THE CITY OF LAKE CHARLES BICYCLE AND PEDESTRIAN MASTER PLAN

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Master of City and Regional Planning and Master of Science in Engineering with
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By

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ABSTRACT

THE CITY OF LAKE CHARLES BICYCLE AND PEDESTRIAN MASTER PLAN

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This thesis was done in the professional project format. It was completed as a deliverable to the City of Lake Charles, Louisiana. It was developed in accordance with the State of Louisiana Bicycle and Pedestrian Master Plan.

A bicycle and pedestrian master plan is a document meant to serve as a guide to staff and decision-makers on how to best develop future bicycle and pedestrian improvements. It is a comprehensive document that identifies and prioritizes new projects for sidewalks, bicycle facilities, and off-street paths. It accomplishes this by following these steps:

1. Identify existing bicycle and pedestrian infrastructure.
2. Provide a “on the ground” survey of conditions of existing infrastructure.
3. Conduct public input sessions to gather information regarding necessary projects.
4. Apply four criteria (Attractors, Generators, Connectivity, and Affordability) to rank the priority of each project.
5. Identify likely funding sources for each project.
6. Suggest steps for plan implementation and next steps.
7. Present findings to public and elected officials.

Following these steps, a complete bicycle and pedestrian master plan was developed. A total of 149 sidewalk projects, 40 bicycle network projects, and five off-street multi-use paths were identified and prioritized. The identification of these projects will serve to assist in their inclusion to the City’s and regional planning bodies transportation improvement plan (TIP).

The City of Lake Charles

Bicycle and Pedestrian Master Plan Draft

5/25/2011

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Table of Contents

Executive Summary	i
Chapter 1: Introduction	1
Vision and Purpose of the Plan	1
Why Develop a Bicycle and Pedestrian Master Plan?	2
Why Bicycling and Walking?	3
Chapter 2: Plan Development Process/Outreach	4
Public Input Meeting.....	4
Summary of Questionnaire Responses	4
Chapter 3: Existing Conditions	9
Topography and Environment	9
Needs and Demands Analysis	10
Constraints and Opportunities in Calcasieu Parish	10
Types of Cyclists	12
Existing Sidewalk and Bike Lane Inventory and Survey	13
Pedestrian Facilities	13
Bicycle Facilities	23
Current or Ongoing Bicycle or Pedestrian Support Expansion Projects	26
Chapter 4: Goals and Policy Recommendations	27
Connectivity	27
Travelway Character	28
Context Character	28
Education	29
Safety	29
Chapter 5: Methodology for Prioritizing Projects	30
Generators	31
Attractors	33
Connectivity	37
Affordability	37
Chapter 6: Recommended Route Network	40
Pedestrian Facilities	41
North Lake Charles	43
Central Lake Charles.....	52

South-Central Lake Charles	63
South Lake Charles	73
Bikeway Network	85
Multi-Use Trails, Connectors, and Staging Areas	99
Chapter 7: Implementation Plan.....	110
Steps for Implementing Projects.....	110
Funding	110
Chapter 8: Recommendations for Updates.....	112
Missing Pieces	112
Safety Countermeasures.....	112
Intersection Safety Improvements	113
Bicycle Parking Inventory	113
 Appendix A: Plan and Policy Review	 114
Related Plans.....	114
Current Louisiana Bicycling Laws	118
Appendix B: Design Guidelines	120
Pedestrian Facilities	120
Bicycle Facilities	122
Design Considerations.....	125
Grade Separated and Shared Use Paths	126
Conflict Concerns	127
Appendix C: Maintenance Guidelines	128
Appendix D: FHWA Crosswalk Guidelines	129
Appendix E: Cost Estimate Guidelines.....	130
Appendix F: Bibliography	131
Appendix G: Stakeholder Questionnaire	132

Table of Figures

Figure 1: Walking and Biking.....	3
Figure 2: Stakeholder Map Drawing Exercise	4
Figure 3: Calcasieu Parish beams with waterways and wildlife.....	9
Figure 4: Average Monthly Precipitation	9
Figure 5: Average Temperature Range	9
Figure 6: Percentage of Possible Sunshine	10
Figure 7: Existing Sidewalk Network.....	14
Figure 8: Existing Regional Bikeway Network.....	25
Figure 9: Lakefront Promenade	26
Figure 10: Pedestrian Attractor Map	32
Figure 11: Lake Charles Attractor Locations	35
Figure 12: City of Lake Charles Attractor Map.....	36
Figure 13: Sidewalk Ending Abruptly	37
Figure 14: City-wide Proposed Sidewalk Network Improvements	42
Figure 15: North Lake Charles Recommended Sidewalks.....	44
Figure 16: Central Lake Charles Recommended Sidewalks	54
Figure 17: South-Central Lake Charles Recommended Sidewalks.....	65
Figure 18: South Lake Charles Recommended Sidewalks.....	75
Figure 19: Recommended Bikeway Network.....	87
Figure 20: Proposed Path/Trail Network	100
Figure 21: Perkins Ferry Trail Aerial Photograph	101
Figure 22: 1st Ave Trail Aerial Photograph	102
Figure 23: Lakeshore Canal Trail Aerial Photograph.....	103
Figure 24: Railroad Connector Trail Aerial Photograph	104
Figure 25: 5th Ave Trail Aerial Photograph.....	105
Figure 26: N. Railroad Ave Connector Aerial Photograph	106
Figure 27: 13th Ave Connector Aerial Photograph.....	106
Figure 28: 5th Ave Circuit Connector Aerial Photograph.....	107
Figure 29: 5th Ave Connector	107
Figure 30: Parkway St Connector Aerial Photograph.....	108
Figure 31: Proposed Complete Bicycle and Pedestrian Route Network.....	109
Figure 32: Road Diet Example	123
Figure 33: Sharrow Example on Shared Lane	124
Figure 34: Rendering of Example Paved Path	126
Figure 36: Example Precautionary Trail Sign.....	127
Figure 35: Sam Houston Jones Park Trail.....	127
Figure 37: Debris on Paved Shoulder Bikeway	128

Table of Tables

Table1: Stakeholder Improvement Prioritization	5
Table 2: Stakeholder Attractor Values	5
Table 3: Stakeholder Suggested Improvements	6
Table 4: Comment Categories.....	8
Table 5: Recommended Sidewalk Widths	15
Table 6: Recommended Buffer Widths.....	15
Table 7: Sidewalks In Need of Pavement Improvements	20
Table 8: Sidewalk in Need of Landscape Maintenance.....	21
Table 9: Existing Bicycle Route Network.....	23
Table 10: Existing Regional Bicycle Network with Shoulder Available for Bicycles	24
Table 10: Attractor Value Matrix	34
Table 2: Affordability Index.....	39
Table 3: North Lake Charles Recommended Sidewalks.....	43
Table 4: Central Lake Charles Recommended Sidewalks.....	53
Table 5: South-Central Lake Chalres Recommended Sidewalks	64
Table 6: South Lake Charles Recommended Sidewalks.....	74
Table 7: Lake Charles Recommended Bikeway Network.....	86
Table 8: Trails/Connector Recommendations	99
Table 9: Sidewalk Width Guidelines.....	121
Table 10: Sidewalk Buffer Guidelines	121
Table 11: Bicycle Facility Design Standards	122
Table 12: Bike Lane Design Guidelines	125
Table 13: Cost Estimate Assumptions.....	130

Executive Summary

This plan is being developed in accordance with the Louisiana Statewide Pedestrian and Bicycle Master Plan. It is meant to serve as a guide for local decision-makers and the public in how best to plan for alternative modes of transportation in future development. It accomplishes this by conducting a comprehensive inventory and analysis of existing bicycle and pedestrian facilities in the City of Lake Charles; complete with a prioritized list of improvements. Suggested improvements will incorporate sidewalks, bike routes, bike lanes, and multi-use recreational trails into a comprehensive network with the goal of increasing access and mobility for non-motorized modes of travel. The Plan also recommends a variety of policies to allow for safe, efficient, and convenient pedestrian and bicycle travel in and between the communities of the City of Lake Charles.

Vision of the Plan (Chapter 1)

"To promote the City of Lake Charles as a bicycle and pedestrian-friendly environment by providing a variety of transportation choices that promote accessible alternatives to the automobile; where public spaces, including streets and off-street paths, will offer a level of convenience, safety and attractiveness that will encourage and reward the choice to bike or walk."

Public Input (Chapter 2)

Stakeholders such as governmental agencies, private individuals, and bicycling and walking organizations were contacted and invited to attend a public input session. A public notice was printed in the newspaper and local news broadcast for anyone who might have an interest in improving pedestrian and bicycle travel within the Lake Charles metro area to attend the meeting. The purpose of the meeting was to receive information from the public regarding which areas were in most need of bicycle and pedestrian improvements. A questionnaire was

developed to solicit specific input on key issues and concerns regarding the pedestrian and bicycle facilities system, and to generate input regarding the most important issues to be addressed and potential priority order for types of projects and system improvement.

Respondents were encouraged to share stories in which they or someone they know has experienced traveling throughout the City without an automobile. Many people shared their experiences and gave detailed opinions about what could be improved. The following quote is a good representation of the general sentiment of respondents when it came to Lake Charles' lack of pedestrian and bicycle support.

“I think that the roads that have the heaviest motor vehicle traffic should have ped & bicycle lanes. These are the roads people need to use to get to jobs, schools, shopping, etc. Roads that would be great are Ryan, Common, McNeese, Prienlake, and Sale. McNeese students want to ride to class also have a lot of trouble. I also think there needs to be education for motor vehicle drivers. Most drivers do not understand that they must share the road with bicycles.”

Stakeholders were then asked to make a list of potential improvements and then draw them out on maps provided at each table. This activity facilitated interaction and new idea creation. Many people took the time to share their comments or concerns with us and also give us their opinion about what was most important to them. These comments or concerns were categorized into a few “themes” and quantified if more than two people mentioned them. Some people mentioned more than one theme in their comments; each comment was counted separately.

Concerns and Comments Categories	
Comment Category	Number of Comments
Safety Concerns	14
Driver Education	6
Increase Quality of Life	5
Multi-Use Paths	4
Bridge over Contraband Bayou	3
Curbs and Ramps	2
Clean Shoulders on Roadway	2
Bicycles Can't Trigger Traffic Signals	2
Total Stories or Comments	33

Existing Conditions (Chapter 3)

The City of Lake Charles Metro Area has wonderful weather and climate patterns. Southwest Louisiana has a high percentage of sunny days and the temperatures during the Spring and Fall seasons have a very comfortable range. These welcoming conditions make it easy for residents to enjoy the natural setting that Lake Charles region offers.

Constraints and Opportunities in the City of Lake Charles

Constraints

- Limited Public Transit System – Existing bus service only runs once per hour and does not cover entire city.
- Waterways, Highways, and Railways – Present barriers that must be crossed with costly bridges.
- Heavy Vehicle Traffic and Rate of Travel Speed – Creates dangerous conditions
- Open Ditches – No safety zone for bicyclists or pedestrians to utilize.
- Little Bicycle Parking – Few places to store a bicycle at likely destinations.

Opportunities

- Health Promotions – Exercise improves overall health of the general public
- Growing and Aging Population – Will need new support pedestrian support infrastructure.
- Environmental Stewardship – Decreasing automobile use will reduce pollution.
- Cost and Infrastructure Savings – Bicycle and pedestrian infrastructure is cheaper to build and maintain than roadways for automobiles.

Summary of Existing Pedestrian Infrastructure

The City of Lake Charles has 881 individual segments of sidewalks totaling 323.5 miles. The area with the most complete sidewalk coverage is in the downtown area and in the numbered streets and boulevards between Broad Street and I-210. The areas which had neighborhoods that were lacking in a complete sidewalk network were located north of I-10, south of I-210, as well as east of I-210. The area with the least sidewalk coverage were located south of I-210 and west of Lake Street. The local roads in this area offer little to no sidewalks and the major roads in this area often have open ditches without any sort of bicycle or pedestrian support. Please refer to figure 7 for map of existing sidewalks.

Summary of Conditions

Width

The average width of sidewalk in the City of Lake Charles is 4 ft. While the current national standard is 5ft, many of the sidewalks built in the City were constructed during a time when 4ft was acceptable. The new sidewalks that were observed did comply with the 5ft standard. The width of the sidewalks located around schools and parks should have been between 6-8 ft, to allow for higher pedestrian traffic, but were not noticeably wider than those of the surrounding area. The CBD area of the city did have sidewalks of 8ft, but were sometimes obstructed by telephone poles, which should be buried.

Buffer

Many sidewalks in residential areas had large buffers that were well over the 6ft national standard. While many sidewalks located on local streets provided ample buffer width, the busier streets and those located in commercial districts such as Ryan Street, Common Street, and those in the CBD offered no buffer or landscaping. These sidewalks were placed all the way to the roadway curb, making them uncomfortable when walking next to heavy traffic.

Speed Limit

Most of the speed limits observed were 25 mph. Only a few sidewalks were located on roadways with speed limits of 30 mph or above. These low speed limits make it attractive for pedestrians to traverse the city without worrying about speeding cars.

Pavement

On a 1-5 scale, with 1 being the worst and 5 being the best, all existing sidewalks were surveyed for pavement condition. Only few sidewalks were observed with the ranking of 5 and none received the mark of 1. The sidewalks that obtained the ranking of either 4 or 2 seemed to be clustered within the

same area, suggesting the age of the neighborhood has a direct affect on the quality of pavement. Refer to table 7 (pg. 20) for a list of sidewalks in need of pavement improvements.

Landscaping

On a 1-5 scale, with 1 being the worst and 5 being the best, all existing sidewalks were surveyed for landscaping condition. There were many neighborhoods throughout Lake Charles that had very well maintained landscaping on sidewalks and received a mark of 4. On the other hand, the majority of homes needed edging and trimming around their sidewalks and received the mark of 3. The places that received a mark of 2 were mainly located around abandoned lots or in areas where development was sparse. Only a few places received a mark of 1 and were completely overgrown. No sidewalks were observed that provided street trees or bushes, therefore no sidewalk in the city received a mark of 5 for landscaping. Refer to table 8 (pg. 21) for a list of sidewalks in need of landscaping improvements.

Summary of Existing Bicycle Infrastructure

Bicycle Routes

The City of Lake Charles currently has a bicycle route system comprised of 10 roadway segments. The location of the network is mostly located around the downtown area, but does also reach south down to I-210. According to AASHTO, shared lanes should be located on roads with vehicle volumes of under 10,000 per day and travel speeds of 30 mph or less. Following these standards, six out of the ten of the current bicycle network are not appropriate to be classified as bicycle routes. The high roadway traffic volumes or travel speeds mean that only the most advanced riders should attempt riding on streets such as Shell Beach Dr or Lake St. The route designed previously by the city was well thought out and most of the roads in the current bicycle route network are included in the new recommendations for a bikeway network, although improvements are suggested; such as additions of bicycle lanes and corresponding roadway redesign or widening. Refer to table 9 (pg. 24) for a list of improvements needed to the existing bicycle route network.

Bicycle Lanes

There are no official bike lanes within the city limits of Lake Charles, though there is one south of the city on Gauthier Rd. This bike lane is 6 ft wide and runs east-west for 2.75 miles between Big Lake Rd and Lake St. While the length and width of this bike lane is impressive, there are no other bike lanes or bike routes connecting to this segment. This could serve as a vital and much used east-west connection for the southern portion of Lake Charles if connections to a supporting bicycle network were made.

Regional Connections with Existing Shoulder Available

There are a few state highways running through Calcasieu Parish that have shoulders that are at least 4 feet wide, which is the minimum adequate space for a bike rider. While these roadway shoulders are not marked for bicyclists specifically, they do provide sufficient space for advanced and, in some cases, basic skill-level riders. These existing roadways can be used to build connections between communities in the Lake Charles Metropolitan Area. Table 10 (pg. 25) and Figure 8 (pg. 26) showcase available regional connections.

Goals and Policy Recommendations (Chapter 4)

The Louisiana Bicycle and Pedestrian Master Plan recommends that each municipality or jurisdiction prepare, adopt, and implement a comprehensive bicycle and pedestrian plan. Through these goals, policies, and action items, the Bicycle and Pedestrian Master Plan places a greater emphasis on bicycles and pedestrians in the Parish's ongoing work of shaping streets and managing traffic. This emphasis on bicyclists and pedestrian considerations parallels new policies within the USDOT. In early 2010, the U.S. Secretary of Transportation Ray LaHood commented on the importance of including bicycling and other alternative modes in the planning process. "Today I want to announce a sea change, this is the end of favoring motorized transportation at the expense of non-motorized...Walking and biking should not be an afterthought in roadway design."

The characteristics that make up a pedestrian and bicycle friendly environment have been grouped into five main categories: connectivity, travelway character, context character, education, and safety. These categories are the basis of the goals and policies that are detailed in Chapter 4.

Connectivity

Connectivity refers to the bikeway and pedestrian network. A well-connected network of streets and pedestrian ways means that it is easy for bikes and pedestrians to get around. Connectivity includes support for safe, convenient street crossings. Walking and transit go hand in hand – transit riders typically supplement their trip with some form of pedestrian travel at both ends.

Travelway Character

Travelway character refers to the bikeway space between automobile travel lanes and curbs, as well as sidewalk space. Roadway space can be designed to serve traffic while still providing a high-quality bicycle and pedestrian environment. The design of the sidewalks and bike lanes and the elements within it are key parts of creating a bicycle and pedestrian-friendly environment. This requires more than just minimum width requirements. Sidewalks are multi-functional, and their design should reflect the need to provide walking space as well as accommodating small children riding their bikes.

Context Character

Context Character refers to the way the adjacent land-uses interact with the pedestrian or bicyclist. A pedestrian friendly environment should have a positive relationship to an area's land use, such as food services and places to stop and rest.

Education

Part of the success of making a place where walking and bicycling are commonplace will come from educating walkers, bikers, and automobile drivers about state and local laws. The goals for education should seek to inform citizens of the City about creating a role for walking and bicycling to contribute positively into the social cohesion of the community.

Safety

Safety goals address the need to create safe, visible, and convenient bikeway and sidewalk conditions. Factors such as roadway crossings, internal site circulation, seamless access to transit, and truly multimodal streets go into account for the quality of safety for both pedestrians and cyclists.

Method for Prioritizing Projects (Chapter 5)

Limited resources such as time, land, and money, necessitate the need to create a prioritized and phased list of potential projects. This is a requirement of the Metropolitan Transportation Plan; which places potential transportation infrastructure in a timeline for funding. Many computer programs, such as GIS, and aerial photography were used to collect and analyze data with the goal of ranking the most beneficial and affordable projects. Four overarching factors were considered when creating a prioritized list of projects.

1. Generator Score – This score is related to the propensity of a particular area to generate pedestrians or bicyclists. Census Block Groups (CBGs) ranked on criteria that would preclude the assumption for pedestrians or bicyclists to be present, such as presence of persons under 16 years of age and household income. Scores were placed on a 1 (worst) to 9 (best) scale.
2. Attractor Score – The attractor score is related to the propensity of a particular destination to be attractive for pedestrians or bicyclists. Some places are more likely to for people to walk or bike to than to drive. Examples of these destinations include schools, civic buildings, and parks. Each attractor was given a value and then an approximately ¼ mile was placed around it. The areas with the highest amount of attractors had the highest value scores. Scores were placed on a 1 (worst) to 10 (best) scale. This category has an added weighted factor of 2.
3. Connectivity - Number of existing sidewalks or bike lanes the project would connect to. This is important in order to promote sidewalk continuity. There is no added weighted factor added to this category.
4. Affordability and Ease – Some projects are bound to be more costly and difficult to implement than others. This category is to try and identify the “lowest hanging fruit” of potential projects. The estimated cost of the project based the factors of cost of materials and construction, filling in of ditches, and overcoming barriers such as bridges. Set on a scale of 1 (worst) to 5 (best). This category has an added weighted factor of 2.

Recommended Pedestrian Facilities & Bicycle Network (Chapter 6)

A list of potential projects was compiled by following recommendations and suggestions from the public and analysis of gaps in the existing network. The projects were then ranked utilizing the four scores explained in chapter 5, the methods section. The projects with the highest cumulative scores were ranked the highest. The recommended facility and route network was divided into three categories, pedestrian facilities, bikeway network, and trails/connectors network. Each category is described in greater detail, with a table of the recommended improvement projects and an accompanying map supplied on the following pages.

Pedestrian Facilities

Sidewalks serve as the backbone of the non-motorized transportation network. They need to be placed close to the origin (homes) of users and continue uninterrupted to their likely destination (school, job, etc.). Sidewalk accessibility and continuity should be held in high esteem. Almost 150 new sidewalk recommendations were made. Because of this large number, only the ones which were ranked in the “high” category are listed in the table below.

Highly Ranked Pedestrian Improvement Projects

Map #	Sidewalk Name	Segment Extents	Section of City
2	Pear St. East Side	Medora St. to Fitzenreiter Rd.	North
3	N. Simmons St. East Side 2	Medora St. to Fitzenreiter Rd.	North
6	N. Booker St. East Side	Moeling St. to Knapp St.	North
7	Medora St. North Side	N. Prater St. to N. Booker St.	North
8	Medora St. South Side	N Booker St to N Simmons St	North
9	Woodring St North Side	N Booker St to N Simmons St	North
10	Woodring St South Side	N Booker St to N Simmons St	North
11	Griffin St South Side	N MLK Hwy to Sally Mae St	North
12	Katherine St South Side	N Prater St to N Booker St	North
15	N. Blake St. West Side	Moeling St. to Geiffers St.	North
16	N. Blake St. East Side	Moeling St. to Geiffers St.	North
17	N. Shattuck St. East Side	Moeling St. to Opelousas St.	North
18	N. Simmons St. West Side	Moeling St. to Opelousas St.	North
19	N. Simmons St. East Side	Moeling St. to Opelousas St.	North
20	Cessford St. North Side	N. Prater St. to N. 1st ave.	North
21	Opelousas St. South Side	N. Shattuck St. to N. Simmons St.	North
23	Connecting Pedestrian Path	Connecting N. Shattuck w/ Fournet St.	North
25	N. Ryan St East Side	S Railroad Ave to Jackson St	North
28	Enterprise Blvd. West Side	Mill St. to Belden St.	Central
29	S Shattuck St East Side	Belden St to Carter St	Central
35	Pine St. North Side	Bank St to Louisiana Ave	Central
36	Pine St. South Side	Bank St to Louisiana Ave	Central
37	Evans St South Side	S Shattuck St to Prater St	Central
41	Division St North Side	Bank St to Louisiana Ave	Central
42	Division St South Side	Bank St to Louisiana Ave	Central
43	Louisiana Ave West Side	Division St to Clements St	Central
45	Broad St. North Side	VE Washington Ave to 1st Ave	Central
48	Enterprise Blvd. West Side 2	Broad St to Existing Sidewalk	Central

49	Enterprise Blvd. East	Broad St to Existing Sidewalk	Central
59	5th St. North Side	Louisiana Ave to Enterprise Blvd	Central
60	5th St. South Side	Louisiana Ave to Existing Sidewalk	Central
63	1st Ave. East Side 2	Broad St to 12th St	Central
67	Common St. West Side	Clarence St to 17th St	Central
72	12th St. North Side 2	Gerstner Memorial Dr to Russell St	South-Central
73	12th St. South Side	Gerstner Memorial Dr to Russell St	South-Central
75	Moss St. East Side	12th St. to 15th St.	South-Central
82	Bank St. West Side	Gulf St. to 12th St.	South-Central
83	Bank St. East Side	Gulf St. to 12th St.	South-Central
84	1st Ave. West Side	12th St to E Prien Lake Rd	South-Central
85	1st Ave. East Side	12th St to E Prien Lake Rd	South-Central
87	18th St. South Side	Ryan St. to Common St.	South-Central
90	E Prien Lake Rd North Side 2	Kirkman St to Existing Sidewalk	South-Central
91	E Prien Lake Rd North Side 3	Burton St to 2nd Ave.	South-Central
93	Kirkman St West Side	Prien Lake Rd to Walters St	South-Central
94	Kirkman St East Side	Prien Lake Rd to Madeline St	South-Central
100	Madeline St South Side	Common St to Kirkman St	South-Central
109	Cypress St West Side	Louie St to W 18th St	South
110	Cypress St East Side	Louie St to W 18th St	South
111	Hazel St West Side	W 18th St to Penn St	South
112	Hazel St East Side	W 18th St to Penn St	South
144	Overhill Dr North Side	Central Pkwy to Existing Sidewalk	South
145	Overhill Dr South Side	Central Pkwy to Existing Sidewalk	South

Bikeway Network

Bicyclists can travel further distances at faster speeds than pedestrians so the bikeway network can be larger in scale than the sidewalk network. There are three factors to consider when planning for bikeways: speed of traffic, volume of traffic, and width of roadway. These three factors were paramount to the selection, proposed improvements, and overall ranking of each project. The projects chosen were meant to connect schools, parks, businesses and neighborhoods within the City.

Recommended Bikeway Network

Map #	Road Name	Segment Extents	Priority	Bicycle Facility Recommended
1	Fitzenrieter Rd.	N. Prater to N. Simmons	Moderate	Shared Lane
2	Fitzenrieter Rd. 2	N. Simmons St. to Hwy 171.	Moderate	Bike Lane
3	N. Prater St.	Opelousas St. to Fitzenrieter Rd.	High	Shared Lane
4	N Simmons St.	Fitzenrieter Rd. to Opelousas St.	High	Bike Lane
5	N. Goos Blvd.	Opelousas St. to Theriot Rd	High	Bike Lane
6	Moeling St.	N. 1st Ave. to Hwy 171	High	Bike Lane
7	N. 1st Ave.	Moeling St. to N. Railroad Ave.	High	Shared Lane
8	Opelousas St.	N. Enterprise Blvd. to Hwy. 171	High	Bike Lane
9	N. Railroad Ave	N. Bilbo St. to N. 1st Ave.	Moderate	Shared Lane
10	N. Ryan St	Jackson St to W Mill St	Moderate	Bike Lane
11	N. Kirkman St	N Railroad Ave to I-10 Svc Rd	Low	Shared Lane
12	South Shattuck	Broad St. to Opelousas St.	High	Bike Lane
13	W Mill St	Veterans Memorial Dr to Goos St	High	Shared Lane
14	E Mill St	Goos St to Hwy 171	Moderate	Shared Lane
15	Hodges St.	Alamo St. to Belden St.	High	Shared Lane
16	Kirkman St.	N. Railroad Ave to College St	High	Bike Lane
17	Kirby St.	Lakeshore Dr. to Bord Du Lac	Moderate	Bike Lane
18	Kirby St 2	Ryan St to Louisiana Ave	High	Bike Lane
19	2nd St.	Louisiana Ave. to 3rd Ave.	Moderate	Shared Lane
20	Shell Beach Dr.	Clarence St. to Lake St.	Low	Bike Lane
21	Alvin St.	Shell Beach Dr. to Dr. Debakey Rd.	Moderate	Bike Lane
22	Dr. Debakey Dr.	Lake St. to Ryan St.	Moderate	Bike Lane
23	1st Ave	Broad St to 12th St	High	Bike Lane
24	7th St.	Ryan St. to 4th Ave.	High	Shared Lane
25	11th St.	Ryan St. to 4th Ave.	High	Shared Lane
26	Lake St.	Shell Beach Dr. to Country Club Rd.	Moderate	Bike Lane
27	1st Ave 2	12th St to E Prien Lake Rd	Moderate	Shared Lane
28	14th St.	Enterprise Blvd. to Gerstner Memorial Hwy	Moderate	Shared Lane
29	18th St.	Common St. to Gerstner Memorial Dr	Low	Shared Lane
30	Alamo St.	Ryan St. to Enterprise Blvd.	Moderate	Bike Lane
31	W Prien Lake Rd.	Lake St. to Nelson Rd.	Low	Bike Lane
32	College St.	Lake St. to 5th Ave.	Low	Bike Lane
33	E Prien Lake Rd	Gerstner Memorial Hwy to Corbina Rd Ext	Low	Shared Lane
34	Nelson Rd.	W. Prien Lake Rd. to Country Club Rd.	Low	Bike Lane
35	Kirkman St. 2	College St to E McNeese St	Moderate	Bike Lane
36	W. Sale Rd.	Ihles Rd. to Ryan St.	Low	Bike Lane
37	E. Sale Rd	Ryan St. to Common St.	High	Bike Lane
38	Ryan St.	W. Sale Rd. to W. McNeese St.	Moderate	Bike Lane
39	Common St.	E Sale Rd to McNeese St	Low	Bike Lane
40	McNeese St.	Nelson Rd. to 5th Ave.	Moderate	Bike Lane

Path/Trail Network

Sidewalks and bikeways are necessary components for a complete transportation network, but they do not serve the needs of all residents. Paths and trails can serve as short-cuts through neighborhoods or connect communities. They also serve to improve safety for less experienced riders because they are completely separated from automobile traffic. A total of five potential city-wide trails and five local paths/shortcuts were identified. If constructed, these trails would provide an almost unbroken pathway for non-motorized types running between north and south Lake Charles. This could serve to improve the health and well-being of all Lake Charles residents.

Recommended Path/Trail Network

Name of Trail/Connector	Extents	Length
Perkins Ferry Trail	N. Railroad Ave to Perkins Ferry Park	2
1st Ave Trail	Railroad Tracks to 12th St	1.75
Lakeshore Canal Trail	Lakeshore Dr to Common St	0.6
Railroad Connector Trail	1st Ave to 5th Ave	0.75
5th Ave Trail	12th St to McNeese St	2.5
N. Railroad Ave Connector	N Railroad Ave to N Ryan St	0.1
13th Ave Connector	13th Ave to Gersnter Mem Dr	0.1
5th Ave Circuit Connector	5th Ave to 5th Ave	1
5th Ave Connector	5th Ave Circuit to Gersnter Mem Dr	0.25
Parkway St Connector	McNeese St to Common St	0.5

Implementation and Funding (Chapter 7)

Plans must be implemented in order to make a difference. The following steps are suggested to take place after a project has been identified for improvement.

- Field Verification: Field verification should include a review of existing conditions (such as available right-of-way, adjacent land uses, and pedestrian volumes) and identifying potential design constraints (such at locations of utilities).
- Design Improvements: Appropriate sidewalk improvements should be designed after projects have gone through the field verification process.
- Deliver Project: The final step of the implementation program process will be to construct the new improvement project

Funding Sources

- Safe Routes to School – Funding source for improvements made within walking distances of schools.
- SAFETEA-LEAU – Federal roadway improvement program, which gives 90% funding for improvement programs that incorporate planning for pedestrians or bicycles.
- Recreation & Trails Program – State program which give grants annually for recreational trail program.
- Local Road Safety Improvement Program – State program which gives small grants for projects which improve bicycle or pedestrian safety.
- Rails to Trails – Private organization which helps to guide funding for development of converted abandoned railroad tracks into trails.

Chapter 1: Introduction

Nationwide, people are recognizing the energy efficiency, cost effectiveness, health benefits and environmental advantages of leaving the car behind. Walking and biking are forms of transportation that are enjoyable, energizing, environmentally friendly, and free. Nationally, interest in alternate modes of transportation was first emphasized in the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, and has been gaining traction ever since. In 2010, Secretary of Transportation Secretary Ray LaHood wrote, "... I want to announce a sea change, this is the end of favoring motorized transportation at the expense of non-motorized." Local, state and federal agencies are responding to this call for an improved process of planning for pedestrian and bicycle travel by implementing a multimodal approach to roadway design. The emphasis now being placed on alternative forms of transportation requires an understanding of bicycles, pedestrians and their subsequent facilities.

This plan takes a look at the existing City of Lake Charles roadway network, builds upon the previous planning foundations, and makes recommendations to enhance and expand the existing on-street bikeway network, connect gaps in sidewalks, address constrained areas, provide for greater local and regional connectivity, and encourage more residents to use non-motorized modes of transportation. Since the City of Lake Charles wants to encourage more people to bike or walk, it needs to put in place policies that promote a bicycle and pedestrian-friendly development. This Plan will recommend a variety of policies to allow for safe, efficient, and convenient pedestrian and bicycle travel in and between the communities of The City of Lake Charles.

Vision and Purpose of the Plan

Vision

"To promote Lake Charles as a bicycle and pedestrian-friendly environment by providing a variety of transportation choices that promote accessible alternatives to the automobile; where public spaces, including streets and off-street paths, will offer a level of convenience, safety and attractiveness that will encourage and reward the choice to bike or walk."

Purpose

This plan is being developed in accordance with the Louisiana Statewide Pedestrian and Bicycle Master Plan. This plan is meant to serve as a guide for local decision-makers and the public in how best to plan for alternative modes of transportation in future development. It accomplishes this by conducting a comprehensive inventory and analysis of existing bicycle and pedestrian facilities within Lake Charles and provides a prioritized list of potential improvements. Suggested improvements will incorporate sidewalks, bike routes, bike lanes, and multi-use recreational trails into a comprehensive network with the goal of increasing access and mobility for non-motorized modes of travel.

Why Develop a Bicycle and Pedestrian Master Plan?

While we can probably think of many reasons why it would be beneficial to plan for bicyclists and pedestrians we cannot name them all. A list of five overarching justifications for creating The City of Lake Charles Bicycle and Pedestrian Master Plan were created. They are explained in detail below.

Expand the Network and Support Facilities for All Residents

Implementing a pedestrian and bikeway network that links a variety of destinations – employment, shopping, school, and recreation – is a key to supporting all segments of the population, especially children, the disabled, and the elderly. In addition to expanding and connecting key routes, providing support facilities such as clear directional signage and secure bicycle parking will enhance the functionality of the network and encourage more people to recreate.

Enhance the Quality of Life in Lake Charles

The development of bicycle and pedestrian facilities creates people-friendly streets, paths, trails, and activity centers that are accessible and available to everyone and supports sustainable community development. Non-motorized travel reduces traffic congestion, vehicle exhaust emissions, noise, and energy consumption. It is a healthy and active form of travel. It is an affordable means of transportation and recreation. Safe and efficient walking and cycling opportunities will attract residents and tourists to scenic areas or surrounding businesses.

Improve Safety and Encourage Alternative Modes

The design standards and guidelines, education, and enforcement recommendations outlined in this plan are meant to serve as tools to enhance safety for bicyclists and pedestrians. This plan provides recommendations for route improvements intended to make movement safer for bicyclists and pedestrians of all ability levels. Encouragement programs are also suggested to motivate residents to ride or walk to work, school, or exercise and recreation.

Traffic and Growth Management

Developing a multimodal transportation system will address traffic congestion, air and water pollution, energy consumption, problems with near-exclusive use of automobiles, use of non-renewable fuels to supply transportation, and increased pressure on infrastructure budgets to build and maintain roads.

Maximize Funding Sources for Implementation

With the identification and prioritization of specific facility and programmatic improvements found in this plan, the City and other local jurisdictions can apply for appropriate funding to support bicycling and walking throughout the region.

Why Bicycling and Walking?

The walking and bicycling are the lowest-cost and most effective means of transportation. Furthermore they are non-polluting, energy-efficient, versatile, healthy, and fun. They also offer low-cost mobility to the non-driving public, such as those under 16 or those over 65. Bicycling as a means of transportation has been growing in popularity and many communities are working to create a more balanced transportation system, by giving bicyclists a greater share of use in roadway networks. In addition, recent national surveys find that more people are willing to cycle more frequently if better bicycle facilities are provided.

Figure 1: Walking and Biking

The City of Lake Charles and the surrounding metro area is expected to growing at a moderate rate in the future. Traffic congestion is not yet a problem in some parts of the the City, but it can be seen in certain areas such as Lake Street and Prien Lake Road. Managing traffic by offering alternative modes is a key strategy to reducing automobile congestion and to ensure communities maintain their existing character. This Plan is one step toward providing alternative modes and addressing future traffic congestion in the City.

Another reason for encouraging and promoting bicycling and walking is the enjoyment and quality of life it brings to the residents of our City and the ability for them to take advantage of the natural beauty and scenic quality of the region. Bicycling and walking are among the most popular forms of recreational activity in the United States, with almost 80 million people walking and 36 million people bicycling for recreation or exercise nationally, and 27.3 percent of the population over 16 are bicycling at least once over the summer. Because of its popularity, the ability for bicycling and walking to have major impact on community health is huge. This is especially true for the older segment of the population who benefit most from such low-impact forms of exercise.

Bikeway and pedestrian network enhancements are expected to generate more non-motorized trips in the future. This growth is expected to improve air quality by further reducing the number of vehicle trips, vehicle miles traveled and associated vehicle emissions. This Plan seeks to develop the bicycle and pedestrian friendly network that encourages non-motorized modes to be a practical alternative to driving for Lake Charles area residents.

Chapter 2: Plan Development Process/Outreach

Public Input Meeting

On August 16th, 2010 a meeting was held at the Central Public Library in Lake Charles. This meeting was a publicly advertised meeting and was open to all residents in Calcasieu Parish and the Lake Charles Metro Area. Stakeholders such as public and private individuals and organizations that regularly use pedestrian and bicycle facilities within Calcasieu Parish or The City of Lake Charles were directly contacted and invited to attend the meeting. The purpose was to receive information from the public regarding which areas were in most need of bicycle and pedestrian improvements. The meeting was well attended, with 42 people joining the discussion and 36 of them who filled out the questionnaire which was provided.

The questionnaire was developed to solicit specific input on key issues and concerns regarding the pedestrian and bicycle facilities system, and to generate input regarding the most important issues to be addressed and potential priority order for types of projects and system improvement. A copy of the questionnaire can be found in **Appendix B**. A map was also provided which allowed them to mark and draw out the areas they thought were in most need of improvement projects. A summary of this data has been compiled into an easy to understand format below.

Figure 2: Stakeholder Map Drawing Exercise

Summary of Questionnaire Responses

Improvements

Residents were asked to rank, from 1 (low) to 5 (high), which of the following categories in Table 1 are most needed. The results were added up into point totals and averages and then subsequently analyzed for trends. The purpose of this is to help prioritize which improvements are most important in the public's point of view.

All of the "Improvements" categories were added up and the scores achieved were close in their point totals. When we look the values of their averages, they appeared to cluster around each other. This result shows that the community desires a varied array of alternative transportation options. The highest total and average is bike lanes. Many participants commented that bike lanes could be used by pedestrians as well, on some of the more rural roads. This suggestion is consistent with respect to AASHTO standards that state providing a shoulder on rural roads could substitute for a sidewalk.

Table1: Stakeholder Improvement Prioritization

Improvements					
Category	Sidewalk Continuity	Intersection Safety	Bike Lanes	Multi-Use Trails	Bicycle Routes
Total	109	112	148	111	124
Average	3.03	3.11	4.11	3.08	3.44

Attractors

With the goal of identifying which attractors are most important or likely destinations for bicyclists and pedestrians, stakeholders were asked to rank attractors on a scale of 1 (lowest) to 5 (best). These categories were added up and their point totals and averages were analyzed. The following bullets are a summary of the results.

- A few attractors stood out as favorites for the public. "Parks" scored the highest, followed by "Recreation/Community centers", and then "Schools". These three had significantly higher point totals than the next three; "Libraries", "Post Office/Civic Buildings", and finally "Public Transportation Stops."
- These results show that this community would rather have bicycle and pedestrian access to recreational and park facilities. Children's ability to walk and bike to school were also very important. The need get to post offices or civic buildings were less important.
- Public transit scored the lowest which was not expected, but could be explained by low ridership rate. According to the 2000 Census, only 0.6% of commuters took public transit to get to work. This low commute rate may be a result of poor access to public transit stops.

Table 2: Stakeholder Attractor Values

Attractors						
Category	Schools	Parks	Recreation/Community	Post Office/Civic Buildings	Public Transit Stops	Libraries
Total	133	153	137	86	69	102
Average	3.69	4.25	3.81	2.39	1.92	2.83

Network Expansion and Improvement Suggestions

During the Public Input Session a great many suggestions came forward on which roads were in most need of improvement projects. There were a total of 16 roads suggested, but only 5 of them were mentioned more than once. The roads mentioned most were Highway 378, Highway 27, Old Spanish Trail, Sutherland Road, and Highway 171. A list of the top publicly suggested improvements is shown in table below.

Table 3: Stakeholder Suggested Improvements

Lake Charles Public Suggested Improvements	
Road Name	# Times Suggested
Sale Rd.	13
McNeese St.	12
Prien Lake Rd.	9
Lake St.	8
Shell Beach Dr.	7
Ryan St.	7
Common St.	5
Gauthier Rd.	4
Sallier St. Between Ryan & Lake St.	3
Enterprise Blvd	3
Country Club Rd.	3
Ihles Rd.	2
Elliot Rd.	2
Big Lake Rd.	2
All Roads throughout downtown	2
Weaver Rd.	2
Kirkman st.	2
All around McNeese	2
Gulf Highway	2
Nelson Rd.	1
I-10 Bridge	1
College St.	1
Lincoln	1
Burton Ln.	1
6th	1
Kirby St.	1
Lakeshore Dr.	1
Louisiana	1
Warren St.	1
5th Ave.	1
1st Ave.	1
Broad St.	1
Haymark Rd.	1

Personal Experiences/Stories

Respondents were asked to provide a personal experience they have had navigating the roadways of Lake Charles without an automobile. Sharing any stories that their friends or family members have told to them were also highly encouraged. The following are quotes from stakeholders who attended the public input session meeting.

"...Start with existing sidewalks - clean up, widen, remove debris, make sure transition ramp from sidewalk to road is well done."

"Sidewalks in the downtown LC area have very high curbs. Trees cause broken sidewalks and I tripped and fell. When I walk on the road it is just as rough. I walk at an angle, cars do not want to move over."

"I think that the roads that have the heaviest motor vehicle traffic should have ped & bicycle lanes. These are the roads people need to use to get to jobs, schools, shopping, etc. Roads that would be great are Ryan, Common, McNeese, Prienlake, and Sale. McNeese students want to ride to class also have a lot of trouble. I also think there needs to be education for motor vehicle drivers. Most drivers do not understand that they must share the road with bicycles."

"...I had a Sheriff's car yell at me over his PA system to move off of the road. He obviously did not know the law and this is not the only time it happened. This is why I feel that not only the public should be educated about biking, but law enforcement as well."

"I run daily in the downtown area and I never get on the sidewalks because they are in poor shape. "

"Safety should be a primary concern...bikers are generally not able to ride on the shoulder of roads because of all of the trash on them, broken glass, tree limbs, torn up truck tires, large clumps of mud, etc...You have to either swerve to miss it or possible go down and fall in front of a car."

"The open ditches that exist on Prien Lake Rd. (south of Lake St.), Sale Rd., Weaver Rd, and Burton Ln. are extremely hazardous. If these ditches were closed...ideal multi-purpose (walking, biking) paths could be created...students could actually ride bikes to schools, parks, and churches."

"...I work at the local bike shop in town, Capitol Cyclery of Lake Charles, and talk to people everyday about why they want a bike but can't ride. People want to ride bikes but feel that it is too risky because of the fear of being hit. They even are scared of riding in their own neighborhood. If they had a multi-purpose path that connected to the heart of the city and had many outlets then the city would be more active.

"I have for many years wanted to "Walk Lake Charles" and feel that adding paths that connect the parish would bring the communities together and be a tourist attraction."

"I have had many "close calls" with vehicles while biking in the downtown area (of Lake Charles) and south of town near Gauthier, Lincoln, Lake, Tom Hebert. I believe structured bike paths, trails, and parking facilities will dramatically increase the safety of bikers and runners."

Comments and Concerns

Many people took the time to share their comments or concerns with us and also give us their opinion about what was most important to them. These comments or concerns were categorized into a few “themes” and quantified if more than two people mentioned them.

Table 4: Comment Categories

Concerns and Comments Categories	
Comment Category	Number of Comments
Safety Concerns	14
Driver Education	6
Increase Quality of Life	5
Multi-Use Paths	4
Bridge over Contraband Bayou	3
Curbs and Ramps	2
Clean Shoulders on Roadway	2
Bicycles Can't Trigger Traffic Signals	2
Total Stories or Comments	33

Safety appeared to be the chief concern of stakeholders who gave either a comment or concern. People mentioned safety concerns more than twice as often as any other concern. The concern with the next highest number of comments was “driver education.” This category is related to safety, as uneducated drivers can present situations that are unsafe to walkers and bicyclists. The following are a few quotes taken from the Comments and Concerns section of the questionnaire.

“Sale Rd. between Lake and Nelson is horrible and very dangerous, especially over the bridge. It needs to be taken into consideration. It is not safe and the people in Lake Charles deserve better than this. Please do something!!”

“95% of roads have no shoulders. Those with existing shoulders have rare periodic maintenance (i.e. street sweeping). There exists no interconnectivity of the few lanes that exist.”

“Turn Sallier Rd. into 1/2 bike and 1/2 traffic lanes between Ryan all the way to the port. - Slow traffic on Shellbeach Dr. so pedestrians and bikers can enjoy our lake. -Improve Deathtraps on Contraband Bayou Crossings. - Add pedestrian bridge on new I-10 bridge. - Clean shoulders”

“Need bike racks on buses. Education is very important! Make 1st Ave. idea part of rails to trails. Path on new I-10 bridge.”

“If we only ask for bike specific lanes then it will put a lot of people off. If we include all activities then much more people will participate.”

Chapter 3: Existing Conditions

Topography and Environment

Southwest Louisiana is fortunate to have numerous natural resources and environmental treasures. Its relatively flat topography has few grades of more than 3%, which is optimal for bicycle and pedestrian travel. Making up most of the landscape outside of the urban centers, much of the area surrounding Lake Charles is covered with forests, streams, marshes, and farms. Rural sports such as hunting and fishing are commonplace and are draws for locals and tourists alike.

The Calcasieu River is the prominent natural feature in the area. It is responsible for the lake that gives the City of Lake Charles its name and a port industry that ranks in the top 10 in the nation. The Calcasieu and Sabine Rivers that run through Calcasieu Parish have created extensive waterways that afford its citizens opportunities to recreate in wonderfully natural settings.

Figure 3: Calcasieu Parish beams with waterways and wildlife.

Figure 4: Average Monthly Precipitation

The annual rainfall for Lake Charles is 55 inches, with all months receiving roughly the same amount, as shown in figure 4. The months with the most rain showers are the ones that tend to be the hottest. Hot days welcome cooling showers. The Gulf Coast weather pattern makes for scattered rain showers that gather and dissipate quickly making bicycle and pedestrian travel possible.

Figure 5: Average Temperature Range

The temperature most of the year in Lake Charles is pleasant. While summer temperatures can sometime approach levels that make outdoor activities uncomfortable, most of the year the highs do not rise above 90 degrees. Figure 5 shows monthly high and low averages throughout the year.

Temperature and rain are important, but sunshine is another important factor when planning a recreational trip. “Sunshine hours” refers to the amount sunshine there is during the hours of daylight. The higher percentage means there is more sunshine throughout the day and a lower percentage will indicate that it is probably cloudier. Figure 6 shows that sunshine probability ranges from 60% to 85%. This sub-tropical climate of pleasant temperatures for most of the year, regular and predictable cycles of rain, and large amounts of sunshine makes recreation outdoors very attractive for much of the year.

Figure 6: Percentage of Possible Sunshine

Needs and Demands Analysis

Constraints and Opportunities in Calcasieu Parish

It is important to identify what your potential problems are before you start to plan for the future. We must also consider what factors might come into play that would be seen as benefits to the community by our actions. A list has been compiled of potential constraints and opportunities in The City of Lake Charles. A description of each factor is discussed as well.

Constraints

Limited Public Transit System

The current bus system that operates in the city is limited to only six lines and only runs about once per hour. While it fills a need it does not fulfill the transportation needs of all the residents who do not own a car. This fact gives credence to the need for an improved bicycle and pedestrian support network.

Waterways, Highways, and Railways

The many canals and waterways located throughout the City are beautiful, but pose a problem because of the need to build bridges to cross them. The interstate highways and railways that run through the City also create barriers to travel that must be overcome with bridges or underpasses. While many bridges already exist on roadways, there are few which offer bicycle or pedestrian support. The I-10 and I-210 bridges expressly forbid pedestrian travel and the Hwy 171 Bridge towards Moss Bluff is narrow and vehicle traffic travels at a high rate of speed.

Heavy Vehicle Traffic and Rate of Travel Speed

The prevalence of heavy vehicle traffic and a high rate of travel speed (>35 mph) creates safety concerns for bicyclists sharing a roadway. Roads with large travel volumes and high rates of speed should be avoided if possible. Because parts of Lake Charles are industrially intensive areas, special attention should be paid to which areas have high rates of heavy vehicle traffic and should subsequently be avoided by bicyclists as well.

Open Ditches

Open ditches, which flank most roads in the southern section of the City, cause problems for cars, bicyclist, and pedestrians. Bicyclists who are riding on the roadway cannot get off the road whenever a car is coming. Pedestrians cannot walk along the roadway because there is no shoulder and ditches are often wet. Those who do not own an automobile have no path to get to their destination, paved or dirt. Covering ditches along main roadways, which connect communities, can allow for pedestrians to walk from one destination to another without worrying about speeding vehicles in the road.

Bicycle Parking

Parking for both bicycles at destinations and cars at staging areas is minimal. The designation and location of these facilities is not available to the public and is therefore difficult to recognize. A survey of bicycle parking facilities is suggested in order to better gauge which areas of the City are in need of improvements. Signage and designation of staging areas which can be used for people wishing to use bicycle facilities is also suggested.

Opportunities

Growing and Aging Population

Population growth will require expansion of roadways to accommodate new travelers, this is a perfect opportunity to add in bicycle or pedestrian support. Also, in the coming years, the aging baby boomer population will be retiring and will be looking for alternatives to driving and increased opportunities for physical activity.

Environmental Stewardship

Climate change, rising energy costs, and the effects of pollution have raised concerns about what type of transportation we use. The growing awareness of environmental impacts of transportation has led to a high level of public support for increased accommodation for walking and bicycling.

Cost and Infrastructure Savings

Compared with building roadways, there is recognition of the cost effectiveness of providing pedestrian and bicycle improvements in lieu of continued automobile accommodation. It is also recognized that simply adding pedestrian and bicycle improvements as integral parts of larger projects can be done with minimal cost increase.

Health Promotions

Louisiana has been identified among those states with a high percentage of its population being overweight. This fact has lead to the formation of new coalitions to fight obesity and health groups. It would be beneficial to build on and support these efforts along with public health agencies and local groups which promote walking and bicycling. These physical activities have been shown to reduce the risk of diabetes, heart disease and other chronic diseases. It would make for a healthier city and could reduce costs to the health care system in the long run.

Types of Cyclists

This section addresses the differing needs and priorities of different types and levels of ability of cyclists. The purpose of reviewing the needs of bicyclists is twofold: (a) it is instrumental when planning a system to serve different skill levels and different trip types; and (b) it is useful when attempting to quantify future usage and benefits to justify expenditures of resources. According to the US Department of Transportation, 57 million people, or almost 30 percent of the population 16 years or older rode a bicycle at least once during the summer of 2002. This large number of infrequent riders suggests that there is a large reservoir of potential bicyclists who do not ride (or ride more often). A major reason for this is because infrequent or non-riders do not feel comfortable using the existing street system and/or do not have appropriate bicycle facilities at their destination.

While the majority of Americans own bicycles, most of these people are recreational riders who ride relatively infrequently. School children between the ages of 6-14 typically make up a large percentage of bicycle riders, often riding to school, parks, or other local destinations. Adult road cyclists comprise a small, but enthusiastic, segment of regular bikeway users, along with serious off-road mountain bicyclists, who enjoy riding on trails and dirt roads.

There are three categories of cyclists that make up the large majority of the population. Each category requires a different level of support infrastructure and protection. Remembering each category is as easy as A-B-C:

Advanced - include long-distance road cyclists, racers, commuters and utilitarian cyclists; which is defined as those who use their bicycle as a primary means of transportation. These cyclists generally feel comfortable riding on roads and sharing the roads with automobile traffic. Rather than be directed to side streets, most cyclists making utilitarian trips would prefer to be given bike lanes or wider curb lanes on direct routes.

Basic - include youth and adults who are intermittent riders and may be nervous about riding in a street with cars, preferring quiet streets with less traffic and lower traveling speeds. These riders can be directed to side streets where traffic is less of an issue.

Children & Senior Citizens - covers the youngest, oldest or least experienced of among us in the general population. Many of the trips made by this level are recreational; such as a family outing. With this in consideration, protection from hazards and grade separation are recommended wherever possible. Many younger children (ages seven to 11) use sidewalks for riding to schools or parks, which is acceptable in areas where pedestrian volumes are low and driveway visibility is high. Intersections along routes that are expected to contain these riders should have proper road markings and signaling. Sidewalk riding also increases conflicts with pedestrians. Children riding the wrong-way on-street are common, pointing to the need for safety education.

Existing Sidewalk and Bike Lane Inventory and Survey

Transportation infrastructure can consist of existing streets, roadways, multi-use trails, rails, and bridges; these will be the main focus of this inventory. Other types of transportation infrastructure that will be considered in the larger scope of this project are parking, safety devices, signage, and crossings. Existing street networks provide the most direct route to and from desired locations and population centers. Suitability for pedestrian use will depend on factors such as the network continuity, safety provisions, and quality of sidewalks. The suitability for bicycle use will depend on roadway width, speed, and traffic flows.

Utilizing Google Earth's up-to-date aerial photographs and its easy user interface, a database was created of existing sidewalks and bike lanes and later verified by on the ground inspection. These files were subsequently all transferred to GIS for analysis. Every section of sidewalk and bike lane was labeled and categorized by city, street name, on which side of the street it was located, and if it was not contiguous, the segment number. Once the database of existing sidewalk and bike lane network was complete, sections of sidewalk that were missing were easy to identify. Where sidewalks did not exist; worn paths through vegetation were visible due to the high resolution of the photographs.

This method also allowed the ability to identify other potential opportunities for improvement. Intersections could be viewed and analyzed to see if they were sufficient for the existing and proposed pedestrian network. A few intersections were identified that are in need of treatments such as signage and stripping. It was also possible to roughly measure the width of roadways and their shoulders. This allowed the chance to preliminarily identify which roads were suitable for bicycle shared use or exclusive bike lanes. Multi-use trails, which can be created from either existing trail networks on private land or by abandoned railways, could also be identified.

Pedestrian Facilities

The ability for a pedestrian to make it safely from one destination to another depends on the continuity of the sidewalk network. When the concrete suddenly ends a pedestrian must make the decision of potentially getting dirty or walking in the street. Neither of these choices are desirable. The absence of sidewalks creates a sometimes insurmountable barrier for to people desire to walk in their neighborhood.

Inventory

Once we know where all of the sidewalks are, then we can tell where they are not. The City of Lake Charles has 881 individual segments of sidewalks totaling 323.5 miles. The area with the most complete sidewalk coverage is in the downtown area and in the numbered streets and boulevards between Broad Street and I-210. The areas that showed neighborhoods that were lacking in a complete sidewalk network were located north of I-10, south as well as east of I-210. The areas with the least sidewalk coverage were the areas located south of I-210 and west of Lake Street. Not only were the local roads in most of these areas without sidewalks, but the major roads in this area are also without any sort of bicycle or pedestrian support. Please refer to figure 7 on following page for map of existing sidewalks.

Figure 7: Existing Sidewalk Network

Survey

Obtaining a summary of existing infrastructure conditions is necessary in order to accurately gauge the ease and ability for pedestrians to move across the City of Lake Charles. This summary was produced by conducting a comprehensive survey of existing sidewalks located throughout the City. The goal of this survey is to find out information regarding the width of the sidewalk, the width of the buffer, the speed limit of the adjacent roadway, quality of the pavement, and quality of the landscaping on the sidewalk. All of these factors come together to present a picture of conditions that will help the Department of Public Works and the Department of Engineering decide which places are in most need of maintenance or repair.

Sidewalk Width

The width of a sidewalk is very important when considering location and pedestrian use density. While the national minimum standard for sidewalks used to be 4ft., many cities today use 5ft. as their minimum. This is because in order for people to comfortably pass each other, and not have to stop to let the other by, they need approximately five feet of sidewalk width. The table below shows recommended sidewalk widths depending on location.

Table 5: Recommended Sidewalk Widths

Local or collector streets	1.5 m (5 ft)
Arterial or major streets	1.8 to 2.4 m (6 to 8 ft)
CBD areas	2.4 to 3.7 m (8 to 12 ft)
Along parks, schools, and other major generators	2.4 to 3.0 m (8 to 10 ft)

Most of the sidewalks, with a few exceptions, are 4 feet in width. Many sidewalks that are located near schools do not meet the national standard of 8 feet in width and may be inadequate to accommodate comfortable pedestrian travel. Sidewalks located in the CBD of Lake Charles are 8 feet wide and do meet the minimum standards set forth by the U.S. Dept. of Transportation.

Sidewalk Buffer Width

Buffers between sidewalks and roadways are important to provide a level of comfort, security, and safety to pedestrians. Landscaped buffers provide a space for poles, signs, and other obstructions, serve as places for storm-water infusion, and they protect pedestrians from splash. The table below showcases recommendations set forth by AASHTO for appropriate buffer widths.

Table 6: Recommended Buffer Widths

Local or collector streets	0.6 to 1.2 m (2 to 4 ft)
Arterial or major streets	1.2 to 1.8 m (4 to 6 ft)

The buffers located in the City of Lake Charles range from large and lush swaths of 13ft. to non-existent buffers with sidewalks coming all the way the curb. This variation is a warning to planners and policy makers that the City should have a development ordinance that requires a designated buffer width for all new sidewalk construction.

Adjacent Roadway Speed Limit

Motor vehicle traffic is the number one concern for pedestrian and bicycle safety when traveling adjacent to a roadway. The two biggest factors that affect motor vehicle traffic and safety are volume and speed. When a roadway is rarely traveled, the noise from traffic and likelihood of potential unwanted interactions between pedestrians and automobiles is minimal. As the number of vehicles increases so does the potential for accidents. These accidents and the resulting severity of injuries have a direct relationship to vehicular speed. Roadways with speed limits of 30 mph or below are much more attractive to pedestrian and bicycle travel than streets with high rates of speed.

Speed limits of the adjacent roadways to sidewalks were observed in order to better judge which sidewalks are in need of safety treatments such as improved crossings, increased buffer widths, or street trees. These speed limits will also help in determining which roads are most appropriate for bicycle routes or bicycle lanes.

Condition of Pavement

Smooth and even sidewalks are not only visually inviting to pedestrians but also serve to allow people of all ability levels and transportation mode to traverse the city without worrying about tripping on cracks or running into obstacles. The condition of the pavement was ranked on a five point scale; with 5 being the new and 1 being completely degraded. Descriptions and pictures of the ranking system are showcased below.

5 – New Pavement: Newly constructed sidewalks that are smooth, bright, and have no cracks.

4 – Like New Pavement: Slightly older than new sidewalks. These sidewalks have little to no cracks, are smooth, and generally have a bright and attractive color.

3 – Average Pavement: Some cracks are apparent, but the number is not numerous and the nature of them is not severe. The color of these sidewalks is dull and the overall surface will be rougher than those ranked 4.

2 – Below Average Pavement: Cracks are either prevalent in number or severe in nature. These sidewalks are generally uneven, difficult to traverse, and are need of repair. They might not allow for hard-wheeled modes of transportation such as skateboards, scooters, or roller skates.

1 – Completely Degraded Pavement: No possibility of traversing this sidewalk. Severe cracks are prevalent throughout the sidewalk segment. These sidewalks are in need of immediate repair and cannot be considered when attempting to provide a network for sidewalk continuity.

Condition of Landscaping

The quality and condition of landscaping is important for the aesthetic purposes and the ease of use for pedestrians. If grass or bushes are overgrown they can present barriers to people pushing a stroller or walking their dogs. Vegetation can block the path of sidewalks or create bumps in the sidewalk that are similar to cracks. Proper maintenance of sidewalk landscaping is imperative to give the impression of clean and tidy neighborhoods; where all modes of transportation can easily traverse through the city. The condition of the landscaping was ranked on a five point scale; with 5 being lined with bushes or trees and 1 being completely overgrown. Descriptions and pictures of the ranking system are showcased below.

5 - Bush or Tree-Lined Sidewalks: These sidewalks were planted with safety and aesthetics in mind. They are lined with bushes or trees that protect pedestrians from automobile traffic and provide beautiful scenery to observe.

4 – Clean and Edged Landscaping: These sidewalks are clear of obstructions and do not have any overgrown grass encroaching onto the sidewalk. No grass is growing in between the cracks and they are free of obstructions like bushes or tree limbs.

3 – Average Landscaping: While not perfect, these sidewalks are generally well maintained and are free of obstructions. Some overgrowth is prevalent, but for its entire length, and not to a point where it would affect a person's ability traverse the city.

2 – Partly Overgrown or Obstructed Landscaping: This category pertains to sidewalks that have severe grass overgrowth in sections or are obstructed by either bushes or tree limbs. These sidewalks need maintenance immediately or they will continue to degrade to a point where they are unusable to pedestrian and other alternative modes of transportation.

1 – Completely Overgrown or Obstructed Landscaping: These sidewalks have been neglected to the point where they are completely covered with vegetation or are obstructed to a point where the sidewalk is no longer usable. These sidewalks are in immediate need of maintenance and they cannot be considered viable when attempting to provide a network for sidewalk continuity.

Summary of Conditions

Width

The average width of sidewalk in the City of Lake Charles is 4ft. While the current national standard is 5ft, many of the sidewalks built in the City were constructed during a time when 4ft was acceptable. The new sidewalks that were observed did comply with the 5ft standard. Sidewalks located around schools and parks were not noticeably wider than those of the surrounding area. The CBD area of the city did have sidewalks of 8ft, but were sometimes obstructed by telephone poles.

Buffer

Many sidewalks in residential areas had large buffers that were well over the 6ft national standard. While many sidewalks located on local streets provided ample buffer width, the busier streets such as Ryan Street, Common Street, and those in the CBD had sidewalks that were placed all the way up to the roadway curb.

Speed Limit

Of the roadways observed with sidewalks, most of the speed limits were 25mph. Only a few sidewalks were located on roadways with speed limits of 30mph or above. Low speed limits for automobiles on roadways make it attractive for pedestrians to traverse the city without worrying about safety.

Pavement

On a 1-5 scale, with 1 being the worst and 5 being the best all existing sidewalks were surveyed for pavement condition. As could be expected, most of the sidewalks were ranked 3. A few sidewalks with the ranking of 5 were observed and none received the mark of 1. The sidewalks that obtained the ranking of either 4 or 2 seemed to be clustered within the same area. This clustering suggests that the age of the neighborhood has a direct affect on the quality of pavement.

Table 7: Sidewalks In Need of Pavement Improvements

Sidewalk Segment Name	Segment Extents	Sidewalk Width (Feet)	Buffer Width (Feet)	Posted Speed Limit	Pavement Condition	Landscaping Condition	Length (Feet)
Dietz St. East	18th St to Penn St	4	6	35	2	2	758
Alvin St. East	South of Shell Beach Dr to Ernest St	4	6	25	2	3	2,366
Channel St. North	N 1st Ave to N Shattuck St	4	4	25	2	2	919
Channel St. South 2	N Shattuck St to N Prater St	4	4	25	2	2	1,242
Dietz St. West	18th St to Penn St	4	6	35	2	2	755
East St. North	Dr Michael Debakey Dr to Common St	5	6	25	2	2	2,341
Gieffers St. South	N Enterprise Blvd to N Shattuck St	5	5	25	2	2	2,228
Griffith St. East	Park Ave to Wilson St	4	7	25	2	4	358
Louisiana Ave. East 2	18th St to Mitchell St	4	2	25	2	3	4,343
Louisiana Ave. West 2	Oak Park Blvd to E McNeese St	4	2	25	2	3	9,852
Medora St South 3	End of road to N Booker St	4	4	25	2	3	2,593
N. MLK Hwy/171 East	Fitzenreiter Rd to Moeling St	6	0	40	2	2	5,311
N. MLK Hwy/171 West	Fitzenreiter Rd to Moeling St	6	0	40	2	2	5,265
Ryan St. West 4	I-10 Onramp to Rail Road Tracks	5	0	35	2	3	354
S. Railroad Ave. South	Hodges St to N Enterprise Blvd	5	0	25	2	2	3,043
W. Lawrence St. North	Ann St to S Franklin St	5	1	25	2	4	5,224
Weincke St. East	Dr Michael Debakey Dr to East St	4	5	25	2	2	362

Landscaping

On a 1-5 scale, with 1 being the worst and 5 being the best all existing sidewalks were surveyed for pavement condition. There were many neighborhoods throughout Lake Charles that had very well maintained landscaping on sidewalks and received a mark of 4. On the other hand, the majority of homes seemed to look the other way when it came to edging and trimming of bushes and trees around their sidewalks and received the mark of 3. Grass growing in between cracks was common and the grass overgrowing sidewalks was a regular sight. The places that received a mark of 2 were mainly located around abandoned lots or in areas where development was sparse. Only a few places received a mark of 1 and were completely overgrown. No sidewalks were observed that provided street trees or bushes, therefore no sidewalk in the city received a mark of 5 for landscaping.

Table 8: Sidewalk in Need of Landscape Maintenance

Sidewalk Segment Name	Segment Extents	Sidewalk Width (Feet)	Buffer Width (Feet)	Posted Speed Limit	Pavement Condition	Landscaping Condition	Length (Feet)
Craft St South	Louisiana Ave to Warren Ave	4	15	25	3	1	788
Dietz St East	18th St to Penn St	4	6	35	2	2	758
Channel St North	N 1st Ave to N Shattuck St	4	4	25	2	2	919
Channel St South 2	N Shattuck St to N Prater St	4	4	25	2	2	1,242
Dietz St West	18th St to Penn St	4	6	35	2	2	755
East St North	Dr Michael Debakey Dr to Common St	5	6	25	2	2	2,341
Gieffers St South	N Enterprise Blvd to N Shattuck St	5	5	25	2	2	2,228
N MLK Hwy/ 171 East	Fitzenreiter Rd to Moeling St	6	0	40	2	2	5,311
N MLK Hwy/ 171 West	Fitzenreiter Rd to Moeling St	6	0	40	2	2	5,265
S Railroad Ave South	Hodges St to N Enterprise Blvd	5	0	25	2	2	3,043
Weincke St East	Dr Michael Debakey Dr to East St	4	5	25	2	2	362
1st Ave West	Pujo St to 12th St	4	8	35	3	2	5,170
2nd St South	Louisiana Ave to Enterprise Blvd	4	4	25	3	2	322
4th St South	Enterprise Blvd to 1st Ave	4	6	25	3	2	799
Brooks St North	N Booker St to Pear St	4	2	25	3	2	987
Carl St West	See St to Katherine St	4	3	25	3	2	681
Cessford St North	N Lincoln St to N Malcolm St	4	2	25	3	2	1,921
Cessford St South 2	N Prater St to N Booker St	4	0	25	3	2	1,328
Church St North	Ryan St to Hodges St	5	5	25	3	2	813
Church St North 2	Moss St to Ford St	5	5	25	3	2	420
Craft St North	Louisiana Ave to Warren Ave	4	15	25	3	2	802
E School St North 2	Common St to Louisiana Ave	4	7	25	3	2	2,619
E School St South 2	Common St to Louisiana Ave	4	7	25	3	2	2,620

	Ave						
Ford St East	S Railroad Ave to Church St	4	4	25	3	2	500
Ford St West	S Railroad Ave to Church St	4	4	25	3	2	495
Foster St East	Shellbeach Dr to Dr Michael Debakey Dr	4	8	25	3	2	1,093
Foster St East 2	Dr Michael Debakey Dr to Woodruff St	4	8	25	3	2	717
Graham St East	Mary St to Fizenreiter Rd	4	2	25	3	2	2,409
I-10 Srv Rd North	Haskell St to Church St	4	4	35	3	2	3,145
I-10 Srv Rd North 2	1st Ave to Albert St	4	4	35	3	2	4,116
Leaman St North	Louisiana Ave to Warren Ave	4	8	25	3	2	767
Legion St North 4	Gerstner Memorial Dr to Siebarth Dr	4	4	40	3	2	3,196
Legion St South 3	Gerstner Memorial Dr to Siebarth Dr	4	4	40	3	2	2,851
Louisiana Ave East 3	Oregon St to E McNeese	4	2	25	3	2	5,986
N 1st Ave West	Moeling St to Fournet St	5	5	35	3	2	3,208
N 1st Ave East 2	N Channel St to End of Road	4	2	35	3	2	369
N Enterprise Blvd West	Gieffers St to empty lot	5	5	35	3	2	1,473
N Kirkman St West	Opelousas St to N Railroad Ave	5	0	25	3	2	1,298
Pine St North	Louisiana Ave to Enterprise Blvd	4	5	25	3	2	363
S Lyons St East	Mill St to Broad St	4	3	25	3	2	1,477
S Lyons St West	Mill St to Broad St	4	3	25	3	2	1,479
W Lawrence St South	Ann St to S Franklin St	5	1	25	3	2	5,174
Warren Ave West	18th St to E Prien Lake Rd	4	12	25	3	2	2,938
Woodring St South 2	N. Shattuck Dr to N Goos Blvd	4	8	25	3	2	570
Broad St North 4	East of S Lyons St to 8th Ave	5	0	35	4	2	4,499
Evans St South	Prater St to Albert St	4	0	25	4	2	1,284
Griffith St West	Park Ave to Wilson St	5	7	25	4	2	365
Hagan St North	N Lincoln St to Graham St	4	1	25	4	2	616
Helen St South	Lake St to Westwood St	4	10	25	4	2	1,609

Bicycle Facilities

Bicycle Routes

The City of Lake Charles currently has a bicycle route system comprised of 10 roadway segments. They were chosen because of their proximity to schools and parks. The location of the network is mostly located around the downtown area, but does also reach south down to I-210.

According to AASHTO, shared lanes should be located on roads with vehicle volumes of under 10,000 per day and travel speeds of 30 mph or less. Following these standards, six out of the ten of the current bicycle network roadways are not appropriate to be classified as bicycle routes. The high roadway traffic volumes or travel speeds mean that only the most advanced riders should attempt riding on streets such as Shell Beach Dr or Lake St. The route designed previously by the city was well thought out and most of the roads in the current bicycle route network are included in the new recommendations for a bikeway network, although improvements are suggested; such as additions of bicycle lanes and corresponding roadway redesign or widening. Refer to table 9 for a list of improvements needed to the existing bicycle route network.

Table 9: Existing Bicycle Route Network

Road Name	Segment	Avg. Daily Volume	Speed Limit	Existing Travel Lane	New Travel Lane	New Classification	Improvements Needed
Shell Beach Dr. W Mill St	Clarence St. to Lake St.	Above 10000	45	11	12	Bike Lane	Road Widening
	Veterans Memorial Dr to Goos St	Under 3000	25	11	11	Shared Lane	Signage
E Mill St	Goos St to Hwy 171	Under 3000	25	15	15	Shared Lane	Signage
N. Kirkman St	N Railroad Ave to I-10 Svc Rd	Under 3000	25	12	12	Shared Lane	Signage
Kirkman St.	N. Railroad Ave to College St	Between 3,000 and 10,000	35	16	11	Bike Lane	Stripping & Signage
Kirkman St. 2	College St to E McNeese St	Between 3,000 and 10,000	35	12	12	Bike Lane	Road Widening
Lake St.	Shell Beach Dr. to Country Club Rd.	Above 15,000	35	12	12	Bike Lane	Road Widening
Jackson St	N. Ryan St to Kirkman St	Under 3000	25	12	12	Eliminate	Eliminate
South Shattuck	Broad St. to Opelousas St.	Between 3,000 and 10,000	35	16	11	Bike Lane	Stripping & Signage
Broad St	S. Shattuck St to 2nd Ave	Above 15,000	35	10	12	Eliminate	Eliminate

Bicycle Lanes

There are no official bike lanes within the city limits of Lake Charles, though there is one south of the city on Gauthier Rd. This bike lane is 6ft wide and runs east-west for 2.75 miles. While the length and width of this bike lane is impressive, there are no other bike lanes or bike routes connecting to this segment. This could serve as a vital and much used east-west connection for the southern portion of Lake Charles if connections to a supporting bicycle network were made.

Regional Connections with Existing Shoulder Available

There are a few state highways running through Calcasieu Parish that have shoulders that are at least 4 feet wide, which is the minimum adequate space for a bike rider. While these roadway shoulders are not marked for bicyclists specifically, they do provide sufficient space for advanced and, in some cases, basic skill-level riders. These existing roadways can be used to build connections between communities in the Lake Charles Metropolitan Area. Table 10 and Figure 8 on the following page showcase available regional connections.

Table 10: Existing Regional Bicycle Network with Shoulder Available for Bicycles

Location	Street or Highway Name	Extents	Length (Miles)
Dequincy to Sulphur	Hwy. 27	Barney Hoffpauir Rd to Orchard St	14.3
Sulphur to Westlake	Hwy 90	Creek crossing to Picard Rd	1.0
Sulphur to Westlake	Hwy 90 - 2	Prater Rd to Trousdale Rd	5.3
Westlake to Moss Bluff	Hwy 378	River Mist to Park Rd	1.6
Moss Bluff to Topsy	Hwy 171	Hwy 378 to Topsy Rd	5.0
Moss Bluff to Lake Charles	Hwy 171	Conoco St to Walmart	0.3
Lake Charles to Iowa	Hwy 90 - 3	Hwy 171 to Bridge w/o shoulder	1.3
Lake Charles to Iowa	Hwy 90 - 4	Bunker Rd to State Route 397	2.3
South Lake Charles	State Route 397	Gerstner Memorial Dr to Fruge St	5.1

Figure 8: Existing Regional Bikeway Network

Current or Ongoing Bicycle or Pedestrian Support Expansion Projects

Lakefront Promenade and Multi-Use Path

The civic center lakefront is in the process of a major redesign, including a harbor, mixed-use development, and improvements to pedestrian accessibility. A much heralded and anticipated promenade and multi-use path has already been completed. Running along Bord Du Lac, this promenade features elaborate inlays and tastefully designed lighting schemes. If the new I-10 bridge includes a pedestrian bridge as well, then this lakefront path could eventually serve to bridge the gap between recreational riders and functional commutes from one part of the city to another.

Figure 9: Lakefront Promenade

Corbina Roadway Extension and Multi-Use Path

Set to begin construction soon and be completed by the end of 2011, the Corbina Rd. expansion project will extend the roadway from its current terminus at Highway 14 all the way to E. Prien Lake Rd. The roadway is planned to be 60 feet wide with four travel lanes and eight foot wide paved shoulders. The project is also slated to incorporate a 10 foot wide, two-way, bike path on one side of the road, separated from automobile traffic by an open ditch buffer. The multi-use path will run 2.75 miles and is designed to accommodate various types of non-motorized users such as pedestrians and other wheeled modes. This path will serve as the first true bike/multi-use path in all of Calcasieu Parish. When completed, this project will also serve as an important north/south spine for a new network of non-motorized support infrastructure.

Gulf Highway Expansion

The Gulf Hwy expansion project could have been a great opportunity to extend pedestrian and bicycle access to portions of Southern Lake Charles and Calcasieu Parish. Unfortunately, the cost, logistics, and narrow right of way made the feasibility of including sidewalks or bike lanes not possible.

1st Ave Multi-Use Path

Still in its preliminary planning stages, this path is expected to be approximately 10-12 ft wide multi-use path that run from the railroad tracks north of I-10 to 12th St. Broken up into two phases the northern section would run from the railroad tracks north of I-10 to Broad St; the southern section would run from Broad St to the 12th St. The southern section has a 50 ft wide median that could serve as ample room for a path.

Chapter 4: Goals and Policy Recommendations

The Louisiana Bicycle and Pedestrian Master Plan recommends that each municipality or jurisdiction prepare, adopt, and implement a comprehensive bicycle and pedestrian plan. Through the statement and adoptions of these goals and policy recommendations the City of Lake Charles Bicycle and Pedestrian Master Plan places a greater emphasis on planning for bicycles and pedestrians in the ongoing work of shaping streets and managing traffic.

The characteristics that make up a pedestrian and bicycle friendly environment have been grouped into five main categories: connectivity, travelway character, context character, education, and safety. Each one is described below, followed by a set of goals and related policy recommendations that can be used in conjunction with subsequent action items to implement the goals.

Connectivity

Connectivity refers to the bikeway, pedestrian, and transit network. A well-connected network of streets and pedestrian ways means that it is easy for bikes and pedestrians to get around. Connectivity includes support for safe, convenient street crossings. Walking and transit go hand in hand – transit riders typically supplement their trip with some form of pedestrian travel at both ends.

Connectivity Goals

- Goal 1: Develop a *cohesive* non-motorized network of sidewalks, bikeways, and street crossings that make alternative transportation a realistic way to get around.
- Goal 2: Provide a *continuous* bicycle and pedestrian network that connects sites within blocks, and connects buildings to each other, to streets, and to transit facilities.
- Goal 3: Provide crossings that are *convenient* and *comfortable* for pedestrians and bicyclists to use.

Connectivity Policies for Consideration

- New developments should connect to neighboring developments.
- Commercial areas should create a vehicular and/or pedestrian connection to adjacent residential communities and provide a future connection option for future developments.
- New residential communities should connect to existing residential and commercial developments, as well as provide connection possibilities to future adjacent developments.
- Provide direct connections or shortcuts from residential areas to neighborhood commercial destinations, parks, gathering places, and trails, especially in new or infill development by connecting dead-end streets or cul-de-sacs to adjacent streets or trails.
- Provide connections over barriers such as railroads, waterways, and freeways.
- Reduce, eliminate, or provide access around obstructions, such as utility poles, that are barriers to non-motorized travel.

Travelway Character

Travelway character refers to the roadway space between travel lanes and curbs as well as sidewalk space. Roadway space can be designed to serve traffic while still providing a high-quality bicycle and pedestrian environment. The design of the sidewalks and bike lanes and the elements within it are key parts of creating a bicycle and pedestrian-friendly environment. This requires more than just minimum width requirements. Sidewalks are multi-functional, and their design should reflect the need to provide walking space as well as accommodating small children riding their bikes.

Travelway Character Goals

- Goal 4: Create a street design sensitive to its context.
- Goal 5: Design sidewalks that are enjoyable to walk along and that acknowledge their multi-functional purposes.
- Goal 6: Preserve the health of the natural environment, improve air and water quality and reduce energy consumption by increasing the rates of walking and bicycling.

Travelway Character Policies for Consideration

- Provide landscaped sidewalk buffers and urban design features, especially in areas of high pedestrian activity, in order to encourage walking.
- Improve the street-level experience for pedestrians, by promoting the inclusion of landscaping and street trees to provide shade and enhance streetscape appearance.
- Encourage wider sidewalks in areas with high levels of pedestrian activity. The width of a sidewalk should be proportional to the demand for pedestrian activity.

Context Character

Context Character refers to the way the adjacent land-uses interact with the pedestrian or bicyclist. A pedestrian friendly environment should have a positive relationship to an area's land use.

Context Character Goals

- Goal 7: Provide adequate bicycle parking at desired locations.
- Goal 8: Design buildings such that their architecture enhances and encourages pedestrian activities.
- Goal 9: Provide pedestrian friendly automobile parking layouts to prevent isolating pedestrians from their destinations.

Context Character Policies for Consideration

- Require bicycle parking rack standards for commercial developments.
- Provide clear, direct, and attractive internal pedestrian networks that connect buildings, neighborhoods, and commercial centers to the adjacent sidewalk.
- New commercial development should be oriented to the pedestrian and include pedestrian walkways.

Education

Part of the success of making a place where walking and bicycling are commonplace will come from educating walkers, bikers, and automobile drivers about state and local laws. The goals for education should seek to inform citizens of the City about creating a role for walking and bicycling to contribute positively into the social cohesion of the community.

Education Goals

- Goal 10: Promote pedestrian and bicyclist awareness in the City of Lake Charles such that it becomes the commonplace.
- Goal 11: Coordinate with other transportation agencies to develop a more seamless multimodal transportation system.

Education Policies for Consideration

- Provide at least one event annually that promotes pedestrian and bicycle safety such as “Walk to School Day.”
- Develop partnerships with local schools, driving clubs, and biking or walking organizations to develop educational materials and promote bicycling and pedestrian awareness.
- Promote safe and courteous walking, biking, and driving through targeted outreach programs.

Safety

Safety goals address the need to create safe, visible, and convenient bikeway and sidewalk conditions. Factors such as roadway crossings, internal site circulation, seamless access to transit, and truly multimodal streets go into account for the quality of safety for both pedestrians and cyclists.

Safety Goals

- Goal 12: Increase the safety of the walking and bicycling environment and reduce injuries and fatalities by providing a high level of care and consideration for these modes.
- Goal 13: Develop and implement speed management policies that support safe driving speeds on all City roads.

Safety Policies for Consideration

- All new sidewalks shall provide buffering from auto traffic and off-street parking lots, and provide trees that will shade sidewalks.
- Consider special treatments such as pedestrian refuge islands, countdown signals, and others as described in Appendix C: Design Guidelines.
- Explore opportunities to eliminate lanes and reduce roadway widths where appropriate in order to accommodate bicycle traffic. Lane elimination strategies are typically called “road diets” and are effective at improving multimodal travel conditions and managing vehicle speeds.

Chapter 5: Methodology for Prioritizing Projects

The methodology utilized for identifying highest priority improvements included the following steps:

1. Identify all street segments lacking sidewalks
2. Rank all segments based on four factors: Generator Score, Attractor Score, Connectivity, and Affordability & Ease
3. Identify clusters of the highest-scoring street segments to develop candidate project areas
4. Rank the top projects based on a weighted average of improvement need for all street segments in candidate project areas

As mentioned in “Chapter 3: Existing Conditions,” a survey was conducted in which the existing pedestrian and bicycle networks were identified. Four factors were considered when prioritizing improvements to address gaps in the pedestrian or bicycling network. These four factors are:

1. Generator Score – This score is related to the propensity of a particular area to generate pedestrians or bicyclists. Census Block Groups (CBGs) ranked on criteria that would preclude the assumption for pedestrians or bicyclists to be present. Criteria include presence of persons under 16 years of age and household income. Scores were placed on a 1 (worst) to 9 (best) scale.

2. Attractor Score – The attractor score is related to the propensity of a particular destination to be attractive for pedestrians or bicyclists. Some places are more likely to for people to walk or bike to than to drive. Examples of these destinations include schools, civic buildings, and parks. Each attractor was given a value and then an approximately ¼ mile was placed around it. The areas with the highest amount of attractors had the highest value scores. Scores were placed on a 1 (worst) to 10 (best) scale. This category has an added weighted factor of 2.

3. Connectivity - Number of existing sidewalks or bike lanes the project would connect to. This is important in order to promote sidewalk continuity. There is no added weighted factor added to this category.

4. Affordability and Ease – Some projects are bound to be more costly and difficult to implement than others. This category is to try and identify the “lowest hanging fruit” of potential projects. The estimated cost of the project based the factors of cost of materials and construction, filling in of ditches, and overcoming barriers such as bridges. Set on a scale of 1 (worst) to 5 (best). This category has an added weighted factor of 2.

These four categories are explained in greater detail on the following page.

Generators

Certain population segments are likely to produce people with higher propensities to bicycle or walk. While certain segments of the population might have the ability to drive to their destination, others do not have access to an automobile. These people must be supported by pedestrian infrastructure from their home all the way to their destination. Four spatial categories were considered by Census Block Group to determine a generator score.

1. Population Density - Census Block Groups with a higher density of residences are more likely to have a need for pedestrian support as more people will be demanding facilities. In order to classify those areas with the highest population density, Census 2000 data and existing GIS data was be utilized. Population density was then multiplied with following two other categories to obtain values.

2. Percentage of Households with Persons Under the Age of 16 - Other than public transportation, walking and biking are usually the only modes of transportation available to children. Children under the age of 16 are not old enough to operate a motor vehicle and the elderly might have health problems that keep them from driving safely. Furthermore, many children do not have the maturity to safely navigate a street network that was designed and built exclusively for automobile travel. Residential density values were effectively calculated using the existing Calcasieu Parish GIS database by block group. This density was multiplied by the percentage of households with persons under the age of 16 to receive a score. The scores were divided into ten categories and given a corresponding value from 1 to 10.

3. Percentage of Households with Persons Over the Age of 60 - Persons over the age of 60 are less likely to drive automobiles and are more likely to be mobility-impaired. Mobility-impaired residents require greater accessibility measures, especially within their immediate residential neighborhoods. Residential density values were effectively calculated using the existing Calcasieu Parish GIS database by block group. This density was multiplied by the percentage of households with persons over the age of 60 to receive a score. The scores were divided into ten categories and given a corresponding value from 1 to 10.

4. Household Income - Lower income families are much more likely to rely on walking and public transportation for their travel needs, and also require greater accessibility measures within their neighborhoods. People in low income households are nearly twice as likely to walk as people in other income groups (Murakami and Young, 1997). Some residents may be dependent on these modes for travel to work and for achieving financial independence. The median household income in each (CBG) was listed and ranked according to area median household income (AMI). The lowest earning households will receive the highest values of pedestrian generation. Those CBGs that had a household income below poverty level (less than 80% of AMI) were given a score of 3, those CBGs with household income above poverty level but below AMI were given a score of 2, and the CBGs with household income above AMI were given a score of 1.

Figure 10: Pedestrian Attractor Map

Attractors

The reason people travel is to get to a destination. Certain destinations are more likely than others to attract people who would walk or bike. 11 categories of attractors have been selected and a brief description of why they were chosen is given. Each category has a corresponding value associated with it that ranks its propensity to attract bicycle or pedestrian travel; schools and public transit stops were ranked the highest. A “buffer” of ¼ mile, which is standard in walkability, was placed around each of the attractors. See table 1 below for a list of attractors and their corresponding value. An additional weighting of 2 was multiplied to the values.

Schools

Many students walk or ride bicycles on the sidewalks to school. Students, particularly younger children, are among the most vulnerable pedestrians. Areas around schools, where student pedestrians congregate, require special attention in the form of pedestrian facilities and safety measures.

Parks

Parks attract recreational users of all ages. Pedestrian access and safety facilities are essential to park accessibility.

Recreation and Halls

These are buildings such as a community centers, pools, or VFW halls. These places are destinations for children and the elderly.

Libraries

The places of learning are top destinations for all age groups. Many low-income and senior individuals use the library for internet access.

Recreational Facilities

These were community baseball, soccer, and football fields. Children use these often and games can be big draws for people of all ages.

Civic Buildings

Access to public buildings is a critical component to the ADA Title II. Administrative buildings, court houses and other public buildings provide a wide-range of services to children, senior adults, and mobility-impaired residents.

Hospitals

People recovering from illness or injury often have to get exercise to stimulate healing. Family members also like to take a walk during times of distress. Offering sidewalks or trails around a hospital is important to promote safe walking.

Police Stations

Many people are given tickets, such as DUIs and must go to the police station to resolve them or conduct community service. Also repeat offenders are less likely to own an automobile and are prone needing access to alternative modes of transportation.

Post Office

These civic buildings are used by all segments of the adult population. Access from all modes of transportation should be promoted around these buildings.

Stadiums

These are destinations for large events for people of all ages and parking and traffic tends to be a problem. Providing sidewalks and bike lanes would ease congestion and allow people without cars to have access to these events.

Fire Stations

These are usually located around places with residential development. While not many people would need to walk or bike to these destinations, the proximity to housing makes them a popular spot for new sidewalk construction.

Table 10: Attractor Value Matrix

Attractor	Score
Schools	5
Parks	4
Recreation & Halls	4
Libraries	4
Recreational Facilities	4
Civic Buildings	3
Hospitals	3
Police Stations	2
Post Office	2
Stadiums	2
Fire Stations	1

Figure 11: Lake Charles Attractor Locations

Figure 12: City of Lake Charles Attractor Map

Connectivity

The connectivity score is important to promote sidewalk and bikeway continuity. Interruptions may require pedestrians to cross a busy arterial street midblock or a bike to have to travel a busy road while unprotected from traffic. The idea is to allow pedestrians and bicyclist the chance to get from the origin all the way to their destination safely.

For every existing sidewalk the proposed project would connect to, the project will receive a point. There is no limit on the amount of points a proposed sidewalk can receive for connectivity.

Figure 13: Sidewalk Ending Abruptly

Affordability

Pedestrian Infrastructure Improvements

Sidewalk construction costs can be defined in on a general basis, a cost per square foot basis. While this helps to estimate the cost of a project, things such constructing new curbs & gutters or filling in of open ditches can raise the cost significantly. In light of this, all recommended sidewalk projects were reviewed for current conditions and were notated if they were located on roadways without curb & gutter or had open ditches on their flanks. Figure x below shows which sidewalk projects might require the construction of curb & gutter, the filling in of ditches, or both.

Bicycle Infrastructure Improvements

While some roads have sufficient width to accommodate bike lanes, many roads in Lake Charles are not suitable for those facilities at this time due narrow lane widths, high traffic volumes or speeds. If the City wishes to make these roads safer and more comfortable for cyclists a total redesign may be necessary to reduce the number of lanes, implement traffic calming measures, or widen the road sufficiently to provide adequate width to separate bicyclists from vehicle traffic.

Because governmental agencies work within a defined budget, costs are always an important factor to consider when choosing which projects to fund. To take this into account, the costs of each project have been estimated by considering certain factors which can affect the overall price. Examples of factors that are considered are cost of construction, filling in of existing ditches, and overcoming barriers such as bridges. Each project was ranked on a 1 (highest price) to 5 (lowest price) scale. In the final calculation this category has an added weighted factor of 2.

The following construction cost assumptions are generalized and are based on national averages. They do not take into account for right of way acquisition, administration costs, or local labor costs.

Highest Cost: Roadway widening, building bridges, and/or covering ditches.

Redesigning the road will require a high level of preparation, including engineering analysis, design, and public involvement. In order to meet LADOTD standards, additional treatments may be necessary, such as installing a median or controlling driveway access. Construction costs could be high, due to new bridge construction or if open ditches flank the road and must be covered. Depending on these factors the general construction cost could cost between \$800,000 to over \$1,000,000 per mile.

High Cost: Roadway widening and reconstructing sidewalks.

Some roadways have sidewalks or parking lots built right up to the roadway. If the roadway is to be widened, all development flanking the proposed expansion will have to be reconstructed. The cost for these projects range between \$400,000 to \$800,000 per mile.

Moderate Cost: Widening roadway to provide sufficient width for bicycle lane.

This may require major redesign. In addition, costs may increase if it is determined there is a need for drainage improvements prior to widening. Sometimes these projects can be conducted as part of routine resurfacing. Cost range for these projects range between \$200,000 to \$400,000 per mile.

Low Cost: Roadway redesign with signage and stripping of a bicycle lane.

Minor roadway/lane redesign may be required, but should be minimal. Most of the cost comes from planning and logistics with materials cost being very low, (e.g., less than \$10,000 per linear mile for thermoplastic striping). Construction costs are much less than those for shoulder widening; between \$50,000 to \$100,000 per mile. May be included as part of a routine resurfacing.

Lowest Cost: Installing bicycle route signage.

Costs will include some design to determine signage locations, installation, and sign costs. Most signs are approximately \$150 and installation costs approximately \$100, for a total of \$250 per sign. Costs are generally under \$10,000 per mile.

Table 2: Affordability Index

Sidewalk Affordability Index		
Cost Estimate Range (Total Cost)	Cost Category	Cost Score
Under 20k	Very Low	5
Between 20-50k	Low	4
Between 50-100k	Moderate	3
Between 100-150k	High	2
Above 150k	Very High	1

Bikeway Affordability Index		
Cost Estimate Range (Per Mile)	Cost Category	Cost Score
Under 50k	Very Low	5
Between 50k-100k	Low	4
Between 200k to 400k	Moderate	3
Between 400k to 800k	High	2
800k to over 1 million	Very High	1

Chapter 6: Recommended Route Network

The City of Portland, Oregon recently conducted a study regarding the levels of walking in areas around the city. The study found that the provision of sidewalks could be used as an indicator for the likelihood of pedestrian activity. It is almost certain that a city that designs its roadways to accommodate bicycles and pedestrians will have higher levels of non-motorized transportation than a city that is designed solely for automobiles. This fact gives credence to the famous adage from the movie *Field of Dreams*, “If you build it, they will come.”

Recommended improvement projects were identified by using three steps: aerial analysis, fieldwork surveys, and stakeholder input meetings. Projects include the filling in of gaps in the existing infrastructure network or new project areas identified as categories of concern. Projects are ranked by the four factors discussed in chapter 5; generator, attractor, connectivity, and affordability scores.

While all projects have been ranked, ranking does not dictate the recommended order of construction or programming schedule. The programming schedule should take place on a year to year basis and should focus on projects that are related to the connectivity or completion of an area-wide system, fixes to safety concerns, and availability of funding. It is recommended that programming be a planning/public/political experience where all sides get a say in what areas are of the most concern to them.

The recommendations and definitions in this chapter are intended to identify facilities that can be applied to the Lake Charles Metro Area to better accommodate non-motorized transportation modes. Bicycle facilities share roadways with automobiles, whereas pedestrian facilities and trails/paths often require grade separation from automobile traffic. In order to cover all of the specifics associated with various types of support systems, this chapter is split into three sections **Pedestrian Facilities**, **Bikeway Network**, and **Trails/Paths**.

Pedestrian Facilities

Sidewalks serve as the backbone of the non-motorized transportation network. They need to be placed close to the origin (homes) of users and continue uninterrupted to their likely destination (school, job, etc.). The ability for a pedestrian to make it safely from one destination to another depends on the continuity of the sidewalk network.

When the concrete suddenly ends a pedestrian must make the decision of walking in the mud or walking in the street. Neither of these choices are desirable. Even worse, someone with disability has no choice at all. The absence of sidewalks creates a sometimes insurmountable barrier for to people desire to walk in their neighborhood. Sidewalk accessibility and continuity should be held in high esteem.

The City of Lake Charles has many gaps in its existing sidewalk network, 147 new sidewalk segments were recommended. This list of recommended new projects is not exhaustive, it includes gaps in existing networks, and also suggests new sidewalks on major roads, but does not get into recommending sidewalks in existing neighborhoods without any existing sidewalk network. The recommended solution is to work with Calcasieu Parish to have a “sphere of influence” clause in the development code that requires new residential or commercial developments to include sidewalks.

The recommended new projects list was broken up into four locations/areas throughout the City; North Lake Charles, Central Lake Charles, South-Central Lake Charles, and South Lake Charles. While some of the projects run through more than one location, they are only represented once on each area map.

Figure 14: City-wide Proposed Sidewalk Network Improvements

North Lake Charles

This area of the City is very residential in nature. Some of the highest ranking projects are located here. It has numerous schools and community recreational facilities. Overall, it has a household income range on the lower end of the area median income (AMI), which could mean that many of its residents are without the use of a car and bicycle or walking may be their primary form of transportation. The sparse and non-contiguous nature of the sidewalk network in this area makes it a prime candidate for sidewalk expansion projects.

Table 3: North Lake Charles Recommended Sidewalks

Map Ref#	Sidewalk Name	Segment Extents	Priority Range	Length (Feet)
1	Fitzenreiter Rd South	N Lincoln St to Hwy 171	Moderate	1,049
2	Pear St. East	Medora St. to Fitzenreiter Rd.	High	2,650
3	N. Simmons St. East 2	Medora St. to Fitzenreiter Rd.	High	2,652
4	Courtney St. South	N Goos Blvd to N Prater St	Moderate	633
5	N. Goos Blvd. East	Courtney St to Existing Sidewalk	Moderate	1,288
6	N. Booker St. East	Moeling St. to Knapp St.	High	2,800
7	Medora St. North	N. Prater St. to N. Booker St.	High	1,295
8	Medora St. South	N Booker St to N Simmons St	High	605
9	Woodring St North	N Booker St to N Simmons St	High	595
10	Woodring St South	N Booker St to N Simmons St	High	595
11	Griffin St South	N MLK Hwy to Sally Mae St	High	1,030
12	Katherine St South	N Prater St to N Booker St	High	1,317
13	N. Lyon St. West	Commercial St. to Moeling St.	Moderate	410
14	N. Lyon St. East	Commercial St. to Moeling St.	Moderate	404
15	N. Blake St. West	Moeling St. to Geiffers St.	High	1,745
16	N. Blake St. East	Moeling St. to Geiffers St.	High	1,895
17	N. Shattuck St. East	Moeling St. to Opelousas St.	High	2,421
18	N. Simmons St. West	Moeling St. to Opelousas St.	High	2,607
19	N. Simmons St. East	Moeling St. to Opelousas St.	High	2,610
20	Cessford St. North	N. Prater St. to N. 1st ave.	High	3,977
21	Opelousas St. South	N. Shattuck St. to N. Simmons St.	High	3,288
22	Fournet St North	N Enterprise Blvd to N Shattuck St	Moderate	2,137
23	Connecting Pedestrian Path	N. Shattuck to Fournet St.	High	83
24	Jackson St South	N Bank St to N Ryan St	Moderate	2,991
25	N. Ryan St East	S Railroad Ave to Jackson St	High	594
26	Church St. North	Ford St to Kirkman St	Moderate	429

Figure 15: North Lake Charles Recommended Sidewalks

The following table is intended to be used as a quick reference for each suggested segment of the recommended sidewalk network.

(map reference #) Street Name: Segment	
Recommended Sidewalk Width	Range between five to eight feet
Recommended Buffer Width:	Range between two to six feet
Priority Index Ranking:	Ranking based upon scores derived from attractor and generator scores, connectivity, and affordability added together

Reason Selected

Discusses the importance and need for the project

Cost

Estimates costs for recommended facility type.

Funding Source

Identifies potential sources for funding the recommended improvements.

North Lake Charles Area

(map ref # 1) Fitzenreiter Rd South: N Lincoln St to Hwy 171	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	89 (Moderate)

Reason Selected: Will connect with other sidewalks, within 1/4 mile to school

Cost: \$26,234

Funding Source: Safe Routes to School, General Fund

(map ref # 2) Pear St East: Medora St to Fitzenreiter Rd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	21 (High)

Reason Selected: Located within 1/4 mile to a school, will connect to other sidewalks

Cost: \$66,261

Funding Source: Safe Routes to School, General Fund

(map ref # 3) N Simmons St East 2: Medora St to Fitzenreiter Rd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	4 (High)

Reason Selected: Located next to a community center and within 1/4 mile a school

Cost: \$66,306

Funding Source: Safe Routes to School, General Fund

(map ref # 4) Courtney St South: N Goos Blvd to N Prater St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	95 (Moderate)

Reason Selected: Connects parts of existing network

Cost: \$15,814

Funding Source: General Fund

(map ref # 5) N Goos Blvd East: Courney St to Existing Sidewalk	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	95 (Moderate)

Reason Selected: Extends a current sidewalk and to connect to existing network

Cost: \$32,198

Funding Source: General Fund

(map ref # 6) N Booker St East: Moeling St to Knapp St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	15 (High)

Reason Selected: *Fills gap in existing sidewalk network*

Cost: \$70,000

Funding Source: *General Fund*

(map ref # 7) Medora St North: N Prater St to N Booker St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	9 (High)

Reason Selected: *Located within 1/4 mile a school and connects two vital parts of existing network*

Cost: \$32,371

Funding Source: *General Fund, Safe Routes to School*

(map ref # 8) Medora St South: N Booker St to n Simmons St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	2 (High)

Reason Selected: *Located within 1/4 mile a school and connects two vital parts of existing network*

Cost: \$15,137

Funding Source: *General Fund, Safe Routes to School*

(map ref # 9) Woodring St North: N Booker St to N Simmons St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	6 (High)

Reason Selected: *Will connect parts of existing network*

Cost: \$14,875

Funding Source: *General Fund*

(map ref # 10) Woodring St South: N Booker St to N Simmons St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	6 (High)

Reason Selected: *Will connect parts of existing network*

Cost: \$14,875

Funding Source: *General Fund*

(map ref # 11) Griffin St South: N MLK Hwy to Sally Mae St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	31 (High)

Reason Selected: *Fill in gaps of existing network*

Cost: \$25,750

Funding Source: *General Fund*

(map ref # 12) Katherine St South: N Prater St to N Booker St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	15 (High)

Reason Selected: *Will connect to vital parts of existing sidewalk network*

Cost: \$32,925

Funding Source: *General Fund; Safe Routes to School*

(map ref # 13) N Lyon St West: Commercial St to Moeling St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	53 (Moderate)

Reason Selected: *Located within 1/4 mile an elementary school*

Cost: \$10,242

Funding Source: *General Fund; Safe Routes to School*

(map ref # 14) N Lyon St East: Commercial St to Moeling St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	63 (Moderate)

Reason Selected: *Located within 1/4 mile an elementary school*

Cost: \$10,099

Funding Source: *General Fund; Safe Routes to School*

(map ref # 15) N Blake St West: Moeling St to Geiffers St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	45 (High)

Reason Selected: *Located within 1/4 mile a school*

Cost: \$43,634

Funding Source: *General Fund; Safe Routes to School*

(map ref # 16) N Blake St East: Moeling St to Geiffers St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	12 (High)

Reason Selected: *Located within 1/4 mile a school*

Cost: \$47,364

Funding Source: *General Fund; Safe Routes to School*

(map ref # 17) N Shattuck St East: Moeling St to Opelousas St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	15 (High)

Reason Selected: *Adjacent to an elementary school; will connect to existing sidewalk*

Cost: \$60,517

Funding Source: *Safe Routes to School; General Fund*

(map ref # 18) N Simmons St West: Moeling St to Opelousas St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	15 (High)

Reason Selected: *Will connect with numerous sidewalks*

Cost: \$65,176

Funding Source: *General Fund*

(map ref # 19) N Simmons St East: Moeling St to Opelousas St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	15 (High)

Reason Selected: *Will connect with numerous sidewalks*

Cost: \$65,259

Funding Source: *Safe Routes to School; General Fund*

(map ref # 20) Cessford St North: N Prater St to N 1 st Ave	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	12 (High)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$99,424

Funding Source: *General Fund*

(map ref # 21) Opelousas St South: N Shattuck St to N Simmons St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	15 (High)

Reason Selected: Within 1/4 mile to a school, important collector rd.

Cost: \$82,194

Funding Source: Safe Routes to School; *General Fund*

(map ref # 22) Fournet St North: N Enterprise Blvd to N Shattuck St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	95 (Moderate)

Reason Selected: *connects with existing sidewalk network*

Cost: \$53,425

Funding Source: *General Fund*

(map ref # 23) Pedestrian Connector Path: N Shattuck St to Fournet St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	42 (High)

Reason Selected: Within 1/4 mile to a school, will serve as a short-cut between two main roads.

Cost: \$2,076

Funding Source: Safe Routes to School; *General Fund*

(map ref # 24) Jackson St South: N Bank St to N Ryan St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	95 (Moderate)

Reason Selected: *Will connect to an existing sidewalk network*

Cost: \$74,775

Funding Source: *General Fund*

(map ref # 25) N Ryan St East: S Railroad Ave to Jackson St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	42 (High)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$14,850

Funding Source: *General Fund*

(map ref # 26) Church St North: Ford St to Kirkman St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	53 (Moderate)

Reason Selected: *Will connect to an existing sidewalk network*

Cost: \$10,725

Funding Source: *General Fund*

Central Lake Charles

This area of the City has the downtown and lakeshore district included in it. This area is a destination for commuters as well as people wanting to recreate by the lakeshore. Overall, it has a household income range on the higher end of the AMI, which could mean most people have the privilege of owning a car. The intensive commercial land-use makes this area having a complete sidewalk network very important.

Table 4: Central Lake Charles Recommended Sidewalks

Map Ref#	Sidewalk Name	Segment Extents	Priority Range	Length (Feet)
27	VE Washington Ave West Side	I-10 Srv Rd to Belden St	Moderate	302
28	Enterprise Blvd. West Side	Mill St. to Belden St.	High	1,313
29	S Shattuck St East Side	Belden St to Carter St	High	1,652
30	I-10 Srv. Rd North	Belden St to Albert St	Moderate	201
31	Belden St. South Side	Albert St to Existing Sidewalk	Moderate	1,112
32	Frugé St. South Side	Malcom St to Hwy 14	Moderate	510
33	McNabb St West Side	Frugé St to Broad St	Low	2601
34	Winterhalter St. South Side	S Shattuck St to Albert St	Moderate	2,700
35	Pine St. North Side	Bank St to Louisiana Ave	High	418
36	Pine St. South Side	Bank St to Louisiana Ave	High	395
37	Evans St South Side	S Shattuck St to Prater St	High	1,340
38	Cline St South Side	Holmes St to S MLK Hwy	Moderate	746
39	Cline St North Side	Holmes St to S MLK Hwy	Moderate	391
40	Mt Talbot St South Side	McNabb St to Ball Fields	Low	1451
41	Division St North Side	Bank St to Louisiana Ave	High	420
42	Division St South Side	Bank St to Louisiana Ave	High	420
43	Louisiana Ave West Side	Division St to Clements St	High	644
44	Broad St. South Side	1st Ave and Louisiana Ave	Moderate	1,232
45	Broad St. North Side	VE Washington Ave to 1st Ave	High	204
46	Broad St. North Side 2	S Lyon St to Existing Sidewalk	Moderate	157
47	Broad St. North Side 3	8th Ave to McNabb St	Low	3,333
48	Enterprise Blvd. West Side 2	Broad St to Existing Sidewalk	High	191
49	Enterprise Blvd. East	Broad St to Existing Sidewalk	High	280
50	Gerstner Memorial Dr. East Side	Broad St to 4th St	Low	1,924
51	Gerstner Memorial Dr. West Side	Broad St to Existing Sidewalk	Low	2,996
52	2nd St South Side	Enterprise Blvd to 2nd Ave	Moderate	1,680
53	3rd St. South Side	Enterprise Blvd to 3rd Ave	Moderate	2,513
54	3rd St. North Side	6th Ave to Gerstner Memorial Dr	Moderate	2,619
55	3rd St. South Side 2	6th Ave to Gerstner Memorial Dr	Low	2,624
56	3rd St South Side 3	Gerstner Memorial Dr to McNabb St	Low	1,246
57	4th St. North Side	Louisiana Ave to Enterprise Blvd	Moderate	316
58	4th St. South Side	Louisiana Ave to Enterprise Blvd	Moderate	323
59	5th St. North Side	Louisiana Ave to Enterprise Blvd	High	317
60	5th St. South Side	Louisiana Ave to Existing Sidewalk	High	185
61	6th St North Side	Bank St to Louisiana Ave	Moderate	429
62	6th St South Side	Bank St to Enterprise Blvd	Moderate	798
63	1st Ave. East Side 2	Broad St to 12th St	High	5,280
64	6th St. North Side 2	5th Ave to 6th Ave	Moderate	647
65	6th Ave. East Side	6th St to 9th St	Moderate	1,058
66	6th Ave. East Side 2	Legion St to 12th St	Moderate	1,250
67	Common St. West Side	Clarence St to 17th St	High	5,943
68	Common St. East Side	6th St to 17th St	Moderate	5,038

Figure 16: Central Lake Charles Recommended Sidewalks

Central Lake Charles Area

(map ref #27) VE Washington Ave West: I-10 Service Rd to Belden St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	75 (Moderate)

Reason Selected: Will connect to existing sidewalk network

Cost: \$7,543

Funding Source: General Fund

(map ref # 28) Enterprise Blvd West: Mill St to Belden St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	15 (High)

Reason Selected: Will connect to existing sidewalk network

Cost: \$39,375

Funding Source: General Fund

(map ref # 29) S Shattuck St East: Belden St to Carter St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	9 (High)

Reason Selected: Will connect to existing sidewalk network

Cost: \$49,560

Funding Source: General Fund

(map ref # 30) I-10 Service Rd North: Belden St to Albert St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	95 (Moderate)

Reason Selected: Will connect to existing sidewalk network

Cost: \$5,016

Funding Source: General Fund

(map ref # 31) Belden St South: Albert St to Existing Sidewalk	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	75 (Moderate)

Reason Selected: Will connect to existing sidewalk network

Cost: \$27,810

Funding Source: General Fund

(map ref # 32) Fruge St South: Malcolm St to Hwy 14	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	109 (Moderate)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$12,749

Funding Source: *General Fund,*

(map ref #33) McNabb St West: Fruge St to Broad St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	117 (Low)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$65,025

Funding Source: *General Fund*

(map ref # 34) Winterhalter St South: S Shattuck St to Albert St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	75 (Moderate)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$67,500

Funding Source: *General Fund*

(map ref # 35) Pine St North: Bank St to Louisiana Ave	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	31 (High)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$10,453

Funding Source: *General Fund*

(map ref # 36) Pine St South: Bank St to Louisiana Ave	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	31 (High)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$9,871

Funding Source: *General Fund*

(map ref # 37) Evans St South: S Shattuck St to Prater St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	42 (High)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$33,500

Funding Source: *General Fund*

(map ref # 38) Cline St South: Holmes St to S MLK Hwy	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	95 (Moderate)

Reason Selected: *Will connect existing sidewalk network*

Cost: \$18,650

Funding Source: *General Fund*

(map ref # 39) Cline St North: Holmes St to S MLK Hwy	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	95 (Moderate)

Reason Selected: *Will connect to existing sidewalk network facility*

Cost: \$9,775

Funding Source: *General Fund*

(map ref # 40) Mt Talbot St: McNabb St to Baseball Fields	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	127 (Low)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$36,275

Funding Source: *General Fund*

(map ref # 41) Division St North: Bank St to Louisiana Ave	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	4 (High)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$10,500

Funding Source: *General Fund*

(map ref # 42) Division St South: Bank St to Louisiana Ave	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	6 (High)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$10,500

Funding Source: *General Fund*

(map ref # 43) Louisiana Ave West: Division St to Clements St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	3 (High)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$16,100

Funding Source: *General Fund*

(map ref # 44) Broad St South: 1 st Ave to Louisiana Ave	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	63 (Moderate)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$39,376

Funding Source: *General Fund*

(map ref # 45) Broad St North: VE Washington Ave to 1 st Ave	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	42 (High)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$6,121

Funding Source: *General Fund*

(map ref # 46) Broad St North 2: S Lyon St to Existing Sidewalk	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	53 (Moderate)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$4,714

Funding Source: *General Fund*

(map ref # 47) Broad St North 3: 8 th Ave to McNabb St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	117 (Low)

Reason Selected: Important Collector/Arterial roadway

Cost: \$99,975

Funding Source: General Fund

(map ref # 48) Enterprise Blvd West: Broad St to Existing Sidewalk	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	42 (High)

Reason Selected: Important Collector/Arterial roadway

Cost: \$5,734

Funding Source: General Fund

(map ref # 49) Enterprise Blvd East: Broad St to Existing Sidewalk	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	31 (High)

Reason Selected: Important Collector/Arterial roadway

Cost: \$8,406

Funding Source: General Fund

(map ref # 50) Gerstner Memorial Dr East: Broad St to 4 th St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	124 (Low)

Reason Selected: Important Collector/Arterial roadway

Cost: \$57,733

Funding Source: General Fund

(map ref # 51) Gerstner Memorial Dr West: Broad St to Existing Sidewalk	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	124 (Low)

Reason Selected: Important Collector/Arterial roadway

Cost: \$89,873

Funding Source: General Fund

(map ref # 52) 2 nd St South: Enterprise Blvd to 2 nd Ave	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	53 (Moderate)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community*

Cost: \$42,000

Funding Source: *General Fund*

(map ref # 53) 3 rd St South: Enterprise Blvd to 3 rd Ave	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	82 (Moderate)

Reason Selected: *Within 1/4 mile to a school, Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$62,834

Funding Source: *Safe Routes to School; General Fund*

(map ref # 54) 3 rd St North: 6 th Ave to Gerstner Memorial Dr	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	113 (Moderate)

Reason Selected: *Within 1/4 mile to a school, Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$65,471

Funding Source: *Safe Routes to School; General Fund*

(map ref # 55) 3 rd St South 2: 6 th Ave to Gerstner Memorial Dr	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	117 (Low)

Reason Selected: *Within 1/4 mil to a school, will connect different parts of community together*

Cost: \$65,597

Funding Source: *Safe Routes to School; General Fund*

(map ref # 56) 3 rd St South 3: Gerstner Memorial Dr to McNabb St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	117 (Low)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$31,150

Funding Source: *General Fund;*

(map ref # 57) 4 th St North: Louisiana Ave to Enterprise Blvd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	53 (Moderate)

Reason Selected: Within 1/4 mile to a school, will connect different parts of community together

Cost: \$7,909

Funding Source: Safe Routes to School; General Fund

(map ref # 58) 4 th St South: Louisiana Ave to Enterprise Blvd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	53 (Moderate)

Reason Selected: Within 1/4 mile to a school, will connect different parts of community together

Cost: \$8,069

Funding Source: Safe Routes to School; General Fund

(map ref # 59) 5 th St North: Louisiana Ave to Enterprise Blvd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	15 (High)

Reason Selected: Within 1/4 mile to a school, will connect different parts of community together

Cost: \$7,931

Funding Source: Safe Routes to School; General Fund

(map ref # 60) 5 th St South: Louisiana Ave to Existing Sidewalk	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	15 (High)

Reason Selected: Within 1/4 mile to a school, will connect different parts of community together

Cost: \$4,626

Funding Source: Safe Routes to School; General Fund

(map ref # 61) 6 th St North: Bank St to Louisiana Ave	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	53 (Moderate)

Reason Selected: Will connect to an existing sidewalk; Within 1/4 mile to a school

Cost: \$10,730

Funding Source: Safe Routes to School; General Fund

(map ref # 62) 6 th St North: Bank St to Enterprise Blvd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	63 (Moderate)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$19,945

Funding Source: *General Fund*

(map ref # 63) 1 st Ave East 2: Broad St to 12 th St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	1 (High)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$132,000

Funding Source: *General Fund*

(map ref # 64) 6 th St North 2: 5 th Ave to 6 th Ave	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	104 (Moderate)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$16,168

Funding Source: *General Fund*

(map ref # 65) 6 th Ave East: 6 th St to 9 th St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	82 (Moderate)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$26,454

Funding Source: *General Fund*

(map ref # 66) 6 th Ave East 2: Legion St to 12 th St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	82 (Moderate)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$31,245

Funding Source: *General Fund*

(map ref # 67) Common St West: Clarence St to 17 th St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	15 (High)

Reason Selected: *Important Arterial/Collector roadway.*

Cost: \$148,578

Funding Source: *General Fund*

(map ref # 68) Church St North: Ford St to Kirkman St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	63 (Moderate)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$125,942

Funding Source: *General Fund*

South-Central Lake Charles

This area of the City is mostly residential in nature, but does have some commercial and industrial uses. It has numerous schools and many main roads that have gaps in their network. Overall, it has a household income range at the center of the AMI, which could mean that many of its residents are with the use of a car. This area of the city has the potential of having a few multi-use paths that may fit into the overall non-motorized network nicely.

Table 5: South-Central Lake Charles Recommended Sidewalks

Map Ref#	Sidewalk Name	Segment Extents	Priority Range	Length (Feet)
69	E. Sallier St. North Side	Ryan St to Kirkman St	Moderate	2,868
70	E. Sallier St. North Side 2	Bank St to Enterprise Blvd	Moderate	953
71	12th St. North Side	1st Ave to 2nd Ave	Moderate	929
72	12th St. North Side 2	Gerstner Memorial Dr to Russell St	High	1,181
73	12th St. South Side	Gerstner Memorial Dr to Russell St	High	1,140
74	Moss St. West Side	12th St. to 15th St.	Moderate	1,386
75	Moss St. East Side	12th St. to 15th St.	High	1,384
76	13th St. North Side	Enterprise Blvd. to Moss St.	Moderate	2,365
77	13th St South Side	Moss St. to Enterprise Blvd.	Moderate	2,363
78	14th St North Side	Bank St. to Enterprise Blvd.	Moderate	977
79	14th St South Side	Bank St. to Enterprise Blvd.	Moderate	973
80	15th St. North Side	Hodges St to Bank St	Moderate	2,637
81	15th St. South Side	Hodges St to Bank St	Moderate	2,641
82	Bank St. West Side	Gulf St. to 12th St.	High	3,840
83	Bank St. East Side	Gulf St. to 12th St.	High	3,830
84	1st Ave. West Side	12th St to E Prien Lake Rd	High	5,369
85	1st Ave. East Side	12th St to E Prien Lake Rd	High	5,362
86	18th St. North Side	Ryan St. to Common St.	Moderate	1,406
87	18th St. South Side	Ryan St. to Common St.	High	1,409
88	Hwy 14 West Side 2	Rail Road Tracks to Taylor St.	Moderate	4,509
89	E Prien Lake Rd North Side	Existing Sidewalk to Existing Sidewalk	Moderate	1,393
90	E Prien Lake Rd North Side 2	Kirkman St to Existing Sidewalk	High	695
91	E Prien Lake Rd North Side 3	Burton St to 2nd Ave.	High	2,587
92	E Prien Lake Rd North Side 4	5th Ave to Hwy 14	Moderate	2,754
93	Kirkman St West Side	Prien Lake Rd to Walters St	High	5,358
94	Kirkman St East Side	Prien Lake Rd to Madeline St	High	4,698
95	Azalea St South	Kirkman St to Louisiana Ave	Moderate	1,300
96	5th Ave West Side	College St to E. McNeese St	Low	7,537
97	5th Ave. East Side	College St to E. McNeese St	Low	7,542
98	Gerstner Memorial Dr East	E Prien Lake Rd to McNeese Farm Rd	Moderate	4,580
99	Hwy 14 West Side	Coolidge St to McNeese St	Moderate	3,868
100	Madeline St South Side	Common St to Kirkman St	High	1,310
101	Illinois St. South Side	Brentwood St. to E. Walton St.	Moderate	1,038
102	Kirkman St West Side 2	Gayle St to McCall St	Moderate	1,547
103	Kirkman St East Side 2	Walters St to McCall St	Moderate	1,213
104	University Dr. West Side	McNeese St to Existing Sidewalk	Moderate	453
105	E. McNeese St South Side	Ryan St to Common St	Low	1,363
106	E McNeese St. North Side	Gerstner Memorial Dr to Existing	Low	5,297

Figure 17: South-Central Lake Charles Recommended Sidewalks

South-Central Lake Charles Area

(map ref #69) E Sallier St North: Ryan St to Kirkman St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	75 (Moderate)

Reason Selected: *Located within 1/4 mile to a high school*

Cost: \$71,709

Funding Source: *Safe Routes to School, General Fund*

(map ref # 70) E Sallier St North 2: Bank St to Enterprise Blvd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	82 (Moderate)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$23,823

Funding Source: *General Fund*

(map ref # 71) 12 th St North: 1 st Ave to 2 nd Ave	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	63 (Moderate)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$23,229

Funding Source: *General Fund*

(map ref # 72) 12 th St North 2: Gerstner Memorial Dr to Russell St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	15 (High)

Reason Selected: *Located within 1/4 mile to a school*

Cost: \$29,528

Funding Source: *Safe Routes to School; General Fund*

(map ref # 73) 12 th St South: Gerstner Memorial Dr to Russell St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	15 (High)

Reason Selected: *Located within 1/4 mile an elementary school; Will connect to existing sidewalk network*

Cost: \$28,509

Funding Source: *General Fund, Safe Routes to School*

(map ref # 74) Moss St West: 12 th St to 15 th St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	63 (Moderate)

Reason Selected: Will connect to existing sidewalk network Cost: \$34,649

Funding Source: General Fund,

(map ref #75) Moss St East: 12 th St to 15 th St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	15 (High)

Reason Selected: Will connect to existing sidewalk network

Cost: \$34,595

Funding Source: General Fund

(map ref # 76) 13 th St North: Enterprise Blvd to Moss St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	63 (Moderate)

Reason Selected: Will connect to existing sidewalk network

Cost: \$59,124

Funding Source: General Fund

(map ref # 77) 13 th St South: Moss St to Enterprise Blvd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	63 (Moderate)

Reason Selected: Will connect to existing sidewalk network

Cost: \$59,068

Funding Source: General Fund

(map ref # 78) 14 th St North: Bank St to Enterprise Blvd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	82 (Moderate)

Reason Selected: Will connect to existing sidewalk network

Cost: \$24,434

Funding Source: General Fund

(map ref # 79) 14 th St South: Bank St to Enterprise Blvd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	82 (Moderate)

Reason Selected: *Will connect communities that are currently without a pedestrian connection*

Cost: \$24,326

Funding Source: *General Fund*

(map ref # 80) 15 th St North: Hodges St to Bank St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	75 (Moderate)

Reason Selected: *Will connect existing sidewalk network*

Cost: \$65,936

Funding Source: *General Fund*

(map ref # 81) 15 th St South: Hodges St to Bank St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	75 (Moderate)

Reason Selected: *Will connect existing sidewalk network*

Cost: \$66,034

Funding Source: *General Fund*

(map ref # 82) Bank St West: Gulf St to 12 th St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	9 (High)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$96,012

Funding Source: *General Fund*

(map ref # 83) Bank St East: Gulf St to 12 th St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	15 (High)

Reason Selected: *Will connect to existing sidewalk network*

Cost: \$95,745

Funding Source: *General Fund*

(map ref # 84) 1 st Ave West: 12 th St to E Prien Lake Rd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	31 (High)

Reason Selected: *Part of a loop that will connect many parts of the Moss Bluff community; adjacent to post office*

Cost: \$134,237

Funding Source: *General Fund*

(map ref # 85) 1 st Ave East: 12 th St to E Prien Lake Rd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	42 (High)

Reason Selected: *will connect to existing sidewalk*

Cost: \$134,043

Funding Source: *General Fund*

(map ref # 86) 18 th St North: Ryan St to Common St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	53 (Moderate)

Reason Selected: *Within ¼ mile of an elementary school; will connect numerous local roads*

Cost: \$35,154

Funding Source: *Safe Routes to School; General Fund*

(map ref # 87) 18 th St South: Ryan St to Common St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	31 (High)

Reason Selected: *Within ¼ mile of an elementary school; will connect to existing sidewalk*

Cost: \$35,235

Funding Source: *Safe Routes to School; General Fund*

(map ref # 88) Hwy 14 West 2: Rail Road Tracks to Taylor St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	89 (Moderate)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$135,270

Funding Source: *General Fund*

(map ref # 89) E Prien Lake Rd North: Existing Sidewalk to Existing Sidewalk	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	95 (Moderate)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$41,790

Funding Source: *General Fund*

(map ref # 90) E Prien Lake Rd North 2: Kirkman St to Existing Sidewalk	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	31 (High)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$20,850

Funding Source: *General Fund*

(map ref # 91) E Prien Lake Rd North 3: Burton St to 2 nd Ave	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	42 (High)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$77,610

Funding Source: *General Fund*

(map ref # 92) E Prien Lake Rd North 4: 5 th Ave to Hwy 14	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	104 (Moderate)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$82,620

Funding Source: *General Fund*

(map ref # 93) Kirkman St West: Prien Lake Rd to Walters St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	31 (High)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$160,740

Funding Source: *General Fund*

(map ref # 94) Kirkman St East: Prien Lake Rd to Madeline St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	15 (High)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$140,940

Funding Source: *General Fund; SAFETEA-LEA*

(map ref # 95) Azalea St South: Kirkman St to Louisiana Ave	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	63 (Moderate)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$32,500

Funding Source: *General Fund*

(map ref # 96) 5 th Ave West: College St to E McNeese St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	132 (Low)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$188,418

Funding Source: *General Fund; SAFETEA-LEA*

(map ref # 97) 5 th Ave East: College St to E McNeese St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	132 (Low)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$188,500

Funding Source: *General Fund*

(map ref # 98) Gerstner Memorial Dr East 2: E Prien Lake Rd to McNeese Farm Rd	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	89 (Moderate)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$137,400

Funding Source: *General Fund;*

(map ref # 99) Hwy 14 West: Coolidge St to McNeese St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	109 (Moderate)

Reason Selected: *Located adjacent to a school; will connect different parts of community*

Cost: \$116,038

Funding Source: *General Fund; Safe Routes to School*

(map ref # 100) Madeline St South: Common S to Kirkman St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	12 (High)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$32,750

Funding Source: *General Fund*

(map ref # 101) Illinois St South: Brentwood St to E Walton St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	53 (Moderate)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$25,951

Funding Source: *General Fund*

(map ref # 102) Kirkman St West 2: Gayle St to McCall St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	104 (Moderate)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$46,410

Funding Source: *General Fund;*

(map ref # 103) Kirkman St East 2: Walters St to McCall St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	63 (Moderate)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$36,390

Funding Source: *General Fund*

(map ref # 104) University Dr West: McNeese St to Existing Sidewalk	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	89 (Moderate)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$11,327

Funding Source: *General Fund;*

(map ref # 105) E McNeese St South: Ryan St to Common St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	117 (Low)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$40,787

Funding Source: *General Fund*

(map ref # 106) E McNeese St North: Gerstner Memorial Dr to Existing Sidewalk	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	136 (Low)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community*

Cost: \$158,924

Funding Source: *General Fund*

South Lake Charles

This area of the City is the most sparsely populated and has the least number of attractors such as parks and schools. It is also the area with the least amount of sidewalks, even on its major roads. This creates a great opportunity for the City to build a sidewalk and bicycle network that fits in with the surrounding neighborhood. While some of the projects suggested in this area are very important and would serve to connect this area with the rest of the city, the long distances necessary to complete a reasonable network make affordability a concern.

Table 6: South Lake Charles Recommended Sidewalks

Map Ref#	Sidewalk Name	Segment Extents	Priority Range	Length (Feet)
107	W. Sallier St. North Side	Lake St to Ryan St	Moderate	4,148
108	Lake St. East Side	W Sallier St to Country Club Rd	Moderate	16,074
109	Cypress St West Side	Louie St to W 18th St	High	1,547
110	Cypress St East Side	Louie St to W 18th St	High	1,547
111	Hazel St West Side	W 18th St to Penn St	High	755
112	Hazel St East Side	W 18th St to Penn St	High	755
113	W. Prien Lake Rd. South Side 2	Lake St to Nelson Rd	Low	5,289
114	Holly Hill Rd East Side 2	W Prien Lake Rd to Existing Sidewalk	Low	477
115	Prien Lake Rd. North Side	Lake St to Ryan St	Moderate	4,249
116	Nelson Rd. East Side	W Prien Lake Rd to W Prien Lake Rd	Low	1,101
117	W. Prien Lake Rd South Side	Nelson Rd to W Prien Lake Rd	Low	5,226
118	W. Prien Lake Rd. East Side	W Prien Lake Rd to W Sale Rd	Low	3,929
119	Burton Ln. West Side	W Prien Lake Rd to W Sale Rd	Low	3,933
120	Burton Ln. East Side	W Prien Lake Rd to W Sale Rd	Low	3,938
121	Nelson Rd. West Side	W Prien Lake Rd to Country Club Rd	Moderate	9,271
122	W. LaGrange St. North Side	Lake St to Creole St	Moderate	1,384
123	W. LaGrange St. South Side	Lake St to Creole St	Moderate	1,379
124	Creole St. West Side	W College St to Julius St	Moderate	1,094
125	Creole St. East Side	W College St to Julius St	Moderate	1,088
126	Holly Hill Rd. West Side	Dumbarton Rd to W Sale Rd	Low	2,481
127	Holly Hill Rd. East Side	Dumbarton Rd to W Sale Rd	Low	2,472
128	W. Sale Rd North Side	W Prien Lake Rd to Existing Sidewalk	Low	2,281
129	W. Sale Rd South Side	W Prien Lake Rd to Existing Sidewalk	Low	2,483
130	W. Sale Rd. North Side 2	Holly Hill Rd to Ryan St	Moderate	6,913
131	W. Sale Rd. South Side 2	Holly Hill Rd to Ryan St	Moderate	7,114
132	Ihles Rd. East Side	W Sale Rd to Country Club Rd	Low	5,442
133	Weaver Rd. West Side	W Sale Rd to Country Club Rd	Low	5,369
134	Weaver Rd. East Side	W Sale Rd to Country Club Rd	Low	5,374
135	W. McNeese St. South Side	Weaver Rd to Nelson Rd	Low	2,612
136	W. McNeese St. North Side	Existing Sidewalk to Nelson Rd	Low	1,441
137	W. McNeese St. North 2	Eileen St to Nelson St	Moderate	2,108
138	W. McNeese St. South Side 2	Nelson St to Existing Sidewalk	Moderate	527
139	W. McNeese St. South Side 3	Lake St to Young Ln	Moderate	406
140	W. McNeese St. North Side 3	Lake St to Ryan St	Low	5,202
141	W. McNeese St South Side 4	Lake St to Ryan St	Low	4,263
142	Jefferson Dr North Side	Existing Sidewalk to University Dr	Moderate	685
143	University Dr South Side	Lake St to Jefferson Dr	Moderate	3,229
144	Overhill Dr North Side	Central Pkwy to Existing Sidewalk	High	789
145	Overhill Dr South Side	Central Pkwy to Existing Sidewalk	High	789
146	Lisle Peters Rd. North Side	Big Lake Rd to Riverview Ln	Low	4,512
147	Country Club Rd. North Side	Jefferson Dr to Big Lake Rd	Low	19,260

Figure 18: South Lake Charles Recommended Sidewalks

South Lake Charles Area

(map ref # 107) W Sallier St North: Lake St to Ryan St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	63 (Moderate)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$103,693

Funding Source: *General Fund*

(map ref # 108) Lake St East: W Sallier St to Country Club Rd	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	89 (Moderate)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$482,208

Funding Source: *General Fund*

(map ref # 109) Cypress St West: Louie St to W 18 th St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	31 (High)

Reason Selected: *Located within 1/4 mile to a school; will connect center of community*

Cost: \$46,410

Funding Source: *Safe Routes to School; General Fund*

(map ref # 110) Cypress St East: Louie St to W 18 th St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	31 (High)

Reason Selected: *Located within ¼ mile of a school*

Cost: \$46,410

Funding Source: *Safe Routes to School; General Fund*

(map ref # 111) Hazel St West: W 18 th St to Penn St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	42 (High)

Reason Selected: *Located within 1/4 mile an elementary school; would connect two housing communities*

Cost: \$22,650

Funding Source: *General Fund, Safe Routes to School*

(map ref # 112) Hazel St West: W 18 th St to Penn St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	42 (High)

Reason Selected: *Located within 1/4 mile an elementary school; would connect two housing communities*

Cost: \$22,650

Funding Source: *General Fund, Safe Routes to School*

(map ref # 113) W Prien Lake Rd South 2: Lake St to Nelson Rd	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	132 (Low)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$158,670

Funding Source: *General Fund*

(map ref # 114) Holly Hill Rd East 2: W Prien Lake Rd to Existing Sidewalk	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	124 (Low)

Reason Selected: *Will connect communities without current pedestrian access*

Cost: \$11,918

Funding Source: *General Fund*

(map ref # 115) Prien Lake Rd North: Lake St to Ryan St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	63 (Moderate)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$127,470

Funding Source: *General Fund*

(map ref # 116) Nelson Rd East: W Prien Lake Rd to W Prien Lake Rd	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	117 (Low)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$33,025

Funding Source: *General Fund*

(map ref # 117) W Prien Lake Rd South: Nelson Rd to W Prien Lake Rd	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	147 (Low)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$156,779

Funding Source: *General Fund*

(map ref # 118) W Prien Lake Rd East: W Prien Lake Rd to W Sale Rd	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	139 (Low)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$117,877

Funding Source: *General Fund*

(map ref # 119) Burton Ln West: W Prien Lake Rd to W Sale Rd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	142 (Low)

Reason Selected: *Will connect existing sidewalk network*

Cost: \$98,315

Funding Source: *General Fund*

(map ref # 120) Burton Ln East: W Prien Lake Rd to W Sale Rd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	142 (Low)

Reason Selected: *Will connect the existing sidewalk network*

Cost: \$98,435

Funding Source: *General Fund*

(map ref # 121) Nelson Rd West: W Prien Lake Rd to Country Club Rd	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	113 (Moderate)

Reason Selected: *Important Collector/Arterial roadway*

Cost: \$278,125

Funding Source: *General Fund*

(map ref # 122) W LaGrange St North: Lake St to Creole St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	109 (Moderate)

Reason Selected: Located within ¼ mile of a school; *will connect to a community without any sidewalk access*

Cost: \$34,597

Funding Source: *General Fund; Safe Routes to School*

(map ref # 123) W LaGrange St South: Lake St to Creole St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	109 (Moderate)

Reason Selected: Located within ¼ mile of a school; *will connect to existing sidewalk*

Cost: \$34,478

Funding Source: *Safe Routes to School; General Fund*

(map ref # 124) Creole St West: W College St to Julius St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	95 (Moderate)

Reason Selected: Located within ¼ mile of a school

Cost: \$27,340

Funding Source: *General Fund*

(map ref # 125) Creole St West: W College St to Julius St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	89 (Moderate)

Reason Selected: Located within ¼ mile of a school

Cost: \$27,196

Funding Source: *General Fund*

(map ref # 126) Holly Hill Rd West: Dumbarton Rd to W Sale Rd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	128 (Low)

Reason Selected: *will connect to existing sidewalk*

Cost: \$62,030

Funding Source: *General Fund*

(map ref # 127) Holly Hill Rd East: Dumbarton Rd to W Sale Rd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	128 (Low)

Reason Selected: *Will connect with existing sidewalk*

Cost: \$61,799

Funding Source: *General Fund*

(map ref # 128) W Sale Rd North: W Prien Lake Rd to Existing Sidewalk	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	139 (Low)

Reason Selected: *Important Artery/Collector Roadway*

Cost: \$57,022

Funding Source: *General Fund*

(map ref # 129) W Sale Rd South: W Prien Lake Rd to Existing Sidewalk	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	139 (Low)

Reason Selected: *Important Artery/Collector Roadway*

Cost: \$62,083

Funding Source: *General Fund*

(map ref # 130) W Sale Rd North 2: Holly Hill Rd to Ryan St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	75 (Moderate)

Reason Selected: *Important Artery/Collector Roadway*

Cost: \$172,818

Funding Source: *General Fund*

(map ref # 131) W Sale Rd South 2: Holly Hill Rd to Ryan St	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	113 (Moderate)

Reason Selected: *Important Artery/Collector Roadway*

Cost: \$177,852

Funding Source: *General Fund*

(map ref # 132) Ihles Rd East: W Sale Rd to Country Club Rd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	142 (Low)

Reason Selected: *Important Artery/Collector Roadway*

Cost: \$136,061

Funding Source: *General Fund*

(map ref # 133) Weaver Rd West: W Sale Rd to Country Club Rd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	136 (Low)

Reason Selected: *Located within ¼ mile of a school*

Cost: \$134,232

Funding Source: *General Fund; Safe Routes to School*

(map ref # 134) Weaver Rd East: W Sale Rd to Country Club Rd	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	136 (Low)

Reason Selected: *Located within ¼ mile of a school*

Cost: \$134,349

Funding Source: *General Fund; Safe Routes to School*

(map ref # 135) W McNeese St South: Weaver Rd to Nelson Rd	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	128 (Low)

Reason Selected: *Located within ¼ mile of a school, will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$78,360

Funding Source: *General Fund; Safe Routes to School*

(map ref # 136) W McNeese St North: Existing Sidewalk to Nelson Rd	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	117 (Low)

Reason Selected: *Located within ¼ mile of a school, will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$43,241

Funding Source: *General Fund; Safe Routes to School*

(map ref # 137) W McNeese St North 2: Eileen St to Nelson Rd	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	104 (Moderate)

Reason Selected: *Located within ¼ mile of a school, Will connect to an existing sidewalk; will connect different parts of community*

Cost: \$63,230

Funding Source: *General Fund; Safe Routes to School*

(map ref # 138) W McNeese St South 2: Nelson Rd to Existing Sidewalk	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	82 (Moderate)

Reason Selected: *Will connect to an existing sidewalk; Important Artery/Collector roadway*

Cost: \$15,797

Funding Source: *General Fund;*

(map ref # 139) W McNeese St South 3: Lake St to Young Ln	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	113 (Moderate)

Reason Selected: *Will connect to an existing sidewalk; Important Artery/Collector roadway*

Cost: \$12,171

Funding Source: *General Fund*

(map ref # 140) W McNeese St North 3: Lake St to Ryan St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	127 (Low)

Reason Selected: *Located adjacent to a school, Important Artery/Collector roadway*

Cost: \$156,063

Funding Source: *General Fund; Safe Routes to school*

(map ref # 141) W McNeese St South 4: Lake St to Ryan St	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	131 (Low)

Reason Selected: *Important Artery/Collector roadway, will connect different parts of community*

Cost: \$127,902

Funding Source: *General Fund*

(map ref # 142) Jefferson Dr North: Existing Sidewalk to University Dr	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	53 (Moderate)

Reason Selected: Located within 1/4 mile a school, *will connect to an existing sidewalk;*

Cost: \$17,125

Funding Source: *General Fund; Safe Routes to School*

(map ref # 143) University Dr South: Lake St to Jefferson Dr	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	104 (Moderate)

Reason Selected: Located within 1/4 mile a school, *will connect to an existing sidewalk;*

Cost: \$80,733

Funding Source: *General Fund; Safe Routes to School*

(map ref # 144) Overhill Dr North: Central Pkwy to Existing Sidewalk	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	42 (High)

Reason Selected: Located within 1/4 mile a school, *will connect to an existing sidewalk; will connect different parts of community*

Cost: \$19,725

Funding Source: *General Fund; Safe Routes to School*

(map ref # 145) Overhill Dr South: Central Pkwy to Existing Sidewalk	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	42 (High)

Reason Selected: Located within 1/4 mile a school, *will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$19,725

Funding Source: *General Fund; Safe Routes to School*

(map ref # 146) Lisle Peters Rd North: Big Lake Rd to Riverview Ln	
Recommended Sidewalk Width	5 feet
Recommended Buffer Width:	2-4 feet
Priority Index Ranking:	142 (Low)

Reason Selected: *Will connect to an existing sidewalk; will connect different parts of community together*

Cost: \$112,798

Funding Source: *General Fund*

(map ref # 147) Country Club Rd North: Jefferson Dr to Big Lake Rd	
Recommended Sidewalk Width	6 feet
Recommended Buffer Width:	4-6 feet
Priority Index Ranking:	132 (Low)

Reason Selected: Located within 1/4 mile a school, *will connect different parts of community, Important Artery/Collector roadway*

Cost: \$577,791

Funding Source: *General Fund; Safe Routes to School*

Bikeway Network

Bicyclists can travel further distances at faster speeds than pedestrians so the bikeway network can be larger in scale than the sidewalk network. This new network is meant to serve all level of riders and connect neighborhoods and businesses between the various areas of the city. The projects chosen were a combination of previous planning documents, public input, and existing traffic analysis.

According to the Federal Highway Administration manual “Selecting Roadway Design Treatments to Accommodate Bicycles,” there are three primary factors which influence bicycle travel on streets. The three factors are lane widths, traffic speeds, and traffic volumes. Each of these was taken into account when choosing the optimal bicycle network for the City of Lake Charles.

Lane Widths

Lane widths are critical for allowing enough room for the combined movement of bicycles and automobiles. National standards require a minimum right-hand curb lane width of 14 feet to safely accommodate shared use. There are a few roadways within Lake Charles that already have roadway widths necessary for sharing with bicycles. There are also some roadways that have sufficient width to allow for the four feet minimum required width of bicycle lanes if stripping and signage were provided.

Numerous collectors and arterials throughout Lake Charles have lane widths of 12 feet or more. In the past, concerns about safety and congestion may have prevented engineers from selecting narrower travel lane widths, especially on higher speed, higher volume arterials. Comprehensive new research, however, indicates that the use of travel lanes between 10 feet and 12 feet on urban, suburban and rural arterials and collectors does not negatively impact overall motor vehicle safety or operations. This fact allows for narrowing of lanes on certain roadways in order to accommodate bicycle lanes.

Roadway Speed Limit

In order to be considered safe for shared roadway use, traffic speeds of 35 mph or less are required. Bicycle lanes can be substituted for shared roadway use if speed conditions exist that are greater than 35 mph. Although the minimum bicycle lane width is 4 feet, a sliding scale should be developed that takes into account the added buffer needed with increased automobile speed. While some collector roads located within existing communities have low speed limits, some of the main roadways connecting parts of Lake Charles have speed limits of 35 mph or higher.

Average Daily Traffic Volume

An annual average daily traffic volume of less than 10,000 vehicles is recommended by the FHWA for shared roadway use. Most of the principal arterials in Lake Charles have an annual daily traffic volume of more than 10,000 vehicles and are not recommended for shared use. Collector and local roads are more conducive to shared use because of their lower traffic volumes and lower traveling speeds and should be considered preferable for a designation of a bicycle route network. Because houses and jobs throughout Lake Charles are often separated by well traveled roads with high rate of speeds, these connections should be made with marked bike lanes on roadways where practical.

Table 7: Lake Charles Recommended Bikeway Network

Map Ref #	Road Name	Segment Extents	Priority Category	Type of Facility Recommended
1	Fitzenrieter Rd.	N Prater Rd to N Simmons St	Moderate	Shared Lane
2	Fitzenrieter Rd. 2	N Simmons St to Hwy 171	Moderate	Bike Lane
3	N. Prater St.	Opelousas St to Fitzenrieter Rd	High	Shared
4	N. Simmons St.	Fitzenrieter Rd to Opelousas St	High	Bike Lane
5	N. Goos Blvd.	Opelousas St to Theriot Rd	High	Bike Lane
6	Moeling St.	N 1st Ave to Hwy 171	High	Bike Lane
7	N. 1st Ave.	Moeling St to N Railroad Ave	High	Shared Lane
8	Opelousas St.	N Enterprise Blvd to Hwy 171	High	Bike Lane
9	N. Railroad Ave	N Bilbo St to N 1st Ave	Moderate	Shared Lane
10	N. Ryan St	N Railroad Ave to W Mill St	Moderate	Bike Lane
11	N. Kirkman St	N Railroad Ave to I-10 Svc Rd	Low	Shared Lane
12	South Shattuck	Broad St to Opelousas St	High	Bike Lane
13	W. Mill St	Veterans Memorial Dr to Goos St	High	Shared Lane
14	E. Mill St	Goos St to Hwy 171	Moderate	Shared Lane
15	Hodges St.	Alamo St to Belden St	High	Shared Lane
16	Kirkman St.	N Railroad Ave to College St	High	Bike Lane
17	Kirby St.	Lakeshore Dr to Bord Du Lac	Moderate	Bike Lane
18	Kirby St 2	Ryan St to Louisiana Ave	High	Bike Lane
19	2nd St.	Louisiana Ave to 3rd Ave	Moderate	Shared Lane
20	Shell Beach Dr.	Clarence St to Lake St	Low	Bike Lane
21	Alvin St.	Shell Beach Dr to Dr Debakey Rd	Moderate	Bike Lane
22	Dr. Debakey Dr.	Lake St to Ryan St	Moderate	Bike Lane
23	1st Ave	Broad St to 12th St	High	Bike Lane
24	7th St.	Ryan St to 4th Ave	High	Shared Lane
25	11th St.	Ryan St to 4th Ave	High	Shared Lane
26	Lake St.	Shell Beach Dr to Country Club Rd	Moderate	Bike Lane
27	1st Ave 2	12th St to E Prien Lake Rd	Moderate	Shared Lane
28	14th St.	Enterprise Blvd to Gerstner Mem Hwy	Moderate	Shared Lane
29	18th St.	Common St to Gerstner Memorial Dr	High	Shared Lane
30	Alamo St.	Ryan St to Enterprise Blvd	Moderate	Bike Lane
31	W Prien Lake Rd.	Lake St to Nelson Rd	Low	Bike Lane
32	College St.	Lake St to 5th Ave	Low	Bike Lane
33	E Prien Lake Rd.	Gerstner Memorial Hwy to Corbina Rd	Low	Shared Lane
34	Nelson Rd.	W Prien Lake Rd to Country Club Rd	Low	Bike Lane
35	Kirkman St. 2	College St to E McNeese St	Moderate	Bike Lane
36	W. Sale Rd.	Ihles Rd to Ryan St	Low	Bike Lane
37	E. Sale Rd.	Ryan St to Common St	High	Bike Lane
38	Ryan St.	W Sale Rd to W McNeese St	Moderate	Bike Lane
39	Common St.	E Sale Rd to McNeese St	Low	Bike Lane
40	McNeese St.	Nelson Rd to 5th Ave	Moderate	Bike Lane

Figure 19: Recommended Bikeway Network

The following table is intended to be used as a quick reference for each suggested segment of the recommended bikeway network.

(map reference #) Street Name: Street Segment	
Traffic Volume: (annual average daily traffic AADT)	Under 3,000 AADT 3,000-10,000 AADT 10,000-15,000 AADT over 15,000 AADT
Speed Limit: (average motor operating speed)	30 mph or less 30-40 mph 40-50 mph over 50 mph
Recommended Facilities:	which type of bicycle facility is most appropriate for existing conditions
Priority Index Ranking:	Ranking based upon scores derived from attractor and generator scores, connectivity, and affordability added together

Improvements Recommended

Discusses the recommended improvements needed, including construction concerns.

Cost

Estimates costs for recommended facility type.

Funding Source

Identifies potential sources for funding the recommended improvements.

(map ref #1) Fitzenreiter Rd: Perkins Ferry Park to N Simmons St	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	24 (Moderate)

Improvements Recommended: *Signs installed*

Cost: Under \$5,000

Funding Source: SAFETEA-LEAU

(map ref #2) Fitzenreiter Rd 2: N Simmons St to Hwy 171	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 – 40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	20 (Moderate)

Improvements Recommended: *Narrow existing travel lanes from 15 to 10 feet and stripe bike lanes along with signage*

Cost: \$10,000 – \$20,000

Source: SAFETEA-LEAU

(map ref #3) N Prater Rd: Fitzenreiter Rd to Opelousas St	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	9 (High)

Improvements Recommended: *Signs installed*

Cost: Under \$10,000

Funding Source: SAFETEA-LEAU

(map ref #4) N Simmons St: Fitzenreiter Rd to Opelousas St	
Traffic Volume:	3,000-10,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	5 (High)

Improvements Recommended: *Narrow existing travel lanes from 15 to 10 feet and stripe bike lanes along with signage*

Cost: \$30,000

Funding Source: SAFETEA-LEAU

(map ref #5) N Goos Blvd: Opelousas St to Theriot Rd	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	7 (High)

Improvements Recommended: *Narrow existing travel lanes from 20 feet to 15 feet and stripe bike lanes along with signage*

Cost: \$30,000

Funding Source: SAFETEA-LEAU

(map ref #6) Moeling St: N 1 st Ave to Hwy 171	
Traffic Volume:	3,000 to 10,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	5 (High)

Improvements Recommended: *Narrow existing travel lanes to 16 to 11 feet and stripe bike lanes along with signage*

Cost: \$35,000

Funding Source: SAFETEA-LEAU

(map ref #7) N 1 st Ave: Moeling St to N Railroad Ave	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	13 (High)

Improvements Recommended: *Signs installed*

Cost: Under \$5,000

Funding Source: SAFETEA-LEAU

(map ref #8) Opelousas St: N Enterprise Blvd to Hwy 171	
Traffic Volume:	3,000-10,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	9 (High)

Improvements Recommended: *Narrow existing travel lanes to 15 to 10 feet and stripe bike lanes along with signage*

Cost: \$30,000

Funding Source: SAFETEA-LEAU

(map ref #9) N Railroad Ave: N Bilbo St to N 1 st Ave	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	27 (Moderate)

Improvements Recommended: *Signs installed*

Cost: \$5,000-\$10,000

Funding Source: SAFETEA-LEAU

(map ref #10) N Ryan St: Jackson St to W Mill St	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	24 (Moderate)

Improvements Recommended: *Narrow existing travel lanes to 16 to 11 feet and stripe bike lanes along with signage*

Cost: \$20,000

Funding Source: SAFETEA-LEAU

(map ref #11) N Kirkman St: N Railroad Ave to W Mill St	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	37 (Low)

Improvements Recommended: *Signs installed*

Cost: Under \$5,000

Funding Source: SAFETEA-LEAU

(map ref #12) S Shattuck: Opelousas St to Broad St	
Traffic Volume:	3,000-10,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	13 (High)

Improvements Recommended: *Narrow existing travel lanes to 16 to 11 feet and stripe bike lanes along with signage*

Cost: \$30,000

Funding Source: SAFETEA-LEAU

(map ref #13) W Mill St: Veterans Memorial Dr to Goos St	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	13 (High)

Improvements Recommended: *Signs installed*

Cost: *Under \$5,000*

Funding Source: SAFETEA-LEAU

(map ref #14) E Mill St: Goos St to Hwy 171	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	1 (High)

Improvements Recommended: *Signs installed*

Cost: *Under \$5,000*

Funding Source: SAFETEA-LEAU

(map ref #15) Hodges St: Alamo St to Belden St	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	3 (High)

Improvements Recommended: *Signs installed*

Cost: *Under \$5,000*

Funding Source: SAFETEA-LEAU

(map ref #16) Kirkman St: N Railroad Ave to College St	
Traffic Volume:	3,000-10,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	3 (High)

Improvements Recommended: *Narrow existing travel lanes to 16 to 11 feet and stripe bike lanes along with signage*

Cost: *\$50,000*

Funding Source: SAFETEA-LEAU

(map ref #17) Kirby St: Lakeshore Dr to Bord Du Lac	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	5 foot paved shoulder
Priority Index Ranking:	27 (Moderate)

Improvements Recommended: *Narrow existing travel lanes to 17 to 12 feet and stripe bike lanes along with signage*

Cost: \$10,000

Funding Source: SAFETEA-LEAU

(map ref #18) Kirby St 2: Ryan St to Louisiana Ave	
Traffic Volume:	3,000-10,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	12 (High)

Improvements Recommended: *Take away one of three travel lanes and redesign roadway for inclusion of bike lanes*

Cost: \$50,000

Funding Source: SAFETEA-LEAU

(map ref #19) 2 nd St: Louisiana Ave to 3 rd Ave	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	20 (Moderate)

Improvements Recommended: *Signs installed*

Cost: Under \$5,000

Funding Source: SAFETEA-LEAU

(map ref #20) Shell Beach Dr: Clarence St to Lake St	
Traffic Volume:	10,000-15,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	39 (Low)

Improvements Recommended: *Roadway widening of 5 feet on each side*

Cost: \$500,000

Funding Source: SAFETEA-LEAU

(map ref #21) Alvin St: Shell Beach Dr to Dr Michael Debakey Dr	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	29 (Moderate)

Improvements Recommended: *Narrow existing travel lanes to 16 to 11 feet and stripe bike lanes along with signage*

Cost: \$20,000

Funding Source: SAFETEA-LEAU

(map ref #22) Dr Michael Debakey Dr: Lake St to Ryan St	
Traffic Volume:	3,000-10,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	29 (Moderate)

Improvements Recommended: *Narrow existing travel lanes to 16 to 11 feet and stripe bike lanes along with signage*

Cost: \$20,000

Funding Source: SAFETEA-LEAU

(map ref #23) 1 st Ave: Broad St to 12 th St	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	7 (High)

Improvements Recommended: *Narrow existing travel lanes from 20 feet to 15 feet and stripe bike lanes along with signage*

Cost: \$30,000

Funding Source: SAFETEA-LEAU

(map ref #24) 7 th St: Ryan St to 1 st Ave	
Traffic Volume:	3,000-10,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike Lane
Priority Index Ranking:	9 (High)

Improvements Recommended: *Widen roadway to accommodate bike lanes*

Cost: \$300,000

Funding Source: SAFETEA-LEAU

(map ref #25) 11 th St: Ryan St to 1 st Ave	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	13 (High)

Improvements Recommended: *Signs Installed*

Cost: *Under \$5,000*

Funding Source: SAFETEA-LEAU

(map ref #26) Lake St: Shell Beach Dr to Country Club Rd	
Traffic Volume:	Over 15,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	6 foot bike lane
Priority Index Ranking:	29 (Moderate)

Improvements Recommended: *Widen roadway by 12 feet to accommodate bike lanes*

Cost: *Above \$1,000,000*

Funding Source: SAFETEA-LEAU

(map ref #27) 1 st Ave 2: 12 th St to E Prien Lake Rd	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	27 (Moderate)

Improvements Recommended: *Signs installed*

Cost: *Under \$5,000*

Funding Source: SAFETEA-LEAU

(map ref #28) 14 th St: Enterprise Blvd to Gerstner Memorial Dr	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	20 (Moderate)

Improvements Recommended: *Signs installed*

Cost: *Under \$5,000*

Funding Source: SAFETEA-LEAU

(map ref #29) 18 th St: Common St to Gerstner Memorial Dr	
Traffic Volume:	3,000-10,000 AADT
Speed Limit:	30 mph or less
Recommended Facilities:	Shared Lane
Priority Index Ranking:	13 (High)

Improvements Recommended: *Signage installed*

Cost: *Under \$10,000*

Funding Source: SAFETEA-LEAU

(map ref #30) Alamo St: Ryan St to Enterprise Blvd	
Traffic Volume:	3,000-10,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	30 (Moderate)

Improvements Recommended: *Narrow travel lanes from 15 to 10 feet and stripe bike lanes along with signage*

Cost: *Under \$5,000*

Funding Source: SAFETEA-LEAU

(map ref #31) W Prien Lake Rd: Lake St to Nelson St	
Traffic Volume:	10,000-15,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	40 (Low)

Improvements Recommended: *Widen roadway by 8 feet to accommodate bike lanes*

Cost: *\$500,000*

Funding Source: SAFETEA-LEAU

(map ref #32) College St: Lake St to 5 th Ave	
Traffic Volume:	10,000-15,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	38 (Low)

Improvements Recommended: *Widen roadway by 12 feet to accommodate bike lanes*

Cost: *Over \$1,000,000*

Funding Source: SAFETEA-LEAU

(map ref #33) E Prien Lake Rd: Gerstner Memorial Dr to Corbina Rd Extension	
Traffic Volume:	Under 3,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	Shared Lane
Priority Index Ranking:	40 (Low)

Improvements Recommended: *Signs installed*

Cost: *Under \$5,000*

Funding Source: SAFETEA-LEAU

(map ref #34) Nelson Rd: W Prien Lake Rd to Country Club Rd	
Traffic Volume:	Above 15,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	6 foot bike lane
Priority Index Ranking:	31 (Moderate)

Improvements Recommended: *Widen roadway by 12 feet to accommodate bike lanes*

Cost: *Over \$2,000,000*

Funding Source: SAFETEA-LEAU

(map ref #35) Kirkman St 2: College St to E McNeese St	
Traffic Volume:	3,000-10,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	20 (Moderate)

Improvements Recommended: *Widen roadway 10 feet to accommodate bike lanes*

Cost: *\$500,000*

Funding Source: SAFETEA-LEAU

(map ref #36) W Sale Rd: Ihles Rd to Ryan St	
Traffic Volume:	3,000-10,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	37 (Low)

Improvements Recommended: *Widen roadway 14 feet to accommodate wider travel lanes and bike lanes*

Cost: *Over \$1,000,000*

Funding Source: SAFETEA-LEAU

(map ref #37) E Sale Rd: Ryan St to Common St	
Traffic Volume:	10,000-15,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	9 (High)

Improvements Recommended: *Narrow existing travel lanes from 15 to 10 feet and stripe bike lanes along with signage*

Cost: \$10,000

Funding Source: SAFETEA-LEAU

(map ref #38) Ryan St: W Sale Rd to W McNeese St	
Traffic Volume:	Over 15,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	6 foot bike lane
Priority Index Ranking:	27 (Moderate)

Improvements Recommended: *Roadway widening of 12 feet to accommodate bike lanes*

Cost: Over \$500,000

Funding Source: SAFETEA-LEAU

(map ref #39) Common St: E Sale Rd to McNeese St	
Traffic Volume:	10,000-15,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	5 foot bike lane
Priority Index Ranking:	35 (Low)

Improvements Recommended: *Roadway widening of 10 feet to accommodate bike lanes*

Cost: Over \$500,000

Funding Source: SAFETEA-LEAU

(map ref #40) McNeese St: Nelson Rd to 5 th Ave	
Traffic Volume:	Over 15,000 AADT
Speed Limit:	30-40 mph
Recommended Facilities:	6 foot bike lane
Priority Index Ranking:	18 (Moderate)

Improvements Recommended: *Roadway widening of 12 feet to accommodate bike lanes*

Cost: Over \$2,000,000

Funding Source: SAFETEA-LEAU

Multi-Use Trails, Connectors, and Staging Areas

Multi-Use Trails

For decades, the City of Lake Charles has designed its transportation infrastructure around the automobile, leaving little or no space for bicycles or pedestrians. This can become a problem for those who wish to recreate, or need to travel long distances, while fighting for space on a shared roadway. With that in mind, the creation of grade-separated paths/trails should be developed to serve as connections for non-motorized modes of transportation.

These trails/paths can serve multiple purposes ranging from recreation to commuting to school or work. A total of 5 multi-use paths, which can be used on a citywide level have been identified utilizing aerial photography. The paths chosen are already clear of development, but are located either in roadway medians, next to waterways, or next to railroad tracks. While these obstacles might mean that special precautions be taken when choosing how to design and develop the trail, it does not exclude development of recreational uses.

Connectors/Short-Cuts

There are a few places throughout the city in which roadways or neighborhoods do not connect to one another. This can create obstacles for bicycles and pedestrians or the need for them to travel unnecessarily long distances to reach their destination. 5 connectors/short-cuts have been identified utilizing aerial photography. These connectors will make it easier for children to walk to school, people to visit friends, or citizens to recreate in their community.

Staging Areas

People who use the citywide multi-use trails will sometimes have the need to park their cars. Staging areas are necessary in order to provide multi-modal access to the recreational opportunities afforded to them by multi-use trails. These staging areas can be as simple as dirt parking lots or can be elaborate with shade trees, picnic areas, and restrooms. The appropriate level of development should be made dependent on estimated usage and availability of funds.

Table 8: Trails/Connector Recommendations

Name of Trail/Connector	Extents	Length
Perkins Ferry Trail	N. Railroad Ave to Perkins Ferry Park	2
1st Ave Trail	Railroad Tracks to 12th St	1.75
Lakeshore Canal Trail	Lakeshore Dr to Common St	0.6
Railroad Connector Trail	1st Ave to 5th Ave	0.75
5th Ave Trail	12th St to McNeese St	2.5
N. Railroad Ave Connector	N Railroad Ave to N Ryan St	0.1
13th Ave Connector	13th Ave to Gersnter Mem Dr	0.1
5th Ave Circuit Connector	5th Ave to 5th Ave	1
5th Ave Connector	5th Ave Circuit to Gersnter Mem Dr	0.25
Parkway St Connector	McNeese St to Common St	0.5

Figure 20: Proposed Path/Trail Network

Figure 21: Perkins Ferry Trail Aerial Photograph

Perkins Ferry Trail

Located in North Lake Charles, this trail follows alongside and close to the river. It runs north-south for two miles, connecting the downtown area to Perkins Ferry Park. Its main function would be recreational in nature, allowing people to stroll along the shoreline and make their way to the park. Perkins Ferry Park is under consideration for significant improvements such as a boardwalk, viewing areas along the waterfront, and picnic areas.

The right-of-way suggested for this trail is an old abandoned rail line that once was used to serve the industrial businesses along the shoreline. Because railways tend to have generous buffers on each side, the space available for the trail is ample. The state of the area today is slightly on the run-down side, but inclusion of a beautiful recreation trail could help in its revitalization. Any undesirable views of abandoned buildings or security concerns from local businesses could be addressed with fencing or landscaping. One potential concern that must be overcome is a small canal that must be bridged. Potential funding sources include Rails-to-Trails and the Louisiana's Recreational Trails Program.

An extension of Enterprise Blvd along this right-of-way is included in a redevelopment plan for the North Lake Charles shoreline. The plan calls for a “linear park trail” in the center of the roadway, much the same as has been described here. While the plan has been adopted by the City, no significant steps have been made towards completion of this project because of lack of funding.

Figure 22: 1st Ave Trail Aerial Photograph

1st Ave Trail

Serving as the backbone of the proposed trail network in Lake Charles, and already in the initial planning stages, the 1st Ave trail would run north-south for 1.75 miles from the railroad tracks all the way down to 12th St. The project could potentially be broken up into two sections or phases.

The northern section would include the area north of Broad St and the southern section would include the area south of Broad St. The northern section part of the trail would run on the west side of 1st Ave in a right-of-way that is currently in the process of being acquired. Because the City must purchase this land the trail is more likely to take a straight path with few curves or amenities. The southern section would run within the 50 foot median available between each part of the one way traffic flow that is 1st Ave. This large available right-of-way allows the City a chance to make this section of the trail into a “linear park” setting, with amenities such as community gardens, dog runs, children’s play structure, or physical fitness stations.

The northern section is mostly residential in nature, while the southern section is a mix of warehouses, schools, and residences. Inclusion of a multi-use trail in this area could serve to increase property values by

offering more multi-modal access and recreational opportunities. The area is ripe for development of recreational trails due to its proximity to schools and lack of existing pedestrian and bicycle infrastructure. Potential funding sources for this project include Rails-to-Trails and the Louisiana’s Recreational Trails Program.

Lakeshore Canal Trail

Located near downtown and connecting the lakefront multi-use path with a proposed bicycle route along 7th Ave, the lakeshore canal trail will serve as a vital non-motorized link for the City. It will run east-west for approximately 6/10 of a mile along the northern section of a canal. The right-of way for this proposed trail has yet to be acquired and is located near businesses, but the land is only minimally developed in the portion suggested for actual trail use.

The recently completed lakeshore promenade is a local gem and a potential tourist draw. In the very near future lakefront is schedule for much more development and allowing for maximum access to this area is desirable for new businesses and residents alike. This trail will help link the heart of the city with its newly developed lakefront. Potential funding source for this project is the Louisiana Recreational Trail Program.

Figure 23: Lakeshore Canal Trail Aerial Photograph

Railroad Connector Trail

Serving to connect two important north-south trails, the 1st Ave trail and the 5th Ave trail, the railroad connector trail will run east-west for approximately $\frac{3}{4}$ of a mile and parallel to an existing and functioning rail line. There seems to be extra right-of-way between the rail line and the property lines of existing houses, but that will have to be researched in more detail in the future.

The right-of-way for constructing this trail will have to be negotiated with the railroad company that is in charge of the current rail line, but numerous examples can be found of this being done. In most cases the railroad will require fencing or some sort of barrier be installed by the city in order to prevent pedestrians from coming in contact with oncoming trains. A pedestrian bridge may have to be constructed to cross the tracks, which could be expensive, but funding for such a project may be available on a state and national level. The inclusion of this connector trail is not vital, but would serve to give a continuous north-south connection for non-motorized modes of transportation from North Lake Charles all the way down to McNeese St.

Figure 24: Railroad Connector Trail Aerial Photograph

5th Ave Trail

Linking the center of the city to portions of the south, the 5th Ave trail will run north-south for approximately two miles from 12th Ave to McNeese St. Like the southern section of the 1st Ave trail, the alignment of the 5th Ave trail will be located in the 50 foot wide median located between the one-way traffic-flow of the two roadways that make up 5th Ave.

This proposed trail would run close to a park and two schools, which would allow it to serve both as a commuter trail for children and recreational trail as well. If funding and public support is available, the opportunity to add the same amenities that are recommended on the southern section of the 1st Ave trail can be added to this trail as well. That means that the city can add valuable park space in an area that is currently underutilized.

Figure 25: 5th Ave Trail Aerial Photograph

N. Railroad Ave Connector

This connector will bridge the gap between N. Railroad Ave and N. Ryan St. It will serve as an important piece of the overall network of trail and bikeways. It will run approximately 1/10 of a mile and can be made up of cheaper materials such as crushed rock or cinder.

Figure 26: N. Railroad Ave Connector Aerial Photograph

13th Ave Connector

This connector is needed as a result of a neighborhood development that lacks connectivity to the adjacent major roadway. Currently, people would have to walk or ride an extra ½ mile or so if they travel on 13th Ave and their destination is on or close to Gerstner Memorial Dr. This distance is a huge barrier for many citizens. This short-cut would run only 1/10 of a mile, but would save significant time.

Figure 27: 13th Ave Connector Aerial Photograph

Figure 28: 5th Ave Circuit Connector Aerial Photograph

5th Ave Circuit Connector

This connector is needed as a result of a neighborhood development that lacks pedestrian connectivity to the adjacent major roadway. A housing development is “as the crow flies” close to an elementary school, but there is not direct access for children to walk and they must be driven by way of roadways; turning the trip that on foot would be only from a few thousand feet into miles in a car. This connector would run approximately one mile and could serve as a link between five housing developments and would also allow local residents to have a place to recreate.

Figure 29: 5th Ave Connector

5th Ave Connector

This connector would be constructed as an addition to the 5th Ave Circuit Connector and would allow people to make their way to Gerstner Memorial Dr directly and for children to walk safely to Fairview Elementary. This short path of only ¼ mile could add significantly to the amount of children who walk to school. The materials used for this could be on the cheaper side and could range from crushed rock to cinder.

Parkway St. Connector

This local connector is as much of a recreational trail as a short-cut. It would cut the distance that people have to walk or bike between McNeese St and portions in south Common St. It would run parallel and alongside a canal for approximately ½ mile. There are currently no sidewalks on Parkway St and this connector could substitute as a much cheaper option than the need to build them.

Figure 30: Parkway St Connector Aerial Photograph

Figure 31: Proposed Complete Bicycle and Pedestrian Route Network

Chapter 7: Implementation Plan

Steps for Implementing Projects

After sidewalk projects are identified and ranked, the following steps are proposed to design and implement projects

- Field Verification: Field verification should include a review of existing conditions (such as available right-of-way, adjacent land uses, and pedestrian volumes) and identifying potential design constraints (such as locations of utilities). Defining the extent of a particular project should be made by considering the requests of citizens for sidewalks on specific streets connecting to the project area. It may also be appropriate to combine sidewalk projects with street crossing improvement projects.
- Design Improvements: Appropriate sidewalk improvements should be designed after projects have gone through the field verification process. This includes developing engineering plans and detailed estimates of the cost to construct. The level of improvement should be consistent with the level of pedestrian or bicycle activity.
- Deliver Project: The final step of the implementation program process will be to construct the new improvement project.

Funding

Improvement projects will be funded either as stand-alone projects that specifically target pedestrian or bicyclist improvements or as part of a larger capital improvement project. In addition to stand-alone alternate modes projects the City of Lake Charles, as a matter of practice, should incorporate alternate mode elements into most capital improvement projects. Examples of projects where bicycles and pedestrian support should be included are roadway reconstruction, widening, and extensions; bridge rehabilitation and replacement; streetscape improvements; neighborhood traffic calming projects; and intersection improvements. Alternate mode elements that are considered include street lighting; sidewalk construction and repair; curb ramps; crosswalks; signalized crossings; and on-street bike lanes.

Sources

There are a few reliable resources which can be accessed to help fund bicycle and pedestrian improvements. Which funding source is best depends on the type of project proposed. The source of funding generally consists of local, state, and federal funds as outlined below.

Safe Routes to School

Safe Routes to School is the most well-known and most well funded funding source for sidewalk expansion. This program was created during the past decade with the goal of increasing safety and

accessibility for children walking or biking to school. This program has been very successful in many cases and has been used by other local cities such as Vinton, Iowa, and Calcasieu Parish.

Local Road Safety Improvement Program

The Local Road Safety Improvement Program is conducted through the state that offers small amounts of money usually around \$10,000 for improvements to intersections and signage. While this program will not be responsible for funding infrastructure, it can be included into a mix of funding opportunities that increases the safety and visibility of pedestrian crossings.

The Recreational Trails Program

The Recreational Trails Program (RTP) is a program of the FHWA administered through the state of Louisiana's Department of Culture Recreation and Tourism. In 2010 there was over 1.3 million dollars available for trail grants. Lafayette Parish has been awarded this grant on numerous occasions as part of their Acadiana Trails network. This program will be useful in planning and development of multi-use recreational trails throughout the City of Lake Charles.

Rails to Trails

"Rails to Trails" offers funding and support opportunities for acquisition and conversion of abandoned rail lines into recreational trails. There are more than one abandoned rail lines that run through the city that would be prime candidates for this type of funding support.

Federal Programs (TEA-21)

The federal government also has programs through TEA-21 in which roadway expansion or redesign projects can get funding if they include support for bicycle or pedestrian consideration.

Chapter 8: Recommendations for Updates

This is the first attempt at creating a bicycle and pedestrian plan for Lake Charles. While many factors were considered in its development, the list of things that can be reviewed is not yet exhausted. The following list gives examples of what can be done in order to update and make this plan more complete in the future.

Missing Pieces

The most glaring omission of the recommendations are the connections between Westlake to Lake Charles and Moss Bluff to Lake Charles. The reason these were omitted was because of their grand scale. The I-10 bridge will be replaced in the next decade, but the City will have very little to do with the overall design. Also the Hwy 171 bridge that connects Lake Charles to Moss Bluff is not in need of repair and would probably have to cantilever a bike bridge on the side of the existing one. The cost would be high and the scope of this report does not fall into that sort of planning.

Safety Countermeasures

Development of countermeasures for high collision locations is a focus area with high short-term returns, so it is important to consider when updating this plan. Some of the most progressive jurisdictions prepare annual reports on pedestrian-related collisions. If resources permit, this represents a best practice as it allows tracking of the efficacy of countermeasures and continual improvement of pedestrian safety. Development of countermeasures is usually accomplished through the following process:

1. Conduct collision analysis to determine the locations where pedestrian-related collisions are occurring most frequently. This is usually completed with statewide collision database information.
2. Once sites with high numbers of collisions are identified, prepare collision diagrams for the subject intersections, and, as necessary, review detail collision records.
3. Visit the site. While this step can be accomplished by a well-trained individual, it is often advantageous to involve a larger group of people. This group can include representatives from traffic engineering, maintenance, police and planning. It is also beneficial to invite policy-makers and advocates and make them aware of the City's efforts to improve pedestrian safety. For assistance in deriving pedestrian countermeasures, see the Federal Highway Administrations' PEDSAFE tool.
4. Summarize steps 1 to 3 in a report. This report demonstrates that the Parish is proactively addressing pedestrian safety and can shield the agency from liability. According to AASHTO, "If you know you have a safety problem and you fail to address it, you have more legal exposure than if you address the problem, even if you employ non-standard solutions."

Intersection Safety Improvements

The City of Lake Charles should undertake an effort to identify and improve intersections that are without or are lacking in pedestrian safety devices. These safety devices include marked intersection crossings, lighting, and pedestrian signals. These improvements will make it more desirable and safe for pedestrians and bicycles alike to travel throughout the city without having to dash across the roadway when traffic permits.

This project could be undertaken by a student intern or possibly as a senior project for a McNeese student. It is recommended that the City of Lake Charles work with McNeese State University to address this problem, and find a reasonable and cheap solution to identifying which intersections are in the greatest need of safety improvements.

Bicycle Parking Inventory

The locations and amount of bicycle parking should be identified in the future to assure that bicyclists have a proper place to store their bicycles once they reach their destination. As with intersection safety improvements, the bicycle parking inventory can be undertaken by a McNeese State University student as their senior or independent study project.

Appendix A: Plan and Policy Review

Related Plans

Various planning documents have relation to this project. The studies, surveys, public input, suggestions, and recommendations made will help guide the format and information presented in the City of Lake Charles Bicycle and Pedestrian Plan.

Louisiana Statewide Bicycle and Pedestrian Master Plan

Possibly the most useful and relevant plan, the Louisiana Statewide Bicycle and Pedestrian Master Plan was completed recently and was meant to serve as a guide to other municipalities who wish to develop their own plans. The plan started by stating results from literature review and public input sessions.

A review of existing programs and policies revealed the following findings:

- There were a disproportionately high number of fatalities (107, 10.8% of all fatalities) on state highways in 2007 when compared to the pedestrian mode split (2% of all trips).
- Historically, the number of walking and bicycling trips in Louisiana has well below the national average.
- LDOTD's current design standards and guidelines result in the construction of roadways that are often not compatible with bicycling and walking.
- There is limited and occasionally conflicting guidance on designing roadways that provide for the needs of people walking and bicycling.
- LDOTD's current sidewalk policy discourages their construction.
- Financial constraints make it difficult to fund transportation projects, causing bicycle and pedestrian accommodations to be seen as "extras," rather than an integral part of roadway design.
- Bicycling and walking facilities and accommodations are often perceived as unfunded amenities outside the scope of roadway projects.

At a series of public meetings held throughout the State in the summer and fall of 2008, the following concerns were voiced:

Challenges

- There are few designated places to bicycle or walk safely and comfortably.
- When present, sidewalks are often narrow and provide no buffer from faster moving traffic.
- Intersections are often difficult to cross safely on foot and bike, and they often have no pedestrian accommodations such as pedestrian signals, marked crosswalks or sufficient crossing time.
- There are few designated bike lanes and bicycle facilities.
- Some roads and sidewalks are poorly maintained making walking and bicycling difficult.
- Motorists are often not aware of their responsibility to share the road with pedestrians and bicyclists.
- Land use and development patterns are often not conducive to comfortable and convenient walking and bicycling.

Opportunities

- More people in Louisiana are walking and biking than ever before (2.2% of the population walk to work, and 0.4% bicycle to work).
- The aging baby boomer population is looking for alternatives to driving and increased opportunities for physical activity.
- The growing awareness of environmental impacts of transportation has led to a high level of public support for increased accommodation for walking and bicycling.
- There is recognition of the cost effectiveness of making pedestrian and bicycle improvements integral parts of larger projects.
- New resources on design strategies are available, and can help increase safety for pedestrians and bicyclists.
- Staff of LDOTD is supportive of these new measures.
- Build on and support the efforts of public health agencies which promote walking and bicycling as physical activities which reduce the risk of diabetes, heart disease and other chronic diseases.

A section was of the plan offered existing policies of the Federal Government. The statewide plan shows that federal policies clearly state that the needs of bicyclists and pedestrians should be considered in every transportation project. The section goes on to mention the most recent transportation law (SAFETEA-LU) and the policies issued by the United States Department of Transportation (USDOT). The bicycle and pedestrian provisions of SAFETEA-LU include the following policies:

- “Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction and transportation facilities, except where bicycle and pedestrian use are not permitted.” (23 U.S.C. Section 217(g) (1))
- “In any case where a highway bridge deck is being replaced or rehabilitated with Federal financial participation, and bicyclists are permitted on facilities at or near each end of such bridge, and the safe accommodation of bicyclists can be provided at reasonable cost as part of such replacement or rehabilitation, then such bridge shall be so replaced or rehabilitated as to provide such safe accommodations.” (23 U.S.C. Section 217(e))

The Louisiana Statewide plan also mentions the USDOT policy on bicycling and walking. The document states that “bicycling and walking facilities will be incorporated into all transportation projects unless exceptional circumstances exist.” It also states that in all urbanized areas bicycle and pedestrian ways “shall be established” with exception for situations where bicycles and pedestrians are prohibited, where the cost of accommodation exceeds 20% of the total project cost or where there is an absence of need. The policy also states that any exceptions to the policy should be approved at a senior level.

The fact that the federal government’s policies on transportation are highlighted in this plan shows that the State of Louisiana wants to catch-up to the rest of the nation with its planning for bicycles and pedestrians. The report goes on to mention statistics that show Louisiana has lower rates of walking and biking than the national average and also has higher rates of accidents involving bikes and pedestrians than the rest of the nation. These two statistics come together to show that attention paid to planning and infrastructure support for pedestrians and bicyclists is not up to national standards.

The statewide plan further goes on to give guidelines for project development that is meant to ensure that pedestrian and bicycle improvements are cost effective and necessary. The policies and objectives that are included after this list show how serious the department is in planning for and implementing improvements. It gives examples of design policies and also gives a list of documents that can be used as a reference for types of designs.

City of Lake Charles Master Plan

Created in response to the threats posed by Hurricanes Rita and Katrina, this plan had the purpose to set out a vision of how Lake Charles intends to grow as a community. It states a vision and gives three development goals. It also gives recommendations on how that development should occur and what steps can be taken in order to develop along within the vision set forth by the City.

Section 6.2.2.5 discusses metropolitan transportation and also talks about alternative modes of transportation stating:

“As the cost of gasoline continues to rise, demand for alternative modes of transportation will as well. In as much as the city can lay the groundwork for a non-automobile transportation system, it will see its usage increase...”

The plan states that transportation is the second largest expenditure of a household and suggests human powered transport could be viable if Lake Charles provides options. The plan goes further to say, “cyclists and pedestrians desire similar environments: calm traffic conditions, appealing streetscapes, and a convenient mix of uses.” It promotes increasing public awareness and publication of the Non-motorized Study for the Lake Charles Metropolitan Area, which showcases potential improvements to the system.

If the city provides these conditions, it will see increasing demand for use of its trails and bike lanes. Suggestions are offered to increase cycling and pedestrian activity within a community.

- Establishment of separate cycling facilities along heavily traveled roads and at intersections.
- Traffic-calming in most residential neighborhoods. Many cities have introduced alterations such as road narrowing, raised intersections and crosswalks, traffic circles, extra curves and zigzag routes, speed humps, and artificial dead ends created by mid-block street closures. Traffic calming is usually area-wide and not for isolated streets.
- Ample bike parking. Local governments and public transit systems provide many bike parking facilities. Private developers and building owners are required by local ordinances to provide specified minimum levels of bike parking both within and adjacent to their buildings.
- Full integration of cycling with public transportation; particularly by equipping Lake Charles buses with racks to carry bicycles.

2034 Lake Charles Metropolitan Transportation Plan

The 2034 Lake Charles Metropolitan Transportation Plan (MTP) is the primary reason behind the development of this report. This plan was released in 2009 and gives a 25 year vision of what

transportation in the Lake Charles Metro Region will like. In order to receive state and federal funding on projects, they must be included in the MTP.

On pg. 3-26, in the pedestrian and bicycle section of the plan, the authors directly state:

“There are currently no local jurisdictional bike or pedestrian plans. Calcasieu Parish and the City of Lake Charles have provided wide shoulders in various locations for bike use, but few routes are designated and no inventory exists. Many neighborhoods have sidewalks, but a sidewalk inventory of the region is not available. A systematic inventory of ADA sidewalk compliance is also not available for the study area.”

The plan goes further to state in its Pedestrian Facilities Analysis sections on page 3-30:

“There was no current inventory of existing facilities to use as a baseline, but information gathered through the public visioning and consultation processes provided sufficient information to develop the following list of deficiencies.

- Lack of inventory of existing non- motorized facilities to use as a baseline for developing and continuous analysis.
- No plan for the development of a connected transportation network that meets the needs of people who want or need to use non-motorized modes.
- Lack of sidewalks in some of Lake Charles commercial areas.
- Insufficient network of sidewalks and bikeways to schools.”

These quotes are a glaring revelation of the lack of planning for pedestrians and bicycles in the area. A survey, suggestions, and quotes obtained from citizens at a public meeting shed light on the desire for the region to focus on pedestrian infrastructure and program improvements. This plan states the need for increased planning for pedestrian and bicycle facilities while offering evidence of public support. The Lake Charles 2034 MTP will be an integral part of the Calcasieu Parish Pedestrian and Bicycle Master Plan.

Lake Charles Metropolitan Area Non-Motorized Transportation Study

Although the first of its kind in size and scope, this is not the first attempt to conduct an inventory and analysis of bicycle and pedestrian support in Calcasieu Parish or Lake Charles. In 1996, Aaron Iverson published the “Lake Charles Metropolitan Area Non-Motorized Transportation Study.” This paper was completed as a thesis for the University of Illinois at Urbana-Champaign and was presented to IMCAL. It was compiled in response to the 1995 Lake Charles Metropolitan Transit Plan. It focused on two main things: the existing conditions of bicycle facilities and pedestrian support and recommendations on how to improve deficiencies.

The term “bicycle facilities” refers to bicycle routes, trails or lanes, and parking. There was only bike trail, which was a 4ft wide “multi-use” trail along Lakeshore Drive. For pedestrian support, this study utilized parameters to measure pedestrian friendliness of the Lake Charles Metro Area using indicators such as: ease of street crossing, sidewalk continuity, street patterns, and topography and environment. The report concluded that there were minimal facilities for bicycling parking, with no plan for bike routes or trails and that pedestrian support was scattered and poorly maintained. The study

subsequently found that the weather in Southwest Louisiana was optimal for pedestrian and bike travel, but the lack of infrastructure did not allow for these activities.

While not giving a complete inventory of sidewalks within the region, this study does provide a good survey of intersections that provide pedestrian signals. This will assist me in deciding which intersections should be targeted for improvements. The study further goes on to suggest 29 bike routes. The suggested routes are put in the format of the Federal Highway Administration's evaluation method. This method shows necessary information such as traffic volume and speed, the reason selected, and cost. While this information is necessary to include for the suggestions, other supplemental information such as photographs, cross-sections, road redesign schematics, and a prioritization schedule was not included. While not a complete plan, The Lake Charles Metropolitan Area Non-Motorized Transportation Study of 1996 will be used as a valuable reference and guide for the completion of the Calcasieu Parish Bicycle and Pedestrian Plan.

Current Louisiana Bicycling Laws

The inclusion of these laws are meant to serve as a reference to the public and decision-makers. Possibly the most important of all laws is RS32:194, which grants the same rights of person riding a bicycle on a state highway to a person driving an automobile.

RS 32:106 Methods of Giving Hand and Arm Signals

All signals herein required to be given from the left side of the vehicle in the following manner and such signals shall indicate as follows:

- Left Turn: Hand and arm extended horizontally with the hand open and the back of the hand to the rear
- Right Turn: Hand and arm extended upward at the angle of forty-five degrees from shoulder or elbow, with the hand open and back of the hand to the rear
- Stop or Decrease Speed: Start hand and arm extended downward at an angle of forty-five degrees from shoulder or elbow, with the hand open and the back of the hand to the rear

RS 32:193 Operation of Bicycles; General Provision

The regulations applicable to bicyclists shall apply whenever a bicycle is operated upon a highway or upon any path set aside for the exclusive use of bicycles.

RS 32:194 Traffic Laws Apply to Persons Riding Bicycles

Every person riding a bicycle upon a highway of this state shall be granted all the rights and shall be subject to all the duties applicable to the driver of a vehicle.

RS 32:195 Riding on Bicycles

- A person propelling a bicycle shall not ride other than upon or astride a permanent or regular seat attached thereto.
- No bicycle shall be used to carry more persons at one time than the number for which it is designed and equipped.

- A person operating a bicycle shall at all times keep at least one hand upon the handle bars thereof.

RS 32:196 Clinging to Vehicles

No person riding upon any bicycle shall attach himself or the bicycle to any vehicle upon a highway.

RS 32:197 Riding on Roadways and Bicycle Paths

- Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.
- Persons riding bicycles upon a roadway shall not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles.
- Whenever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway.

RS 32:199 Bicycle Helmets; Restraining Seats

With regard to any bicycle used on a public roadway, public bicycle path, or other public right-of-way, no parent, guardian, or person with legal responsibility for the safety and welfare of a child shall knowingly allow any of the following:

- Such child under the age of twelve to operate or ride as a passenger on a bicycle without wearing an approved helmet of good fit fastened securely upon the head with the straps of the helmet.
- Such child who weighs less than forty pounds or is less than forty inches in height to be a passenger on a bicycle without being properly seated in and adequately secured to a restraining seat.

Notice shall be provided in accordance with the following provisions:

- A person regularly engaged in the business of selling or renting bicycles shall post a sign stating the following: "Louisiana law requires a bicycle operator or passenger under the age of twelve years to wear a bicycle helmet when riding a bicycle. Louisiana law also requires a passenger who weighs less than forty pounds or is less than forty inches in height to be properly seated in and adequately secured to a restraining seat."

RS 32:329 Bicycles; Front Lamps; Side and Rear Reflectors

Every bicycle when in use at nighttime shall be equipped with a lamp on the front which shall emit a white light visible from a distance of at least five (5) hundred feet to the front and with a red reflector on the rear and a reflector on each side facing outward at the right angle to the bicycle frame, all of a type approved by the department which shall be visible from all distances within six (6) hundred feet to one hundred feet to the rear when directly in front of lawful lower beams of headlamps on a motor vehicle. A lamp emitting a red light visible from a distance of five (5) hundred feet to the rear may be used in addition to the red reflector.

RS 32:346 Brakes on Bicycles

Every bicycle shall be equipped with a brake which will enable the operator to make the braked wheels skid on dry, level, clean pavement.

Appendix B: Design Guidelines

These guidelines are based on The Road Design Manual for the LDOTD and have suggestions borrowed from two AASHTO books, A Policy on Geometric Design of Highways and Streets and Bike Book 1999 and The City of San Luis Obispo's Bicycle Master Plan. Certain policies should be considered when planning any new roadway improvement.

A Policy on Geometric Design of Highways and Streets, AASHTO

At certain locations or in certain corridors, it is appropriate to further supplement the existing highway system by providing specifically designated bikeways (for either exclusive or nonexclusive bicycle use). (Page 101)

Provisions for bicycle facilities should be in accordance with the AASHTO Guide for the Development of Bicycle Facilities. (Page 367)

Even if specific bicycle facilities are not provided, consideration should be given to other practical measures for enhancing bicycle travel on the highway. (Page 367)

The Road Design Manual and the AASHTO Bike Book also both state that increasing accommodations for pedestrians and bicyclists may require a reduction in space for motor vehicles, often in the form of narrower travel lanes and smaller intersections. The Parish therefore must consider bicycles and pedestrians whether or not specially designated facilities are provided. Narrower travel lanes can provide increased space for paved shoulders or bicycle lanes and reduce the distance that pedestrians must travel to cross the road. In regards to legal responsibility, the Parish may be liable when it can be shown that it should have been aware of deficiencies that have been shown to contribute to crashes, such as wide expansion joints, sudden pavement drop-offs, unsafe drain grates, etc.

Pedestrian Facilities

Within the past few decades pedestrian travel planning in the area has received, at best, only secondary attention, with much of the emphasis being placed on the access and mobility of automobiles. Many American cities are combating this deficit by undertaking significant efforts to revise their existing plans, policies, and design standards in order to create more walkable communities and a more multi-modal and balanced transportation network.

Each day, nearly everyone in Lake Charles is a pedestrian, for at least some part of every trip. Pedestrian infrastructure availability and safety issues are garnering the attention of many Parish residents who are demanding more consideration when it comes to transportation planning. There are many opportunities to improve pedestrian conditions and in doing so, make Lake Charles communities more attractive and livable.

This chapter was developed utilizing a various array of references, but the bulk of the suggestions come from two sources, The American with Disabilities Act Access Guidelines (ADAAG) and the FHWA produced book Designing Sidewalks and Trails for Access. The main references are showcased below.

ADAAG Regulations:

Clearances (Sections 403.5) – Clear Width of walking shall be a minimum of 3 feet (36 inches), except as provided at turns or passing spaces.

Passing Spaces – An accessible route with a clear width less than 5 feet (60 inches) shall provide passing spaces at intervals of 200 feet minimum. Passing spaces shall be either: (a) a space 5 feet (60 inches) minimum by 5 feet (60 inches) minimum; or, (b) an intersection of two walking surfaces providing a t-shaped space where the base and arms of the t-shaped space extend 4 feet (48 inches) minimum beyond the intersection.

FHWA Design Sidewalks and Trails for Access

Width – The pedestrian “zone” (sidewalk) should be at least 5 feet (60 inches) wide for two pedestrians to travel side by side without passing other pedestrians, or for two people going in opposite directions to pass one another. The pedestrian zone should never be less than 3 feet (36 inches). This minimum width is only acceptable when: (1) A wider width is impossible; (2) The narrow width continues for as short a distance as possible; and (3) Passing spaces are provided at intervals of no more than 200 feet.

Sidewalk Width

The width of a sidewalk depends primarily on the number of pedestrians who are expected to use the sidewalk at a given time — high-use sidewalks should be wider than low-use sidewalks.

Table 9: Sidewalk Width Guidelines

Type of Roadway	Suggested Width
Local or collector streets	(5 ft)
Arterial or major streets	(6 to 8 ft)
CBD areas	(8 to 12 ft)
Along parks, schools, and other major pedestrian generators	(8 to 10 ft)

Source: AASHTO

Sidewalk Buffer Width

Buffers between pedestrians and motor vehicle traffic are important to provide greater levels of comfort, security, and safety to pedestrians. Landscaped buffers provide a space for poles, signs, and other obstructions; they serve as a snow storage area; and they protect pedestrians from splash. The ideal width of a planting strip is 1.8 m (6 ft).

Table 10: Sidewalk Buffer Guidelines

Type of Roadway	Suggested Width
Local or collector streets	(2 to 4 ft)
Arterial or major streets	(4 to 6 ft)

Source: AASHTO

Bicycle Facilities

Bicycle facilities can cover a wide range of possibilities. Facility types range from a shared lane with motorized traffic with no accommodation for to a separate designated bicycle path. In selecting which type of facility to use, it is important to consider what type of cyclist and the roadway characteristics. According to the Federal Highway Administration manual “Selecting Roadway Design Treatments to Accommodate Bicycles,” there are three primary factors which influence bicycle travel on streets. The three factors are lane widths, traffic speeds, and traffic volumes.

Lane Width - Lane widths are critical for allowing enough room for the combined movement of bicycles and automobiles. There are a few highways and roadways within Calcasieu Parish that already have shoulders of at least 4 feet and could be used as bicycle lanes if stripping and signage were provided. National standards require a minimum right-hand curb lane width of 14 feet to safely accommodate shared use. There are many roads in Calcasieu Parish that have lane widths of at least 14 feet, but roadway speed will have to be considered on these roads.

Traffic Speeds - In order to be considered safe for shared roadway use, traffic speeds of 35 mph are required. Bicycle lanes can be substituted for shared roadway use if speed conditions exist that are greater than 35 mph. Although the minimum bicycle lane width is 4 feet, a sliding scale should be developed that takes into account the added buffer needed with increased automobile speed. While some collector roads located within existing communities have low speed limits, most of the roads connecting communities within Calcasieu Parish have speed limits above 35 mph and should not be considered suitable for shared use.

Traffic Volumes - An annual average daily traffic volume of less than 10,000 vehicles is recommended by the FHWA for shared roadway use. Most of the principal arterials in Calcasieu Parish have an annual daily traffic volume of more than 10,000 vehicles and are not recommended for shared use. Collector and local roads are more conducive to shared use because of their lower traffic volumes and lower traveling speeds and should be considered preferable for a designation of a bicycle route network. Because population centers within Calcasieu Parish are separated by well traveled and roads with high rate of speeds, these connections should be made with exclusive bike lanes where practical.

Table 11: Bicycle Facility Design Standards

Bicycle Facilities Design Standards			
Type of Bicycle Facility	Average Daily Traffic	Posted Speed Limit	Travel Lane
Shared Lanes	< 3,000	≤ 30mph	12 ft
Wide Curb Lanes	< 10,000	≤ 30 mph	14 ft
Bicycle Lanes	≥ 10,000	≥ 35 mph	4-6 Striped Lane

Redesigning Roadways to Accommodate Bicycles (Road Diets)

"ROAD DIETS" are often conversions of four lanes into three lanes (two through lanes and a center turn lane). The fourth lane may be converted to bicycle lanes, sidewalks, and/or on-street parking. In other words, existing space is reallocated; the overall area remains the same.

Under most average daily traffic (ADT) conditions tested, road diets have minimal effects on vehicle capacity, because left-turning vehicles are moved into a common two-way left-turn lane. However, for road diets with ADTs above approximately 20,000 vehicles, there is a greater likelihood that traffic congestion will increase to the point of diverting traffic to alternate routes.

Road diets can offer potential benefits to both vehicles and pedestrians. On a four-lane street, drivers change lanes to pass slower vehicles (such as vehicles stopped in the left lane waiting to make a left turn). In contrast, drivers' speeds on two-lane streets are limited by the speed of the lead vehicle. Thus, road diets may reduce vehicle speeds and vehicle interactions during lane changes, which potentially could reduce the number and severity of vehicle-to-vehicle crashes. Pedestrians may benefit because they have fewer lanes of traffic to cross, and because motor vehicles are likely to be moving more slowly. The Federal Highway Administration (FHWA) report *Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations* found that pedestrian crash risk was reduced when pedestrians crossed two- and three-lane roads, compared to roads with four or more lanes.

The road diet formula can be used on many roads throughout the City of Lake Charles, such as Broad St or 5th Ave. It is recommended that all four lane roads be considered for conversion to three lanes, plus inclusion of bicycle lanes.

Figure 32: Road Diet Example

Shared Lanes

On streets with average daily traffic (ADT) of less than 3,000 vehicles per day or average travel speeds of less than 30 mph, a standard 12-foot travel lane is sufficient to accommodate both motorist and cyclist. Unless the roadway is part of a designated bicycle route or is heavily used by cyclists, perhaps as an access route to a school or playground, no special signage is necessary. If the road is used regularly by bicyclists, then a marked “sharrow” is recommended for the roadway.

Bicycle Routes

A bicycle route is a system of bikeways designated by the jurisdiction having authority with appropriate directional and informational route markers. Bicycle routes share roadways with automobiles. Signing of shared roadways indicates to cyclists that there are particular advantages to using these routes compared to alternate routes. Bike routes should establish a continuous routing, but may be a combination of any and all types of bikeways. There are several reasons for designating signed bike routes:

- a. The route provides continuity to other bicycle facilities such as bike lanes and shared use paths.
- b. The road is a common route for bicyclists through a high demand corridor.
- c. In rural areas, the route is preferred for bicycling due to low motor vehicle traffic volume or paved shoulder availability.
- d. The route extends along local neighborhood streets and collectors that lead to an internal neighborhood destination such as a park, school or commercial district.

Wide Curb Lanes

In urban areas, wide curb lanes are recommended for use on roadways with posted speed limits of 30 mph or less and where ADT volumes are less than 10,000. In general, 4.2 m (14 feet) of usable lane width is the recommended width for shared use in a wide curb lane. Usable width normally would be from edge stripe to lane stripe or from the longitudinal joint of the gutter pan to lane stripe. Wide curb lanes can also be used in rural areas; however, under high-volume or high-speed conditions a paved shoulder is preferred. No special signage is required.

Bicycle Lanes

Bike lanes are incorporated when it is desirable to delineate available road space for preferential use by bicyclists and motorists, and to provide for more predictable movements by each. Bike lane markings can increase a bicyclist’s confidence in motorists not straying into their path of travel. Bicycle lanes are best suited for use in urban areas on arterial roadways with ADT volumes greater than 10,000 vehicles per day and average travel speeds of over 30 mph.

Figure 33: Sharrow Example on Shared Lane

Bike lanes should be one-way facilities and carry bike traffic in the same direction as adjacent motor vehicle traffic. Two-way bike lanes on one side of the roadway are not recommended when they result in bicycles riding against the flow of motor vehicle traffic. In rural areas, designated bike lanes may be preferred over an undesignated paved shoulder where heavy bicycle traffic is expected, for example near a bicycle trip generator such as a park or school or on a designated bicycle route. Pavement markings and signage are used to designate the lane for bicycle use.

Table 12: Bike Lane Design Guidelines

Bike Lane Design Standards			
Min. Width (ft.)	Average Daily Traffic	Posted Speed Limit	Striping
4	$\geq 10,000$	≤ 35	6 inches
5	$\geq 10,000$	≥ 40	6 inches
6	$\geq 15,000$	≥ 45	6 inches

Design Considerations

Bicycles have special design considerations that must be paid attention to. The following two suggestions are based on the AASHTO Bike Book.

Pavement Surface Quality

The smoothness of the riding surface affects the comfort, safety and speed of bicyclists. Pavement surface irregularities can do more than cause an unpleasant ride. Pavement surfaces should be smooth, and the pavement should be uniform in width. Wide cracks, joints or drop-offs at the edge of traveled way parallel to the direction of travel can trap a bicycle wheel and cause loss of control; holes and bumps can cause bicyclists to swerve into the path of motor vehicle traffic. In addition, a reduction in the operating speed of the bicyclist below a comfortable level results in less stability of the bicycle. As pavements age it may be necessary to fill joints or cracks, adjust utility covers or even overlay the pavement in some cases to make it suitable for bicycling.

Drainage Inlet Grates

Drainage inlet grates and utility covers are potential obstructions to bicyclists. Therefore, bicycle-safe grates should be used, and grates and covers should be located in a manner which will minimize severe and/or frequent maneuvering by the bicyclist. When new highway facilities are constructed, curb opening inlets should be considered to minimize the number of potential obstructions. Drainage inlet grates and utility covers should be placed or adjusted to be flush with the adjacent pavement surface. Drainage inlet grates with slots parallel to the roadway, or a gap between the frame and the grate, can trap the front wheel of a bicycle, causing loss of steering control. If the slot spacing is wide enough, narrow bicycle wheels can drop into the grates. Conflicts with grates may result in serious damage to the bicycle wheel and frame and/or injury to the bicyclist. These grates should be replaced with bicycle-safe, hydraulically efficient versions. When this is not immediately possible, a temporary correction is to weld steel cross straps or bars perpendicular to the parallel bars at 100-mm (4-inch) center-to-center.

Grade Separated and Shared Use Paths

Multi-Use Paths

Multi-use and bicycle paths, are separate special use facilities providing both physical and visual separation from motorized traffic. They should be considered as a supplement to the roadway network providing access to otherwise inaccessible areas and, in general, should not be constructed parallel to existing roadways. Bicycle paths can also be used as spur connectors from the street network to provide non-motorized access points to facilities such as schools, parks and playgrounds.

Standards for the development of multi-use paths are as follows:

- Width of between 8-12 feet (depending on expected traffic flow)
- Grades should do not exceed 8.3 percent
- Cross slopes on paved surfaces that do not exceed 2 percent and cross slopes on non-paved surfaces that do not exceed 5 percent
- A firm and stable surface

The following picture, courtesy of the federal highway administration, showcases recommended widths in a visual setting.

Figure 34: Rendering of Example Paved Path

Figure 35: Sam Houston Jones Park Trail

Mountain Bike and Walking Trails

Mountain bike and walking trails are for those who wish to recreate on a more naturalistic setting. These trails are generally unpaved, but may have a surface like crushed rock or cinder. These trails are separated from automobile traffic and can offer opportunities that range from a “short-cut” through neighborhoods or a chance to walk your dog. These trails offer less accommodation for all users than multi-use paths. East Baton Rouge Parish currently offers two mountain bike trails built by the Baton Rouge Area Mountain Bike Association (BRAMBA).

Conflict Concerns

Multi-use paths attract a variety of user groups wheeled and non-wheeled, who often have conflicting needs. All of these modes are affected by sudden changes in the environment and by other trail users, such as bicyclists, who travel at high speeds. To improve the shared-use path experience for all users, including people with disabilities, designers and planners should be aware of potential conflicts and employ innovative solutions whenever possible. Basic conflicts can be reduced by:

- Providing information, including signage, in multiple formats that clearly indicates permitted users and rules of conduct;
- Ensuring that the shared-use path provides sufficient width and an appropriate surface for everyone, or providing alternate paths for different types of users;
- Providing sufficient separation for users traveling at different speeds. For example, if volume and space permits, bicyclists and pedestrians should have different lanes or pathways;
- Providing the necessary amenities for all users. For example, bicyclists require bike racks or lockers;
- Considering the needs of people with disabilities within all of the user groups permitted on the path. For example, many individuals with disabilities may use a longer hand cycle or wider tricycle design that may not be compatible with bike racks, bathroom stalls, or lockers of limited width. Longer and wider equipment may need additional maneuvering space in restrooms and when transferring from the chair to benches.

Figure 36: Example Precautionary Trail Sign

Appendix C: Maintenance Guidelines

Preventive Maintenance Policy: Preventive maintenance, such as filling in cracks, is critical to keeping both on-street and off-street bike routes safe and comfortable to ride on while prolonging the life of infrastructure.

Sweeping

Trails and on-street bikeways need to be swept on a regular basis. Many facilities regularly fill up with sand, trash, glass, and other debris that needs to be removed to keep the bikeway safe. Many bicyclists avoid routes with debris to reduce the chance of getting a flat tire.

Paths Sweeping Policy: Each Bikeway and Multi-use path shall be completely swept three times per year.

Trash and Debris Pick-Up

Trails should have trash receptacles placed at access points. The use of volunteers and community service crews to clean up trail corridors is strongly encouraged.

Trail Trash and Debris Pick-Up Policy: Once per week, litter and debris will be cleared from the corridor and trash bins will be emptied on off-street trails.

On-Street Bikeways Accident Debris Cleanup Policy: If a tow truck that is under a City contract assists in removing damaged vehicles, the towing company is responsible for removing all accident debris, including broken glass. If no tow truck is involved, then PW street maintenance crews will remove the debris upon notification.

Figure 37: Debris on Paved Shoulder Bikeway

Appendix D: FHWA Crosswalk Guidelines

The following list is a summary of the guidelines for designing crosswalks by the Federal Highway Administration.

- Before installing new marked crosswalks, an engineering study is needed to show whether the location is suitable for a marked crosswalk.
- It is recommended that a minimum of 20 pedestrian crossings per peak hour (or 15 or more elderly and/or child pedestrians) exist at a location before placing a high priority on the installation of a marked crosswalk alone.
- Where speed limit exceeds 40 mph, marked crosswalks alone should not be used at unsignalized locations.
- Possible increase in pedestrian crash risk may occur if crosswalks are added without other pedestrian facility enhancements. Whether marked crosswalks are installed, it is important to consider other pedestrian facility enhancements, as needed, to improve the safety of the crossing (e.g., raised median, traffic signal, roadway narrowing, enhanced overhead lighting, traffic calming measures, curb extensions).
- Crosswalks should not be installed at locations which could present an increased safety risk to pedestrians, such as where there is poor sight distance, complex or confusing designs, substantial volumes of heavy trucks, or other dangers, without first providing adequate design features and/or traffic control devices.
- The raised median or crossing island must be at least 4 ft wide and 6 ft long to adequately serve as a refuge area for pedestrians in accordance with MUTCD and AASHTO guidelines.

Appendix E: Cost Estimate Guidelines

In order to estimate the cost of various improvements, a generic estimator worksheet was created. Each estimate is cited by either a municipality or state transportation department. These costs take into account the basic cost of engineering and construction, but do not consider costs of right-of-way acquisition or administrative costs.

Table 13: Cost Estimate Assumptions

Type of Improvement	Per Mile	Per Sq. Ft.	Per Linear Ft.	Source
Culvert and Cover Ditch (Per Side)	\$800,000	n/a	\$151.52	Calcasieu Parish Engineering
5 ft Paved Shoulder (Both Sides)	\$160,000	\$3.03	\$30.30	Florida DOT (2009)
5 ft Sidewalk (One Side)	\$132,000	\$5.00	\$25.00	City of Lake Charles (2010)
Curb & Gutter (One Side)	\$79,000	n/a	\$15.00	City of Albemarle (2008)
Signage	\$2,000	n/a	\$0.38	City of Albemarle (2008)
Stripping	\$15,000	n/a	\$2.84	City of Albemarle (2008)
12 ft Multi-Use Path	\$175,000	\$2.76	\$33.14	Florida DOT (2009)
10 ft Crushed Rock walkway	\$80,000	\$1.52	\$15.15	City of Albemarle (2008)
Bike Lane	\$50,000	n/a	\$9.47	USDOT (2010)
Narrowing Lanes	\$2,000	n/a	\$0.38	USDOT (2010)

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Appendix G: Stakeholder Questionnaire

Calcasieu Parish and the City of Lake Charles Bicycle and Pedestrian Support Public Input Session

Personal Experience is key to having “on the ground” knowledge of bicycle and pedestrian infrastructure conditions.

Finding Out About You

Optional

*Name: _____

*Email or Phone: _____

City or Community of Residence: _____

Giving Your Opinion

Which of these improvements is most important to you? [highest (5) to lowest (1)]

Sidewalk continuity _____ Intersection safety _____

Bicycle lanes _____ Multi-use trails _____

Bicycle routes _____ Suggestions? _____

Which of these attractors is most important to you? [highest (5) to lowest (1)]

Schools _____ Parks _____

Recreation/Community facilities _____ Post Office/Civic Buildings _____

Public Transit Stops _____ Libraries _____

Suggestions? _____

Making The List

Please take a minute to think about your experience and personal knowledge of local roads. Consider situations in which you saw someone having difficulty walking or biking along a roadway or trying to cross an intersection. Please make a list of these roadways that you believe are in need of bicycle and pedestrian improvements. We will consider these in our list of potential projects.

City or Community	Name of Road
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Making The Map

Located on the table in front of you are two maps, one of Lake Charles and one of Calcasieu Parish. Please highlight along roads that you feel are in need of improved bicycle or pedestrian support (i.e. bike lanes or sidewalks). Also please mark any roads or intersections that you feel are dangerous for non-motorized travel.

Please use blue for bikes, pink for pedestrian, and red for dangerous conditions.

If you have a personal experience you would like to share please write it below.

These stories will be used as first-hand accounts of conditions, as they exist today, and will be compared with future goals.

Personal Experience: _____

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Questions, Comments, or Concerns:

Vision, Goals, and Policies Dot Activity

Located around the room are poster boards with titles such as “Potential Goals” and “Potential Policies.” These boards have numerous examples of types of goals and policies that we could adopt. We would like to see which ones are most important to you. Please place the “dots” on the left side of the vision, goal, or policy that you like the most.

Please Use Two Dots for Each Board