

LAND USE AND TRANSPORTATION STUDY: EAST LAPLACE: SUB-AREA ANALYSIS STAGE "0" FEASIBILITY STUDY FINAL REPORT OUTLINE



PREPARED FOR:



PREPARED BY:



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RPC CONTRACT NO. A-2.17SJ: FY-17 UPWP
DDG PROJECT NO. 16-516

PREPARED FOR:



REGIONAL PLANNING COMMISSION
FOR JEFFERSON, ORLEANS, PLAQUEMINES, ST.
BERNARD, ST. JOHN THE BAPTIST, ST. CHARLES, ST.
TAMMANY AND TANGIPAHOA PARISHES



**LOUISIANA DEPARTMENT OF
TRANSPORTATION AND DEVELOPMENT**
DISTRICT 62 OFFICE



ST. JOHN THE BAPTIST PARISH
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EXECUTIVE SUMMARY

A comprehensive Stage “0” Feasibility Study was conducted to review existing land use and transportation conditions along the main street corridor that is central to LaPlace, Louisiana in St. John the Baptist Parish. The study area is bounded by Airline Highway (US 61) to the north, Walnut Street to the east, Main Street (LA 44)/Spruce Street/Redbud Street to the west, and the Mississippi River Levee to the south. The purpose of this study is to provide a conceptual plan with recommendations for new or improved pedestrian network that connects the neighborhoods to Main Street, focusing on safety and ADA accessibility. These recommendations also support measures to improve citizens’ quality of life by capitalizing upon recreation and economic development opportunities in the study area

The Study recommendations were guided by a Project management Committee that included Representatives from the Parish DOTD and the RPC. The PMC was extended to include an extensive list of stakeholders and community leaders as determined by the Parish. The Preferred alternative is the result of this planning process. Study alternatives are discussed below.

MAIN STREET AS “COMMON GROUND”

Main Street is a civic center in LaPlace and recommendations aim to provide this space with a renewed identity. As the result of a previous study, a future Transit Center is being proposed within the vicinity of Main Street and Airline Highway where people can board a commuter rail line that travels from Baton Rouge to New Orleans. Combined with these future improvements, an attractive and active urban environment will invite people to the area which will in turn contribute to the growth and success of the City and Parish. The revitalization and reconfiguration of Main Street is proposed to be the first phase of development to the ultimate revitalization goal where the overall street character will be improved upon in the future. Once Main Street has been restructured to include an accessible pedestrian walk and cycle track then the Main Street to River Pedestrian/Bike Corridor can be picked up and connected to the Mississippi River Trail (MRT). For these reasons, each proposed alternative incorporates a Main Street component.

The recommended reconfiguration is illustrated on Figure 14 and consists of the following elements:

East Side of Main Street

- Create Parallel Parking on shoulder to serve businesses.
- Add curb and gutter for drainage and separation of pedestrian/vehicular use.
- Establish an 8-foot wide sidewalk for pedestrian use.
- Create “bump-outs” at intersections to reduce pedestrian crossing distance.

West Side of Main Street

- Establish a 3-foot wide buffer along street edge and shoulder for separation.
- Create 8-foot wide, 2-Way Separated Bike Lanes on shoulder for bicycle use.
- Add curb and gutter for drainage and separation of pedestrian/bicycle use.
- Establish a 5-foot wide sidewalk for pedestrian use.
- Create “bump-outs” at intersections to reduce pedestrian crossing & bicycle safety.

The estimated budget for this element of the project is \$ 981,000

See Section 5.0 Preliminary Cost Estimates for itemized list.

PROPOSED ALTERNATIVES FOR A BIKE CONNECTION FROM MAIN STREET TO THE RIVER

Three alternatives were developed in collaboration with members of the PMC, which are illustrated in Section 4.3 “Main to River Connection” and were initially identified and studied for consideration as identified below and illustrated on Figure 17. Main Street is the preferred connection from Airline Highway (US 61) to East 5th Street (LA 44) and due to the downtown character and central focus of the community it was present in all proposed alternatives. To determine the most appropriate path, each alternative explored distinctive corridors (neighborhood, local connectors, and state highway) that connect Main Street to the Mississippi River Trail. Upon review and analysis, a number of challenges were identified, including: conflicts, safety issues, obscure or indirect routing, and undesirable views. To ensure the recommended alternative was both desirable for the community and feasible for the Parish, the team explored beyond the study area to isolate a more preferred alternative that presented less issues.

ALTERNATIVE 1: SPRUCE / REDWOOD STREET	Estimated Cost \$722,300
ALTERNATIVE 2: CARDINAL STREET	Estimated Cost \$1,086,000
ALTERNATIVE 3: EAST 5 TH STREET	Estimated Cost \$2,136,000

PREFERRED ALTERNATIVE - MAIN TO RIVER CONNECTION

Emily Watkins Parish Park, located at the end of the adjacent Redbud Street, provides a unique opportunity to create a destination trail head with a direct connection to the Mississippi River Trail and a link to LaPlace. This opportunity may be possible due to the presence of existing parish owned property adjacent to the park which happens to be St. John the Baptist Parish School Board property and an undeveloped Redbud Street ROW that runs to Captain G. Bourgeois Street. This route will also provide a safer, continuous and clear path for a multi-modal trail directly to the proposed trail head at Emily Watkins Park. This trail head will provide a destination for families to park and will have accessibility to pavilions, bathrooms and water. Most importantly, it will provide a direct connection to Main Street and the nearby future Transit Center.

This preferred route reduces interaction with higher volume streets and driveways, creates a trail head that can become a destination, and lowers the cost. Because this route contains a narrow railroad crossing with steep gradients it will require some attention to ensure safe crossing. To provide context, site conditions within and around the study area have created an environment where this is a feature that must be addressed in each alternative route explored by the PMC.

In conclusion, the Team finds that this Preferred Alternative has the least conflict points and provides the safest route for multi-modal users from Main Street to the MRT.

The proposed route is as follows:

MAIN STREET / WEST 5TH STREET ROUNDABOUT TO SPRUCE STREET (Fig. 22),
SPRUCE STREET TO CAPTAIN BOURGEOIS STREET AND EMILY WATKINS PARK (Fig. 23),
EMILY WATKINS PARK AT REDBUD STREET TO THE MISSISSIPPI RIVER LEVEE TRAIL (Fig. 24)

The estimated construction budget for this element of the project is **\$1,395,500**
See Section 5.0 Preliminary Cost Estimates for itemized list.

CONNECTING NEIGHBORHOODS TO MAIN STREET

Improving the connectivity of the neighboring residential area to a newly revitalized Main Street and Pedestrian/Bike Corridor to the River supports and maintains existing and future development of this area. Providing safe and accessible sidewalks with appropriate transitions and connections to this Corridor will aid in expanding the area economically. For example, improving connections may support future cultural or entertainment events organized by the City and/or nonprofits. It is also imperative that a direct connection between the proposed Transit Center and Main Street become a top priority.

Sidewalks are recommended on major connector streets to unite the area. (Fig. 16) These improvements bring connectivity to Main Street, the Future Transit Center, and the Pedestrian/Bike Corridor and are proposed along East and West 5th Street, W. 3rd Street, W. 2nd Street, Cardinal Street, Milton Street, Martin Drive, Dove Street and Robin Street.

THE FOLLOWING COMPONENTS ARE NECESSARY FOR A SUCCESSFUL WALKABLE COMMUNITY:

- Minimum 5-foot wide sidewalks.
- Accessible routes.
- Pedestrian crossings at appropriate intersections.
- Minimize street crossing distances.
- Employ traffic calming techniques where appropriate such as bulb outs.

Because the cost to implement sidewalks on residential streets may inflate quickly, sidewalk improvements are prioritized below to accommodate phasing.

Priority 1: 5th Street & Cardinal:	\$ 418,800.00
Priority 2: Milton & Martin Drives:	\$ 212,000.00
Priority 3: Dove & Robin Streets:	\$ 186,400.00
Priority 4: West 3rd Street:	\$ 48,500.00
Priority 5: Walnut Street:	\$ 196,800.00
Priority 6: Airline Highway:	\$ 193,200.00
Priority 7: 5th Street & Cardinal:	\$ 418,800.00
Priority 8: Milton & Martin Drives:	\$ 212,000.00
Priority 9: Dove & Robin Streets:	\$ 186,400.00
Priority 10: West 3rd Street:	\$ 48,500.00
Priority 11: Walnut Street:	\$ 196,800.00
TOTAL SIDEWALK BUDGET NEEDED:	\$ 2,318,200.00

Included with the conceptual layout are quantities and unit cost estimates for each element of the design plan of the Main Street as “Common Ground”, Preferred Alternative – Main to River Connection, Connecting Neighborhoods to Main Street, future project design costs and alternatives, recommended project phasing, and potential funding sources for project advancement.

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	STUDY AREA	1
1.2	PURPOSE AND NEED	3
1.3	PROJECT MANAGEMENT COMMITTEE PLANNING PROCESS	4
2.0	REVIEW OF EXISTING CONDITIONS	5
2.1	FUTURE PROJECTS AND PAST STUDIES IN THE AREA	5
2.3	LAND USE	7
2.4	UTILITIES	12
2.5	SIGNAGE	14
2.6	STREETS	15
2.7	DRIVEWAYS	24
2.8	PARKING	26
2.9	SIDEWALKS	27
2.10	DRAINAGE	30
2.11	DEMOGRAPHICS	32
2.12	TRAFFIC DATA	33
2.13	CRASH DATA	34
3.0	CONCEPT DEVELOPMENT	35
3.1	PEDESTRIAN AND BICYCLE FACILITY DESIGN GUIDELINES	35
3.2	ROADWAY DESIGN GUIDELINES	36
3.3	COMPLETE STREETS DESIGN CRITERIA	37
3.4	OPPORTUNITIES AND CONSTRAINTS	38
4.0	DESIGN DEVELOPMENT	40
4.1	MAIN STREET AS “COMMON GROUND”	41
4.2	MAIN TO RIVER CONNECTION	38
4.3	PREFERRED DESIGN ALTERNATIVE	41
4.4	CONNECTING NEIGHBORHOODS TO MAIN STREET	47
5.0	PRELIMINARY COST ESTIMATES	48
	COST ESTIMATE OF PREFERRED ALTERNATE	48
	CONNECTING NEIGHBORHOODS – COST ESTIMATE PRIORITIZED BY STREETS	49
	COST ESTIMATE OF PROPOSED ALTERNATES	51
6.0	NEXT STEPS & RECOMMENDATIONS	52
6.1	POTENTIAL PROJECT FUNDING	52

7.0	APPENDICES	54
	APPENDIX A - MEETING DOCUMENTS	54
	<ul style="list-style-type: none"> • KICK-OFF MEETING, JANUARY 23, 2017 • MEETING #1 MINUTES, MARCH 15, 2017 • MEETING #2 MINUTES, APRIL 12, 2017 • MEETING #3 MINUTES, MAY 10, 2017 	
	APPENDIX B - DATA COLLECTION	55
	<ul style="list-style-type: none"> • DAILY VEHICULAR VOLUME REPORTS – (DOTD) • LA44 & LA 628 ROUNDABOUT REPORT – (DOTD) • CRASH TYPE AND SEVERITY DATA – (RPC) 	
	APPENDIX C - RESEARCH AND PRECEDENTS	56
	<ul style="list-style-type: none"> • MAIN STREET REVITALIZATION MOCKUP 4.13.16 (MOFFATT AND NICHOL) • PLANTATION COUNTRY AREA BIKE MAP (LADOTD) • 2012 LOUISIANA STATE MAINTAINED HIGHWAY SYSTEM MAP (LADOTD) • DISTRICT 62 OFFICIAL CONTROL SECTION MAP (DOTD) • LOUISIANA RAILWAY MAP (DOTD) 	
	APPENDIX D - STANDARDS AND REFERENCES	57
	<ul style="list-style-type: none"> • EDSM NO. II.2.1.10 REQUIREMENTS FOR CONSTRUCTION OF PEDESTRIAN SIDEWALK FACILITIES (DOTD) • EDSM NO. II.2.1.14 BICYCLE AND PEDESTRIAN FACILITIES (DOTD) • MINIMUM ROADWAY DESIGN GUIDELINES 3-16-17 (DOTD) • ST. JOHN THE BAPTIST PARISH, LOUISIANA DRAFT COMPLETE STREETS ORDINANCE – 7-27-16 • COMPLETE STREETS POLICY – REVISED 4/19/16 (LADOTD) • ROUNDABOUT SIDEWALK POLICY CHANGES 3-28-17 (LADOTD) 	
	APPENDIX E – CHECKLISTS	58
	<ul style="list-style-type: none"> • ENVORONMENTAL CHECKLIST • PRELIMINARY SCOPE AND BUDGET CHECKLIST 	

LIST OF FIGURES

FIGURE	TITLE	TYPE	SECTION
1	Study Area	Map	1.2
2	Land Use	Map	2.2
3	Utilities	Map	2.3
4	Signage	Map	2.4
5	Roadway Functional Classification	Map	2.5
6	Streets	Map	2.5
7	Driveways	Map	2.6
8	Parking	Map	2.7
9	Sidewalks	Map	2.8
10	Demographics	Map	2.10
11	Vehicle Traffic Volumes	Map	2.11
12	Crash Types	Map	2.12
13	Crash Severity	Map	2.12
14	Preferred Alternative: Main Street Intervention – Section/Plan	Section	4.1
15	Preferred Alternative: Main Street Intervention – Cycle Tracks	Image	4.1
16	Bike Path Route Options – Alternatives 1-3	Map	4.2
17	Alternative 1: Redwood Street - Sections	Section	4.2
18	Alternative 2: Cardinal Street - Sections	Section	4.2
19	Alternative 3: East 5 th Street - Sections	Section	4.2
20	Opportunities and Constraints	Map	4.3
21	Preferred Alternative: Bicycle and Pedestrian Options	Map	4.2
22	Preferred Alternative: Main Street 1	Map	4.2
23	Preferred Alternative: Main Street 2	Map	4.2
24	Preferred Alternative: Main Street at Roundabout to Spruce Street	Map	4.3
25	Preferred Alternative: Spruce Street - Sections	Section	4.3
26	Preferred Alternative: Captain G. Bourgeois Street	Map	4.3
27	Preferred Alternative: Captain G. Bourgeois Street Sections	Section	4.3
28	Preferred Alternative: Captain G. Bourgeois-Emily C. Watkins Park	Map	4.3
29	Preferred Alternative: Undeveloped Redbud Right-of-Way	Section	4.3
30	Preferred Alternative: Redbud Street to Mississippi River Trail	Map	4.3
31	Preferred Alternative: Redbud Street - Sections	Section	4.3
32	Preferred Pedestrian Network	Map	4.4

LIST OF IMAGES

IMAGE	TITLE	TYPE	SECTION
1	Vicinity Map	Map	1.1
2	Study Area	Map	1.1
3	Redwood Street	Image	2.2
4	Main Street	Image	2.2
5	Spruce Street Railroad Crossing	Image	2.2
6	Cardinal Street Railroad Crossing	Image	2.2
7	Rising Star Baptist Church on Cardinal Street	Image	2.2
8	Destiny Christian Center on Main Street	Image	2.2
9	Multi-Family Housing on Sugar Pine Street	Image	2.2
10	Industrial Area Adjacent to Railroad at W.5 th /Main Street	Image	2.2
11	Main Street	Image	2.3
12	E. 5 th Street	Image	2.3
13	Cardinal Street/Dove Street	Image	2.4
14	Main Street	Image	2.5
15	Main Street/5 th Street	Image	2.5
16	Main Street/5 th Street	Image	2.5
17	Spruce Street/5 th Street	Image	2.5
18	Spruce Street at Railroad	Image	2.5
19	Airline Highway	Image	2.5
20	Redbud Street	Image	2.5
21	Redbud Street	Image	2.5
22	Robin Street	Image	2.5
23	Satsuma Street	Image	2.5
24	Dove Street	Image	2.5
25	Cardinal Street	Image	2.5
26	W. 3 rd Street	Image	2.5
27	W. 2 nd Street	Image	2.5
28	E. 5 th Street	Image	2.5
29	Captain G. Bourgeois Street	Image	2.6
30	Redwood Street	Image	2.6
31	Walnut Street	Image	2.6
32	Main Street	Image	2.7
33	W. 5 th Street	Image	2.8
34	W. 5 th Street	Image	2.8
35	Walnut Street	Image	2.8
36	W. 5 th Street	Image	2.8
37	W. 5 th Street	Image	2.8
38	Cardinal Street	Image	2.9
39	Dove Street	Image	2.9
40	Cardinal Street	Image	2.9
41	W. 2 nd Street	Image	4.3

1.0 INTRODUCTION

1.1 STUDY AREA

Within St. John the Baptist Parish, the study area is located in the City of LaPlace, Louisiana. The site is bounded by US 61 on the North, Walnut Street to the East, Main Street (LA 44)/Spruce Street/Redwood Street to the West, and the Mississippi River Levee to the South. Located along two rail lines, the focus of the study area is Main Street which will have direct access to the proposed Transit Center where people can board a commuter rail line that travels from Baton Rouge to New Orleans. Even though this project will likely take years to become a reality, it is necessary to accommodate this future element that have a significant impact on bringing people to and through the study area should the project be implemented. This Transit Center would be well located near the majority of the Parish population and would bring significant opportunities for new development within walking/biking distance to the center. A Vicinity Map is provided in Figure 1 to provide context within the larger metropolitan area.

In terms of connectivity to adjacent communities, the study area is convenient to Interstate 10 and adjacent to US 61 and the Mississippi River Trail (MRT). According to LADOTD's Bicycle and Pedestrian Program, the existing MRT "is a 3,000 mile long network of highways and trails along the Mississippi River from its headwaters in Itasca, Minnesota to the Gulf of Mexico. Between Baton Rouge and New Orleans, 45 miles of shared use levee-top trails are complete." Like other river towns, LaPlace has an opportunity to redevelop their waterfront with public spaces so that residents and visitors can enjoy and experience the character of the area.

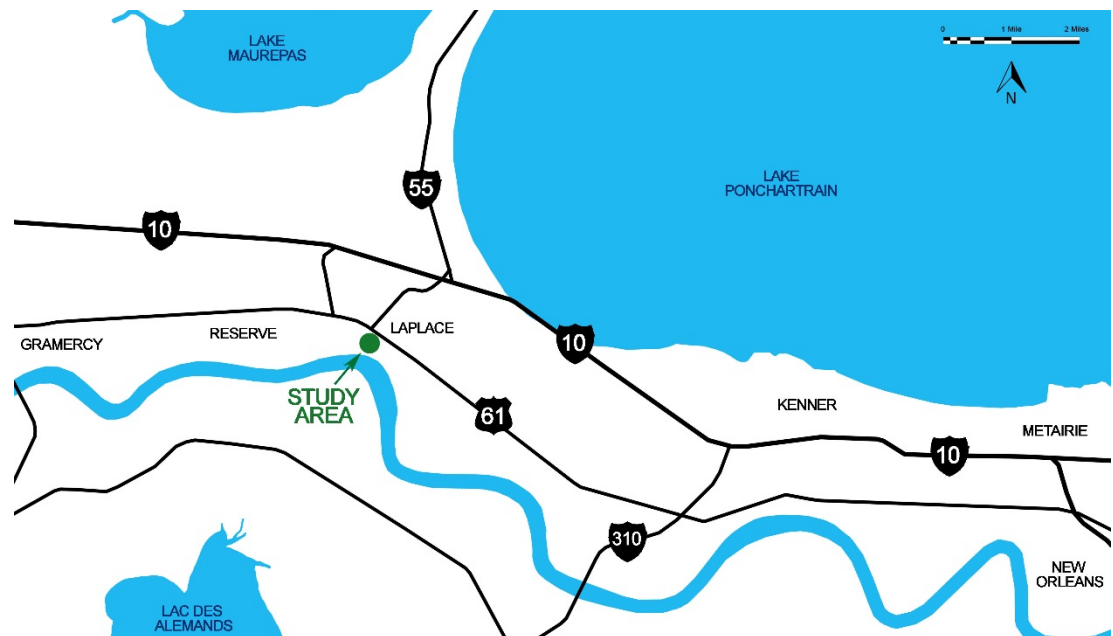


Image 1 – Vicinity Map

Photo Credit: Google Maps 10/20/16

After reviewing the constraints of the first three Alternatives connecting Main Street to the river, the study area was expanded to accommodate a 4th alternative that encompasses Redbud Street, Emily Watkins Parish Park and the adjacent St. John the Baptist School Board property located West of Redwood Street. Both the original (red) and expanded (green) study area boundaries are shown highlighted in the image below”

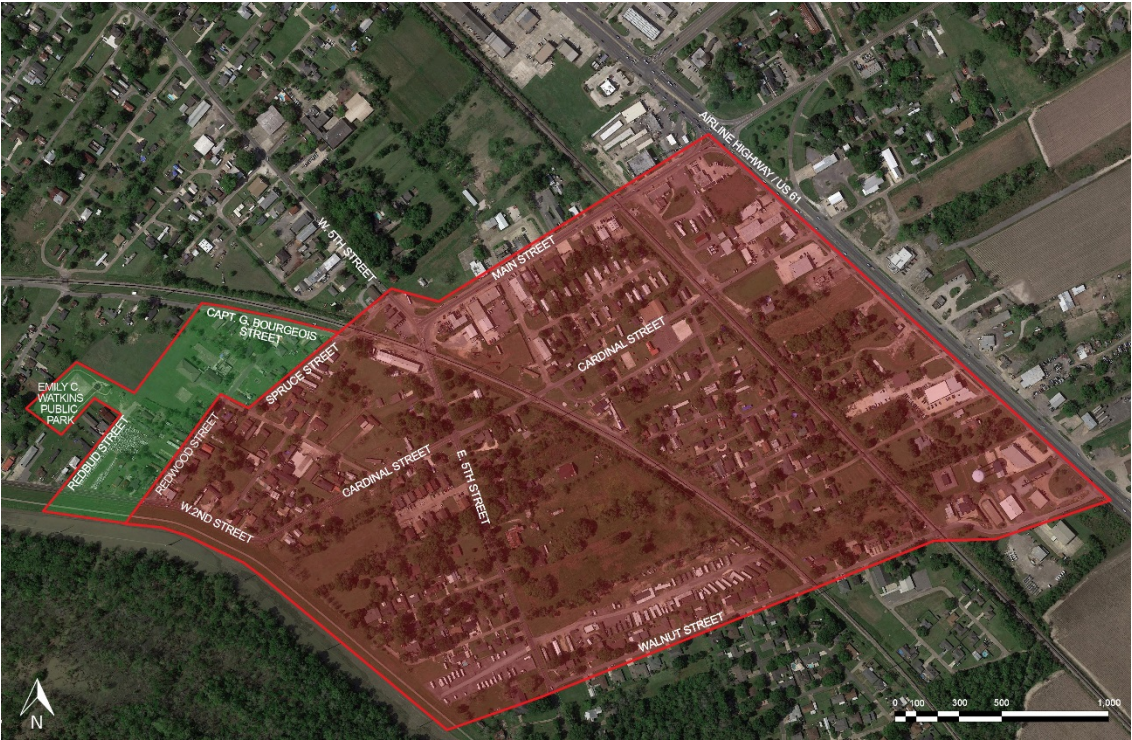


Image 2 – Study Area

Photo Credit: Google Maps 4/6/16

1.2 PURPOSE AND NEED

The purpose of this study is to enhance safety as the primary purpose, followed by the need to address roadway deficiencies, provide system linkage, and increase modal interrelationships within the Main Street area of Laplace to the Mississippi River Trail. This study will review land use and transportation existing conditions and recommend bike and pedestrian improvements that will enhance the safety accessibility and mobility of these facilities to the local community. Currently, the Main Street area is unsafe and inaccessible to bicyclists and pedestrians.

Main Street is the most significant commercial thoroughfare within the study area, handling traffic generated from US HWY 61, I-10, River Road and adjacent neighborhoods. Main Street has the opportunity to become a destination and City Center for the community. In its present condition, this corridor operates as a minor commercial thoroughfare for river road truck and neighborhood access.

Within the study area, there are seven railroad crossings which make connectivity and safety problematic for all users. Creating a safe and visible transition over these rail lines will provide much needed neighborhood multi-modal connectivity, a route for access to the Mississippi Levee Trail (MRT), and community revitalization.

Furthermore, street rights-of-way are limited due to the age and historic character of the surrounding neighborhood. Travel lanes are narrow with adjacent parking and minimal sidewalks. Land use changes and economic growth have been contributing to increased vehicle congestion and a demand for increased transportation options, i.e., bikeways, new sidewalks, ADA access improvements to schools and recreational areas and public facilities, and low cost traffic management measures such as parking and signage controls.

1.3 PROJECT MANAGEMENT COMMITTEE PLANNING PROCESS

This study was guided by a Project Management Committee (PMC) to ensure the consultant team fulfilled the tasks outlined in the scope of the work. The PMC to included representatives from St. John the Baptist Parish and LADOTD District 62 and the Regional Planning Commission. The PMC also included a list of stakeholders and community leaders determined by the Parish. Many of these individuals participated in Complete Streets Workshops held in 2015 and 2016 and expressed enthusiasm for projects that support the transportation of all users.

Throughout the timeline of the study, the PMC met to review and comment on study findings and recommendations. The preferred alternative presented in this study is the result of this effort. Not all stakeholders who were invited to the meetings were in attendance; however, all stakeholder and PMC members had the opportunity to comment on meeting minutes and the draft report. All meeting minutes and materials can be found in Appendix A.

This study includes a review of previous studies relevant to the study area and scope of work, existing conditions based on data collected within the study area, design guidelines and criteria, and design alternatives and cost estimates etc. This report includes typical sections that identify measures to enhance motor vehicle, bicycle and pedestrian safety and operations. This measure includes roadway and geometric improvements, parking modifications, crosswalks, pedestrian signals, signage, lighting and other potential Complete Streets measures to reduce traffic conflicts and enhance multi-modal safety. Additionally, the report identifies potential utilities, environmental constraints and other issues that could influence the concept's feasibility, timing, and impact on the physical, natural and human environment.

2.0 REVIEW OF EXISTING CONDITIONS

This section will discuss the following: previous studies within the study area, current land use and zoning, utility types and locations, drainage issues, the type and location of signs, street class and corresponding right of way, parking type and location, sidewalk type and location, demographics, ADT, crash type and severity. Field Visits were conducted to document the existing conditions of the area with photography, confirm the right-of-way with on site measurements, site observation and analysis, and record relevant site elements. USI conducted Twenty-Four Hour Bi-Directional Volume Counts as well as a Conflict Point and Sight Distance Analysis. In addition, the following studies were reviewed and taken into consideration as a means to inform design recommendations.

2.1 FUTURE PROJECTS AND PAST STUDIES IN THE AREA

LA 44/West 5TH STREET DOTD ROUNDABOUT: A roundabout study was conducted by LADOTD in November 2015 for the intersection of Main St at LA 44/ 5th Street. The study included traffic data collected in 2012. Although LADOTD has approved the project concept for a roundabout, the project has not been funded and a Stage “0” Report is necessary prior to LADOTD including the project within the funding process. The approved preliminary design of the roundabout was implemented into the design and used to determine routes necessary for the multi-modal transportation routes through this intersection. This DOTD Roundabout Study is included in Appendix B.

US HWY 61 STREETSCAPES IMPROVEMENT PROJECT: This project is referred to as the “Streetscape Plan”, produced by Mathes Brierre Architects and ITS Regional, LLC in coordination with RPC. This report focused on design recommendations to enhance the walking and bicycling experience while beautifying the 1.3 mile West Airline Highway Corridor from Belle Terre Boulevard to Main Street. According to the Stage “0” Report, the objective was “to determine the feasibility of altering the existing roadway geometry to enhance pedestrian and cyclist experience, to beautify and improve West Airline Highway as an urban corridor destination.” The study area terminates at US highway 51 and Main Street. This study followed the same Project Management Committee process as the East LaPlace Land Use and Transportation Feasibility Study.

The Streetscape Plan provided the team a means of connecting the Main Street to the proposed enhanced pedestrian and cyclist recommendations identified in this streetscapes improvement project.

COMPLETE STREETS ORDINANCE: A draft ordinance amending St. John the Baptist Parish Code of Ordinances to create Chapter 114 – Comprehensive Plan, of Subpart B – Land Development Regulations has been completed and is estimated to go before the Parish Council for action before year end 2018. According to the proposed ordinance, it will “authorize a Complete Streets program that provides guiding principles and practices; requires that all transportation improvements be planned, designed, and constructed to encourage walking, bicycling and transit use; and promotes the full use of, and safe operations for all users of the Parish’s transportation network”. The Purpose statement reads: “The Council of St. John the Baptist Parish shall establish and implement a Complete Streets program by requiring that all planning, designing, funding, operation and maintenance of the Parish’s transportation system accommodate a safer environment for all

users and modes, encourage a healthier and more active lifestyle for all citizens of this Parish, provide for increased connectivity and access, encourage and support economic development efforts, and improve citizens' quality of life." This Complete Streets Ordinance was developed out of a series of workshops with Stakeholders and Council Members. The Draft of this ordinance is located in Appendix D.

The draft of the St. John the Baptist Parish Complete Streets ordinance was reviewed prior to developing the streetscape solutions within the study area so that the design encourages walking, bicycling and transit use.

ROGER HENDERSON AND MOFFATT & NICHOL – APRIL 2016: A mockup was prepared for the future revitalization of Main Street in various phases. These Phases included improvements to the median, road, street parking, bike lane, the introduction of sidewalk pavers and Planters, Lighting, underground utilities, landscaping, site amenities, bringing structures closer to the roadway and finally enhancing the area for daytime and nightlife activities. See Appendix C.

The DDG/USI team supports this overall concept and chose to reflect upon the data collected from the existing site as well as the information presented in this mock-up to design Main Street that would best suit the community.

This Land Use and Transportation Study is mindful of future projects and past studies so that looking ahead the community is developed as a whole with the elements that meet the needs and requirements of the community. The seamless transitions between projects should in essence be fully functional and safe for all transportation needs.

In the following Section Land Use and Existing Conditions will be presented and described as to shows how their opportunities and constraints guided the direction of the team to the Design Alternatives. Section 3.0 provides information on the pedestrian, bicycle and roadway guidelines as well as the Complete Streets Design Criteria that assisted the Study Team in the Conceptual Development of the Design Alternatives that were presented in Section 4.0 Section 5.0 describes the Preliminary Cost Estimates associated with all elements with the Design Alternatives. Finally, Section 6.0 reveals any Potential Project Funding recommendations that would alleviate any project costs.

2.2 LAND USE

The study area is predominately developed with single family residential and mixed multi-family residential units. A significant commercial core is established along Main Street with heavy commercial and/or industrial use along the US Hwy 61 Corridor (Airline Highway). The zoning areas are described below and illustrated in Figure 2. In an effort to achieve the community's vision, land use and zoning preserves property values within the area by prohibiting inappropriate land uses while encouraging appropriate neighboring uses. Providing a desirable transition or link between these uses is the ultimately the goal of this study. Below are the definitions of the Zoning Districts as written in the SJPB Code of Ordinances which is dated 2/13/17.

R1—Residential District One –

The purpose and function of this district according to the SJPB Code of Ordinances dated 2-13-17 is to provide for the location and grouping of low-density single-family residences and accessory uses. These uses include single-family detached residences, conservatories and greenhouses for non-commercial uses, golf courses and clubhouses, public and private non-commercial neighborhood recreation areas, and utility and transportation right-of-ways.

C1—Commercial District One –

The purpose and function of this district according to the SJPB Code of Ordinances dated 2-13-17 is to provide for the location and grouping of uses to a type designed to dispense commodities, provide professional services or provide personal services. The uses in this district are intended to be small in nature providing local facilities to serve the everyday needs of the surrounding neighborhood rather than the surrounding community.

C2—Commercial District Two –

The purpose and function of this district according to the code of ordinances dates 2-13-17 is to promote, provide for, and protect certain areas for businesses and services to serve the needs of several neighborhoods and provide space for multiservice centers that would combine commercial activity with indoor recreation, government services and private office spaces.

C3—Commercial District Three –

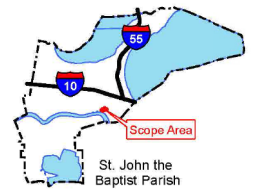
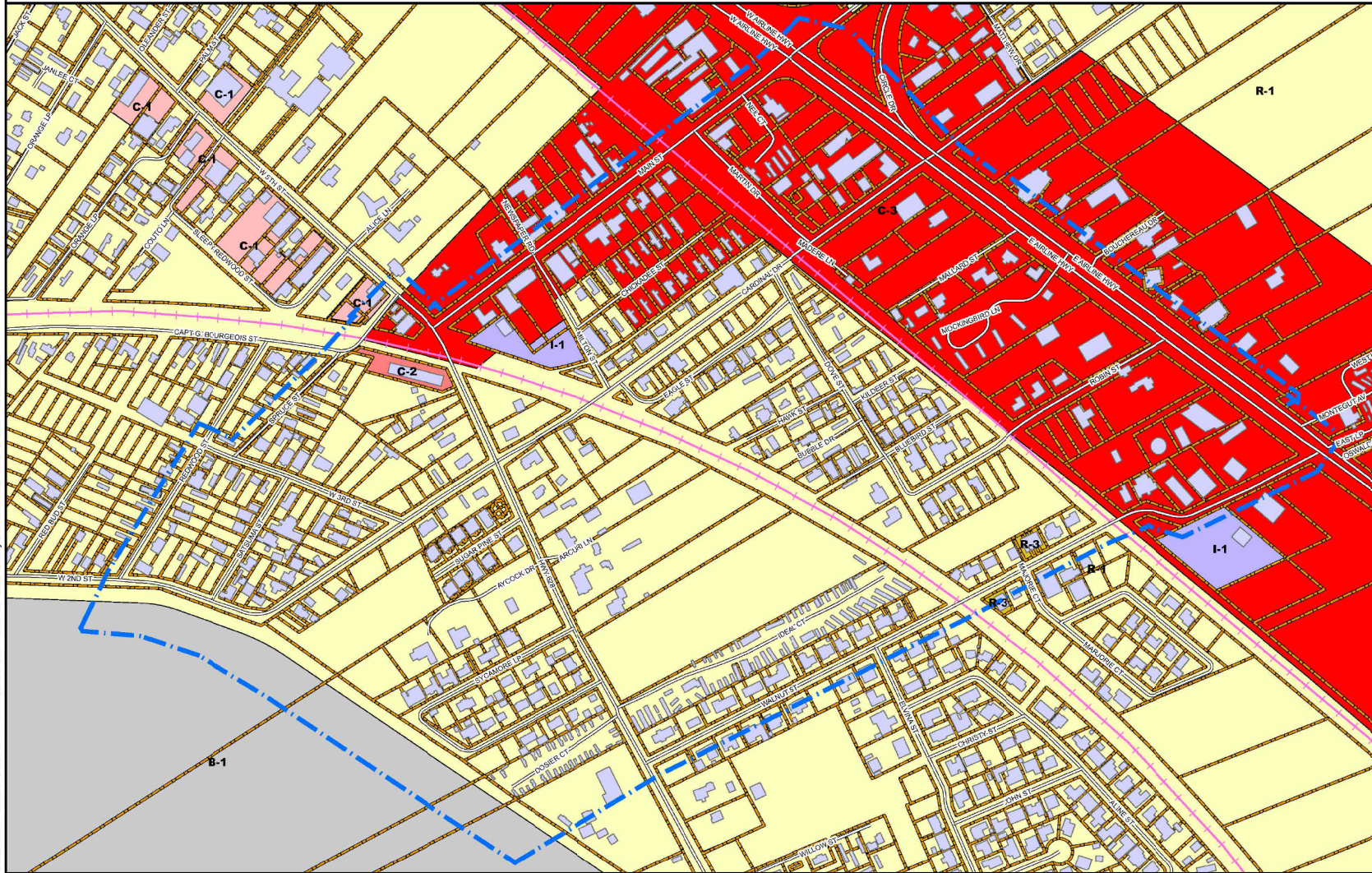
The purpose and function of this district according to the SJPB Code of Ordinances dated 2-13-17 is to promote, provide for, and protect certain areas for businesses and services that require accessibility to highways to successfully function. To prevent unmanageable strip development, a Commercial District Three (C3) should limit businesses that do not absolutely require highway accessibility.

I1—Industrial District One –

The purpose and function of this district according to the SJPB Code of Ordinances dated 2-13-17 intends to provide for the location and grouping of uses to a type designed for light manufacturing, processing, storage and warehousing, wholesaling and distribution. Residential uses are not permitted as they are not in character with the activities conducted in this district. Service and commercial activities relating to the character of the district and supporting its activities are permitted.

Figure 2

Land Use Exhibit

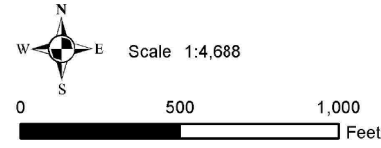


LEGEND

- Scope Boundary
- Street Centerline
- Railroad
- Buildings
- Parcels
- Lots
- Zoning Descriptions**
- B-1
- C-1
- C-2
- C-3
- I-1
- R-1
- R-3

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Date: 3/14/17



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LAND USE TYPES

Single Family Residential (R1)

56.75 %

Within the study area, single family households make up the largest percentage and are located throughout with the exception of Main Street and along Airline Highway. Having a large residential footprint within the study area increases the need for walkability and connections to the main street area. While increasing the need for better connectivity, this development pattern generates challenges such as a proliferation of conflict points at driveway intersections. The proposed design recommendations will provide a connection from Main Street to the Mississippi River Trail from these areas minimizing conflicts from the high frequency of driveways and on street parking.



Image 3 – Redwood Street

Photo Credit: DDG 2/14/17

Commercial (C1, C2, C3)

31.00 %

The second highest land use within the study area is Commercial. Businesses are primarily located along Main Street and Airline Highway, which is in accordance with the local zoning code and a common development pattern found in and around Main Streets throughout the United States. Because Main Street is the commercial core, vehicular traffic and parking within this area is the highest. This commercial thoroughfare is where primary circulation tends to begin within the study area. Utilizing sidewalks along the major connector streets that intersect with the downtown commercial area will increase the viability of a vibrant Main Street.



Image 4 – Main Street

Photo Credit: DDG 2/14/17

Despite the size of the study area, two significant rail lines traverse through the study area and cause many challenges. The northern rail is the Kansas City Southern Railway (KCS) line and the southern rail is the Canadian National Railroad (CN). While railroad lines are a concern for safety, the southern CN line perhaps carries the most challenges for the study area. This line is adjacent to the proposed LADOTD Roundabout at the end of Main Street where traffic volumes are significant. It is also the rail line that has a narrow and steep crossing at Spruce Street with a sharp drop off into a large ditch. Because this crossing is paramount in order to provide a Main to River Pedestrian/Bike Corridor, it will require improvement to reduce pedestrian and cyclist injury. It may also be a benefit to the Parish to coordinate improvements with the rail line company so that when or if the railroad company decides to make modifications to their crossings, the Parish can justify safety improvements they need to benefit this project. This safe crossing is vital at Spruce Street as it provides the most direct route with the least amount of conflicts to the Mississippi River Trail.



Image 5 – Spruce Street Railroad Crossing

Photo Credit: DDG 1/23/17



Image 6 – Cardinal Street Railroad Crossing

Photo Credit: DDG 2/14/17

Church (R1)

3.00 %

Throughout the study area there are six locations for places of worship. Two churches are within the study area and the remaining four are located along the perimeters of the study area. All places of worship appear to have adequate parking for patrons outside of the immediate vicinity. However, they could be more accessible to members of the adjacent community if they wish to visit by means other than an automobile. The proposed pedestrian connectivity to the proposed Pedestrian/Bicycle Corridor will provide a safe network to these places from the adjacent neighborhoods. This safe route for the community may benefit some of these local places and may help to grow their establishment.



Image 7 – Rising Star Baptist Church on Cardinal Street

Photo Credit: DDG 2/14/17



Image 8 – Destiny Christian Center on Main Street

Photo Credit: DDG 1/23/17

Multi-Family Residential (R1)

1.25 %

There is only one Multi-Family residential complex located within the study area. This area consists of condominium buildings with open uncontrolled parking in front of the individual buildings. This small development is located off of the heavily traveled E. 5th Street and is on a dead end street. The proposed pedestrian connectivity along E. 5th Street will provide residents pedestrian access to the proposed Main to River Corridor from this small community.



Image 9 – Multi-Family Housing on Sugar Pine Street

Photo Credit: Google Maps 4/2011

Industrial (I1)

0.50 %

Only one property within the study area is zoned industrial. This property is located adjacent to the CN Railroad line and the commercially zoned areas along E. 5th Street. At this time it appears vacant and in use. The study has documented the presence if this industrial area in relation to the proposed improvements and found that its impact at this time is unknown due to the lack of activity witnessed.



Image 10 – Industrial Area Adjacent to Railroad at W. 5th/ Main Street

Photo Credit: DDG 1/23/17

2.3 UTILITIES

Public utilities are available to all portions of the study area as shown on Figure 3. However, it is unclear if utilities extend through the undeveloped right-of-way located adjacent to the undeveloped School Board property at the end of Redbud Street.

UTILITY TYPES

- Electrical Entergy
- Gas Atmos Energy Louisiana
- Water St. John the Baptist Parish Utilities Department
- Sewer St. John the Baptist Parish Utilities Department
- Drainage St. John the Baptist Parish Utilities Department
- Garbage Metro Service Group, LLC
- Cable Reserve Telecommunications (RTC) and Comcast
- Internet Reserve Telecommunications (RTC) and Comcast
- Telephone Reserve Telecommunications (RTC) and AT&T

Although the necessary utilities are present, some create challenges within the study area. All electricity is overhead throughout the area and the poles tend to be located in areas of the right-of-way where shared use trails could be. This could be corrected with subsurface routing of electricity, which can provide additional benefits, such as lower maintenance and transmission costs, less impacts and damage from severe weather, and less demand for right-of-way space. However, underground cables are more expensive especially if a project consists of burying existing lines. With the exception of burying overhead lines along Main Street in order to provide a cycle track, parallel parking and walkways, it would be a significant cost to move all overhead lines to subsurface conduits within the study area. In an effort to avoid those costs, it is recommended that overhead poles in severe conflict locations be shifted on a case by case basis to allow for sidewalks or trails.

Figure 3

Utilities Exhibit



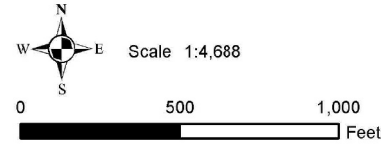
LEGEND

- Scope Boundary
- Street Centerline
- Railroad
- Buildings
- Parcels
- Lots
- Utility Types**
- Overhead Electric
- Sewer Force Main
- Sewer Line
- Water Line
- Fire Hydrant
- Sewer Manhole

Source (Citation) for 2014 three inch pixel imagery (GeoTIFF)
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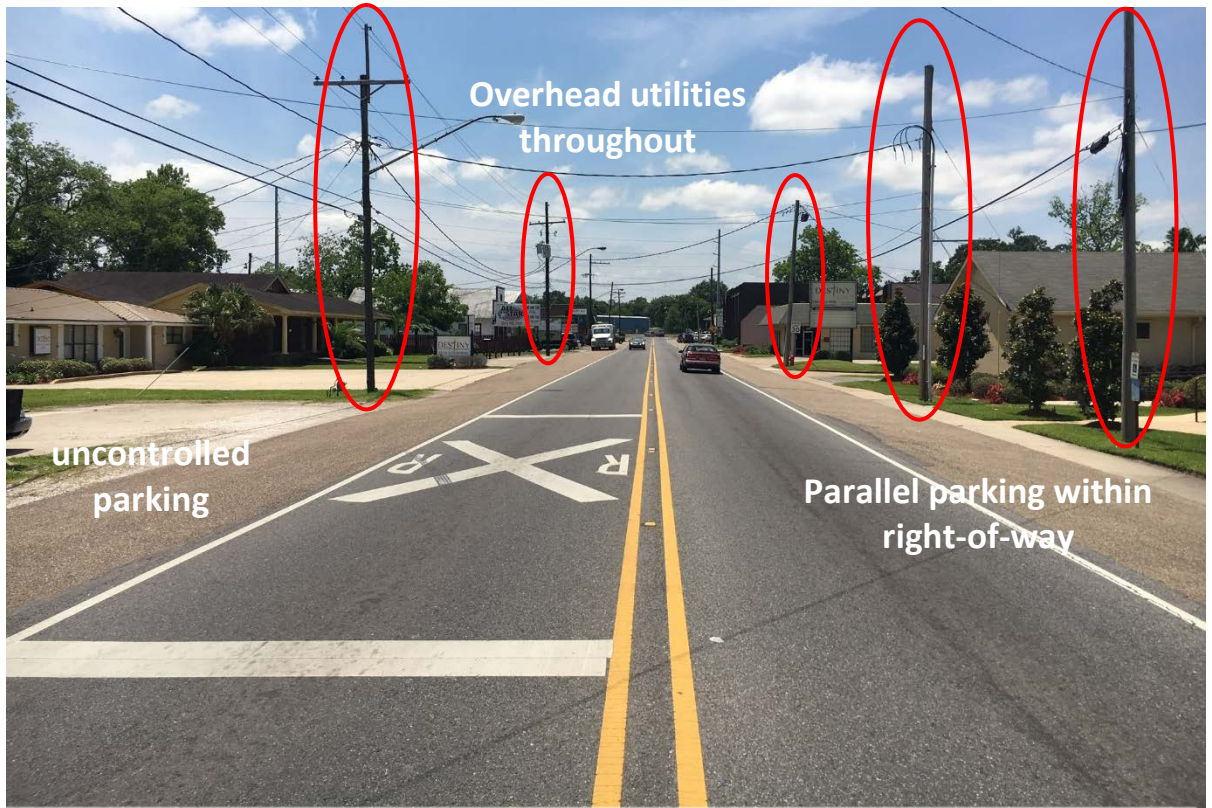


Image 11 – Main St. - Overhead Utilities, uncontrolled parking
 Photo Credit: DDG 2/14/17

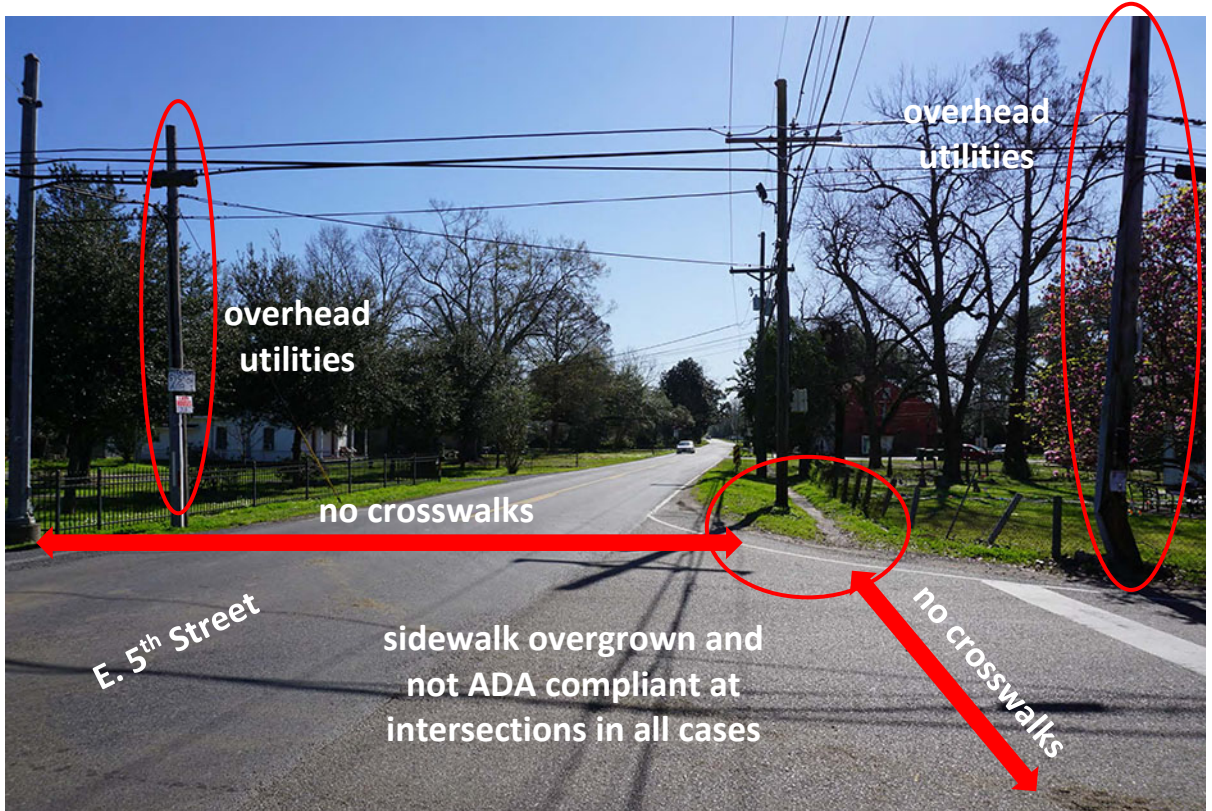


Image 12 – E. 5th St./Cardinal Street - overhead utilities, missing crosswalks, overgrown sidewalks
 Photo Credit: DDG 2/14/17

2.4 SIGNAGE

Signage within the study area is limited to standard highway signs, various billboard and pylon signs for advertisement. The inventory shows that there is a lack of consistency creating a chaotic, unorganized look to the area. This obscures visibility or distracts drivers and presents a hazard during bad weather. If there are too many or varying degree of commercial sign sizes it may become more difficult to notice critical traffic signs. Figure 4 identifies the various sign types and their locations.

EXISTING SIGNAGE TYPES

- Standard Highway Signs
- Historical Markers
- Pylon Signs for Advertisement
- Monument Signs for Advertisement
- Billboard Signs for Advertisement

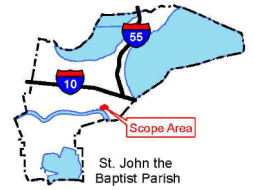
Identifying a particular standard for signage within the downtown Main Street area could be appealing for visitors and may also assist the community and visitors with wayfinding, mark entry point, give information about directions, or even provide the rich history of the neighborhood. In an effort to eliminate visual clutter, the design recommendation is to incorporate a signage standard and design that gives the area an identity and is specific to the needs of the Main Street District, Proposed Multi-Modal Corridor, and the adjacent community. A Neighborhood Orientation Sign would provide a neighborhood map, historical spots, destination points, and recommended trails.



Image 13 – Cardinal St./Dove St. – inconsistent signage, open drainage, overhead utilities, missing crosswalks
Photo Credit: DDG 2/14/17

Figure 4

Signage Exhibit



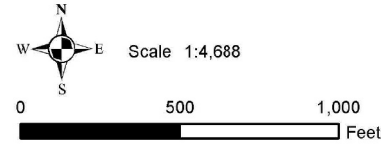
LEGEND

- Scope Boundary
- Billboard Sign
- Highway Sign
- Historic Marker
- Monument Sign
- Pylon Sign
- Railroad Crossing
- Street Centerline
- Railroad
- Buildings
- Parcels
- Lots

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2.5 STREETS

The study area includes local collector and arterial roads of various ROW widths as shown on Figures 5 & 6. The existing streets appear to be in sound structural condition where a sealcoat could extend its life. Some areas may need to be milled and overlaid in order to accommodate the addition of cycle tracks and/or shared-use trails. Bicycles, strollers and wheelchairs require a smoother surface in order to make those routes safer. Spruce Street is an example where improvements would be warranted in order to accommodate a wider road and to improve safe passage over the existing railroad tracks.

STREET TYPES (defined by the SJBP code of Ordinances dated 2-13-17)

- **Principal Arterial Road (130' ROW)**
Arterial streets should be planned for continuation of movement of fast traffic between points of heavy traffic generation and from one section of the community to another. Such arterial streets should traverse the entire community and should be spaced approximately one mile apart. Arterial streets should not bisect neighborhoods but should act as boundaries between them. Abutting properties should not face onto the roadway unless separated from it by a frontage or service road. Airline Highway (US61) is the Principal Arterial Road within the Study Area.
- **Major Collector Road (60' ROW)**
Collector streets should be designed to provide a traffic route from local streets to arterial streets. These streets should be designed to carry traffic that has an origin or destination within the neighborhood and should be designed to inhibit through traffic. West/East 5th Street is the Major Collector Road within the Study Area.
- **Local Streets: (55',50',45',40',35',25',20')**
Local streets shall provide direct and full access to each lot and shall be laid out so that their use by through traffic will be discouraged. Local streets should not intersect arterial streets. The remaining Streets within the Study Area are Local Streets.
- **Private Drive**
A private drive thoroughfare that is on private property rather than public land. As a result, the owner(s) can preclude others from using it. Residential Driveways and Private Sidewalks to the right-of way are examples of this category.

Since this area of LaPlace is one of the older areas within the community, there are varying right-of way widths. Furthermore, many residences and businesses have site elements such as landscape, fences and parking that encroach within this apparent right-of way making it challenging to determine where the official property boundaries are. The location of the existing utilities provide a clue to the extents of the rights-of way revealing potential narrow areas available to achieve an adequate and safe multi-modal trail.

The understanding of volume and traffic patterns through the study area helped determine the safest and most logical route for the Main to River Pedestrian/Bike Corridor. Because 5th Street is a Principal Arterial Road with heavy truck traffic, numerous utilities within the right-of-way, and a high instance of conflict points (private drives and intersections) the team was led to the alternate solutions.

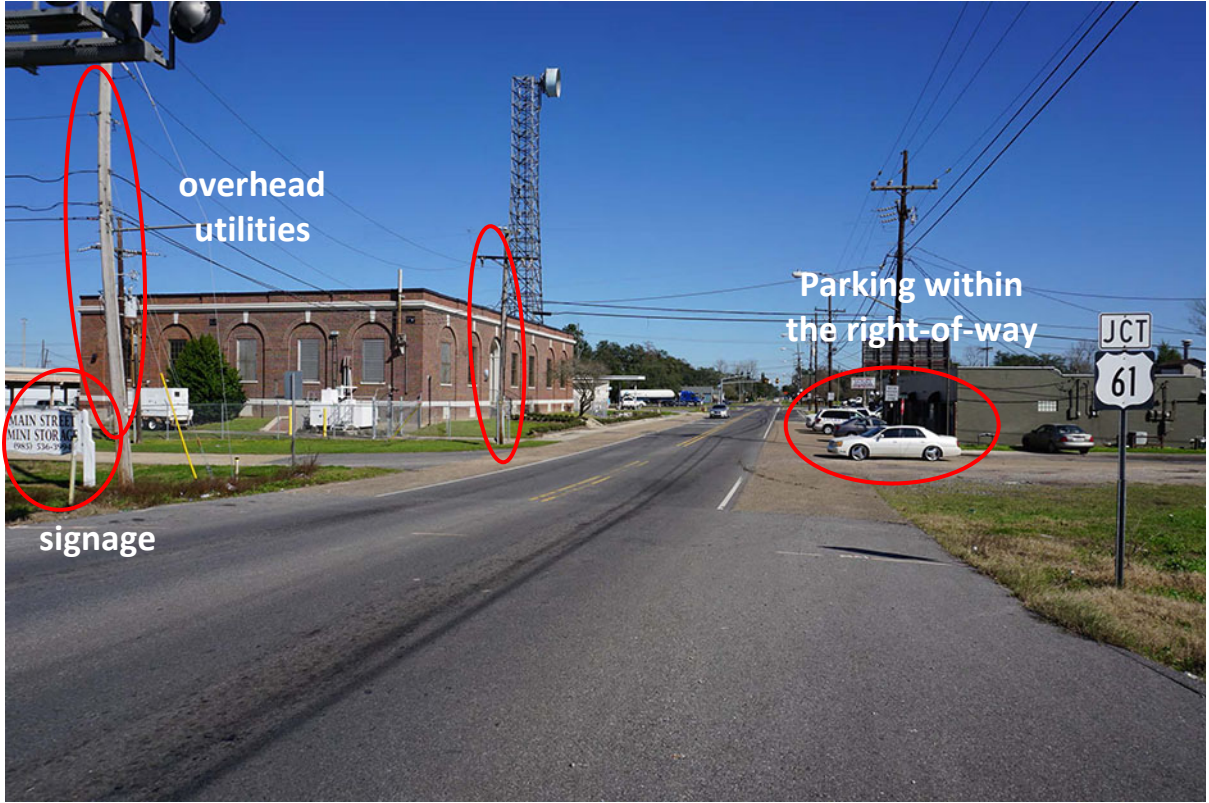


Image 14 – Main Street - overhead utilities, uncontrolled parking, inconsistent signage
 Photo Credit: DDG 2/14/17



Image 15 – Main Street/5th Street - overhead utilities, uncontrolled parking, and inconsistent signage
 Photo Credit: DDG 2/14/17



Image 16 – Main Street/5th Street - overhead utilities, uncontrolled parking, and inconsistent signage
 Photo Credit: DDG 2/14/17



Image 17 – Spruce/5th Street - overhead utilities, uncontrolled parking, pavement failing, narrow street
 Photo Credit: DDG 2/14/17



Image 18 – Spruce Street at Railroad - overhead utilities, narrow damaged street, steep grade at ditch
 Photo Credit: DDG 2/14/17

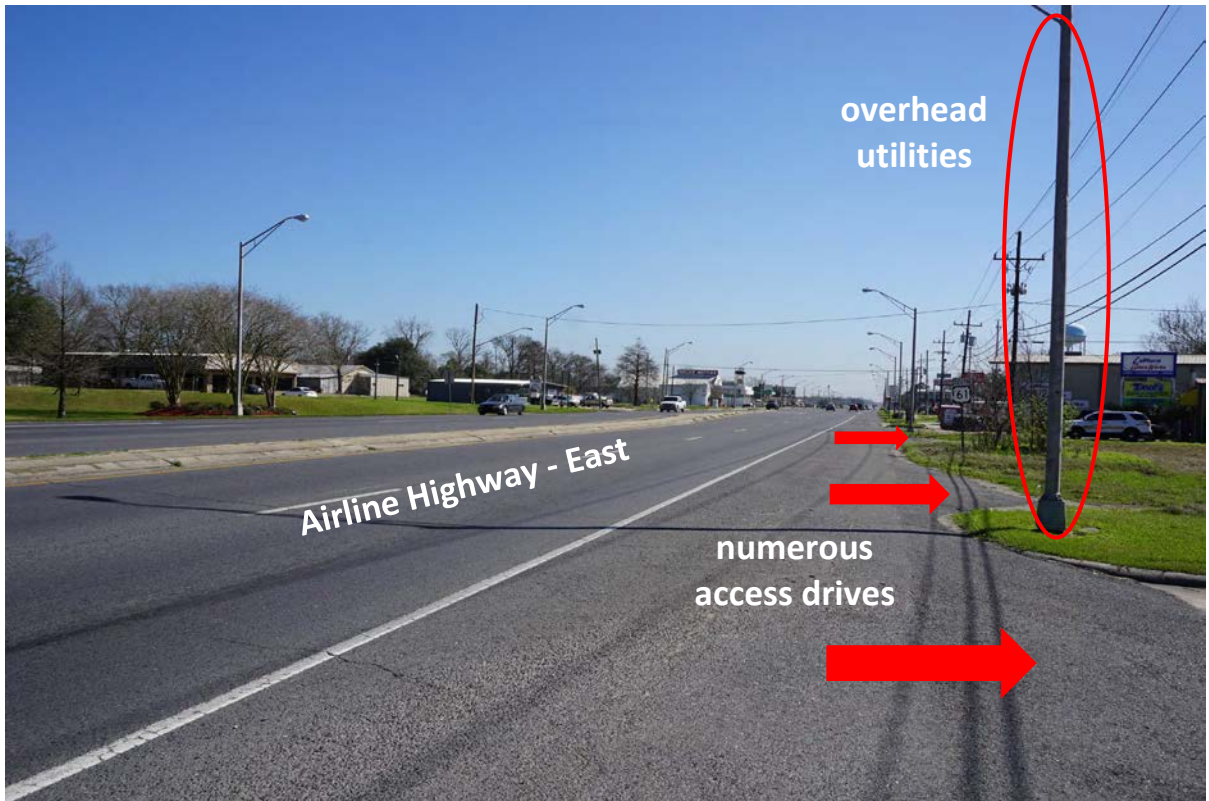


Image 19 – Airline Highway. - overhead utilities, many curb cuts, access drives, inconsistent signage
 Photo Credit: DDG 2/14/17



Image 20 – Redbud St. - overhead utilities, larger right-of-way, and few conflicts
 Photo Credit: DDG 5/10/17



Image 21 – Redbud St. - overhead utilities, larger right-of-way, few conflicts, safer crossing at 2nd st.
 Photo Credit: DDG 5/10/17



Image 22 – Robin St. - overhead utilities, narrow right-of-way, narrow street
Photo Credit: DDG 2/14/17



Image 23 – Satsuma St. - overhead utilities, narrow right-of-way, and visibility issues at 2nd street
Photo Credit: DDG 2/14/17



Image 24 – Dove St. - overhead utilities, encroachment within the right-of-way created by residents
Photo Credit: DDG 2/14/17



Image 25 – Cardinal St. - overhead utilities, large open drainage, and traffic calming devices
Photo Credit: DDG 2/14/17



Image 26 – W. 3rd Street - overhead utilities, open drainage, large right-of-way
 Photo Credit: DDG 2/14/17

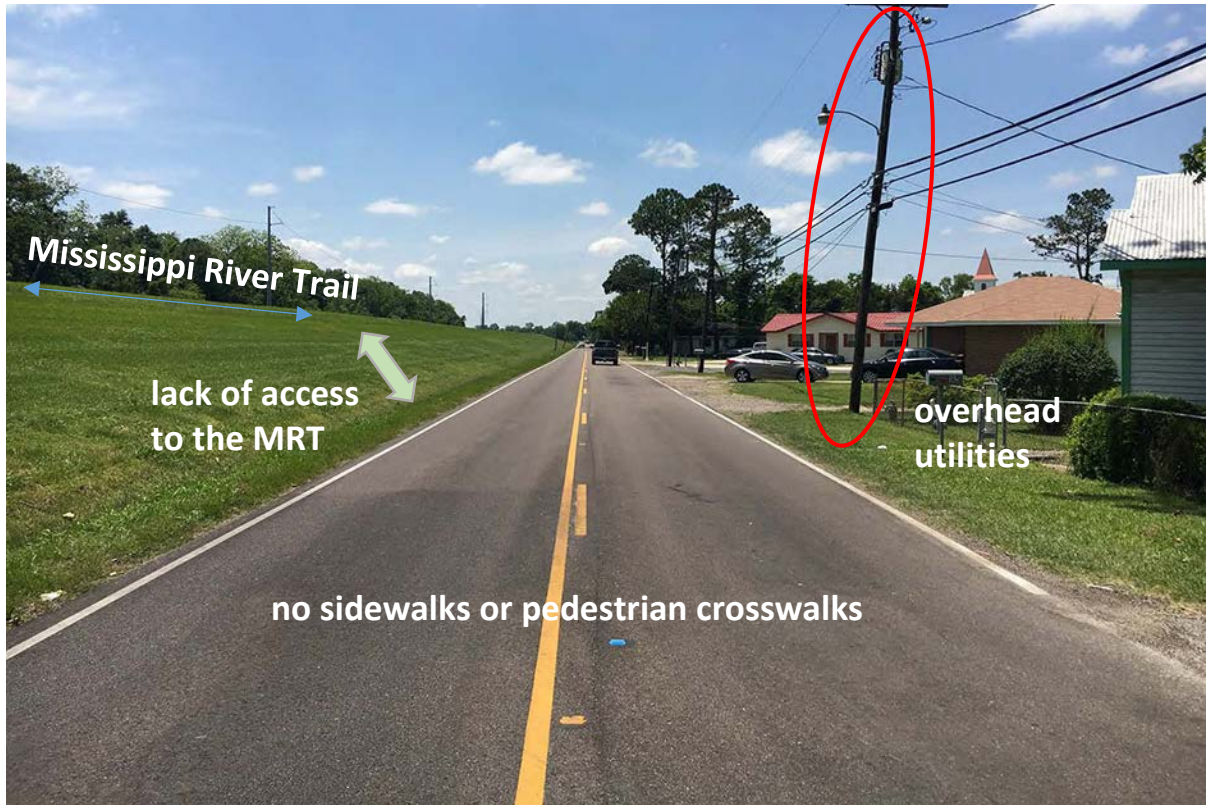


Image 27 – W. 2nd Street - overhead utilities, heavily travelled, visibility issues for intersecting streets
 Photo Credit: DDG 5/10/17



Image 28 – E. 5th Street - overhead utilities, open drainage, heavily travelled
Photo Credit: DDG 2/14/17

2.6 DRIVEWAYS

There are many driveway cuts and parking areas within the study area that do not adhere to the new LaDOTD access management policies and should be explored further. In these situations, a safe corridor for walking and biking is compromised as vehicles enter and exit driveways. Furthermore, visibility is blocked by parked vehicles which is a cause of concern for pedestrians and cyclists. In order to provide a safe Pedestrian/Bike Corridor from Main Street to the MRT, the team proposed a preferred alternate that minimized conflict points as much as possible. Captain G. Bourgeois Street, as seen below, has an open right-of-way and zero driveways. Figure 7 identifies the various driveway types and their locations.

DRIVEWAY TYPES

- Single – Occurring mostly with a single vehicle driveway and an occasional one-way driveway into a parking lot.
- Double – Occurring mostly with double-stacked vehicles or double-wide driveways and in/out driveways to parking lots.
- Uncontrolled – Where multi-family and head-in parking occur at commercial establishments, this “uncontrolled” order of parking occurs with vehicular access throughout causing a high occurrence for crashes.

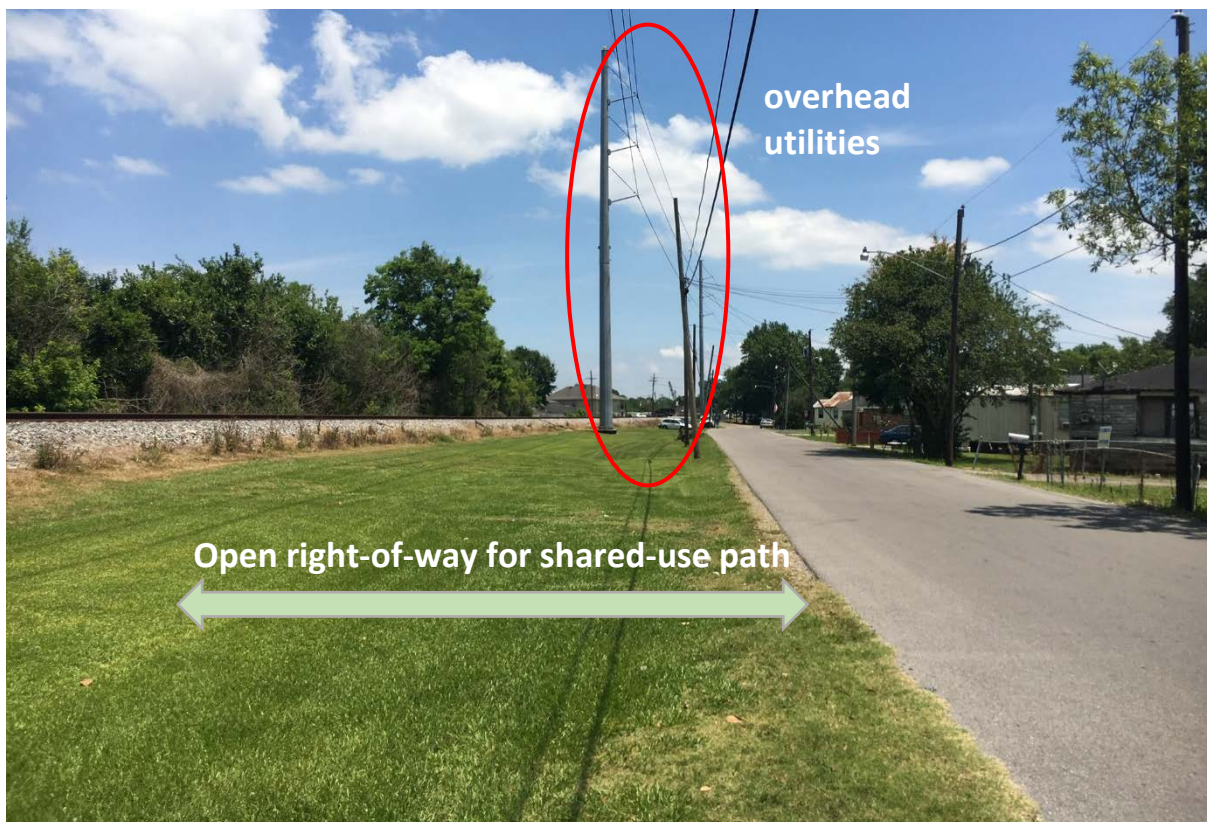


Image 29 – Captain G. Bourgeois Street - overhead utilities, no driveway conflicts
Photo Credit: DDG 5/15/17

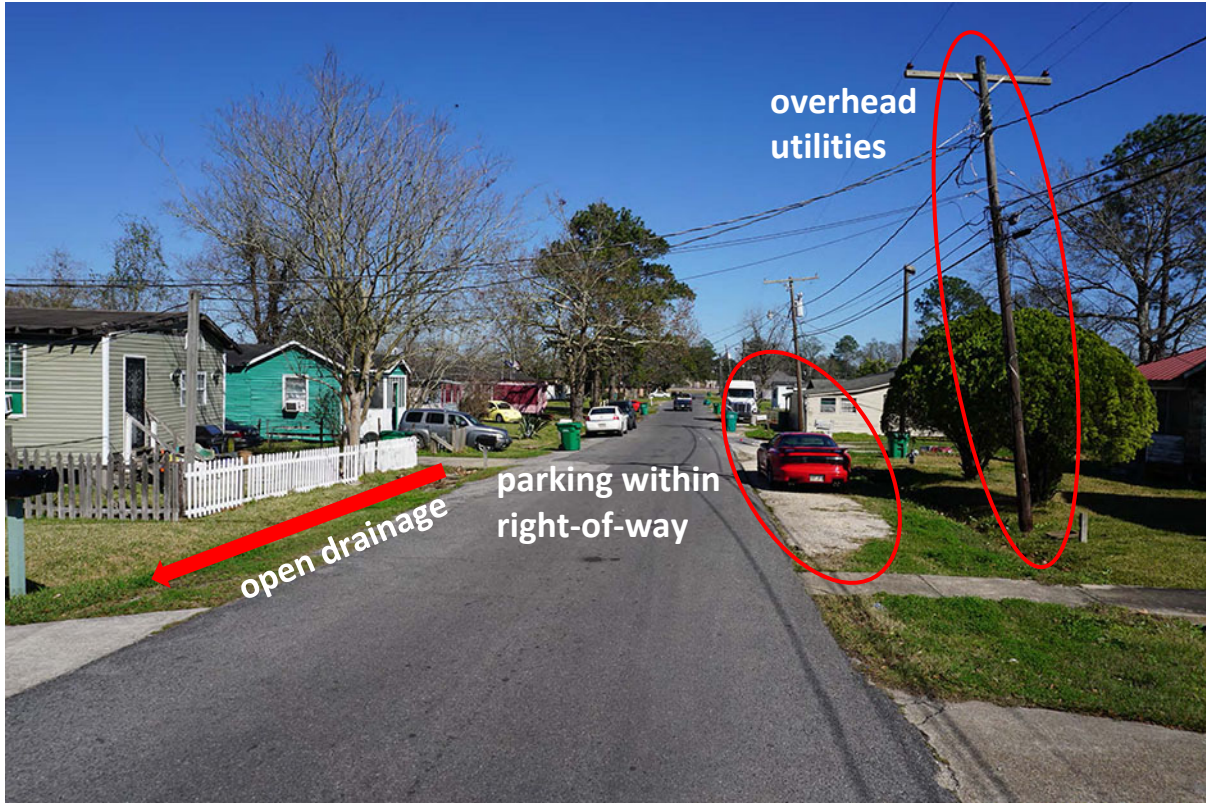


Image 30 – Redwood St. - overhead utilities, open drainage, many driveway conflicts
Photo Credit: DDG 1/23/17



Image 31 – Walnut St. - overhead utilities, subsurface drainage, driveway conflicts, incomplete sidewalks
Photo Credit: DDG 2/14/17

2.7 PARKING

Parking within the study area is unorganized, and in many instances, presents an unsafe condition for pedestrians, cyclists, and motorists as shown in Figure 8. Along Main Street, parked vehicles in undesigned areas within the right-of way obstruct views of oncoming traffic. The areas of concern were identified and documented so that using the existing parking patterns, a new parking strategy could be designed. This would assist in maximizing existing parking availability and create parking options that are resistant to conflicts with pedestrians and cyclists.

The majority of off-street parking occurs along Main Street wherein the parking is largely uncontrolled. The western side of Main Street provides some off street parking, as well as unauthorized parallel parking on the shoulder of Main Street. The eastern side of Main Street is currently developed with uncontrolled parking in front of each commercial establishment. In order to exit the business, the vehicle must reverse into incoming traffic. These conditions make it difficult for pedestrians, bicyclists and vehicles to coexist safely on Main Street. With the East Side of Main Street being heavier with businesses, more parking options are recommended. A cycle Track would be best suited for the west side of Main Street since off-street parking is readily available behind the buildings on that side of the road.

Uncontrolled parking also exists at the Multi-Family residential development off of E. 5th Street. Because this is on a dead end street there are much less through traffic and pedestrian/bicycle corridor concerns. At the intersection of Redwood and 2nd Street there is a bar or hall whose patrons tend to park in close proximity to the roadway severely impacting sight distance. The challenges associated with this intersection further guided the decision to find a crossing farther away from the W.2nd/Cardinal Street Curve.

PARKING TYPES

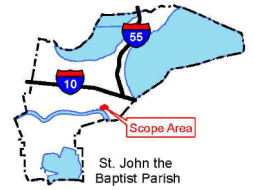
- Church Off-Street Parking
- Commercial Off-Street Parking
- Public On-Street Parking



Image 32 – Main St. - overhead utilities, driveway conflicts, uncontrolled parking
Photo Credit: DDG 2/14/17

Figure 8

Parking Exhibit



LEGEND

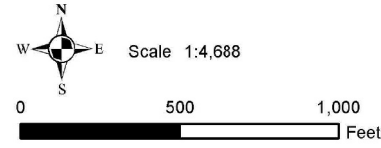
- Scope Boundary
- Parking Types**
- Church Off-Street Parking
- Commercial Off-Street Parking
- Public On-Street Parking
- Street Centerline
- Railroad
- Buildings
- Parcels
- Lots

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Date: 3/9/17



2.8 SIDEWALKS

The location and condition of the existing sidewalks were documented and as figure 9 illustrates, there is a highly inconsistent network of sidewalks within the right-of-ways. This causes an unsafe condition for pedestrians in neighborhoods attempting to walk to schools, churches, commercial areas, and/or recreation areas. Most sidewalks were overgrown and disappeared prior to driveways and street intersections. It was also apparent that ADA accessibility was severely lacking along all noticeable residential and Main Street sidewalks. Sidewalks were found to be predominately located on the south side of E. 5th Street, a very small portion of Walnut Street and the West Side of Main Street.

Due to the lack of sidewalk connectivity the team recommends that sidewalks should be used on major connector streets in order to promote an interconnected network of pedestrian accessible corridors. (Fig. 30). Sidewalks are the key link between neighborhoods, churches, schools, and Main Street and are imperative to achieve a walkable, vibrant community. Pedestrian Sidewalk improvements intended to bring connectivity to Main Street, the Future Transit Depot, and the Pedestrian/Bike Corridor are proposed along East and West 5th Street, W. 3rd Street, W. 2nd Street, Cardinal Street, Milton Street, Martin Drive, Dove Street and Robin Street.

EXISTING SIDEWALK TYPES

- 3' Concrete Sidewalks (not ADA compliant)
- 4' Concrete Sidewalks (not ADA compliant)
- Private Sidewalks
- Shared Use Trails



Image 33 – E. 5th St. – overgrown and damaged sidewalks, overhead utilities, and driveway conflicts
Photo Credit: DDG 2/14/17

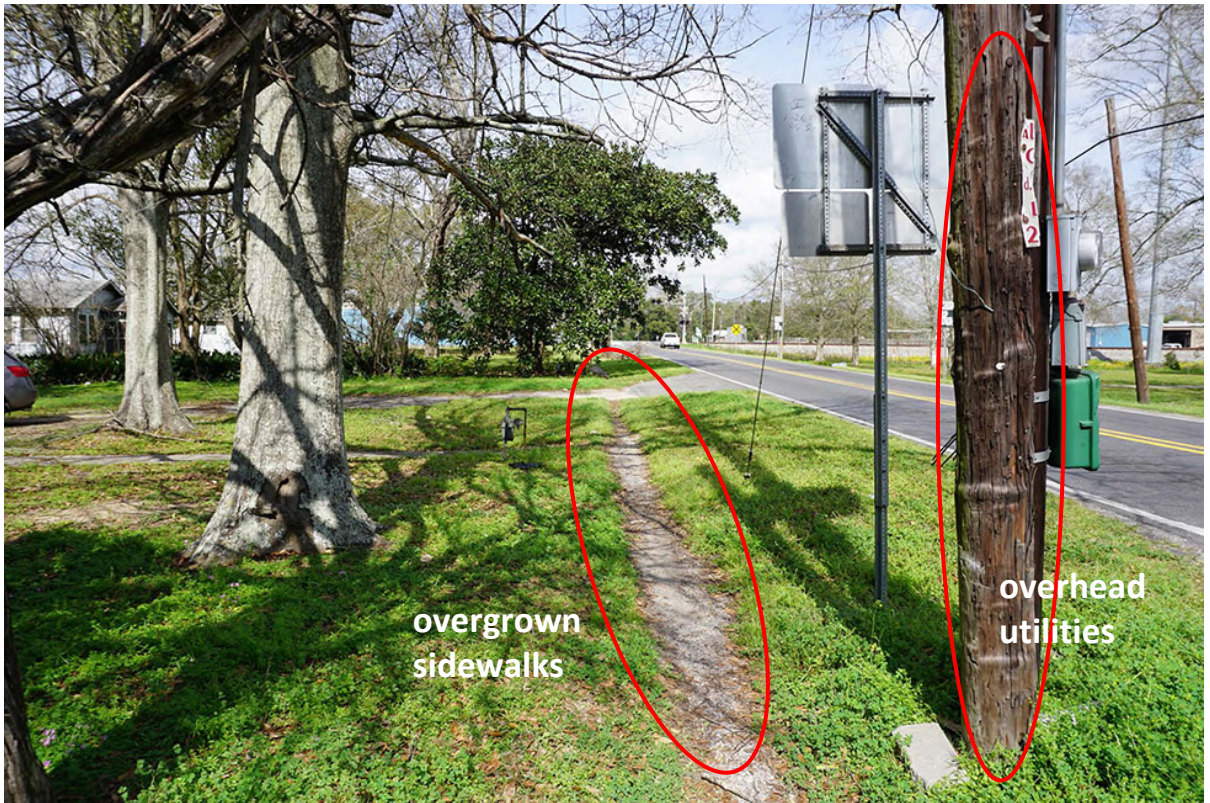


Image 34 – E. 5th St. – overgrown and damaged sidewalks, overhead utilities, and driveway conflicts
Photo Credit: DDG 2/14/17



Image 35 – Walnut St. – incomplete sidewalks, overhead utilities, and driveway conflicts
Photo Credit: DDG 2/14/17



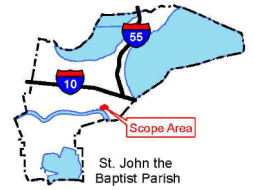
Image 36 – E. 5th St. – overgrown and damaged sidewalks, overhead utilities, and driveway conflicts
Photo Credit: DDG 2/14/17



Image 37 – E. 5th St. – overgrown and damaged sidewalks, overhead utilities
Photo Credit: DDG 2/14/17

Figure 9

Sidewalks Exhibit



LEGEND

- Scope Boundary
- Sidewalk Types**
- 3' Concrete Sidewalk
- 4' Concrete Sidewalk
- Private Sidewalk
- Street Centerline
- Railroad
- Buildings
- Parcels
- Lots
- Shared Use Trails

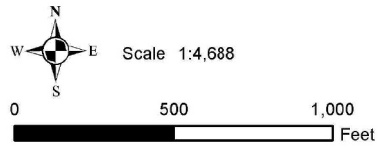
Source (Citation) for 2014 three inch plus digital (geotiff)
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Imagery Information: The red, green, blue (truecolor) and near infrared four-band aerial imagery was captured in the winter and early spring of 2014 by Satcom Map Company, Inc.

The imagery is projected to UTM 15 NAD 83, unit of measure is meters. The spatial resolution is approximately three inch pixel.

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General Notes:
 1. The information presented herein was obtained from various resources and should be considered preliminary.
 2. No attempt has been made by Duplantis Design Group, PC to verify site boundary, title, actual legal ownership, deed restrictions, servitudes, easements, or other burdens on the property.



Date: 3/14/17



2.9 DRAINAGE

Drainage appears to be open throughout most of the residential areas where paths would be beneficial. Covering the swales and ditches to provide pedestrian and/or bicycle lanes would be costly due to the multiple number of conflict points such as driveways and tie-ins at street crossings. Any maintenance associated with new subsurface drainage networks would have to be taken into consideration by the Parish.

The drainage culverts under many of the railroad crossings are steep and very close to the roadway causing unsafe conditions for all modes of transportation. It is necessary to provide safer and ADA compliant crossing conditions at railroad tracks such as the one at Spruce Street if the community and visitors are to be routed through the crossing via a trail.

It was revealed at a Project Management Committee Meeting that flooding in the downtown area has not been an issue. However, the increase in impervious surfaces also increase the frequency and intensity of downstream runoff. With this, water quality decreases as well. Therefore a drainage study is recommended prior to altering the existing drainage patterns throughout the study area.



Image 38 –Cardinal Street - open drainage

Photo Credit: DDG 2/14/17



Image 39 – Dove St. - open drainage, overhead utilities
Photo Credit: DDG 2/14/17

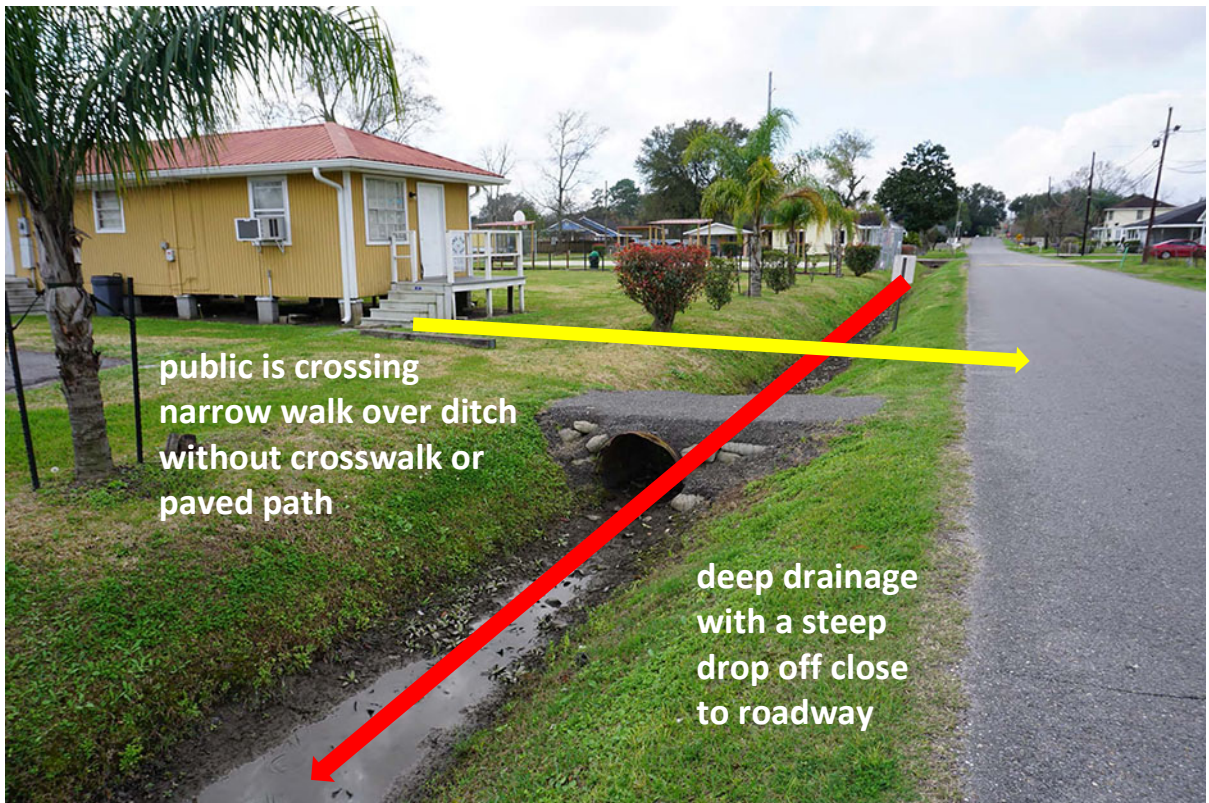


Image 40 – Cardinal St. - open drainage, overhead utilities
Photo Credit: DDG 2/14/17

2.10 DEMOGRAPHICS

The Project Study Area is located within two Census Block Groups that show it being designated as Low Income and Elderly but NOT a Designated Minority area. It is important that low income neighborhoods possess an element of walkability for access to services and amenities as well as transit. Similarly, the Elderly must be able to have the same access as many seniors are unable to drive and/or on a limited budget. The Study Area is smaller than the described Census Block Groups as shown in Figure 10, but are described in all as follows:

Block Group 1, Census Tract 710:

The location of Block Group 1 is primarily along and north of Airline Highway

Total Population:	1,593
Total Minority:	703 / 44.13%
Hispanic:	119 / 7.47%
Mean MedHH	\$53,576
Food Stamp Recip. 2015:	190 / 11.93%
65 Years Old and Older	251 / 15.76%

Block Group 2, Census Tract 710:

The location of Block Group 2 is primarily along and south of the Airline Highway Commercial Area

Total Population:	1,179
Total Minority:	501 / 46.43%
Hispanic:	0 / 0.00%
Mean MedHH	\$62,238
Food Stamp Recip. 2015:	173 / 16.03%
65 Years Old and Older	130 / 12.05%

An interconnected network of pedestrian corridors that is accessible to low income and elderly users is proposed so that these low income and elderly residents will have the tools necessary to improve their livelihood in all aspects. The ability for people to connect to their community will further increase the viability of the study area.

2.11 TRAFFIC DATA

A traffic analysis was taken of vehicles travelling through the study area in order to measure the typical volume the roads were subjected to. This data was utilized to understand the congestion levels and patterns associated within the study area. Twenty-four hour bi-directional volume counts were collected in February 2017 at the following six (6) locations in the study area:

- Main St north of LA 44/ 5th St
- LA 44 west of Main St
- 5th Street west of Cardinal St
- 5th Street east of Cardinal St
- Cardinal St south of 5th Street
- Redwood St north of 2nd St

LADOTD count data was also provided by RPC for various locations in the study area ranging from the years 1995 to 2014. Only the traffic data collected in 2014 was used in this study as the remaining data was assumed to be out of date. Figure 11 illustrates the existing 2017 ADT traffic data as well as the 2014 LADOTD data at the following locations:

- Main St north of LA 44/ 5th St
- LA 44 west of Main St

A review of the traffic data indicates an approximate growth rate of 2.38% for Main St and a growth rate of 2.54% for LA 44. The traffic data indicates that Main St currently has the highest volumes with slightly lower volumes along LA 44 and E 5th Street. The residential streets of Spruce St and Redwood St had the lowest volumes.

Traffic counts were also collected for the LADOTD roundabout study in 2012. These volumes were approach only volumes for the intersection of Main St. and LA 44/ 5th St and not bi-directional counts; therefore, these counts could not be directly compared to the 2017 data. The approach volumes collected in the roundabout study were slightly higher than the 2017 data; however, this can be attributed to the counts being taken at different days of the week and year.

The information gathered was used to determine the proposed alternate routes for the Pedestrian/Bike Corridor. Ultimately, the preferred concept was decided on to avoid the high levels of volume exposed by the traffic counts measured by USI.

2.12 CRASH DATA

Crash data for the study area was provided by RPC for the years 2013-2015. Figure 12 presents the location and type of each crash and Figure 13 presents the locations of fatal/serious and moderate crashes in the study area. Understanding the vulnerable and more dangerous areas and intersections within the study area provided the guidance necessary to determine the proposed and preferred alternative routes.

A review of Figure 12 indicates a high concentration of crashes including left turn and right angle crashes along Main St. This could be attributable to current on street parking with multiple access points along Main St. The intersection of Main St at LA 44/ 5th St had approximately three (3) reported left turn crashes that are expected to be reduced with the implementation of the proposed LADOTD roundabout. The intersection of 5th St at Cardinal St had five (5) reported right angle crashes. The intersection of Main St at Airline Hwy had approximately fifty-six (56) reported crashes potentially due to the high volumes at the intersection. The two (2) reported crashes involving a pedestrian occurred at the Airline Hwy intersection and on Walnut St.

A review of Figure 13 indicates seven (7) moderate injury crashes at the Main St and Airline Hwy intersection including a single fatality. Two (2) moderate injury crashes were reported on 5th St.

3.0 CONCEPT DEVELOPMENT

In order to plan safe and accessible multi-modal routes and roadway improvements for planning purposes associated with this project, an understanding of specific design guidelines are necessary. The Pedestrian and Bicycle Facility Design Guidelines provides practical design advice that balances the needs of pedestrians, cyclists and motorists. The Roadway Design Guidelines provide standards for roadway design and traffic safety. The Complete Streets Design Criteria advises how best to provide the transportation options needed by the community. This criteria informed the design on multi-modal transportation networks within the Parish that safely accommodate access and travel for all of its users.

3.1 PEDESTRIAN AND BICYCLE FACILITY DESIGN GUIDELINES

The following EDSMs provide LADOTD policy guidance for planning and engineering design:

- EDSM I.1.1.14 Policy for Resurfacing Projects
- EDSM II.2.1.14 Bicycle and Pedestrian Facilities
- EDSM II.2.1.7 Curb Policy
- EDSM IV.3.1.3 Sidewalks in Highway Rights-of-Way By Permit
- EDSM II.2.1.14 Bicycle and Pedestrian Facilities
- EDSM II.2.1.10 Requirements for Construction of Bicycle & Pedestrian Facilities

Federal policies clearly state that the needs of bicyclists and pedestrians should be considered in every transportation project. Statements on accommodating bicycles and pedestrians can be found in the most recent transportation law (SAFETEA-LU), and in policies issued by the United States Department of Transportation (USDOT).

The US Department of Transportation and Federal Highway Administration provides the following to “describe Federal legislative and policy direction related to safety and accommodation for bicycling and walking.”

- FHWA Guidance: Bicycle and Pedestrian Provisions of Federal Transportation Legislation (Updated September 10, 2015)

The DOT policy *“is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide — including health, safety, environmental, transportation, and quality of life — transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes.”*

The following resources are also provided by the FHWA

- Separated Bike Lane Planning and Design Guide – May 2015
- Pedestrian Facilities Users Guide – Providing Safety & Mobility – March 2002
- A Guide for Maintaining Pedestrian Facilities for Enhanced Safety – October 2013
- Small Town and Rural Multi-Modal Networks - December 2016
- Incorporating On-Road Bicycle Networks into Resurfacing Projects – March 2016

3.3 ROADWAY DESIGN GUIDELINES

Because there are areas that reflect high crash data and potential conflict, implementation of the *Minimum Design Guidelines for Urban Arterial Roads and Streets* for improved vehicular traffic safety is therefore a priority.

All road work shall comply with the latest of the following publications:

- AASHTO Geometric Design of Highways and Streets
- AASHTO Roadside Design Guide
- AASHTO Guide for the Development of Bicycle Facilities
- AASHTO Guide for Planning, Design, and Operations of Pedestrian Facilities
- Manual on Uniform Traffic Control Devices

Any road work that is conducted on state routes shall comply with the above resources as well as the latest of the following publications:

- LADOTD Standard Plans and Details
- LADOTD Roadway Design Procedures and Details
- LADOTD Minimum Design Guidelines

3.4 COMPLETE STREETS DESIGN CRITERIA

The Complete Streets Program requires that all transportation improvements be planned, designed, and constructed to encourage walking, bicycling and transit use; and promotes the full use of, and safe operations for all users of the Parish's transportation network.

According to the Ordinance, The Council of St. John the Baptist Parish shall establish and implement a Complete Streets program by requiring that all planning, designing, funding, operation and maintenance of the Parish's transportation system accommodate a safer environment for all users and modes, encourage a healthier and more active lifestyle for all citizens of this Parish, provide for increased connectivity and access, encourage and support economic development efforts, and improve citizens' quality of life.

In accordance with the LADOTD Complete Streets Work Group – Final Report, dated July 2010, the following actions are recommended:

- Reduce travel speeds on urban and suburban collectors and select arterials that serve pedestrians and bicyclists through setting of appropriate design speed which take into account the needs of all users. Geometric design will be the primary tool to set appropriate speeds.
- Provide bike lanes or paved shoulders where adequate space exists, as they are the preferred facilities on major roadways. Bike lanes are preferred on urban and suburban roadways, and paved shoulders are preferred on rural roadways.
- Provide appropriate crossings at uncontrolled locations that utilize design measures to improve
- Pedestrian safety, particularly those on roadways with three or more travel lanes.
- Provide appropriate pedestrian accommodations on all projects whether or not sidewalks are provided.
- Require the provision of appropriate pedestrian bicycle facilities as a condition of approval.
- The minimum width of sidewalks installed by the Department is to be 5'-0". Wider sidewalks may be appropriate in areas with higher pedestrian volumes. The assumption is that a minimum of a 5'-0" grass buffer will be provided between the sidewalk and the adjacent roadway.
- Reducing travel lane widths – lane widths may be reduced per the flexibility defined in AASHTO's Policy on the Geometric Design of Highways and Streets and based on engineering judgment.
- Reconfiguring or reducing on-street parking – this method is a last resort, as changes to parking are often opposed by adjacent landowners.
- Provide appropriate bicycle compatible features (i.e. bicycle safe drainage grates, placement of rumble strips, type of expansion joints, etc.) on all projects whether or not officially designated as bikeways.

3.5 OPPORTUNITIES AND CONSTRAINTS

OVERVIEW

The Study Area consists of significant connections from Downtown Laplace at Main Street/ Airline Highway (US 61) area as well as through traffic for neighborhoods and businesses along the Mississippi River. The specific purpose of this section is to define the opportunities and constraints found within this corridor, which will inform the proposed Preferred Alternative.

Opportunities

The study area is recognized as a valuable and historic central node within the community. Opportunities for improvement and trail development include:

- The proposed Rail Transit Center will increase the amount of visitors to the area and in conjunction with the Mississippi River Trail can assist in making this area of town a destination for locals and out of town travelers.
- Incorporating a designated trail head at Emily C. Watkins Park would provide a place for visitors to park, unload and picnic in a safe place prior to or after using the Mississippi River Trail or visiting Main Street. The trail head would then become a destination for families to park with accessibility to pavilions, bathrooms, water and all the while providing a connection to Main Street and the Rail Transit Center.
- The Railroad line can provide an area for Pedestrian/Bicycle Facilities along its ROW.
- Encourage growth and walkability within the Main Street corridor. This street already has high use and improvements would make an impact
- Provide a better corridor between the Airline/Main Street area and the Mississippi River Trail.
- Enhance the historic 5th Street neighborhood character with a well-planned and safe sidewalks and cycle track.

Constraints

While opportunities are numerous, the constraints must be considered. Constraints affect trail implementation, constructability and costs. They include:

- Rights of way that include open ditches that require covering to provide pedestrian and/or bicycle facilities. In many of these instances, the narrow right-of-way creates a scenario where users may be in conflict with vehicles and trucks traveling close by at high speeds making safety a significant concern.
- Heavy traffic along Airline, Main Street, East/West 5th Street includes a dangerous curve, and impaired sight distances along Cardinal and West 2nd Streets. These are a concern if shared-use were to be introduced in these areas which is no proposed as part of this report.
- Overall lack of Pedestrian and Bicycle Facilities were noted throughout. Sidewalks appear and disappear at street intersections rendering them difficult to use.

- Significant railroad crossings that do not allow for safe Bicycle and pedestrian crossings due to narrow, steep or uneven transitions over the tracks.
- Misuse of DOTD Roadway Shoulder on Main Street. Business Patrons tend to park in unauthorized or undedicated parking areas causing inadequate and unsafe areas for non-vehicular users.
- Numerous private drives create conflict points along potential travel routes. Every crossing is a potential safety hazard since the majority of driveway users are backing out of their driveway onto the street.
- Lack of functional access points to Mississippi River Trail along the levee within and extending beyond the study area.

4.0 DESIGN DEVELOPMENT

4.1 MAIN STREET AS “COMMON GROUND”

In April 2016, the team of Roger Henderson and Moffatt & Nichol prepared a mockup of the potential revitalization of Main Street in various phases. See Main Street Revitalization Mockup 4.13.16 by Roger Henderson of Moffatt and Nichol located in Appendix C. This study is also mentioned in Section 1.4 “FUTURE PROJECTS OR PAST STUDIES IN THE AREA”. While there is a need for additional evaluation and further design of the presented mockup, the DDG/USI team supports the overall concept as proposed for the revitalization of Main Street. Building upon the Moffatt and Nichol mockup, DDG/USI is recommending that official 2-Way Separated Bike Lanes be installed on the West side of Main Street in order to provide cyclists a safe continuous route with a physical separation from vehicular traffic. Providing 2-Way Separated Bike Lanes on the west side allows the east side of Main Street to contain the needed parallel parking where the majority of the business are currently located.

MAIN STREET RECONFIGURATION

Helping the City of LaPlace renew their city center will maximize one of their greatest assets. Beginning the first phase of development with the reconfiguration of Main Street will invigorate the area and community bringing perhaps a renewed identity and reintroduction to the history and culture that was once established there. Once this new destination has been established, the second phase of the project, the Main Street to River Connection, can be constructed in order to anchor downtown to the Mississippi River Trail.

The following interventions are recommended as a first phase to the ultimate revitalization goal that will be improved in the future. The recommended reconfiguration is illustrated on Figure 14 and consists of the following elements:

West Side of Main Street – *FIRST PRIORITY (P)*

- Establish a 3 and 5-foot wide buffer along street edge and shoulder for separation. *(P)*
- Create 10-foot wide, 2-Way Separated Bike Lanes on shoulder for bicycle use. *(P)*
- Add curb and gutter for drainage and separation of pedestrian/bicycle use. *(P)*
- Establish a 6-foot wide sidewalk for pedestrian use. *(P)*
- Create “bump-outs” at intersections to reduce pedestrian crossing & bicycle safety.

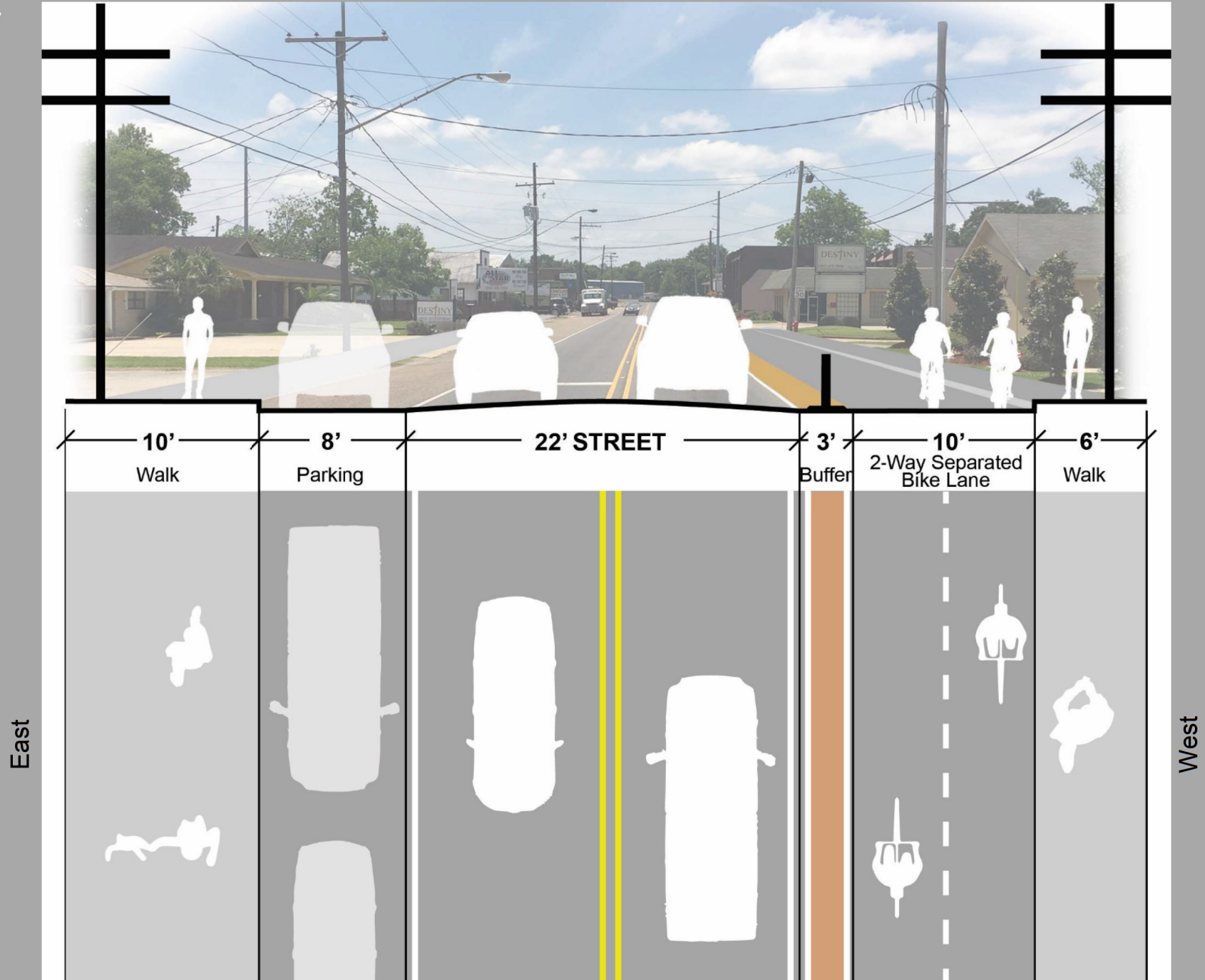
East Side of Main Street

- Create parallel parking on shoulder to serve Businesses.
- Add curb and gutter for drainage and separation of pedestrian/vehicular use.
- Establish a 10-foot wide sidewalk for pedestrian use.
- Create “bump-outs” at intersections to reduce pedestrian crossing distance.

In Figure 15, the National Association of City Transportation Officials (NACTO) graphically demonstrates a two-way cycle track which is being proposed on the West side of Main Street.

The estimated budget for this element of the project is **\$981,500**
See Section 5.0 Preliminary Cost Estimates for itemized list.

Figure 14



Preferred Alternative: Main Street Intervention

Figure 15



*Graphics illustrated on this slide are obtained from the National Association of City Transportation Officials: www.nacto.org.

Preferred Alternative: Main Street Intervention

4.2 MAIN TO RIVER CONNECTION

The final segment of the recommended plan is to connect Main Street to the bicycle and walking trail on the Mississippi River levee. The Mississippi River Trail (MRT) is a major attractor to bring tourists, families, and enthusiasts closer to the historical communities and plantations adjacent to the trail. Every day communities and businesses invest in infrastructure around Interstate exits to capture travelers looking for goods and services. Similarly, by providing appropriate infrastructure for trail users, one can expect to increase use with a reciprocal economic impact on the area.

The infrastructure necessary for trails of this nature include:

- Safe routes with adequate signage for wayfinding.
- Access to and from the trail.
- Parking, repair stations, restrooms, water stations, overall maps of trail system and surrounding attractions.

It is imagined that once these necessities are provided for users, the demand and need for restaurants, specialty retail shops, and other attractions will grow and help drive the economy.

The estimated budget for this element of the project is **\$1,395,500**

See Section 5.0 Preliminary Cost Estimates for itemized list.

ALTERNATIVES

Initially three alternatives were considered for a shared-use trail connection that ties together Main Street and the MRT. The alternatives considered various routes with an array of opportunities and constraints associated with each choice. Figure 16 shows the routes as listed below and the pros and cons associated with each alternative:

ALTERNATIVE 1: SPRUCE / REDWOOD STREET (Fig. 17) *Estimated Cost: \$722,300*

- Pros: low traffic, speed and relatively safe route
- Cons: Severe grade at railroad crossing, indirect route, several residential homes and driveways along route with continuous on-street parking

ALTERNATIVE 2: CARDINAL STREET (Fig. 18) *Estimated Cost: \$1,086,000*

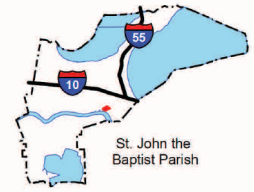
- Pros: Most direct route
- Cons: Acute angled railroad crossing, higher traffic volume and speeds, open ditches that would require culverts for sidewalks and paths, would require more costly curbs and gutters, Extremely unsafe turn at River Road (West 2nd Street)

ALTERNATIVE 3: EAST 5TH STREET (Fig. 19) *Estimated Cost: \$2,136,000*

- Pros: High visibility and utilized corridor
- Cons: Acute angled railroad crossing, narrow ROW width, higher traffic volume and speeds, open ditches that would require culverts for sidewalks and paths, would require more costly curbs and gutters, numerous driveways, and may create an unsafe feeling by users.

Figure 16

Exhibit * - Bike Path Route Options



LEGEND

Conflict Points Comparison			
Option	Route	Total	W/O Main St
1	Spruce St/ Redwood St	64	27
2	Cardinal St	61	24
3	E 5th St	70	33

Southbound Sight Distance Facing East at W 2nd St			
Redwood St		Satsuma St	Cardinal St
w/Parked Car	w/o Car		
120ft	550ft	190ft	<50ft

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 2. No attempt has been made by Duplantis Design Group, PC to verify site boundary, title, actual legal ownership, deed restrictions, servitudes, easements, or other burdens on the property.



Date: 3/14/17



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Existing

Figure 17

Source: DDG Date: 4/11/17

Pros:

- Low Traffic Volume
- Low Traffic Speed
- Relatively Safe Route

Cons:

- Severe gradient at R/R crossing.
- Indirect Route
- Several residential homes along Route
- Numerous driveways and on-street parking.



Proposed



Alternative 1: Redwood Street

Existing

Figure 18

Source: DDG Date: 4/11/17

Pros:

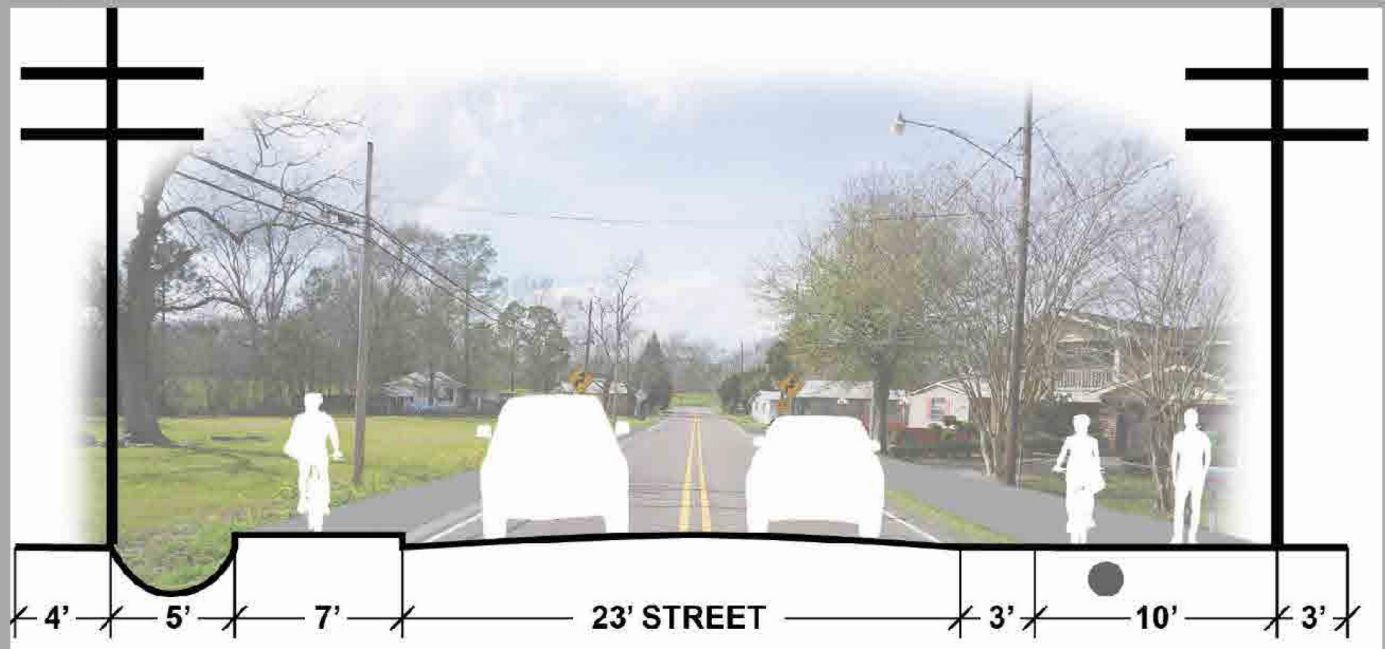
- Most direct route

Cons:

- Acute angled R/R crossing.
- Higher Traffic Volume
- Higher Traffic Speeds
- Open ditches that require culverts for walks and paths.
- Likely to require costly curb and gutters.
- Extremely UNSAFE turn at W. 2nd Street.



Proposed



Alternative 2: Cardinal Street

Existing

Figure 19

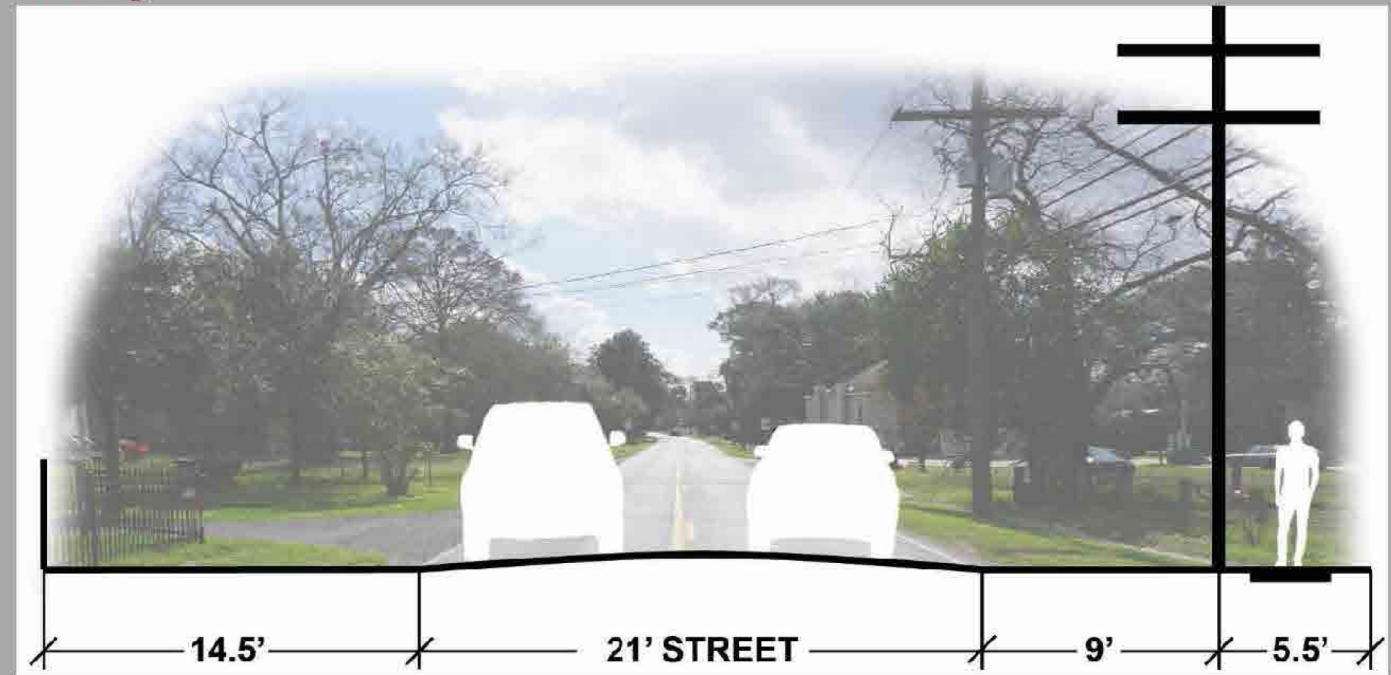
Source: DDG Date: 4/11/17

Pros:

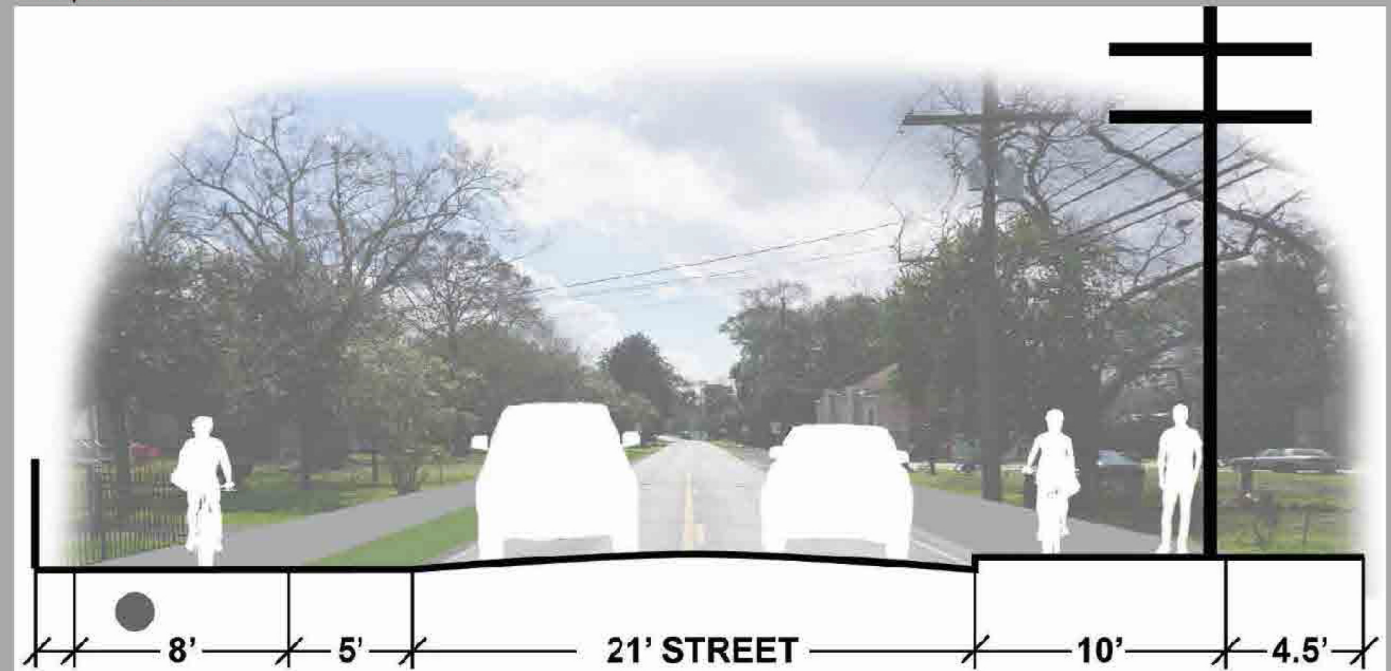
- High visibility.
- Highly utilized corridor.
- More connectivity with surrounding area.
- Utilize existing access to Mississippi River Trail at east of area.

Cons:

- Acute angled R/R crossing.
- Narrow ROW width
- Highest Traffic Volume
- Higher Traffic Speed
- Likely to require costly curb and gutters.
- Numerous driveways.



Proposed



Alternative 3: East 5th Street

CONFLICT POINTS

A conflict point estimation and comparison was conducted for each of the three alternatives and the subsequent Preferred Alternative. A conflict point is a location where a vehicle could come in contact/ conflict with another vehicle, bicycle or pedestrian. The higher the number of conflict points, the higher risk of a potential crash. Table A presents the conflict point comparison for the four alternatives both with and without Main St, as Main Street is common to all alternatives.

**TABLE A
CONFLICT POINT COMPARISON**

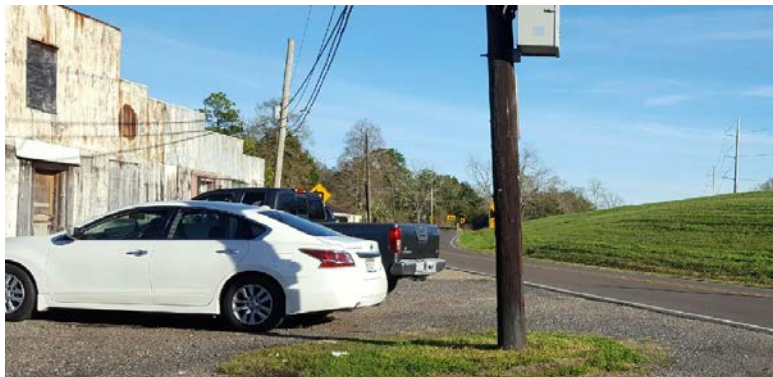
Alternative	Route	Total Conflict Points	Conflict Points without Main St
1	Spruce St / Redwood St	64	27
2	Cardinal St	61	24
3	E 5 th St	70	33
Preferred 4	Spruce St / Rosebud St	49	12

A review of Table A indicates the Preferred Alternative utilizing Spruce St/ Rosebud St, has the lowest number of conflict points and Alternative 3, 5th Street, had the highest. Based on the estimated number of conflict points, the Preferred Alternative is expected to provide the safest route. The Preferred Alternative will be discussed further in Section 4.4.

SIGHT DISTANCE

A sight distance evaluation was conducted for Alternatives 1 and 2 due to the proximity to the existing horizontal curve on Cardinal Street / 2nd Street. Sight distance is not expected to be an issue for Alternatives 3 and the Preferred Alternative (#4). The evaluation included measuring the distance from the southbound approach of Redwood St and Cardinal St looking east towards the horizontal curve to a point where the view was obstructed. Based on the AASHTO’s *A Policy on Geometric Design of Highways and Streets 6th Edition* for a 40 mph speed limit, a minimum sight distance of 500 feet is required for a left turn from a stop at a minor street approach.

During the evaluation of Alternative 1, vehicles were observed to be parked in close proximity to the roadway in the northeast quadrant of the Redwood St at 2nd St intersection, severely impacting sight distance. This is due to the minimal distance between an existing development in the quadrant and the roadway (see photo below).



*Image 41 – W. 2nd St. – Uncontrolled Parking, Visibility and Driveway Conflicts
Photo Credit: USI 3-8-17*

The sight distance evaluation for Alternative 1 was conducted with and without a vehicle parked at the development. The evaluation indicated that the sight distance with a vehicle parked at the development was approximately 120 feet. Measures to relocate or improve the parking at the establishment are recommended as sight distance is not adequate with the current parking situation. The estimated sight distance without a vehicle parked at the development was 550 feet, which is more than the required sight distance of 500 feet.

The sight distance evaluation for Alternative 2 indicated less than 50 feet of sight distance at the due to the proximity of the crossing to the horizontal curve. Alternative 2 is not recommended due to the safety concern of the minimal sight distance.

EASE OF ROUTE

Alternatives 1 and 2 are the most direct routes from Main Street to the MRT, while Alternative 3 contains a lengthy circuitous course.

4.3 PREFERRED DESIGN ALTERNATIVE

Upon making the transition from the roundabout to the River, the team decided to look beyond the study area to find other alternatives that addressed the cons of Alternates 1 through 3. Alternative 1 provided the best opportunities and thus the team studied the area with this path in mind in order to find the most Preferred Alternative. This is when the land adjacent and north of Emily Watkins Park was found to be an undeveloped right-of-way belonging to the Parish. This Parish Park at the end of the adjacent Redbud Street now provides an opportunity to create a destination trail head that is connected to the Mississippi River Trail and Downtown LaPlace. Because the vacant property adjacent to the park is St. John the Baptist Parish School Board Property along with an undeveloped Parish ROW running from Captain G. Bourgeois St. to the end of Redbud Street, the team decided that this route would provide a safer and more direct path for a shared-use trail directly to the proposed trail head at Emily Watkins Park.

The trail head would become a destination for families to park with accessibility to pavilions, bathrooms, water and all the while providing a connection to Main Street.

- **Pros:** Simplified and direct route that reduces interaction with higher volume streets, creates a trail head that can become a destination, and a fairly low cost approach.
- **Cons:** Indirect route, severe gradient at railroad crossing.

This route also provides potential future opportunities with the abandoned Mason's Lodge adjacent to the existing Emily Watkins Park for re-development as a Trailhead center with restrooms, shower facilities, gym for workouts, bicycle repair shop or other services that would attract trail users. (Fig. 20)

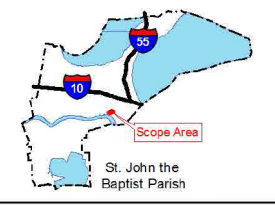
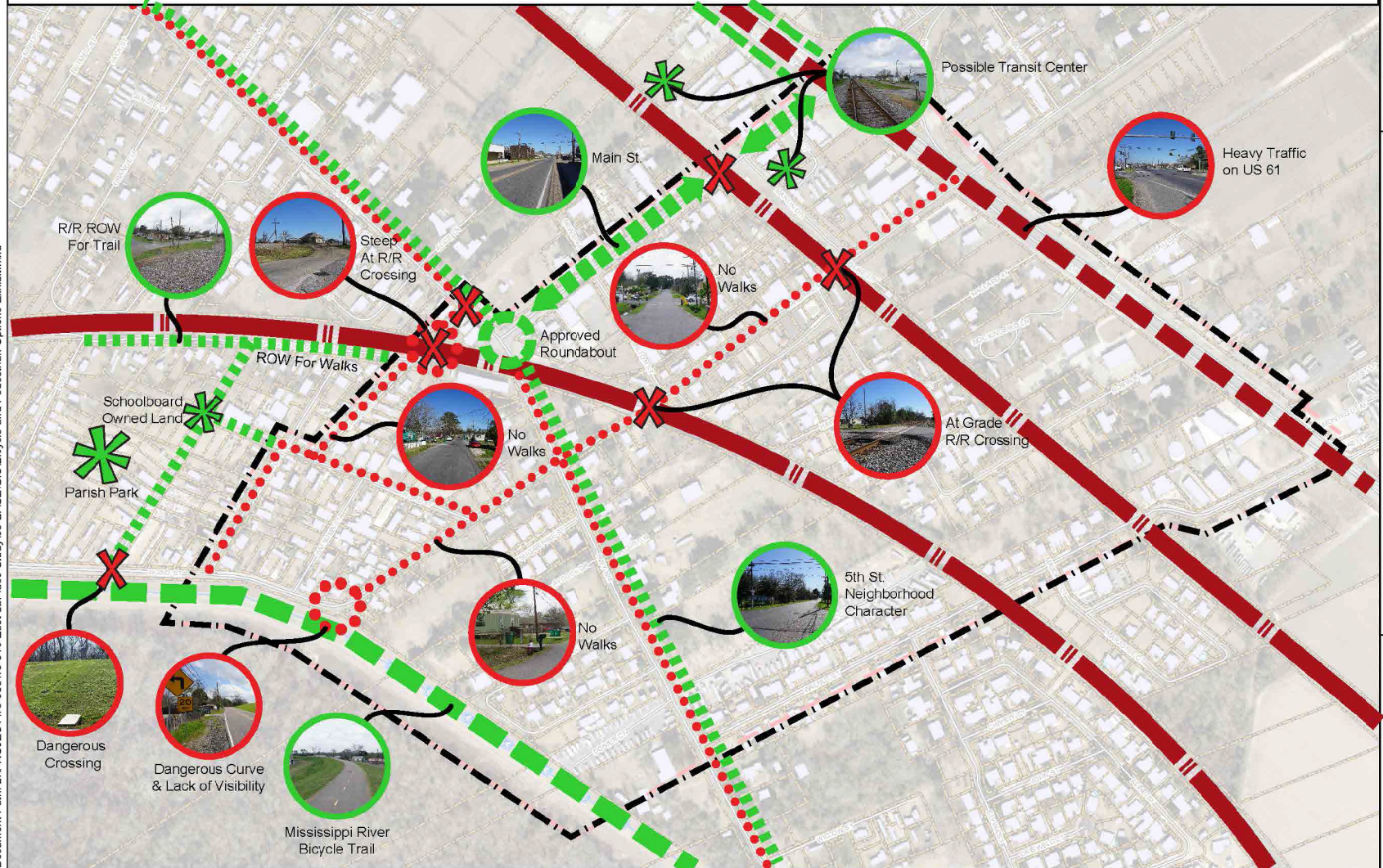
DESCRIPTION OF OVERALL PREFERRED ALTERNATIVE (Fig. 21)

The LaPlace trailhead and multi-modal connector project is an economic stimulus to the community and region that will connect the Mississippi River Trail (MRT) to downtown LaPlace and the future LaPlace Transit Center.

The route of the recommended Preferred Alternative begins at the intersection of Airline Highway and Main Street, travels south on Main Street and turns west at W. 5th Street. Almost immediately, the route takes a turn south on Spruce Street and crosses the railroad tracks. After the crossing the route will turn west again and follow the Captain G. Bourgeois Street right-of-way until it reaches the intersection of the undeveloped Redbud right-of way. The route will then turn south and cross Captain G. Bourgeois Street to follow the undeveloped Redbud right-of way until it reaches the proposed Trailhead at Emily C. Watkins Park. From here the route will continue south along Redbud Street where it then crosses W. 2nd Street to make the transition up the levee to the Mississippi River Trail. A more thorough explanation of the connector project is described in four segments; 1) Main Street, 2) Main Street at 5th Street Roundabout, 3) Spruce Street, 4) Captain G. Bourgeois Street, 4) Undeveloped Right-of-Way, and 4) Redbud Street to the MRT.

Figure 20

Opportunities and Constraints Exhibit



LEGEND

- Scope Boundary
- US 61
- Rail Road
- No Walkways
- Main St
- ROW for Walks
- River Bike Trail
- Opportunity
- Dangerous Crossing

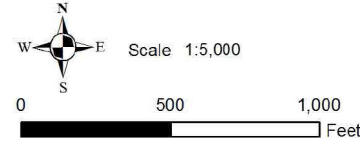
Source: (Citation) for 2014 three inch plus imagery (geotiff)
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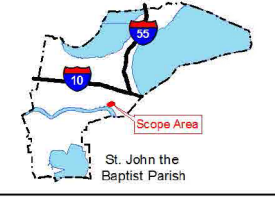


Date: 5/1/17

Document Path: L:\PROJECT\16-0001\16-516 East LaPlace Study\63-BASE\GIS\Bicycle and Pedestrian Options Exhibit.mxd

Figure 21

Bicycle and Pedestrian Options Exhibit



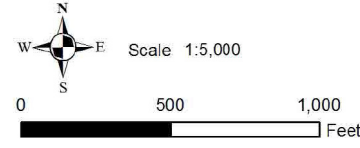
LEGEND

- Scope Boundary
- Street Centerline
- Railroad
- Buildings
- Parcels
- Lots
- Shared Use Trails
- School Board Property
- Parish Park
- Pedestrian Sidewalk
- Bicycle Facility
- Urban Bike/Ped

Source: (Citius) for 2014 three inch plus imagery (geotiff)
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MAIN STREET (Fig. 14, 22, 23)

The treatment of Main Street is fully described in section 4.1 Main Street as “Common Ground” and is the central focus of the community. The multi-modal corridor connects to US Hwy. 61 and the future Transit Center adjacent to the railroad track and then transitions south towards the proposed LADOTD Roundabout at LA44-W.5th Street.

MAIN STREET AT 5TH STREET ROUNDABOUT (Fig. 24)

Where Main Street Terminates at 5th Street, a preliminary roundabout design has been approved by LADOTD. Utilizing the preliminary design provided by DOTD, the same 6’ Pedestrian Walk, 8’ 2-Way Separated Bike Lanes and 5’ buffer from Main Street is proposed to extend and to wrap around the Roundabout to where Spruce Street intersects with W. 5th Street. A crosswalk is recommended for pedestrians and cyclists to cross over W. 5th Street to Spruce Street. In this instance, vehicles must stop and yield the right-of-way to pedestrians within the crosswalk.

SPRUCE STREET (Fig. 25)

Along Spruce Street is a rail line that has a narrow and steep crossing with a sharp drop off into a large ditch. Because this crossing is paramount in order to provide a Main to River Pedestrian/Bike Corridor, it will require improvement to reduce pedestrian and cyclist injury. Prior to Pedestrians and Cyclists crossing W. 5th Street and beginning own Spruce Street, the street will convert into a Neighborhood Greenway. Neighborhood Greenways are residential streets designed to prioritize bicycling and enhance conditions for walking. Pedestrians will be provided an 8’ walkway that will cross over the tracks separated from the roadway. A railway guard fence along the pedestrian walk is recommended to provide a barrier between those passing adjacent to the large drainage ditch. Once the transition over the railway has been made and the corridor turns onto Captain G. Bourgeois Street, the 8’ Pedestrian Walk will convert into a 12’ Shared Use Path that can accommodate more residential uses such as children learning to ride a bicycle or groups of parents walking strollers to the park.

CAPTAIN G. BOURGEOIS STREET (Fig. 26, 27)

This portion of the route provides the absolute least amount of conflict points possible as t along the right-of-way between Captain G. Bourgeois Street and the railway line. This street has very low volume and allows the 12’ Shared Use Path and a Neighborhood Greenway on Captain G. Bourgeois Street to avoid any driveway crossings. They are most often found on local streets where traffic calming techniques tend to lead faster vehicular traffic towards other nearby main streets with faster speed limits. A protected crossing where vehicles must stop and yield the right-of-way to pedestrians within the crosswalk will be provided to transfer the shared use path and cyclists along the Neighborhood Greenway to the existing undeveloped Redbud right-of-way.

UNDEVELOPED REDBUD RIGHT-OF-WAY (Fig.28, 29)

This portion of the 12’ Shared Use Path will proceed through the undeveloped Parish right-of-way to the Emily C. Watkins Park trailhead at the end of Redbud Street and adjacent to more undeveloped property that belongs to the St. John the Baptist School Board. This path will be free of conflicts and can be outfitted with site elements such as benches or lighting if the needs of the community call for it in the future.

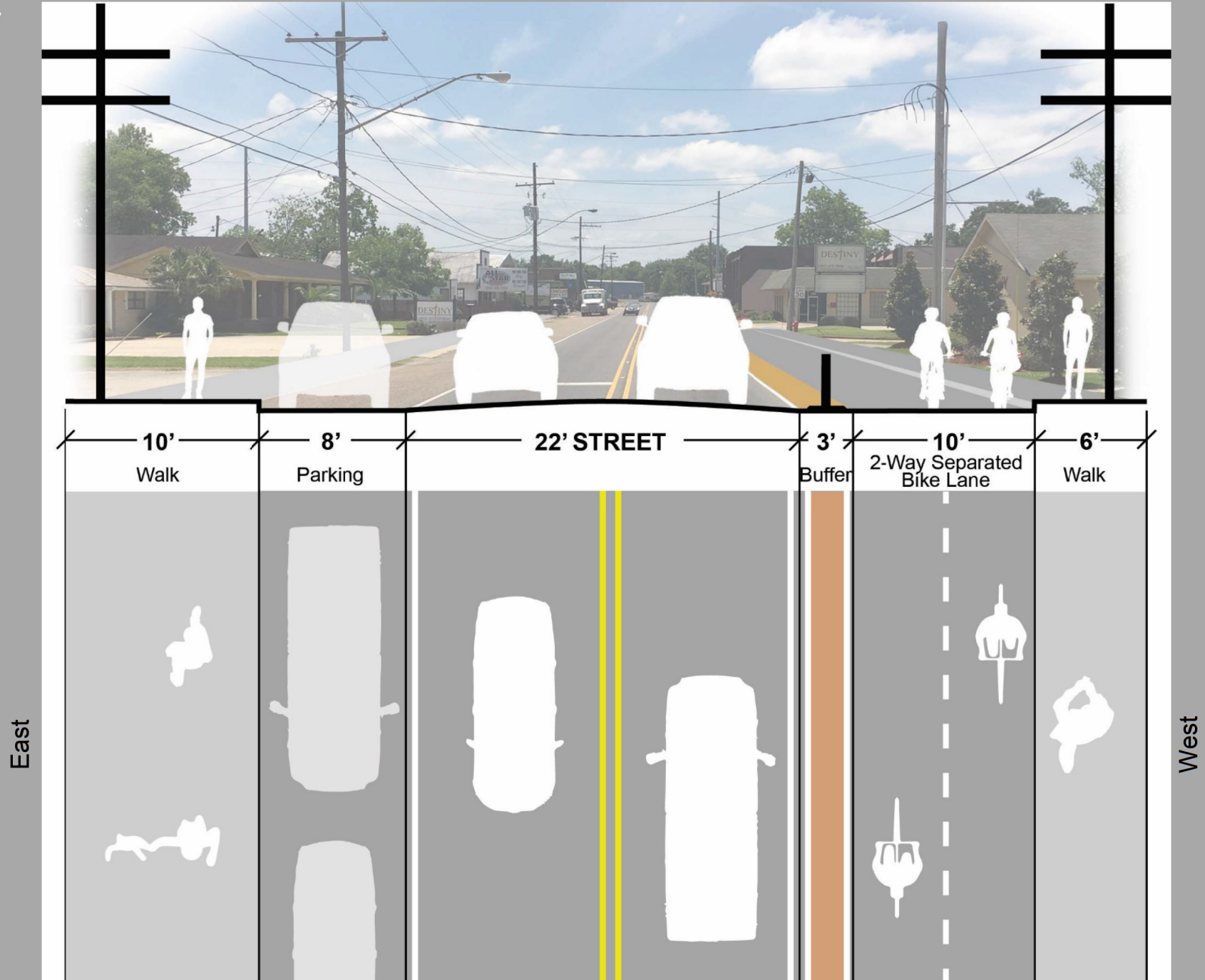
EMILY WATKINS PARK AT REDBUD STREET TO THE MISSISSIPPI RIVER TRAIL (Fig.30, 31)

From the public park at the end of Redbud Street to West 2nd Street there are about five houses on the west side of the street and a cemetery along the east side. Along this street, a Neighborhood Greenway and a 5' Pedestrian Walk along the Cemetery property is recommended followed by a protected crossing on W. 2nd Street where vehicles must stop and yield the right-of-way to pedestrians within the crosswalk. Pedestrians and cyclists can then make their way up to the Mississippi River Trail atop the levee. In order to access the trail a 5' Pedestrian Stepped Walk and an 8' Ramped Shared Use Access Path will be provided.

FUNDING PRIORITIES

- **Recreational Trails Program** (*Annual Application Deadline = July 1st*)
 - Levee Ramp from MRT to 2nd Street
 - RRFB's / Crosswalk @ 2nd Street
 - Trailhead @ Emily Watkins Park
 - 12' Shared Use Path from Trailhead to Capt. Bourgeois
 - RRFB's / Crosswalk @ Capt. Bourgeois
 - 12' Shared Use Path in R/R ROW along Capt. Bourgeois
- **LWCF Outdoor Recreation Program** (*Annual Application Deadline = April 1st*)
 - Trailhead @ Emily Watkins Park
- **DOTD Transportation Alternative Program (DOTDTAP)**
(*Bi-Annual Application Deadline = Oct. 31, 2018*)
 - 8' Pedestrian Walk & R/R Crossing along Spruce Street
 - RRFB's / Crosswalk @ 5th Street & Spruce
 - 2-Way Separated Bike Lane & Buffer along Main Street
 - Pedestrian Walk along Main Street
- **DOTD Safe Routes to Public Places Program (SRTPPP)**
(*Annual Application Deadline = March 31st*)
 - 8' Pedestrian Walk & R/R Crossing along Spruce Street
 - RRFB's / Crosswalk @ 5th Street & Spruce
 - 2-Way Separated Bike Lane & Buffer along Main Street
 - Pedestrian Walk along Main Street

Figure 14



Preferred Alternative: Main Street Intervention

Figure 22

RECOMMENDED PEDESTRIAN-BICYCLE ROUTE

Date: 6/1/17



6/1/2017

North

0 25 50
1"=50FT

LEGEND:

- ▬▬▬▬ Pedestrian Crosswalk
- ▬ Vehicle Access
- Colored Conflict Area
- ▬▬▬ 2-Way Separated Bike Lane
- ▬ Pedestrian Walkway
- ▬ Pedestrian Buffer
- ▬▬▬ Parallel Parking
- ▬▬▬ Guard Fence

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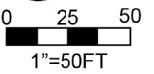
Figure 23

RECOMMENDED PEDESTRIAN-BICYCLE ROUTE

Date: 6/1/17



6/1/2017



LEGEND:

-  Pedestrian Crosswalk
-  Vehicle Access
-  Colored Conflict Area
-  2-Way Separated Bike Lane
-  Pedestrian Walkway
-  Pedestrian Buffer
-  Parallel Parking
-  Guard Fence



Source (Citation) for 2014 three inch plot imagery (pdf/dfs)

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Figure 24

RECOMMENDED PEDESTRIAN-BICYCLE ROUTE

Date: 6/1/17



6/1/2017



LEGEND:

-  Pedestrian Crosswalk
-  Vehicle Access
-  Colored Conflict Area
-  2-Way Separated Bike Lane
-  Pedestrian Walkway
-  Pedestrian Buffer
-  Parallel Parking
-  Guard Fence
-  Rectangular Rapid Flash Beacon (RRFB)

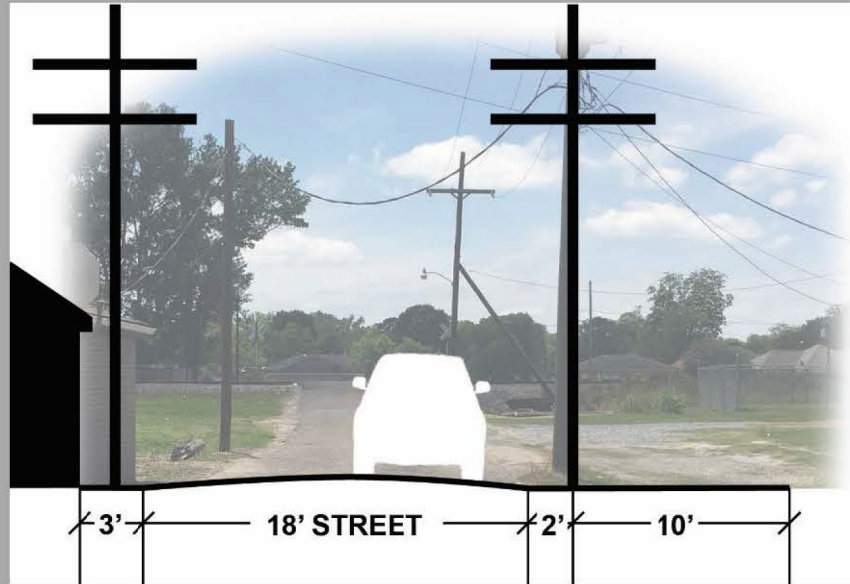


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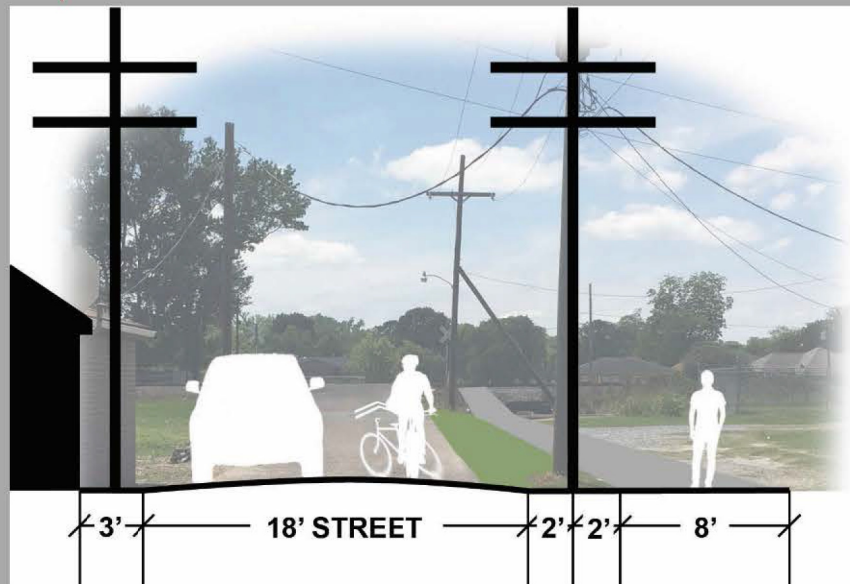


Figure 25

Existing



Proposed



Preferred Alternative: Spruce Street

Figure 26

RECOMMENDED PEDESTRIAN-BICYCLE ROUTE

Date: 6/1/17



6/1/2017



0 25 50
1"=50FT

LEGEND:

- Pedestrian Crosswalk
- Vehicle Access
- Colored Conflict Area
- 2-Way Separated Bike Lane
- Pedestrian Walkway
- Pedestrian Buffer
- Parallel Parking
- Guard Fence
- Rectangular Rapid Flash Beacon (RRFB)

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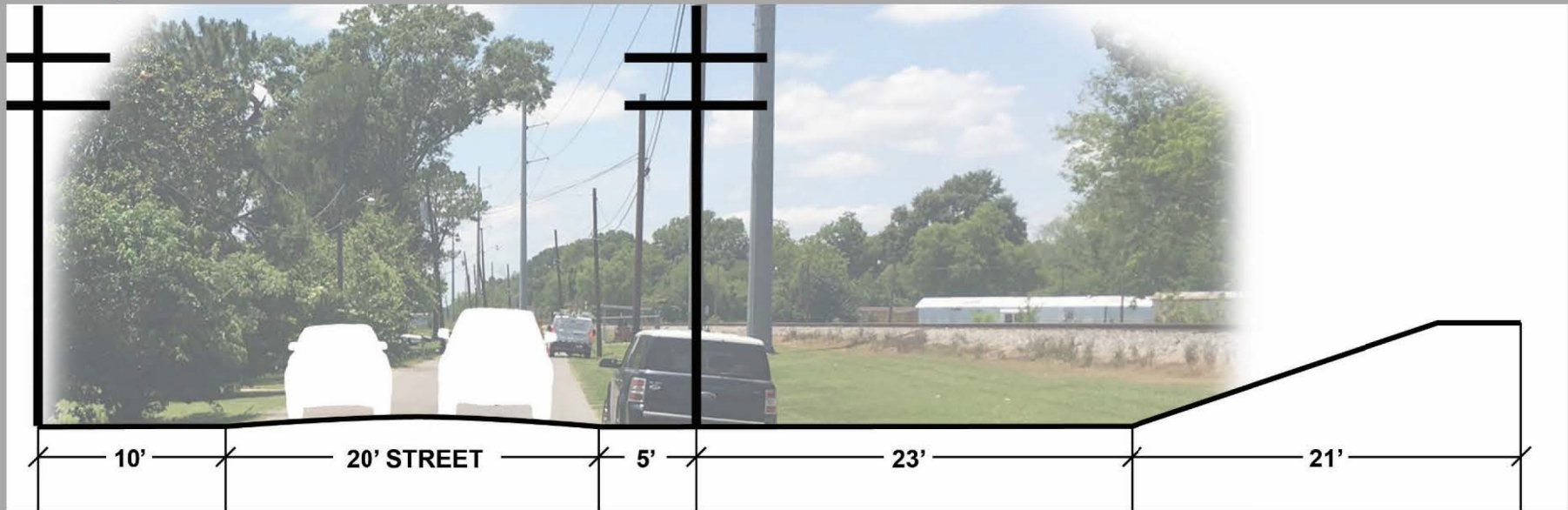
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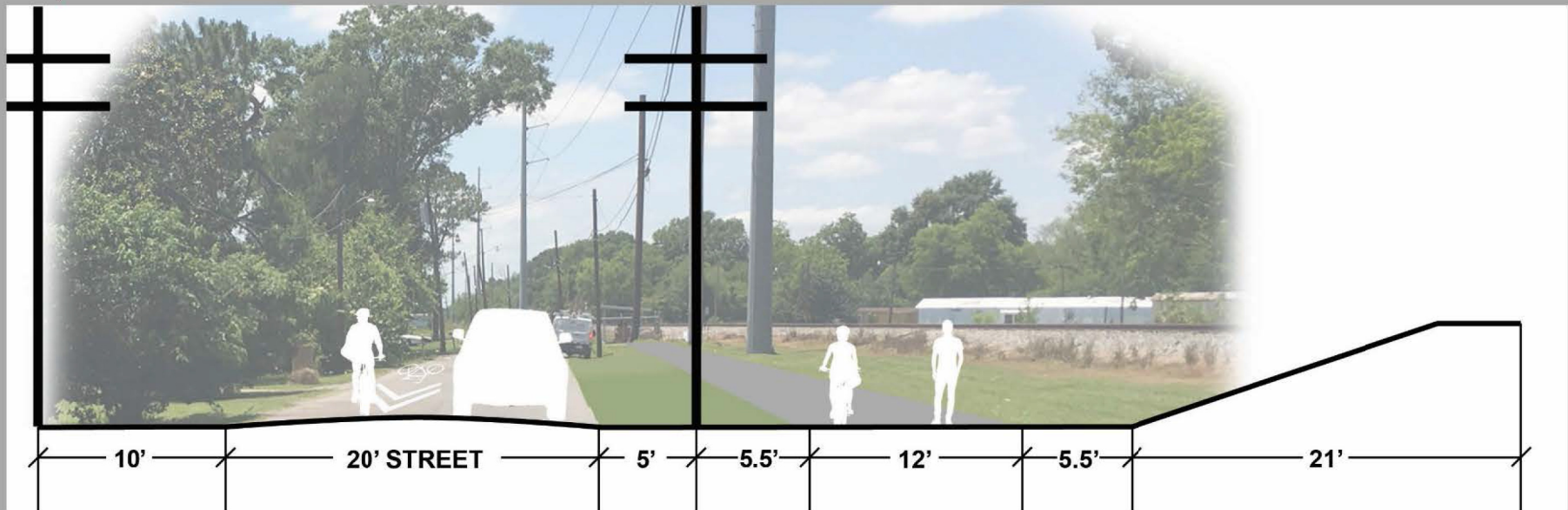
The imagery is projected to UTM 25 NAD 83; unit of measure is meters. The spatial resolution is approximately a three inch pixel. Any use of the data must be accompanied with this citation and accompanying solid/dashed lines embedded within.



Existing



Proposed



Preferred Alternative: Captain G. Bourgeois Street

Figure 28

RECOMMENDED PEDESTRIAN-BICYCLE ROUTE

Date: 6/1/17



6/1/2017

North

0 25 50
1"=50FT

LEGEND:

- ▬▬▬▬ Pedestrian Crosswalk
- ▬ Vehicle Access
- Colored Conflict Area
- ▬▬▬ 2-Way Separated Bike Lane
- ▬ Pedestrian Walkway
- ▬ Pedestrian Buffer
- ▬▬▬ Parallel Parking
- ▬▬▬ Guard Fence
- Rectangular Rapid Flash Beacon (RRFB)

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Existing



Proposed

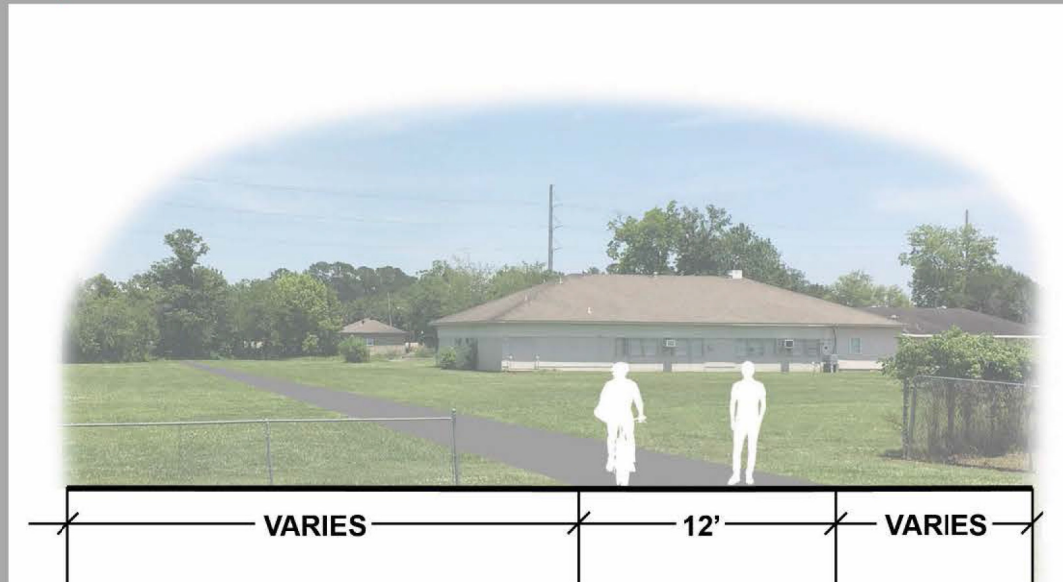


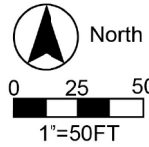
Figure 30

RECOMMENDED PEDESTRIAN-BICYCLE ROUTE

Date: 5/31/17



6/1/2017



LEGEND:

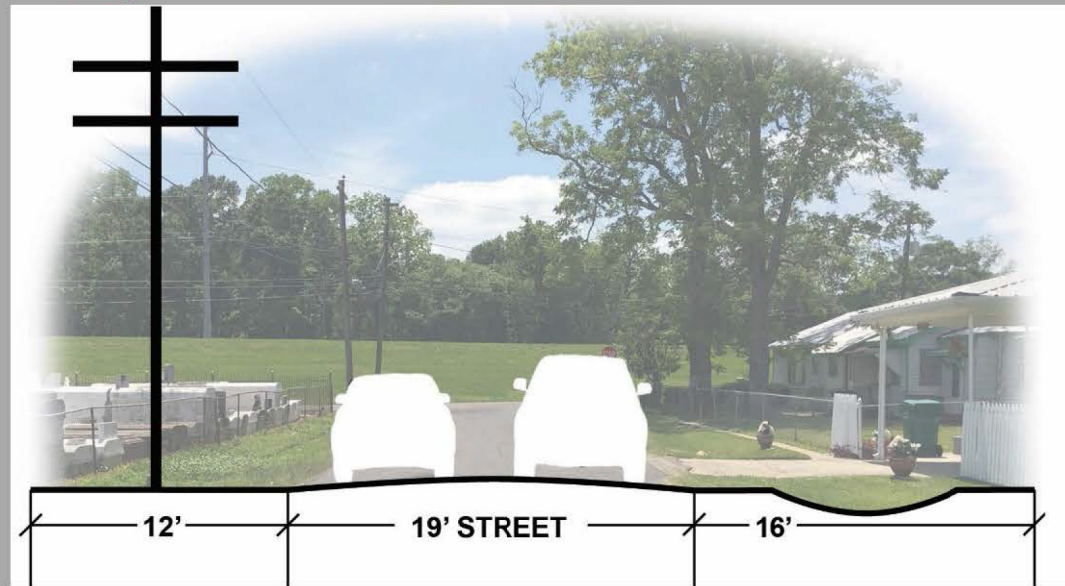
-  Pedestrian Crosswalk
-  Vehicle Access
-  Colored Conflict Area
-  2-Way Separated Bike Lane
-  Pedestrian Walkway
-  Pedestrian Buffer
-  Parallel Parking
-  Guard Fence
-  Rectangular Rapid Flash Beacon (RRFB)

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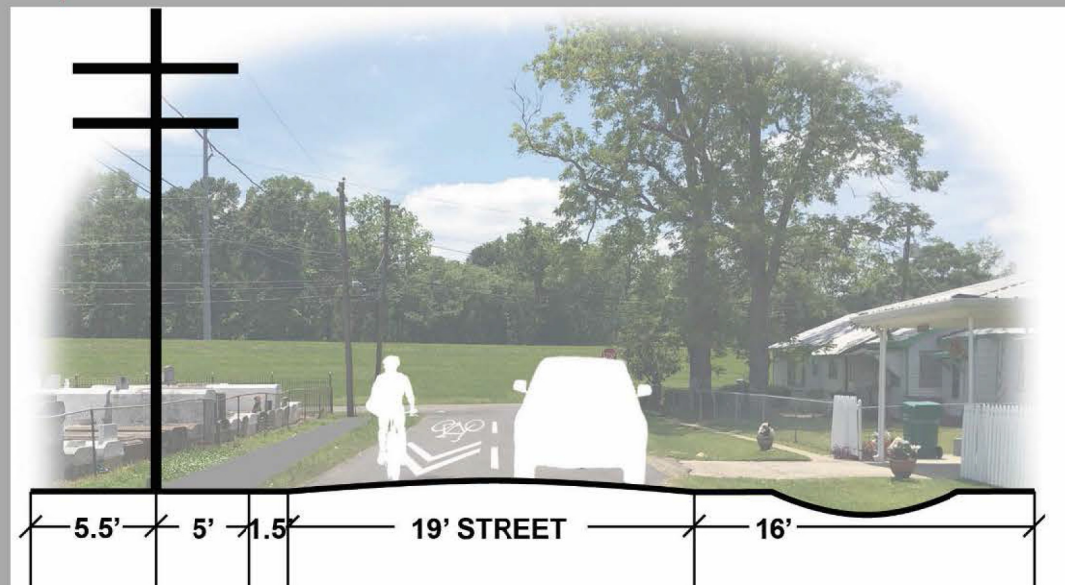

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Figure 31

Existing



Proposed



Preferred Alternative: Redbud Street

4.4 CONNECTING NEIGHBORHOODS TO MAIN STREET

Sidewalks are the key link between neighborhoods, churches, schools, and Main Street and are imperative to achieve a walkable, vibrant community and is an important aspect with connecting the surrounding neighborhoods to Main Street. It is important for pedestrians within the network around Main Street to be provided a connection that would allow them a safe route to shops, schools, businesses and churches. This is necessary for a viable, walkable main street area. It is imperative that a direct connection of the proposed Transit Station to Main Street be a top priority, as well as providing the appropriate amenities.

Sidewalks are recommended to be installed on major connector streets in order to unite the area. (Fig. 32) These improvements are intended to bring connectivity to Main Street, the Future Transit Depot, and the Pedestrian/Bike Corridor and are proposed along East and West 5th Street, W. 3rd Street, W. 2nd Street, Cardinal Street, Milton Street, Martin Drive, Dove Street and Robin Street.

In all proposed locations, the sidewalks and street crossings must be accessible to people with disabilities and adhere to all ADA requirements. The proposed sidewalks must be continuous and form a network for all pedestrians including those with disabilities or the elderly. Sidewalks are proposed on both sides of the streets as it is the safest way to keep pedestrians from crossing the street unnecessarily to remain on a safe path. Considering that the costs for implementing sidewalks on residential streets with many conflicts can inflate at a quick pace, the recommended streets for sidewalks were prioritized in order to make the project available for phasing. See Section 5.0 for the associated sidewalk cost estimates.

COMPONENTS NECESSARY FOR A SUCCESSFUL WALKABLE COMMUNITY:

- Minimum 5-foot wide sidewalks.
- Accessible routes.
- Pedestrian crossings at all intersections.
- Minimize street crossing distances.
- Employ traffic calming techniques where appropriate such as bulb outs.

Because the cost to implement sidewalks on residential streets may inflate quickly, sidewalk improvements are prioritized below to accommodate phasing. Street priority was determined by connecting the nearest streets with the highest number of residents first.

Priority 1: 5th Street & Cardinal:	\$ 418,800.00
Priority 2: Milton & Martin Drives:	\$ 212,000.00
Priority 3: Dove & Robin Streets:	\$ 186,400.00
Priority 4: West 3rd Street:	\$ 48,500.00
Priority 5: Walnut Street	\$ 196,800.00
Priority 6: Airline Highway:	\$ 193,200.00
Priority 7: 5th Street & Cardinal:	\$ 418,800.00
Priority 8: Milton & Martin Drives:	\$ 212,000.00
Priority 9: Dove & Robin Streets:	\$ 186,400.00
Priority 10: West 3rd Street:	\$ 48,500.00
Priority 11: Walnut Street:	\$ 196,800.00
TOTAL SIDEWALK BUDGET NEEDED:	\$ 2,318,200.00

5.0 PRELIMINARY COST ESTIMATES

East Laplace OPINION OF BUDGETARY COST					
TOTAL ITEMIZED PROJECT					
Item	Quantity	Unit	Unit Cost	Item Budget	Line Item Cost
Main Street as "Common Ground"					\$ 981,000.00
6' Wide Sidewalk [West Side]	1,500	LF	\$ 30.00	\$ 45,000.00	
10' Wide Re-Milled Asphalt Cycle Track	1,500	LF	\$ 20.00	\$ 30,000.00	
Plastic Barricade [West Side Barrier]	1,500	LF	\$ 15.00	\$ 22,500.00	
3' Wide Striped Barrier [West Side]	1,500	LF	\$ 3.00	\$ 4,500.00	
Curb & Gutter [West side of Street]	1,500	LF	\$ -	\$ -	
Street Mill and Overlay (22' width)	1,500	LF	\$ 45.00	\$ 67,500.00	
8' Wide Parallel Parking (Re-Striping)	1,500	LF	\$ 5.00	\$ 7,500.00	
"D" Barrier Curb [East Side Barrier]	1,500	LF	\$ 12.00	\$ 18,000.00	
10' Concrete Sidewalk [East Side]	1,500	LF	\$ 60.00	\$ 90,000.00	
Drainage Provisions [East & West Side]	3,000	LF	\$ 50.00	\$ 150,000.00	
Bulb-Outs @ Intersections	8	EA	\$ 15,000.00	\$ 120,000.00	
Intersection Crossings & Signals	3	EA	\$ 20,000.00	\$ 60,000.00	
RRFBs/Bike/Ped Crossing	1	LS	\$ 25,000.00	\$ 25,000.00	
Round-About Treatment	100	LF	\$ 150.00	\$ 15,000.00	
10' Cycle Path/5' Walk on 5th Street	200	LF	\$ 120.00	\$ 24,000.00	
Contingency/Fees/Gen. Conditions	50%	%	\$ 604,000.00	\$ 302,000.00	
<i>Contractor Gen. Conditions</i>	15%	=	\$ 90,600.00		
<i>Construction Contingency (DD Phase)</i>	20%	=	\$ 120,800.00		
<i>A&E Fees (Design, CE&I, Surveying, etc)</i>	15%	=	\$ 90,600.00		
Main to River Connection [Preferred]					\$ 1,395,500.00
8' Sidewalk along Spruce	300	LF	\$ 50.00	\$ 15,000.00	
Neighborhood Greenway on Spruce	300	LF	\$ 25.00	\$ 7,500.00	
R/R Bike/Ped Crossing	1	LF	\$ 50,000.00	\$ 50,000.00	
Retaining Wall on Ditch	1,500	LF	\$ 25.00	\$ 37,500.00	
Safety Fencing along Ditch	100	LF	\$ 50.00	\$ 5,000.00	
12' Shared Use Path, Capt. Bourgeois	700	LF	\$ 125.00	\$ 87,500.00	
RRFBs/Street Crossing and Signals	2	EA	\$ 25,000.00	\$ 50,000.00	
12' Multi-Use Trail	700	LF	\$ 100.00	\$ 70,000.00	
Trailhead @ Emily Watkins Park	1	LS	\$ 250,000.00	\$ 250,000.00	
5' Conc Walk & Culvert along Redbud	500	LF	\$ 50.00	\$ 25,000.00	
Neighborhood Greenway on Redbud	500	LF	\$ 25.00	\$ 12,500.00	
Concrete Levee Ramps and Steps	3,000	SF	\$ 20.00	\$ 60,000.00	
Levee Rails	600	LF	\$ 65.00	\$ 39,000.00	
Contingency/Fees/Gen. Conditions	50%	%	\$ 1,418,000.00	\$ 709,000.00	
<i>Contractor Gen. Conditions</i>	15%	=	\$ 212,700.00		
<i>Construction Contingency (DD Phase)</i>	20%	=	\$ 283,600.00		
<i>A&E Fees (Design, CE&I, Surveying, etc)</i>	15%	=	\$ 212,700.00		

CONNECTING NEIGHBORHOODS – COST ESTIMATE PRIORITIZED BY STREETS

Pedestrian Connectivity [Priority 1 & 7: 5th Street & Cardinal]					\$ 418,800.00
5' Wide Sidewalk [1 Side, 5th Street]	2,000	LF	\$ 35.00	\$ 70,000.00	
5' Wide Sidewalk [1 Side, Cardinal St.]	3,000	LF	\$ 35.00	\$ 105,000.00	
Culverts (1/2 of total sidewalks)	2,500	LF	\$ 85.00	\$ 212,500.00	
Pedestrian Crossing Signals	6	EA	\$ 15,000.00	\$ 90,000.00	
Ramps / ADA / Curb Cuts / et al	6	EA	\$ 20,000.00	\$ 120,000.00	
Contingency/Fees/Gen. Conditions	50%	%	\$ 597,500.00	\$ 298,800.00	
<i>Contractor Gen. Conditions</i>	15%	=	\$ 89,625.00		
<i>Construction Contingency (DD Phase)</i>	20%	=	\$ 119,500.00		
<i>A&E Fees (Design, CE&I, Surveying, etc)</i>	15%	=	\$ 89,625.00		
Pedestrian Connectivity [Priority 2 & 8: Milton & Martin Drives]					\$ 212,000.00
5' Wide Sidewalk [1 Side, Martin Dr.]	1,000	LF	\$ 35.00	\$ 35,000.00	
5' Wide Sidewalk [1 Side, Milton Dr.]	600	LF	\$ 35.00	\$ 21,000.00	
Culverts (1/2 of total sidewalks)	800	LF	\$ 85.00	\$ 68,000.00	
Pedestrian Crossing Signals	4	EA	\$ 15,000.00	\$ 60,000.00	
Ramps / ADA / Curb Cuts / et al	4	EA	\$ 20,000.00	\$ 80,000.00	
Contingency/Fees/Gen. Conditions	50%	%	\$ 264,000.00	\$ 132,000.00	
<i>Contractor Gen. Conditions</i>	15%	=	\$ 39,600.00		
<i>Construction Contingency (DD Phase)</i>	20%	=	\$ 52,800.00		
<i>A&E Fees (Design, CE&I, Surveying, etc)</i>	15%	=	\$ 39,600.00		
Pedestrian Connectivity [Priority 3 & 9: Dove & Robin Streets]					\$ 186,400.00
5' Wide Sidewalk [1 Side, Dove Street]	1,000	LF	\$ 35.00	\$ 35,000.00	
5' Wide Sidewalk [1 Side, Robin Street]	1,100	LF	\$ 35.00	\$ 38,500.00	
Culverts (1/2 of total sidewalks)	1,050	LF	\$ 85.00	\$ 89,300.00	
Pedestrian Crossing Signals	2	EA	\$ 15,000.00	\$ 30,000.00	
Ramps / ADA / Curb Cuts / et al	3	EA	\$ 20,000.00	\$ 60,000.00	
Contingency/Fees/Gen. Conditions	50%	%	\$ 252,800.00	\$ 126,400.00	
<i>Contractor Gen. Conditions</i>	15%	=	\$ 37,920.00		
<i>Construction Contingency (DD Phase)</i>	20%	=	\$ 50,560.00		
<i>A&E Fees (Design, CE&I, Surveying, etc)</i>	15%	=	\$ 37,920.00		
Pedestrian Connectivity [Priority 4 & 10: West 3rd Street]					\$ 48,500.00
5' Wide Sidewalk [1 Side, West 3rd St]	800	LF	\$ 35.00	\$ 28,000.00	
Culverts (1/2 of total sidewalks)	400	LF	\$ 85.00	\$ 34,000.00	
Pedestrian Crossing Signals	1	EA	\$ 15,000.00	\$ 15,000.00	
Ramps / ADA / Curb Cuts / et al	1	EA	\$ 20,000.00	\$ 20,000.00	
				\$ -	
Contingency/Fees/Gen. Conditions	50%	%	\$ 97,000.00	\$ 48,500.00	
<i>Contractor Gen. Conditions</i>	15%	=	\$ 14,550.00		
<i>Construction Contingency (DD Phase)</i>	20%	=	\$ 19,400.00		
<i>A&E Fees (Design, CE&I, Surveying, etc)</i>	15%	=	\$ 14,550.00		

CONNECTING NEIGHBORHOODS – COST ESTIMATE PRIORITIZED BY STREETS (CONT'D)

Pedestrian Connectivity [Priority 5 & 11: Walnut Street]					\$ 196,800.00
6' Wide Sidewalk [S. Side of US61 Only]	3,000	LF	\$ 42.00	\$ 126,000.00	
Culverts (1/2 of total sidewalks)	1,500	LF	\$ 85.00	\$ 127,500.00	
Pedestrian Crossing Signals	4	EA	\$ 15,000.00	\$ 60,000.00	
Ramps / ADA / Curb Cuts / et al	4	EA	\$ 20,000.00	\$ 80,000.00	
				\$ -	
Contingency/Fees/Gen. Conditions	50%	%	\$ 393,500.00	\$ 196,800.00	
<i>Contractor Gen. Conditions</i>	15%	=	\$ 59,025.00		
<i>Construction Contingency (DD Phase)</i>	20%	=	\$ 78,700.00		
<i>A&E Fees (Design, CE&I, Surveying, etc)</i>	15%	=	\$ 59,025.00		
Pedestrian Connectivity [Priority 6: Airline Highway]					\$ 193,200.00
6' Wide Sidewalk [S. Side of US61 Only]	2,500	LF	\$ 42.00	\$ 105,000.00	
Culverts (1/2 of total sidewalks)	1,250	LF	\$ 85.00	\$ 106,300.00	
Pedestrian Crossing Signals	5	EA	\$ 15,000.00	\$ 75,000.00	
Ramps / ADA / Curb Cuts / et al	5	EA	\$ 20,000.00	\$ 100,000.00	
				\$ -	
Contingency/Fees/Gen. Conditions	50%	%	\$ 386,300.00	\$ 193,200.00	
<i>Contractor Gen. Conditions</i>	15%	=	\$ 57,945.00		
<i>Construction Contingency (DD Phase)</i>	20%	=	\$ 77,260.00		
<i>A&E Fees (Design, CE&I, Surveying, etc)</i>	15%	=	\$ 57,945.00		
TOTAL PROJECT BUDGET NEEDED				\$	3,387,200.00

COST ESTIMATES OF THE PROPOSED ALTERNATES

TOTAL ITEMIZED PROJECT					
Item	Quantity	Unit	Unit Cost	Item Budget	Line Item Cost
Main to River Connection [Alternative 1: Spruce / Redwood Street]					\$ 722,300.00
12' Shared Use Path on Spruce Street	300	LF	\$ 125.00	\$ 37,500.00	
R/R Bike/Ped Crossing	1	LF	\$ 50,000.00	\$ 50,000.00	
Retaining Wall on Ditch	1,500	SF	\$ 25.00	\$ 37,500.00	
Safety Fencing along Ditch	100	LF	\$ 50.00	\$ 5,000.00	
12' Shared Use Path, Spruce & 3rd St	700	LF	\$ 125.00	\$ 87,500.00	
12' Shared Use Path, Redwood Street	600	LF	\$ 125.00	\$ 75,000.00	
Street Crossing and Signals	4	EA	\$ 10,000.00	\$ 40,000.00	
River Road Street Crossing	1	LS	\$ 50,000.00	\$ 50,000.00	
Concrete Levee Ramps and Steps	3,000	SF	\$ 20.00	\$ 60,000.00	
Levee Rails	600	LF	\$ 65.00	\$ 39,000.00	
				\$ -	
Contingency/Fees/Gen. Conditions	50%	%	\$ 481,500.00	\$ 240,800.00	
<i>Contractor Gen. Conditions</i>	15%	=	\$ 72,225.00		
<i>Construction Contingency (DD Phase)</i>	20%	=	\$ 96,300.00		
<i>A&E Fees (Design, CE&I, Surveying, etc)</i>	15%	=	\$ 72,225.00		
Main to River Connection [Alternative 2: Cardinal Street]					\$ 1,086,000.00
8' Conc Path/5' Buffer/Curb [E. 5th St]	600	LF	\$ 125.00	\$ 75,000.00	
8' Conc Path/5' Buffer/Curb [E. 5th St]	600	LF	\$ 125.00	\$ 75,000.00	
R/R Bike/Ped Crossing	1	EA	\$ 50,000.00	\$ 50,000.00	
Street Crossing and Signals	3	EA	\$ 50,000.00	\$ 150,000.00	
8' Conc Path/5' Buffer/Curb [Cardinal St]	1,100	LF	\$ 125.00	\$ 137,500.00	
12' Shared Use Path [Cardinal Street]	1,100	LF	\$ 125.00	\$ 137,500.00	
Concrete Levee Ramps and Steps	3,000	SF	\$ 20.00	\$ 60,000.00	
Levee Rails	600	LF	\$ 65.00	\$ 39,000.00	
				\$ -	
Contingency/Fees/Gen. Conditions	50%	%	\$ 724,000.00	\$ 362,000.00	
<i>Contractor Gen. Conditions</i>	15%	=	\$ 108,600.00		
<i>Construction Contingency (DD Phase)</i>	20%	=	\$ 144,800.00		
<i>A&E Fees (Design, CE&I, Surveying, etc)</i>	15%	=	\$ 108,600.00		
Main to River Connection [Alternative 3: East 5th Street]					\$ 2,136,000.00
8' Conc Path/5' Buffer/Curb [E. 5th St]	2,000	LF	\$ 125.00	\$ 250,000.00	
8' Conc Path/5' Buffer/Curb [E. 5th St]	2,000	LF	\$ 125.00	\$ 250,000.00	
R/R Bike/Ped Crossing	1	EA	\$ 50,000.00	\$ 50,000.00	
Street Crossing and Signals	3	EA	\$ 50,000.00	\$ 150,000.00	
8' Conc Path/5' Buffer/Curb [to Levee]	2,500	LF	\$ 125.00	\$ 312,500.00	
8' Conc Path/5' Buffer/Curb [to Levee]	2,500	LF	\$ 125.00	\$ 312,500.00	
Concrete Levee Ramps and Steps	3,000	SF	\$ 20.00	\$ 60,000.00	
Levee Rails	600	LF	\$ 65.00	\$ 39,000.00	
				\$ -	
Contingency/Fees/Gen. Conditions	50%	%	\$ 1,424,000.00	\$ 712,000.00	
<i>Contractor Gen. Conditions</i>	15%	=	\$ 213,600.00		
<i>Construction Contingency (DD Phase)</i>	20%	=	\$ 284,800.00		
<i>A&E Fees (Design, CE&I, Surveying, etc)</i>	15%	=	\$ 213,600.00		
TOTAL PROJECT BUDGET NEEDED				\$	3,944,300.00

6.0 NEXT STEPS & RECOMMENDATIONS

6.1 POTENTIAL PROJECT FUNDING

The below funding programs and grants are potential funding sources that would benefit the proposed improvements:

- **Transportation Alternatives Program (TAP)** –
The TAP provides funding for programs and projects defined as transportation alternatives, including on and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways. This funding source would benefit the multi-modal improvements from Main Street to the Mississippi River Trail. These include the sidewalks, cycle tracks, shared use paths and access points to
- **Recreational Trails Program (RTP)** –
This Program provides funds to the States to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. The RTP is an assistance program of the Department of Transportation's Federal Highway Administration (FHWA). Federal transportation funds benefit recreation including hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles. This funding source would benefit the trailhead improvements at Emily Watkins Park.
- **Safe Routes to Public Places Program (SRTPPP)** –
This is a federal-aid program that aims to implement the Louisiana Strategic Highway Safety Plan's (SHSP) mission to achieve a significant reduction in fatalities and serious injuries on all public roads. To address the need to reduce pedestrian and bicyclist fatalities and injuries, Highway Safety Improvement Program (HSIP) funds are eligible to be spent on projects to improve safety for pedestrians and bicyclists on all public roads (state-owned and locally-owned). Any public agency is eligible to submit a project application. This funding source would benefit the construction of the multi-modal paths leading to and from Emily Watkins Park and Main Street.
- **Land and Water Conservation Fund (LWCF) Outdoor Recreation Program** –
The State Side of the LWCF provides matching grants to States and local governments for the acquisition and development of public outdoor recreation areas. This funding source would benefit the trailhead improvements at Emily Watkins Park.

- **Community Development Block Grant by US Dept. of Housing and Urban Development (CDBG) for Storm Water Improvements –**

The CDBG Program helps communities provide a suitable living environment and expand economic opportunities for their residents, particularly in low to moderate income areas. The block grants are awarded to the state annually by the U.S. Department of Housing and Urban Development. The state's program awards and administers the funds to units of local government for improvements to public facilities, economic development, and demonstrated needs projects. This funding source would benefit any drainage improvements that are necessary between W. 2nd and Captain G. Bourgeois Streets.