

# 2035 Pedestrian Plan

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## **1.0 Introduction**

Walking is the first form of transport that every human being learns; the cheapest, the most sustainable, and the most reliable. The ability to utilize walking for every trip that one needs to make is equalizing among socioeconomic levels; it requires no fares, no insurance, no monthly payments, and no credit checks.

The last federal transportation funding bill, 2005's Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users, makes a strong statement for equity in transportation. Yet there is a notable absence of human powered facilities on the city-parish streets of Lafayette, Louisiana. Due to such factors as limited public transit, suburban sprawl, and a lack of sidewalks, the primary mode of transport is by personal vehicle, a commonality between all segments of the population.<sup>1</sup> These obstacles belie a great inequity in the transportation

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<sup>1</sup> "The 2001 National Household Travel Survey (NHTS) confirms most of the same travel trends and variations among socioeconomic groups documented by its predecessors, the Nationwide Personal Transportation Surveys (NPTS) of 1969, 1977, 1983, 1990, and 1995. The private car continues to

infrastructure, and demographic studies of walking habits among Americans place many Lafayette residents at having lower tendencies of pedestrian trips. “Trips made by walking were least prevalent in 2001 among men aged 65 and older, rural and town residents, and residents of the South.”<sup>2</sup> This plan addresses the deficiencies in the sidewalk network and strategies for increasing sustainable and equitable transportation options.

### 1.1 Assessment of Current Conditions in Lafayette

Walking in all forms has been rising; according to the CDC, “of trips of 1 mile or less, adults reported more walking in 2001 (21.2%) than in 1995 (16.7%).”<sup>3</sup> The CDC further elucidates on the subject of walking:

“Moderate-intensity physical activity, such as walking, has positive health effects, even when the purpose of walking is for transportation rather than for exercise.

Walking is the most commonly reported physical activity among the general population; it is an activity that most people can do, and it is low cost.”<sup>4</sup>

Before an assessment can be done on the existing network, there are two questions to be answered: the places where people walk and the reasons people walk. There are two major types of pedestrian activity: walking as a mode of transportation and walking as recreation.

Walking as a mode of transportation has several destinations: people walk to the store, to a coffee shop, to school, to transit stops, and to work. The CDC is currently enacting the Healthy People 2010 plan, which contains an object for adults and children to walk more frequently for transportation.<sup>5</sup>

“The target of the objective is for adults aged 18 years and older to make 25% of their trips of 1 mile or less by walking and for youth aged 5 to 15 years to make 50% of their trips to school of 1 mile or less by walking. A recent study indicated that older women walked more often if they lived within a 20-minute walk of a park, bicycle or walking trail, or department, discount, or hardware store, and the trend for walking increased with the number of destinations within walking distance. People who live in neighborhoods with high walkability walked more than those who lived in less-walkable neighborhoods. They also had lower rates of obesity, lower health care costs, and increased longevity, suggesting that environmental configuration may play a role.”<sup>6</sup>

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dominate urban travel among every segment of the American population, including the poor, minorities, and the elderly. By comparison, public transport accounts for less than 2% of all urban travel. Even the lowest income households make only 5% of their trips by transit.”

<http://www.policy.rutgers.edu/papers/14.pdf>

<sup>2</sup> Ibid

<sup>3</sup> Ham SA, Macera CA, Lindley C. Trends in walking for transportation in the United States, 1995 and 2001. *Prev Chronic Dis* [serial online] Data Accessed: November 21, 2006. Available from: URL:

[http://www.cdc.gov/pcd/issues/2005/oct/04\\_0138.htm](http://www.cdc.gov/pcd/issues/2005/oct/04_0138.htm).

<sup>4</sup> Ibid

<sup>5</sup> Ibid

<sup>6</sup> Ibid

People who walk for recreation purposes likely have no destination in mind; they walk around the block, through the neighborhood, to a park. They walk for fun, for exercise, for health purposes; these reasons could be shared by the people who walk for transport, but the recreational walkers are not reliant on their feet or on sidewalks to run errands or to go to work. Many professional pedestrians have no other options for transportation.

In the parish of Lafayette, 1.39% or 1,121 out of 87,053 residents walked to work, exemplifying that very few residents rely on walking for purely transportation purposes. Some census tracts showed stronger numbers of pedestrian commuters:

1. Downtown Lafayette, 7.20% or 76 residents
2. Vermillion River, Surrey St., Simcoe St., Evangeline Thruway, 5.38% or 47 residents
3. Johnston St., S. College Rd., Pinhook Rd., Evangeline Thruway, 11.63% or 226 residents
4. W. Gilman Rd., W. Simcoe St., N. University Ave., Railroad St., 8.30% or 82 residents
5. Pinhook Rd., Bayou Tortue, Kaliste Saloom Rd., Bernard Rd., 4.68% or 52 residents<sup>7</sup>

These areas are some of the oldest parts of city of Lafayette, and they are contiguous and form a large pedestrian grid. In addition, the largest employers in the area and the university are located in these tracts, as well as the highest residential densities, further spurring pedestrian activity. Despite the high numbers, there are still large gaps in the sidewalk coverage in these tracts.

In the rest of the city and parish, the sidewalk network is sporadic and randomly sited, and the land use is mostly single family residential and agricultural. Even if the network was complete, the distance from most housing to employment centers would not make walking a feasible option for the majority of commuters. It is a typical sprawl development pattern, a form that lowers residents' propensity for walking and discourages healthy behaviors. "After controlling for demographic and behavioral covariates, the county sprawl index had small but significant associations with minutes walked, obesity, BMI, and hypertension. Residents of sprawling counties were likely to walk less during leisure time, weigh more, and have greater prevalence of hypertension than residents of compact counties."<sup>8</sup>

The other major pedestrian activity is not being served by the existing network. Walking is the most popular form of exercise, according the 1999 Superstudy conducted by the Sporting Goods Manufacturers Association<sup>9</sup>. In 2003, the Superstudy determined that "out of a population of approximately 260,000,000 in the United States over age 6, 14.6% are fitness walkers and 34.2% are recreational walkers."<sup>10</sup> In Lafayette Parish, which has a population of 178,122 residents age five

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<sup>7</sup> 2000 U.S. Census, Summary File 3, P30

<sup>8</sup> Ewing R, Schmid T, Killingsworth R, Zlot A, Raudenbush S. "Relationship between Urban Sprawl and Physical Activity, Obesity, and Morbidity." American Journal of Health Promotion 2003;18(1):47-57.

<sup>9</sup> <http://walking.about.com/library/weekly/aa081500a.htm>

<sup>10</sup> <http://walking.about.com/od/pedestrians/a/superstudy2003.htm>

years and older, there are 26,005 potential fitness walkers and 60,917 potential recreational walkers. These numbers indicate strongly that there are a substantial number of pedestrians in Lafayette that are navigating the roads on foot without a dedicated pathway. In the research portion in this plan, studies are presented that have found that low income individuals are more apt to make use of sidewalks and trails for exercise than higher income individuals, who are more likely to have other means for work out facilities.

There is another group besides commuters and exercisers who are neglected by the existing network, and that is children. Lafayette Parish has a population of 49,535 residents under the age of 18. For years, walking has been the traditional form of school transportation. In 1969, 42% of children walked to school; in 2001, only 16% utilized this mode.<sup>11</sup> Only thirteen of the 61 schools in the parish are located in the large pedestrian grid in the older part of the city, and many of the schools are located on arterials or major collectors, leaving them poorly suited for children to access by foot.

## 1.2 Goals of the Pedestrian Plan

One of today's most challenging planning tasks lies in uniting the vision of a pedestrian friendly community with the infrastructure capacity of existing development. The main goal of the pedestrian plan is to develop, prioritize, and balance criteria that results in an acceptable pedestrian environment, while respecting the existing surroundings. By identifying all major pedestrian activity centers and the most practical ways to access them, the pedestrian plan prepares the parish governing bodies, the Planning Commission, and the citizens of Lafayette to begin working toward a walkable community.

## 1.3 Regulations and Controls

In many cases, the practices that are outlined in the pedestrian plan are subject to other guidelines and codes such as SAFETEA-LU and the Americans with Disabilities Act of 1990 (ADA). The guidelines for ADA include minimum dimensions required to achieve that access. Note that the disabled community is often dependent on public transportation. This should be a consideration in the construction of facilities.

## 1.4 State Pedestrian Plan

In 2008, the Louisiana Department of Transportation and Development has developed a statewide Bicycle and Pedestrian Plan, a policy document that intends to change DOTD's attitudes towards pedestrian facilities. The plan intends to promote actions that are similar to the principles contained in Lafayette plan, including changing

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<sup>11</sup> U.S. Centers for Disease Control and Prevention. Kids Walk-to-School: Then and Now—Barrier and Solutions. Available: [http://www.cdc.gov/nccdphp/dnpa/kidswalk/then\\_and\\_now.htm](http://www.cdc.gov/nccdphp/dnpa/kidswalk/then_and_now.htm) Accessed: November 17, 2006.

the relationship between land use and roadway integration and improving pedestrian facilities requirements.

## **2.0 Current Challenges**

### 2.1 Development Regulations

The existing subdivision regulations for the City of Lafayette require sidewalks to be constructed in all residential and commercial developments submitted for final plat approval. The only exceptions are in areas zoned for industrial and agricultural development. Sidewalks are required in all areas within the City of Lafayette's Area of Influence, but not in Lafayette Parish itself.

Currently, within the municipalities of Scott, Duson, Carencro, Youngsville and Broussard there are no requirements for the construction of sidewalks. Sidewalks are built only when the developer chooses, unless the area of new development in question is also within the City of Lafayette's Area of Influence.

The picture, to the left, depicts a sidewalk ending abruptly on the 200 block of Bonin St. The surrounding neighborhood has particularly inconsistent sidewalks. The municipalities have no means to require sidewalk construction in the development regulations. By definition, an urban subdivision is located in the Lafayette City Limits or in an area proposed to be in the city limits. Suburban subdivisions are defined as being in the City of Lafayette's Area of Influence.



The development regulations should be revised. Lafayette Consolidated Government should enact sidewalk regulations for all developments within the parish, and all of the municipalities in the parish should require sidewalks as a major infrastructure aspect of subdivisions on par with roads and drainage facilities.

### 2.2 Land Use

Issues with land use are cited several times in the research as a major deterrent to a population's walking habits. Land use factors such as high residential densities and access to retail, employment facilities, and recreation are addressed in the funding for improving the sidewalk network, but that only tackles the developments that currently exist. There is a need to encourage more developments with these particular attributes, and that is to be done by changing the subdivision regulations. In 2007, Lafayette Consolidated Government adopted a Traditional Neighborhood Ordinance. This ordinance gives developers options to create communities that are physically accessible to pedestrians and encourage walking as the default mode of transportation. The ordinance allows for mixed uses, zero lot line housing, and pathways and recreational facilities.

Another method is to encourage the 1/4 mile to one mile form of planning. The Nationwide Personal Transportation Survey (NPTS), the majority of pedestrian trips are 0.25 miles or less, with 1 mile generally being the limit that most people are willing to travel on foot.<sup>12</sup> From a study in the American Journal of Health Promotion: “Living within walking distance (defined as within a 20-minute walk of home) of a park; biking or walking trail; or department, discount, or hardware store was related to higher pedometer readings. In addition, there was a positive trend between the sum of destinations within walking distance of home and activity levels measured by pedometer and questionnaire. There was also a positive trend between participants' neighborhood "walkability" rating and activity levels measured by pedometer and questionnaire. These findings suggest that the ability to make utilitarian walking trips from home and the perception of having favorable neighborhood surroundings for walking are associated with increased physical activity levels in older women.”<sup>13</sup>

The Planning Commission and Planning, Zoning and Codes Department could give incentives to developers who develop smaller subdivisions that are walkable and accessible to destinations that are within one mile of the houses in the development.

### 2.3 Negative Factors

All of the studies indicated that people’s perceptions of an area affect how willing they are to walk somewhere rather than drive. A strategy from the Nationwide Personal Transportation Survey study is to improve the aesthetics of an area. Local governments in Lafayette have several programs to address these types of issues. The Lafayette Consolidated Government Community Development Department runs the Neighborhood Pride program and the Housing Rehabilitation program. In addition, the Police Department’s Criminal Justice Support Services evaluates properties based on certain environmental factors like street lighting. The efforts should be expanded upon, using the Crime Prevention through Environmental Design standards to create a more hospitable environment for pedestrians.

### 2.4 Design Standards

The current design standards apply to the placement and the width of sidewalks. The preferred placement of sidewalks, as stated in these regulations, lies in the right of way adjacent to the property line. Should this alignment be impractical, the sidewalk shall be built in a pedestrian easement. In any case, the walkway will be constructed as far as possible from the adjacent roadway.

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<sup>12</sup> Ham SA, Macera CA, Lindley C. “Trends in Walking for Transportation in the United States, 1995 and 2001.” Preventing Chronic Disease [serial online] Data Accessed: November 21, 2006. Available from: URL: [http://www.cdc.gov/pcd/issues/2005/oct/04\\_0138.htm](http://www.cdc.gov/pcd/issues/2005/oct/04_0138.htm).

<sup>13</sup> King WC, Brach JS, Belle S, Killingsworth R, Fenton M, Kriska AM. “The Relationship Between Convenience of Destinations and Walking Levels in Older Women.” American Journal of Health Promotion 2003;18(1):74-82.

There is a discrepancy in the proposed sidewalk width regulations. The Department of Public Works requires 7 foot sidewalks on arterials and 5 foot sidewalks on collector streets. On the other hand, the 2006 MPO Functional Classification Plan requires 8 foot mixed use paths on arterials and 5.5 foot sidewalks on some collectors and 8 foot shared bike/pedestrian lanes on others. In addition, the standards for handicap access are not stated in the development regulations. The Department of Public Works standards should be amended according to the Functional Classification Plan requirements through adoption by the Lafayette Consolidated Council, as well as the other parish municipalities.

The standards which are required for handicap access should be stated in the development regulations. Standards for sidewalk construction should meet (ANSI) American National Safety Institute standards in affect at the time of application. ADA is based primarily on the 1980 ANSI A117.1 Standard.



## 2.5 Waivers

The city and parish may allow waivers of the current subdivision regulations, which are designed to provide relief in those instances where strict compliance would impose an extraordinary hardship or injustice. As stated in the regulations, a variance or waiver may be granted only if the public interest is secure and the action will not nullify the intent and purpose of the regulation. There are two waivers requested relative to sidewalks: the request for waiver of regulations, which would require construction of sidewalks, and the request for waiver of construction, which require immediate construction.

The waiver request for immediate construction is the most frequently requested. If approved, an extension of one year may be granted. In this instance, the applicant must submit a letter of credit, which guarantees construction of the sidewalk within one year. If, after one year, the sidewalks are not completed, the applicant may apply to the Planning Commission for an extension, or the city may invoke the letter of credit to cover the cost of construction.

Ideally, while the City holds the letter of credit, the developer is building out the subdivision. Upon expiration of the final letter, sidewalks throughout the development will have been constructed. However, this is not always the case. In many instances, sidewalks are constructed only on those lots which have a completed structure. The result is an incomplete system of sidewalks. The Department of Public Works must then reassess the subdivision.

The most common requests for waivers of construction are in those areas without contiguous sidewalks. When the construction of sidewalks is waived in areas that have become or will become heavily urbanized, the municipal governments will find themselves in a predicament: the responsibilities of sidewalk construction, the determination of which projects should have priority, and the sources to fund the

construction. The following pictures illustrate areas in which sidewalk construction has been waived and walking paths are visible from pedestrian travel:



*Corner of Wilson and  
East St. Mary*



*Corner of Production Dr.  
and West Pinhook*



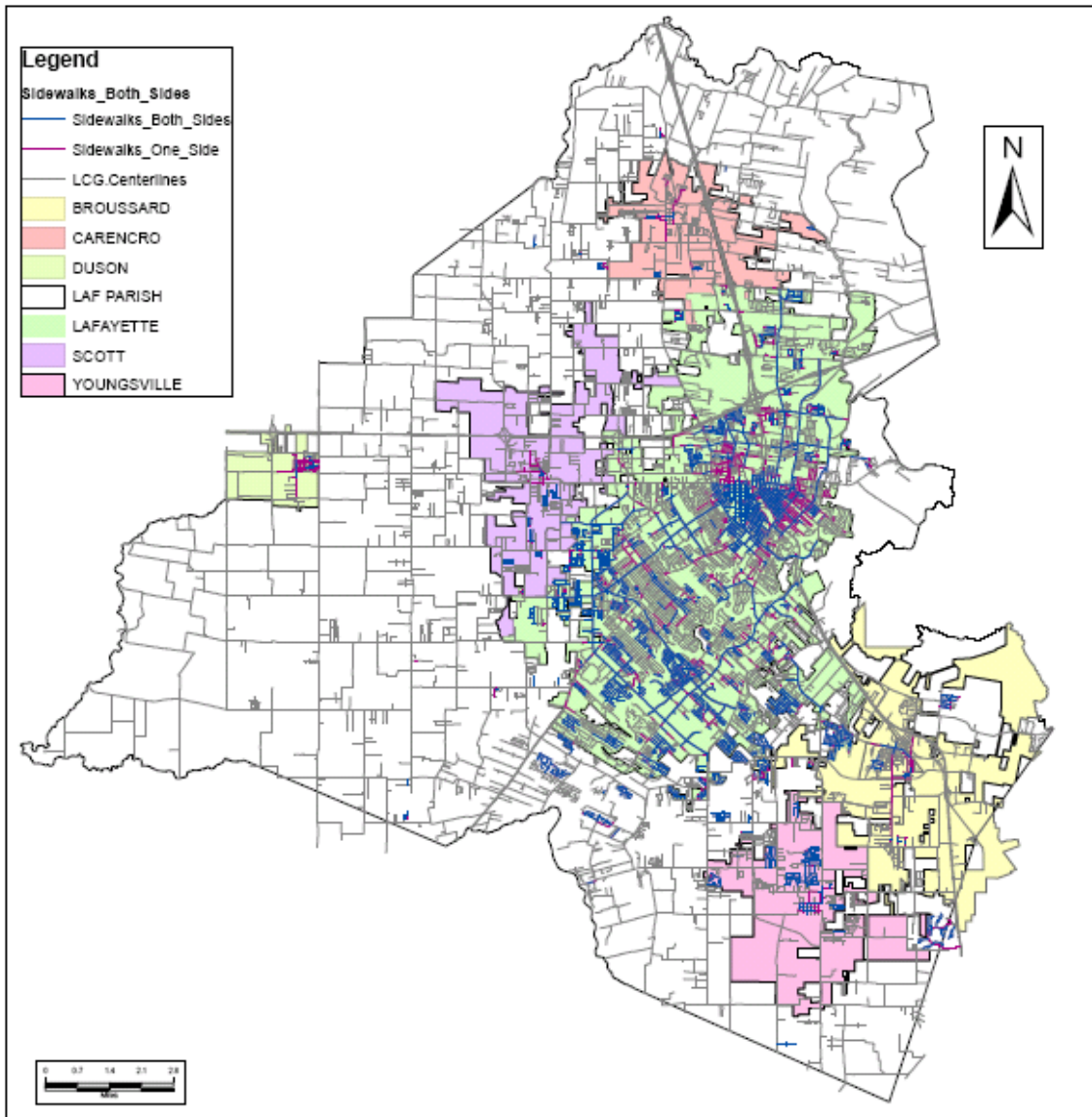
*1000<sup>th</sup> block of Tenth St.*

The waiver of sidewalk construction should be eliminated completely. The practice of waiving sidewalk construction has created the countless areas lacking sidewalks which are the very source of concern.

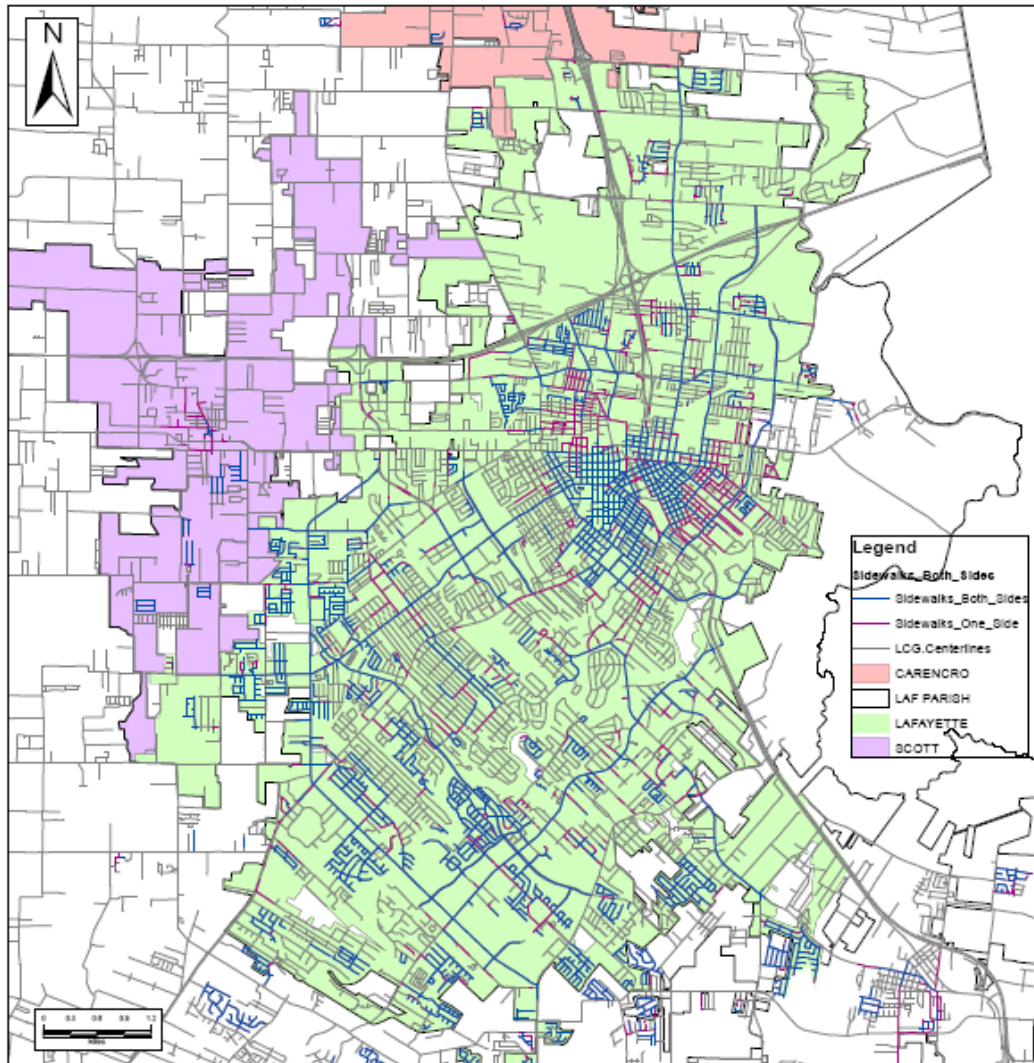
### **3.0 Inventory**

In order to begin the process of making Lafayette Parish a walk-able community, a sidewalk inventory was compiled to determine the current state of sidewalks. Many of the areas in Lafayette were developed with incomplete sidewalk coverage. A good use for this tool would be to analyze the inventory to identify areas that with minimal intervention could have a complete sidewalk network. Similar to the Lafayette nodal plan, targeted areas could be listed and projects could be rated according to how they fit into these areas. The sidewalk matrix in Section 9.5 would be employed to refine the priority list.

Map 1: Sidewalk Inventory for Lafayette Parish



Map 2: Sidewalk Inventory for City Core of Lafayette



## 4.0 Maintenance

It must be stressed the maintenance of sidewalks is basic to the successful and safe use of any sidewalk system. Pedestrians expect sidewalk facilities and safety features to be maintained in a safe and useable manner. Some areas of concern are maintaining crosswalk signs, lighting, and surface areas.

There are many areas in Lafayette with gaps in the sidewalks, which discourage pedestrians. Another major issue is the obstructions in the sidewalks, like electrical poles placed in the middle of the sidewalks and overgrown landscaping. LUS and the other parish electrical providers should be prevented from placing poles in the sidewalks and should ideally have a remediation program for relocating obstructing poles. Property owners with overgrown landscaping should be fined.



*Two large logs lie in the center of the sidewalk on the 300 block of Pershing Ave.*



*A sidewalk on Voorhies St. that is in need of maintenance.*

Prevention is one way to deflate the maintenance issue. The Public Works Department handles maintenance of sidewalks on a reactive rather than a proactive basis. A stringent inspection program similar to that used with other subdivision improvements would be a start. The inspection and acceptance of sidewalks as a required subdivision improvement is fundamental to Lafayette's future sidewalk maintenance program. The inspection would help assure that sidewalks have been built to adopted construction standards, in order to avoid many future structural maintenance problems.

## **5.0 Safety**

In a report done by Britain's Department of the Environment, Transport and the Regions, "two thirds of all accidents in which people are killed or injured happen in areas with a 30 mph limit."<sup>14</sup> Another report by the department estimates that "the chance of a pedestrian being seriously injured or killed if struck by a car is 45% if the car is traveling at 30 mph."<sup>15</sup> These statements belie the importance of emphasizing safety as a factor in pedestrian facilities.

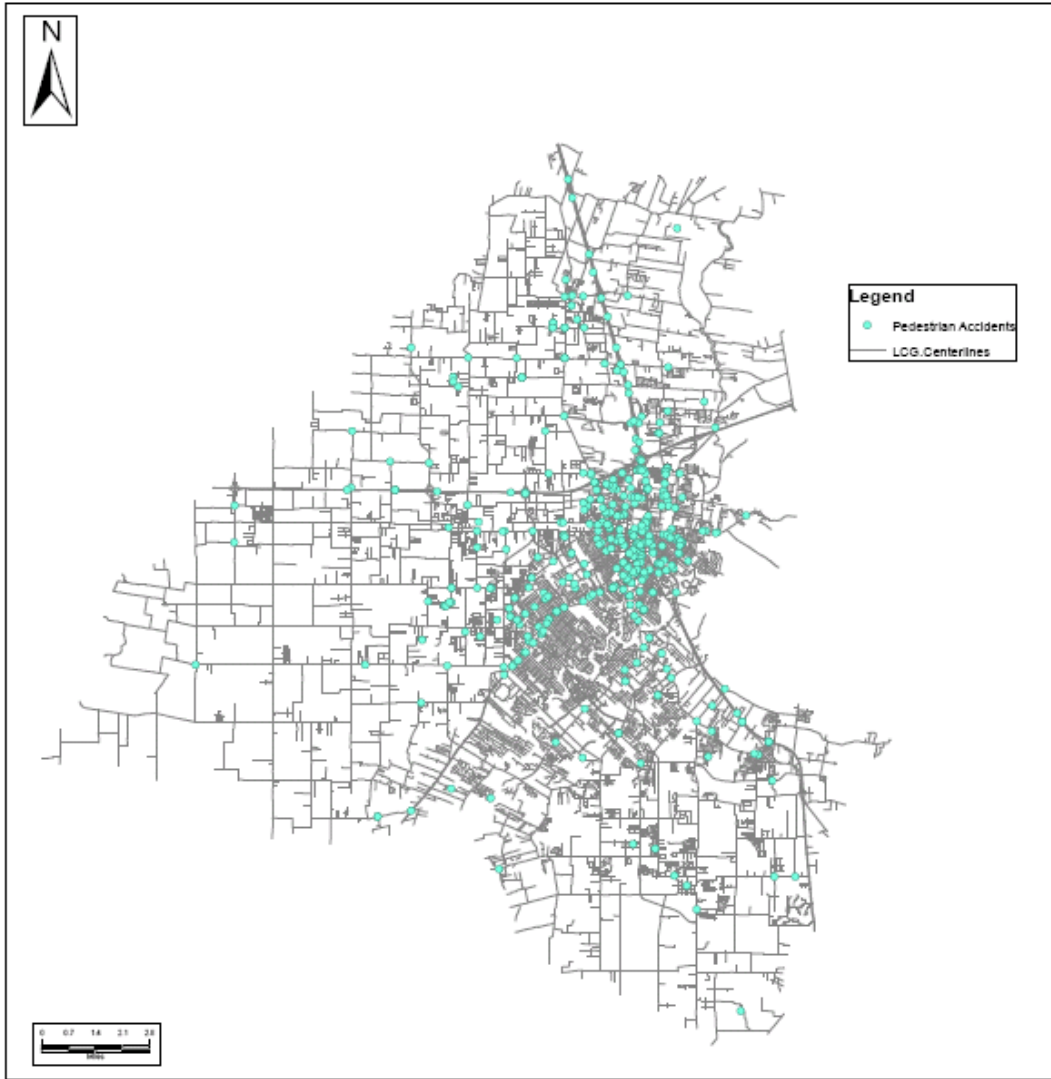
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<sup>14</sup>Department of the Environment, Transport and the Regions. DETR annual report 1999: the government's expenditure plans 1999-2000 to 2001-2002. London: DETR; 1999. [www.detr.gov.uk/annual99/13.htm](http://www.detr.gov.uk/annual99/13.htm)

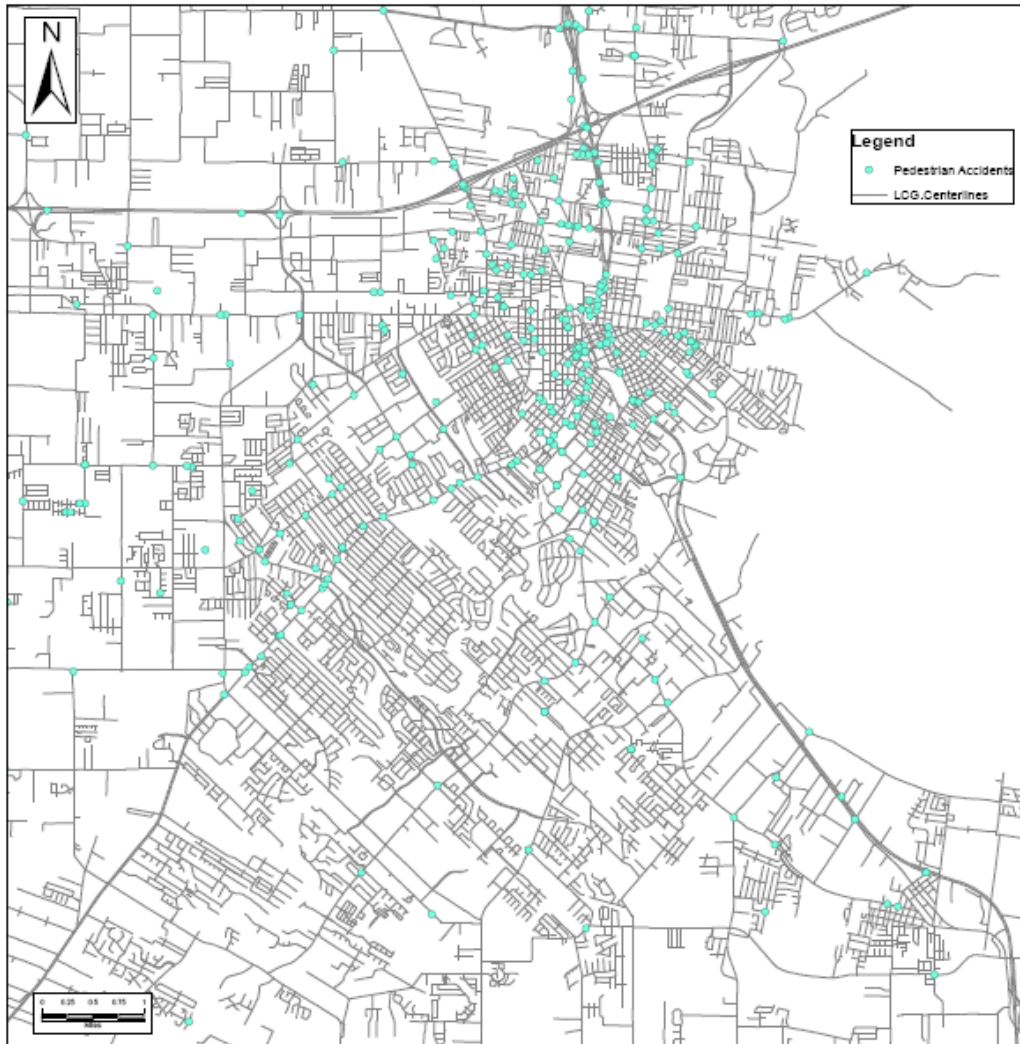
<sup>15</sup> Department of the Environment, Transport and the Regions. Road safety strategy: current problems and future solutions. London: DETR; 1997.

### 5.1 Pedestrian Crash Locations and Times

Map 3: Pedestrian Crash Locations in Lafayette Parish, 2000 -2008

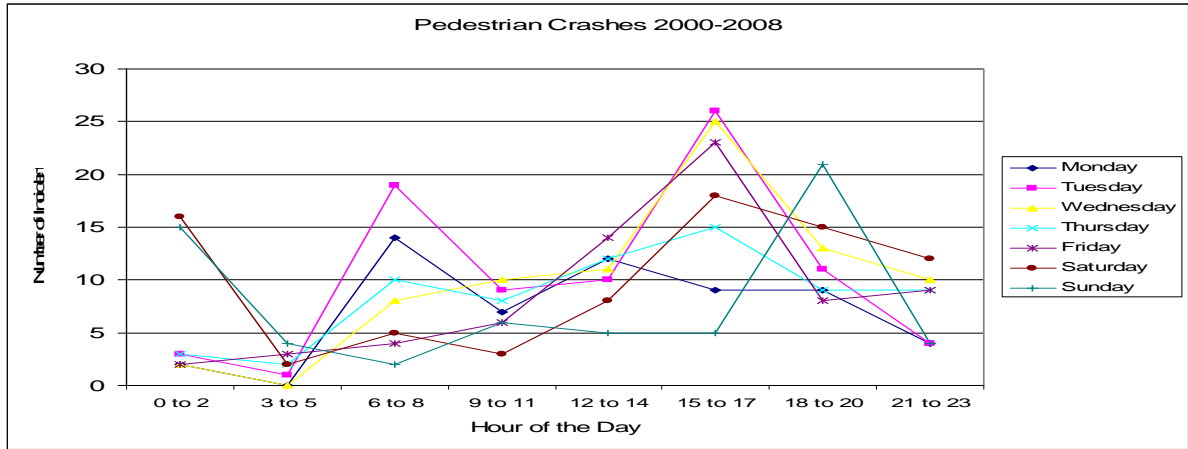


Map 4: Pedestrian Crash Locations for City Core of Lafayette, 2000 – 2008



The majority of pedestrian crashes occurred in the core of the city of Lafayette, but there were a substantial number of accidents in the rural sections of the parish.

Chart 1: Pedestrian Crashes by Time of Day and Day of the Week



The peak hours for pedestrian accidents during the weekdays appear to be in the morning hours with another, more substantial, peak in the early to late afternoon hours. The weekends show spikes in the late night to early morning hours.

## 5.2 Causes of Pedestrian Accidents

The main contributing factors for pedestrian accidents are shown to be pedestrian actions and driver violations. The vast majority of accidents occurred on city streets on two way roads with no separation. The land use of the surrounding areas is primarily business and mixed use. Weather, lighting, and road conditions do not appear to contribute to pedestrian accidents in Lafayette. Table 5 in the appendix details this information.

### Demographics of Pedestrian Accident Victims

Table 1: Pedestrian Crash Demographics Summary

Age	Number	Percentage
No Age	68	13.63%
0 to 10	67	13.43%
11 to 15	50	10.02%
16 to 20	61	12.22%
21 to 25	54	10.82%
26 to 35	58	11.62%
36 to 45	61	12.22%
46 to 55	48	9.62%
56 to 65	18	3.61%
66 and over	14	2.81%

Injury	Number	Percentage
Fatal	41	8.30%
Severe	43	8.70%
Moderate	162	32.79%
Complaint	140	28.34%
None	108	21.86%

Race	Number	Percentage
Black	94	18.99%
White	75	15.15%
No Race Specified	326	65.85%

Sex	Number	Percentage
Male	270	54.77%

Impairment	Number	Percentage
No Impairment	258	51.81%

Female	176	35.70%
None Listed	52	10.55%

Alcohol	35	7.03%
Drugs	1	0.20%
Alcohol and Drugs	3	0.60%
No Report/Unknown	201	40.36%

The range for pedestrian accident victims is fairly distributed among all ages. African-Americans and males are over-represented as being involved in pedestrian accidents. 17% of all accidents were fatal or severe. Alcohol and drugs are not a major factor in pedestrian accidents.

## 6.0 Sidewalks by Location

### 6.1 Major/Minor Arterial Sidewalks

An arterial has as its major function the movement of large numbers of vehicles over relatively long distances. It is designed to carry traffic volumes of 2,000 to 25,000 vehicles per day. There is no room on an arterial roadbed for pedestrians. In addition, Lafayette has strip commercial development located on both sides of many major arterials. This results in a limited amount of pedestrian flow between developments, which further reduces pedestrian activity. For these reasons, it is vital that sidewalks be constructed on both sides of all major arterials.



Johnston Street is a prime example of why sidewalks are essential for major arterials. It is difficult for a pedestrian to safely walk from one place to another without walking on the shoulder of the road or through grass between developments. Johnston Street has no sidewalks, open ditches, and many driveways, which leaves no secure area for pedestrians to seek

refuge from automobiles. The picture, to the left, shows two women waiting for the bus at a designated transit stop along Johnston Street. Notice the limited available space for walking. Ambassador Caffery Parkway, another major arterial, has sidewalks directly abutting the roadway. This design offers no green space between the roadway and the sidewalk and ultimately offers the pedestrian little feeling of security.

Federal, state, and local governments should be responsible for funding the construction of all major arterial sidewalks. All future major arterials should be built with sidewalks on both sides, at the government's expense. All existing major arterials without sidewalks should be prioritized according to pre-determined criteria and then

constructed. Sidewalk development along major arterials is essential to making Lafayette a pedestrian friendly community.

6.2 Major Collector Sidewalks

Collector streets serve to filter traffic from local streets onto arterials. Traffic volumes on collectors may range from approximately 2,000 to 8,000 vehicles per day. Collectors also serve to filter pedestrian traffic from local streets onto the collector and through to the arterial. Since traffic volumes can be relatively high on these roads, the construction of sidewalks is also highly recommended to bring connectivity to the pedestrian network.

The majority of collector streets in Lafayette Parish have either partial sidewalks or no sidewalks. Some examples of collector streets that have a patchwork of sidewalks are Dulles, West St. Mary, Girard Park D, Taft, and Doucet. West Bayou Parkway does not have any sidewalks.

Sidewalks along selected qualifying collectors shall be built by the public sector with public funding. The collector streets should also be prioritized based on criteria. Note that because several criteria are based on population of potential users and proximity to churches, schools, it is likely that some collector street sidewalks might take priority over major arterials. The public sector shall budget an Annual Sidewalk CIP program, recommended and prioritized by the Planning Commission.

6.3 Local Street Sidewalks

The location and the method to fund local street sidewalks is one of the thorniest things to determine. In addressing this dilemma, it is important to note that local street sidewalk funding is somewhat controversial because it raises dilemmas about the funding responsibilities. The local government officials will have to determine the cost allocation between the government and the property owner.

There is a great variety of residential environments that range in density, location. Selecting one funding strategy to accommodate the variety of needs would not be ideal. The following types of residential environments should be considered while reviewing the funding possibilities:

Table 2: Residential Environments

<b>Land Use</b>	<b>Density (units per acre)</b>	<b>Roadway Functional Classification</b>
Residential	1 to 4 Units per Acre	Major Arterials
Residential	More than 4 Units Per Acre	Major Arterials
Residential	1 to 4 Units Per Acre	Collectors

Residential	More than 4 Units Per Acre	Collectors
Farmland/Residential	1 to 5 Units Per Acre	Local Streets
Farmland/Residential	More than 5 Units Per Acre	Local Streets

#### 6.4 Existing Development without Sidewalks or Partial Sidewalks

Currently, there are numerous residential areas that do not have sidewalks. At the time of development, these areas might have been considered too rural to warrant sidewalks, they might have been located outside of the area of influence, or the developers might not have felt compelled to build sidewalks. Nevertheless, because of Lafayette’s continued growth, sidewalks are now needed. The pictures below show the left and right sides of Meadow Lane, respectively. Meadow Lane is located directly off of Johnston Street, a major arterial, and is adjacent to Lafayette High School. Notice that both sidewalks end abruptly.



#### 6.5 New Development

All new residential development, regardless of density, should be required to construct sidewalks. There should be no exceptions.

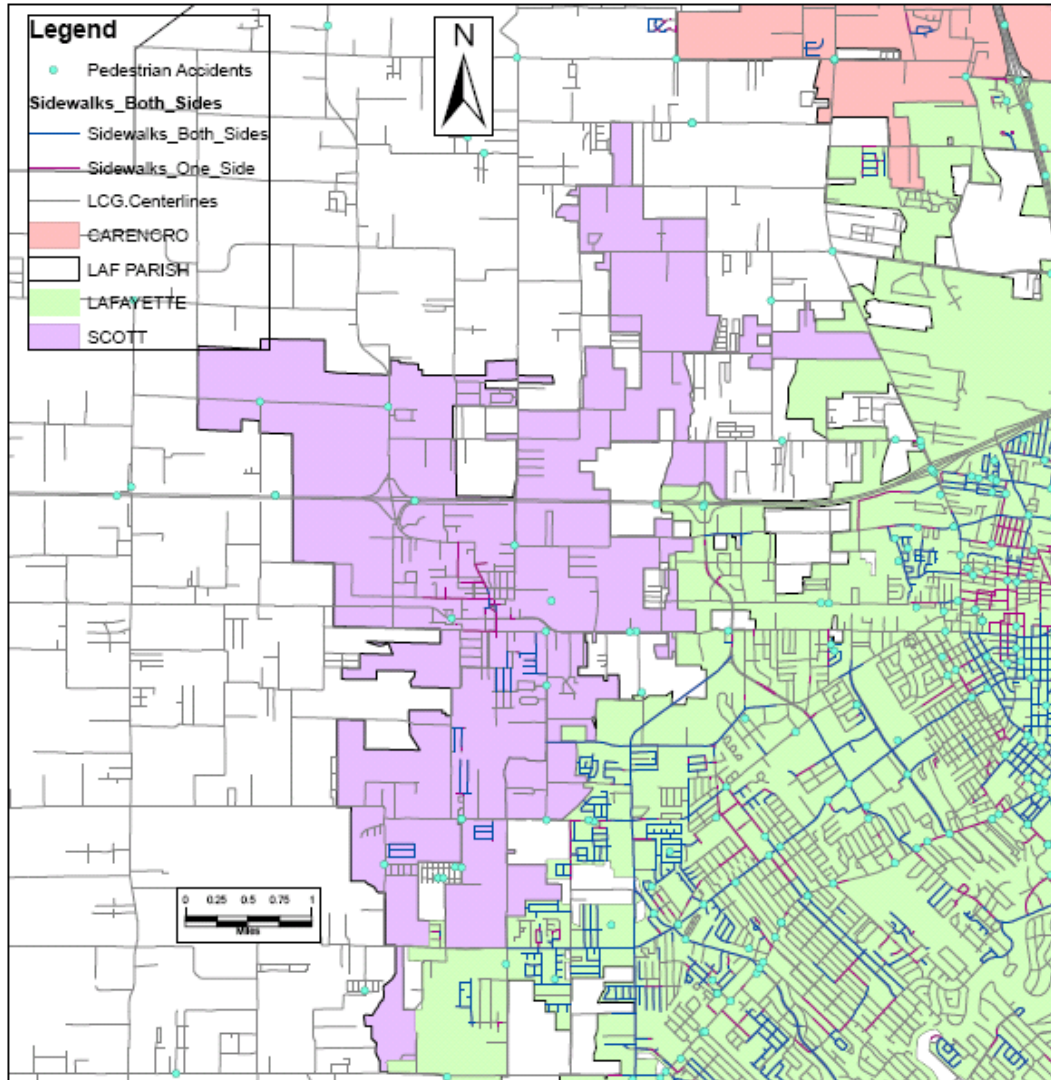
### **7.0 Sidewalks in the Area Municipalities**

There is a great variety of sidewalk networks within municipalities in Lafayette. These facilities range from an almost complete network in Duson to a spotty and ineffective network in Scott. The municipalities were also surveyed in 2003 for how they handle sidewalk construction within their respective jurisdictions.

### 7.1 Scott

The City of Scott budgets money in their CIP on a year-to-year basis for the construction of sidewalks, based on resident input. However, according to the Mayor's office, many residents oppose the construction of sidewalks.

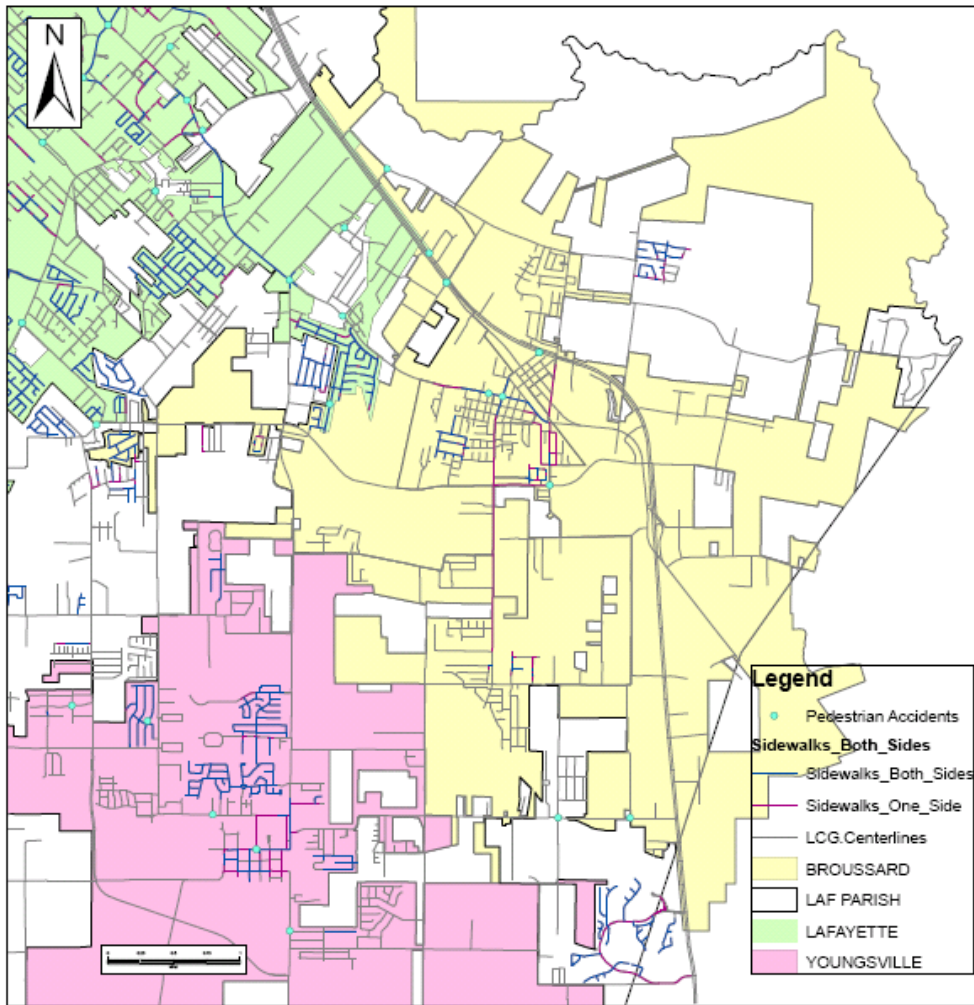
Map 5: Scott Sidewalk Inventory



### 7.2 Broussard

The Town of Broussard Council allocates money towards sidewalk construction and identifies the location for the improvements.

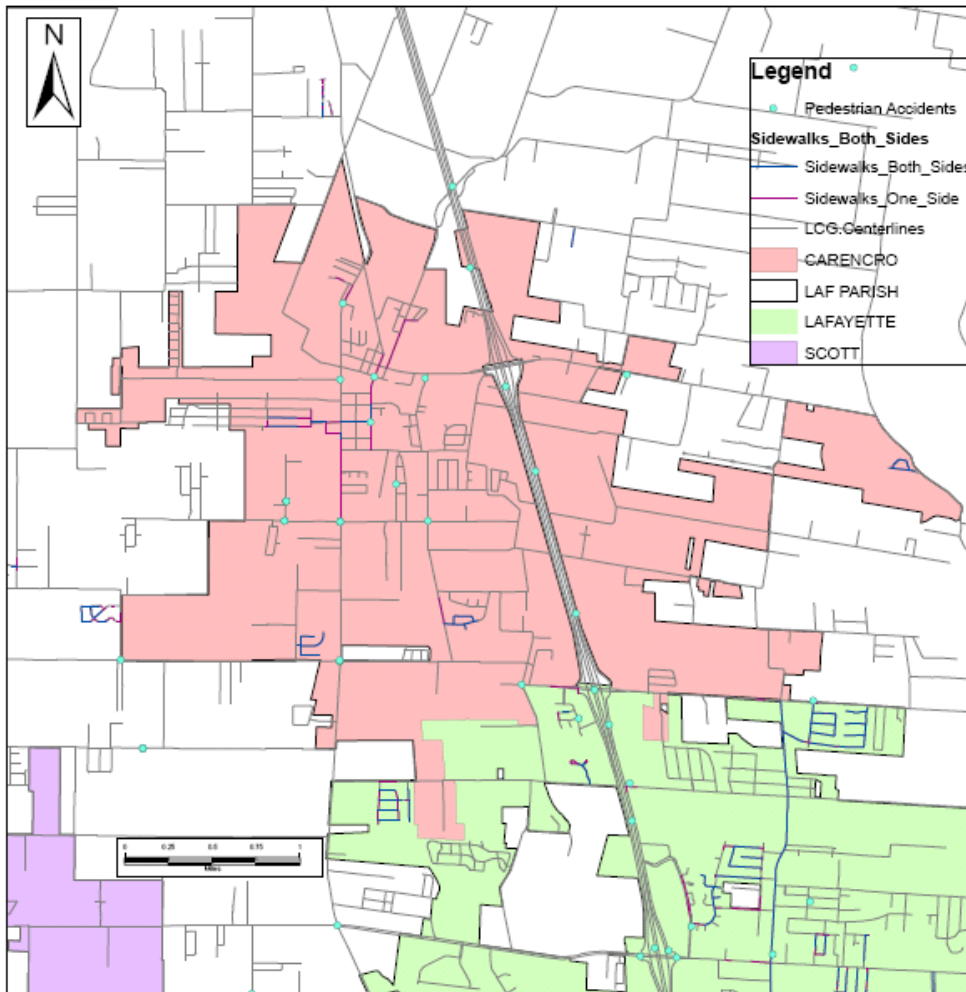
Map 6: Broussard Sidewalk Inventory



### 7.3 Carencro

The City of Carencro, according to Lee Jolly, City Engineer, allocates funding for sidewalk construction. However, no new sidewalk construction has occurred over the last fifteen years.

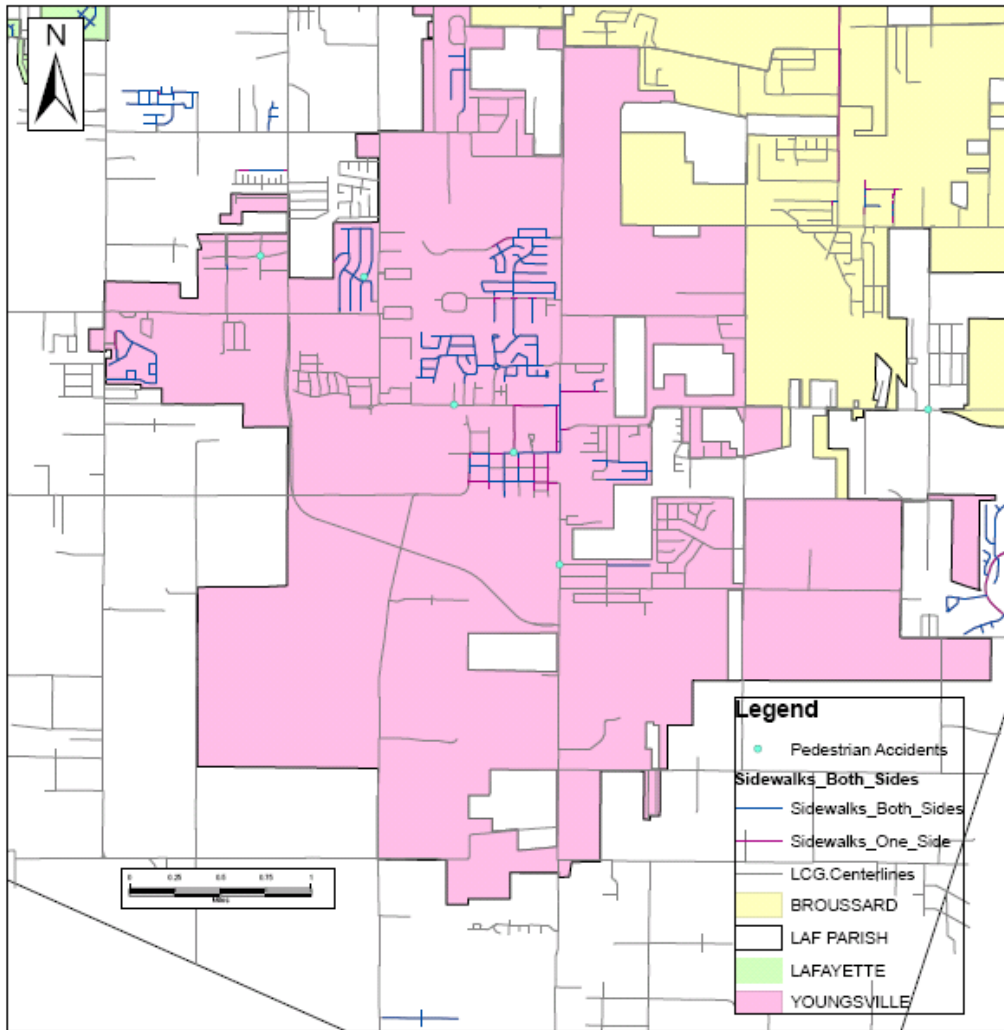
Map 7: Carencro Sidewalk Inventory



#### 7.4 Youngsville

The Town of Youngsville allocates no money for the construction of sidewalks. Sidewalk repairs for the Town of Youngsville are completed on an as-needed basis.

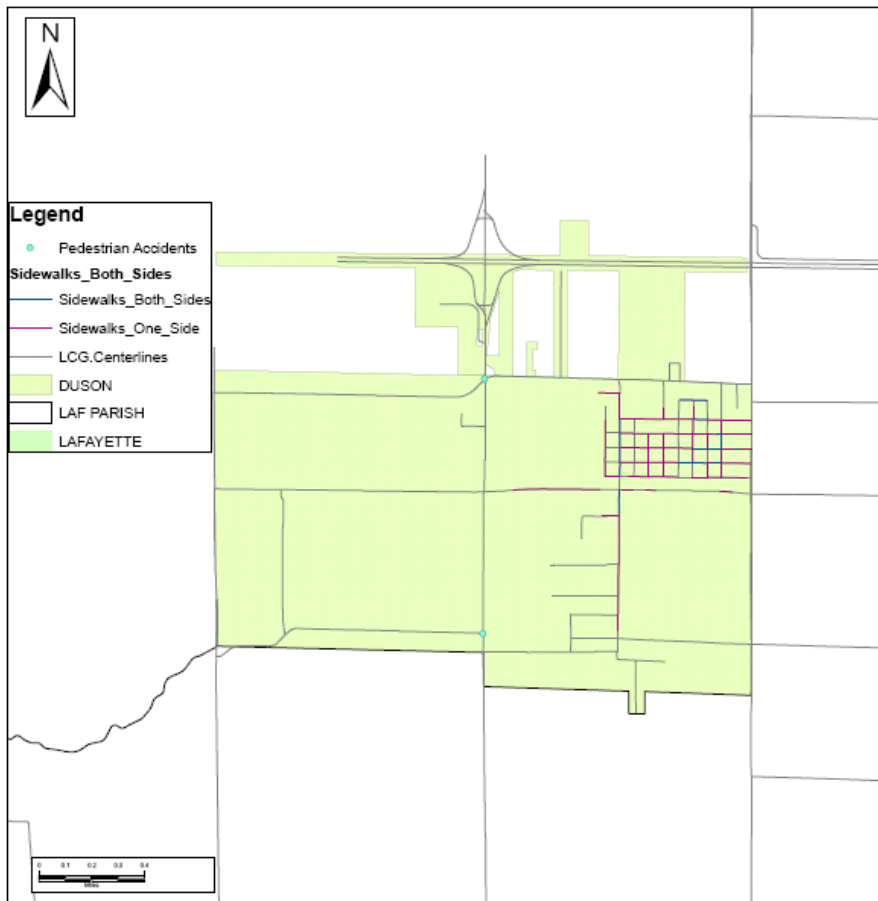
Map 8: Youngsville Sidewalk Inventory



### 7.5 Duson

The Town of Duson has no money for sidewalk construction. However, they have problems with the upkeep of their existing sidewalks due to erosion and open ditches. Duson's sidewalk network is fairly well developed, but most of the sidewalks are only on one side of the road.

Map 9: Duson Sidewalk Inventory



## 8.0 Funding Strategies for Local Street Sidewalks

To make the Lafayette MPO area a more walkable community, pedestrian facilities should be constructed along existing and new roadways. This can be accomplished by requiring that sidewalks be constructed before a final building inspection is conducted or a certificate of occupancy is issued, where applicable. In areas along existing roadways, sidewalk construction may also be funded by front foot assessments in existing developed areas or new developing areas.

Several strategies or combinations of strategies can be utilized to fund sidewalk construction. These options include builder financing, financing by local governments, cost-sharing between builders and local governments, taxes and federal and state funding.

### 8.1 Builder Financed

This option would require the builder to be responsible for all construction costs of the sidewalk.

**Table 3: Development Process for Local Street Sidewalks**

<b>Construction</b>		
<b>Option</b>	<b>Description</b>	<b>Time of Construction</b>
Letter of Credit	Builders request the local government to grant a waiver of immediate construction of sidewalks, to allow final plat approval prior to construction of the sidewalk. Builders contract a financial institution for a Letter of Credit. The local government establishes the dollar amount required.	Upon expiration of the letter of credit
Building Contractor	Sidewalks are constructed by building contractors as part of the building permit and inspection process established by local government.	Upon completion of other subdivision improvements.
Plat Approval	Sidewalk construction is based on a front foot assessment on the proposed property, to be instituted by the local government, at the appropriate time via the Council. The sidewalk easement will run with the land and in conjunction with plat approval.	At discretion of the local government.

**8.2 Local Government Financed**

This option would require local governments to absorb all of the costs generated by residential sidewalk construction. An example of this method is illustrated by the City of Ulysses, Kansas. When a petition is signed by not less than 10 citizens owning real estate in the same neighborhood, who request for residential sidewalks, the petition is filed with the city clerk. Then, the governing body may order the sidewalk(s) to be constructed by resolution. This option can be used in conjunction with federal grants.

**8.3 Cost-Sharing**

This option proposes local government and the builder of the proposed sidewalk to both pay a percentage of the construction cost of the sidewalk. The following cities use this method of funding, which illustrate various percentage schemes:

**Table 5: Cost-Sharing Examples**

<b>City, State</b>	<b>City's Percentage of Cost</b>	<b>Owner's Percentage of Cost</b>
St. Louis, MO	50%	50%
Tallahassee, FL	50%	50%
Homewood, IL	50%	50%
Nashville, TN	60%	40%
Naperville, IL	60%	40%
Traverse, MI	65%	35%
Windsor, Ontario	60-70% (varies from street to street)	30-40% (owner is charged a rate per meter of property)

There is an alternative to percentage schemes that would still qualify as shared financial responsibility. The owner could pay all construction costs of the sidewalk and the city could pay for all subsequent maintenance. Conversely, the city could pay for the construction and the owners could pay for maintenance. Note that maintenance can be just as costly as construction.

#### 8.4 Taxes

Local governments could redirect existing tax collections in order to create a fund for sidewalks. Using the revenues generated by the taxes, the sidewalks could be constructed based on a sidewalk development plan.

#### 8.5 Federal and State Funding

The City of Covington, Louisiana has access through state enabling legislation that allows the city to set up special districts for the purpose of developing public improvements, including sidewalks.<sup>16</sup> If local government had the same powers, they could create districts specifically to build sidewalks.

Federal and state grants are a viable source of funding local sidewalks; however, they are not the most reliable form. The Safe Routes to School program funds pedestrian infrastructure and programs to facilitate walking to school. For every infrastructure project, a complimentary non-infrastructure education project is required. This can be very onerous to set up for a simple sidewalk installation. The Transportation Enhancement Program can also fund sidewalk construction, but the amount that is awarded is rarely enough to actually complete the project.

<sup>16</sup> Louisiana Revised Statute 33:4690:11

## 9.0 Strategies to Increase Walkability

Many academic studies have been undertaken in the fields of public health and urban planning to identify the effect that the physical environment has on overall fitness levels of a population. Extrapolating information from these studies can help the Lafayette area to discover strategies for maximizing efficiency of pedestrian improvements

In the December 2006 issue of the American Journal of Preventive Medicine, researchers evaluated community features that are activity-friendly and focused on the ten most effective strategies for increasing activity levels.<sup>17</sup> Selected actions are:

- “Along with better sidewalks and bike lanes, communities should improve mass transportation so that people can walk to the train station, for instance, instead of driving door to door.
- Improve community aesthetics. People will be more likely to walk if their surroundings are clean and offer some sights to see.
- More schools should require gym classes, while workplaces could offer activity incentives, like flexible schedules or on-site gyms.
- Public policies should divert some of the funds that go to highways toward projects like creating roadway bike lanes. Cities should direct funds toward maintaining parks and other recreational facilities, such as the walking time from a person’s home to a nearby park.”<sup>18</sup>
- “The social environment, for example whether others in your neighborhood are active.
- Land-use environment, for instance the presence of destinations within a 30-minute walking distance from home.”<sup>19</sup>

The study “Socioeconomic Status and Perceptions of Access and Safety for Physical Activity” studied socioeconomic and environmental factors in levels of physical activity.

“Respondents from low socioeconomic status (vs. high socioeconomic status) areas noted that perception of neighborhood crime, unattended dogs, unpleasantness of neighborhood, untrustworthy neighbors and less access to public recreation facilities were a deterrent in use of using recreational trails and pedestrian facilities. GIS data for presence of side-walks, recreation facilities and crime did not support these differences in perceptions; however, respondents from low socioeconomic status (vs. high

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<sup>17</sup> Brennan Ramirez, Laura. *American Journal of Preventive Medicine*, Dec 2006, Vol. 31 Issue 6

<sup>18</sup> Reuters. Sidewalks, parks seen as help in obesity fight. Available: <http://www.cnn.com/2006/HEALTH/11/17/activity.friendly.reut/index.html> Accessed: November 20, 2006.

<sup>19</sup> Dell’Amore, Christine. EcoWellness: Places that get us moving. Available: <http://www.upi.com/ConsumerHealthDaily/view.php?StoryID=20061030-050213-6290r> Accessed: November 20, 2006.

socioeconomic status) areas had substantially fewer trails and sidewalks. Having and using trails in one's community predicted sufficient physical activity and walking for 150 min/week for low socioeconomic status respondents but not for high socioeconomic status respondents.”<sup>20</sup>

A related article by the same authors appeared in the Journal of Public Health under the title “Associations of Perceived Social and Physical Environmental Supports with Physical Activity and Walking Behavior.” “Thirteen items addressed perceived supports and barriers of physical activity in the neighborhood, defined as a 0.5-mile radius or 10-minute walk from the respondent's home. Supports for physical activity were sidewalks, public recreation facilities, streetlights, having a pleasant neighborhood for walking, and physically active neighbors. Barriers to physical activity included traffic volume, unattended dogs, crime, and perception of neighbors being untrustworthy.”<sup>21</sup>

## 9.1 Overview of Strategies

There is one primary action that the local government can undertake in the expansion of a walkable Lafayette, and that is increasing the number of miles of sidewalks. There are two secondary actions: improving the existing land uses, and the reduction of negative factors that discourage people from walking. “Neighborhood environment characteristics had moderate to high test-retest reliabilities. Residents of high-walkability neighborhoods reported higher residential density, land use mix, street connectivity, aesthetics, and safety. They had more than 70 more minutes of physical activity and had lower obesity prevalence (adjusted for individual demographics) than did residents of low-walkability neighborhoods.”<sup>22</sup>

## 9.2 Decreasing Pedestrian Crashes

Decreasing the number of pedestrian accidents can be achieved by encouraging several policies all ready undertaken by the Traffic and Transportation Department with Lafayette Consolidated Government. The existing traffic calming program is a major asset in lowering traffic speeds and improving the pedestrian environment. LaDOTD, in its statewide plan, promotes redesigning intersections, bus stops, and streets in general to support pedestrian activity. The Safe Routes to School program has an education

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<sup>20</sup> “Socioeconomic Status and Perceptions of Access and Safety for Physical Activity.” Wilson, Dawn K.; Kirtland, Karen A.; Ainsworth, Barbara E.; Addy, Cheryl L. *Annals of Behavioral Medicine*. 2004, Vol. 28 Issue 1, p. 20

<sup>21</sup> “Associations of Perceived Social and Physical Environmental Supports With Physical Activity and Walking Behavior.” Addy, Cheryl L.; Wilson, Dawn K.; Kirtland, Karen A.; Ainsworth, Barbara E.; Sharpe, Patricia; Kimsey, Dexter. *American Journal of Public Health*. 2004, Vol. 94 Issue 3, p.440

<sup>22</sup> Saelens BE, Sallis JF, Black JB, Chen D. “Neighborhood-based Differences in Physical Activity: an Environment Scale Evaluation. *American Journal of Public Health* 2003;93(9):1552-8.

component to help children gain the knowledge and confidence to become safe pedestrians.

### 9.3 Land Use Changes

Using the measure of locations of pedestrian accidents as indication of pedestrian activity, businesses are attractors of people who walk. However, most people in Lafayette reside in areas that are fairly isolated from businesses within walking distances. There needs to be more integration of the businesses and residential land uses in Lafayette. According to a study published in the American Journal of Preventive Medicine, “the odds ratio (OR) for walking in a neighborhood with 4 business types present compared to 3 business types was 1.24.”<sup>23</sup> Density and short block lengths (between 300 to 600 feet) are also major land use factors that encourage walking trips.

### 9.4 Improving Negative Factors

It is essential for sidewalks to be constructed safely and maintained properly. Improper maintenance and poorly built sidewalks gives a feeling of uncertainty to pedestrians, as seen in the Nationwide Personal Transportation Survey as a major discouragement. A neighborhood with well-maintained infrastructure also has the added bonus of ensuring good public perception and property values.

### 9.5 Increasing the Pedestrian Network

The most important action to improving walkability is to better develop the pedestrian infrastructure by filling gaps in the sidewalk network and building new sidewalks. The CDC Task Force on Community Preventive Services recommends the “intervention to increase physical activity by using environmental and policy approaches i.e., the creation of or enhanced access to places for physical activity.”<sup>24</sup> Funding for the creation of sidewalks should be part of the Capital Improvement Program for Lafayette Consolidated Government.

Due to the overwhelming need for sidewalks, a priority evaluation matrix should be used to determine where sidewalks would be distributed. These priorities should be: expansion of current pedestrian network, access to schools, access to public transit stops, access to retail, recreation, employment centers and other destinations, high density areas, and functional classification of roadway, with priority going to arterials or collectors. A similar matrix was employed in the application process for the 2006 Safe Routes to School grant.

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<sup>23</sup> Boer, Zheng, Overton, Ridgeway, and Cohen. “Neighborhood Design and Walking Trips in Ten U.S. Metropolitan Areas”. *American Journal of Preventive Medicine* 2007 April; 32(4): 298–304.

<sup>24</sup> Centers for Disease Control and Prevention. “Increasing physical activity. A Report on Recommendations of the Task Force on Community Preventive Services.” MMWR Recommendation Report 2001;50(RR-18):1-14.

Example Matrix:

<b>Sidewalk Project</b>	<b>Yes</b>	<b>No</b>	<b>Points</b>
Expansion of Current Pedestrian Network			
Project Located within 1/4 of a Mile from Transit Route <sup>25</sup>			
Project Located within 1/4 of a Mile from Retail Development			
Project Located within 1/4 of a Mile from High Density Area			
Project Located within 1/4 of a Mile from Employment Center			
Project Located within 1/4 of a Mile from Recreation Center			
Project Located on Arterial or Collector Street Classification			
Project Located within 1/4 of a Mile of Existing Sidewalk Network			
Existing Foot Path without Sidewalk			
Project Located within 1/4 of a Mile from a School			
Project Located in a Designated Node Planning Area			
No Grade Issues			
Limited Obstacles Issues			

Safe Routes to School Matrix:

School	School is Embedded in Neighborhood	School is Accessible by Low Volume or Local Street	Residential is Primary Adjacent Land Use	Existing Sidewalk Network Around School	Located in Densely Populated Area
Example School	No	No	No	Yes	Yes

Every year, the Public Works and Traffic and Transportation Departments should meet to determine how much money there is to fund sidewalks and where to fund them. The results of that meeting would be written in the CIP and the projects would be funded and built.

## 10.0 Conclusion

Lafayette Parish has serious infrastructure needs, and sidewalks are only one part of the puzzle. However, through sustained financing of pedestrian improvements, Lafayette could rectify many of these outstanding issues. Walkability is a planning quality that is eminently vital to our health, environment, safety, and overall well-being of our community.

<sup>25</sup> The radius of 1/4 mile was chosen because it was the median length of a daily walking trip in NPTS-1995.

## **11.0 Appendix**

Map 10: Pedestrian Crashes and Sidewalk Inventory

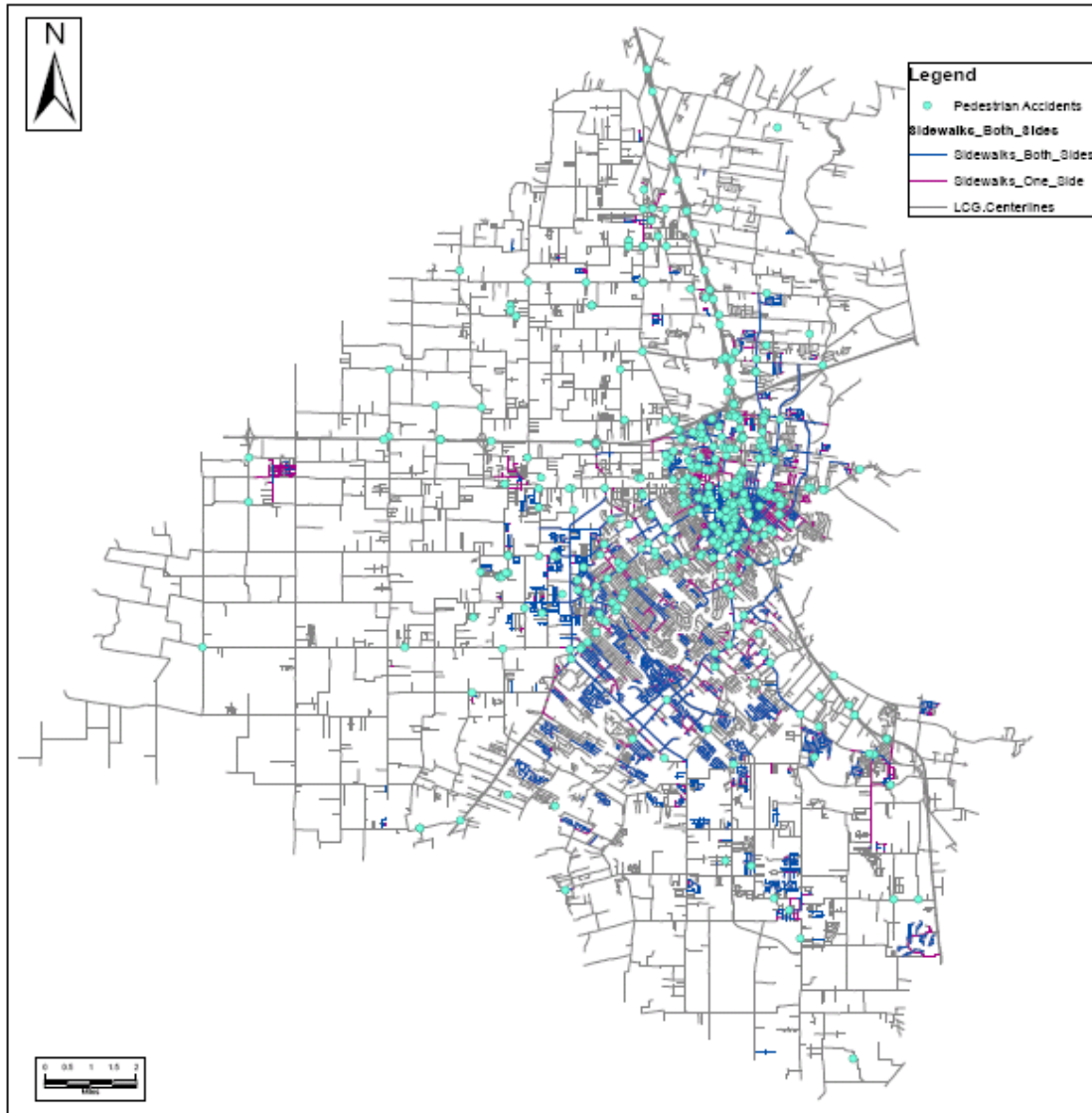


Table 5: Pedestrian Crash Causes Summary

Primary Contributing Factors	Number of Incidents
Condition of Driver	15
Kind of Location	4
Lighting	3
Movement Before Crash	56
Pedestrian Actions	129
Pedestrian Condition	21

Secondary Contributing Factors	Number of Incidents
Condition of Driver	18
Kind of Location	17
Lighting	17
Movement Before Crash	213
Pedestrian Actions	53
Pedestrian Condition	33

Highway Type	Number of Incidents
City Street	206
Interstate	28
Parish Road	36
State Hwy	99
US Hwy	65
Unknown	63

Road Condition	4
Road Surface	1
Driver Violations	187
Vision Obscure	4
Weather	2
Unknown	71

Road Condition	3
Road Surface	0
Driver Violations	29
Vision Obscure	15
Weather	2
Unknown	97

Road Condition	Number of Incidents
Abnormal Shoulder	5
Construction Repair	2
None	414
Object in Road	1
Other	7
Previous Crash	1
Unknown	67

Lighting Conditions	Number of Incidents
Dark - Continuous Street Lights	85
Dark - No Street Lights	56
Dark - Street Lights at Intersection	25
Dawn	5
Daylight	246
Dusk	8
Unknown	72

Location Type	Number of Incidents
Business	141
Industrial	2
Mixed Use	121
Open Country	17
Residential	104
Residential Scattered	30
School	15
Unknown	67

Weather Condition	Number of Incidents
Clear	273
Cloudy	120
Fog/Smoke	6
Rain	27
Unknown	71

Road Type	Number of Incidents
Two Way Road with Barrier	3
Two Way Road with No Separation	390
Two Way Road Separated	51
One Way	34
Other	2
Unknown	17

Surface Condition	Number of Incidents
Dry	387
Wet	42
Unknown	68

**Louisiana Revised Statute 33:4690:11**

The legislature recognizes that the government of the city of Covington operates under the provisions of a home rule charter, the "charter", adopted in accordance with the provisions of Article VI, Section 5 of the Constitution of Louisiana and that pursuant to that charter and R.S.

33:361, it has all powers necessary to perform any function necessary, requisite or proper for the management of its affairs not denied by law.

Without limiting any authority of the city council of the city of Covington authorized by the charter or by law, the city council may:

- (1) Create public improvement districts that shall consist of areas of territory within the city that may or may not be contiguous.
- (2) Designate the public purpose or purposes for which said districts are created.
- (3) Authorize the performance of such governmental functions as the council may deem appropriate.
- (4) Designate a governing authority for such district which may or may not be the city council.
- (5) Designate that certain concessions be made for the elderly and low income persons and provide definitions for the same.”