pedestrian transportation needs around the state and this project fits into the program this fiscal year.
- Q. Are you going to address DeIDOT's written promise dated 6/26/2000 to not expand Augustine Cut Off unless local residents request a change?**
- A. DeIDOT will be providing an official response once they receive feedback from their legal team.
- Q. Who paid for this? Us?**
- A. This project was paid for by the DeIDOT Bicycle and Pedestrian Program, which is funded by 80% Federal Transportation Funds and 20% State Appropriated Funds.
- Q. What can we do to show our support to you and others for this project?**
- A. Please take the survey available on the project website, which is open until March 16. Comments are also being collected via email to [dotpublic@delaware.gov](mailto:dotpublic@delaware.gov) and [paul.moser@delaware.gov](mailto:paul.moser@delaware.gov).
- Q. What is the expected schedule for this project? i.e. 1 year, 3 years, 5 years...**
- A. The purpose of this study is to determine what, if any bicycle facilities should be installed along Augustine Cut Off based on public feedback and technical analysis. Currently, there is no anticipated schedule for advancing this project beyond the study phase.
- Q. Will a contact list of the reps from all the agencies that are on this call be provided ... Greenways, NCC WILMAPCO, etc.?**
- A. WILMAPCO may be reached at [hdunigan@wilmapco.org](mailto:hdunigan@wilmapco.org) with questions/comments about the New Castle County Bicycle Plan or other projects. The DeIDOT project manager may be reached at [paul.moser@delaware.gov](mailto:paul.moser@delaware.gov). Contact information for Delaware Greenways

is available at <https://delawaregreenways.org/>. All information received by DeIDOT during the public comment period will be shared with all the agencies on this call, including New Castle County, the City of Wilmington, WILMAPCO, and Delaware Greenways.

### Traffic/Congestion

- Q. Have you driven Augustine Cut Off? They just changed the lane configuration last year.**
- A. Members of the project team have conducted multiple site visits and will document all existing conditions as part of this study.
- Q. Are you factoring in the Incyte expansion?**
- A. Augustine Cut Off is currently a two-lane roadway. Safely accommodating people walking and biking will not limit roadway capacity for motor vehicles which was considered during the development review process.
- Q. Augustine is not a safe ride, and very busy so busy people can't get out of their driveway. How will safety be improved? Lights?**
- A. The project team has heard multiple concerns about congestion along the corridor. Potential improvements will be determined through the course of this study - please provide us with your feedback about what you think would improve conditions along the corridor.

### Intersections

- Q. The intersection at Alapocas Ridge is most certainly improved with cross walks and push button light controls for stopping vehicular traffic. Why do you say the ridge has no access?**
- A. The push buttons installed at Alapocas Ridge allow for someone on a bike or walking to call for a red light to cross the Augustine Cut Off; however, there are no sidewalks or striped crosswalks marked at the intersection. People crossing at this location from Alapocas Ridge must walk along the roadway. If continuing into Alapocas, they can use the sidewalks, but if continuing along Augustine Cut Off, they must walk in the roadway.
- Q. There are too many entrances for Incyte to control traffic safety. If DeIDOT has been looking into this, then you have seen all the requests for traffic lights. There are no lights going down Augustine.**
- A. Traffic patterns along the corridor, including entering and leaving Incyte, will be examined as a part of this study. To install a new traffic control device, including stop signs and traffic lights, certain traffic thresholds must be met in an engineering study governed by the Manual of Uniform Traffic Control Devices (MUTCD). If a location does not meet the criteria or warrant, the device cannot be installed.
- Q. Is there a consideration to address the left turn at the bottom of Augustine Cut Off to [turn left onto 18th Street to] get to Salesianum?**
- A. The left turn at the bottom of Augustine Cut Off is already signalized for motor vehicles and bicycles that travel in the lane with traffic. This study will look at potential crossing improvements for people walking and bicycling from the west side of Augustine Cut Off onto 18th Street.
- Q. So glad you are doing this. Will the cross walk at Lovering provide a safe way for bicyclists coming from Trolley Square to turn right onto Augustine cutoff? Probably the least safe situation in terms of separation from cars because no shoulder there at all.**



- A. This study, along with the Dupont & Lovering TAP project, will look at safe crossings/crosswalks for people biking and walking from Trolley Square and Forty Acres to Augustine Cut Off via Lovering Avenue.
- Q. This may have already been mentioned but the two major pinch points which are not included in this study are (1) the turn off of Augustine Cut Off [onto 18th Street] towards Salesianum and (2) the intersection at Lovering Avenue and Augustine Cut Off. These should be addressed first before anything is done on Augustine Cut Off.**
  - A. Both intersections will be examined as a part of this study since they are part of the Augustine Cut Off corridor. Once potential improvements are identified, they will be prioritized based on funding and implementation considerations.

### *Safety/Crash Data*

- Q. Did I understand you to say that there was one incident or injury with a bicycle from 2005 to the present?**
  - A. Based on preliminary analysis of crash history in the study area from 2005 to the present, there were two pedestrian-involved crashes and one bicycle-involved crash.
- Q. What about automotive accidents?**
  - A. The chart on the crash history slide ([page 11 of the presentation PDF](#)) shows automotive crashes summarized by primary contributing circumstance.
- Q. Where did you get the information about crashes along Augustine Cut off? I have lived here for 6 years and there have been 3 crashes.**
  - A. Crash data originates from police crash reports. These data points are anonymized and scrubbed of identifying and sensitive information and used to generate this info. Unfortunately, some bicycle- and pedestrian-involved crashes are unreported, so our data only covers what is officially on the record.

### *Speeds*

- Q. How would a bike path decrease cars speeding on Augustine Cut Off?**
  - A. Wider motor vehicle travel lanes and large shoulders encourage (the perception of) comfortable driving at higher speeds. Adding a bike facility along the roadway may require the narrowing of motor vehicle lanes and shoulders, and the addition of a curb. The narrowing of the travel lanes and the addition of a curbed edge increases the sense of side friction to the driver and tends to result in a lower free-flow speed of traffic.
- Q. The current speed limit is 35. Will there be a reduction in speed limit?**
  - A. There is not currently a plan to reduce the speed limit along this corridor unless engineering or policy recommendations are developed from this study.

### *Biking*

- Q. Wait, can you explain the Level of Traffic Stress (LTS) analysis again? Why is the northern part yellow (LTS 3), not green (LTS 1)?**
  - A. Level of Traffic Stress along the Augustine Cut Off Corridor varies based on motor vehicle speed, volume, and the presence of shoulders. Most of the portions of the corridor where bikes are forced to ride on-road, is LTS 4, or tolerated by strong and fearless cyclists. The pathways at the north and south ends of the corridor are shown in blue and are considered LTS 1, or tolerated by bicyclists of all ages and abilities.

Connecting the two existing paths with a separated bike facility would mean the entire corridor would be classified as LTS 1.

**Q. Do you have an estimate as to how many bicyclists there are in North Wilmington? And how many of them would use this bike path?**

A. Delaware Greenways replied that they do not have accurate estimates as to how many bicyclists there are in North Wilmington, although efforts to survey the number of bicyclists are currently underway. DeIDOT does collect counts of bicyclists at various locations around the state, including the Jack A. Markell Trail at the Wilmington Riverfront and the Georgetown-Lewes Trail in Sussex County.

**Q. So why put more bikes if it is not safe? You mentioned the signs [on the traffic calming islands] are regularly struck by vehicles.**

A. Conditions on Augustine Cut Off do not allow for a low-stress experience while riding a bike due to vehicular speeds, volumes, and inconsistent shoulders. Improvements to the roadway, such as the continuation of a shared use path that would be separated from motor vehicles by a curb and buffer, would create a safer low-stress experience for people walking and biking. The purpose of the study is to examine how to make the corridor safer for all road users, including people driving, walking, and bicycling.

### *Parking*

**Q. What happens to parking on the shoulders?**

A. The impact to on-street parking will be analyzed once concepts are developed.

**Q. How do your two options impact the parking along the Augustine Cut Off on the north side of the Road?**

A. The impact to on-street parking will be analyzed once concepts are developed.

### *Property Impacts and Liability*

**Q. If a cyclist has an accident, in the current situation, due to trash cans, detritus, etc., isn't that a liability to the landowners?**

A. All concepts considered will be developed within State Right of Way, and property owners would not be exposed to any additional liability than they currently are for damages (you could be sued for your trash can causing an injury in the road with or without a sidewalk). DeIDOT or another maintenance party (to be determined in the study) will be responsible for adequate maintenance and debris removal.

**Q. What is our liability for us residents of the cut off, for bicyclists who get injured in front of or on our property? Will snowplows clear the bike paths? Whose responsibility is that?**

A. This study will investigate long-term and seasonal maintenance arrangements for each bicycle and pedestrian facility concept developed. Most likely, these facilities would be treated as other sidewalks and multi-use paths on state-maintained roads in county jurisdiction – this would mean that the facility would be added to DeIDOT's tiered snow removal prioritization scheme. Equipment and techniques used, as well as frequency and priority of snow removal, will depend on the facility. It is extremely unlikely that property owners would be considered for any type of maintenance responsibility of the facility as this arrangement would require an agreement with each property owner and this is not practical or typical for facilities of this nature.

- Q. To accommodate the bike lane will the general roadway need to be widened? If so, how does this affect property owners along the proposed path - do we sacrifice part of our property?**
- A. A concept design for the corridor has not yet been prepared and whether/how much widening is necessary is unknown at this time. If concept design is advanced after DelDOT reviews the feedback from this workshop, visuals will be used to show the potential impact to property owners along the corridor at future public meetings.
- Q. If the bike path construction takes 11-15 feet of our front yards away, what will happen to large trees that were here before the homes were built? We do not want to lose our beautiful very old and large oak tree.**
- A. Every effort will be made to avoid impacting mature trees along the corridor. The existing right of way is relatively wide, and this should not be an issue.
- Q. Please touch base on your physical plan and how it would impact the homes on Augustine Cut Off.**
- A. A concept design for the corridor has not yet been prepared. If concept design is advanced after DelDOT reviews the feedback from this workshop, visuals will be used to show the potential impact to property owners along the corridor at future public meetings.

### Concepts

- Q. Would this shared use path concept retain the same right of way as the road and not have any additional stop signs?**
- A. A concept design for the corridor has not yet been prepared. If the concept design is advanced after DelDOT reviews the feedback from this workshop, visuals will be used to show the location of new facilities relative to the current roadway.
- Q. Does the second option [protected bike lane] accommodate two-way bike & walking traffic?**
- A. The protected bike lane would accommodate two-way bike traffic. People walking would use the sidewalk adjacent to the protected bike lane.
- Q. Are pathways two-way or one-way?**
- A. The pathway would accommodate two-way travel for people walking and biking.
- Q. Can you make the pathway on one side of the road and it becomes wider?**
- A. A concept design for the corridor has not yet been prepared. If the concept design is advanced after DelDOT reviews the feedback from this workshop, visuals will be used to show the location of new facilities relative to the current roadway.
- Q. Is widening the one shoulder to encourage all bikes to use that side and narrowing the opposite side an option? It seems that might be lower cost and not create some of the snow removal /frontage issues. Can that be designed to still slow traffic?**
- A. By law, bikes traveling on-road must travel in the direction of motor vehicle traffic. To accommodate two-way bike traffic on one side of the road, there must be some form of separation between the bikeway and motor vehicle lanes.

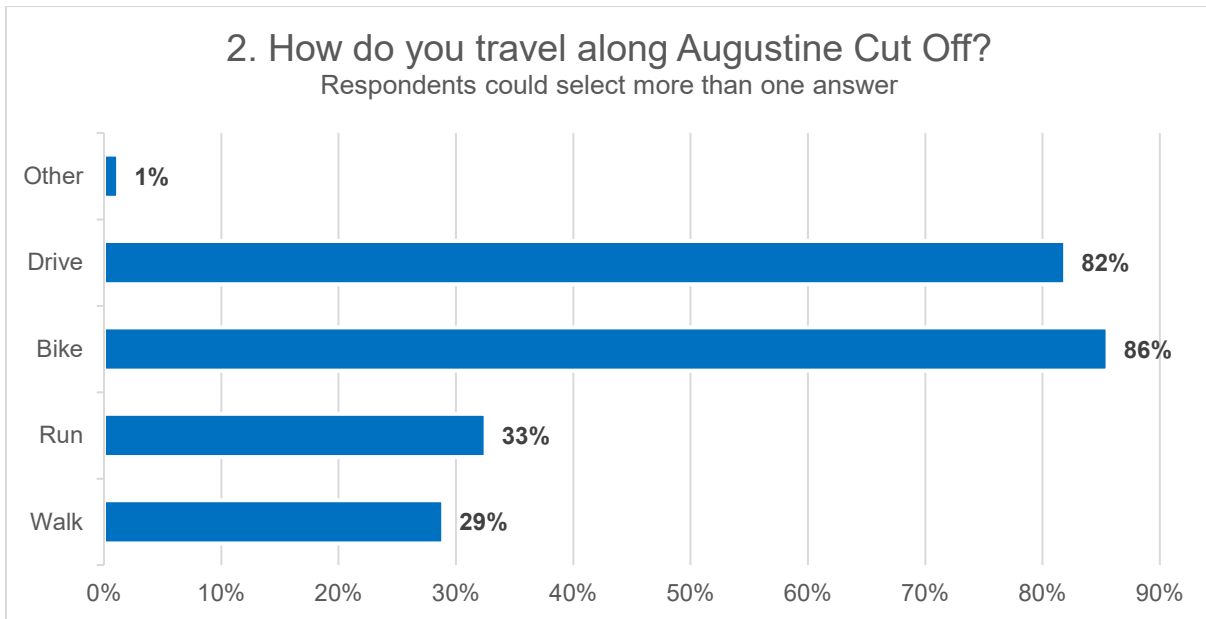
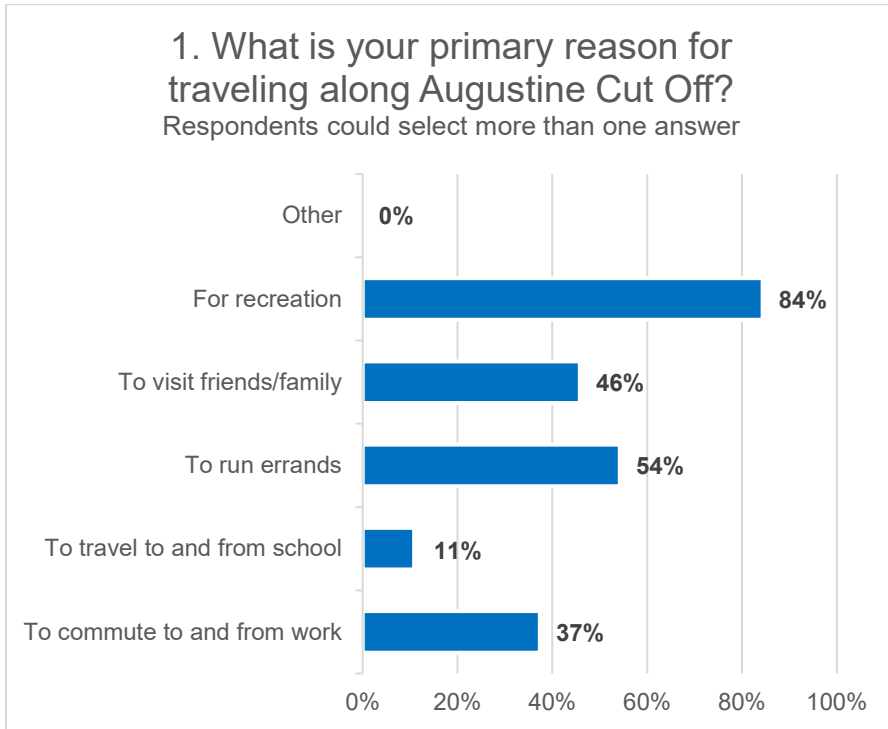
### Comments

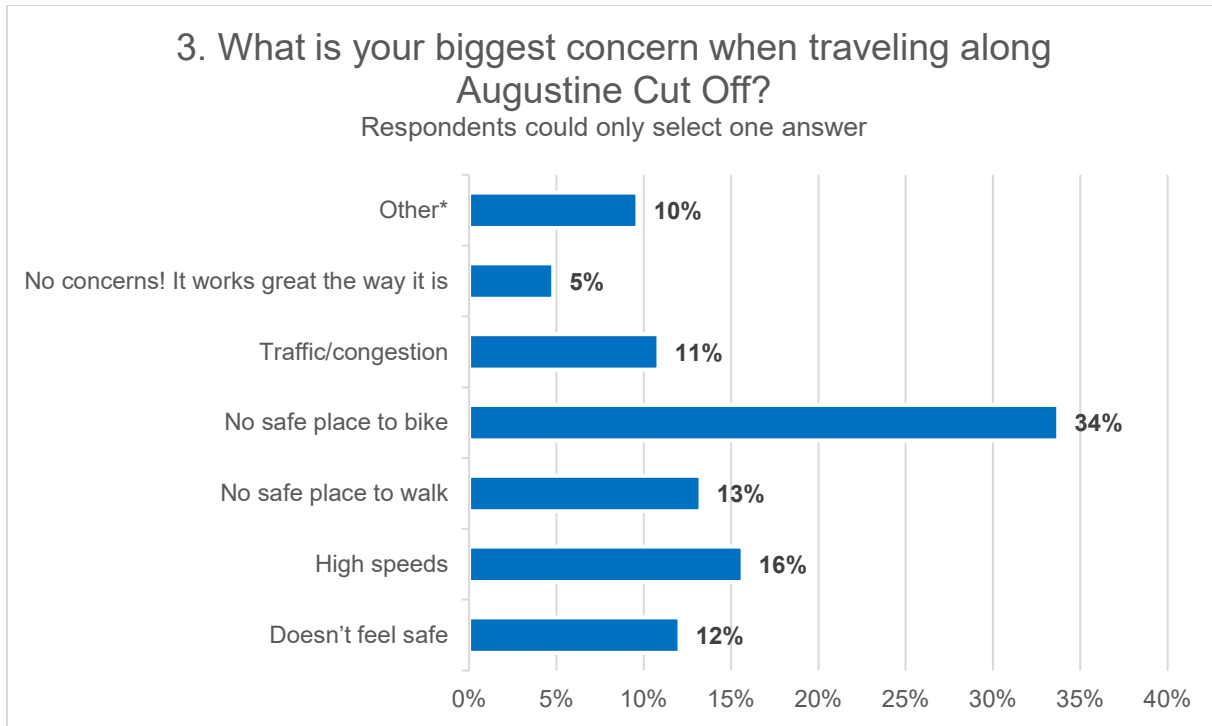
- These seem like great improvements to slow down traffic and improve the roadway. It's especially tight and dangerous at the intersection of Alapocas Road and Augustine Cut Off. Kudos for tackling this and the thorough explanation.



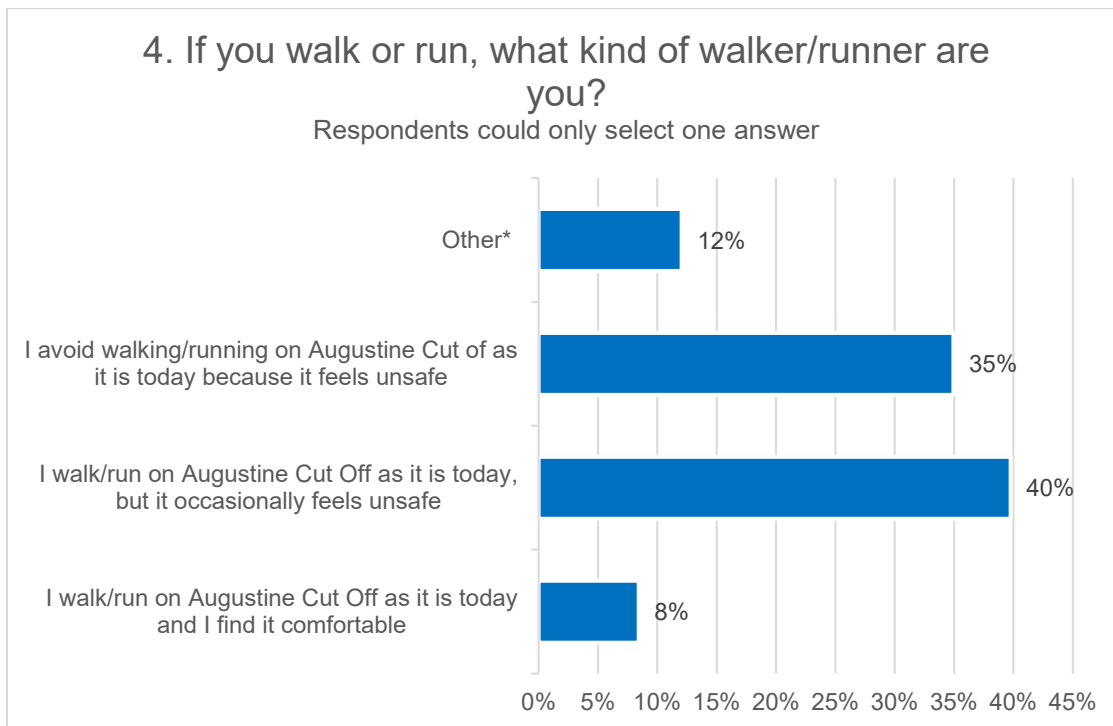
- This makes no sense because Augustine Cut Off is a busy ride.
- I have biked this path 5 to 6 times a week for the past 2 years so am quite excited about DelDOT's considering making improvements.
- Thank you! We've been here 24 years and yes we've seen people run and ride their bikes in the snow. We've seen it all.
- This is fabulous. Safer for the cross country and track teams, kids getting to schools nearby, connecting neighborhoods, slowing traffic to make it easier for people to exit their driveways, etc. Thanks.
- So they now ride through my neighborhood to rob us again.
- Cross the street at that point plenty of room on the other side. That would slow down traffic.
- I like the idea of narrowing the car lanes. It definitely feels like that helps lower the speed.
- I unfortunately missed the beginning of this, but I joined as soon as I heard. I ride this stretch frequently so I'm excited about this project.
- The Incyte project isn't even finished. Traffic will only get worse.
- I just wanted to register my experience riding this section. Those "pinch points" absolutely just push me to take the lane [when riding a bike along the corridor]. These are all over and they're stressful spots. I find that the straightaway at the top of the hill often has junk blocking the outside of the traffic calming islands (like yard debris, trash cans etc.). Further about the pinch points: headed uphill out of the city the pinch point is even worse with the right turning traffic [at 18th Street] trying to cut across the bike traffic.
- The reason for the side barriers [concrete islands between Edgemoor and Alapocas Drive] was to slow down traffic. As stated, it didn't work. Do that project [Augustine and Lovering improvements] first- its more dangerous.
- Wouldn't you think the Lovering crossing [improvements] would be better [a better project than] the Augustine Cut Off Project].
- The safety of us who live on Augustine Cut Off is a concern. It is already difficult to pull in and out of our driveways with cars almost rear-ending us. Bicycle traffic will add to that issue.
- Thanks Leah and Paul. Great job! Making the Cut-off more bike- and ped-friendly is a great way to address the high-speed traffic problems.
- Bike Delaware has been trying to calculate a solid number [of cyclists], but unfortunately, the counters used in the past haven't been 100% reliable.
- The northern Delaware Greenway has a bike lane going down Talley Road.
- Thank you so much! Excited to see the expansion of bike paths in Wilmington.
- *Comments regarding signs on the traffic calming islands being struck by vehicles:*
  - That is mostly from the snowplows. They take those signs out.
  - I believe that posts have been replaced.

**APPENDIX B. 2022 PUBLIC SURVEY RESPONSES**



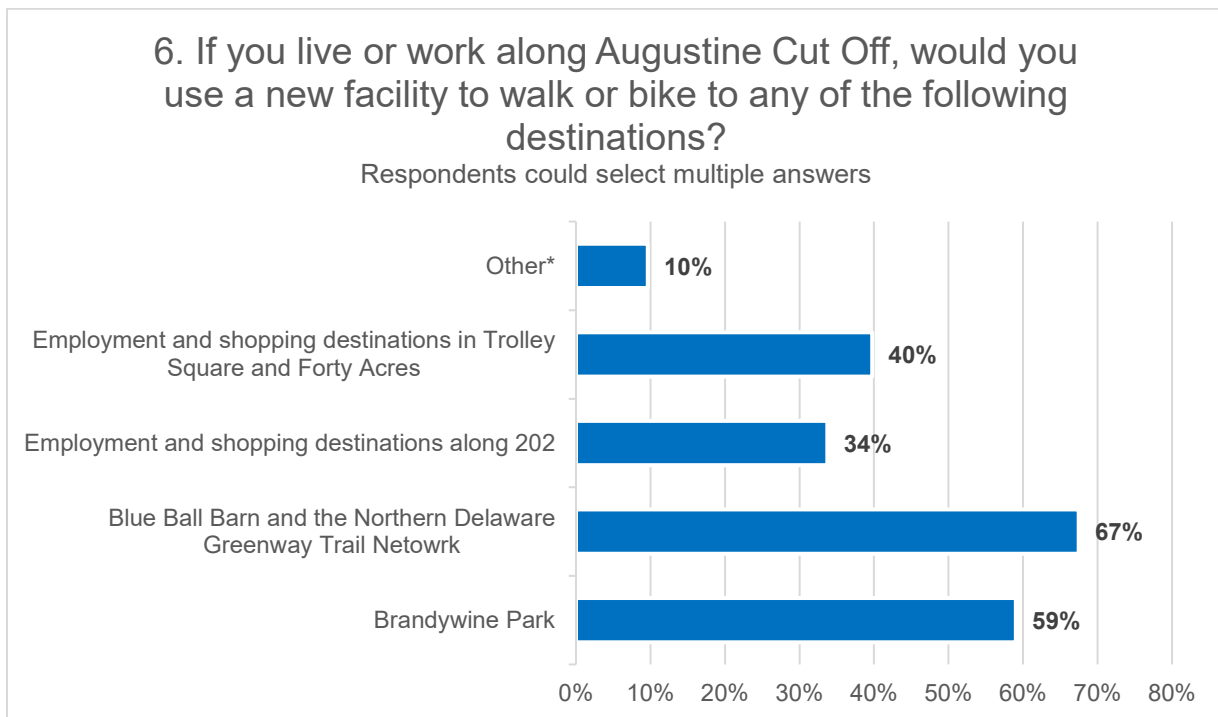
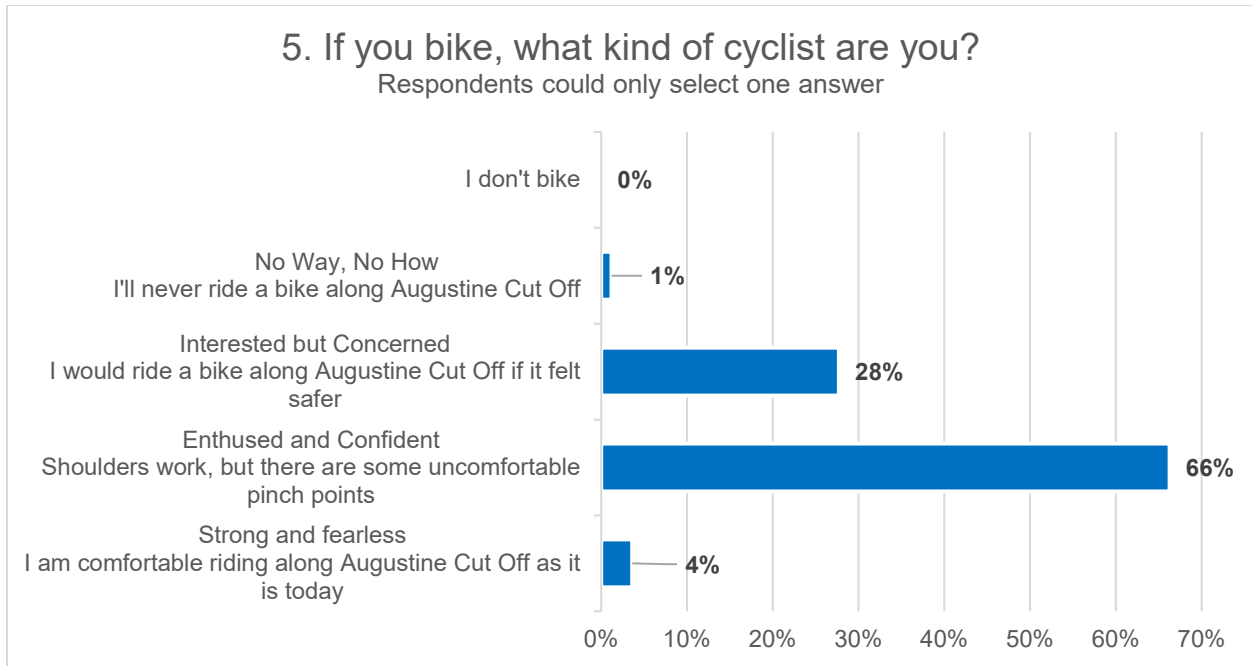


\* Eight "other" responses were submitted for Question 3. One noted parking is limited for small businesses. The remaining seven comments all noted pinch points or uncomfortable conditions for bikes due to on-street parking, traffic calming islands, debris in the roadway, and fast-moving traffic.

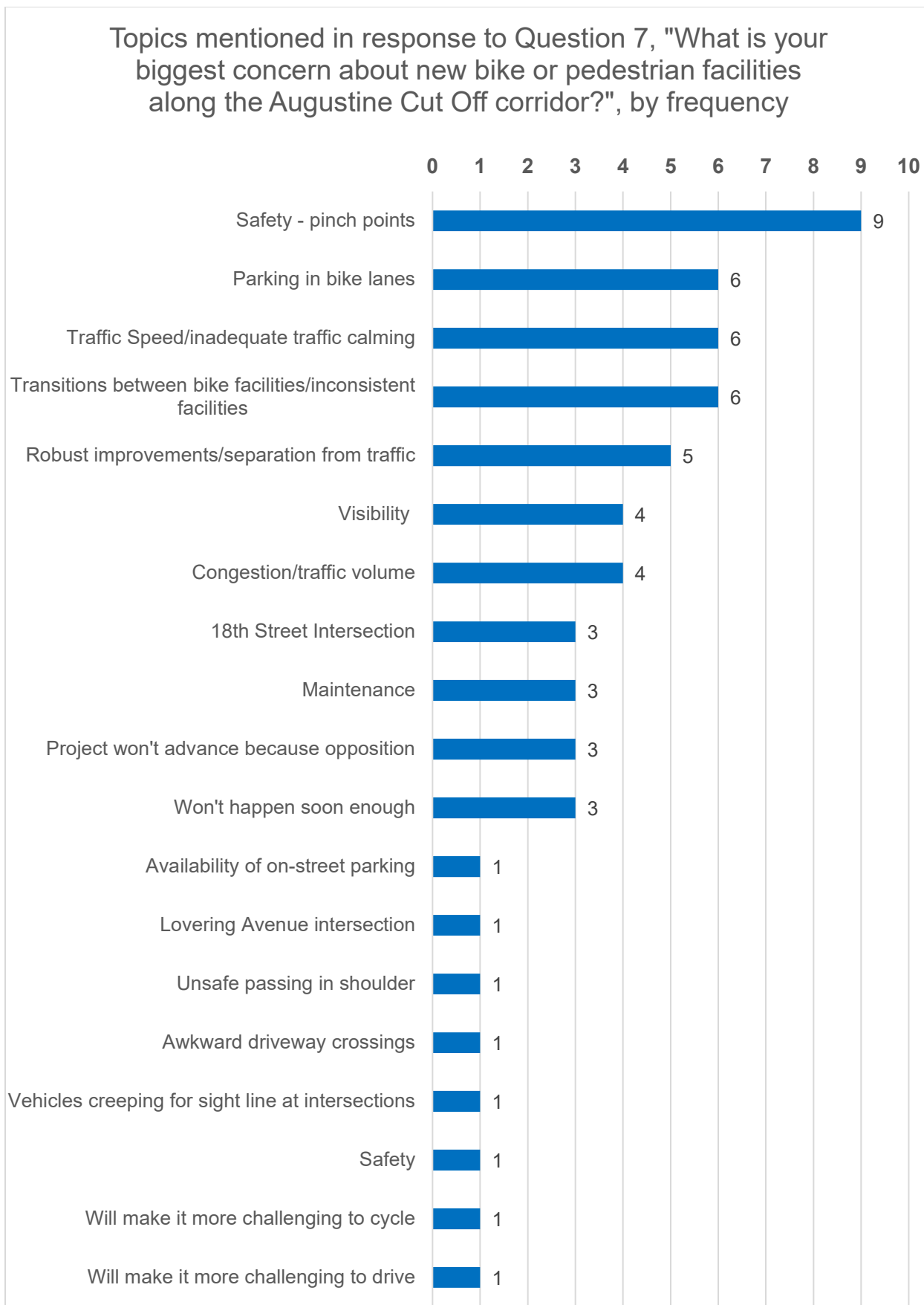


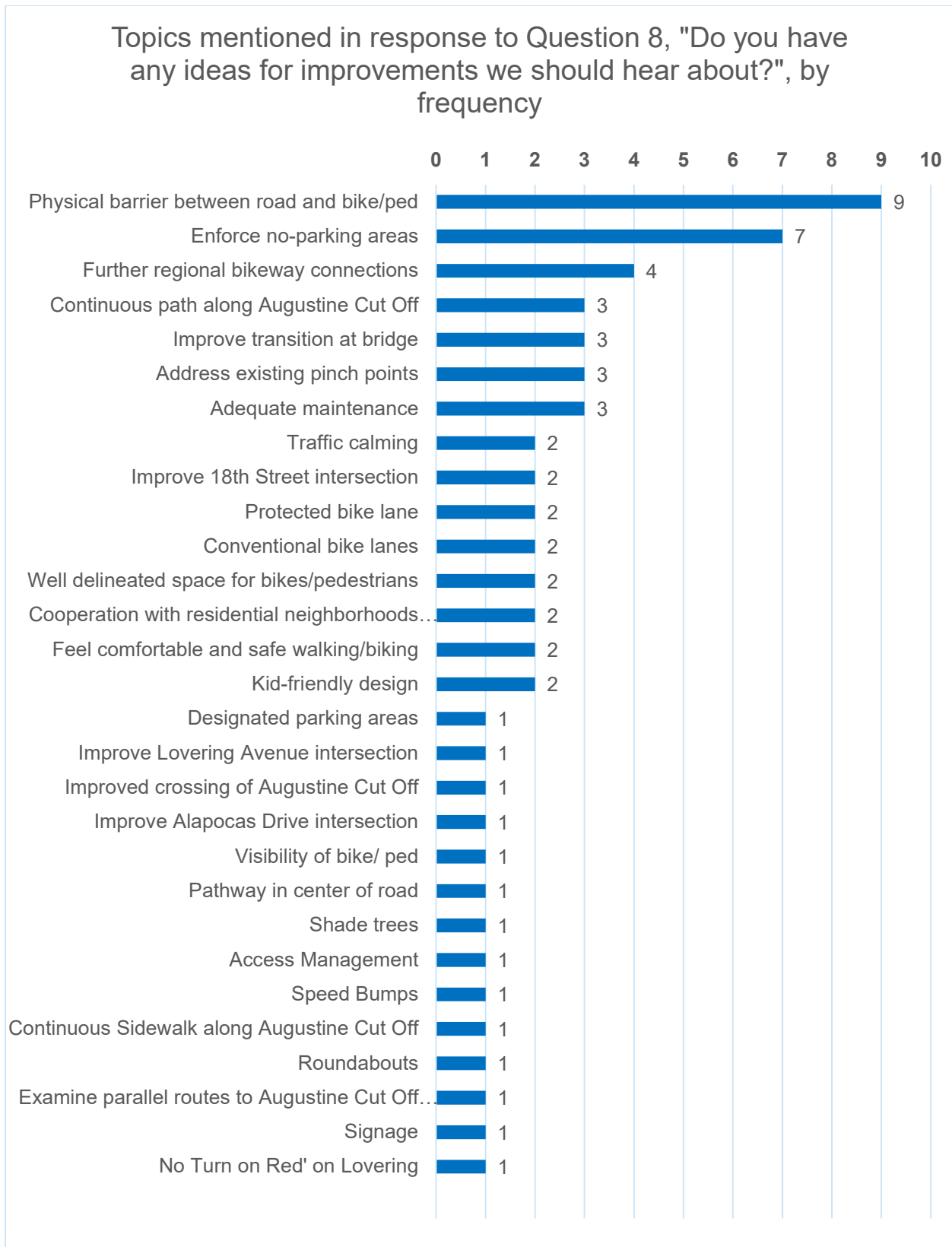
\* Ten "other" responses were submitted for Question 4. The majority were from people who do not walk or run along the corridor. One comment specified they only walk during early morning hours to avoid traffic and high-speed vehicles. Another comment mentioned high speeds as well as new (student) drivers as concerns.





\* Eight "other" responses were submitted for Question 6. One noted employment and shopping destinations along Augustine Cut Off would be their destination. One noted they would use the corridor to access longer bicycle ride routes.





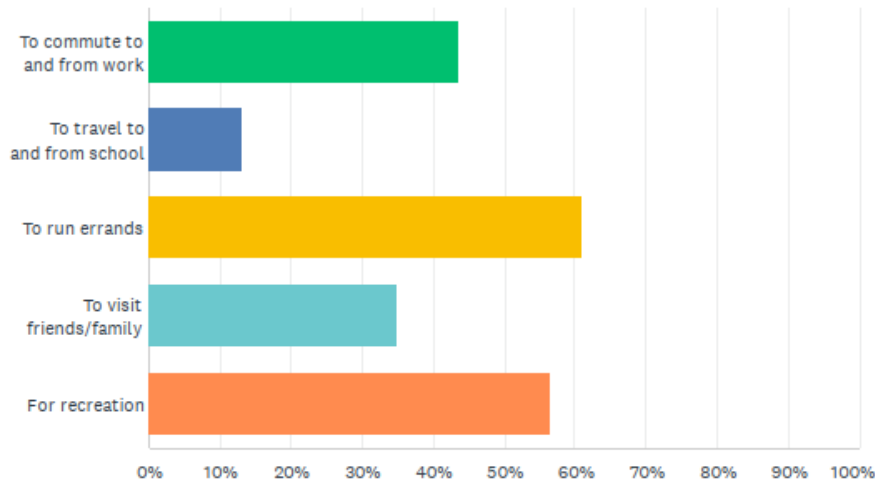
As shown in the charts summarizing responses to Questions 7 and 8, above, the most mentioned concerns and improvement recommendations endorse a physically separated bicycle and pedestrian facility.



## APPENDIX C. 2023 PUBLIC SURVEY RESPONSES

Q1 What is your primary reason for traveling along Augustine Cut Off?  
Select all that apply.

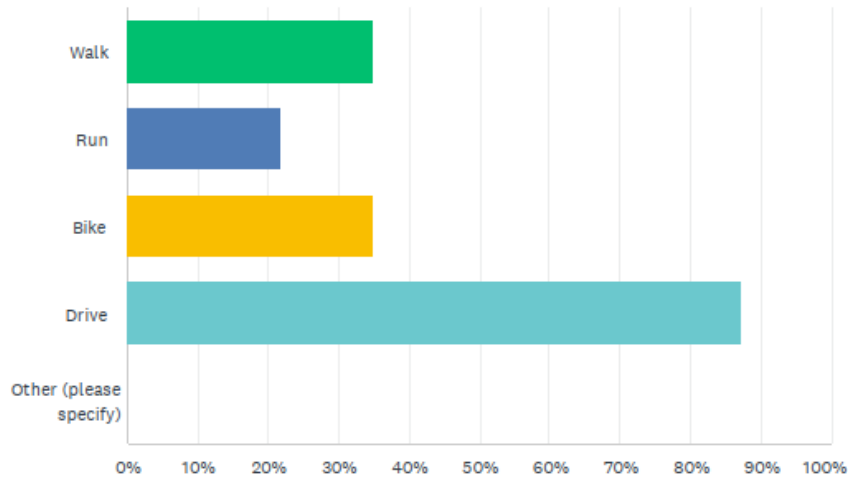
Answered: 23 Skipped: 0



ANSWER CHOICES	RESPONSES
To commute to and from work	43.48% 10
To travel to and from school	13.04% 3
To run errands	60.87% 14
To visit friends/family	34.78% 8
For recreation	56.52% 13
Total Respondents: 23	

Q2 How do you travel along Augustine Cut Off? Select all that apply.

Answered: 23 Skipped: 0

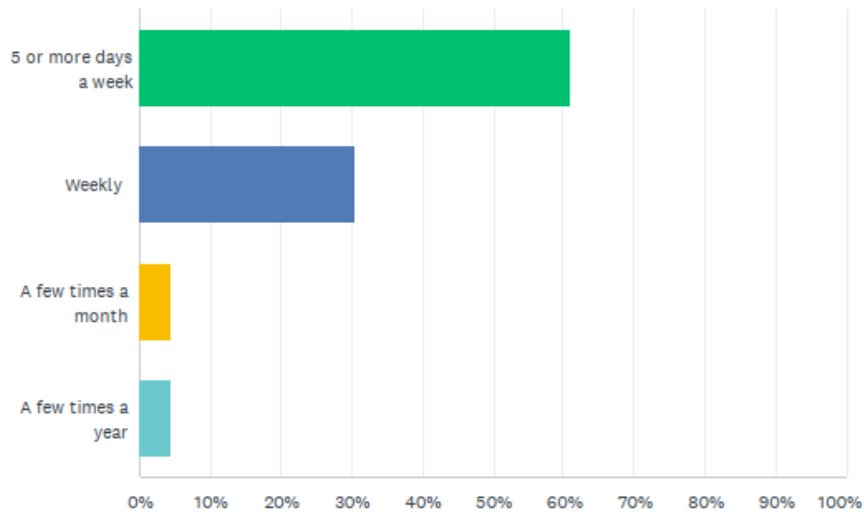


ANSWER CHOICES	RESPONSES	
Walk	34.78%	8
Run	21.74%	5
Bike	34.78%	8
Drive	86.96%	20
Other (please specify)	0.00%	0
Total Respondents: 23		

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

### Q3 How frequently do you travel along Augustine Cut Off?

Answered: 23 Skipped: 0

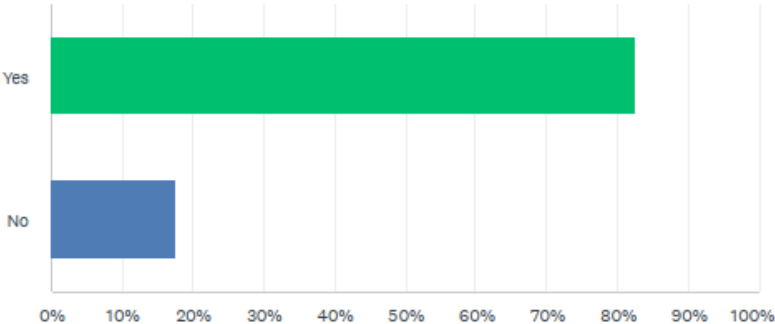


ANSWER CHOICES	RESPONSES	
5 or more days a week	60.87%	14
Weekly	30.43%	7
A few times a month	4.35%	1
A few times a year	4.35%	1
TOTAL		23



### Q4 Do you live within a mile of Augustine Cut Off?

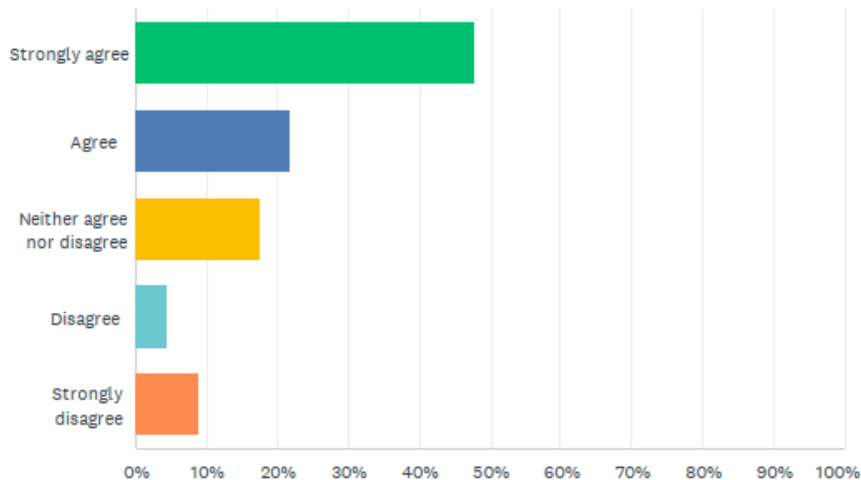
Answered: 23 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	82.61%	19
No	17.39%	4
TOTAL		23

### Q5 Do you think that the proposed improvements at the intersection of Lovering Ave. and Dupont Street shown on slides 28-29 will improve conditions for people walking, biking, and driving?

Answered: 23 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	47.83%	11
Agree	21.74%	5
Neither agree nor disagree	17.39%	4
Disagree	4.35%	1
Strongly disagree	8.70%	2
<b>TOTAL</b>		<b>23</b>

Note: This feedback relates to improvements proposed as part of the Lovering Ave. and Dupont Street Transportation Alternatives Project (TAP) which is no longer being pursued by the City of Wilmington.

## Q6 Do you have any other feedback regarding the intersection of Lovering Ave. and Dupont Street?

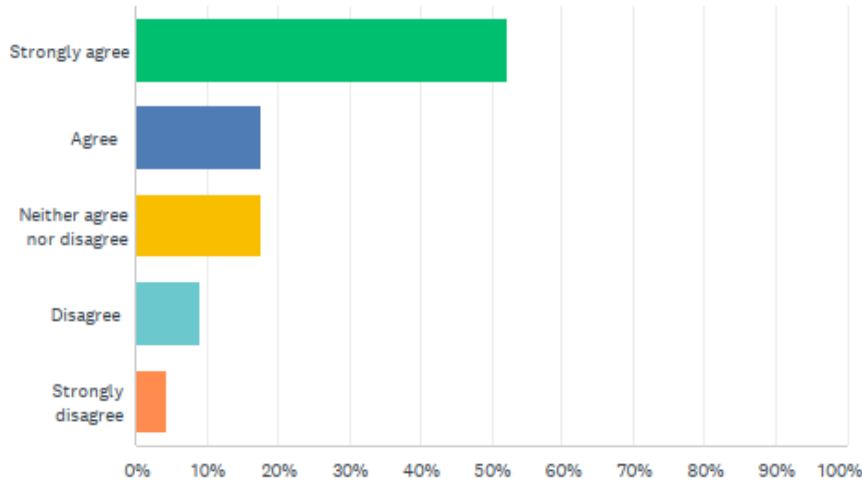
Answered: 13 Skipped: 10

#	RESPONSES	DATE
1	it's a fraught intersection; don't see ways to make it really safe for all uses	5/18/2023 9:31 AM
2	I currently live on Augustine Cut Off and have lived here for 25+ years. The construction will be a nightmare for us residents just as it was when Astra Zeneca redid all the roads (Park Road) around here and it took 7 years. What will be in place to help the residents if this construction takes place? Getting in and out of our driveway is already quite difficult given all the traffic increase with Incyte and it's expansion.	5/17/2023 4:56 PM
3	Please make it safer for Pedestrians, providing clear passages for Pedestrians and clarity to drivers that Pedestrians may be in the crosswalk. Please ensure that this intersection does not result in a backup through Lovering-ACO intersection, which would cause a failure of the street through this important area. Please use design elements more suitable for a residential area and less emphasis on the industrial, high capacity elements.	5/17/2023 11:39 AM
4	Current intersection very dangerous for runners and bikers. It doesn't need a traffic light, but just improved cross walk to slow down cars and increase visibility in crosswalk. Proposed T should work, current ramp-style turns encourage speed and greenery in the middle just decreases visibility	5/13/2023 6:46 AM
5	The simplification of this currently confusing intersection with the grass triangle in the middle of the intersection will be a huge improvement. Getting rid of the grass triangle, tightening up the road corners and adding stop signs on Park Ave and DuPont will make the intersection safer and easier to understand for drivers, and bikers and peds.	5/11/2023 10:20 AM
6	This a gateway into Trolley Square. Increase curb lawn widths to provide planting space for street trees and other landscaping. Work with DCH to help manage.	5/10/2023 3:36 PM
7	I think it should be a roundabout at Dupont incorporating with S. Park Drive.	5/8/2023 3:25 PM
8	unsafe intersection mainly due to reckless drivers, disregard of yield sign, speeding, and other reckless behaviors; design plan is useful but will not correct the reckless driving	4/30/2023 11:57 AM
9	Are there proposed lighting designs available?	4/28/2023 4:26 PM
10	This is a very important proposed modification to a dangerous and confusing intersection. As an interim step it sure would be nice if the City would repaint the solid yellow lines as drivers unfamiliar with the intersection may incorrectly assume the curved section onto Dupont is one-way.	4/25/2023 5:32 PM
11	Proposed T intersection is sound. Suggest high curb to prevent autos from incurring upon the walkway. Place necessary warning signage at narrowing of Lovering Avenue	4/25/2023 5:01 PM
12	There really needs to be separation of left turning and right turning traffic heading north on DuPont St. at the Lovering intersection.	4/25/2023 3:54 PM
13	As a resident of Trolley Square, please leave it alone and please abandon the idea of either new stop signs or a stop light. First, there are already too many unwarranted stop signs along this stretch of Lovering Avenue. Most are unnecessary and because of that a high frequency of people run them or roll through them which adds new safety issues. Adding another one that may help in about 5% of the situations but not in the 95% of the time when the intersection is basically empty, just adds unnecessary complications. Second, the foot path adds unclear utility in practical terms especially if the planners walk up and down Lovering Avenue on a regular basis. Have they? The intersection is not ideal, being designed long before vehicles but there is nothing we can do about that now. People just need to be careful. There isn't a high degree of accidents at this intersection that I'm aware of. People need to be careful. This is just as likely to add new complications as it is to make things better.	4/25/2023 8:10 AM



**Q7 Do you think that the proposed improvements at the intersection of Loving Ave. and Augustine Cut Off shown on slides 36-38 will improve conditions for people walking, biking, and driving?**

Answered: 23 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	52.17%	12
Agree	17.39%	4
Neither agree nor disagree	17.39%	4
Disagree	8.70%	2
Strongly disagree	4.35%	1
<b>TOTAL</b>		<b>23</b>

Note: This feedback relates to Recommendation 2.4.1 Improve Signals and Pedestrian and Bicycle Facilities in the Vicinity of Loving Avenue to Wawaset Street Intersection.

## Q8 Do you have any other feedback regarding the intersection of Lovering Ave. and Augustine Cut Off?

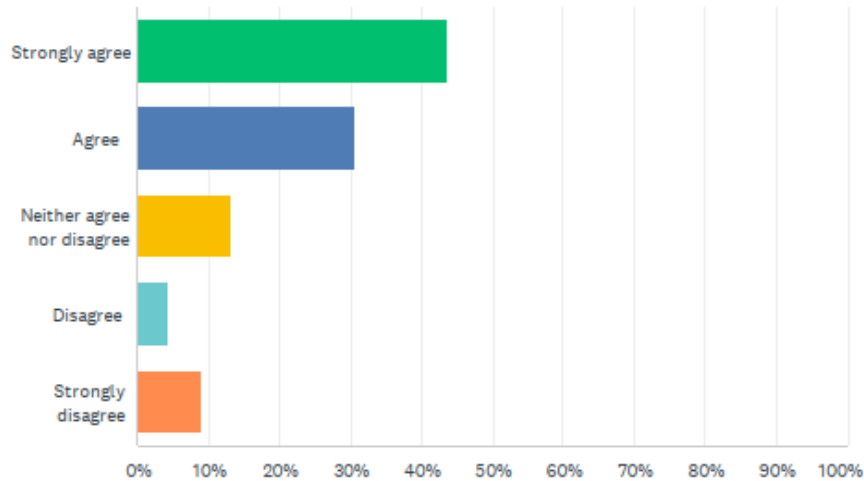
Answered: 8 Skipped: 15

#	RESPONSES	DATE
1	no	5/18/2023 9:31 AM
2	Please make it safer for Pedestrians, providing clear passages for Pedestrians and clarity to drivers that Pedestrians may be in the crosswalk. Please ensure that intersection is in good shape, given the degradation of pavement on both sides of the street, dangerous to cars, car tires and bicyclists. Please use design elements more suitable for a residential area and less emphasis on the industrial, high capacity elements.	5/17/2023 11:39 AM
3	Intersection desperately needs a safe crossing of Augustine cut off at Lovering and a crossing of Lovering. Any pedestrian crossing at wawaset is not needed, no reason to cross cut off there, it would just be confusing. Making wawaset right turn only is definitely the right choice. Please make sure cut off has separate right and left tum lanes when turning onto Lovering	5/13/2023 6:46 AM
4	This is a beautiful area and a beautiful approach to the City of Wilmington that cannot be appreciated from a car, yet the area currently doesn't welcome bicyclists and pedestrians with cars driving fast on the wide open road. Narrowing the roads for traffic calming is critical for inviting bikes/peds. Creating a dedicated off road path for bikes/peds is also critical. It will be a wonderful improvement to the area to make iappealing for bikes and peds.	5/11/2023 10:20 AM
5	This a gateway into Trolley Square. Increase curb lawn widths to provide planting space for street trees and other landscaping. Work with DCH to help manage.	5/10/2023 3:36 PM
6	I frequent lots of businesses around that intersection and need to be able to make a left turn from Wawaset onto Augustine Cutoff to return to my house; driving around the block isn't an option	4/30/2023 11:57 AM
7	Install pedestrian signal lights Sadly, bad history of sliding on hill due to generational oil/gas leakage from earlier auto service station-requires necessary excavation and replacement of sub and surface materials.	4/25/2023 5:01 PM
8	Glad to see the median extension at Wawaset intersection - close calls happen almost daily from vehicles turning on/off Augustine Cut-off in all directions	4/25/2023 12:22 PM

Note: This feedback relates to Recommendation 2.4.1 Improve Signals and Pedestrian and Bicycle Facilities in the Vicinity of Lovering Avenue to Wawaset Street Intersection.

Q9 Do you think that the proposed improvements for the Augustine Cut Off bridge shown on slides 49-55 will improve conditions for people walking, biking, and driving?

Answered: 23 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	43.48%	10
Agree	30.43%	7
Neither agree nor disagree	13.04%	3
Disagree	4.35%	1
Strongly disagree	8.70%	2
<b>TOTAL</b>		<b>23</b>

Note: This feedback relates to Recommendation 2.4.3 Provide Two-Way Separated Bike Lane Across Bridge.



## Q10 Do you have any other feedback regarding the Augustine Cut Off bridge?

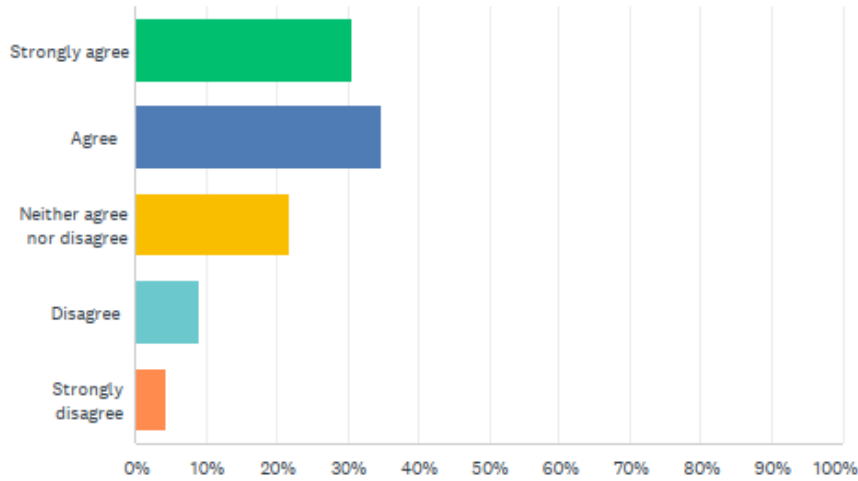
Answered: 9 Skipped: 14

#	RESPONSES	DATE
1	difficult to be sure from drawings: there need to be a separation barrier between cars and bikes; is there?	5/18/2023 9:31 AM
2	Not sure if proposed improvements will do anything to improve safety or conditions for walking or bicycling, but will rely on DelDOT's knowledge about the impact of the DelDOT proposed changes.	5/17/2023 11:39 AM
3	Please fix the one place where the bike lane stops and then immediately restarts (right at start of the bridge near incyte) that spot is terrifying	5/13/2023 6:46 AM
4	A separated bike/walk path is definitely important for bike and ped safety across this bridge where cars drive too fast.	5/11/2023 10:20 AM
5	Look at adding artistic motifs, lighting or other embellishments to improve the attractiveness. Again, this is a gateway into Trolley Square.	5/10/2023 3:36 PM
6	the bridge needs to be expanded; the ugly yellow and black signs become a distraction, especially to drunk drivers like the one who killed my neighbor last month on Augustine Cutoff at Edgewood Rd	4/30/2023 11:57 AM
7	Earlier (15 yrs.-Mayor McLaughlin) elevated Eastern raised curb/path-gave potential span reinforcement--suggestion to level with roadway and expand Western side with expanded bike/pedestrian pathway has merit. DelDot must weigh cost.	4/25/2023 5:01 PM
8	A dedicated bike lane could be a good idea.	4/25/2023 8:10 AM
9	I think the plans are just shy of the best possible until the bridge re-decking., HOWEVER, it was noted in the survey that most of the cyclists using the road are comfortable with LOS 3, and that most of them still requested physical barriers with traffic. I would highly recommend adding in physical barriers even along the on-road bike lane. As a fearless cyclist I would gladly reduce the width to 7' in exchange for some protection from vehicles. Of course it would also be nice to see the speed limit adhered to more closely. I expect the bollards will help with that.	4/24/2023 5:32 PM

Note: This feedback relates to Recommendation 2.4.3 Provide Two-Way Separated Bike Lane Across Bridge.

### Q11 Do you think that the proposed improvements along Augustine Cut Off south of 18th Street shown on slides 57-59 will improve conditions for people walking, biking, and driving?

Answered: 23 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	30.43%	7
Agree	34.78%	8
Neither agree nor disagree	21.74%	5
Disagree	8.70%	2
Strongly disagree	4.35%	1
<b>TOTAL</b>		<b>23</b>

Note: This feedback relates to Recommendation 2.4.4 Provide a Bike Lane along Bridge Northbound through 18<sup>th</sup> Street.

## Q12 Do you have any other feedback regarding Augustine Cut Off south of 18th Street?

Answered: 6 Skipped: 17

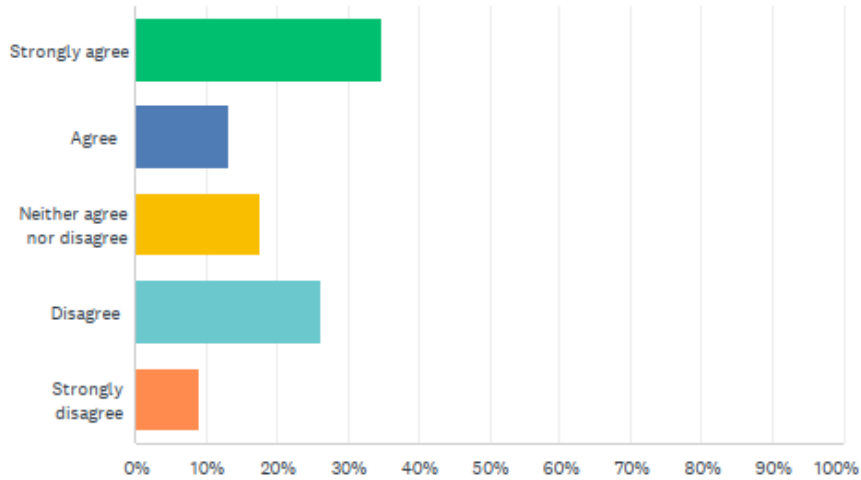
#	RESPONSES	DATE
1	Very confusing and the slope of the hill make it very dangerous Too many traffic lights as well. Put lights up Augustine cut off	5/19/2023 8:39 AM
2	need traffic separation	5/18/2023 9:31 AM
3	Not sure of any improvement with changes. I walk through here frequently (as well as drive) with no issues whatsoever.	5/17/2023 11:39 AM
4	Immediate South 18th Street access solution to Cut Off leaves issues un resolved.	4/25/2023 5:01 PM
5	Agree with dedicated bike lane. Not sure of impact / relationship to traffic light pattern - have car back-ups today on Aug. cutoff with red light when light to 18th st is green...	4/25/2023 12:22 PM
6	Irradiating the inconsistency in the bike lane width will make me feel much safer.	4/24/2023 5:32 PM

Note: This feedback relates to Recommendation 2.4.4 Provide a Bike Lane along Bridge Northbound through 18<sup>th</sup> Street.



### Q13 Do you think that the proposed improvements along Augustine Cut Off north of 18th Street shown on slides 66-70 will improve conditions for people walking, biking, and driving?

Answered: 23 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	34.78%	8
Agree	13.04%	3
Neither agree nor disagree	17.39%	4
Disagree	26.09%	6
Strongly disagree	8.70%	2
<b>TOTAL</b>		<b>23</b>

Note: This feedback relates to Recommendation 2.4.5 Provide a Bike Lane and Parking Between 18<sup>th</sup> Street and Cantera Road.

## Q14 Do you have any other feedback regarding Augustine Cut Off north of 18th Street?

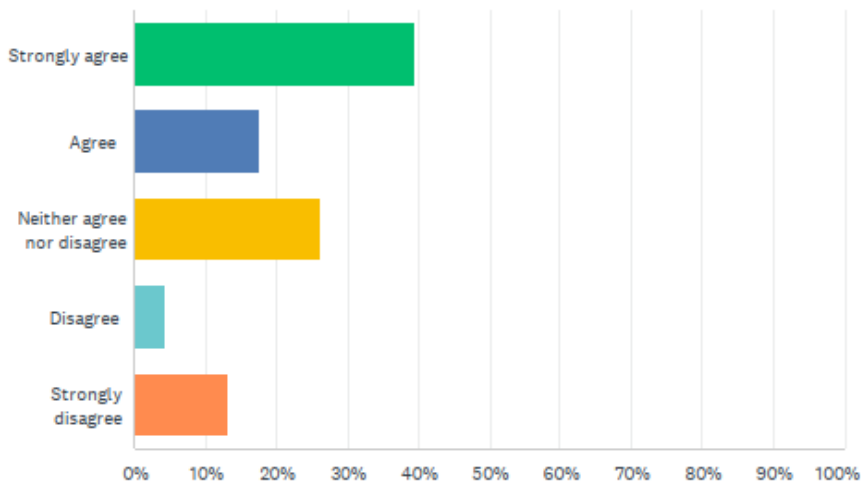
Answered: 7 Skipped: 16

#	RESPONSES	DATE
1	There are too many issues. No street lighting, speed of cars ( tried to control this and failed)	5/19/2023 8:39 AM
2	Other than maintaining the pedestrian crossing light, being someone who has walked through this area probably more than any person alive (been living on the ACO for 29 years and take frequent walks through this area), not sure planned improvements will make any difference to pedestrians or bike riders. It will help those on Incyte and in Augustine Ridge to get out to the street, but not sure there are any other benefits than those. Please make sure that proposed "improvements" for Phase I do not result in a failure of the road or more congestion, rather than less, due to the impact of having several intersections in succession. This is manageable now	5/17/2023 11:39 AM
3	Bike lanes on both sides is excellent. 5ft is narrow for such a big hill. Those houses do not need street parking. They all have big garages and big driveways. I'm sorry not everyone is entitled to street parking and that street parking makes that road much more unsafe. The street parking is 1) salesium students who don't want to pay for parking in a real lot 2) residents who then don't have any cars in there driveway or garage	5/13/2023 6:46 AM
4	The Augustine Cut Off median between Stone Hill Road and Cantera Road should be converted to a landscaped median similar to what is found in Greenville. Work with Incyte and other businesses, plus DCH, to help provide maintenance. It'll provide a myriad of benefits, most especially, traffic calming and beautification. Residential driveways can be accessed from both directions by going through the residential streets to the rear. A minor inconvenience for a major improvement.	5/10/2023 3:36 PM
5	parking along Augustine Cutoff is not allowed and "no parking" needs to be enforced, not added to this safety plan; have seen too many close calls involving cyclists and cars with parked cars along Augustine Cutoff pulling away into traffic	4/30/2023 11:57 AM
6	Improved design for transition to 18th Street from North must still be derived.	4/25/2023 5:01 PM
7	traffic traveling toward Aug Cutoff from Stadium/Sallies might need further slowing around curve to avoid hitting pedestrians in proposed cross-walk	4/25/2023 12:22 PM

Note: This feedback relates to Recommendation 2.4.5 Provide a Bike Lane and Parking Between 18<sup>th</sup> Street and Cantera Road.

### Q15 Do you think that the proposed stairs and ramp connecting Augustine Cut Off to 18th Street shown on slides 52-55 will conditions for people walking and driving?

Answered: 23 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	39.13%	9
Agree	17.39%	4
Neither agree nor disagree	26.09%	6
Disagree	4.35%	1
Strongly disagree	13.04%	3
<b>TOTAL</b>		<b>23</b>

Note: The provision of a stairs and ramp was eliminated from the final concept based on feedback from DeIDOT's Planning Division.



## Q16 Do you have any other feedback regarding connectivity between Augustine Cut Off and 18th Street?

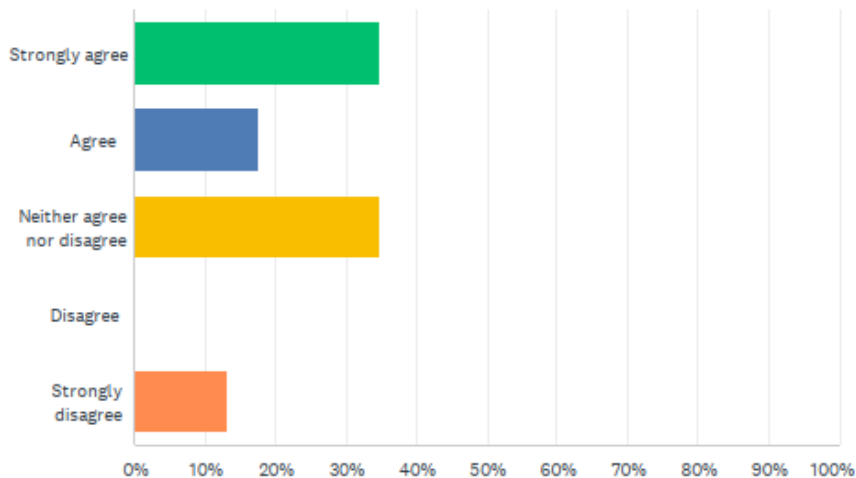
Answered: 7 Skipped: 16

#	RESPONSES	DATE
1	Too many issues between stolen goods, cars broken into	5/19/2023 8:39 AM
2	I would not do anything here. I realize the standards involved in complicating extremely this situation and that DelDOT does not have good options here, but doing anything will make it worse.	5/17/2023 11:39 AM
3	Meh, the light is right there. The vegetation is cool and greenery is important as the train tracks and bridge are pretty ugly industrial. Stairs sure maybe but ramp is completely unnecessary. I'd be shocked (and impressed) if anyone with disabilities attempted the cut off hill. I don't like to say it but not all hills and paths can be made ada. Again the light and crosswalk is right there	5/13/2023 6:46 AM
4	This is a beautiful idea and will go a long way toward encouraging people to walk! Right now almost all the infrastructure at this intersection is for cars and peds are stuck figuring out their own way. But the stairs/ramp is an actual invitation to walking! Yay!	5/11/2023 10:20 AM
5	Switchbacks through a steep area seems, frankly, ridiculous. The sidewalk should be simply continued along Augustine Cut Off at-grade across the 18th Street intersection to serve as the alternative, ADA accessible PAR. A set of context sensitive stone steps with railings could then be placed in the landscaped area as the primary PAR.	5/10/2023 3:36 PM
6	Expand and provide switch back radials to segregate but accomodate bike/pedestrian and truck (52dia. curves ?) Current presented options are inadequate.	4/25/2023 5:01 PM
7	Very little improvement can be achieved because of the physical limitations of the area between the railroad and Augustine Cut Off.	4/25/2023 3:54 PM

Note: The provision of a stairs and ramp was eliminated from the final concept based on feedback from DelDOT's Planning Division.

**Q17 Do you think that the proposed improvements along Augustine Cut Off north of Cantera Road shown on slides 72-74 will improve conditions for people walking, biking, and driving?**

Answered: 23 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	34.78%	8
Agree	17.39%	4
Neither agree nor disagree	34.78%	8
Disagree	0.00%	0
Strongly disagree	13.04%	3
<b>TOTAL</b>		<b>23</b>

Note: This feedback relates to Recommendation 2.4.6 Provide Northbound Bike Lane at Pinch Point North of Cantera Road Intersection.

## Q18 Do you have any other feedback regarding Augustine Cut Off north of Cantera Road?

Answered: 7 Skipped: 16

#	RESPONSES	DATE
1	There are too many traffic lights along Augustine No street lighting	5/19/2023 8:39 AM
2	need barriers between car/bike lanes	5/18/2023 9:31 AM
3	Other than the small adjustment for the width of the road to make a bicycle path in front of the northern corner of Cantera (and repair of the road next to it to ensure that cars don't veer into the bike lane to avoid the pothole which they do routinely, making it unsafe for bicyclists), I don't see any value in any other modifications north of Cantera. There are no clear problems for pedestrians or bicyclists, even in the face of the single, regrettable pedestrian fatality which occurred WHEN THE DRIVE LEFT THE ROAD (as I understand it). These issues, as I have related in the past, are a SOLUTION IN SEARCH OF A PROBLEM. If you want to solve a real problem, work on reducing the speed of traffic through effective traffic calming and lane narrowing, making the Cut Off look less like a superhighway and more like the residential road which it is. Just this will do vastly more to safety for pedestrians and bicyclists than any pedestrian-bicycle path, as it will eliminate the threat of accidents like what happened earlier. There was one significant effort in 2005 to do a traffic calming study which was only partly implemented due to inadequate funds available, as I understand it.	5/17/2023 11:39 AM
4	The proposed onroad bike lane will not be safe. The future bike lane here should be protected from traffic AND there need to be serious traffic calming changes made on the road - it's too wide and too fast and people speed and drive recklessly.	5/11/2023 10:20 AM
5	The pathway should be continued north along Augustine Cut Off to the pathway connection at the Blue Ball Project. The ROW is plenty wide enough. A few nimbys (who don't own the ROW themselves) shouldn't be what hinders the rational common good for the many.	5/10/2023 3:36 PM
6	Strongly suggest the State use some of its existing (unpaved) property on the northbound side of Augustine Cut-off north of Cantera to address the choke point that exists here. As the adjoining property owner to this section, I fully support such development in the interest of public safety.	4/25/2023 5:32 PM
7	Not until further up the line when the shoulder even more abruptly ends. Speed cameras would be a terrific addition to the area.	4/24/2023 5:32 PM

Note: This feedback relates to Recommendation 2.4.6 Provide Northbound Bike Lane at Pinch Point North of Cantera Road Intersection.



## Q19 Do you have any other ideas for improvements along Augustine Cut Off between Lovering Ave. and Cantera Road (i.e. Phase 1 of the Augustine Cut Off Study)?

Answered: 8 Skipped: 15

#	RESPONSES	DATE
1	traffic barriers	5/18/2023 9:31 AM
2	No	5/17/2023 11:39 AM
3	More street trees and beautification should be included along with the multi-modal improvements. Work with Incyte and others, along with DCH, to develop a maintenance program.	5/10/2023 3:36 PM
4	speed limit needs to be 25 mph along this whole phase 1 stretch	4/30/2023 11:57 AM
5	Immediately implement denial of left turn from Wawasett into the Cut Off-----South bound traffic back up intended for Lovering Avenue blind sides traffic cutting in from Wawasett	4/25/2023 5:01 PM
6	The key issue to resolve (which arguably should have been addressed first) is ingress and egress from the Incyte site. The current proposal is commendable because much of the work is low cost and can be redone if the Incyte resolution requires.	4/25/2023 3:54 PM
7	Bus stop at corner of Lovering, on right hand side of Aug cutoff when headed toward 18th st causes major backups	4/25/2023 12:22 PM
8	The above stated request for protection even in the on-road bike lane is the largest need. It would be nice to see the on-road bike lane be at full size at the new cross walk from Wawasett, where drivers will hopefully be most alert and most aware of signage. There was talk of low funding for this project as it is just bike/ped pool. Is there any consideration in delaying this work for a year or so and obtaining vision zero funds for a more capital-esq project with greenspaces/etc?	4/24/2023 5:32 PM

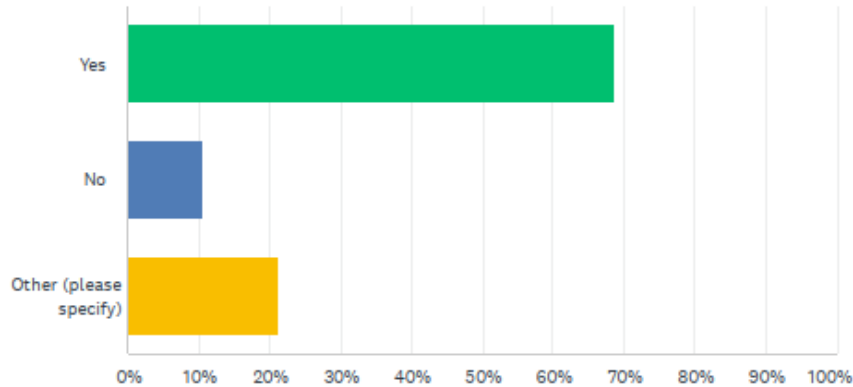
## Q20 What is your biggest concern about the proposed bike and pedestrian facilities along Augustine Cut Off between Lovering Ave. and Cantera Road (i.e. Phase 1 of the Augustine Cut Off Study)?

Answered: 12 Skipped: 11

#	RESPONSES	DATE
1	The amount of green space you are taking. Incyte already took down trees. Sad	5/19/2023 8:39 AM
2	need for traffic separating barriers	5/18/2023 9:31 AM
3	Drivers will increase speed only more with such additions resulting in more fatalities.	5/17/2023 12:20 PM
4	The difficulty of the Lovering-ACO Intersection and the safety issues present at Wawaset and ACO due to visibility and speed of approach of cars turning right onto Wawaset. Those are the key problems. Any other problems are minor or non-existent.	5/17/2023 11:39 AM
5	Getting this done! I love it. Making cut off more pedestrian and bike friendly would be tremendous. Those Lovering intersections are real hazards. Augustine shouldn't be a highway or a parking lot. Its a beautiful area and would really connect the city to our wonderful parks and trail system. Honestly please keep me informed. We know many community members who would love a more walkable and bike-able Lovering and cut off	5/13/2023 6:46 AM
6	For bike and pedestrian safety, two things: 1) to provide an off road path along the entire length of the project, and 2) to narrow the road and do other things (plant more trees? add planters along the road?) to calm traffic along the Augustine Cut Off road.	5/11/2023 10:20 AM
7	That few nimbys have too much say.	5/10/2023 3:36 PM
8	Just ensuring there is enough room for the proposed bike lane north of Cantera for Phase 1, given how narrow the existing paved surface is.	4/25/2023 5:32 PM
9	Transitioning on/off Cut Off to 18th Street and transitioning off the Cut off to East bound Lovering Ave. + pedestrian paths at both 18th Street and Lovering-transitioning under rail bridges are totally inadequate. Providing left exit turn from Wawaset to Cut Off denial, for the interim, could be provided at minimal cost.	4/25/2023 5:01 PM
10	Whether safety goals will be met because bike riders and pedestrians may not be sufficiently disciplined to stay in their appointed lanes.	4/25/2023 3:54 PM
11	Ensuring car traffic speed is reduced / managed. Existing mechanisms (curbs and signs) further up Aug cutoff (Phase 2 section) are constantly being hit / demolished by vehicles, so not sure what other options exist that would be more effective for Phase 1 section?	4/25/2023 12:22 PM
12	Biggest concern is the upkeep of these facilities. I know there are already sometimes issues with overgrown plants and debris buildup. Will bike lane protections (when they are inevitably run into) be replaced promptly?	4/24/2023 5:32 PM

Q21 Are you interested in an additional study focusing on corridor Improvements along Augustine Cut Off between Cantera Road and Edgewood Road (i.e. Phase 2 of the Augustine Cut Off Study)? Phase 2 would address concerns identified by the public including speeding, roadway departure crashes, the residential context/aesthetics, and bicycle/pedestrian mobility and safety.

Answered: 19 Skipped: 4



ANSWER CHOICES	RESPONSES
Yes	68.42% 13
No	10.53% 2
Other (please specify)	21.05% 4
<b>TOTAL</b>	<b>19</b>

#	OTHER (PLEASE SPECIFY)	DATE
1	No leave Augustine cut off alone.	5/19/2023 8:39 AM
2	I am not in favor of any changes to this portion of the Cut Off	5/18/2023 8:04 PM
3	Such expansions, disguised as "corridor improvements", are strongly opposed by local residents and are, in spite of DelDOT's position regarding their own previous commitment, prohibited by the terms of the Canby letter. A study designed to plan such an expansion, designed to add width to the road, is also strongly opposed by local residents and would be resisted legally and also politically. We also understand the DelDOT position on the Canby Letter, but hope that DelDOT, New Castle County and the Governor understand that we have an unsurprisingly different position on whether that letter, expressing a commitment on the part of DelDOT and the State of Delaware, would restrict "any expansion" of the road (as stated in the letter). The term "any expansion" should be taken at face value and prohibits "any expansion" for any purpose or for any form of transportation as it was focused on widening. My recommendation is for DelDOT to pivot to solve a real problem and slow down traffic, limiting improvements to the width of the existing road without impacting existing parking capacity. Your own studies have shown this to be the real safety problem (based upon actual data) with about 3 accidents every two months over the past seventeen years (I would have to go back to your presentation of March '22 to get the exact numbers), and would simultaneously address the root cause of the problem about which you claim to be concerned, bicycle and pedestrian safety. Calming traffic would do far more to ensure bicycle and pedestrian safety, along with riders and walkers feeling safer, than any unnecessary widening of the Augustine Cut Off.	5/17/2023 11:39 AM
4	DelDot must re examine funding priorities.	4/25/2023 5:01 PM