WEST COLLEGE STREET BRIDGE
FEASIBILITY STUDY
LAUDERDALE COUNTY, ALABAMA

FOR

Shoals Area Metropolitan Planning Organization and
Northwest Alabama Council of Local Governments

And

The City of Florence, Alabama

Prepared by:

VOLKERT

April 2022

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

EXECUTIVE SUMMARY

The Shoals Area Metropolitan Planning Organization (MPO) housed by the Northwest Alabama Council of Local Governments (NACOLG) and the City of Florence tasked Volkert, Inc. (Volkert) to prepare a Feasibility Study evaluating a new road and bridge crossing over the Cypress Creek that would connect areas west of Cypress Creek with the West Florence neighborhood and the central business district of downtown Florence. This feasibility study includes an assessment of the existing 2021 conditions, the future 2041 no action or no build alternative, and three (3) 2041 conceptual build alternative conditions.

The study area is in Lauderdale County in northwest Alabama within the southwest portion of the City of Florence's municipal boundary. The location of the project is illustrated on **Figure 1**. A topographic map of the project location is illustrated on **Figure 2**. A preliminary conceptual purpose and need, a summary of the potential impacts and probable costs associated with the conceptual build alternative corridors are provided in this report. Information collected from a public involvement meeting is also summarized in this report.

Several factors including topography and the existing transportation network in the study area were evaluated to identify potential locations for a new road and bridge crossing over Cypress Creek. The existing bridges, traffic flow, geometric design criteria, cost analysis, and environmental considerations were also considered in the feasibility analysis. The existing accommodations for pedestrian and bicycle traffic were also evaluated. Volkert conducted site visits to identify the existing design deficiencies and to document any physical or environmental resources that could affect the feasibility of constructing a new roadway and bridge over Cypress Creek. Meetings were also held with the NACOLG, Lauderdale County, and Florence to gather input about the concept of improving the existing Shoals Area transportation network.

The results of this feasibility study indicate that three (3) build alternatives are feasible and would address the access issues in the study area. Each build alternative includes the construction of a new roadway and bridge across Cypress Creek. Additional detailed analysis and agency and stakeholder coordination should be performed, however, to determine the most prudent action to be taken while weighing the social, economic, and environmental impacts the proposed action may have in the area.

Figure 1: Location Map

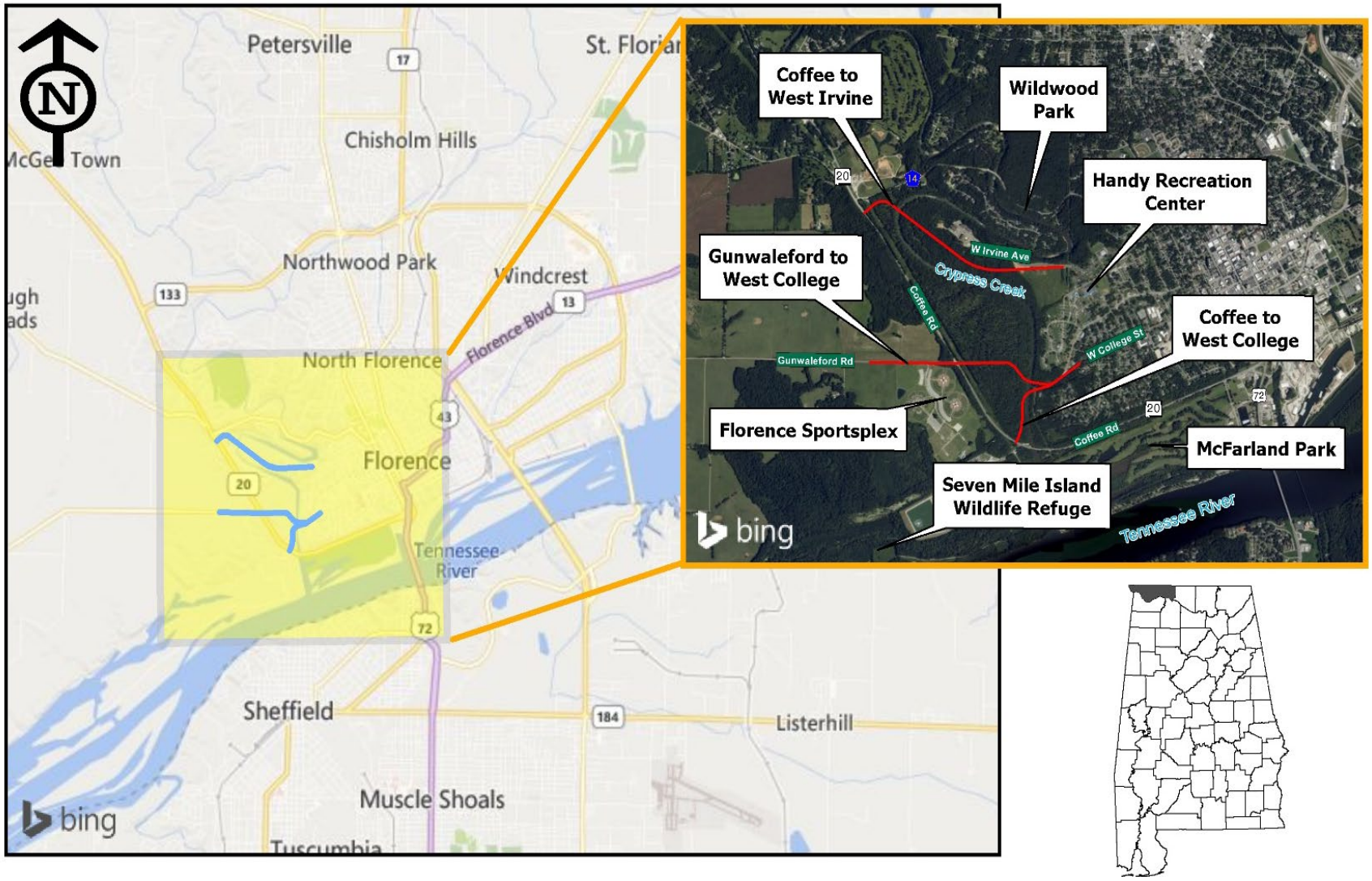
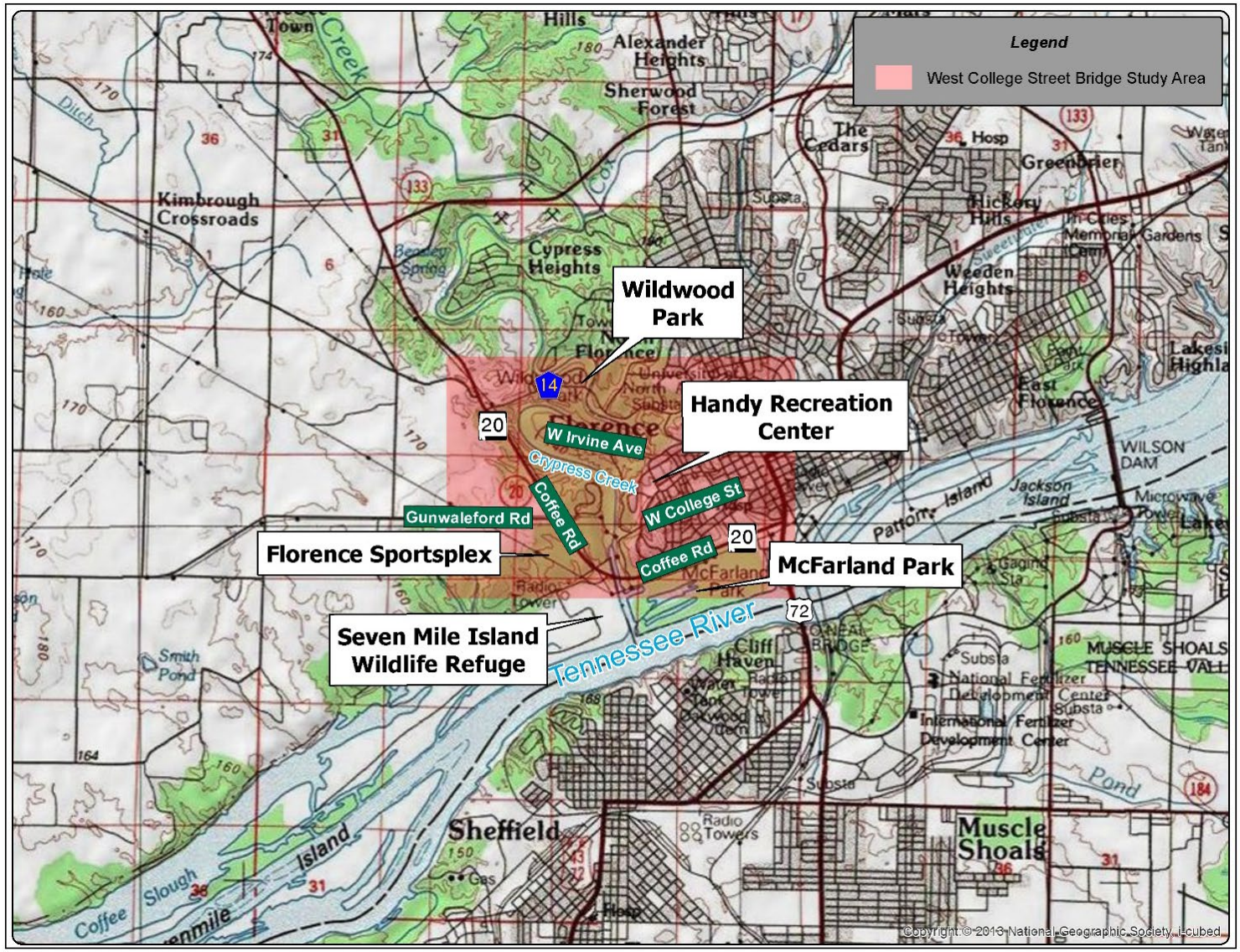


Figure 2: Project Area



1 INTRODUCTION

1.1 Project Background and History

The City of Florence is located along the northern bank of the Tennessee River in northwest Alabama. The Cities of Sheffield, Muscle Shoals and Tuscumbia, Alabama are located to the south and across the Tennessee River from Florence. One of the largest Tennessee Valley Authority TVA Dams, the Wheeler Lock and Dam, is also located along the river at Florence. In addition to the dam, Florence's riverfront also includes Florence Harbor, a multi-modal port that includes several industrial properties and several parks including McFarland Park, River Heritage Park, and Veterans Memorial Park. Some of the industries include American Metal Chemical Corporation (AMCOR), Lauderdale County Co-op, McDaniel Marine Service, Muscle Shoals Marine, and Tennessee Southern Railroad.

As Florence has grown, new development has primarily occurred to the north and northeast while little new development has occurred west of downtown. Investments to revitalize or redevelop properties within Florence have also occurred in areas other than the west side. This lack of development to the west can be attributed, in part, to the lack of access over Cypress Creek. Cypress Creek is a large creek that flows from the north to the south through the study area and generally forms the western limits of the City of Florence. The location of the creek is illustrated on **Figure 2**. The creek's confluence with the Tennessee River is located south of the study area. The creek forms a natural barrier between downtown Florence and community resources including the Florence Sportsplex to the west. There are two existing roadway crossings over Cypress Creek in the vicinity of the study area. These crossings include a two-lane bridge at County Road (CR) 14 (Waterloo Road) and a two-lane bridge at State Route (SR) 20. Neither crossing provides a direct connection from the neighborhoods in west Florence and neither of the roads or bridges have pedestrian accommodations.

1.2 Project Description

This feasibility study is considering three (3) conceptual build alternatives to improve the pedestrian and vehicular connectivity between the neighborhoods in west Florence and community resources west of Cypress Creek. One (1) conceptual build alternative will be chosen that will provide the greatest benefit for traffic operations and safety improvements. The conceptual build alternatives all begin along or in the vicinity of SR 20 (Coffee Road) west of Cypress Creek. The northernmost alternative would begin along SR 20 (Coffee Road) near CR 14 (Waterloo Road) and would end at West Irvine Avenue. A middle alternative would begin along SR 20 (Coffee Road) at CR 2 (Gunwaleford Road) and would end at West College Street near the intersection of West Mobile Street. The southern alternative would begin along SR 20 (Coffee Road) near the intersection of Sevenmile Island Road and would end at West College Street near the intersection of West Mobile Street.

1.3 Purpose and Need

The purpose of the West College Street Bridge project is to provide a new roadway and bridge crossing over Cypress Creek west of Florence. The need for the project is derived from the lack pedestrian and vehicular connectivity between community resources west of Cypress Creek and west Florence. The new facility would serve as a gateway into Florence from the west. The lack of connectivity between the area west of Cypress Creek and downtown Florence is illustrated on **Figure 1**.

1.4 Project Location and Study Area

The area affected by this project includes the City of Florence in Lauderdale County, Alabama. This project is located within the Shoals Metropolitan Area which also includes the towns of Killen and St.

Florian in Lauderdale County and the cities of Muscle Shoals, Sheffield, and Tuscumbia and the town of Leighton in Colbert County. The Shoals Metropolitan Area serves as a regional economic hub for northwest Alabama, southern Middle Tennessee, and northeast Mississippi.

2 PRELIMINARY ALTERNATIVES INVESTIGATION - ENGINEERING

2.1 Existing Conditions

The study area where the new roadway and bridge across Cypress Creek are being evaluated consists primarily of undeveloped woodlots, utility easements and Cypress Creek. Most of the existing roads within the study area are rural two-lane roads. The existing conditions of the roads within the study area are described below:

SR 20 (Coffee Road)
The existing SR 20 (Coffee Road) roadway typical section within the study area consists of two (2) travel lanes with 10-foot paved shoulders. The paved shoulders narrow from 10-foot to 2-foot on the SR 20 (Coffee Road) bridge over Cypress Creek. No bicycle or pedestrian accommodations exist along SR 20 (Coffee Road) in the study area.

CR 2 (Gunwaleford Road)
The existing CR 2 (Gunwaleford Road) roadway typical section within the study area consists of two (2) travel lanes with no paved shoulders. No bicycle or pedestrian accommodations exist along CR 2 (Gunwaleford Road) in the study area.

West Irvine Avenue
The existing roadway typical section of West Irvine Avenue within the study area consists of two (2) travel lanes with curbs and gutters. Sidewalks are also present along both sides of existing West Irvine Avenue.

West College Street
The existing West College Street roadway typical section within the study area consists of two (2) travel lanes with no paved shoulders. No bicycle or pedestrian accommodations exist along West College Street in the study area.

2.2 Existing and Projected Traffic Data

2.2.1 Existing Traffic Operations and Traffic Volumes

Existing daily traffic volumes for the roadway segments within the study area were derived from various sources. The COVID-19 pandemic has led to less travel which is reflected in recent traffic counts. As a result, traffic data from 2015, 2019 and 2021 were analyzed to gain an accurate understanding of the existing conditions. **Table 1** presents annual average daily traffic (AADT) volumes from the three (3) traffic data sources for major streets of interest within the study area. The sources include the Muscle Shoals Regional Travel Demand Model (TDM), on-line historical traffic data from the Alabama Department of Transportation (ALDOT), and recent 24-hour period field traffic counts. As previously mentioned, the 2021 field counts appear to reflect decreased travel associated with the COVID-19 pandemic.

Table 1: 2015, 2019 & 2021 Annual Average Daily Traffic Volumes on Area Roads

Roadway	2015 AADT Muscle Shoals TDM	2019 ALDOT AADT (and % Trucks)	2021 AADT Field Traffic Counts
SR 20 (Coffee Road) Near Existing Cypress Creek Bridge	8,678	7,790 (8%)	7,683
US 72 (Court Street)	30,826	31, 554 (5%)	29,849
Pine Street	8,052	8,262 (4%)	7,716
West College Street	3,850	3,704 (2%)	3,209
CR 2 (Gunwaleford Road)	1,238	1,452 (4%)	903
CR 14 (Waterloo Road)	1,300	1,236 (4%)	1,170
SR 20 North of CR 14 (Waterloo Road)	9,192	7,255 (8%)	7,996

Table 1 indicates SR 20 (Coffee Road) near the existing bridge over Cypress Creek currently experiences an AADT of approximately 8,000 vehicles per day. SR 20 (Coffee Road) is functionally classified as a two-lane principal arterial with a vehicle carrying capacity of 17,800 vehicles per day.

2.2.2 Projected Future Traffic

A total of three (3) conceptual build alternative alignments were evaluated for the new roadway and bridge across Cypress Creek. **Table 2** shows the anticipated 2041 AADT on the build alternative alignments and existing roads under the build condition. The 2041 no action or no build alternative volumes are also included for comparison.

Table 2: 2041 Annual Average Daily Traffic Volumes on Conceptual Build Alternative Alignments and Area Roads

Roadway	2041 AADT WITHOUT NEW CROSSING (No Build Alternative)	2041 AADT WITH Conceptual Build Alternative 1: CR 2 (Gunwaleford Road) to West College Street	2041 AADT WITH Conceptual Build Alternative 2: SR 20 (Coffee Road) to West College Street	2041 AADT WITH Conceptual Build Alternative 3: SR 20 (Coffee Road) to West Irvine Avenue
SR 20 (Coffee Road)	11,656	8,634	10,761	10,403
US 72 (Court Street)	37,910	37,936	37,324	37,382
Pine Street	11,282	10,172	10,908	10,256
West College Street	8,220	11,448	9,344	8,878
CR 2 (Gunwaleford Road)	1,608	2,262	2,131	2,162
SR 20 North	12,272	13,090	11,892	11,318
Conceptual Build Alternative 1: CR 2 (Gunwaleford Road) to West College Street	N/A	4,028	N/A	N/A
Conceptual Build Alternative 2: SR 20 (Coffee Road) to West College Street	N/A	N/A	2,375	N/A
Conceptual Build Alternative 3: SR 20 (Coffee Road) to West Irvine Avenue	N/A	N/A	N/A	2,250

Table 3 illustrates the vehicle usage each day for the conceptual build alternates for the future 2041 conditions. Of the three (3) build alternatives, the Conceptual Build Alternative 1: CR 2 (Gunwaleford Road) to West College Street is anticipated to serve the highest AADT in 2041. Conceptual Build Alternative 2: SR 20 (Coffee Road) to West College Street and Conceptual Build Alternative 3: SR 20 (Coffee Road) to West Irvine Avenue are forecast to serve approximately 1,653 and 1,778 fewer vehicles respectively in 2041.

Table 3: Projected Future 2041 Conceptual Build Alternative Usage

Conceptual Build Alternative	Expected Users Daily (Year 2041)
Conceptual Build Alternative 1: CR 2 (Gunwaleford Road) to West College Street	4,028
Conceptual Build Alternative 2: SR 20 (Coffee Road) to West College Street	2,375
Conceptual Build Alternative 3: SR 20 (Coffee Road) to West Irvine Avenue	2,250

Further assessment of the traffic indicates that Conceptual Build Alternative 1: CR 2 (Gunwaleford Road) to West College Street would likely draw an additional 1,000 vehicles from Beverly Avenue. Beverly Avenue currently serves as a collector road connecting SR 20 (Coffee Road) from the west Florence area. Any neighborhood revitalization of west Florence with residential, commercial, or entertainment developments would also increase bridge usage not captured in this analysis.

2.3 Design Criteria

The design criteria and geometric standards used to develop the conceptual build alternatives conform to the requirements of the latest "Policy on Geometric Design of Highways and Streets" (Green Book) 6th Addition, published by the American Association of State Highway and Transportation Officials (AASHTO) and dated 2011. The design criteria are illustrated in **Table 4**.

Table 4: West College Street Bridge Feasibility Study Design Criteria

Criterion	Design Goal
Design Speed	40 Miles Per Hour
Horizontal Alignment	314-foot Minimum Radius
Vertical Alignment	6% Maximum Grade
Highway Functional Classification	Urban Arterial
Vehicular Lane Width	11-foot-wide vehicle lanes
Shoulders (both sides)	Curbs and gutters and 10-foot-wide multi-use path. The multi-use path would be separated from the vehicle lanes by a four (4) foot grass buffer
Side Slopes	3:1 Maximum Cut & Fill Slopes
Drainage Storm Event (inlets and storm sewers)	50 Year Rain Event

2.3.1 Geometric Data

The conceptual build alternative horizontal alignments were designed to maximize the use of the existing roadway right-of-way (ROW) to reduce impacts to property and to minimize relocations. The alignments were also designed to avoid or minimize to the extent practicable impacts to sensitive environmental resources including, but not limited to Cypress Creek, floodplains, wetlands, previously identified historic resources, and potential hazardous material sites. Project cost and potential impacts associated with the conceptual build alternatives are discussed in **Section 4.0**.

The roadway typical section is the same for the conceptual build alternatives. **Figure 3** illustrates the conceptual build alternatives typical section. The typical section would include the following design elements:

- Two (2) 11-foot travel lanes with 2% cross slopes
- Ten (10) foot multi-use path with four (4) foot grass buffer between travel lane and path
- Curbs and gutters

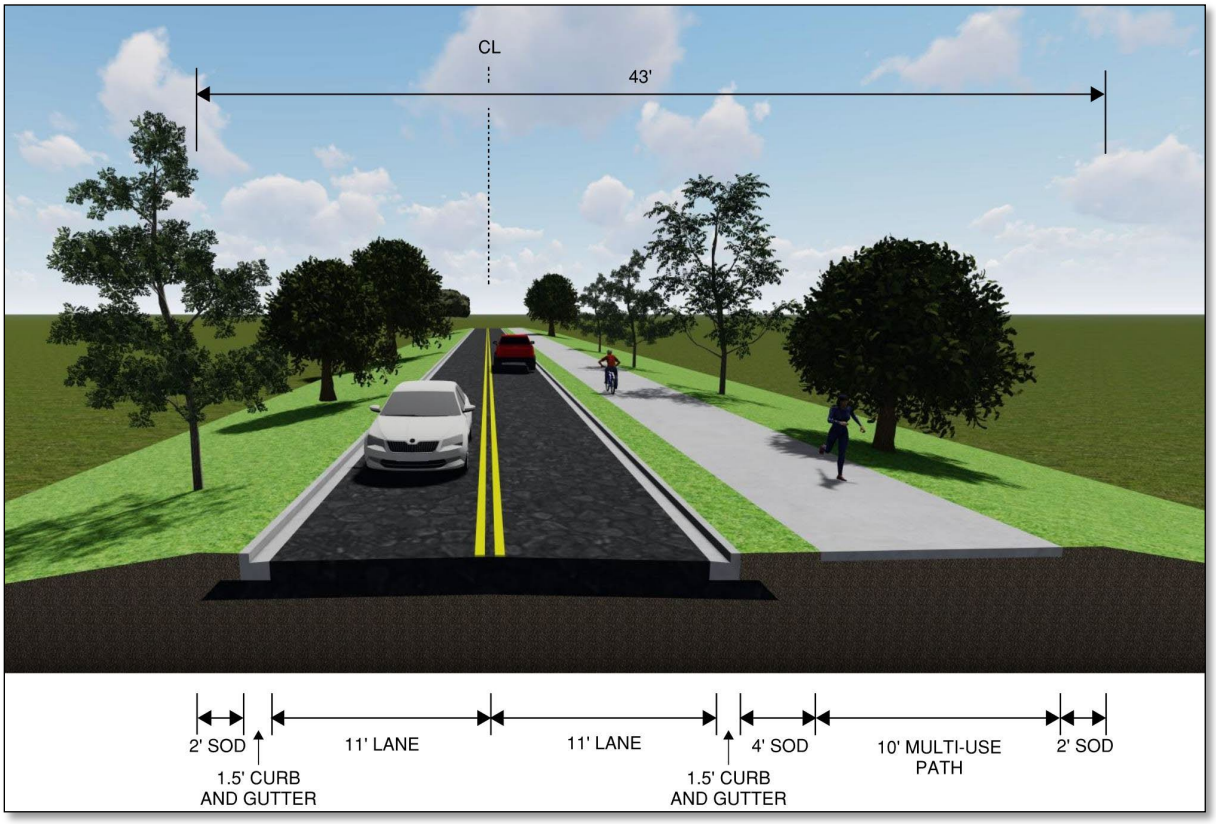


Figure 3: Conceptual Build Alternatives Roadway Typical Section

2.3.2 Clearances

The conceptual build alternatives include a new bridge crossing over Cypress Creek. The existing land use and field observations suggest Cypress Creek is not used for commercial navigation; however, watercraft including fishing boats, kayaks, and canoes do utilize the creek for recreational purposes. The new bridge crossing would be upstream from the existing SR 20 (Coffee Road) bridge. The design is not currently available, but it is likely that the new bridge would provide clearances (vertical and horizontal) equal to or greater than the existing SR 20 (Coffee Road) bridge.

2.4 Alternatives

Descriptions of the No Build Alternative and the conceptual build alternatives are provided in the following paragraphs.

2.4.1 No Build Alternative

The No Build or No Action Alternative constitutes a baseline condition from which to measure impacts. Under the No Build Alternative condition, the existing roadways would remain as they currently exist

other than the continuation of routine maintenance and traffic would continue to utilize the current alignments and roadways throughout the study area. The No Build Alternative would not address the need for improved pedestrian and vehicular connectivity between community resources including the Florence Sportsplex west of Cypress Creek and Florence.

2.4.2 Conceptual Build Alternative 1: CR 2 (Gunwaleford Road) to West College Street

Conceptual Build Alternative 1 is approximately 1.33 miles long and would follow, to the extent practicable, the alignment of an old roadbed and would cross Cypress Creek at an old bridge crossing. This alignment also follows an existing overhead utility easement. Conceptual Build Alternative 1 is illustrated on **Figure A-1** in **Appendix A** and would begin at point along CR 2 (Gunwaleford Road) just west of the intersection of SR 20 (Coffee Road) near the Florence Sportsplex. A new traffic signal would be constructed at the intersection of CR 2 (Gunwaleford Road) and SR 20 (Coffee Road). From the intersection of CR 2 (Gunwaleford Road) and SR 20 (Coffee Road) eastward, Conceptual Build Alternative 1 would transition on new location following the old roadbed alignment an existing utility easement for approximately 1,600 feet. The alignment would then turn southeast and would continue to follow the utility easement for approximately 800 feet to Cypress Creek. At the Cypress Creek crossing, the alignment turns northeast and transitions into West College Street near the intersection of West Mobile Street. Conceptual Build Alternative 1 continues along West Mobile Street for approximately 410 feet to its end point.

2.4.3 Conceptual Build Alternative 2: SR 20 (Coffee Road) to West College Street

Conceptual Build Alternative 2 is approximately 0.67-mile-long and like Conceptual Build Alternative 1, would partially follow the alignment of an old roadbed and would cross Cypress Creek at an old bridge crossing. Conceptual Build Alternative 2 is illustrated on **Figure A-2** in **Appendix A** and would begin along SR 20 (Coffee Road) north of the intersection of Sevenmile Island Road. A new signal would be constructed along SR 20 (Coffee Road) at this location. From SR 20 (Coffee Road), the alignment would transition on new location and would continue northeast to Cypress Creek. Conceptual Build Alternative 2 would cross Cypress Creek at the old bridge crossing and would continue east transitioning into West College Street near the intersection of West Mobile Street. The alignment would continue along West Mobile Street for approximately 200 feet to its end point.

2.4.4 Conceptual Build Alternative 3: SR 20 (Coffee Road) to West Irvine Avenue

Conceptual Build Alternative 3 SR 20 (Coffee Road) to West Irvine Avenue is illustrated on **Figure A-3** in **Appendix A**. Conceptual Build Alternative 3 is approximately 1.31 miles long and would begin along SR 20 (Coffee Road) approximately 900 feet south of the intersection of CR 14 (Waterloo Road). A new signal would be installed at this location along SR 20 (Coffee Road). From SR 20 (Coffee Road), the alignment would transition on new location northeast for approximately 800 feet to Cypress Creek. After crossing Cypress Creek, the alignment would turn southeast and would continue for approximately 4,350 feet. Conceptual Build Alternative 3 would transition into West Irvine Avenue at a point approximately 1,870 feet west of Nance Street.

3 PRELIMINARY ALTERNATIVES INVESTIGATION – ENVIRONMENTAL

Database research of readily available information, field reviews, stakeholder outreach and public involvement were conducted to develop an understanding of the existing environmental features and to identify any major impediments (fatal flaws) within the study area that could affect the feasibility of the proposed improvements. The Federal Highway Administration (FHWA) Planning and

Environmental Linkages (PEL) Questionnaire was also used as guidance for this feasibility study. The questionnaire is included in **Appendix E**. Agency coordination was not conducted as part of this study.

Environmental data was gathered from several different Geographic Information Systems (GIS) database sources including:

- ESRI
- Environmental Protection Agency (EPA) Geodata
- Federal Emergency Management Agency (FEMA) National Wetland Inventory (NWI) Maps
- FEMA Digital Flood Insurance Rate Maps (DFIRM)
- National Register of Historic Places (NRHP)
- Alabama Department of Environmental Management (ADEM) Underground Storage Tank Program
- United States Fish and Wildlife Service (USFWS)
- United States Geological Service (USGS) National Hydrography Dataset

The results from the database research, field reviews, stakeholder outreach, and public involvement were added to avoidance mapping that was then used to develop the conceptual build alternatives. The potential impacts the conceptual build alternatives could have on the following features and environmental resources were evaluated.

3.1 Land Use Impacts

The study area is located within Township 3 South, Range 11 West, Sections 8, 9, 10, 15, 16, 21, 22 of the Florence, Alabama, USGS 7.5' Topographic Quadrangle Map.

The developed land uses within the study area east of Cypress Creek consist primarily of multi-family residences with a few commercial businesses, churches, a school, utilities, and transportation infrastructure. West of Cypress Creek the developed land uses consist of the Florence Sportsplex and a wastewater treatment plant. The undeveloped tracts of land consist primarily of woodlots and farmland.

The No Build Alternative would not result in the direct conversion of existing land to transportation use, nor would it alter the current land use trends in the study area. All the conceptual build alternatives would convert land to roadway ROW. A comparison of the conceptual build alternatives is included in **Section 4.0**.

3.2 Socio-economic Impacts

3.2.1 Community Impacts

Community facilities, resources, and services are important attributes of society and often serve to unify people that would otherwise not associate with one another. Some of the important community features that are located within or near the study area include the Florence Sportsplex, University of North Alabama, W. C. Handy Birthplace and Museum, E. H. Darby House, Frank Lloyd Wright Rosenbaum House, several churches, and several businesses.

The No Build Alternative would not result in any immediate, direct adverse impacts to established residents, neighborhoods, community resources or businesses. However, the beneficial effects would also not be realized under the No Build Alternative condition. The No Build Alternative would not

meet the purpose and need of the project in terms of improving pedestrian and vehicular connectivity between community resources including the Florence Sportsplex west of Cypress Creek and Florence.

No businesses, schools or churches are expected to be impacted by the conceptual alignments. As a result, it is expected that no adverse impacts will occur to the community because of business, school, or church relocations. Conceptual Build Alternative 1 CR 2 (Gunwaleford Road) to West College Street would likely require the relocation of one (1) residence. Conceptual Build Alternative 1 would also acquire a small amount of ROW from the Florence Sportsplex. However, the additional ROW would be acquired along CR 2 (Gunwaleford Road) and would not impact the infrastructure at the park including the ball fields and parking lot. Conceptual Build Alternative 2 SR 20 (Coffee Road) to West College Street and Conceptual Build Alternative 3 SR 20 (Coffee Road) to West Irvine Avenue would not acquire ROW from the Sportsplex and would not result in any residential relocations. All the conceptual build alternatives would benefit the community by improving access to resources including the Florence Sportsplex, schools, hospitals, churches, and businesses.

3.2.2 Parks and Recreational Resources Impacts

The following parks and recreation resources are located within or near the study area:

- Florence Sportsplex
- McFarland Park
- Handy Recreation Center

Florence Sportsplex

The Florence Sportsplex contains eight (8) softball fields, five (5) baseball fields, and six (6) soccer fields. In the Fall, one of the fields is converted to a football field. The complex also features concession buildings, public rest rooms, and off-street parking. The location of the Florence Sportsplex relative to the study area is illustrated on **Figure 2**.

Under the No Build Alternative condition, the existing alignment of CR 2 (Gunwaleford Road) and SR-20 (Coffee Road) would remain. Access to the Florence Sportsplex would not improve because a new roadway and bridge that would connect the facility to west Florence and downtown Florence would not be constructed.

None of the conceptual build alternatives are expected to adversely affect the Florence Sportsplex. Conceptual Build Alternative 1 CR 2 (Gunwaleford Street) to West College Street would acquire ROW from the northeastern portion of the Florence Sportsplex. The conceptual ROW limits are shown on **Figure A-1** included in **Appendix A**. The additional ROW would be acquired along CR 2 (Gunwaleford Road) and would not impact the infrastructure at the park including the ball fields and parking lot. The ROW limits of Conceptual Build Alternative 1 are conceptual and should the project progress, efforts will be made to avoid or minimize impacts to Florence Sportsplex. Therefore, it is possible that the impacts to the Florence Sportsplex could be avoided. Once constructed, it is anticipated that the Florence Sportsplex would benefit from the improved vehicle and pedestrian access provided by the proposed conceptual build alternatives.

McFarland Park

The McFarland Park in Florence contains 60 campsites, primitive camping, a golf driving range, a soccer field, picnic shelters with fireplaces, boat ramps, fishing piers, baseball fields, playgrounds, lighted walking trails, a floating restaurant, a lighthouse, and a beach area. The location of the McFarland Park relative to the study area is illustrated on **Figure 2.**

Under the No Build Alternative condition, the existing alignment of SR 20 (Coffee Road) would remain. Access to the McFarland Park would likely remain the same because Beverly Avenue currently connects downtown Florence to the McFarland Park.

None of the conceptual build alternatives would be expected to adversely affect McFarland Park. McFarland Park would likely remain the same from the proposed conceptual build alternatives.

Handy Recreation Center

The Handy Recreation Center in Florence contains an outdoor pool and outdoor picnic area. The location of the Handy Recreation Center relative to the study area is illustrated on **Figure 2**.

Under the No Build Alternative condition, the existing alignment of West Irvine Avenue would remain unchanged. Access to the Handy Recreation Center would not improve because a new roadway and bridge that would connect the area west of Cypress Creek to the Handy Recreation Center would not be constructed.

None of the conceptual build alternatives are expected to adversely affect the Handy Recreation Center. The Handy Recreation Center would likely benefit from the improved access provided by the proposed conceptual build alternatives.

3.2.3 Relocations

The conceptual build alternatives were designed to minimize community impacts, including residential and business displacements. Available mapping was reviewed prior to conducting the field review to identify potential relocations associated with the conceptual build alternatives. The No Build Alternative would not require any relocations. Conceptual Build Alternative 1 CR 2 (Gunwaleford Street) to West College Street would likely require the relocation of one (1) residence. No relocations are anticipated to occur for Conceptual Build Alternative 2 SR 20 (Coffee Road) to West College Street and Conceptual Build Alternative 3 SR 20 (Coffee Road) to West Irvine Avenue. The potential relocation associated with the Build Alternative 1 is illustrated on **Figure A-1** included in **Appendix A**.

3.2.4 Environmental Justice

The United States Census database was used to gather demographic data for the study area. Information about poverty levels was collected from the United States Department of Health and Human Services (HHS) guidelines. The income and poverty level data for the study area are provided in **Table 5. Table 6** provides the demographic data for the study area.

Table 5: West College Street Bridge Feasibility Study Income and Poverty Level Data

Location		Population (2019)	Average Household Size (2019)	Median Household Income (2019)	HHS Poverty Guidelines (2021)	Below HHS Poverty Guidelines?
Lauderdale County		4,225	2.36	$47,281	$17,420	No
Census Tract 102	BG 2	914	2.5	$61,316	$21,960	No
Census Tract 103	BG 1	306	1.61	$11,917	$17,420	**Yes**
	BG 2	544	2.18	$14,583	$17,420	**Yes**
	BG 3	269	2.04	$19,375	$17,420	No
Census Tract 112	BG 1	1,151	2.19	$44,330	$17,420	No
	BG 2	1,041	2.39	$41,905	$17,420	No

The study area includes three (3) Census Tracts and six (6) Census Block Groups. The Census Tracts and Block Groups relative to each conceptual build alternative are illustrated on **Figures A-4**, **A-5** and **A-6** included in **Appendix A**. The income and poverty information indicate that two (2) Census Block Groups with incomes less than the HHS Poverty guidelines are located within the study area. The demographic data also indicates that minority populations are located within the study area with percentages higher than Lauderdale County.

Table 6: West College Street Bridge Feasibility Study Demographic Data

Location		Population (2019)	% White	% Black	% Native	% Asian	% Islander	% Other Race	% Two or more	% Minority
Lauderdale County		4,225	86.91%	10.37%	0.39%	0.64%	0.07%	0.24%	1.38%	13.09%
Census Tract 102	BG 2	914	87.96%	12.04%	0.00%	0.00%	0.00%	0.00%	0.00%	12.04%
Census Tract 103	BG 1	306	18.30%	81.05%	0.00%	0.33%	0.00%	0.00%	0.33%	81.70%
	BG 2	544	1.65%	98.35%	0.00%	0.00%	0.00%	0.00%	0.00%	98.35%
	BG 3	269	13.38%	86.62%	0.00%	0.00%	0.00%	0.00%	0.00%	86.62%
Census Tract 112	BG 1	1,151	88.44%	11.56%	0.00%	0.00%	0.00%	0.00%	0.00%	11.56%
	BG 2	1,041	92.03%	7.97%	0.00%	0.00%	0.00%	0.00%	0.00%	7.97%

The No Build Alternative would not require any relocations; therefore, disproportionate adverse impacts to low income or minority populations because of the project would not occur.

Conceptual Build Alternative 1 CR 2 (Gunwaleford Road) to West College Street would likely require the relocation of one (1) residence. The potential relocation associated with Conceptual Build Alternative 1 is located within Census Tract 102, Block Group 2. Census Tract 102, Block Group 2 is illustrated on **Figure A-4** included in **Appendix A**. The income and poverty information indicates that the median household income for Census Tract 102, Block Group 2 is above the HHS Poverty guidelines. As a result, it is anticipated that Conceptual Build Alternative 1 would not result in disproportionate and adverse impacts to low-income populations. The demographic data also indicates that Census Tract 102, Block Group 2 contains less minorities than Lauderdale County and most of the other areas in the study area. As a result, it is anticipated that Conceptual Build Alternative 1 would also not have a disproportionate and adverse impacts to minority populations. The ROW limits of the build alternatives are conceptual and as the project progresses through the design phase, every effort would be made to avoid or minimize impacts to property owners within the study area. Therefore, it is possible that the residential relocation for Conceptual Build Alternative 1 could be avoided. No relocations are anticipated to occur for Conceptual Build Alternative 2 SR 20 (Coffee Road) to West College Street and Conceptual Build Alternative 3 SR 20 (Coffee Road) to West Irvine Avenue. As a result, it is anticipated that these alternatives would not have disproportionate and adverse impacts to low-income and minority populations.

3.3 Ecological Impacts

3.3.1 Protected Species

An official species list was obtained from the USFWS Information for Planning and Consulting (IPaC) on March 22, 2021. The species list indicates that 15 federally protected species may occur within the study area. The USFWS official species list is included in **Appendix D**. **Table 7** lists the species and their federal protection status.

Table 7: West College Street Bridge Feasibility Study
USFWS List of Threatened and Endangered Species

Common Name	Scientific Name	Description	Federal Status	Critical Habitat Present in Study Area?
Indiana bat	*Myotis sodalis*	Bat	Endangered	No
Northern long-eared bat	*Myotis septentrionalis*	Bat	Threatened	No
Gray bat	*Myotis grisescens*	Bat	Endangered	No
Alabama Cavefish	*Speoplatyrhinus poulsoni*	Fish	Endangered	No
Dromedary Pearlymussel	*Dromus dromas*	Mussel	Endangered	No
Fanshell	*Cyprogenia stegaria*	Mussel	Endangered	No
Orangefoot Pimpleback	*Plethobasus cooperianus*	Mussel	Endangered	No
Pink Mucket	*Lampsilis abrupta*	Mussel	Endangered	No
Ring Pink	*Obovaria retusa*	Mussel	Endangered	No
Rough Pigtoe	*Pleurobema plenum*	Mussel	Endangered	No
Sheepnose Mussel	*Plethobasus cyphyus*	Mussel	Endangered	No
Snuffbox Mussel	*Epioblasma triquetra*	Mussel	Endangered	No
Spectaclecase	*Cumberlandia monodonta*	Mussel	Endangered	No
White Wartyback	*Plethobasus cicatricosus*	Mussel	Endangered	No
Slender Campeloma	*Campeloma decampi*	Mussel	Endangered	No

The following species descriptions were provided by the USFWS:

Indiana bat (*Myotis sodalist*) – Endangered
The scientific name of the Indiana bat is *Myotis sodalis* and it is an accurate description of the species. Myotis means “mouse ear” and refers to the relatively small, mouse-like ears of the bats in this group. *Sodalis* is the Latin word for “companion.” The Indiana bat is a very social species, large numbers cluster together during hibernation. The species is called the Indiana bat because the first specimen described to science in 1928 was based on a specimen found in southern Indiana's Wyandotte Cave in 1904. The Indiana bat is quite small, weighing only one-quarter of an ounce (about the weight of three (3) pennies). In flight, it has a wingspan of nine (9) to 11 inches. The fur is dark brown to black. The Indiana bat is similar in appearance to many other related species. Biologists can distinguish it from similar species by comparing characteristics such as the structure of the foot and color variations in the fur. Indiana bats hibernate during winter in caves or, occasionally, in abandoned mines. For hibernation, they require cool, humid caves with stable temperatures, under 50° Fahrenheit but above freezing. Very few caves within the range of the species have these conditions. Hibernation is an adaptation for survival during the cold winter months when no insects are available for bats to eat. Bats must store energy in the form of fat before hibernating. During the six (6) months of hibernation the stored fat is their only source of energy. If bats are disturbed or cave temperatures increase, more energy is needed, and hibernating bats may starve. After hibernation, Indiana bats migrate to their summer habitat in wooded areas where they usually roost under loose tree bark on dead or dying

trees. During summer, males roost alone or in small groups, while females roost in larger groups of up to 100 bats or more. Indiana bats also forage in or along the edges of forested areas.

Northern long-eared bat (*Myotis septentrionalis*) - Threatened

The northern long-eared bat is a medium-sized bat with a body length of three (3) to 3.7 inches but a wingspan of nine (9) to 10 inches. Their fur color can be medium to dark brown on the back and tawny to pale brown on the underside. As its name suggests, this bat is distinguished by its long ears, particularly as compared to other bats in its genus, Myotis. Northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They use areas in various sized caves or mines with constant temperatures, high humidity, and no air currents. Within hibernacula, surveyors find them hibernating most often in small crevices or cracks, often with only the nose and ears visible. During the summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags (dead trees). Males and non-reproductive females may also roost in cooler places, like caves and mines. Northern long-eared bats seem to be flexible in selecting roosts, choosing roost trees based on suitability to retain bark or provide cavities or crevices. This bat has also been found rarely roosting in structures, like barns and sheds. Like most bats, northern long-eared bats emerge at dusk to feed. They primarily fly through the understory of forested areas feeding on moths, flies, leafhoppers, caddisflies, and beetles, which they catch while in flight using echolocation or by gleaning motionless insects from vegetation.

Gray bat (*Myotis grisescens*) – Endangered

Gray bats are distinguished from other bats by the unicolored fur on their back. In addition, following their molt in July or August, gray bats have dark gray fur which often bleaches to a chestnut brown or russet. They weigh seven (7) to 16 grams. The bat's wing membrane connects to its ankle instead of at the toe, where it is connected in other species of Myotis. With rare exceptions, gray bats live in caves year-round. During the winter gray bats hibernate in deep, vertical caves. In the summer, they roost in caves which are scattered along rivers. These caves are in limestone karst areas of the southeastern United States. They do not use houses or barns. The bats eat a variety of flying aquatic and terrestrial insects present along rivers or lakes.

Alabama cavefish (*Speoplatyrhinus poulsoni*) – Endangered

The Alabama cavefish is a troglobitic fish of the family Amblyopsidae. They have no eyes and almost no pigment, making them nearly transparent. On average members of this species have a length close to 50 mm, ranging from 30-58 mm. They have an elongated, flattened head with a laterally constricted snout and a terminal mouth. The species has no pelvic fins, a relatively high dorsal fin that mirrors the anal fin in size and shape, and a rounded paddle-shaped homocercal tail. Embedded cycloid scales cover the body and bifurcate fin rays are absent in all fins. Alabama cavefish have an elaborate system of sensory papillae on the sides and head and a hypertrophied lateral-line. The major distinguishing feature between it, and the only other cavefish in Alabama, *Typhlichthys subterraneus*, are the three (3) nonpapilliferous fin rays between the medial-most rows of caudal sensory papillae. Key cave, the single locale of the Alabama Cavefish, is a large underground multi-level structure in Lauderdale County, Alabama that has thousands of meters of mapped area. The pools of water in the cave in which the fish dwell are typically five (5) to 10 feet deep. Seasonal flooding within the cave fluctuates this depth. Far within the cave are very deep pools of unknown depth.

Dromedary pearlymussel (*Dromus dromas*) – Endangered

The dromedary pearlymussel is a medium-sized (reaching up to 90 mm in length) freshwater mussel with a yellowish green shell with two (2) sets of broken green rays. The life span of the species is

greater than 50 years). Like other freshwater mussels, the dromedary pearlymussel feeds by filtering food particles from the water column. The specific food habits of the species are unknown, but other juvenile and adult freshwater mussels have been documented to feed on detritus, diatoms, phytoplankton, and zooplankton. The diet of dromedary pearlymussel glochidia, like other freshwater mussels, comprises water (until encysted on a fish host) and fish body fluids (once encysted). The species historic range included the Cumberland and Tennessee River systems.

Fanshell (*Cyprogenia stegaria*) – Endangered
The fanshell has a medium-sized shell, seldom exceeding 3.2 inches in length. The shell exterior has green rays on a light green or yellow surface ornamented with green mottling. The inside surface of the shell (nacre) is usually silvery white. The species historical range included the Ohio River and many of its large tributaries in Pennsylvania, West Virginia, Ohio, Indiana, Illinois, Kentucky, Tennessee, Alabama, and Virginia.

Orangefoot pimpleback (*Plethobasus cooperianus*) – Endangered
The orangefoot pimpleback is a medium size mussel, three (3) to four (4) inches in length. The shell is thick and circular in outline. The surface of the shell has dark concentric growth rings, and the posterior two-thirds of the shell is covered with raised tubercles. Number, size, and shape of the tubercles is variable. The color of the shell is yellowish brown to chestnut brown in color, and it darkens as individuals become older. Light greenish rays are found only in younger individuals. Nacre color varies from white to pink. The species historical range included the Ohio, Cumberland, and Tennessee River systems, including the lower French Broad and Holston Rivers.

Pink mucket (*Lampsilis abrupta*) – Endangered
Adult pink muckets grow three (3) to five (5) inches in length. They are rounded to slightly elongated. The rear end is bluntly pointed in males. Females are shorter and may be nearly square. The pink mucket shell is thick, inflated, and smooth. Growth-rest lines produce ridges and dark-stained grooves. The outer layer of the shell is yellowish-brown to chestnut-colored in mature individuals. Broad, faint, green rays may cover the shell but are usually absent from adult shells. Beaks (raised structures located externally near the hinge of the shell) are slightly raised above the hinge line. Beak sculpture, which is often difficult to discern, consists of six (6) to 10 fine, wavy, double-looped bars. The teeth (located dorsally within the shell) are large and well developed. The shell's inner lining (nacre) is white to a light salmon or pink and commonly salmon to orange in the beak cavities. The species historical range included Alabama, Arkansas, Illinois, Indiana, Kentucky, Louisiana, Missouri, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia.

Ring pink (*Obovaria retusa*) – Endangered
The ring pink is a medium size mussel, two (2) to three (3) inches in length, with a round, moderately inflated, thick shell. The shell does not have rays and is yellow-green to brown in color. Older individuals usually are darker in color. The color inside the shell varies from light pink to dark purple surrounded by a white border. The species historical range included the Ohio, Cumberland, and Tennessee River systems in Alabama, Illinois, Indiana, Kentucky, Ohio, Pennsylvania, Tennessee, and West Virginia.

Rough pigtoe (*Pleurobema plenum*) – Endangered
The rough pigtoe is a medium sized mussel three (3) to four (4) inches in length with an inflated, triangular shaped shell. Shell color ranges from dark to yellowish brown. Light green rays may be present on the shell of younger individuals. The color inside the shell varies from pearly white to pink.

The species historical range included the Tombigbee River, Alabama River, Tennessee River, Holston River, French Broad River, Clinch River, Cumberland River, Ohio River, Allegheny River, Monogahela River, Kanawha River, Green River, Wabash River, Tippecanoe River, White River, Mississippi River, Illinois River, Neosho River, Ouachita River, St. Francis River, Meramec River, and James River.

Sheepnose mussel (*Plethobasus cyphyus*) – Endangered
The sheepnose is a medium-sized mussel that grows to about five (5) inches in length. The shell is thick and solid, and the overall shape is slightly longer than wide and somewhat inflated. The sheepnose shell is smooth, shiny, and light yellow to a dull yellowish brown, without lines or rays but with dark concentric ridges. The ridges result from periods when growth stops or slows. The species historical range included the Illinois, Cumberland, Mississippi and Tennessee River basins in Alabama, Illinois, Indiana, Iowa, Kentucky, Minnesota, Mississippi, Missouri, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and Wisconsin.

Snuffbox mussel (*Epioblasma triquetra*) – Endangered
The snuffbox is a small to medium-sized freshwater mussel with a yellow, green, or brown shell interrupted with green rays, blotches or chevron-shaped lines. The shell becomes darker and the interruptions less clear with age. Shell shape is typically triangular in females and oblong or ovate in males. Males can grow up to 2.8 inches, with females reaching only up to 1.8 inches. The species historical range included Alabama, Arkansas, Illinois, Indiana, Kentucky, Michigan, Minnesota, Missouri, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, Wisconsin, and Ontario, Canada.

Spectaclecase (*Cumberlandia monodonta*) – Endangered
The spectaclecase is a large mussel that can grow up to nine (9) inches in length. The shape of the shell is elongated, sometimes curved, and somewhat inflated, hence its name. The species range includes Alabama, Arkansas, Illinois, Iowa, Kentucky, Minnesota, Missouri, Tennessee, Virginia, West Virginia, and Wisconsin.

White wartyback (*Plethobasus cicatricosus*) – Endangered
The shell of the white wartyback pearlymussel is somewhat egg-shaped, thick, solid, and inflated. The greenish yellow or yellow-brown shell surface is marked by uneven, concentric growth lines and a row of knobs (tubercles) in the middle portion of the shell. The iridescent inner shell surface is white. Individuals can live as long as 50 years. The white wartyback has sometimes been confused with a closely related species, *Plethobasus cyphyus*. The species historic range included West Virginia, Ohio, Indiana, Tennessee, and Alabama.

Slender campeloma (*Campeloma decampi*) – Endangered
The slender campeloma shell is medium to large in size and typically between 0.04 to 1.4 inches in length and is identified in the field by its larger size for this type of snail, ovately conic shell, and tapered pointed spire. The species historical range included Northern Alabama in the following counties: Morgan, Jackson, Limestone, and Madison.

Under the No Build Alternative, the existing roadway network would remain unchanged. As a result, the No Build Alternative would not impact threatened and endangered species.

The Alabama cavefish is only present in the Key Cave, which is a large underground multi-level cave structure in Lauderdale County, Alabama located approximately five (5) miles west of the study area;

therefore, it is anticipated the proposed conceptual build alternatives would have no impact on the Alabama cavefish.

All proposed conceptual build alternatives would require the construction of a new bridge over Cypress Creek. Conceptual Build Alternative 2 SR 20 (Coffee Road) to West College Street and Conceptual Build Alternative 3 SR 20 (Coffee Road) to West Irvine Avenue would also cross at least two unnamed tributaries of Cypress Creek. Cypress Creek and its tributaries may contain suitable habitat for the 10 federally listed freshwater mussel species listed in **Table 7**. A mussel survey would likely be required to determine the presence or absence of the endangered mussels if work is required within the channels of these streams. If mussels are found, it is likely that a permit could be obtained from the USFWS to relocate individuals from the project footprint. As a result, it is anticipated that the proposed conceptual build alternatives may affect but would likely not adversely affect these mussel species.

The proposed conceptual build alternatives could adversely impact the habitat of the Northern Long Eared bat, the Indiana bat, and the Gray bat. As the project develops, coordination will be conducted with the USFWS regarding these bat species. It is likely that best management measures can be employed during construction to minimize or avoid impacts to threatened and endangered bats. As a result, it is anticipated that the proposed conceptual build alternatives would not adversely affect these species.

3.3.2 Wetlands, Rivers and Streams

The conceptual build alternatives were designed to minimize impacts to environmental resources including wetlands, rivers, and streams. Available mapping including USGS and NWI Mapping was reviewed prior to conducting the field review. The presence of streams within the study area was confirmed during the field review. The potential for wetlands within the study area was also confirmed during the field review; however, no formal delineation or flagging of jurisdictional wetlands was performed. The No Build Alternative would not impact wetlands, rivers, or streams. All conceptual build alternatives would impact Cypress Creek.

Conceptual Build Alternative 1 CR 2 (Gunwaleford Road) to West College Street would impact Cypress Creek, and approximately 3.21 acres of wetlands. Conceptual Build Alternative 2 SR 20 (Coffee Road) to West College Street would impact Cypress Creek, one (1) stream (an unnamed tributary of Cypress Creek), and approximately 5.01 acres of wetlands. Conceptual Build Alternative 3 SR 20 (Coffee Road) to West Irvine Avenue would impact Cypress Creek, one (1) stream (an unnamed tributary of Cypress Creek), and approximately 0.25 acre of wetlands. The USGS river and streams mapping and NWI mapping of wetlands are illustrated on the figures included in **Appendix A** and included in **Section 4.0.** The ROW and construction limits of the build alternatives are conceptual and as the project progresses through the design phase, every effort would be made to avoid or minimize impacts to rivers, streams, and wetlands.

3.3.3 Water Quality

Best management practices should be used during construction of the project to avoid or minimize erosion and off-site sediment transport. These measures should include those that manage communication, work, and water, as well as traditional practices such as sediment barriers, ditch checks, sediment basins, and energy dissipaters.

Additional context sensitive design measures should be evaluated during the next phase of the project to reduce storm water runoff and thereby minimize the potential for transportation related impacts to water quality. These additional measures may include elements of green stormwater infrastructure. Green stormwater infrastructure utilizes natural processes to manage urban runoff while also adding other economic, social, and environmental benefits. Elements may include vegetated strips, buffers, and swales; infiltration trenches; permeable pavements; bioretention and biofiltration practices; and level spreaders. More structural practices such as raised barriers and closed joints with drainage directed to the ends of the bridges may also lessen the risks associated with transportation-related runoff.

3.4 Floodplains and Floodways

A review of FEMA's DFIRM for the study area indicates that the proposed conceptual build alternatives would cross the FEMA-designated floodplain and floodway associated with Cypress Creek. The floodplain and floodway are illustrated on **Figures A-1** through **A-3** included in **Appendix A**. The FEMA FIRM map is also included in **Appendix A**. The potential impacts to the floodplain and floodway were measured using the construction limits for each alternative. Conceptual Build Alternative 1 CR 2 (Gunwaleford Road) to West College Street would impact approximately 0.96 acre of floodplain and approximately 0.52 acre of floodway. Conceptual Build Alternative 2 SR 20 (Coffee Road) to West College Street would impact approximately 2.25 acres of floodplain and approximately 0.69 acre of floodway. Conceptual Build Alternative 3 SR 20 (Coffee Road) to West Irvine Avenue would impact approximately 0.43 acre of floodplain and approximately 0.29 acre of floodway. The review of the mapping indicates that the limits of the floodplain and floodway at the locations where the conceptual build alternatives would cross the creek are relatively narrow and do not extend far from the centerline of Cypress Creek. The construction limits are conceptual and as the project progresses through the design phase, efforts will be made to avoid or minimize impacts to the floodplain and floodway associated with Cypress Creek.

3.5 Cultural Resources

A database review was conducted to identify any properties listed on the National Register of Historic Places (NRHP) within the study area. The following three (3) NRHP-listed historic structures are located within or near the study area: W. C. Handy Birthplace and Museum, E. H. Darby House, and Frank Lloyd Wright Rosenbaum House. These NRHP-listed historic structures are located near West College Street. In addition, seven (7) NHRP-listed historic districts (Cherry Street Historic District, College Place Historic District, Downtown Florence Historic District, Locust Street Historic District, Sannoner Historic District, Walnut Street Historic District, and Wood Avenue Historic District) are in the study area. A Phase I Cultural Resource Survey of the proposed conceptual build alternatives and coordination with the Alabama Historic Commission would need to be conducted as part of the next phase of project development.

3.6 Hazardous Materials

The United States Environmental Protection Agency (U.S.EPA) EnviroMapper website along with the Alabama Department of Environmental Management (ADEM) e-Maps Portal website were reviewed for potential hazardous materials concerns in or adjacent to the study area. A field review of the study area was also conducted to identify any potential hazardous materials concerns. The database review and field review found that Conceptual Build Alternative 1 CR 2 (Gunwaleford Road) to West College Street would acquire ROW from one (1) potential hazardous materials site. This site is illustrated on **Figure A-1** included in **Appendix A** and is an electrical substation located along West College Street. Conceptual Build Alternative 2 SR 20 (Coffee Road) to West College Street would likely not impact any

potential hazardous materials sites. Conceptual Build Alternative 3 SR 20 (Coffee Road) to West Irvine Avenue would require ROW from one (1) potential hazardous materials site. This site is illustrated on **Figure A-3** included in **Appendix A** and is a closed brownfield site located on the west side of West Irvine Avenue near Nance Street. No hazardous material concerns would be associated with the No Build Alternative.

3.7 FHWA Planning and Environmental Linkage Questionnaire

To facilitate the transition from the feasibility study to the next stages of development (Phase II: Preliminary Engineering and National Environmental Policy Act (NEPA) Analysis), Volkert, Inc. prepared responses to the FHWA PEL Questionnaire. The Questionnaire is included in **Appendix E**. The purpose of the PEL Questionnaire is to document the history and decision-making process during the feasibility study. Information regarding the PEL can be found at the FHWA Environmental Review Toolkit (https://www.environment.fhwa.dot.gov/env_initiatives/pel/pel_quest.aspx).

4 COMPARISON OF CONCEPTUAL BUILD ALTERNATIVES

Table 8 provides a comparative matrix of the No Build Alternative and the three (3) conceptual build alternatives. As shown in **Table 8**, Conceptual Build Alternative 3: SR 20 (Coffee Road) to West Irvine Avenue is the most expensive and would require the most ROW. Conceptual Build Alternative 2: SR 20 (Coffee Road) to West College Street would likely have the greatest amount of stream and wetland impacts. Conceptual Build Alternative 1: CR 2 (Gunwaleford Road) to West College Street could require the relocation of one residence.

Table 8: West College Street Bridge Feasibility Study Comparison of Conceptual Build Alternatives

Alternative	**Length** (miles)	**Construction Cost Estimate**	**Project Cost Estimate**	**Wetland Impacts** (acres)	**Stream / River Crossings**	**Required ROW** (acres)	**Potential Relocations**	**Floodplain / Floodway Impacts** (acres)
No Build Alternative	Varies	NA	NA	NA	NA	NA	NA	NA
Con. Build Alt. 1: CR 2 (Gunwaleford Rd.) to West College Str.	1.33	$11,648,344	$14,010,452	3.21	1 (189 total linear feet)	17.71	1	0.96 0.52
Con. Build Alt. 2: SR 20 (Coffee Rd.) to West College Str.	0.67	$11,097,659	$13,198,264	5.01	2 (507 total linear feet)	14.15	0	2.25 0.69
Con. Build Alt. 3: SR 20 (Coffee Rd.) to West Irvine Ave.	1.31	$15,448,535	$18,461,000	0.25	2 (401 total linear feet)	44.50	0	0.43 0.29

5 STAKEHOLDER AND PUBLIC OUTREACH

Stakeholder and public input were vital to the development of the conceptual build alternatives. This collaboration allowed for the identification of conceptual alternatives that met the purpose and need

of the proposed project while minimizing potential social, economic, and environmental impacts. The outreach activities that have occurred to date are summarized in the following sections and included in **Appendix C**.

5.1 Public Involvement

One (1) public involvement meeting has been held for the proposed project. The public involvement meeting was held on December 13, 2021, at the Slater Burrell Community Educational Center at 610 West College Street, Florence, Alabama. The meeting was held from 5:30 to 7:00 PM and during the meeting, a brief presentation was given that described the proposed concepts for the West College Street Bridge Feasibility Study. Comment forms were also provided to the attendees. The attendees were given the opportunity to voice their concerns about the proposed project and were also encouraged to fill out response letters. Fifteen (15) attendees responded stating that they agree with the purpose and need for the proposed project and eight (8) responded that the project has their conditional support. Fourteen (14) of the respondents stated that they prefer Conceptual Build Alternative 1 CR 2 (Gunwaleford Road) to West College Street and one (1) preferred Conceptual Build Alternative 3 SR 20 (Coffee Road) to West Irvine Avenue. **Table 9** provides a summary of the alternative preference.

Table 9: West College Street Bridge Feasibility Study
Alternative Preference from Public Involvement

Alternative	Number of Responses that Support
No Build Alternative	0
Conceptual Build Alternative 1: CR 2 (Gunwaleford Road) to West College Street	14
Conceptual Build Alternative 2: SR 20 (Coffee Road) to West College Street	0
Conceptual Build Alternative 3: SR 20 (Coffee Road) to West Irvine Avenue	1

Some of the additional comments and concerns that were made by the attendees included the following:

- This would change the community and city. It will bring and grow development.
- Its been needed and wanted for 30 plus years.
- This infrastructure (bridge) is way overdue. The benefits are going to be immeasurable.
- Save time by not having to go so far around town.
- UNA and all the other schools could travel to Sportsplex in less time
- People who live down Gunwaleford Road will also save time and gas by having access to the bridge
- Florence needs to go westward, expand and not be boxed in. The bridge will be a bonanza and would bring more businesses to west Florence and taxes for schools.
- Project would uplift the morale of the property owners and would encourage others to invest and re-invest in home ownership.
- It is reasonable to develop the vacant land (both on the north and south) for business / small factories that will create jobs. This area can be used for hotels, restaurants, etc. to accommodate visitors to the Sportsplex as well as from the westside which presently has no gas stations, inadequate grocery stores and no established chain fast food restaurants.

- Bridge is overdue. This portion of the city has been choaked out for too long. Build a 4 lane to open this city up.
- Alternative 3 would not change the City of Florence nearly as much as Alternative 1 and 2 that crosses the creek from College Street.
- I am in total agreement and strongly desire for this project to be implemented and completed to open up the right of way for travel from West College back to Savannah Highway for business and other opportunities.
- Prefer a 4-lane bridge and roadway.
- This is vitally important for the health of West Florence and therefore, important for the health of the city.
- Alternative 1 seems like the easiest, most affordable and most traffic for the area.
- I believe west Florence needs through traffic but also could use some economic vitality, planning and community efforts to secure grants for community neighbors to open businesses.
- Four lanes should be considered to accommodate McFarland Park traffic when events are held there.
- I'm for a four-lane bridge and for West Mobile Street to be connected to the new bridge.
- The bridge will be fundamental for the growth of West Florence.

6 RECOMMENDATIONS

Based on the information collected during this feasibility study, a new gateway connecting the area west of Cypress Creek and downtown Florence is needed. In addition, the concept for a new roadway and bridge that accommodates vehicles and pedestrians received broad support from the public. All the written responses received from the public expressed support for the project. The analysis indicates that three (3) conceptual build alternatives are feasible and would address access deficiencies in the study area. Each build alternative includes the construction of a new roadway and bridge across Cypress Creek. A ten (10) foot multi-use path would also be constructed with the project. The traffic analysis suggests a two-lane roadway would accommodate the existing and projected 2041 traffic volumes.

A cost per user analysis was used as part of the feasibility analysis of the three (3) feasible conceptual build alternatives. The cost per user was calculated by dividing the total cost of each conceptual build alternative by the expected number of vehicle users. The cost per user ranking is shown below.

1. Conceptual Build Alternative 1 CR 2 (Gunwaleford Road) to West College Street
   - Cost Per User - $14,010,452/4,028 users = $3,478 (2041)
2. Conceptual Build Alternative 2 CR 20 (Coffee Street) to West College Street
   - Cost Per User - $13,198,264/2,375 users = $5,557 (2041)
3. Conceptual Build Alternative 3 CR 20 (Coffee Street) to West Irvine Avenue
   - Cost Per User - $18,461,000/2,250 users = $8,204 (2041)

The engineering and environmental analyses and public outreach performed as part of this feasibility analysis suggest that Conceptual Build Alternative 1 CR 2 (Gunwaleford Road) to West College Street is the most feasible alternative. This conclusion was based on conceptual level engineering, traffic and environmental screening analyses and was developed with input from local officials and the public.

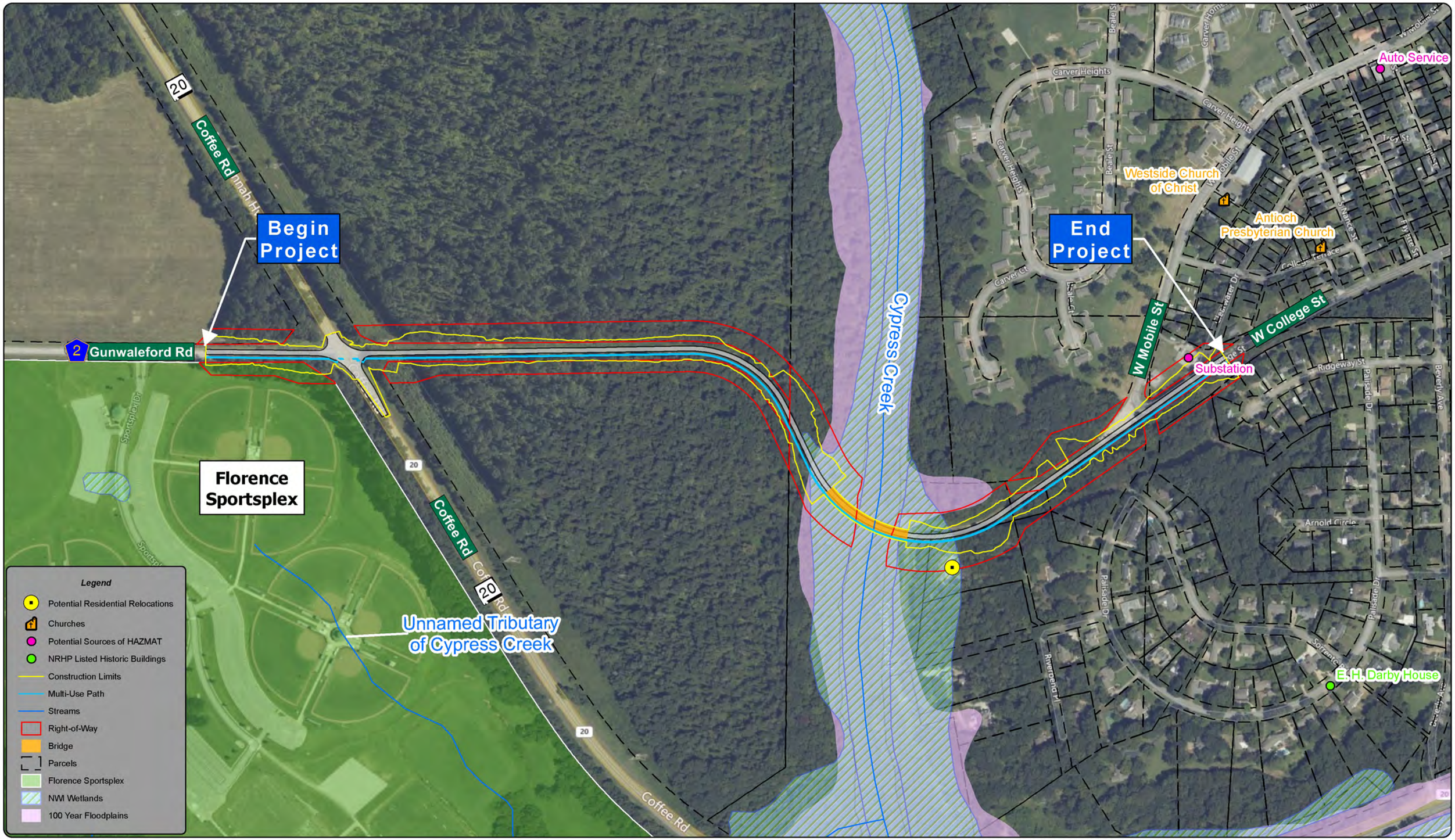
During the next phase of development, Volkert, Inc. recommends that more detailed engineering analysis and the potential for adverse environmental impacts be thoroughly evaluated. Agency and stakeholder coordination should also be performed to determine the most prudent action to be taken while weighing the social, economic, and environmental impacts the proposed action may have in the study area.

APPENDICES

APPENDIX A

FIGURES

Conceptual Build Alternative Alignments



50TH ANNIVERSARY 1967 2017
NORTHWEST ALABAMA COUNCIL OF LOCAL GOVERNMENTS
NACOLG

VOLKERT

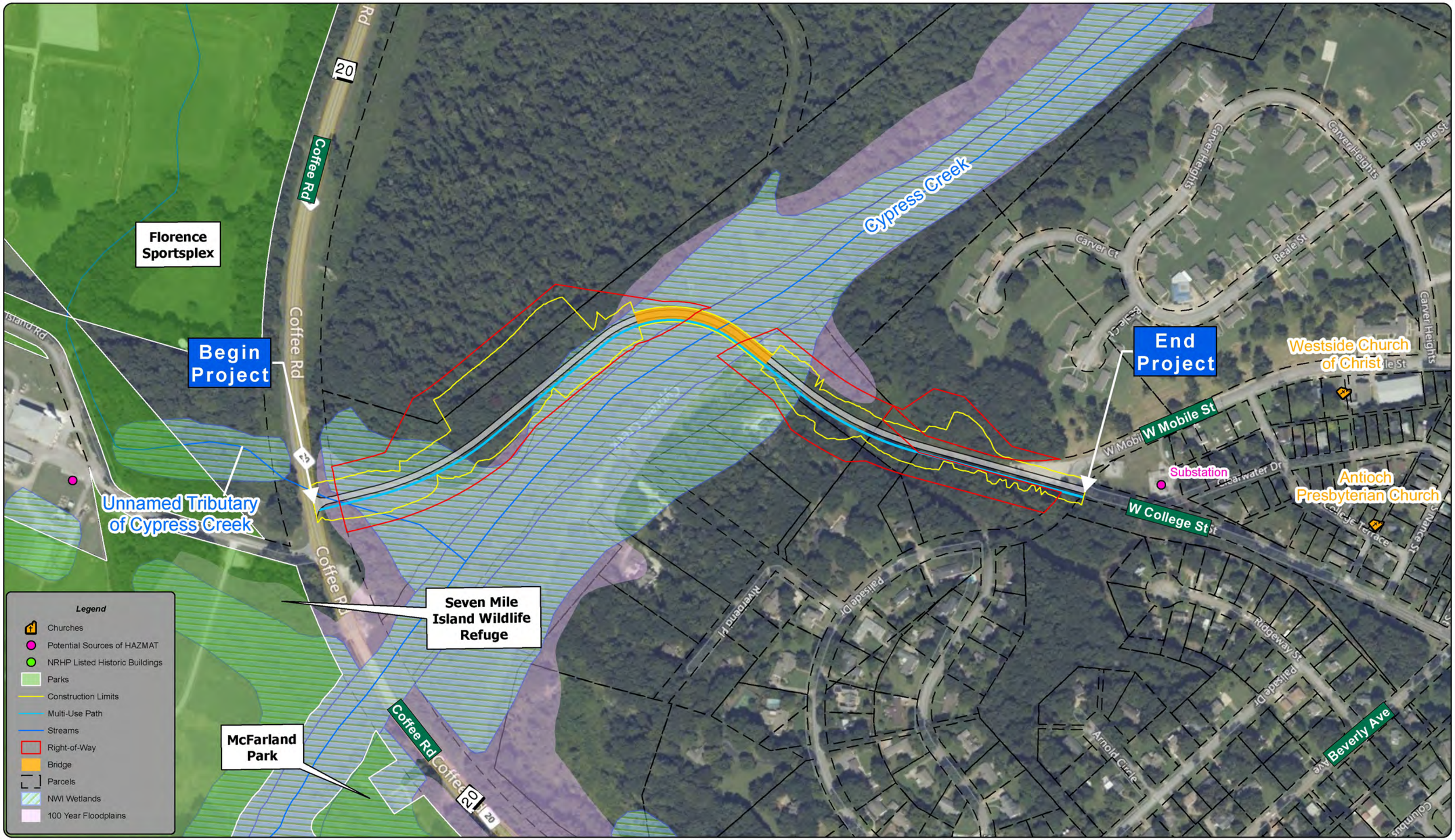
CITY OF FLORENCE ALABAMA'S RENAISSANCE CITY

0 385 770 Feet

1 inch = 380 feet

Note: This map is for presentation use only and not to be used for construction purposes.

Figure A-1
Conceptual Build Alternative 1: CR 2 (Gunwaleford Road) to West College Street



50TH ANNIVERSARY 1967 2017
NORTHWEST ALABAMA COUNCIL OF LOCAL GOVERNMENTS
NACOLG

VOLKERT

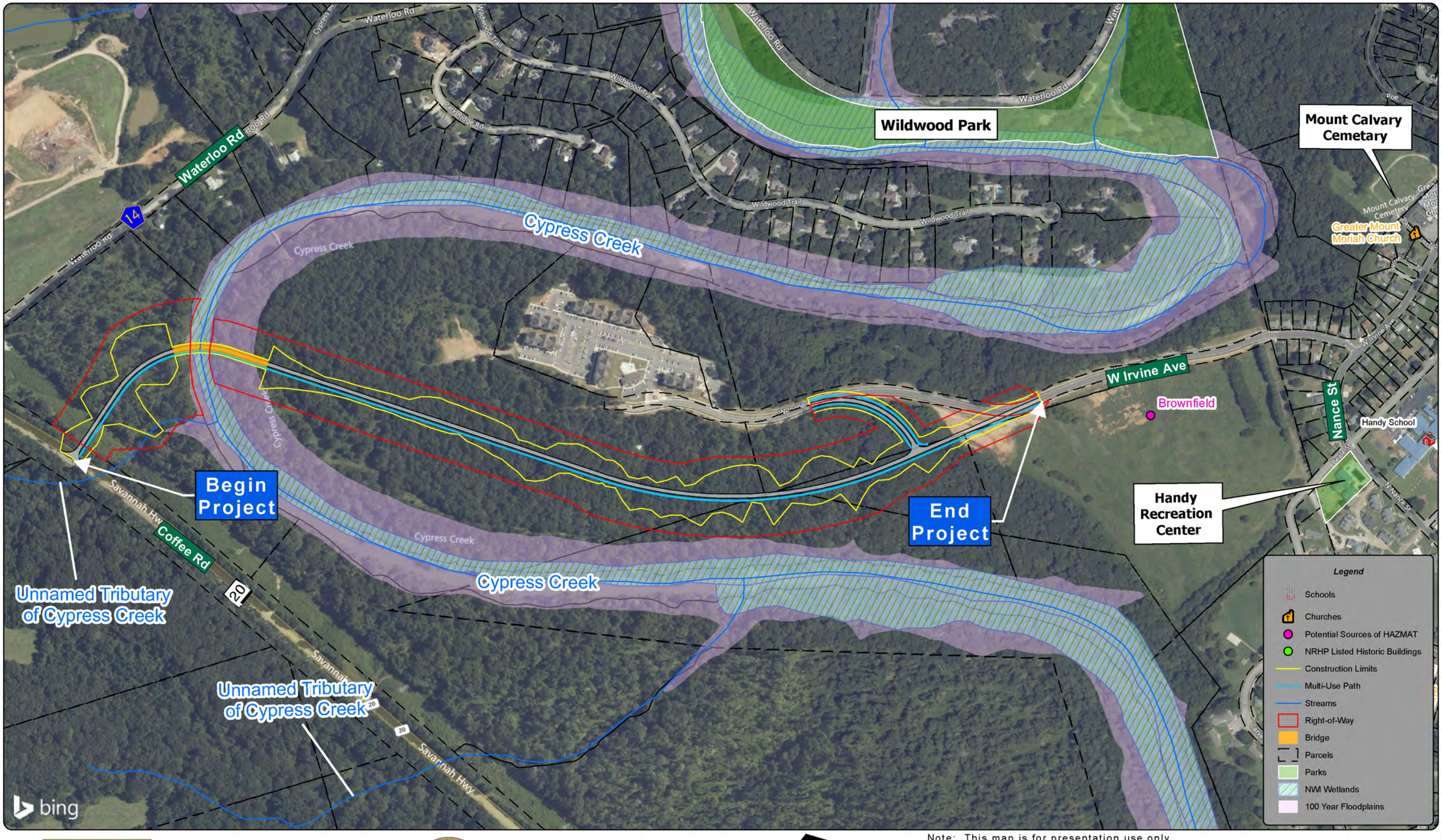
CITY OF FLORENCE ALABAMA'S RENAISSANCE CITY 1818 1826

0 300 600 Feet

1 inch = 300 feet

Note: This map is for presentation use only and not to be used for construction purposes.

Figure A-2
Conceptual Build Alternative 2: SR 20 (Coffee Road) to West College Street



50TH ANNIVERSARY 1967 2017
NORTHWEST ALABAMA COUNCIL OF LOCAL GOVERNMENTS
NACOLG

VOLKERT

CITY OF FLORENCE ALABAMA'S RENAISSANCE CITY 1818 1826

0 450 900 Feet

1 inch = 450 feet

Note: This map is for presentation use only and not to be used for construction purposes.

Figure A-3
Conceptual Build Alternative 3: SR 20 (Coffee Road) to West Irvine Avenue

Census Maps

Census Tract 112
Block Group 1
11.56% Minority

Census Tract 103
Block Group 2
98.35% Minority

Census Tract 103
Block Group 3
86.62% Minority

Census Tract 102
Block Group 2
12.04% Minority

Census Tract 112
Block Group 2
7.97% Minority

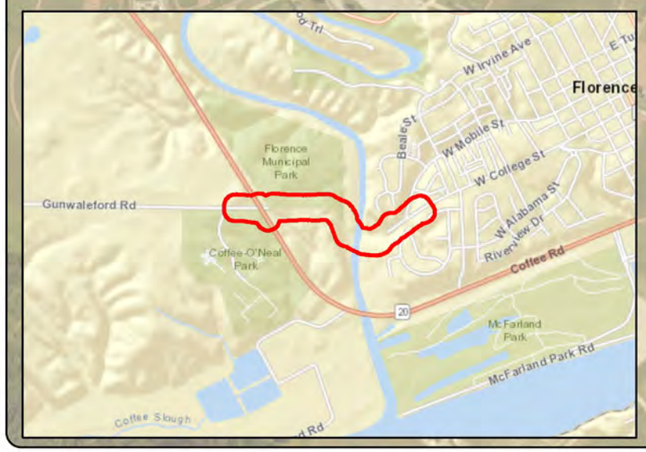
Florence Sportsplex

Coffee Rd

Gunwaleford Rd

W Mobile St

W College St



Legend

- Conceptual Build Alternative 1 Buffer
- Right-of-Way
- Construction Limits
- Multi-Use Path
- Bridge
- Below 2020 HHS Poverty Levels

Census Block Groups: Percent Minority

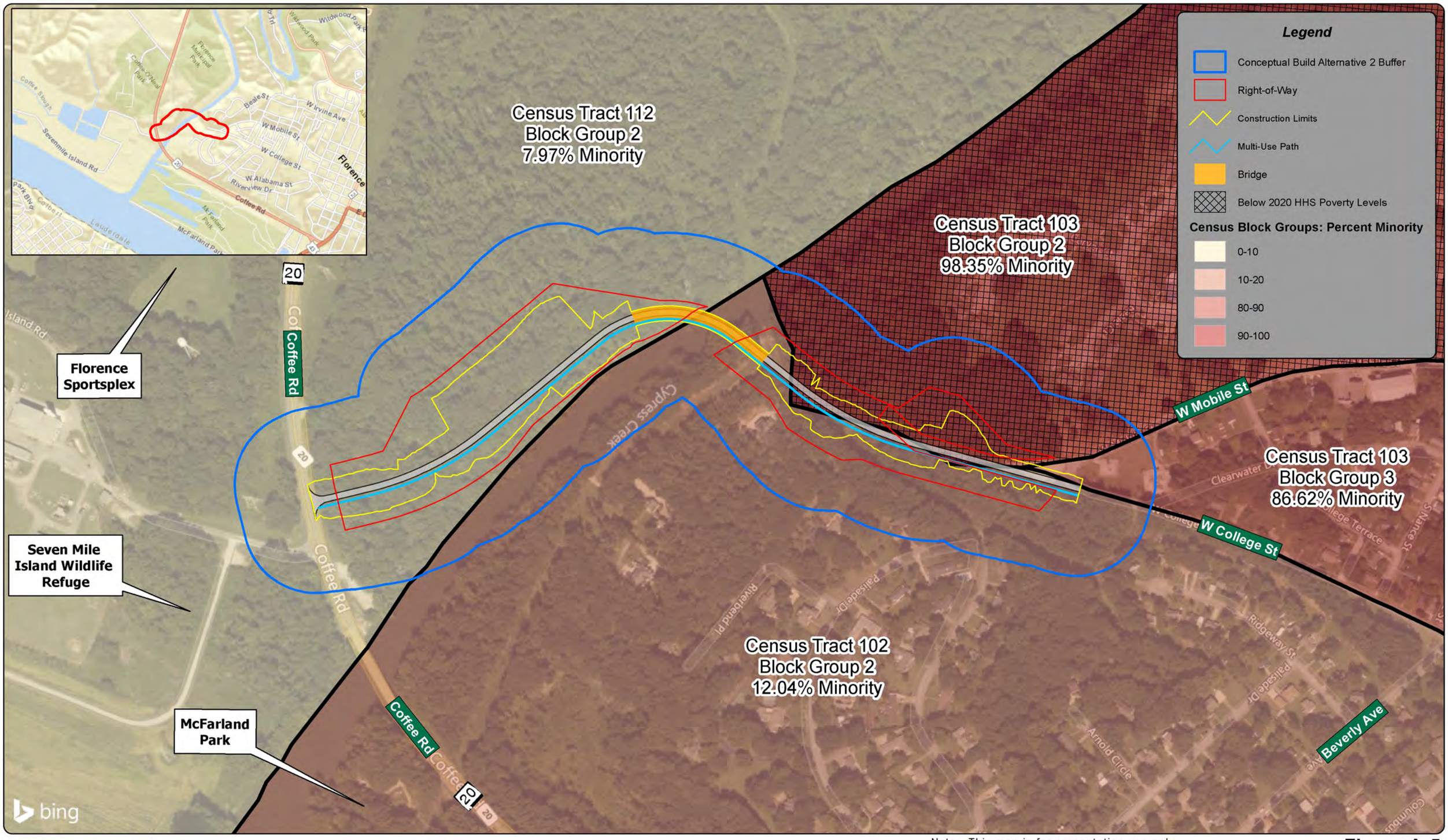
- 0-10
- 10-20
- 80-90
- 90-100

0 400 800 Feet

1 inch = 400 feet

Note: This map is for presentation use only and not to be used for construction purposes.

Figure A-4
Census Data
Conceptual Build Alternative 1: CR 2 (Gunwaleford Road) to West College Street



50TH ANNIVERSARY 1967 2017
NORTHWEST ALABAMA COUNCIL OF LOCAL GOVERNMENTS
NACOLG

VOLKERT

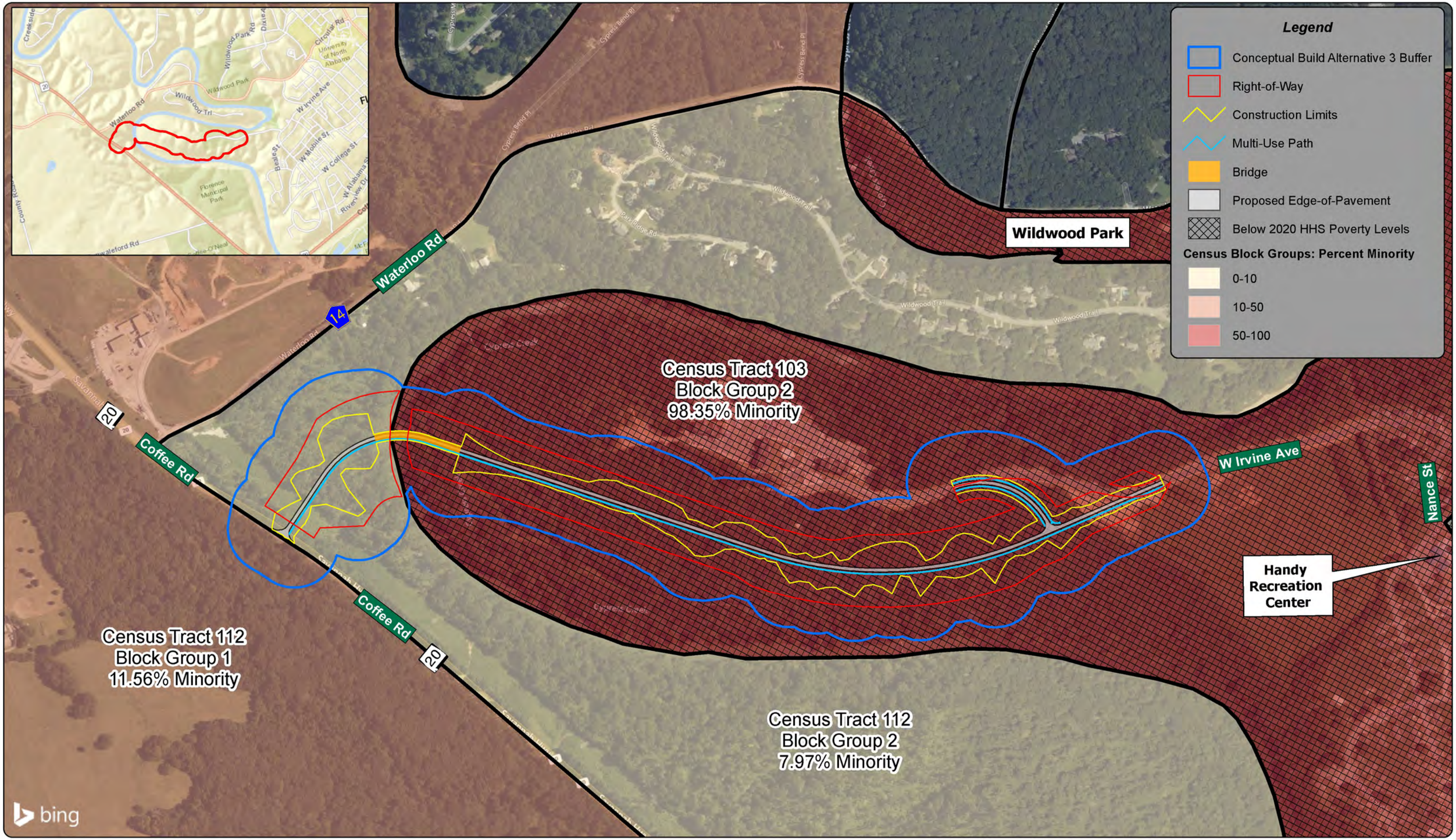
CITY OF FLORENCE ALABAMA'S RENAISSANCE CITY

0 300 600 Feet

1 inch = 300 feet

Note: This map is for presentation use only and not to be used for construction purposes.

Figure A-5
Census Data
Conceptual Build Alternative 2: SR 20 (Coffee Road) to West College Street



50TH ANNIVERSARY 1967 2017
NORTHWEST ALABAMA COUNCIL OF LOCAL GOVERNMENTS
NACOLG

VOLKERT

CITY OF FLORENCE ALABAMA'S RENAISSANCE CITY

0 500 1,000 Feet

1 inch = 500 feet

Note: This map is for presentation use only and not to be used for construction purposes.

Figure A-6
Census Data
Conceptual Build Alternative 3: SR 20 (Coffee Road) to West Irvine Avenue

FEMA Map

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction, and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) Zone 16. The **horizontal datum** was NAD83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey, SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit their website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was derived from multiple sources. Base map files were provided in digital format by the U.S. Geological Survey, U.S. Bureau of the Census, Bureau of Land Management, and the local communities of Lauderdale County. This information was compiled from the National Geodetic Survey, 2004, the Geological Survey of Alabama, 1998, the U.S. Department of Commerce, 2001 and U.S. Geological Survey, 2004. Additional information was photogrammetrically compiled at a scale of 1:12,000 from U.S. Geological Survey aerial photography dated 1997 to 1999.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

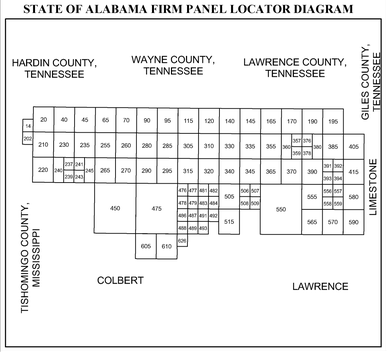
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

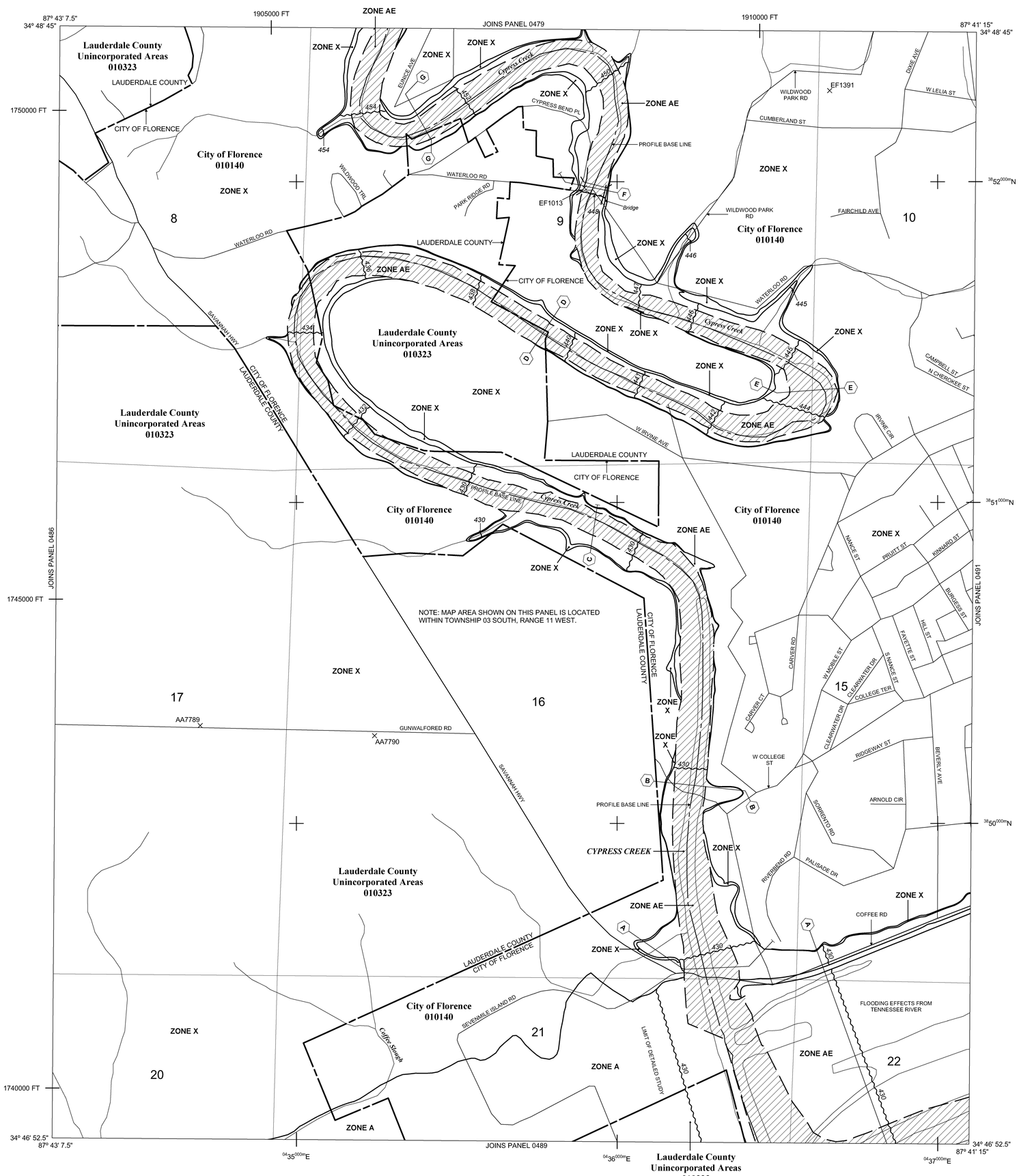
Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and their website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1- 877- FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/.

STATE OF ALABAMA FIRM PANEL LOCATOR DIAGRAM



In cooperation with the Federal Emergency Management Agency (FEMA) and local communities in Alabama, this Flood Insurance Rate Map was developed by the Alabama Office of Water Resources in a digital statewide format to assist communities in their efforts to minimize the loss of property and life through effectively managing, development in flood-prone areas. The State of Alabama has implemented a long term approach to floodplain management to reduce the impacts of flooding. This is demonstrated by the State's commitment to map floodplain areas at the local level. As a part of this effort, the Alabama Office of Water Resources is working closely with FEMA as a Cooperating Technical Partner to produce and maintain this digital FIRM.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- Floodplain boundary
- Floodway boundary
- Zone D Boundary
- CBRS and OPA Boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 (EL 987) — Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A: Cross section line
- 23 — 23: Transect line
- 97° 07' 30", 32° 22' 30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 4276 000m E — 1000-meter Universal Transverse Mercator grid values, zone 16
- 600000 FT — 5000-foot grid ticks: Alabama State Plane coordinate system, West zone (FIPSZONE 0102), Transverse Mercator Projection
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index.

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP PANEL
September 11, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0487D

FIRM

FLOOD INSURANCE RATE MAP

LAUDERDALE COUNTY, ALABAMA AND INCORPORATED AREAS

PANEL 487 OF 626

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
FLORENCE, CITY OF	010140	0487	D
LAUDERDALE COUNTY	010323	0487	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
September 11, 2009

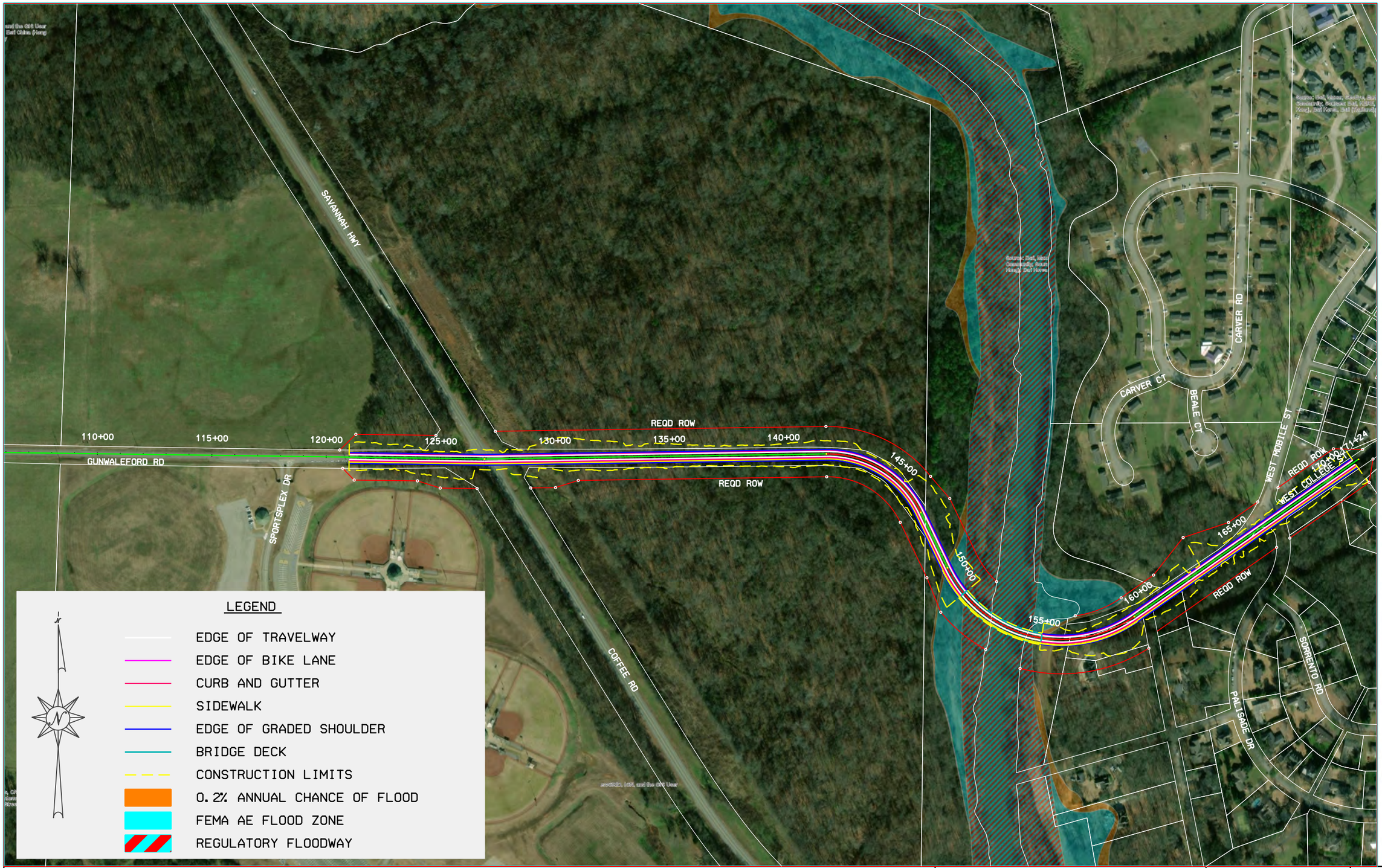
MAP NUMBER
01077C0487D

State of Alabama
Federal Emergency Management Agency

APPENDIX B

COST ESTIMATES

PLAN VIEW - OPTION 1



NACOLG

HORIZ 50 0 50 SCALE (FEET)

SHEET TITLE	COUNTY
PLAN VIEW - OPTION 1	LAUDERDALE

PRELIMINARY COST ESTIMATE

Option 1

Date: 4/19/2022

SUMMARY OF COSTS

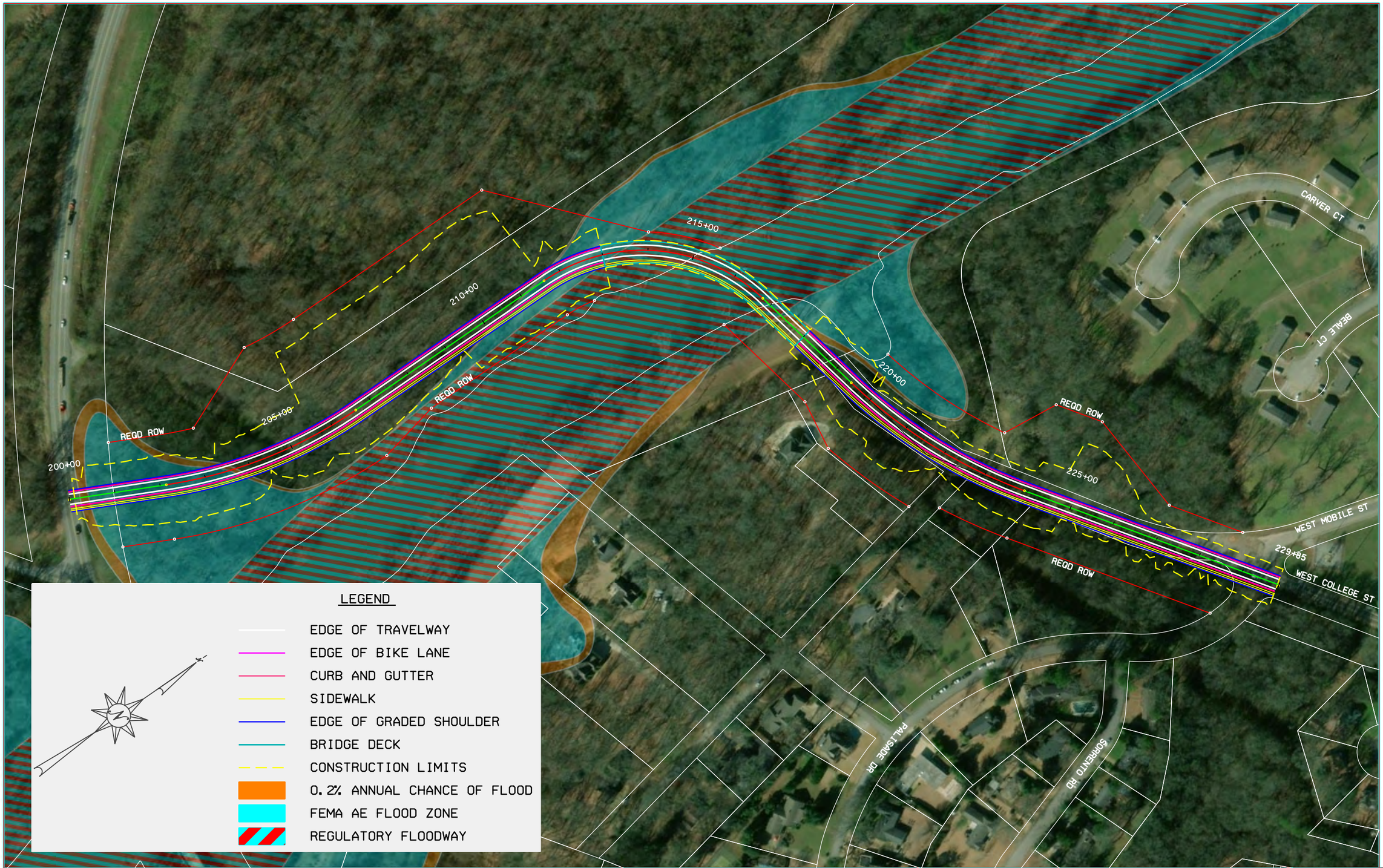
Linear Feet Costs

Item		Cost
Pavement	$	1,041,990.00
Earthwork	$	1,967,749.00
Roadway	$	1,116,579.00
Subtotal Linear Foot Costs =	**$**	**4,126,318.00**
Culvert Pipes and Box Culverts	**$**	**-**
Bridges	**$**	**4,500,000.00**
Misc. Items	**$**	**200,000.00**
Subtotal Other Costs =	**$**	**4,700,000.00**
Subtotal Costs =	**$**	**8,826,318.00**
Mobilization (11%)	$	970,894.98
Engineering Controls (1.5%)	$	132,394.77
Erosion Control (2%)	$	176,526.36
Traffic Control (1%)	$	88,263.18
Utility Relocation Cost (Estimated based upon field review)	$	100,000.00
Wetland Mitigation	$	30,000.00
Contingencies (15%)	$	1,323,947.70
TOTAL ESTIMATED CONSTRUCTION COSTS =	**$**	**11,648,344.99**
ROW Cost	$	255,361.50
Survey/ROW Mapping	$	207,340.54
Environmental Documentation	$	207,340.54
Engineering	$	484,571.15
Inspection	$	691,911.69
Testing	$	265,582.27
ROW Acquisition	$	250,000.00
TOTAL ESTIMATED PROJECT COSTS =	**$**	**14,010,452.68**

NOTES

1. This is a preliminary cost estimate based upon conceptual sketches. Detailed design of the roadway was not performed.

PLAN VIEW - OPTION 2



NACOLG

HORIZ 50 0 50 SCALE (FEET)

SHEET TITLE	COUNTY
PLAN VIEW - OPTION 2	LAUDERDALE

User Is: winston.brooks 07-JUN-2021 17:48 Plot Scale=200.000000:1.000000 $$COLORTABLE$$ $$PENTABLE$$
Projects#1062200 - NACOLG Feasibility Study#West College Street#Plans Assembly#3_PLN_Option 2.dgn

PRELIMINARY COST ESTIMATE

Option 2

Date: 6/7/2021

SUMMARY OF COSTS

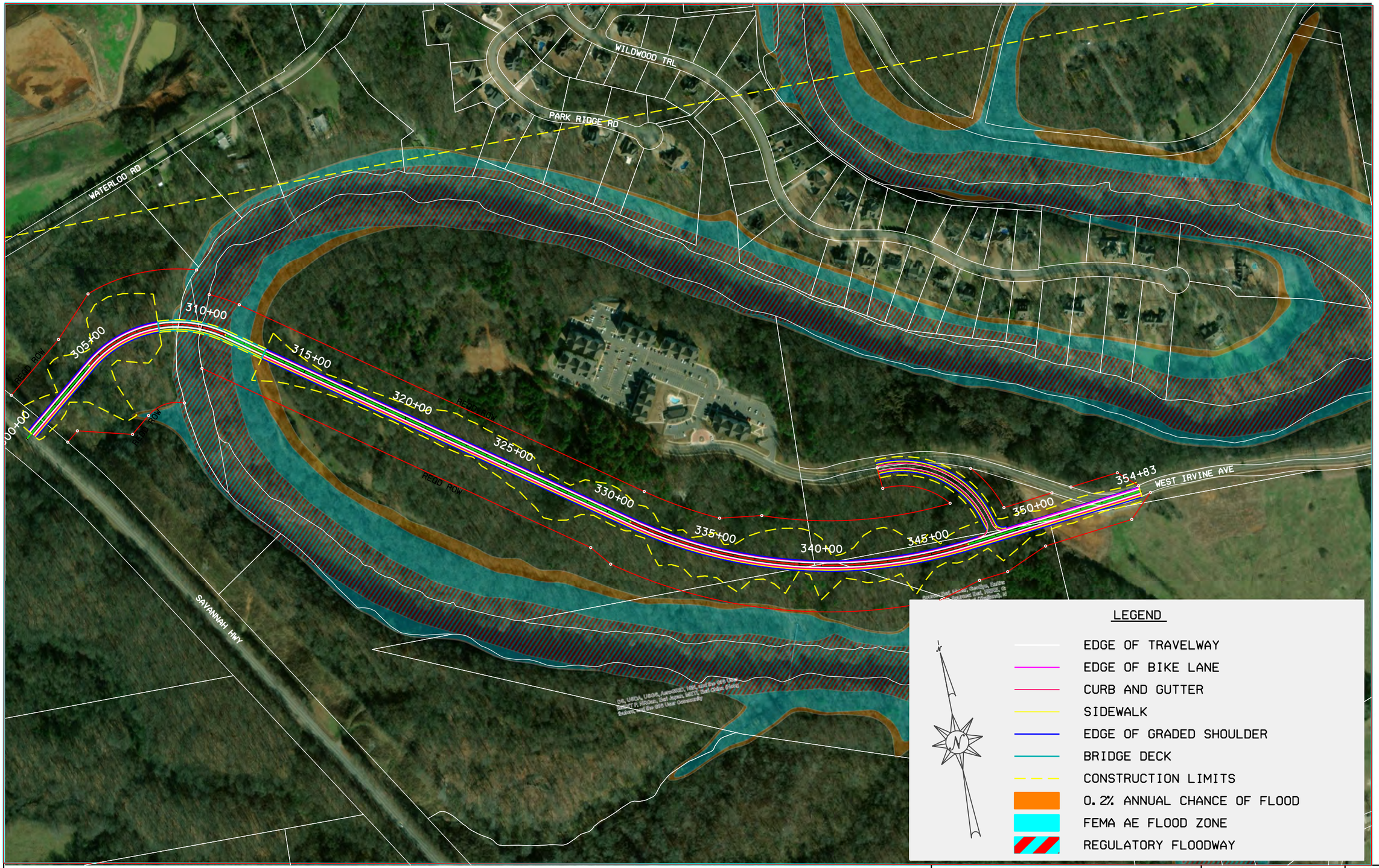
Linear Feet Costs

Item		Cost
Pavement	$	458,358.25
Earthwork	$	2,312,292.50
Roadway	$	339,376.45
Subtotal Linear Foot Costs =	**$**	**3,110,027.20**
Culvert Pipes and Box Culverts	**$**	**-**
Bridges	**$**	**5,625,000.00**
Misc. Items	**$**	**40,000.00**
Subtotal Other Costs =	**$**	**5,665,000.00**
Subtotal Costs =	**$**	**8,775,027.20**
Mobilization (11%)	$	965,252.99
Engineering Controls (1.5%)	$	131,625.41
Erosion Control (2%)	$	175,500.54
Traffic Control (1%)	$	87,750.27
Utility Relocation Cost (Estimated based upon field review)	$	50,000.00
Wetland Mitigation	$	35,000.00
Contingencies (10%)	$	877,502.72
TOTAL ESTIMATED CONSTRUCTION COSTS =	**$**	**11,097,659.13**
ROW Cost	$	134,100.00
Survey/ROW Mapping	$	197,538.33
Environmental Documentation	$	197,538.33
Engineering	$	461,662.62
Inspection	$	659,200.95
Testing	$	253,026.63
ROW Acquisition	$	197,538.33
TOTAL ESTIMATED PROJECT COSTS =	**$**	**13,198,264.32**

NOTES

1. This is a preliminary cost estimate based upon conceptual sketches. Detailed design of the roadway was not performed.

PLAN VIEW - OPTION 3



NACOLG

HORIZ 50 0 50 SCALE (FEET)

SHEET TITLE	COUNTY
PLAN VIEW - OPTION 3	LAUDERDALE

User Is: winston.brooks 07-JUN-2021 17:48 Plot Scale=411.014787:1.000000 $$COLORTABLE$$ $$PENTABLE$$
Projects#1062200 - NACOLG Feasibility Study#West College Street#Plans Assembly#5_PLN_Option 3.dgn

PRELIMINARY COST ESTIMATE

Option 3

Date: 6/7/2021

SUMMARY OF COSTS

Linear Feet Costs

Item		Cost
Pavement	$	918,929.90
Earthwork	$	3,874,850.14
Roadway	$	680,391.74
Subtotal Linear Foot Costs =	**$**	**5,474,171.78**
Culvert Pipes and Box Culverts	**$**	**-**
Bridges	**$**	**6,750,000.00**
Misc. Items	**$**	**40,000.00**
Subtotal Other Costs =	**$**	**6,790,000.00**
Subtotal Costs =	**$**	**12,264,171.78**
Mobilization (11%)	$	1,349,058.90
Engineering Controls (1.5%)	$	183,962.58
Erosion Control (2%)	$	245,283.44
Traffic Control (1%)	$	122,641.72
Utility Relocation Cost (Estimated based upon field review)	$	50,000.00
Wetland Mitigation	$	7,000.00
Contingencies (10%)	$	1,226,417.18
TOTAL ESTIMATED CONSTRUCTION COSTS =	**$**	**15,448,535.60**
ROW Cost	$	274,983.93
Survey/ROW Mapping	$	274,983.93
Environmental Documentation	$	274,983.93
Engineering	$	642,659.08
Inspection	$	917,643.01
Testing	$	352,226.61
ROW Acquisition	$	274,983.93
TOTAL ESTIMATED PROJECT COSTS =	**$**	**18,461,000.02**

NOTES

1. This is a preliminary cost estimate based upon conceptual sketches. Detailed design of the roadway was not performed.

APPENDIX C

PUBLIC INVOLVEMENT

Handouts

Feasibility Study:

What is a feasibility study?

A feasibility study is an analysis and evaluation of proposed alternatives to determine if one or more are technically, environmentally, and economically feasible.

West College St. Feasibility Study

- Objective is to identify up to 3 feasible alternatives
- Given a geographic area
- Consider existing and future traffic patterns
- Environmental Considerations
- Give cost estimates for each alternative
- Provide comparative analysis and matrix of feasible alternatives

Contact Information:

NACOLG:
Jesse Turner
(256)-389-0513
collegestreetbridge@nacolg.org

Volkert:
Ashley Ann Adams
ashleyann.adams@volkert.com
(334)-590-3915

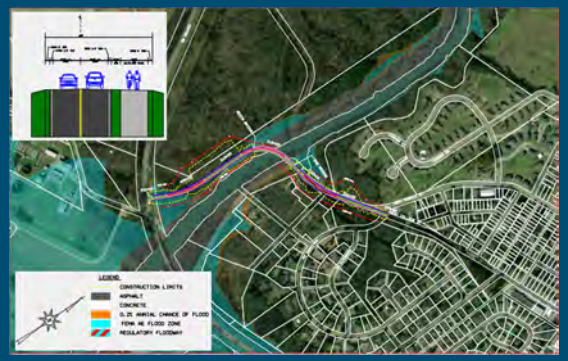
West College Street Feasibility Study

UNITY FOR PROGRESS
NORTHWEST ALABAMA COUNCIL OF LOCAL GOVERNMENTS
NACOLG

VOLKERT

Alternative 1: Gunwaleford Rd. to W. College St.

- Year 2041: 4,028 vehicles (daily)
- Total Est. Construction Costs: $9,110,175
- Cost/User = $9,110,175/4,028users = $2,261.71 (Yr. 2041)

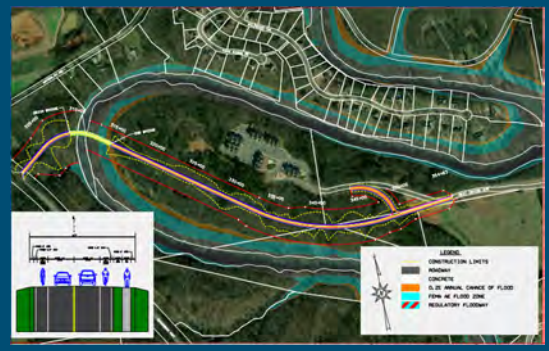


Alternative 2: Coffee Rd. to W. College St.

- Year 2041: 2,375 vehicles (daily)
- Total Est. Construction Costs: $11,097,659
- Cost/User= $11,097,659/2,375 users = $4,672.70 (Yr. 2041)

Alternative 3: Coffee Rd. to W. Irvine Ave.

- Year 2041: 2,250 vehicles (daily)
- Total Est. Construction Costs: $15,496,046
- Cost/User = $15,496,046/2,250 users = $6,887.13 (Yr. 2041)



Presentation

West College Street Bridge Feasibility Study

Feasibility Study

Public Meeting

December 13, 2021 @ 5:30 PM

jturner@nacolg.org

VOLKERT

Feasibility Study

What is a feasibility study?

- A feasibility study is an analysis and evaluation of proposed alternatives to determine if one or more are technically, environmentally, and economically feasible.
- The future no action or no build alternative will also be evaluated.

West College St. Feasibility Study

- Objective is to identify up to 3 feasible alternatives
- Given a geographic area
- Consider existing and future traffic patterns
- Environmental considerations
- Give cost estimates for each alternative
- Provide comparative analysis and matrix of feasible alternatives.

VOLKERT

What is the purpose of this study?

- The purpose of the study is to identify a feasible location for the extension of West College Street to tie to Savannah Hwy.

Why is the study needed?

Improve Safety

Enhance Efficiency

Improve Regional Connectivity

Improve Travel Time

VOLKERT

3 Conceptual Alternatives

1. Alternative 1: Gunwaleford Road to West College Street
2. Alternative 2: Coffee Road to West College Street
3. Alternative 3: Coffee Road to West Irvine Avenue

VOLKERT

Conceptual Design Criteria

Criterion	Design Goal
Design Speed	40 Miles Per Hour
Horizontal Alignment	314-foot Minimum Radius
Vertical Alignment	6% Maximum Grade
Highway Functional Classification	Urban Arterial
Vehicular Lane Width	11-foot wide vehicle lanes
Shoulders (both sides)	Twelve (12) foot multi-use path, curbs and gutters, with four (4) foot grass buffer between curb/gutter and multi-use lane
Side Slopes	3:1 Maximum Cut & Fill Slopes
Drainage Storm Event (inlets and storm sewers)	50 Year Rain Event

VOLKERT

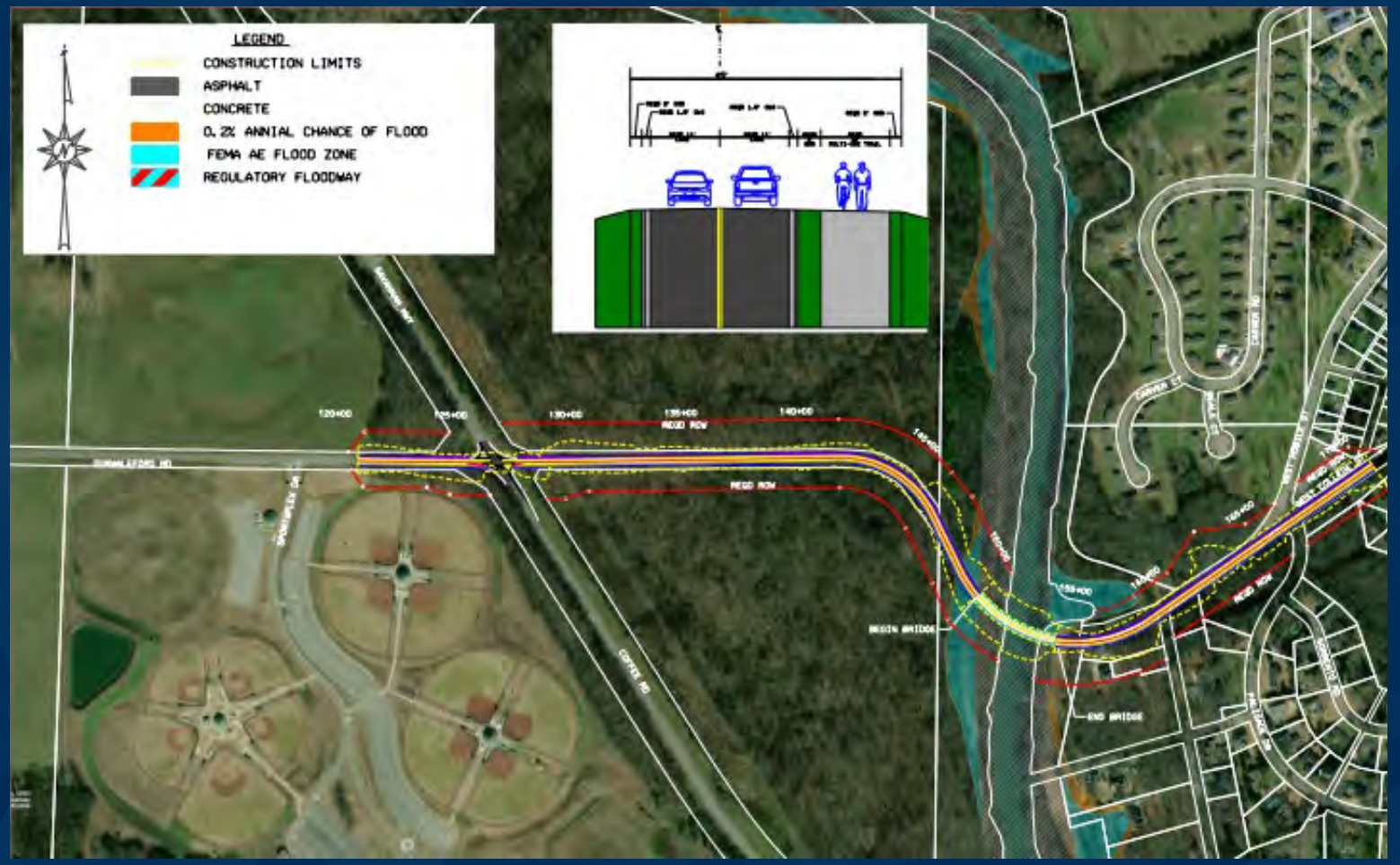
Alternative 1: Gunwaleford Rd. to W. College St.

20 Yr. Traffic Forecast (Daily):

- Year 2041: 4,028 vehicles

Environmental Considerations:

- Approx. Length: 0.9 Mile
- Req. Right-of-Way: 17.7 acres
- Potential Relocations: 1
- Park Impact: 1 (Sportsplex)
- Wetlands: 3.2 acres
- Streams: 1 (Cypress Creek)
- Protected Species: Not Anticipated
- Cultural Resources: Not Anticipated
- Potential Hazmat: 1 (Substation)



Total Estimated Construction Costs: $9,110,175

Cost per User: $9,110,175/4,028 users = $2,261.71 (yr. 2041)

VOLKERT

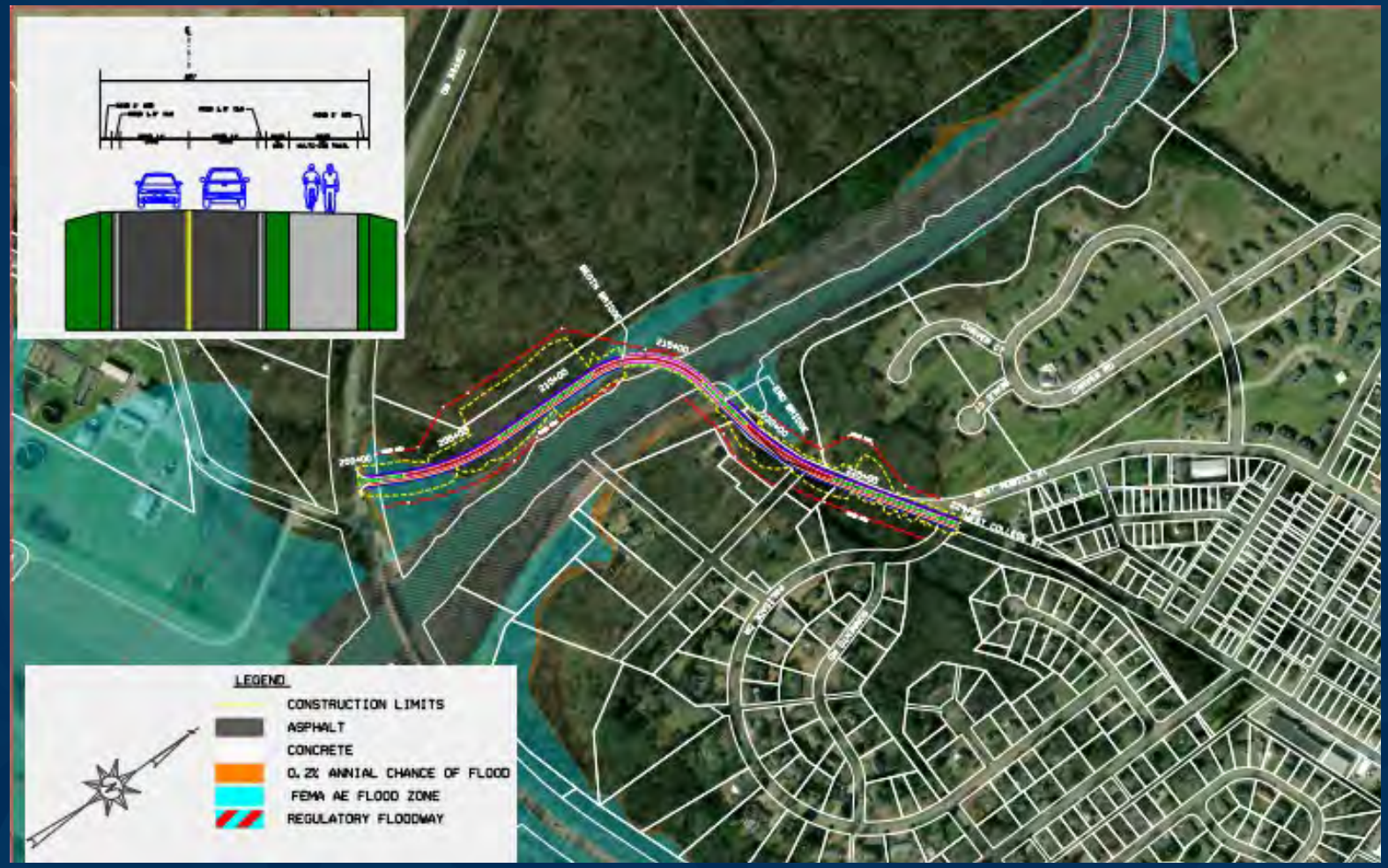
Alternative 2: Coffee Rd. to W. College St.

20 Yr. Traffic Forecast (Daily):

- Year 2041: 2,375 vehicles

Environmental Considerations:

- Approx. Length: 0.6 mile
- Req. Right-of-Way: 14.2 acres
- Potential Relocations None
- Park Impact: None
- Wetlands: 5.01 acres
- Streams: 2 (Cypress Creek & Unnamed Tributary)
- Protected Species: Not Anticipated
- Cultural Resources: Not Anticipated
- Potential Hazmat: 1 (Substation)



Total Estimated Construction Costs: $11,097,659

Cost per User: $11,097,659/2,375 users = $4,672.70 (yr. 2041)

VOLKERT

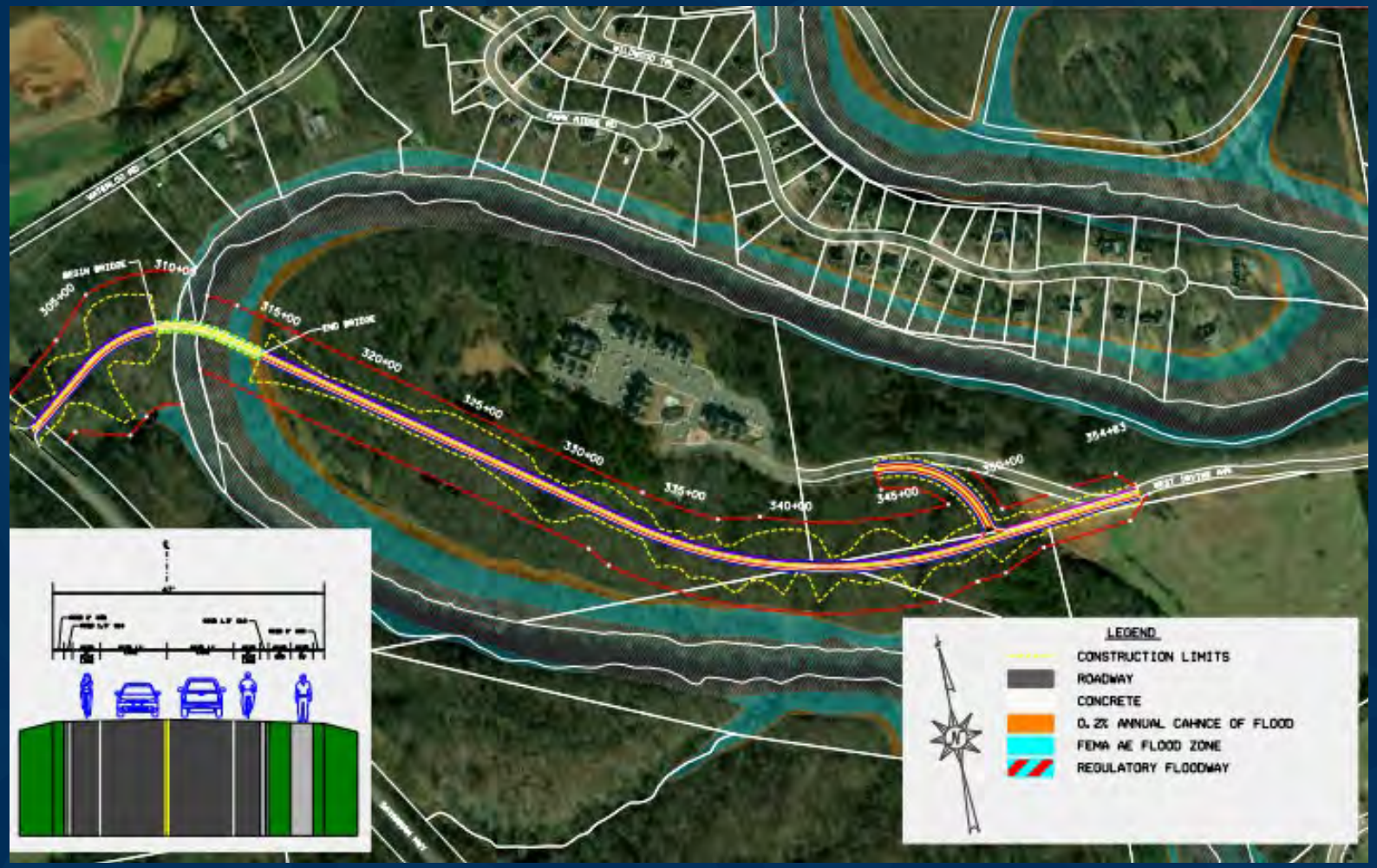
Alternative 3: Coffee Rd. to W. Irvine Ave.

20 Yr. Traffic Forecast (Daily):

- Year 2041: 2,250 vehicles

Environmental Considerations:

- Approx. Length: 1 mile
- Req. Right-of-Way: 44.5 acres
- Potential Relocations: None
- Park Impact: None
- Wetlands: 0.25 acre
- Streams: 2 (Cypress Creek & Unnamed Tributary)
- Protected Species: Not Anticipated
- Cultural Resources: Not Anticipated
- Potential Hazmat: 1 (Brownfield Site)



Total Estimated Construction Costs: $15,496,046

Cost per User: $15,496,046/2,250 users = $6,887.13 (year 2041)

VOLKERT

Project Schedule

VOLKERT

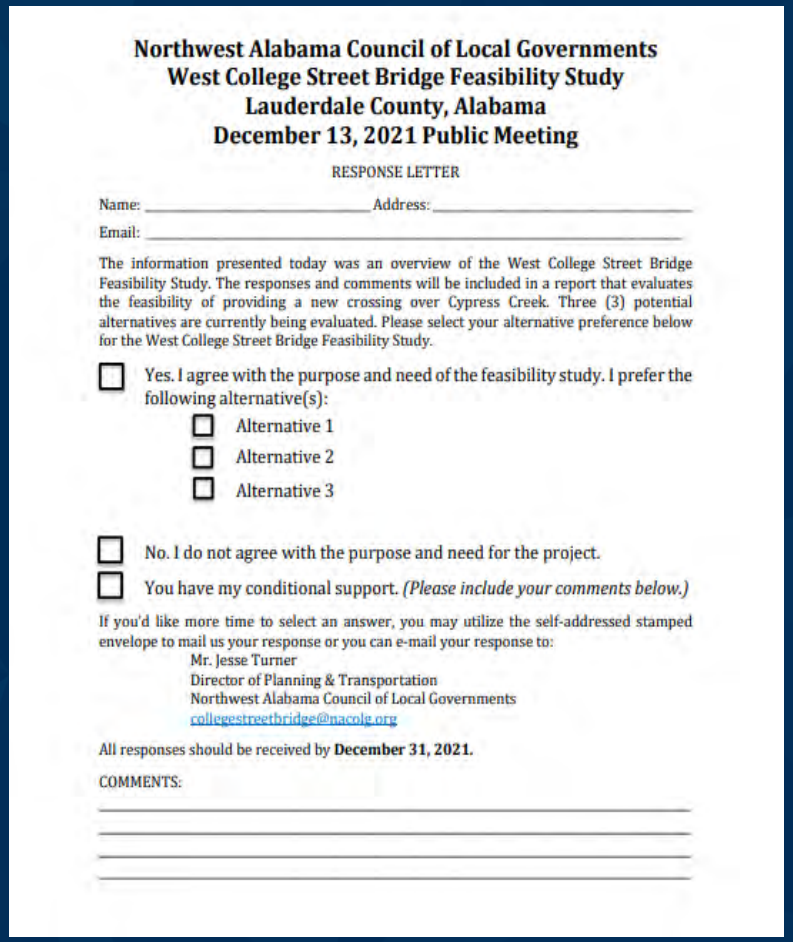
How To Submit Comments

Comments May Be Submitted By:

- Turning response form you received at the door in tonight.
- Verbally presenting your comment tonight.
- Mailing response form to NACOLG at:

  103 Student Drive

  Muscle Shoals, AL 35661
- Emailing response form in to collegestreetbridge@nacolg.org
- Link for comment forms and presentation: http://nacolg.org/s/Response-Form.pdf



Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: _____ Address: _____

Email: _____

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☐ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☐ Alternative 1
- ☐ Alternative 2
- ☐ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☐ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
collegestreetbridge@nacolg.org

All responses should be received by **December 31, 2021.**

COMMENTS:

_____
_____
_____
_____

Public comments should be submitted no later than December 31, 2021

VOLKERT

Questions & Discussion

VOLKERT


W COLLEGE ST
W IRVINE AVE
ALTERNATIVE 2
CYPRESS CREEK
CYPRESS CREEK
ALTERNATIVE 1
COFFEE RD
ALTERNATIVE 3
FLORENCE SPORTSPLEX
SAVANNAH HWY
GUNNALEFORD RD
WATERLOO RD

VOLKERT

Sign-In Sheets

"West College Street Bridge Study" Public Meeting

Monday, December 13, 2021 @ 5:30 PM

Sign-In Sheet

Name	Phone #	Address	Email
Doug Seagle	205-515-5642	1616 2nd Ave S. B'ham AL	doug.seagle@volkert.com
Jason Goldfinch	251-656-5258	1503B Captain O'Neal DR Daphne, AL	jason.goldfinch@volkert.com
Billy McDaniel	256-648-6032	1906 Holiday Dr.	
Phyllis McDaniel	256-648-6032	1906 Holiday Dr.	
Lorine Mitchell	256 762 0370	906 Welton Reynolds Cir	mitchellsbb@gmail.com
Dick Jordan	256-760-9995	Florence, AL	
Brian Morgan	256 765 4262	UNA Woodyard	BLMorgan1@una.edu
Ann Betterton	256-710-2129	Florence, AL	
Luke McDaniel	256 577-9633	134 Fayette Street	
Mercedes Flowers	2563453767	611 Cypress Trail Rd	Cypress Grove 3336
Anita Cobb	256 446 5202	1882 Shaw Rd.	Leighton, AL 35646
Katie Dunlap	256-767-1328	27 W. College St.	Florence, Ala. 35630
William Rouch, Sr	256-710-3038	460 N. Locust Street	Wlrouch1911@gmail.com
Mark Linder	256-412-9086	919 W College St.	inspireothers1@gmail.com
Joe Rubolin	856-625-2311	919 W. College St.	JoeRubolin@Gmail.com
Anthony Doxie	256 627 8963	115 Fox Five Dr.	Ford1Anthony@aol.com
Jacque' Osborne	256 810 5859	546 Riverview Dr	josborne@yahoo
Tom Osborne	256-810-5859	546 Riverview Dr.	Trosborne@una.edu
Phillip Minick			
Hayden Underwood	256-577-4808	921 W. College St	Jaybarbarus2@gmail
Reyna Campbell	256-740-8806	110 W. College St.	rcampbell@florenceal.org

"West College Street Bridge Study" Public Meeting

Monday, December 13, 2021 @ 5:30 PM

Sign-In Sheet

Name	Phone #	Address	Email
Jimmy Shaw	256-263-2149	120 Stoneycreek Dr.	
Blake Edwards	256-762-8419	149 Patsy Dr	
Glenn Austin	256-740-9163	2205 Chickasaw Dr.	
TROY GROSSHEIM	256 443 2773	32547 Co. Rd. 8	
Kayla Sloan	2567107427	543 W. Alabama St.	Kaylabrann@gmail.com
Billy Simpson	256-335-5705	755 W. Alabama St	
Natalie Gordon	256-766-6868	809 W. Irvine Ave	Nataliegordon2019@comcast.net
JD McCorkle	615-864-7290	624 Howell St	jdmccorkle@gmail.com
Bill Batson	256-248-5160	281 OXFORD DR.	bbatson@florenceal.org
MARK BEUMER	256-810-0844	1137 Sorrento Rd.	mark.e.beumer@outlook.com
Terry Randall	256-349-3284	321 N Cedar St	
Ben Smith	256-740-8806	110 W College St.	bensmith@florenceal.org
Vicky Kirkman	256-263-9319	1006 Clearwater Dr.	VKirkman07@gmail.com
John Wiwig	256 856-3817	333 Lindenberg Ave	Johnwiw@comcast.net
Rejetta Pole			rejettazann@gmail
Bridgett [illegible]	(256) 275-[illegible]	[illegible]	
Trina Williams	256 658-3410	1111 Clearwater Dr	trinawilliams1958@icloud.com
[illegible]			coronaverels@gmail
Ashley Brown	631-605-1885	902 Olive St	mrsashleynbrown@gmail
Bennie Johnson	2567109200	4022 Peachtree St Florence AL	bjohnson@florenceal.org
TERRY WELLS		FLORENCE	
Rachel Koonce	2566270970	Florence	rmansell@florenceal.org

"West College Street Bridge Study" Public Meeting

Monday, December 13, 2021 @ 5:30 PM

Sign-In Sheet

Name	Phone #	Address	Email
Jimmy Oliver	256 710-3318	818 Sixth Ct Flo	jfo1010@yahoo
Kaytrina Simmons	District - 1	Council Member	
Joey Holt	256-389-0517	103 Student Drive	JHolt@nacolg.org
Jesse Turner	256-389-0513	103 Student Drive	JTurner@nacolg.org
Ryan Hayes	256-389-0514	103 Student Drive	rhayes@nacolg.org
Melissa Bailey	256-740-8846	110 W. College St. Ste 115	mbailey@florenceal.org
Michelle Evans	256.606.2033		
Macee Evans	256.702.7467		
Keith Jones	357-412-7431	204 Chestnut Oak Dr Florence, AL 35633	KJones@nacolg.org
Michael Thompson	256-394-5300	1125 w mobile st	Thompsonmichael1449@gmail.com
Abraham Rose	2566276480	901 Sherrod	aberose72@gmail.com
Dennis Doris	256-412-4613	1219 W Mobile ST	
Quinton Ramsey	256.627-4430	926 W. College	msworthy59@gmail.com
Dave M. Smith	256-710-9057	424 w. Tuscaloosa st	Lakimorepd@gmail.com
Deborah Martin	256-366-3011	538 W. College St	
Richard Busbee	256-577-5138	1025 Park St.	Beardedoutdoorsa@gmail.com
CLINT BAKER		358 Columbus Ave	
Evelyn Lewis	256 366 0217	109 College Terr	Evie0565@gmail.com
Malcolm Cole	256-766-3522	901 W. College St.	bunyonsbbq@outlook.com

Responses Received from the Public

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: Katrina P. Simmons Address: 402 West Tennessee St. Flor - District 1

Email: KSimmons@florenceal.org

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☑ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☒ Alternative 1
- ☐ Alternative 2
- ☐ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☐ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS:

This Would Change the Community + City - to open Up this Corridor - & the West College Street Bridge - It Will # Bring Growth + Development
Its Been Need + Wanted for 30 plus years.

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: Billy Simpson Address: 755 W. Alabama St

Email: _____

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☒ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☒ ~~Alternative 1~~
- ☒ ~~Alternative 2~~
- ☐ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☒ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS: It's needed

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: Gilbert W. Hooks Address: 413 N. Locust St. Flo. Al. 35630

Email: _____

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☐ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☑ Alternative 1
- ☐ Alternative 2
- ☐ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☑ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS:

This infrastructure (Bridge) is way over due. The benefits are going to be immeasureable.
• Save time by not having to go so far around town.

Betty M Hawks 182

- Because the Sport Complex is on Gunaford Road and not being used much, if the Bridge is there it would be more purposeful

- UNA and all the other schools could travel there in less time

- Save gas

- Many people still go to church that live in the City.

- people that live down Gunaford Road and into Smithsonia Will also save time and gas by having access to the Bridge

- Visualize subdivision being built down Gunaford Road.

- From a Recreation perspective Gunaford Road Without Making a turn will carry you all the way to Bison Bat Beach, One Bright town We're at the Beautiful Natchez Trace

- Florence Roads to go Westward expand and Not be Boxed in The Bridge Will be a Bonanza

Bonanza

Betty M. Hooks 202

- Bring More Businesses to West Florence
- More Taxes for Schools City
- Uplift the Morale of Property Owners
- Encourage others to invest, and Reinvest in home ownership
- West Florence Beautification
- Some May Not See the Bridge as being Relevant With these things. But I do, to me it's a Matter of long Term Vision

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: Anita Smith Cobb Address: 1882 Shaw Rd. Leighton, AL

Email: brmoweme@gmail.com

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☒ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☒ Alternative 1
- ☐ Alternative 2
- ☐ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☒ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS:

It's reasonable to develop the vacant land (both on the north and south) for business / small factories that will create jobs. this area can be used for hotels, resturants etc to accomodate visitors to the sportsplex as well as from the westside which presently has no gas stations, inadequate grocery stores and no established/chain fast food resturant.

6

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: Joe Rubolino Address: 919 West College Street

Email: Joesubolino@Gmail.com

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☒ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☒ Alternative 1
- ☐ Alternative 2
- ☐ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☒ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS:

The Bridge is overdue, This portion of the City has been Choked OUT for Too long Build A 4 Lane to open This City up!

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: Dennis Doxie Address: 927 W. College ST

Email: Doxieboy2569@gmail.com

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

- [x] Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):
  - [x] Alternative 1
  - [ ] Alternative 2
  - [ ] Alternative 3

- [ ] No. I do not agree with the purpose and need for the project.
- [x] You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS:

_____

_____

_____

_____

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: Tom Osborne Address: 546 Riverview Drive

Email: trosborne@una.edu

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☑ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☑ Alternative 1
- ☐ Alternative 2
- ☐ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☐ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS: Alt 3 would not change the city of Florence nearly as much as Alt 1+2 That cross the creek from College St.

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: Vicky Kirkman Address: 1006 Clearwater Dr.

Email: VKirkman07@gmail.com

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☑ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☑ Alternative 1
- ☐ Alternative 2
- ☐ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☐ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS: I am in total agreement and strongly desire for this project to be implemented and completed to open up the right away for travel from West College back to Savannah Highway

* Prefer a 4 Lane Bridge (Roadway) for business and other opportunities

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: Jacqueline Osborne Address: 546 Riverview Dr. FL

Email: josborne@yahoo

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☒ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☒ Alternative 1
- ☐ Alternative 2
- ☐ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☒ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS: Four laning should be considered to accomodate Metaforad traffic when events are held there.

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: MARK LINDER Address: 919 W. College

Email: [redacted] inspireothers1@gmail.com

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☑ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☑ Alternative 1 - 4 LANE - SPEND THE EXTRA $3M
- ☐ Alternative 2
- ☐ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☐ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS:

This is vitally important for the health of [redacted] West Florence & therefore, important for the health of the city. Make it happen!

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: JD McCorkle Address: 624 Howell St

Email: jdmccorkle@gmail.com

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☑ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☑ Alternative 1
- ☐ Alternative 2
- ☐ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☐ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS:

Alt seems like the easiest, most affordable & most traffic for the area. I believe West Florence needs through traffic, but also could use some economic vitality planning as well as community efforts to secure grants for community neighbors to open businesses and afford the opportunities they could bring to the area

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: Richard Burdine Address: 1075 Park St

Email: Beardo Outdoors@GMAIL.com

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☑ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☐ Alternative 1
- ☐ Alternative 2
- ☑ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☐ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS:

_____

_____

_____

_____

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: Anthony Doxie Address: 115 Foxfire DR.

Email: FordTAnthony@aol.com

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

- [x] Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):
  - [x] Alternative 1
  - [ ] Alternative 2
  - [ ] Alternative 3

- [ ] No. I do not agree with the purpose and need for the project.
- [x] You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS:

Im for the Four lane bridge and for westmobile stuff to be connected to the new Bridge.

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: John Williams Address: 333 Lindenberg Ave

Email: Johnjwill@comcast.net

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☑ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☐ Alternative 1
- ☐ Alternative 2
- ☐ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☐ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS: The Bridge will be Instrumental for the Growth of West Florence.

Northwest Alabama Council of Local Governments
West College Street Bridge Feasibility Study
Lauderdale County, Alabama
December 13, 2021 Public Meeting

RESPONSE LETTER

Name: Lloyd Underwood Address: 921 W. College St

Email: Jaybarberws2@gmail.com

The information presented today was an overview of the West College Street Bridge Feasibility Study. The responses and comments will be included in a report that evaluates the feasibility of providing a new crossing over Cypress Creek. Three (3) potential alternatives are currently being evaluated. Please select your alternative preference below for the West College Street Bridge Feasibility Study.

☑ Yes. I agree with the purpose and need of the feasibility study. I prefer the following alternative(s):

- ☑ Alternative 1
- ☐ Alternative 2
- ☐ Alternative 3

☐ No. I do not agree with the purpose and need for the project.

☐ You have my conditional support. *(Please include your comments below.)*

If you'd like more time to select an answer, you may utilize the self-addressed stamped envelope to mail us your response or you can e-mail your response to:

Mr. Jesse Turner
Director of Planning & Transportation
Northwest Alabama Council of Local Governments
railstudy@nacolg.org

All responses should be received by **January 13, 2022.**

COMMENTS: I all for the four lane bridge!!

APPENDIX D

USFWS OFFICIAL SPECIES LIST

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Alabama Ecological Services Field Office
1208 B Main Street
Daphne, AL 36526-4419
Phone: (251) 441-5181 Fax: (251) 441-6222

In Reply Refer To: March 22, 2021
Consultation Code: 04EA1000-2021-SLI-0632
Event Code: 04EA1000-2021-E-01488
Project Name: College Street Bridge Feasibility Study

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. Please note that new information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

Note that due to the volume of emails received by our office, we cannot accept project consultation requests by email.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Also note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the process and consultation under the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

http://www.fws.gov/migratorybirds/pdf/management/usfwscommunicationtowerguidance.pdf

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

We can be reached at:

US Fish and Wildlife Service

1208 Main Street

Daphne, AL 36526

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Alabama Ecological Services Field Office
1208 B Main Street
Daphne, AL 36526-4419
(251) 441-5181

Project Summary

Consultation Code: 04EA1000-2021-SLI-0632
Event Code: 04EA1000-2021-E-01488
Project Name: College Street Bridge Feasibility Study
Project Type: TRANSPORTATION
Project Description: A current feasibility study is considering three alternatives of which one will be chosen. They are along W College Street from Dr. Hicks Boulevard to W Mobile Street connecting across Cypress Creek with Alabama State Highway 20 from County Road 14 (Waterloo Road) to Beverly Avenue in Florence, Alabama. The areas affected by this project include the Cities of Florence and Sheffield in Lauderdale County, Alabama. This project is located within the Shoals Metropolitan Area. The Shoals Area serves as a regional economic hub for Northwest Alabama, Southern Middle Tennessee, and Northeast Mississippi.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@34.79759145,-87.69062574400894,14z

Counties: Colbert and Lauderdale counties, Alabama

Endangered Species Act Species

There is a total of 15 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Gray Bat *Myotis grisescens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Fishes

NAME	STATUS
Alabama Cavefish *Speoplatyrhinus poulsoni* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/50	Endangered

Clams

NAME	STATUS
Dromedary Pearlymussel *Dromus dromas* Population: Wherever found; Except where listed as Experimental Populations No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6377	Endangered
Fanshell *Cyprogenia stegaria* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4822	Endangered
Orangefoot Pimpleback (pearlymussel) *Plethobasus cooperianus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1132	Endangered
Pink Mucket (pearlymussel) *Lampsilis abrupta* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7829	Endangered
Ring Pink (mussel) *Obovaria retusa* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4128	Endangered
Rough Pigtoe *Pleurobema plenum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6894	Endangered
Sheepnose Mussel *Plethobasus cyphyus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6903	Endangered
Snuffbox Mussel *Epioblasma triquetra* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4135	Endangered
Spectaclecase (mussel) *Cumberlandia monodonta* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7867	Endangered
White Wartyback (pearlymussel) *Plethobasus cicatricosus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2549	Endangered

Snails

NAME	STATUS
Slender Campeloma *Campeloma decampi* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7009	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

APPENDIX E

FHWA Planning and Environmental Linkage Questionnaire

Federal Highway Administration
Planning and Environmental Linkages Questionnaire

1. Background:
   a. Who is the sponsor of the PEL study? (state DOT, Local Agency, Other).
      - The Northwest Alabama Council of Local Governments (NACOLG) and the City of Florence

   b. What is the name of the PEL study document and other identifying project information (e.g. sub-account or STIP numbers, long-range plan, or transportation improvement program years)?
      - West College Street Bridge Feasibility Study

   c. Who was included on the study team (Name and title of agency representatives, consultants, etc.)?
      - NACOLG
      - City of Florence
      - Lauderdale County
      - Volkert, Inc.
      - Skipper Consulting, Inc.

   d. Provide a description of the existing transportation facility within the corridor, including project limits, modes, functional classification, number of lanes, shoulder width, access control and type of surrounding environment (urban vs. rural, residential vs. commercial, etc.)
      - A description of the existing transportation network in the study area is included in Section 2.1 Existing Conditions of the Feasibility Study.

   e. Provide a brief chronology of the planning activities (PEL study) including the year(s) the studies were completed.
      - Study initiated on February 2021. Traffic analysis, engineering and environmental studies were conducted between February 2021 and November 2021. A public involvement meeting was held for the project on December 13, 2021.

   f. Are there recent, current, or near future planning studies or projects in the vicinity? What is the relationship of this project to those studies/projects?
      - None.

2. Methodology used:
   - What was the scope of the PEL study and the reason for completing it?
     - The scope of this study was to evaluate the feasibility of constructing a new road and bridge crossing over the Cypress Creek that would connect areas west of Cypress Creek with the “West Florence” neighborhood and the central business district of downtown Florence.

   - Did you use NEPA-like language? Why or why not?
     - NEPA-like language was used where sufficient data is available and where applicable.

   - What were the actual terms used and how did you define them? (Provide examples or list)
     - Purpose and Need, Conceptual Build Alternatives, No Build Alternative, Ecology, Wetlands, Navigation, Socio-Economics, Floodplains, Floodways, Threatened and Endangered Species, Water Quality, Environmental Justice, Relocations, Hazardous Materials, Public Involvement. Each of these subjects are defined and discussed in the Feasibility Study. The

potential for impacts for each subject under the different conceptual alternative scenarios including the No Build Alternative were discussed.

- How do you see these terms being used in NEPA documents?
  - Topics included in this feasibility study will be sections or topics that will need to be addressed in the NEPA document

- What were the key steps and coordination points in the PEL decision-making process? Who were the decision-makers and who else participated in those key steps? For example, for the corridor vision, the decision was made by state DOT and the local agency, with buy-in from FHWA, the USACE, and USFWS and other resource/regulatory agencies.
  - Key steps in the coordination process for this feasibility study were the outreach meetings and a Public Involvement Meeting held in December 2021. The purpose of and the participant of these meetings are discussed in Section 5.0 Stakeholder and Public Outreach.

- How should the PEL information be presented in NEPA?
  - This feasibility will be used to develop the scope of the NEPA document. It is anticipated that this feasibility study will be referenced as a supporting document in the Purpose and Need statement.

3. Agency coordination:
   - Provide a synopsis of coordination with Federal, tribal, state and local environmental, regulatory and resource agencies. Describe their level of participation and how you coordinated with them.
     - No agency or Tribal coordination was conducted as part of this Feasibility Study. NACOLG, the City of Florence, the Alabama Department of Transportation (ALDOT), Lauderdale County, and the general public have been invited to participate with this study.

   - What transportation agencies (e.g. for adjacent jurisdictions) did you coordinate with or were involved during the PEL study?
     - NACOLG, the City of Florence, Lauderdale County, ALDOT.

   - What steps will need to be taken with each agency during NEPA scoping?
     - ALDOT. Meet to discuss proposed project and scope.
     - FHWA. Meet to discuss proposed project and scope.

4. Public coordination:
   - Provide a synopsis of your coordination efforts with the public and stakeholders.
     - A stakeholder and public involvement meeting was held on December 13, 2021. A summary of the meeting is included in Section 5 of the Feasibility Report.

5. Purpose and Need for the PEL study:
   - What was the scope of the PEL study and the reason for completing it?
     - The scope of this study was to evaluate the feasibility of constructing a new roadway and bridge crossing over Cypress Creek west of Florence. The need for the project is derived from the lack pedestrian and vehicular connectivity between community resources west of Cypress Creek and west Florence. The new facility would serve as a gateway into Florence from the west. The feasibility study evaluated three (3) conceptual build alternatives to improve the pedestrian and vehicular connectivity between the neighborhoods in west Florence and

community resources west of Cypress Creek. One (1) conceptual build alternative will be identified that will provide the greatest benefit for connectivity and traffic operations.

- Provide the purpose and need statement, or the corridor vision and transportation goals and objectives to realize that vision.
  - The purpose of the West College Street Bridge project is to provide a new roadway and bridge crossing over Cypress Creek west of Florence. The need for the project is derived from the lack pedestrian and vehicular connectivity between community resources west of Cypress Creek and west Florence. The new facility would serve as a gateway into Florence from the west. The lack of connectivity between the area west of Cypress Creek and downtown Florence is illustrated on Figure 1 in the Feasibility Study. The purpose and need are also included in Section 1.3.

- What steps will need to be taken during the NEPA process to make this a project-level purpose and need statement?
  - More detailed engineering and traffic analyses will be performed to make sure all deficiencies are accurately identified. Purpose and need may also be modified in response to input received from the public. Funding will also need to be identified.

2. Range of alternatives: Planning teams need to be cautious during the alternative screen process; alternative screening should focus on purpose and need/corridor vision, fatal flaw analysis, and possibly mode selection. This may help minimize problems during discussions with resource agencies. Alternatives that have fatal flaws or do not meet the purpose and need/corridor vision will not be considered reasonable alternatives, even if they reduce impacts to a particular resource. Detail the range of alternatives considered, screening criteria, and screening process, including:
   - What types of alternatives were looked at? (Provide a one or two sentence summary and reference document.)
     - Three (3) conceptual build alternatives and the no build alternative were evaluated. A discussion of the alternatives is included in Section 2.4 of the Feasibility Study.

   - How did you select the screening criteria and screening process?
     - The screening criteria were chosen with stakeholder input and through database research on known environmental resources in the study area.

   - For alternative(s) that were screened out, briefly summarize the reasons for eliminating the alternative(s). (During the initial screenings, this generally will focus on fatal flaws.)
     - None of the conceptual build alternatives were found to have flaws that eliminated them from potential consideration.

   - Which alternatives should be brought forward into NEPA and why?
     - Additional coordination with the sponsor is required to determine which, if any build alternatives should be carried forward.

   - Did the public, stakeholders, and agencies have an opportunity to comment during this process?
     - A stakeholder and public involvement meeting was held in December 2021. The meeting was well attended. Sixty-two (62) attendees signed the sign-in sheet. Stakeholders and the public were given an opportunity to comment on the project during the meeting. In addition, the attendees were encouraged to provide written comments on forms provided during the meeting. A summary of the meeting is included in Section 5 of the Feasibility Report. The comment forms received are also included Appendix C of the Feasibility Study.

- Were there unresolved issues with the public, stakeholders, and/or agencies?
  - Some comments were received regarding the conceptual typical section and requested that a four-lane roadway be constructed. The analysis conducted as part of the Feasibility Study suggested that the projected 2041 traffic volumes would not warrant a four-lane roadway. Should the project move forward, additional traffic analysis will be required to confirm the capacity.

3. Planning assumptions and analytical methods:
   - What is the forecast year used in the PEL study?
     - 2041

   - What method was used for forecasting traffic volumes?
     - Growth factors.

   - Are the planning assumptions and the corridor vision/purpose and need statement consistent with each other and with the long-range transportation plan? Are the assumptions still valid?
     - Should the project move forward, the projects consistency with transportation plans will be evaluated.

   - What were the future year policy and/or data assumptions used in the transportation planning process related to land use, economic development, transportation costs, and network expansion?
     - The past land use trends and the existing land use were evaluated as part of this Feasibility Study. The future potential for growth and redevelopment of Florence were also considered. Input from stakeholders and the public also provided information regarding the future land use, economic development, and transportation network expansion.

4. Environmental resources (wetlands, cultural, etc.) reviewed. For each resource or group of resources reviewed, provide the following:
   - In the PEL study, at what level of detail was the resource reviewed and what was the method of review?
     - Available databases and maps were reviewed for all resources. A field review was also conducted.

   - Is this resource present in the area and what is the existing environmental condition for this resource?
     - Several resources including but not limited to rivers, streams, wetlands, parks, churches, schools, floodplains, floodways and neighborhoods are located in the study area. The resources within the study area are discussed in Section 3.

   - What are the issues that need to be considered during NEPA, including potential resource impacts and potential mitigation requirements (if known)?
     - Issues that would need to be addressed in NEPA include:
       1. Impacts to the Florence Sportsplex,
       2. Impacts to Environmental Justice Communities,
       3. Impacts to streams and wetlands,
       4. Impacts to water quality,
       5. Impacts to floodplains and floodways,
       6. Impacts to threatened and endangered species,
       7. Impacts to potential hazardous materials sites.

- How will the planning data provided need to be supplemented during NEPA?
  - More alternative-specific impact analyses.

5. List environmental resources you are aware of that were not reviewed in the PEL study and why. Indicate whether or not they will need to be reviewed in NEPA and explain why.
    - Cultural Resources – Archaeology. To evaluate potential impacts to unknown archaeological sites.
    - Noise – to evaluate noise impacts.
    - Air – to evaluate air impacts.
    - Threatened and Endangered Species – to evaluate whether they are present.
    - Wetlands, Streams – to confirm the limits of these resources relative to the alternatives.

6. Were cumulative impacts considered in the PEL study? If yes, provide the information or reference where the analysis can be found.
    - No. ICI will be addressed in NEPA.

7. Describe any mitigation strategies discussed at the planning level that should be analyzed during NEPA.
    - Erosion and storm water management. Context sensitive design to minimize impacts.

8. What needs to be done during NEPA to make information from the PEL study available to the agencies and the public? Are there PEL study products which can be used or provided to agencies or the public during the NEPA scoping process?
    - This feasibility study was limited in scope and was developed with limited information. The objective of this study was to provide decision-makers with useful conceptual-level information. The sponsor of this study will decide the distribution of this feasibility study.

9. Are there any other issues a future project team should be aware of?
    - Examples: Controversy, utility problems, access or ROW issues, encroachments into ROW, problematic land owners and/or groups, contact information for stakeholders, special or unique resources in the area, etc.
      - None other than the issues identified and discussed in the Feasibility Study.