

ACADIANA MPO 2040 BIKEWAY PLAN

Adopted



TABLE OF CONTENTS

0-0 Executive Summary

1.0 Introduction

1-1 Bike Subcommittee

1-2 Existing Bicycle Network

1-3 Bike Crash Analysis

1-4 Bike Safety Research

1-4 Bicycle Crashes

1-5-1 Month, Day, and Hour

1-5-2 Bike Crash Demographics

1-5-3 Bicycle Crash Report Analysis

2-0 Federal and State Regulations Administering Bike Networks

2-1 Bicycles Defined

2-2 Components of Federally Required Bike Transportation Systems

3-0 Local, State and Federal Funding Sources

4-0 Goals and Objectives of the Bikeway Plan

5-0 Implementation Strategies

6.0 Map Inventory of Bike Facilities



APPENDIX 1.0

A1-0 Walk Scores as Applied to Bike Planning

A1-1 Walk Score Background

A1-3 Walk Score Ranking System

A1-5 Walk Score Home Based Trip Types

A1-6 Walk Score and Walk Sheds

A1-6-1 Walk Shed and Overlapping Circles

A1-6-2 Walk Shed and Census Blocks

A1-7 Overlapping Circles and Census Blocks

A1-8 Walk Scores, Walk Sheds and Bike Planning

A1-9 Walk Score Critique

TABLES

Table 1-1: Bicycle Meeting Dates, 2004 to 2014

Table 1-5-2-Table 1-5-1-A - Race - Louisiana and Lafayette Parish Bicycle Crashes

Table 1-5-2-Table 1-5-1-B - Gender - Lafayette Parish Bicycle Crashes

Table 1-5-2-Table 1-5-1-C - Age - Lafayette Parish Bicycle Crashes

Table 1-5-2-Table 1-5-1-D - Crash Severity - Lafayette Parish Bicycle Crashes

Table 1-5-2-Table 1-5-1-E - Impairment- Lafayette Parish Bicycle Crashes

Table 1-5-2-Table 1-5-1-F - Categories In Bicycle Crashes - Lafayette Parish Bicycle Crashes

Table 3-0-A: Funding Opportunities by Activity and Granting Agency

Table 3-0-B: Funding Opportunities by Activity and Granting Agency

Table 7-0: Cross Classification Table of Funded/Unfunded vs Built/Unbuilt Bike Facilities

Table A1-3: Walk Score Classification Systems

FIGURES

Figure 1-5-A: Lafayette Parish Bicycle Crashes by Month, 2006 - 2012

Figure 1-5-B: Lafayette Parish Bicycle Crashes by Day of Week, 2006 - 2012

Figure 1-5-C: Lafayette Parish Bicycle Crashes by Hour, 2006 - 2012



MAPS

Map 1: Existing Bike Facilities

Map 2: Urban Areas Existing Bike Facilities

Map 3: 2040 Proposed Bike Facilities

Map 4: Urban Areas 2040 Proposed Bike Facilities

Map B-1: Bike Destinations

Map B-2: Bike Destinations and Walkability in Lafayette

Map B-3: University of Louisiana at Lafayette

Map B-4: Bike Destinations and Walkability in New Iberia

Map B-5: Bike Destinations and Walkability in Broussard

Map B-6: Bike Destinations and Walkability in Youngsville

Map B-7: Bike Destinations and Walkability in Scott

Map B-8: Bike Destinations and Walkability in Duson

Map B-9: Bike Destinations and Walkability in Carencro

Map B-10: Bike Destinations and Walkability in Sunset and Grand Coteau

Map B-11: Bike Destinations and Walkability in Breaux Bridge

Map B-12: Bike Destinations and Walkability

Map B-13: Bike Destinations and Walkability in Saint Martinville

Map B-14: Bike Destinations and Walkability in Loreauville



0-0 Executive Summary

The Acadiana Metropolitan Planning Organization (MPO) appointed a Bike Subcommittee, which developed three distinct processes to create a bike accessible community:

- 1- Promoting bicycling and reduce dependency on single-occupant vehicles;
- 2- Providing safe bicycle transportation; and
- 3- Planning, constructing, and maintaining connections between bikeway facilities.

The 2040 Bikeway Plan provides a list of objectives and strategies to achieve these goals over a thirty year period from 2010 to 2040.

The plan also offers the technical information concerning bikeways that is fundamental for administration and implementation the Metropolitan Planning Organization and local Planning Commissions and local governments.

Moreover, this document will serve as a list of possible funding resources and options for reference by the MPO committees, planning commissions and local governments in the Acadiana Planning Area.

The maps provide a visual summary of the plan.





1-0 Introduction

The Acadiana Metropolitan Planning Organization (MPO) is required to develop bicycle plans to be eligible for highway construction and planning funds.

In relation to bike planning, the Acadiana MPO has two committees: an advisory group, the Transportation Technical Committee (TTC) composed of engineers and planners from the local public agencies; and a governing board, Transportation Policy Committee (TPC) composed of elected officials or their representatives.

1-1 Bike Subcommittee

The TPC created the Acadiana MPO Bike Subcommittee (hereinafter the MPO Bike Subcommittee) in 2004 to identify potential bicycle routes and projects as part of the planning process. The subcommittee is composed of representatives from bicycle advocacy groups including Bike Lafayette and T.R.A.I.L.S. to provide guidance on what roads are the most frequently used and comfortable to cyclists. In addition, civil engineers from the Department of Transportation and Development and Local Public Agencies Public Works Departments sit on the committee to provide advice on the feasibility of the proposed routes and types of facilities that would be the most appropriate, given the roadway's ROW limits, designated speed limits, and functional class.

In the development of this plan, the Bike Subcommittee met only a monthly basis to evaluate routes and determine the appropriate bike facility for each route. The result of this route is a complete bike network throughout the MPO area. This network will be utilized during the MPO project development process to make recommendations on the addition of bike routes to any federally funding transportation project in the MPO area. The MPO will also work with its local public agencies to develop standalone projects along the most critical bike routes in the area, according to the priorities of the local public agencies.





1-2 Existing Bicycle Network

The existing bike network is located primarily in Lafayette Parish, especially in the urban core of the city of Lafayette.

The type of bike facilities represented in the area are:

- 1- Sharrow: two lane roadway with pavement markings indicating bicycle and vehicle use;
- 2- Path: a dedicated sidewalk or path set aside for use of bicycles and pedestrians;
- 3- Lane: a travel lane adjoining a roadway set aside for bicycle use; and
- 4- Shoulder: adjoining paved area used for vehicles stopping or bicycle.

These categories are more formally described and defined in Section 2-2 Components of Federally Required Bike Transportation Systems with words and pictures.

The source of funding for existing bike facilities is primarily from:

- 1- local funds from Local Public Agencies;
- 2- federal funds as administered through the state government;
- 3- federal funds as administered by the Metropolitan Planning Organization.





1-3 Bike Crash Analysis

This plan addresses how to reduce these crashes and introduce safety into the bicycle network by first understanding the context of bike crashes in terms of race, gender, time of day, week and year as well as the degree of drug and alcohol impairment. Additionally, the plan describes the federal guidelines for the construction of bike facilities and the identification of these facilities in the bike network. The in-depth bike crash analysis was focused on Lafayette Parish, due to the large volume of crashes along the roadway network in the parish.

1-4 Bike Safety Research

Bike safety demographics are taken from research related to the Bicycle and Pedestrian Safety and Education Program, which was funded through the Louisiana Department of Transportation and Development through the Acadiana MPO. The research and the media campaign utilized funds from the Department of Transportation and Development.

The safety media messages were derived for the campaign through the analysis of crash data involving bicycle and pedestrian crash data within the MPO area. This analysis was used to determine the top contributing factors for vehicles, pedestrians and bicyclists involved in crashes. These top contributing factors were used to develop the messaging for the campaign. An example of the media developed during the campaign is a Responsibility Card. The card shows the responsibilities for all roadway users to prevent vehicle collisions. As 94% of all crashes are caused in part by driver error, its of vital importance to emphasize correct driver behavior.

Hey Pedestrians! 

- 1 Cross at crosswalks and intersections whenever possible.
- 2 Walk on the sidewalk.
- 3 If no sidewalk is available, walk facing traffic as far from traffic as possible, on the shoulder or beyond the curb.
- 4 Do not linger in the street or wait in the road for a bus.
- 5 Make sure vehicles have time to stop before stepping into the road.
- 6 Obey pedestrian traffic control signals. Only cross when the "walk" signal is displayed.
- 7 Children under age ten should cross the street with an adult.
- 8 Wear reflective materials at night or use a flashlight.
- 9 When crossing the street, make eye contact with drivers.

Hey Drivers! 

- 1 Remain alert for pedestrians and cyclists.
- 2 Look both ways when making a turn.
- 3 Yield the right-of-way to pedestrians crossing a driveway.
- 4 Yield the right-of-way to pedestrians at intersections.
- 5 Never pass a vehicle stopped at an intersection or crosswalk. Pedestrians that you cannot see may be crossing.
- 6 Stop behind the stop line at intersections to allow for pedestrian crossings.
- 7 When turning right, check your rear and side view mirrors for cyclists along the curb or shoulder.
- 8 Look for and yield to cyclists when entering a road from a driveway or side street.
- 9 Put three feet between you and any cyclists; it's the law.
- 10 Follow bikes at a safe distance, as you would with a motor vehicle.
- 11 Do not drive, park or stand in bike lanes.
- 12 Treat cyclists and pedestrians with respect and courtesy; they are legitimate road users.

Hey Cyclists! 

- 1 Obey traffic law; bikes are vehicles too.
- 2 Ride in the direction of traffic, even in bike lanes.
- 3 Obey all traffic signals and signs.
- 4 Use front white and rear red lights as well as side and rear red reflectors at night.
- 5 Be aware of your surroundings. Do not use ear buds or headphones while cycling.
- 6 Be predictable; use hand signals when turning and stopping.
- 7 At intersections, make eye contact with drivers.
- 8 Ride where motorists can see you. Avoid drivers' blind spots.
- 9 Do not weave through traffic.

LET'S LOOK OUT FOR ONE ANOTHER! 

For more information, visit ChangeTheWayWeTravel.com.



1-5 Bicycle Crashes

From 2006 – 2012, the number of bicycle/vehicle collisions has risen 27% in the state. Lafayette Parish has seen a 16% increase in crashes during that time period.

Lafayette Parish has only about 5% of Louisiana’s population, yet in 2008-2009 10% of all bike crashes in the state occurred in Lafayette Parish.

TABLE 1-5 ACADIANA PLANNING COMMISSION LOUISIANA AND LAFAYETTE PARISH BICYCLE CRASHES			
Year	Louisiana Statewide	Lafayette Parishwide	Parish vs State Per- centage
2006	715	55	8%
2007	695	51	7%
2008	668	68	10%
2009	649	62	10%
2010	631	56	9%
2011	847	75	9%
2012	911	64	7%
TOTAL	5,116	431	8%



1-5-1 Month, Day, and Hour

During 2006 to 2012, crashes peak in September and are also high in April and May, a likely effect of the weather patterns in the Lafayette region. These are also the month that school begins and ends. In contrast, when school is not in attendance in December and January, there is the lowest numbers of crashes.

Figure 1-5-A—Bike Crashes by Month , 2006-2012

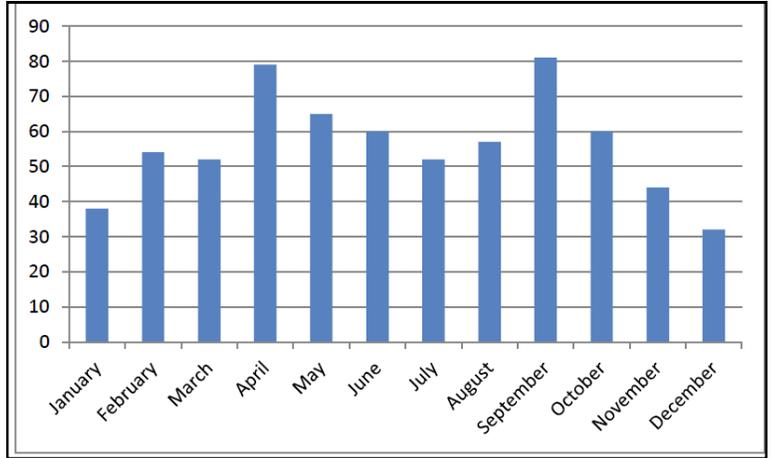
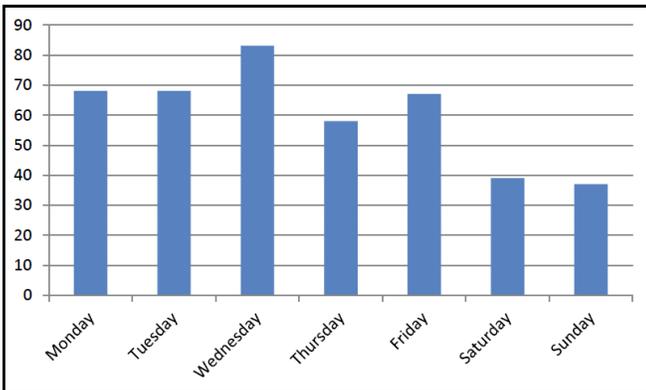


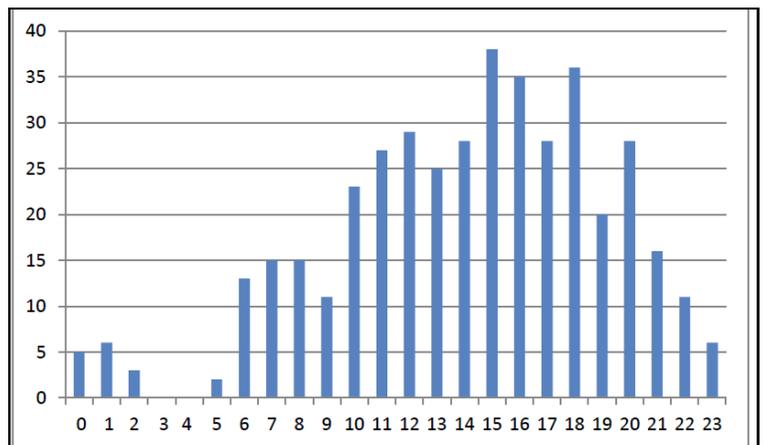
Figure 1-5-B—Bike Crashes by Day of Week , 2006-2012



Weekdays are fairly stable, with a slight dip on Thursday. Weekends have half the number of crashes as the peak day, Wednesday.

Crashes are low to nonexistent in the morning hours, but start to rise around 10 am with a peak time of 3 pm and second peak at 6 pm. This is roughly the same time period as the peak hour for all crashes in Lafayette Parish.

Figure 1-5-C—Bike Crashes by Month , 2006-2012





1-5-2 Bike Crash Demographics

The demographic characteristics of bicyclist involved in crashes can be summarized by race, gender, age, severity, and impairment.

During 2006 to 2012, Black or African American individuals make up 41% of the bicycle drivers involved in crashes. This is in contrast of the overall African-American population of Lafayette Parish, which is 26% of total population.

TABLE 1-5-2-A ACADIANA PLANNING COMMISSION RACE LOUISIANA AND LAFAYETTE PARISH BICYCLE CRASHES		
Race	Count	Percent
African-American	175	41%
White	217	50%
Other	19	4%
Unknown	20	5%
Total	431	100%

During 2006 to 2012, males are overwhelmingly represented as bicycle drivers involved in crashes. Males are roughly half of the population, yet they are involved in 81% of crashes.

TABLE 1-5-2-B ACADIANA PLANNING COMMISSION GENDER LAFAYETTE PARISH BICYCLE CRASHES		
Gender	Count	Percent
Male	349	81%
Female	82	19%
Total	431	100%



During 2006 to 2012, cyclists who crash are generally young, with 55% being age 30 or under. There is a significant spike among the 41-50 year old age group. Children age 17 and under are shown as also being at high risk for a bike crash.

TABLE 1-5-2-C ACADIANA PLANNING COMMISSION AGE LAFAYETTE PARISH BICYCLE CRASHES		
Age	Count	Percent
0-17	82	19%
18-20	54	13%
21-30	101	23%
31-40	34	8%
41-50	69	16%
51-60	50	12%
61 +	21	5%
Unknown	20	4%
TOTAL	431	100%

During 2006 to 2012, the rates of cyclists being killed or seriously injured in a crash are double the rates of motorists involved in traffic collisions.

TABLE 1-5-2-E ACADIANA PLANNING COMMISSION IMPAIRMENT LAFAYETTE PARISH BICYCLE CRASHES		
Gender	Count	Percent
Impaired	21	5%
Unimpaired	399	93%
Unknown	11	2%
Total	431	100%



1-5-3 Bicycle Crash Report Analysis

The police issued citations to pedestrians and motorists involved in 85 cyclist crashes during the time period studied as shown in the table below:

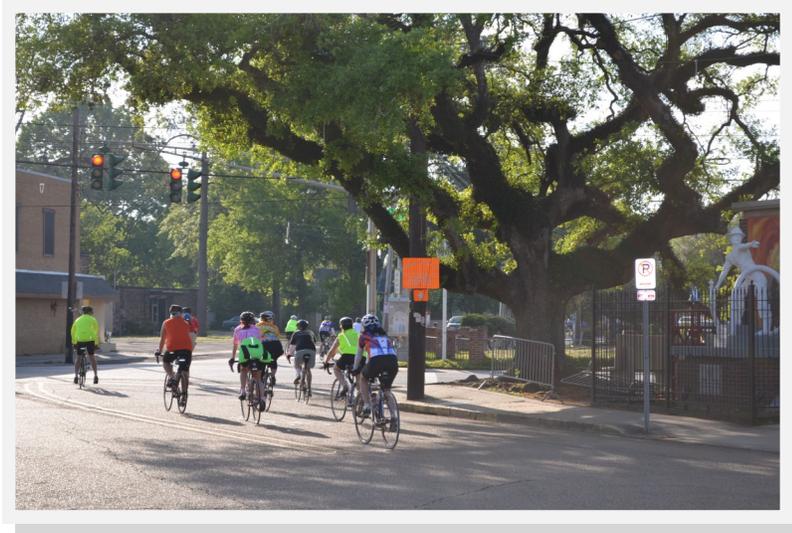
TABLE 1-5-2-F		
ACADIANA PLANNING COMMISSION		
PARTIES INVOLVED IN BICYCLE CRASHES		
LAFAYETTE PARISH BICYCLE CRASHES		
Gender	Count	Percent
Pedestrian	22	26%
Motorist	59	69%
Motorist & Pedestrian	4	5%
Total	85	100%

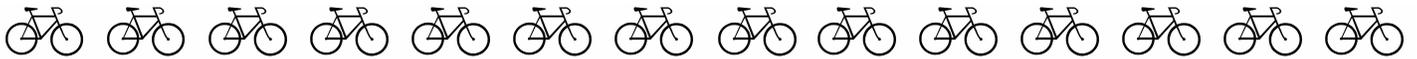
For motorists, the most commonly cited violation is failure to yield.

For cyclists, the most commonly cited violation is most often cited for disregarding traffic control on roadways and bicycle paths. Riding a bicycle on the sidewalk is also a frequent citation, although it is legal and permissible to do so in Lafayette Parish.

The most frequent crash type is a motorist making a turn into a cyclist.

The next common crash type was a cyclist riding against traffic and a cyclist disregarding traffic controls. Several cyclists were cited for not using lights at night.





2-0 Federal and State Regulations Administering Bike Networks

This plan was developed in order to prioritize funding by the Federal Highway Administration (FHWA) to construct bike facilities.

The FHWA reviews federal legislation and funding. The manner in which these regulations are implemented and funded are published in the code of federal regulations (CFR). At the state level, the FHWA provides guidance to the Louisiana Department of Transportation and Development (DOTD) on how to implement these federal regulations and how to fund state and local projects.

Current federal regulations require all states and MPOs to have bicycle plans and to implement those plans in the Transportation Improvement Plan (TIP) process.

The Federal Highway Administration (FHWA)'s Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations (March 15, 2010) states that "Legislation and regulations exist that require inclusion of bicycle and pedestrian policies and projects into transportation plans and project development. Accordingly, transportation agencies should plan, fund, and implement improvements to their walking and bicycling networks, including linkages to transit."

In addition, FHWA requires that states and the Metropolitan Planning Organizations (MPOs) to integrate walking and bicycling facilities and programs in their transportation plans to ensure the operability of an intermodal transportation system based on four key sections of the Code of Federal Regulations (CFR):

- 1- The scope of the metropolitan planning process will (1) "Increase the safety for motorized and non-motorized users;" and (2) "Increase the security of the transportation system for motorized and non-motorized users."
- 2- Metropolitan transportation plans "...shall, at a minimum, include...existing and proposed transportation facilities (including major roadways, transit, multimodal and intermodal facilities, pedestrian walkways and bicycle facilities, and intermodal connectors that should function as an integrated metropolitan transportation system..."
- 3- The plans and transportation improvement programs (TIPs) of all metropolitan areas "shall provide for the development and integrated management and operation of transportation systems and facilities (including accessible pedestrian walkways and bicycle transportation facilities)."
- 4- MPOs "shall develop and use a documented participation plan that defines a process for providing...representatives of users of pedestrian walkways and bicycle transportation facilities, and representatives of the disabled, and other interested parties with reasonable opportunities to be involved in the metropolitan planning process."



2-1 Bicycles Defined

A bicycle, often called a bike or cycle, is *technically defined* as a human-powered, pedal-driven, single-track vehicle, having two wheels attached to a frame, one behind the other. For the purposes of this report, bikes or bicycles are more broadly defined as having two wheels, but occasionally having one, and three wheels and very rarely four wheels.



Adult Bicycle used for Urban Area

A blue unicycle with a black seat and a single large wheel.	A blue tricycle with a black basket on the front and a smaller basket on the rear.	A black quad-cycle with a seat and two sets of pedals, designed for tourists.
Unicycle used in sports	Tricycle used for urban deliveries.	Quad-cycle used by tourists



2-2 Components of Federally Required Bike Transportation Systems

Six types of federally recognized components form the basis of a bike transportation network:

- 1- Multiuse sidewalks allowing pedestrians and bicyclist to travel along the same path;
- 2- Sharrow signage indicating that bicycles and vehicles to travel in the same roadway;
- 3- Dedicated paths permitting only bicycles;
- 4- Bike lanes allowing reserved travel within roadways;
- 5- Bike Routes providing signed and in some case lanes in rural areas; and
- 6- Shoulders allowing sufficient width for travel on rural highways.

Each of these components is discussed below in terms of its physical dimensions and its use. Photos within the planning area illustrate existing facilities. These facilities are in some cases designed as bikeways. Others facilities have potential to be designated as bikeways with proper signage and pavement markings.

-A- Multiuse sidewalks allow both pedestrians and bicyclist to travel along the same path. The minimum width is 8 feet, but 10 feet is the desirable as well as two feet shoulders on each side. A path with heavy traffic may be increased to 12 to 14 feet.



Photo 1-4-A: Potential multi-purpose path :

North College Road (LA 3025), near Johnston Street, Lafayette, LA

-B- Sharrows are signed to allow bicycles and automobiles to travel in the same roadway with speeds under 35 mph.



Photo 1-4-B: Existing Sharrow

Gordon Street near Vermilion Street, Lafayette, LA



-C- Paths are for the use of only bicycles and separated from pedestrian ways and motorways.

Paths are typically adjacent to highways, roads, and parkways. A bicycle path used by both bicyclists and pedestrians is considered a rural multi-use trail or an urban sidewalk. Not all paths are paved and may be on greenways. The recommended widths are the same as trails and sidewalks at 8 to 10 feet and even as wide as 12 feet. Bicycle paths should be separated not only from parallel motorized traffic but from cross traffic as well. Bicycle paths are more costly than other alternatives, but are generally safer for all types of bicyclists.



-D- Lanes are striped to indicate a dedicated space, but have no separation from vehicles.

One-way separated bike lanes should have a minimum width of 5 feet. Wider separated bike lanes provide additional comfort and space for bicyclists and should be considered where a high volume of bicyclists is expected. A minimum 3 feet buffer should be used adjacent to parking.



Existing Bike Lanes

University of Louisiana at Lafayette - E St. Mary Street



E- Shoulders are paved areas not specifically dedicated to bicyclist, but are permitted by state and federal law.

Bikes in Louisiana are prohibited from using shoulders along the interstate system.

Paved shoulders are provided on rural highways for a variety of safety, operational, and maintenance reasons. Beyond use by motor vehicles, paved shoulders provide an excellent place for bicyclists to operate if the roadways are adequately maintained. In general, the shoulder widths recommended for rural highways in American Association of State Highway and Transportation Officials and the Federal Highway Administration (AASHTO)'s Policy on Geometric Design of Highways and Streets serve bicyclists well, since wider shoulders are required on heavily traveled and high-speed roads and those carrying large numbers of trucks. When providing shoulders for bicycle use, a width of 6 feet is recommended, however even 2 feet of shoulder width will benefit more experienced riders. A 6-foot wide shoulder allows a cyclist to ride far enough from the edge of the pavement to avoid debris, yet far enough from passing vehicles to avoid conflict. If there are physical width limitations, a minimum width of 4 feet between a curb and gutter and the edge of travel lane may be adequate.



Potential Bikeway Shoulder

US Highway 167 near Camus Rd, Lafayette, LA



-F- Bike Routes

Bike routes are similar to lanes or sharrows except that lanes and sharrows (for the purposes of this document) are typically in urban areas with low speeds while bike routes are rural with vehicle speeds greater than 35 mph. AASHTO's Guide for the Development of Bicycle Facilities states that routes are preferred for use in rural areas due to low traffic volumes or paved shoulder availability.

Bike routes are also similar to bikeway shoulders in that they both have a wide area on the side of the road. Bike routes provide connectivity between distant destinations.



Potential Bike Route

La Hwy 1252 near Kidder Road, Carencro, LA



3-0 Local, State and Federal Funding Sources

A great variety of federal programs provide funding for bike improvements. Specific improvements funded by these 13 funding programs are displayed on the two following tables.

-1- TIGER (Transportation Investment Generating Economic Recovery Discretionary Grant) On April 3, 2015, U.S. Transportation Secretary Anthony Foxx announced \$500 million will be made available for transportation projects across the country under a seventh round of the highly successful U.S. Department of Transportation's (DOT) Transportation Investment Generating Economic Recovery (TIGER) competitive grant program.



-2- FTA (Federal Transit Administration Capital Funds) Federal Transit Administration Bicycle friendly transit vehicles and stations provide cyclists with expanded travel options, and expand transit ridership by helping people more easily access transit stations. In 2011, FTA issued a policy stating that amenities related to bicycle access to public transportation have a de facto relationship to transit within a 3-mile radius, and that capital funds could be used for these eligible expenses.

-3- ATI (Associated Transit Improvement) Under Moving Ahead for Progress in the 21st Century (MAP-21), there is a requirement that recipients of Section 5307 Federal Transit Administration (FTA) funds in large Urbanized Areas (UZAs) over 200,000 in population expend at least 1% of each fiscal year's amount received on associated transit improvements

-4- CMAQ (Congestion Mitigation and Air Quality Improvement Program) The CMAQ program was implemented to support surface transportation projects and other related efforts that contribute air quality improvements and provide congestion relief. The federal funds are administered by DOTD to reduce for ozone, carbon monoxide, and/or particulate matter in areas in nonattainment or maintenance. Examples of CMAQ funding for bicycles are:

- A- Bicycle and pedestrian facilities that are not exclusively recreational and reduce vehicle trips;
- B- Non-construction outreach related to safe bicycle use; and
- C- Statewide bicycle/pedestrian coordinator positions for public education, safety programs, etc.

-5- HSIP (Highway Safety Improvement Program) The goal of the program is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance.



-6- NHPP NHS (National Highway Performance Program/National Highway System) consists of roadways important to the nation's economy, defense, and mobility. Bicycle transportation and pedestrian walkways can be built when constructing these facilities. The National Highway System (NHS) includes the following subsystems of roadways :

- A- Interstate Highway System;
- B- Other Principal Arterials;
- C- Strategic Highway Network and Connectors: defense access; and
- D- Intermodal Connectors pedestrian, bike, air, and train systems.

-7- STP (Surface Transportation Program) is the most flexible of all the highway programs and historically one of the largest single programs. States and metropolitan regions may use these funds for highway, bridge, transit (including intercity bus terminals), and pedestrian and bicycle infrastructure projects. The STP is commonly referred to as the federal highway bill that is traditionally renewed every six years. The current bill, Fixing America's Surface Transportation Act or "FAST Act", provides funding from 2016 to 2020. The legislation is the first long term general funding since 2004 and provides bike funding in excess of \$833.7 million for the year 2015 alone.

-8- TAP (The Transportation Alternative Program) expands transportation choices through 12 eligible activities related to surface transportation, including pedestrian and bicycle infrastructure and safety programs, scenic and historic highway programs, landscaping and scenic beautification, historic preservation, and environmental mitigation.

9- RTP (Recreational Trails Program) provides funds to the States to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. FHWA funds the Louisiana Recreational Trails Program through a competitive application process based on the proposed improvement and the state recreational trail plan.

-10- SRTS (Safe Routes To School) funded pedestrian and bike projects connecting neighborhoods with schools through 2012. The current highway legislation did not fund SRTS specifically. Rather, these types of neighborhood school projects are eligible for TAP funds and for Surface Transportation Program (STP) funds.



-11- MPO Planning funding examines past, present, and prospective trends and issues associated with the demand for the movement of people, goods, and information at local, rural, tribal, metropolitan, statewide, national, and international levels. Funding for these functions is provided by the FHWA to DOTD, which in turn provide funds to metropolitan planning organizations (MPOs).

The three primary MPO plans are:

-1- Metropolitan Transportation Plan (MTP): A plan which specifies all future transportation facilities

-2- Staged Improvement Plan : A subset of the MTP that identifies funds for the construction of the 20 year plan (2010 – 2040)

-3- Transportation Improvement Program (TIP): The plan that identifies all projects with federal funding that is to be built within a three year period.

Within each of these plans, facilities can be included that include future bikeways.

-12- 402 (Section 402 State and Community Highway Safety Grant Program), is commonly referred to as Section 402. The program is jointly administered by the National Highway Traffic Safety Administration (NHTSA), FHWA at the federal level and by the DOTD's State Highway Safety Offices (SHSO). The Section 402 program provides grants to states to improve driver behavior and reduce deaths and injuries from motor vehicle-related crashes, including bike crashes with a specific mandate to improve pedestrian and bicycle safety.



-13 FLTPP The Office of Federal Lands Highway (FLH), Transportation Program services the transportation needs of Federal and Indian lands. The FLH currently provides transportation engineering and related services in all 50 states, including Louisiana. The program provides \$1.2 annually for Louisiana projects.



Table 3-0-A

Acadiana Metropolitan Planning Organization

Funding Opportunities by Activity and Granting Agency

No.	ACTIVITY	TIGER	FTA	ATI	CMAQ	HSIP	NHPP NHS
1	Public Transportation Enhance	•	•	•	•		
2	ADA /Transition Plan	•					
3	Bike/ped plans	•	•				
4	Bike lanes	•	•	•	•	•	•
5	Bike Parking	•	•	•	•		•
6	Transit Bike Racks	•	•	•	•		
7	Bike Share	•	•	•	•		•
8	Bike Storage	•	•	•	•		
9	Bike/Ped Bridges	•	•	•	•	•	•
10	Bus shelters	•	•	•	•		
11	Data collection	•	•	•		•	•
12	Helmet promotion						
13	Bike/Ped Historic Preserve	•	•	•			
14	Landscaping	•	•	•			
15	Lighting	•	•	•		•	•
16	Maps		•	•	•		
17	Paved shoulders	•			•	•	•
18	Recreational trails	•					
19	Safety brochures, books						
20	Safety education positions						
21	Separated Bike lanes	•	•	•	•	•	•
22	Sharrows	•	•	•	•	•	•
23	Sidewalks	•	•	•	•	•	•
24	Signage & signals	•	•	•	•	•	•
25	Signed Bike/Ped Routes	•	•	•	•		•
26	Ped/Bike Stormwater	•	•	•		•	•
27	Traffic calming	•	•			•	•
28	Trail bridges	•			•	•	•
29	Trail/Hwy intersections	•			•	•	•
30	Training				•		
31	Ped/Bike Tunnels	•	•	•	•	•	•

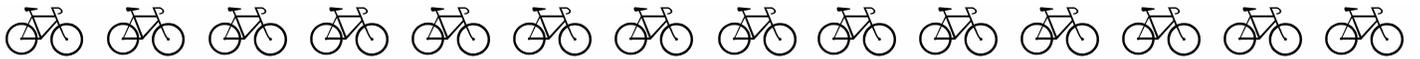


Table 3-0-B							
Acadiana Metropolitan Planning Organization							
Funding Opportunities by Activity and Granting Agency							
No.	ACTIVITY	STP	TAP	RTP	MPO	402	FLTT P
1	Public Transportation Enhance	•	•				•
2	ADA /Transition Plan	•	•	•	•		•
3	Bike/ped plans	•	•		•		•
4	Bike lanes	•	•				•
5	Bike Parking	•	•	•			•
6	Transit Bike Racks	•	•				•
7	Bike Share	•	•				•
8	Bike Storage	•	•				•
9	Bike/Ped Bridges	•	•	•			•
10	Bus shelters	•	•				•
11	Data collection	•	•	•	•		•
12	Helmet promotion	•	•			•	
13	Bike/Ped Historic Preserve	•	•				•
14	Landscaping	•	•				•
15	Lighting	•	•	•			•
16	Maps	•	•				
17	Paved shoulders	•	•				•
18	Recreational trails	•	•	•			•
19	Safety brochures, books	•	•			•	
20	Safety education positions	•	•			•	
21	Separated Bike lanes	•	•				•
22	Sharrows	•	•	•			•
23	Sidewalks	•	•	•			•
24	Signage & signals	•	•				•
25	Signed Bike/Ped Routes	•	•				•
26	Ped/Bike Stormwater	•	•	•			•
27	Traffic calming	•	•				•
28	Trail bridges	•	•	•			•
29	Trail/Hwy intersections	•	•	•			•
30	Training	•	•	•		•	
31	Ped/Bike Tunnels	•	•	•			•



4-0 Goals and Objectives of the Bikeway Plan

The Bikeway Plan is designed to serve as a guide for the development of a safe, interconnected, and efficient bikeway transportation system.

The Bikeway Plan has goals, objectives and strategies to implement improvements.

A goal is a general statement of a future condition which is considered desirable for the community; it is an end towards which actions are aimed.

An objective is a statement of a measurable activity to be accomplished in the pursuit of a goal; it refers to some specific aspiration which is reasonably attainable.

A strategy is a suggested proposal to do something that relates directly to accomplishing the objective; it identifies the how, where, and amount which may be done.





Goal 1 – Promote bicycling and reduce dependency on single-occupant vehicles

- Objective 1: The MPO organizes a Bicycle Subcommittee.
- Objective 2: The MPO appoints a volunteer bicycle coordinator for the metropolitan area to aid in the preparation of this plan.
- Objective 3: The MPO and its planning partners adopt and implement land use patterns, zoning requirements, and urban design guidelines that are compatible with non-motorized travel.
- Objective 4: The MPO and its planning partners provide appropriate accommodations for bicycle travel and parking at public locations such as schools, transit stops, parks, etc.
- Objective 5: The MPO uses the bikeways previously identified by the Bicycle Subcommittee and begin the implementation of their recommendations.
- Strategy 1: The MPO utilize the Bicycle Subcommittee and public comment to identify bikeways where the need is greatest and is financially within grasp.
- Objective 6: The MPO will work with other local governments and organizations promote National Bike Month and Bicycle Commuting by proclaiming Bike Month, and advertising Bike To Work day.





Goal 2 – Provide safe bicycle transportation

Objective 1: Local police agencies enforce laws and regulations pertaining to proper road usage of motorists and bicyclists.

Strategy 1 – Work with local police agencies through the Acadiana Regional Transportation Safety Coalition.

Objective 3: The community reduces the rate of bicycle-pedestrian and bicycle-vehicle conflicts.

Strategy 1: The MPO and its planning partners educate the community on laws pertaining to bicycles

Strategy 2: The MPO municipalities provide signage and infrastructure that will reduce these conflicts.

Objective 4: MPO collects and analyzes accident and injury data and apply findings in implementation of the Bikeway Plan.

Objective 5: The MPO identify and correct risks to bicyclists associated with such features as inlet grates, rail crossings, pavement joints, etc.

Strategy 1: The MPO and its planning partners give community volunteers a checklist to audit predetermined places.

Objective 6: The community develops an increase awareness of non-motorized travel and bicycle laws, such as bicycle registration, riding on the proper side of the road, passing a bicyclist safely, and more.





Goal 3 – Plan, construct, and maintain connected bikeway facilities

- Objective 1: The MPO Bicycle Subcommittee has identified bicycle routes that can now be integrated into local transportation planning, and the MPO Policy Committee has adopted a MPO Complete Streets policy to take into account requirements for bikeways in new street construction in appropriate areas.
- Objective 2: The MPO identifies funding for implementation and maintenance of facilities and programs by researching grants to fit the needs identified by the Bicycle Subcommittee and community volunteers.
- Objective 3: The MPO ensures the availability of a comprehensive set of design guidelines for bicycle facilities, as well as the compliance of all projects to the guidelines.
- Objective 4: The MPO municipalities identify and replace inadequate signage for the bikeway system by having a government agency audits and a public reporting system.
- Objective 5: The MPO and its planning partners work together to construct connecting routes between existing bike facilities by utilizing the routes identified by the Bicycle Subcommittee.
- Objective 6: The MPO will seek partnerships with local entities (businesses, universities, non-profit organizations, etc.) to assist in planning and implementation.
- Objective 7: The MPO implement a bicycle count program to measure successes of completed projects and identify where new projects are most needed.
- Strategy 1: Use community volunteers once a year to count 5 or more areas identified by the Bicycle Subcommittee for two days, 2 hours from 8-10am and hours from 4-6pm, on a Tuesday, Wednesday, or Thursday.
- Objective 8: The MPO will develop a set of maintenance guidelines using current national trends.
- Objective 9: Bikeway users and neighbors to report maintenance problems to the proper authorities.
- Strategy 1: The MPO municipalities provide the information to the public on the website related to maintenance issues.
- Objective 10: The MPO develop performance measures for implementation of the Bikeway Plan using current national trends.
- Objective 11: Prepare for five year updates to the Bike Plan by annual review of Section 6-0 Implementation Strategies to identify and perform actions .



5-0 Implementation Strategies

Bike planning professionals and the bike community can collect information during the period between five year updates by collection annual sets of data as described below:

5-1 Collecting and analyzing physical data:

- 1 The number of points of access to the facility
- 2 The directness of the route between trip origins and destinations
- 3 The presence of any physical barriers, such as interstate highways and railroad tracks
- 4 The number of delays along the route, such as the frequency and location of stop signs
- 5 The presence of steep grades and blind curves along the route

5-2 Collecting and analyzing road use data:

- 1 The number of potential conflicts (accidents) between the bicyclist and motor vehicles.
- 2 Traffic volumes and speeds along the proposed bicycle facility
- 3 The number of large trucks and buses using the proposed bicycle facility
- 4 The pavement surface quality
- 5 Whether proper maintenance can be provided
- 6 Whether parking is allowed along the road
- 7 Encourage bike safety classes

5-3 Identifying and proposing locations with certain needs:

- 1 Adequate and secure bicycle parking facilities
- 2 Adequate lighting
- 3 Enforcement of bicycle regulation
- 4 Enforcement of traffic laws for both cyclist and motorist

5-4 Identifying locations where the esthetic bike experience can be improved:

- 1 The proximity to concentrations of air pollution
- 2 The scenic value along a particular route
- 3 Bike destinations and their interconnections using these preceding guidelines.

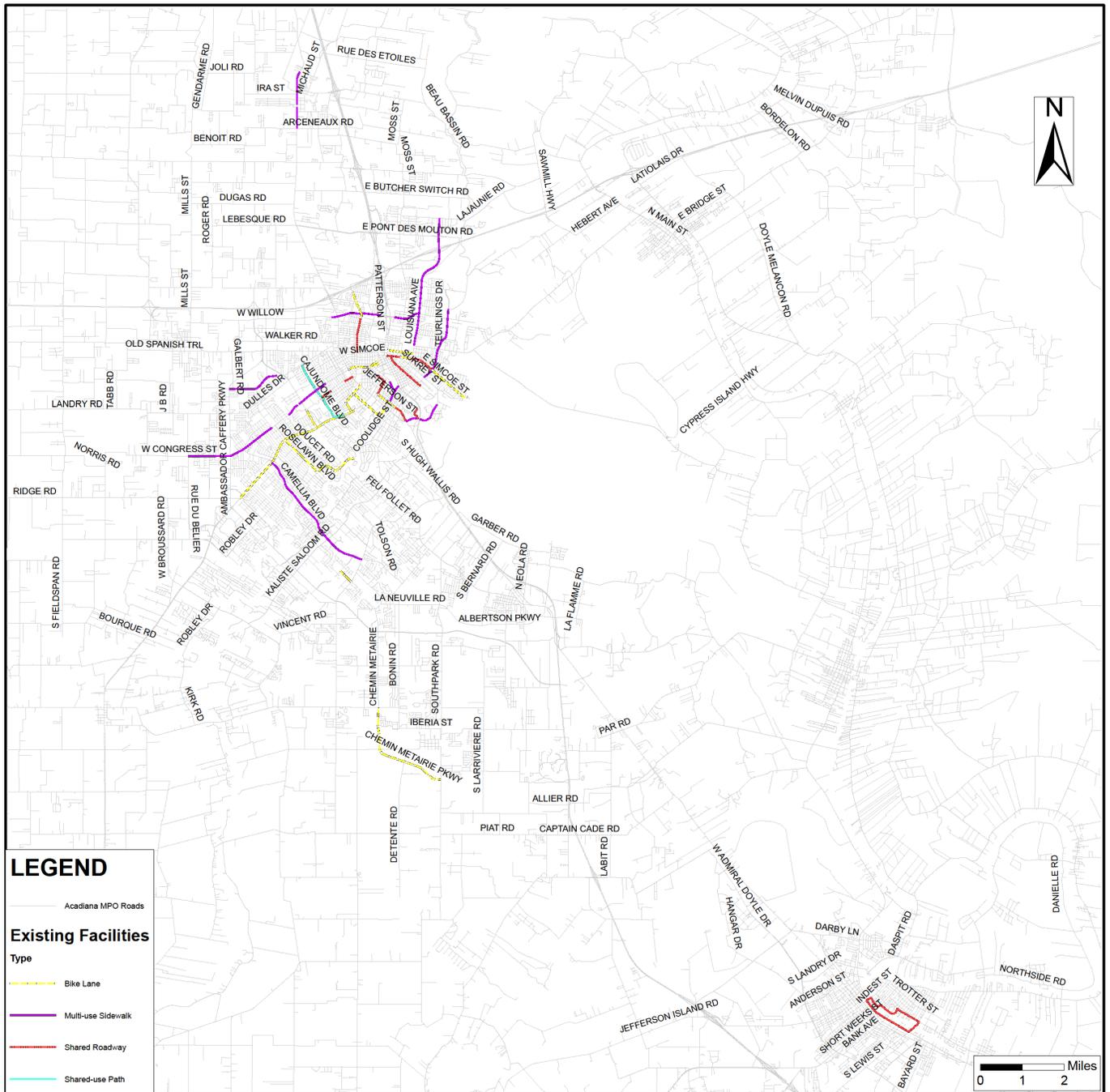


6.0 Map Inventory of Bike Facilities

Through public engagement, the MPO has developed a series of proposed bikeways for the Acadiana MPO planning area. In addition, the MPO has created a series of maps to help facilitate the planning process for future bikeways. Those maps are indicated by the letter “B” preceding the map title. These maps can also be utilized by cyclists to develop their own routes for traveling through the area.

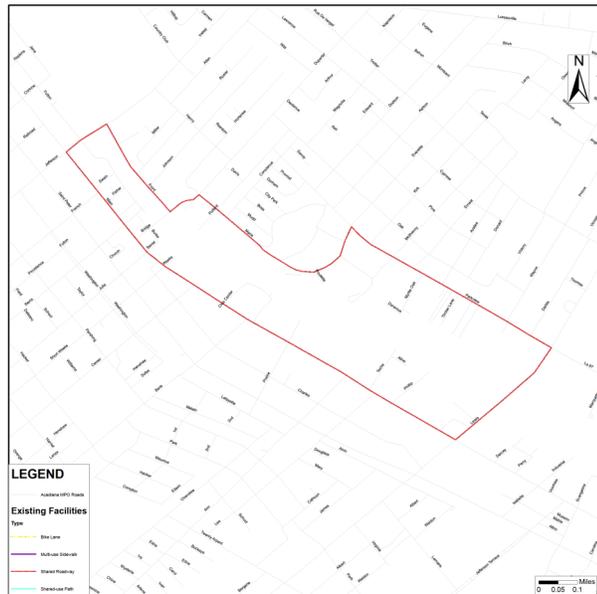
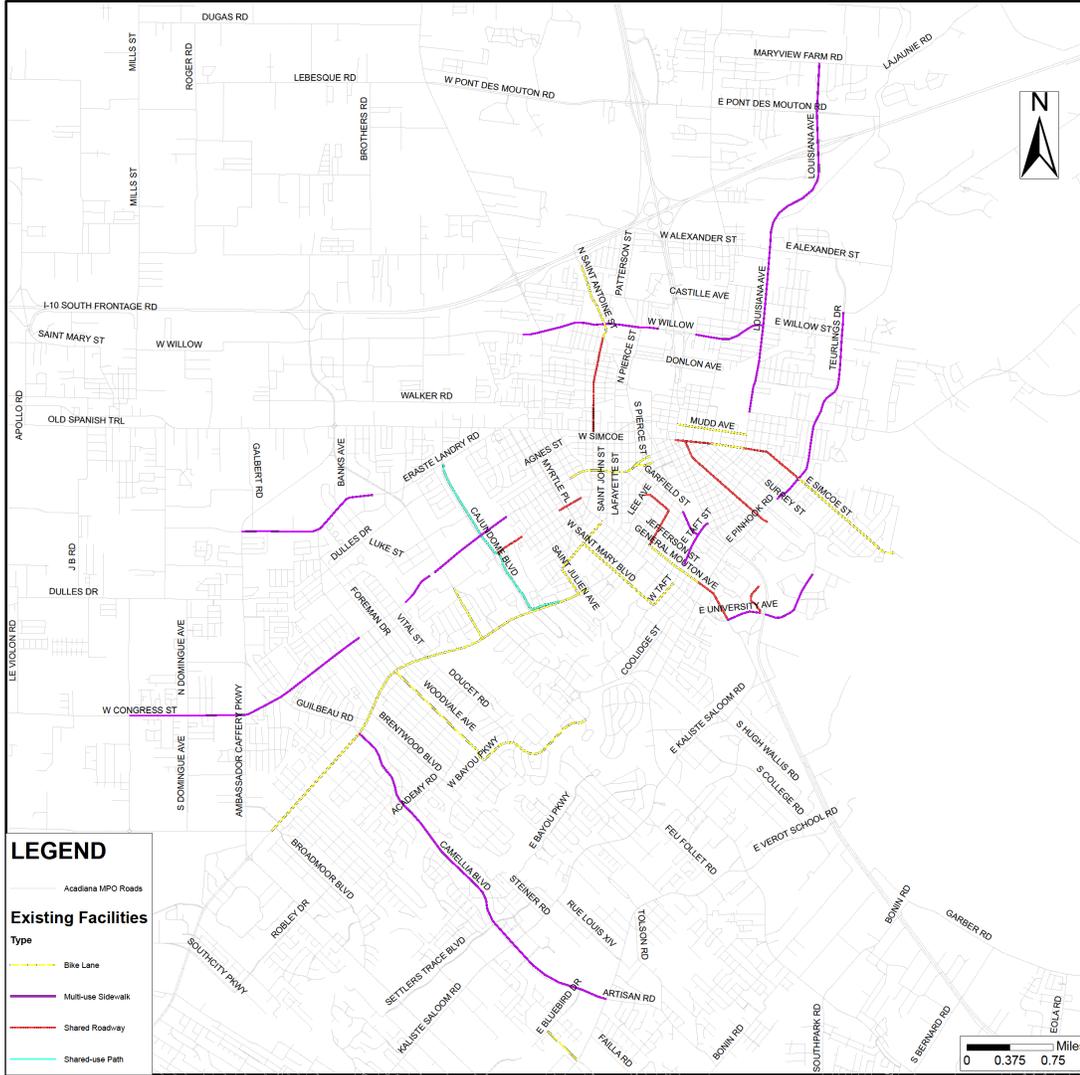


Map 1: Existing Bike Facilities depicts existing and proposed bikeways for the planning area .



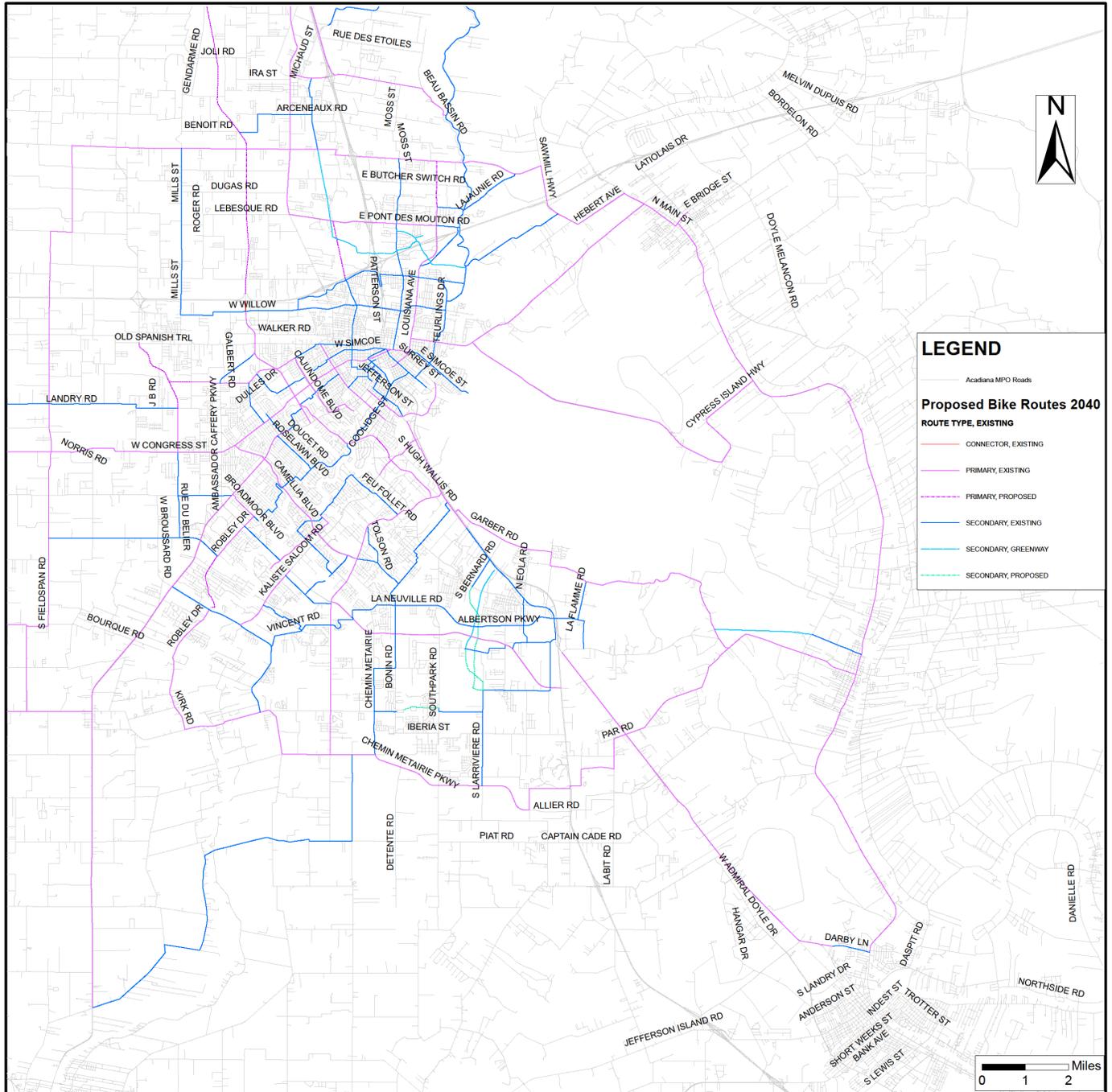


Map 2: Urban Areas Existing Bike Facilities focuses on the City of Lafayette's and New Iberia's existing bike network



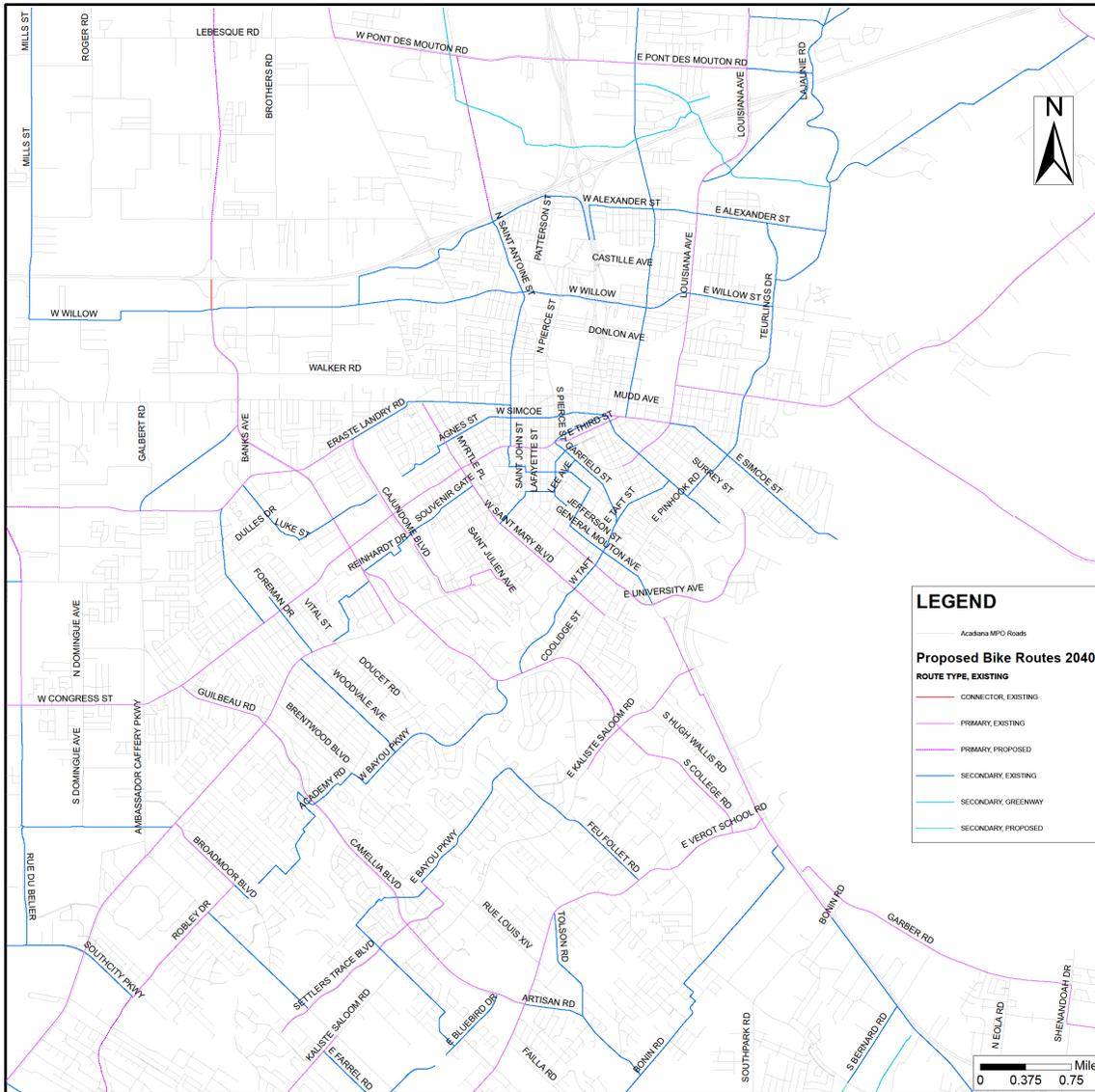


Map 3: Proposed 2040 Bike Facilities depicts bike facilities that have been proposed and evaluated as part of the 2040 Bike Plan



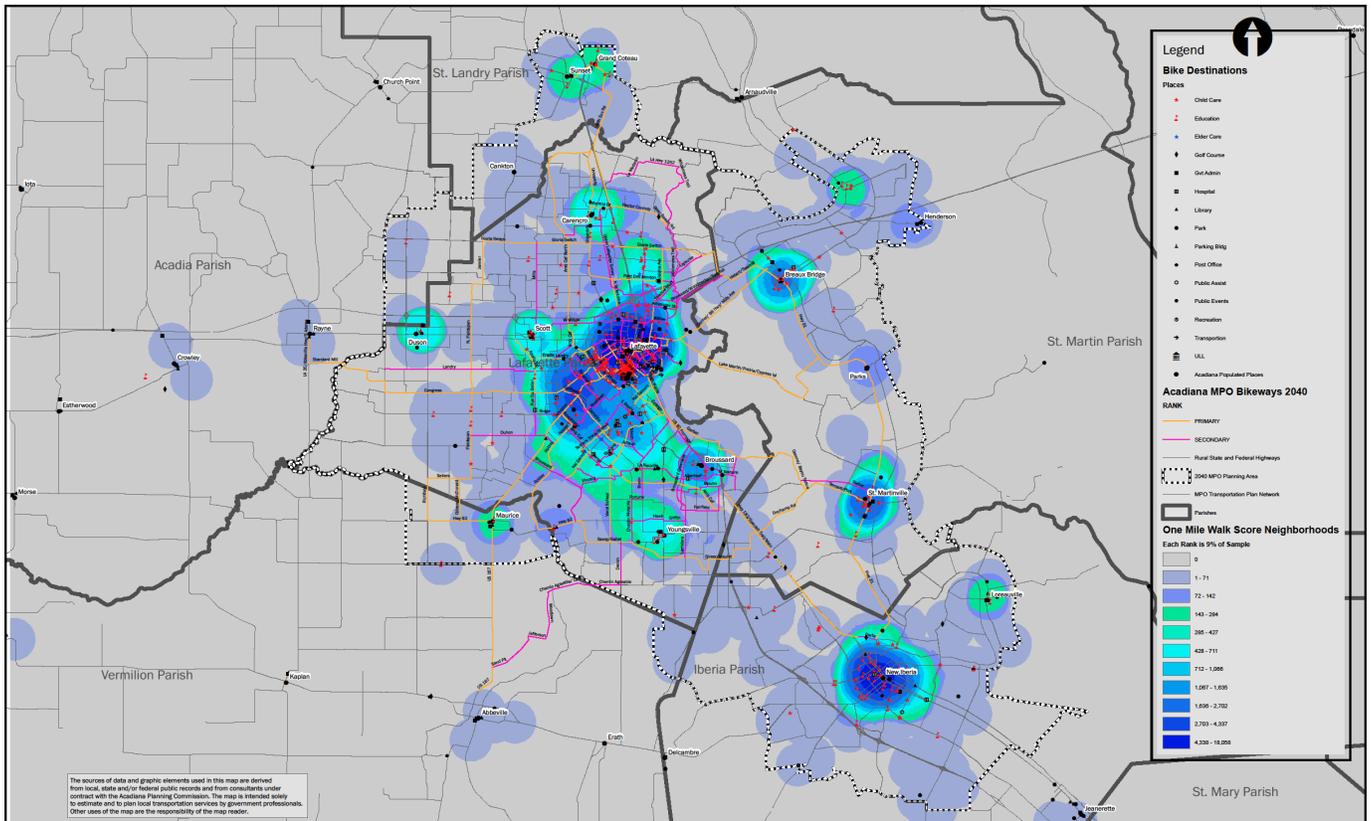


Map 4: Urban Areas 2040 Bike Facilities depicts bike facilities that have been proposed in the City of Lafayette and New Iberia as part of the 2040 Bike Plan





Map B-1: Bike Destinations depicts destinations that might be traveled by bike as classified into the following categories: child care, education, elder care, golf courses, government administration, hospitals, library, park, parking building, post office, public assistance application office, public events facilities, recreation, transportation and the University of Louisiana at Lafayette. The map utilizes a Walk Score map as described in Section 4-0 Walk Scores as Applied to Bike Planning. Additionally, the map shows the location and type of destinations.

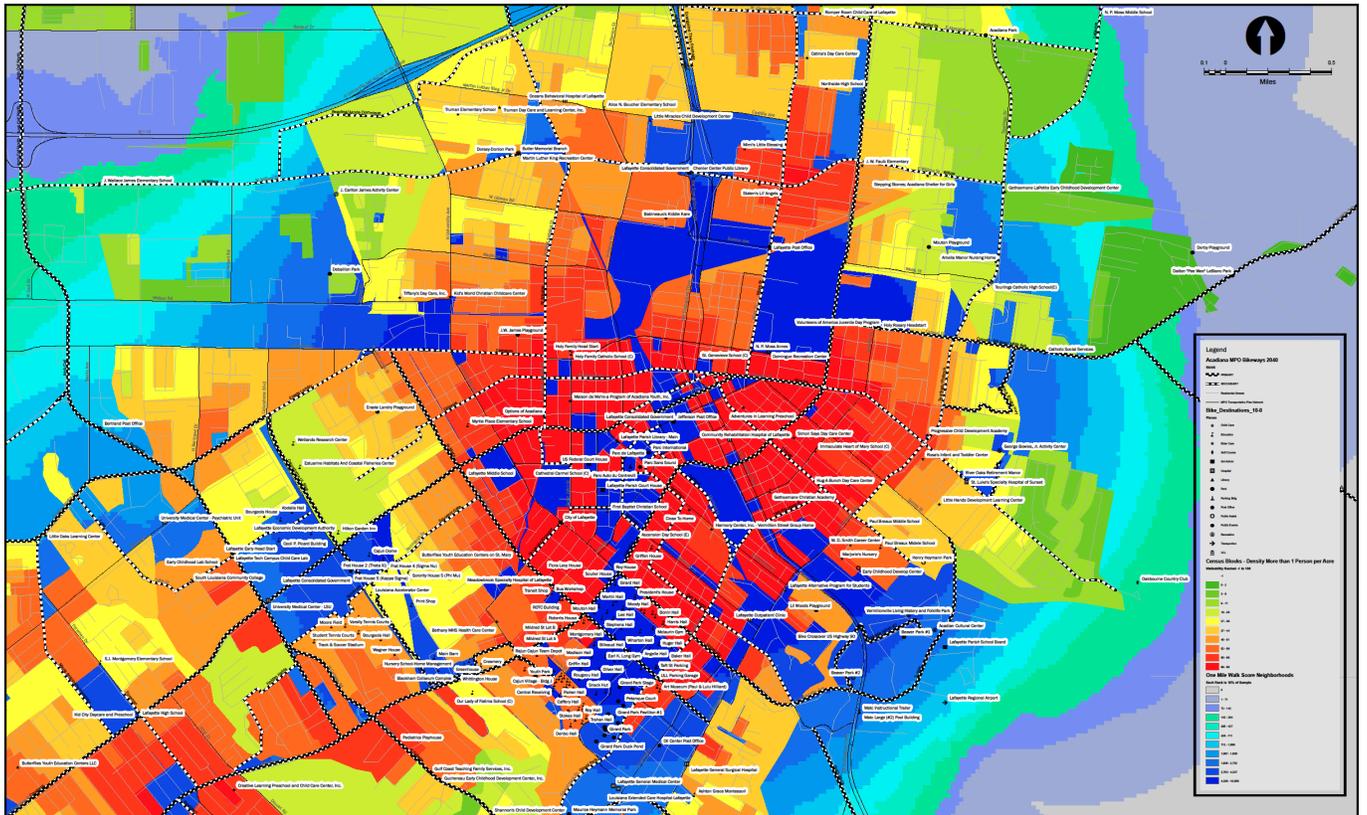


The sources of data and graphic elements used in this map are derived from local, state and/or federal public records and from consultants under contract with the Acadiana Planning Commission. The map is intended solely to estimate and to plan local transportation services by government professionals. Other uses of the map are the responsibility of the map reader.

	2040 BIKE PLAN Bike Transportation Network Bike Destinations	Map No.	Project Number: 26280-017-01-01-04
		9	Plan/Eng: MUL Chk: CDC Apprv: MB Date: 11/25/2015 Miles: 1 In. = 1.89 Mi. 1 In. = 10,000 FT.



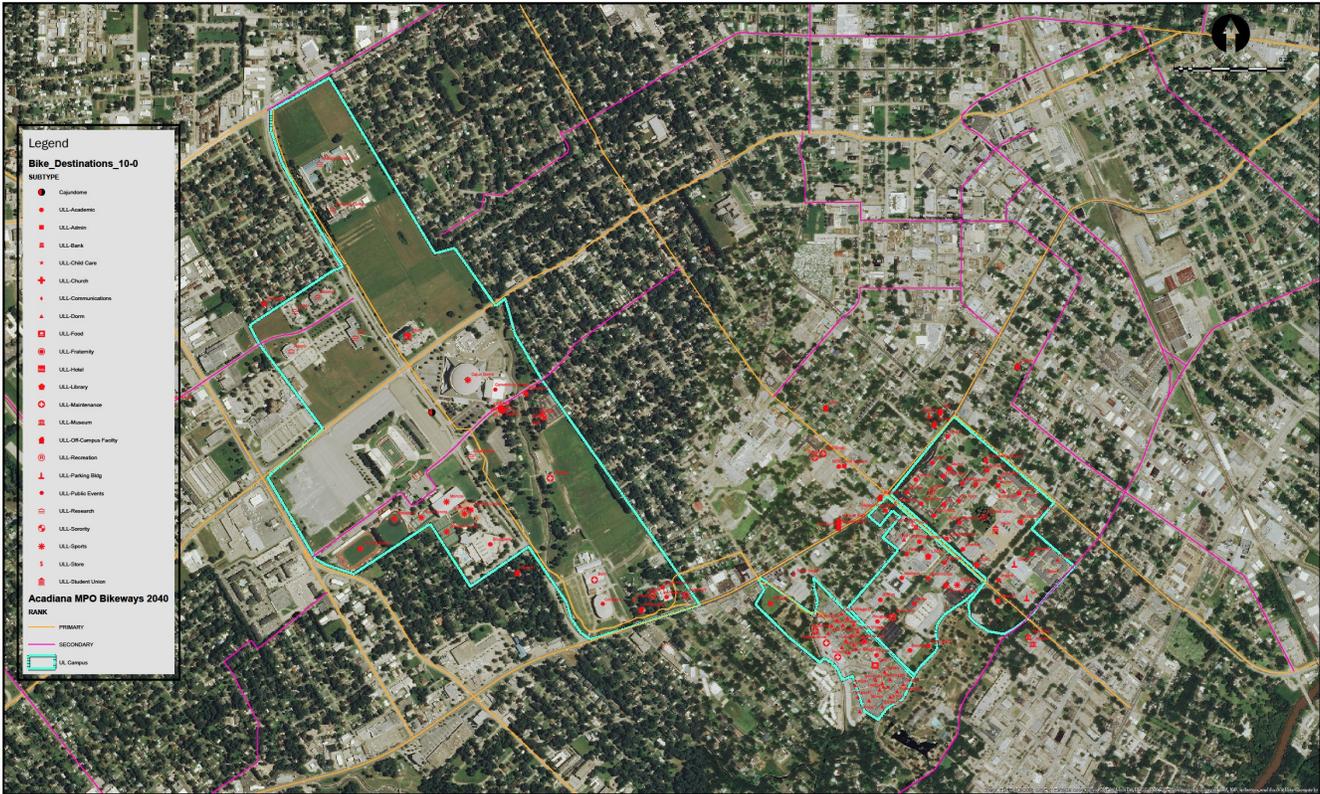
Map B-2: Bike Destinations and Walkability in Lafayette shows two color theme maps showing Walk Scores as applied to bike planning. The As described in Section 4-6 Walk Score and Walk Sheds, under-laying them shows overlapping circles for bike sheds as does the map directly above. These overlapping circle total the Walk Scores within high dense blue area ranging downward to light blue areas for low Walk Scores. Each color is 10% of the Walk Scores. However, a second map is overlaid using census blocks. These blocks show individual Walk Scores with each color ranging from high reds to low greens with representing 10% of the sample. The primary bikeways for long distance travel and secondary bikeways for neighborhood travel are shown above these layers.



	2040 BIKE PLAN Bike Transportation Network Bike Destinations and Walkability in Lafayette	Map No.	Project Number: 26280-017-01-01-04
		10	Plan/Eng: MJL Chik: CDC Apprv: MB Date: 11/25/2015 Miles: 1 in. = 0.19 Mi. 1 in. = 1,000 Ft.



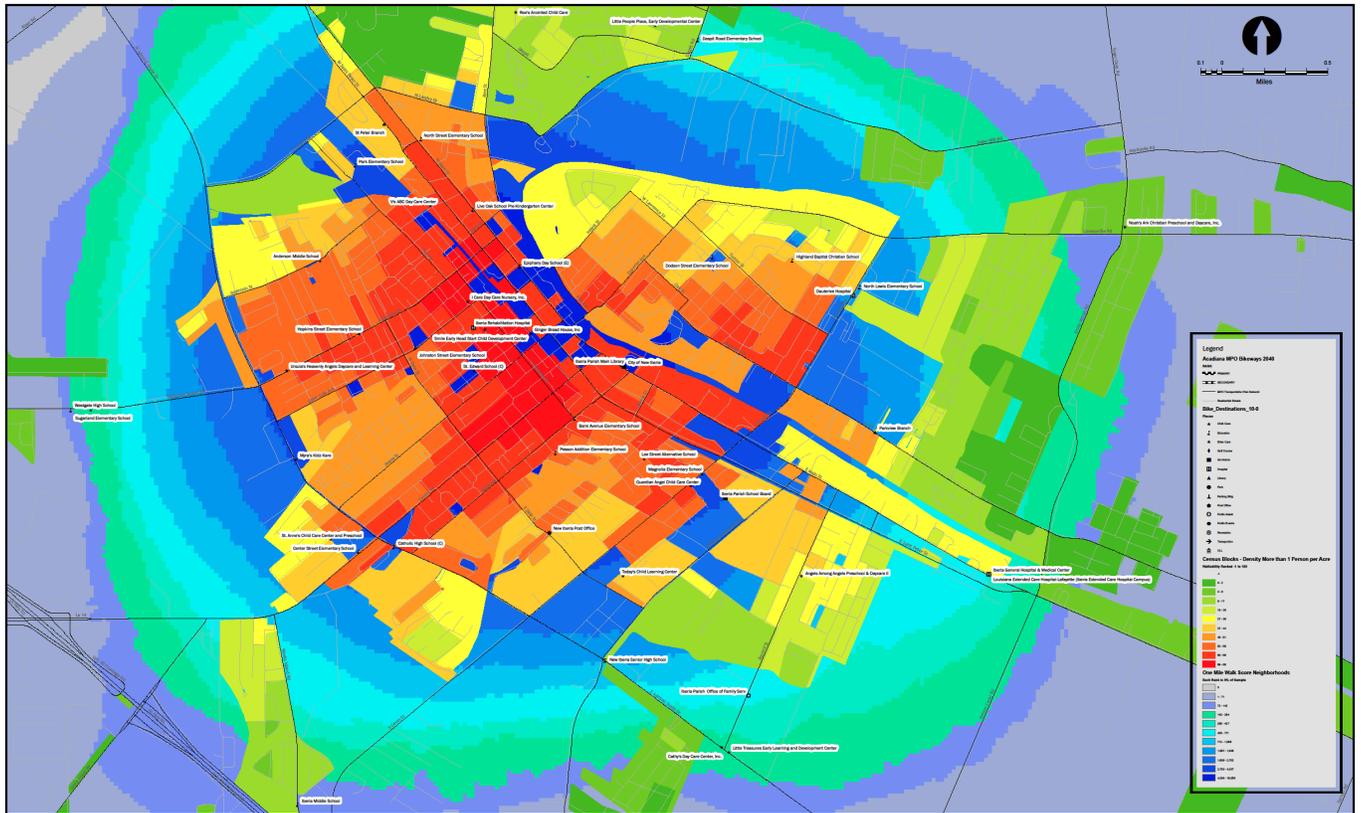
Map B-3: University of Louisiana at Lafayette shows the destinations as classified by function of buildings on the main campus on Saint Mary Street as well as on the athletic campus on Cajun Dome Boulevard. The bikeways and destinations are overlaid on an aerial map.



	2040 BIKE PLAN Bike Transportaiton Network University of Louisiana at Lafayette		Project Number: 26280-017-01-01-04 Plan/Eng: MJL Chk: CDC
	Map No. 11	Apprv: MB Date: 11/25/2015 Miles: 1 in. = 0.09 MI. 1 in. = 500 FT.	



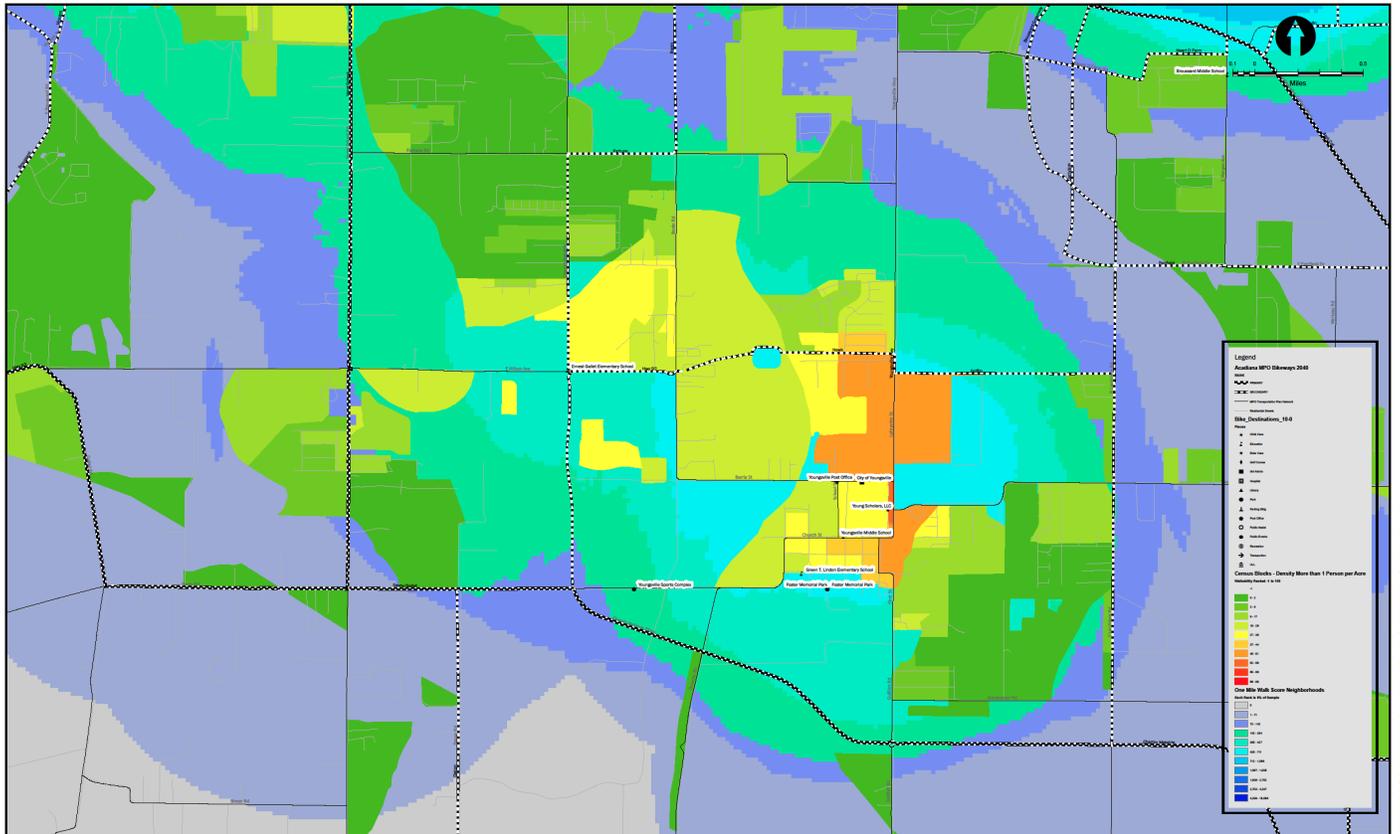
Map B-4: Bike Destinations and Walkability in New Iberia utilizes the same color theme as Map 10. The same pattern located in Lafayette is present in New Iberia. Red Census blocks with high Walk Scores adjoin deep blue overlapping circles depicting dense Walk Sheds. Similarly, mid to low tones of orange and yellow trending into green are associated with Walk Sheds with low scores. Desirable destinations for bike trips are shown typically in the red areas with the higher Walk Scores.



	2040 BIKE PLAN Bike Transportation Network Bike Destinations and Walkability in New Iberia		Map No.	Project Number: 26280-017-01-01-04
			10	Plan/Eng: MJL CHK: CDC Apprv: MB Date: 11/25/2015 Miles: 1 in. = 0.19 Mi. 1 in. = 1,000 Ft.



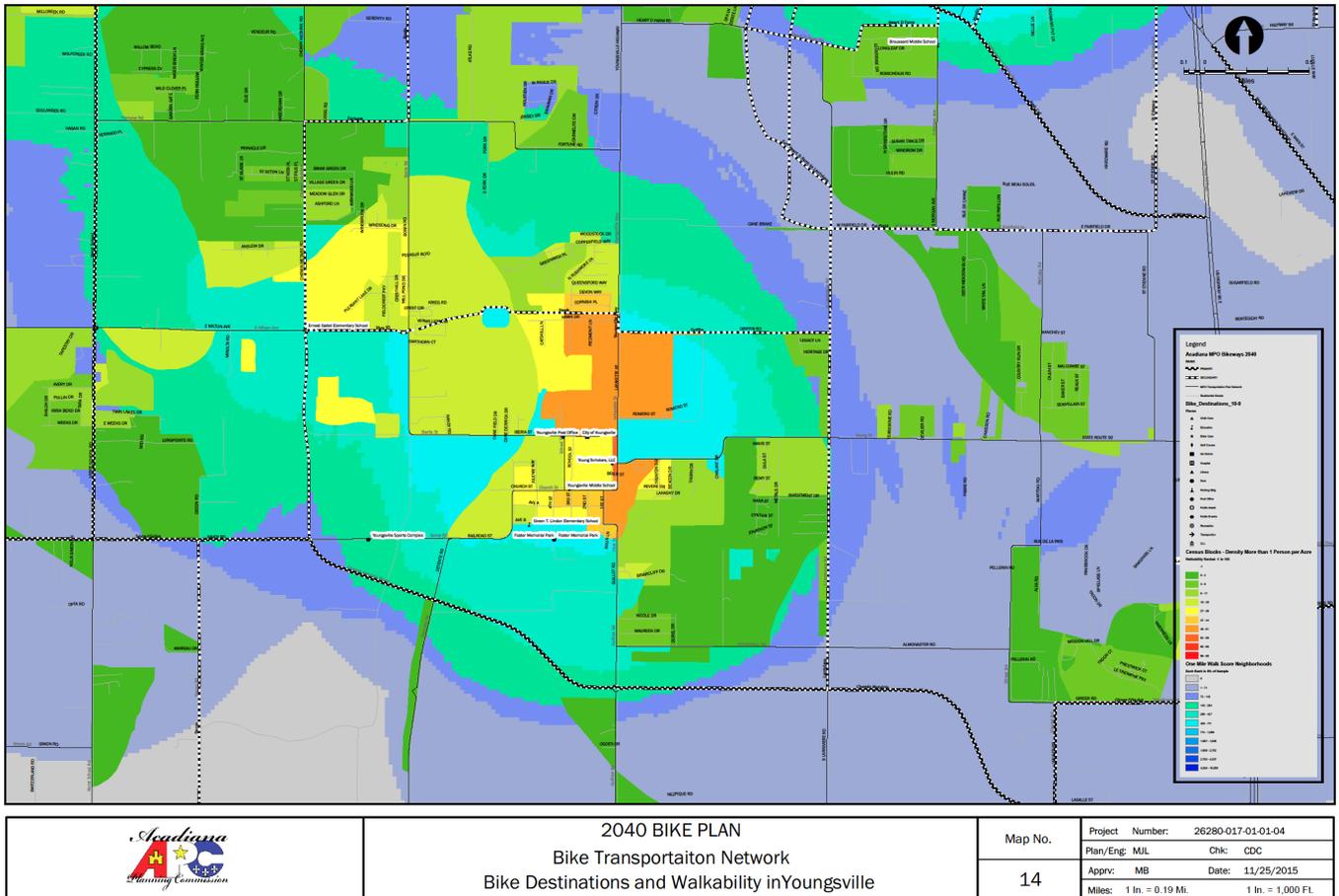
Map B-5: Bike Destinations and Walkability in Broussard utilizes the same color scheme as Map 10 and 12. However, the higher scores reds with underlying deep blues found on the previous maps are not found in the less walkable and less bikeable City of Broussard. Rather, the lower Walk Scores of light blues are associated with low to middle tones of yellows trending to greens.



	2040 BIKE PLAN Bike Transportation Network Bike Destinations and Walkability in Broussard	Map No.	Project Number: 26280-017-01-01-04
		12	Plan/Eng: MUL Chk: CDC Apprv: MBB Date: 11/25/2015 Miles: 1 In. = 0.19 Mi. 1 In. = 1,000 Ft.

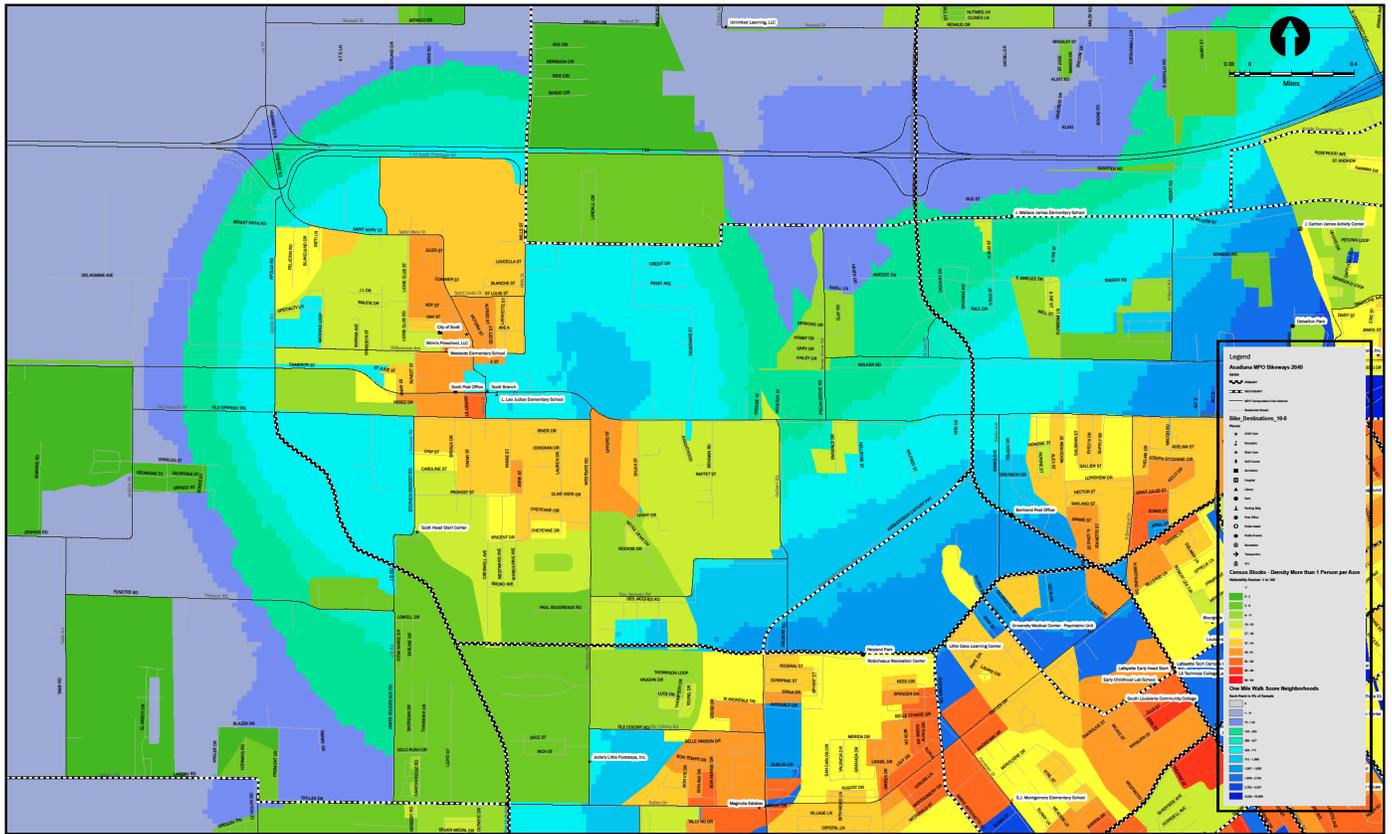


Map B-6: Bike Destinations and Walkability in Youngsville utilizes the same colors themes as does Map B-5 for Broussard. The two towns are near one another and have similar Walk Scores. However, the City of Youngsville has invested heavily in bike routes unlike the City of Broussard. These primary routes circle around the periphery of the city. There are few secondary routes connecting the area with the highest walk scores.





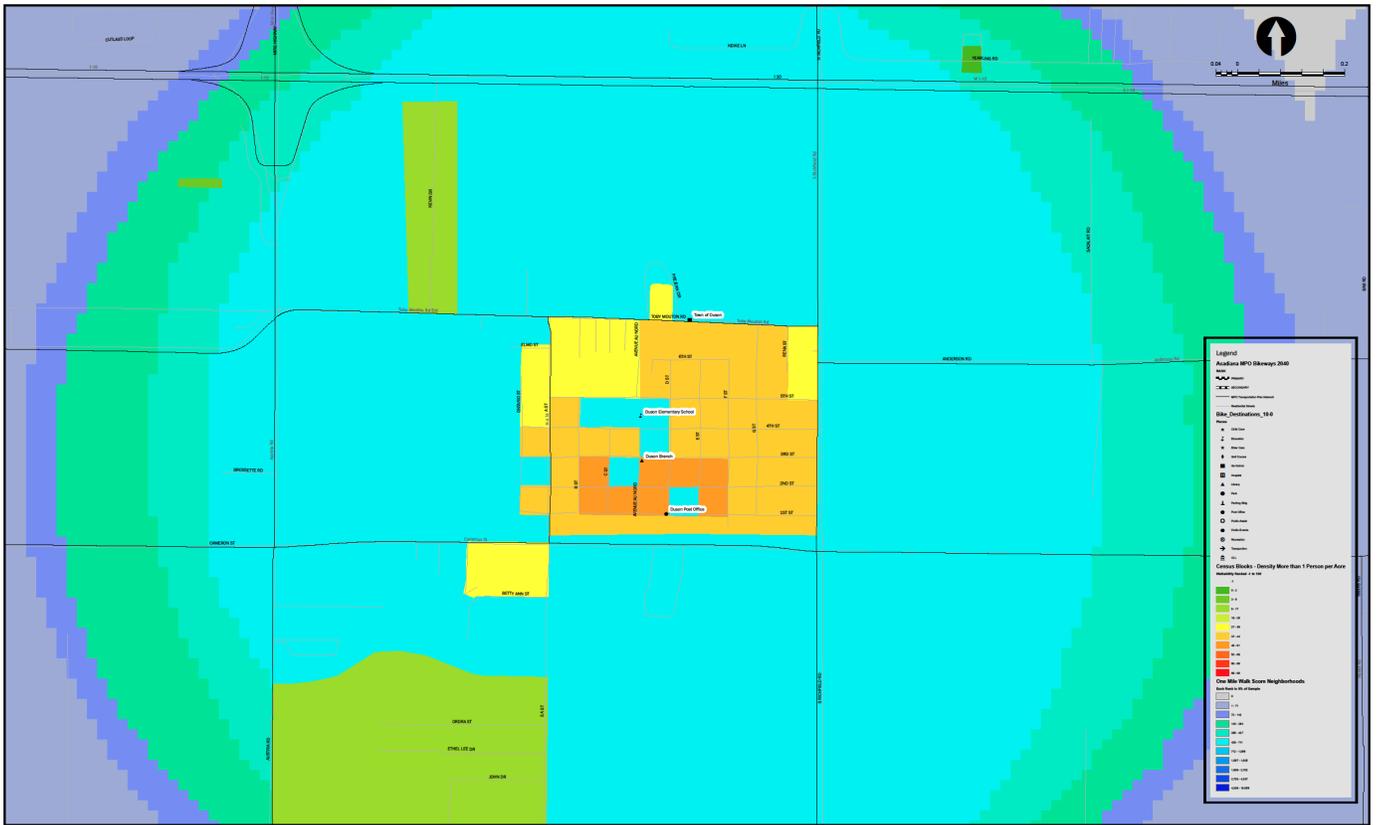
Map B-7: Bike Destinations and Walkability in Scott utilizes the same color themes as the previous maps. The pattern of low investment in bike facilities and their location in the periphery is similar to Broussard.



	2040 BIKE PLAN Bike Transportation Network Bike Destinations and Walkability in Scott		Project Number: 26280-017-01-01.04 Plan/Eng: MJL Chk: CDC Apprv: MB Date: 11/25/2015 Miles: 1 in. = 0.16 Mi. 1 in. = 833 Ft.
	Map No.	15	



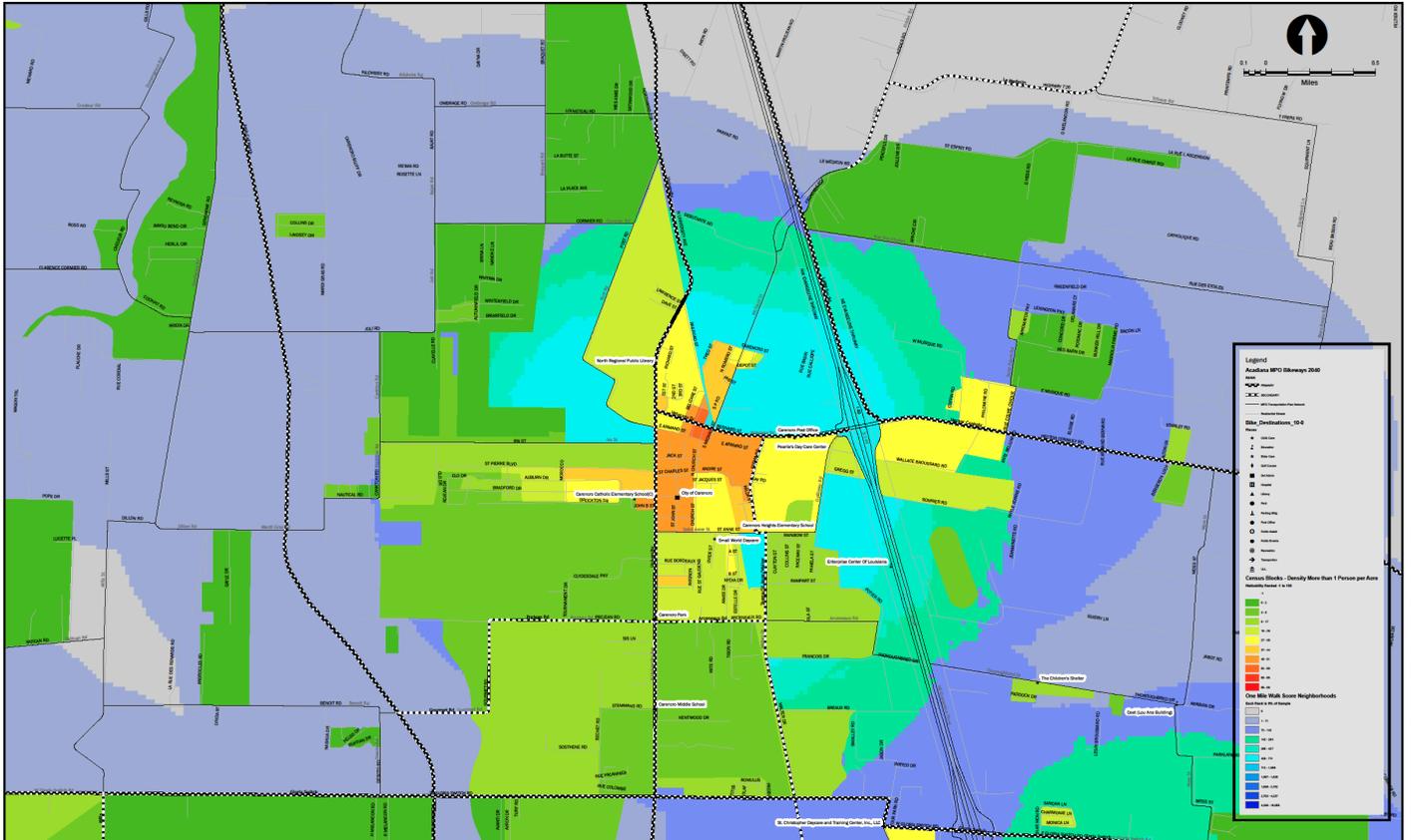
Map B-8: Bike Destinations and Walkability in Duson utilizes the same color themes as the previous maps. No primary or secondary bikes routes connect to the center or the periphery of the town.



	2040 BIKE PLAN Bike Transportation Network Bike Destinations and Walkability in Duson		Project Number: 26280-017-01-01-04 Plan/Eng: MJL Chk: CDC Apprv: MB Date: 11/25/2015 Miles: 1 in. = 0.08 Mi. 1 in. = 400 Ft.
	Map No. 16		



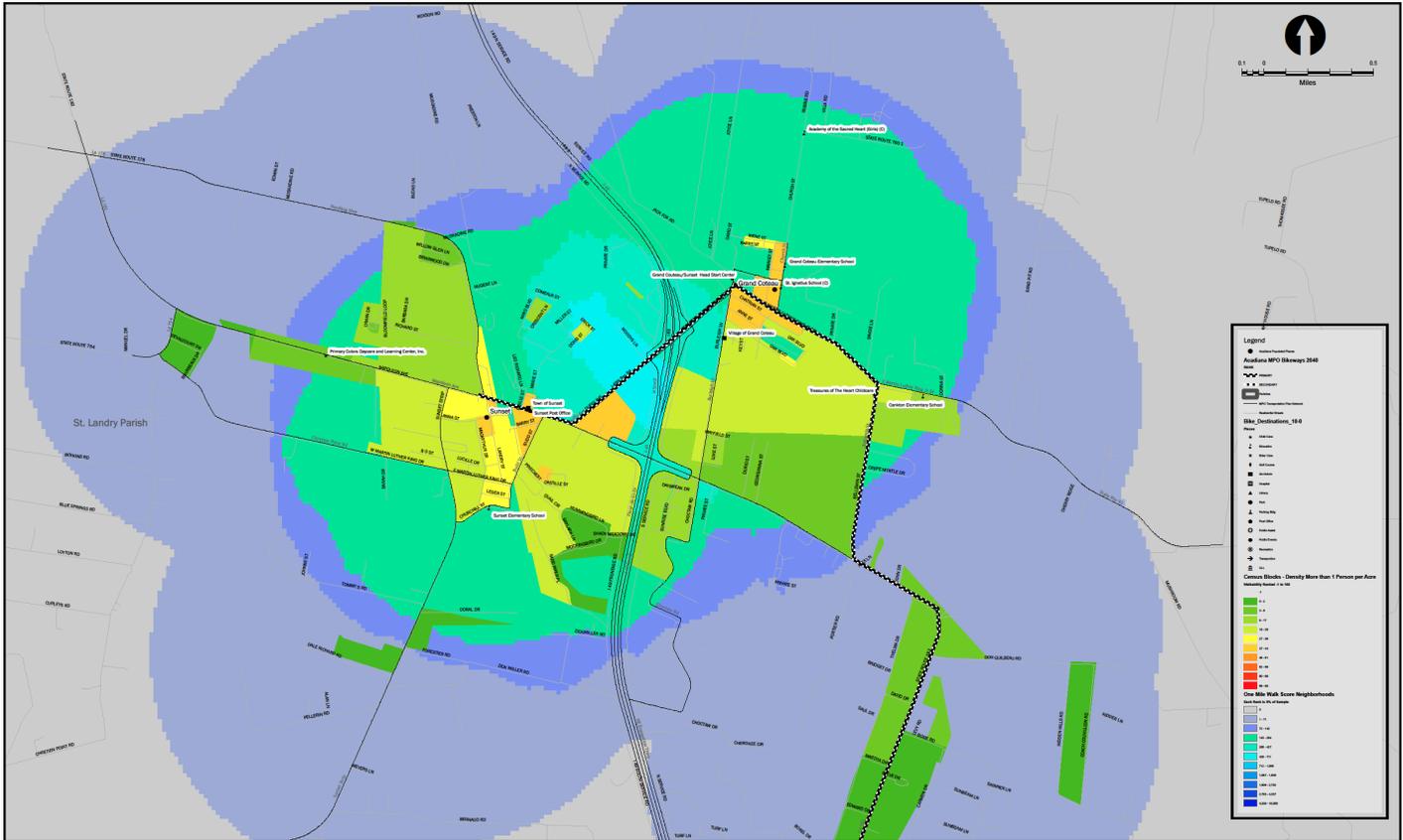
Map B-9: Bike Destinations and Walkability in Carencro utilizes the same color themes as the previous maps. The distribution of Walk Scores and Walk Sheds are similar to Youngsville in that both cities has good connectivity to primary and secondary routes, but have low Walk Scores in the town centers.



	2040 BIKE PLAN Bike Transportation Network Bike Destinations and Walkability in Carencro	Map No. 17	Project Number: 26280-017-01-01-04 Plan/Eng: MJL Chk: CDC Apprv: MB Date: 11/25/2015 Miles: 1 in. = 0.19 Mi. 1 in. = 1,000 Ft.



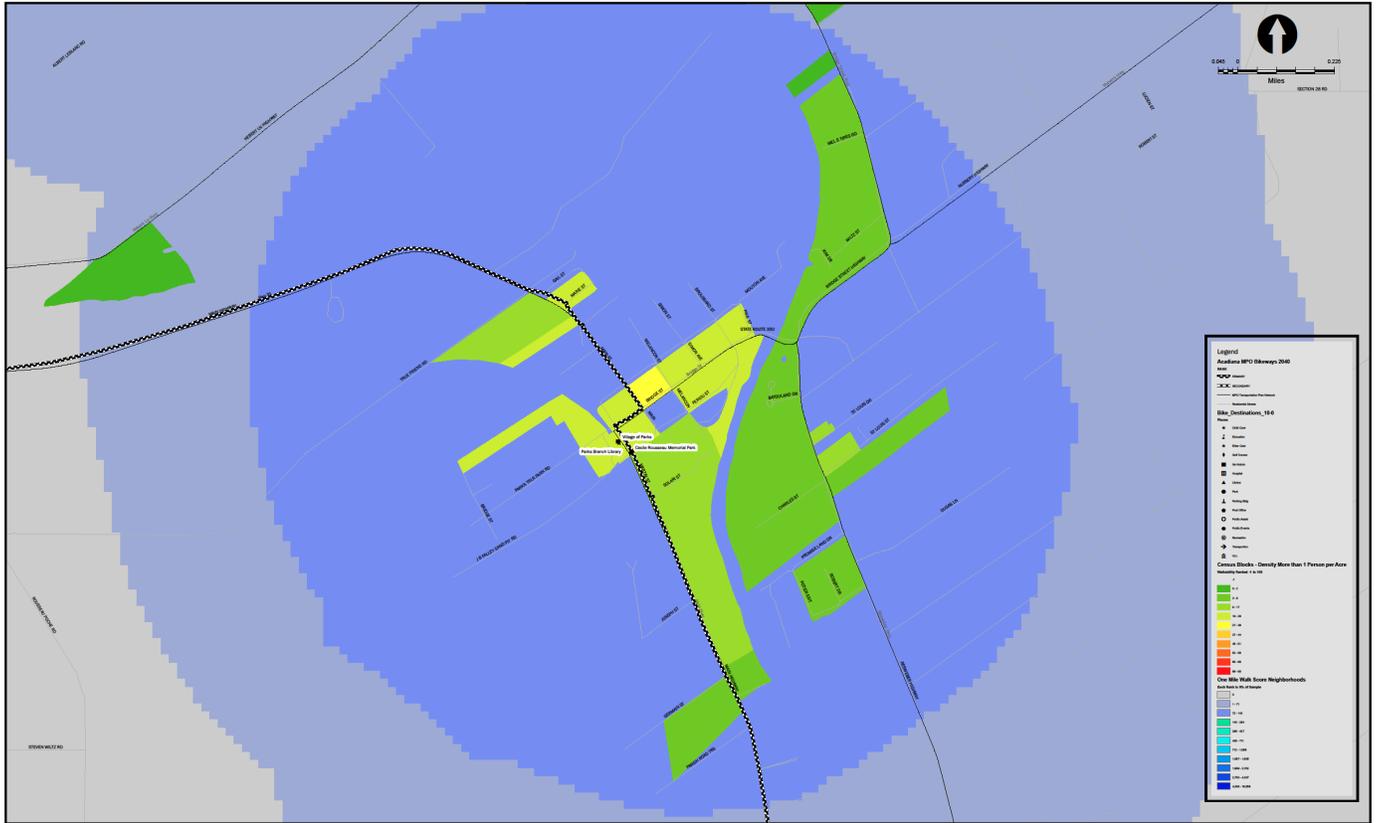
Map B-10: Bike Destinations and Walkability in Sunset and Grand Coteau utilizes the same color themes as the previous maps. The larger Town of Sunset (population 2,897) is located to the west, where the sun sets. The smaller Village of Grand Coteau (population 1,040) is located to the east and was founded in the 1870's, nearly 50 years earlier than the Town of Sunset. The distribution of Walk Scores in these two municipalities is very much like Broussard, with its unfocused sprawl.



	2040 BIKE PLAN Bike Transportation Network Bike Destinations and Walkability in Sunset & Grand Coteau		Map No.	Project Number: 26280-017-01-01-04
			18	Plan/Eng: MJL Chk: CDC
				Apprv: MB Date: 11/25/2015
				Miles: 1 in. = 0.19 Mi. 1 in. = 1,000 Ft.



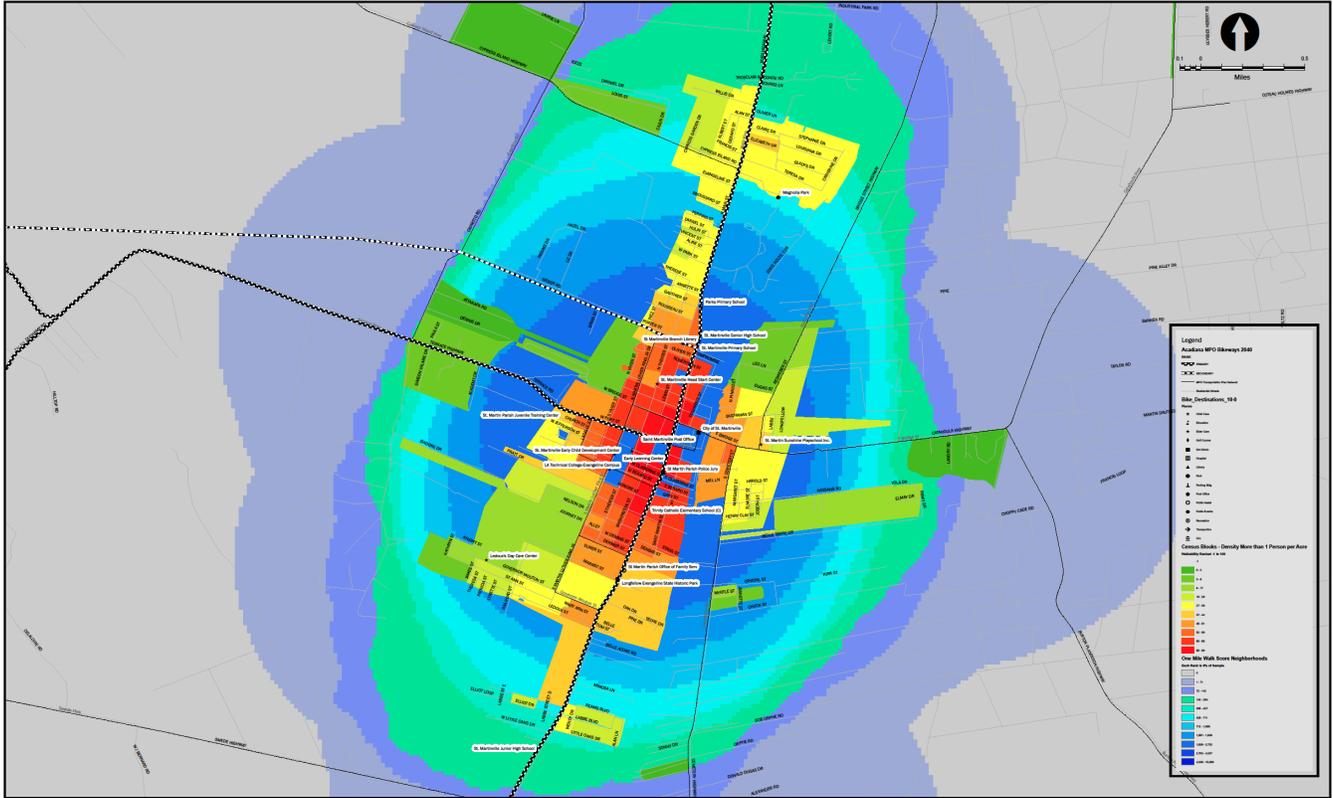
Map B-12: Bike Destinations and Walkability in Parks utilizes the same color themes as the previous maps. The town is the smallest with its population at 533 being about half the size of Grand Coteau, the next to smallest municipality mapped. As can be seen town has low Walk Scores and low Walk Shed values as indicated by greens and middle tone blues.



	2040 BIKE PLAN Bike Transportation Network Bike Destinations and Walkability in Parks		Project Number: 26280-017-01-01-04 Plan/Eng: MJL Chk: CDC Apprv: MB Date: 11/25/2015 Miles: 1 in. = 0.09 Mi. 1 in. = 500 Ft.
	Map No. 19		



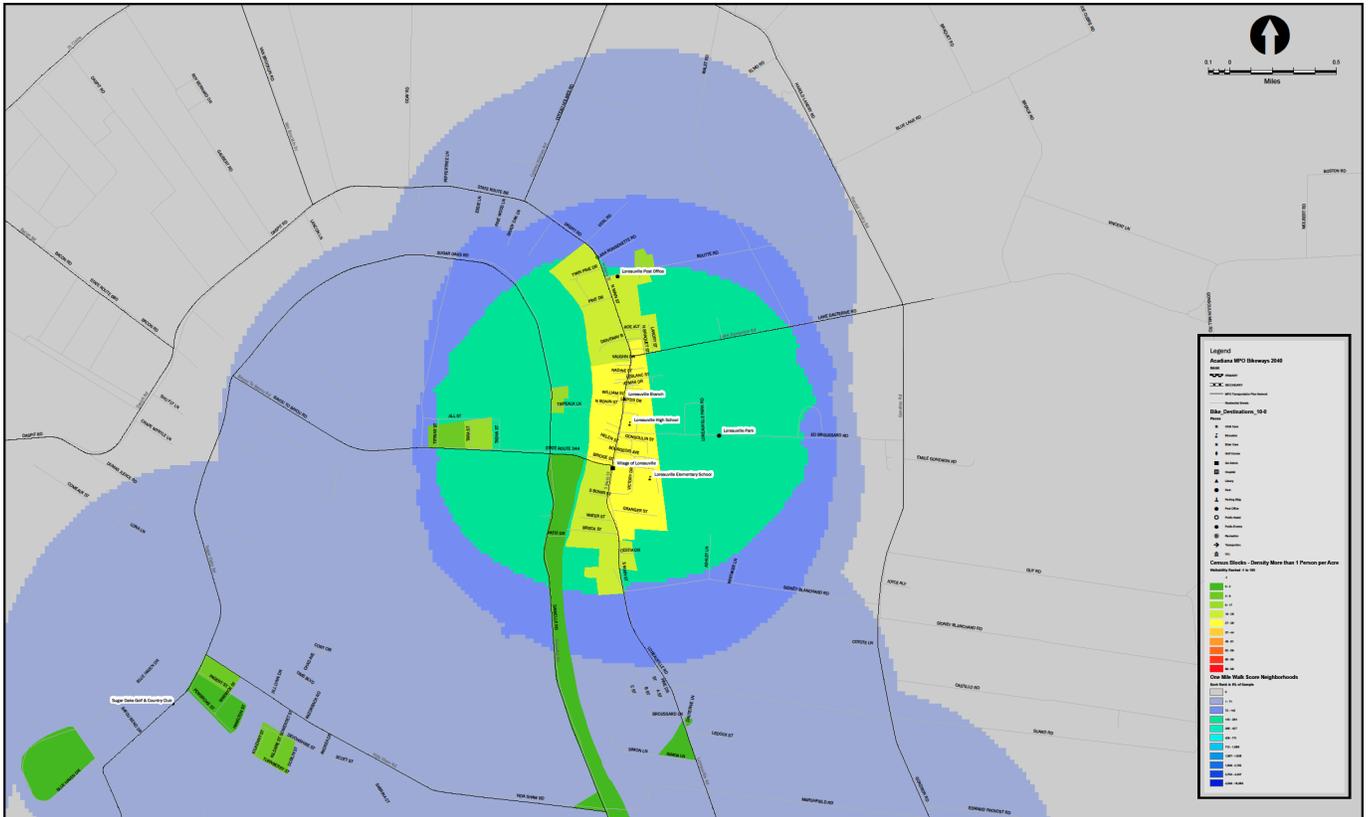
Map B-13: Bike Destinations and Walkability in Saint Martinville is much like Breaux Bridge in the distribution and density of Walks Scores and Walk Sheds. The city center is marked in red and light blue in adjoining business district. Moreover, Saint Martinville is like Breaux Bridge and New Iberia with bayou flowing through its core. Saint Martinville is the oldest municipality mapped in this series being founded in French colonial period before 1762.



	2040 BIKE PLAN Bike Transportation Network Bike Destinations and Walkability in Saint Martinville	Map No.	Project Number: 26280-017-01-01-04
		21	Plan/Eng: MJL Chk: CDC Apprv: MB Date: 11/25/2015 Miles: 1 in. = 0.19 Mi. 1 in. = 1,000 Ft.



Map B-14: Bike Destinations and Walkability in Loreauville is much like the town of Breaux Bridge, Saint Martinville, and Parks in that its city center is located along as bayou. Its population of 938 is similar in size to Grand Coteau and Duson. As a small municipality is Walk Scores are low, although they are relatively high for its population.



	2040 BIKE PLAN Bike Transportation Network Bike Destinations and Walkability in Loreauville		Project Number: 26280-017-01-01-04 Plan/Eng: MJL Chk: MPB Apprv: MBB Date: 11/24/2015 Miles: 1 in. = 0.19 Mi. 1 in. = 1,000 Ft.
	Map No. 22		



APPENDIX 1.0

A1-0 Walk Scores as Applied to Bike Planning

Bike Planning can benefit from utilizing Walk Scores to measure the desirability of a bike trip.

A1-1 Walk Score Background

Walk Score, using a proprietary system, analyzes hundreds of walking routes to nearby destinations and then assigned points based on the distance. As desirable destinations increase in close proximity to a point on a map, then the score increases from 0 to 100. These destinations within this frame of reference are termed amenities such as restaurants, grocery stores, museums, schools, and theaters.

Amenities within a 5 minute walk or a quarter-mile are given maximum points. A proprietary curve is plotted with distant amenities receiving increasingly less points with no points given after a 30 minute walk or a mile and a half. Walk Score also measures pedestrian friendliness by analyzing population density and road metrics such as block length and intersection density.

A1-2 Bike Score and Property Values

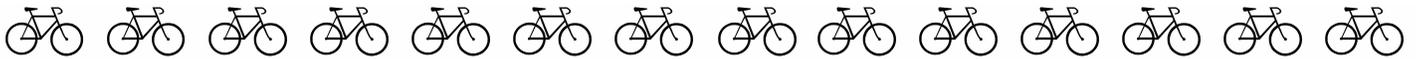
Multiple independent studies have demonstrated that above-average walkability correlates to increased housing values: in the metropolitan areas studied, higher Walk Score typically added US\$4,000–\$34,000 per home.

Indeed, the Walk Scores for Zip code 70508 where River Ranch in the City of Lafayette is located has an average Walk Score of 43. That score is equal to the national average of 2,500 of largest cities in America. Some River Ranch apartments rate as high as the mid 80’s as in the Montrose Neighborhood in the center of Houston. In contrast, the zip code for the City of Carencro (70520), which is marked by considerable urban sprawl, has a Walk Score of 3. These places are compared (and statistically normalized) to Manhattan, New York, which has score in the high 90’s. Zip code 10001, is in the Chelsea neighborhood in mid-town Manhattan adjoining the Hudson River. It’s Walk Score is 97. The highest Walk Score in Louisiana are located in the Vieux Carre of New Orleans has Walk Score of 91 for its zip code of 70116.

A1-3 Walk Score Ranking System

These Walk Scores can be ranked into categories based on the necessity of a car to make trips as listed in the table below:

Table A1-3 Acadiana Metropolitan Planning Organization Walk Score Classification Systems		
Points	Category	Description
90-100	Walker's Paradise	Daily errands do not require a car.
70-89	Very Walkable	Most errands can be accomplished on foot.
50-69	Somewhat Walkable Some	Some errands can be accomplished on foot
25-49	Somewhat Car-Dependent	Errands require a car
0-24	Most Car-Dependent	Almost all errands require a car.



A1-4 Walk Score Data Sources

Data sources include:

- 1- Google.com – a search engine with a broad range of maps and addresses;
- 2- Education.com – an active community of parents and teachers with education materials;
- 3- Open Street Map - a community of mappers roads, trails, cafés, railway stations;
- 4- U.S. Census – a government agency tracking demographics;
- 5- Localeze – an internet listing service for businesses seeking to sell information; and
- 6- Walk Score User Community, a broad range of professionals hired by Walk Score, Inc,

A1-5 Walk Score Home Based Trip Types

From a traffic modeling perspective, amenities are destinations for seven home based work trips. In the Walk Score documentation, these trips are not defined specifically. These definitions are derived from reviewing the associated documentation.

- 1- Grocery: a commercial facility selling food including convenience stores.
- 2- Shopping: a commercial facility selling all other items.
- 3- Park: a public or private area with a green space.
- 4- School: a public or private educational facility ranging from a pre-school to an university.
- 5- Culture: a museum or historic site.
- 6- Dining and Drinking: a restaurant as well as a bar and lounge, which sells alcohol.
- 7- Errands: a residual category of all other home based trips.

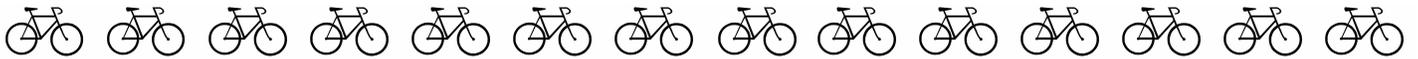
A1-6 Walk Score and Walk Sheds

The relationship between Walk Score points which create a similar area with a similar Walk Score can be termed a Walk Shed.

There are two ways of visualizing Walk Sheds:

- A- We can draw overlapping circles for a group of Walk Score points and then aggregate the Walks Scores based on the number of total Walk Scores in an area.
- B- We can associate the Walk Score point to a US Census block where the Walk Score was calculated.





A1-6-1 Walk Shed and Overlapping Circles

A special group of points with urban densities can be selected within the Acadiana planning area. These points are located in census blocks, as used by the US Census Bureau, having a population density of greater than one person per acre or 640 persons per square mile. In comparison, the average population density of Parish of Lafayette is 854 persons per square mile while the average density in the state of Louisiana is 107. In contrast, New York City has about 27,000 persons per mile .

Some census blocks are exactly the size of an urban block while other census blocks in rural area may be as large as 40 acres or more. The Walk Score of each point can be taken from the center of the block. A circle with a one mile in diameter can be drawn from that central point. These Walk Score circles can be overlapped and then the total walk scores can be summed. Areas with no destinations within one mile in rural areas can be given a score of zero.

Walk Scores can be transformed into Walk Sheds. Walk Scores can be summed within a series of overlapping one mile circles. These circles move outward from the center of the planning in downtown Lafayette and extend into less dense neighborhoods. Similarly, other overlapping circles also move outward from the center of other towns like New Iberia, and Breaux Bridge into less dense neighborhoods. The difference between Lafayette and these neighboring towns is the size of area where the circles overlap and the density within those circles.

We can plot these circles and their sums as shown on Map 9. The circles trend from green (low walk scores) to blue (high walk scores). Eleven colors trending from light green/blue to deep blue show the intensity of overlapping circles. Circles overlapping with the most density are shown in the deepest and darkest of blues while the lightest blues and greens are reserved for the least overlap. Gray areas are those which had a population density of less than one person per acre or 640 person per square.

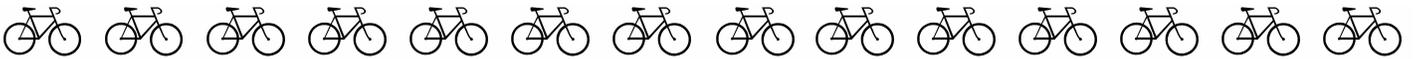
The Walk Scores were differentiated into 11 categories. The first category is a Walk Score of zero. The remaining ten categories range from 0 to 18,058 within a one mile radius. Each of these remaining ten ranges are quantiles, that is divided the range of Walk Scores into 10 equal categories ranging from 10% at the low end of the scale and then increasing by 10% for each color to 100% at end of the scale.

A1-6-2 Walk Shed and Census Blocks

The US Census Bureau maps the entire US into the smallest unit of geography called census blocks. Each block has a visible boundary created by a roadway or a water feature in Louisiana. In the above method of overlapping circles, the Walk Score was given to a point within the block. In contrast, the census block method symbolizes a particular walk score within a particular boundary from within which the score was calculated.

As shown in Map 10: Bike Destinations and Walkability in Lafayette, the census blocks with urban density of greater than 640 persons per square mile are shown. These blocks' walk score ranges from 0 to 88 from a low green color to high red color in ten categories. Each category in the range is a 10% quantiles equal to 10% of all blocks with the same scored range. For example, the middle orange color signifies the 6th range or 60% of the blocks are orange and range towards the ending reds.

Some blocks are not scored for two reasons. The first is that a census block does not have a sufficient population density of more than one person per acre or 640 persons per square mile. The second reason is the Walk Score, Inc. provides only 5,000 points without charge to planning agencies. Additional points above 5,000 cost \$1 per point. The cost to process the entire planning area is an additional \$4,200 (which given present budget constraints is not available).



A1-7 Overlapping Circles and Census Blocks

These two methods of mapping Walk Sheds can be utilized in one map as shown in Map 10. The underlying layer uses overlapping circles of one mile in diameter to aggregate the relationship between points. These circles range from high deep blues to low light blues. The upper layer ranges from high reds to low greens.

There is rough agreement between the two mapping methods. The blocks as mapped in red generally fall adjacent to areas that are deep blue. The lower scores of green generally fall adjacent to light blue areas.

A1-8 Walk Scores, Walk Sheds and Bike Planning

Walk Score, Inc. computes Bikes Scores when data is provided by local governments. The map data required is bike lanes, hills, destinations and road connectivity, and bike commuting mode share. The information in this Bike Plan is sufficient to compute Bike Score., which may take several months to process. In lieu of that data, analysis of Walk Scores can be used for Bike Planning purposes.

The pedestrian infra-structure is not evaluated using Walk Score. The presence of sidewalks is not mapped because of the difficulty in locating comparable publicly available data across the US, Canada and Australia. The infra-structure that is mapped can be related to wheeled vehicles being the distance along the right of way from a point to a desirable destination and the density of intersections. The length of the city blocks along this path is computed with long blocks given lower scores in contrast to short blocks, which are easier and shorter to navigate.

For the purposes of this plan, walk scores are similar (and indeed the same as) the path used by most bike riders in traversing a distance to a desirable destination. Bike riders typically use the same path as pedestrians. This is generally true within dense urban areas; but is less true in rural areas along highways that have high speed vehicles. In these rural area, pedestrians, generally walk (if only occasionally) in the right of way as far as possible from the pavement. As such, this approach of using Walk Score has its limitations in rural areas, but has benefits in dense urban areas where pedestrians and bike cyclist typically (but not always) take the same routes.



A1-9 Walk Score Critique

Walk Score is criticized, particularly by urban planning professionals, for the not controlling for variations in the built and natural environment. For example, the number of lanes of traffic crossed, how much crime occurs in the area, or what the weather is typically like are not taken into account. Moreover, Walk Score does not differentiate between types of destinations: that is to say, a supermarket grocery store versus a small food mart selling mostly liquor and chips is not differentiated. As noted above, walk scores do not account for sidewalks.

Walk Score is continually attempting to improve its results, for example, by obtaining concise data, testing new algorithms, and allowing users to provide feedback. The Acadiana MPO requested a full array of Walk Score data for approximately 4,850 points and is using these points for pedestrian and bike planning for comparable data on the urban core in the City of Lafayette and the outlying regions within the Acadiana Planning Area.