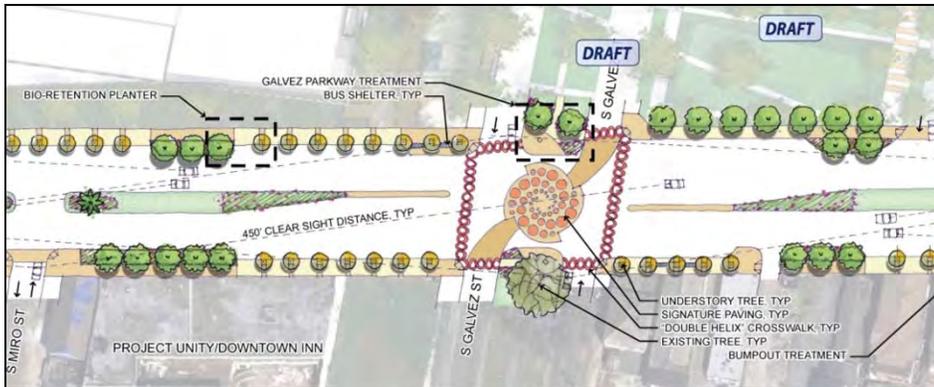
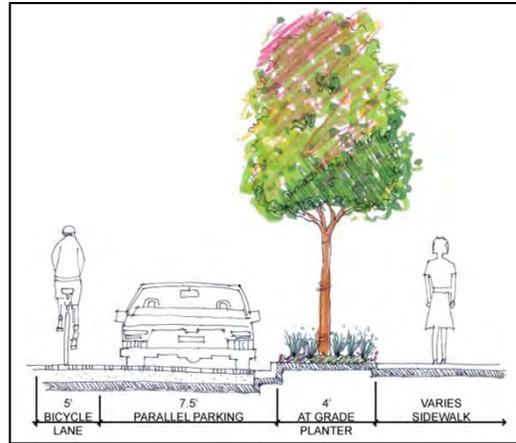


US 61/Tulane Avenue Corridor Improvements Stage 0 Feasibility Report



February 2011

Prepared for:



Regional Planning Commission
for Jefferson, Orleans, Plaquemines,
St. Bernard, and St. Tammany Parishes

State Project No. 700-36-0187
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Table of Contents

| | | |
|------------|---|------------|
| 1.0 | Introduction..... | 1-1 |
| 1.1 | Project Overview | 1-1 |
| 1.2 | US 61/Tulane Avenue Corridor History | 1-1 |
| 1.3 | Project Description..... | 1-4 |
| 1.4 | Project Objectives | 1-7 |
| 1.5 | Purpose and Need | 1-8 |
| 2.0 | Data Collection | 2-1 |
| 2.1 | Overview of Data Collection Effort..... | 2-1 |
| 2.2 | Facilities Inventory | 2-2 |
| 2.3 | Existing Typical Section..... | 2-2 |
| 3.0 | Existing and Proposed Land Use..... | 3-1 |
| 3.1 | Existing Land Use..... | 3-1 |
| 3.2 | Proposed Land Use | 3-6 |
| 4.0 | Existing Conditions..... | 4-1 |
| 4.1 | Historic and Existing Average Daily Traffic | 4-1 |
| 4.2 | Roadway Network | 4-1 |
| 4.3 | Existing Peak Hour Volumes and Operations | 4-3 |
| 4.4 | Environmental Inventory | 4-5 |
| 5.0 | Future Traffic Conditions | 5-1 |
| 5.1 | Future Roadway Network..... | 5-1 |
| 5.2 | Future Average Daily Traffic..... | 5-1 |
| 5.3 | Future Peak Hour Volumes..... | 5-2 |
| 5.4 | Future Peak Hour Traffic Operations | 5-3 |
| 5.5 | VISSIM Model..... | 5-4 |
| 6.0 | Proposed Corridor Improvements | 6-1 |
| 6.1 | Roadway Design Guidelines..... | 6-1 |
| 6.2 | Louisiana’s Complete Streets Policy | 6-2 |
| 6.3 | Alternative Development Process..... | 6-6 |
| 6.4 | Proposed Typical Sections | 6-7 |
| 6.5 | Proposed Corridor Improvements..... | 6-10 |
| 6.6 | Conceptual Streetscape Design..... | 6-16 |

Table of Contents (Continued)

7.0 Other Transportation Modes 7-1

7.1 Pedestrian 7-1

7.2 Bicycles..... 7-1

7.3 Transit 7-3

8.0 Opinion of Probable Cost & Implementation Phasing..... 8-1

8.1 Estimated Cost Methodology..... 8-1

8.2 Implementation Phasing/Estimated Cost of Phased Improvements 8-1

9.0 Public Involvement 9-1

10.0 Conclusion 10-1

10.1 Summary of Impacts 10-1

10.2 Summary of Cost Estimates..... 10-1

10.3 Summary of Additional Planning Tasks 10-2

10.4 Possible Funding Resources 10-3

List of Appendices

Appendix A References

Appendix B Conceptual Engineering and Environmental Map Atlas

Appendix C Environmental Checklists and Preliminary Scope and Budget Worksheets

Appendix D Tulane Avenue Corridor Stakeholder Meeting Materials

List of Figures

Figure 1-1 Study Area Map 1-2

Figure 1-2 Neighborhoods and Historic Districts..... 1-5

Figure 1-3 Tulane Avenue Vision 1-7

Figure 1-4 Tulane Avenue with Improvements and Streetscape..... 1-8

Figure 2-1 Highway Functional Classification..... 2-3

Figure 2-2 Existing Typical Section 2-4

Figure 2-3 Existing Typical Section 3-D View 2-4

Figure 3-1 Tulane Avenue Development 3-2

Figure 3-2 VAMC Preliminary Site Plan 3-7

Figure 3-3 UMC Preliminary Site Plan 3-9

Figure 4-1 Existing Traffic Signals 4-2

Figure 4-2 Environmental Constraints..... 4-7

Figure 5-1 Tulane Avenue at S. Broad Street Intersection..... 5-7

Figure 5-2 Tulane Avenue at S. Rocheblave Street Intersection..... 5-8

Table of Contents (Continued)

| | | |
|----------------|---|------------|
| Figure 5-3 | Tulane Avenue at S. Galvez Street Intersection | 5-9 |
| Figure 5-4 | Tulane Avenue at S. Prieur Street Intersection | 5-10 |
| Figure 6-1 | Minimum Reconstruction Alternative Typical Section | 6-8 |
| Figure 6-2 | Minimum Reconstruction Alternative Typical Section 3-D View | 6-9 |
| Figure 6-3 | Total Reconstruction Alternative Typical Section..... | 6-9 |
| Figure 6-4 | Total Reconstruction Alternative Typical Section 3-D View..... | 6-10 |
| Figure 6-5 | Dixie Brewery Blast Radius Schematic | 6-13 |
| Figure 6-6 | Dixie Brewery Blast Radius Typical Section | 6-14 |
| Figure 7-1 | Existing and Proposed Bicycle Routes | 7-3 |
| Figure 7-2 | Existing Transit Routes..... | 7-4 |
| Figure 7-3 - 6 | RTA Bus Stop Evaluation..... | 7-8 – 7-11 |

List of Tables

| | | |
|------------|---|------|
| Table 2-1 | Tulane Avenue Roadway Inventory | 2-2 |
| Table 4-1 | Tulane Avenue Historic Average Daily Traffic Counts | 4-1 |
| Table 4-2 | 2009 Key Traffic Counts | 4-3 |
| Table 4-3 | Level of Service Criteria for Intersections..... | 4-4 |
| Table 4-4 | Existing Condition Level of Service | 4-5 |
| Table 5-1 | Daily Trip Generation Summary | 5-2 |
| Table 5-2 | Future Condition Level of Service..... | 5-4 |
| Table 6-1 | Roadway Design Guidelines..... | 6-1 |
| Table 7-1 | Tulane Avenue Existing In-bound/Out-bound Stops..... | 7-5 |
| Table 7-2 | Tulane Avenue Proposed In-bound/Out-bound Stops | 7-6 |
| Table 8-1 | Estimate Cost by Phase (2010 dollars) | 8-2 |
| Table 10-1 | Estimated Costs by Phase (2010 dollars)..... | 10-2 |

List of Photos

| | | |
|---------------|---|-----------------|
| Photo 1-1 | Dixie Brewery..... | 1-3 |
| Photo 2-1 | Sidewalk Encroachment..... | 2-5 |
| Photo 3-1 | St. Joseph’s Catholic Church | 3-4 |
| Photo 3-2 | Orleans Parish Courthouse..... | 3-4 |
| Photo 3-3 | Dixie Brewery | 3-4 |
| Photo 3-4 | Goodwill Store and Headquarters..... | 3-4 |
| Photo 3-5 | St. Michael Senior Housing | 3-5 |
| Photo 3-6 | The Terraces..... | 3-5 |
| Photo 3-7 | The Preserve..... | 3-5 |
| Photo 3-8 | The Crescent Club..... | 3-5 |
| Photo 3-9 | The Crescent Club Retail Center | 3-5 |
| Photo 3-10 | Louisiana Cancer Research Center | 3-6 |
| Photo 4-1 | Pershing Park Statue | 4-6 |
| Photo 4-2 | Orleans Parish Criminal Courts Building | 4-11 |
| Photo 6-1 – 3 | Oak Street Improvements | 6-3 through 6-4 |
| Photo 6-4 – 6 | Magazine Street Improvements | 6-5 through 6-6 |
| Photo 6-7 | Example of Concrete with Brick Banding | 6-18 |

CHAPTER 1.0

1.0 INTRODUCTION

1.1 Project Overview

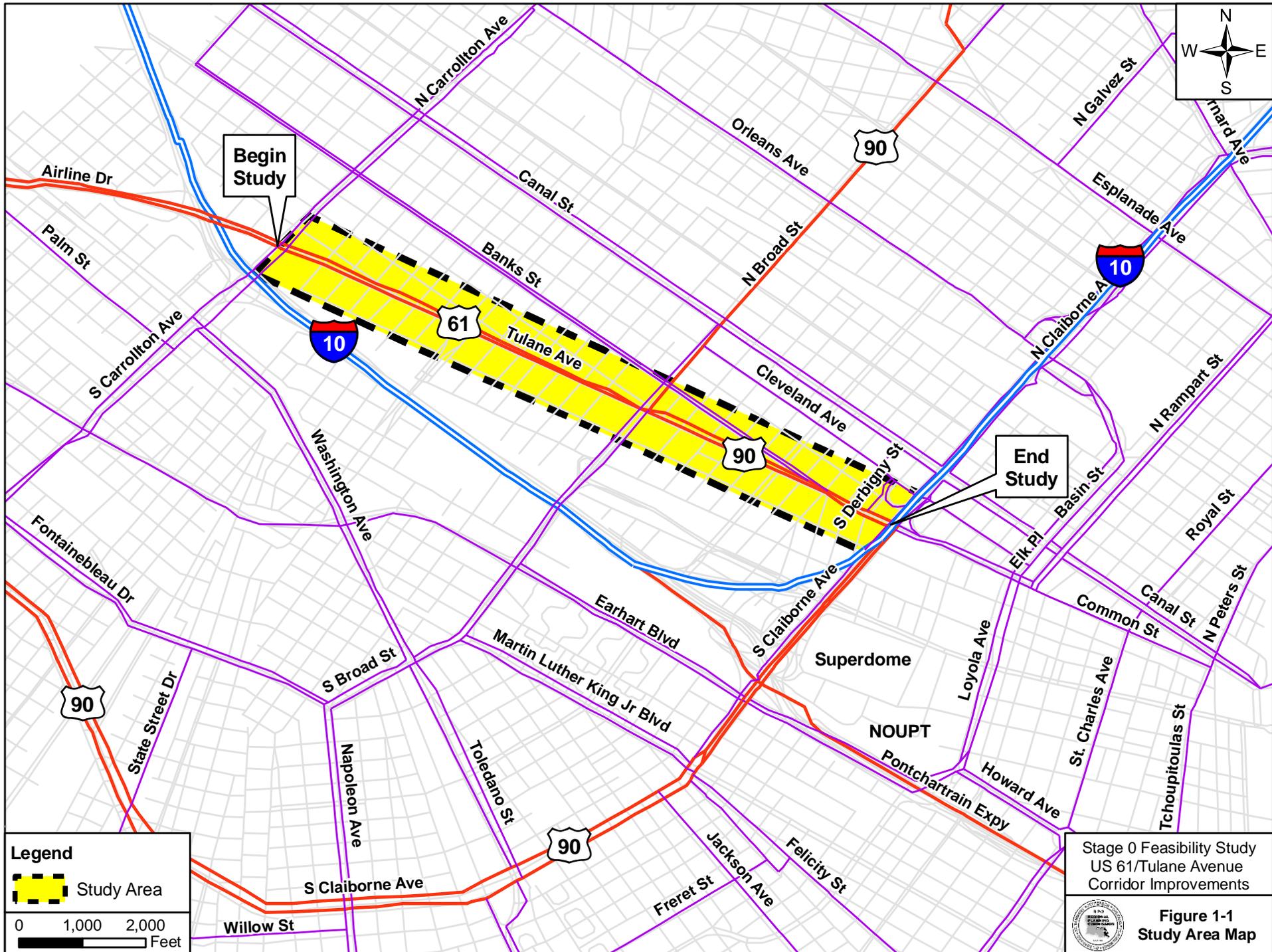
The Regional Planning Commission (RPC) has retained URS Corporation to conduct the *US 61/Tulane Avenue Corridor Improvements – Stage 0 Feasibility Study*. This evaluation will address roadway preservation, traffic safety and operational issues, pedestrian safety, alternatives for enhanced transit service, roadway access management, and Transportation System Management (TSM) needs. A recommended roadway typical section and associated intersection improvements have been identified to support future traffic demand and adjacent land use while enhancing pedestrian and transit system operations. TSM considerations include geometric improvements, transit priority measures, and enhancements to the pedestrian and visual environment.

The overall limits of the study area span from S. Carrollton Avenue east to S. Claiborne Avenue, a distance of 1.93 miles. Tulane Avenue is a designated state route; between S. Carrollton Avenue and S. Broad Street, Tulane Avenue is designated as US Highway 61 (US 61) and between S. Broad Street and Claiborne Avenue, Tulane Avenue is designated as US 90. The limits of the study area are presented on **Figure 1-1**. The limits of the Tulane Avenue corridor study include two New Orleans neighborhoods: Mid-City and Tulane-Gravier. The Mid-City neighborhood includes the portion of Tulane Avenue between S. Carrollton Avenue and S. Broad Street and the Tulane-Gravier neighborhood includes the portion of Tulane Avenue between S. Broad Street and S. Claiborne Avenue. Both neighborhoods are in the Orleans Parish designated planning District 4.

A summary of existing and future traffic, compiled from Louisiana Department of Transportation and Development (LADOTD) historic traffic count data and Urban Systems, Inc.'s *Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* (January, 2010) and *Draft University Medical Center (UMC) Traffic Impact Analysis* (March, 2010), is also included in this *US 61/Tulane Avenue Corridor Improvements – Stage 0 Feasibility Study*.

1.2 US 61/Tulane Avenue Corridor History

The US 61/Tulane Avenue corridor has been a key component of public transportation, business, and medical service facilities for the past 100 years. The transformation began in the 1890's, and by 1900, the New Orleans Carrollton Railroad Company began running electric service cars (streetcars) along Tulane Avenue from Loyola Avenue to S. Carrollton Avenue. This system operated until January 1951. In 1951, the streetcars were replaced with the Tulane Trolley Busline. This system was operated by New Orleans Public Service which was the public utility that provided electric and gas service to the city and operated the transit system. By the 1960's, the Tulane Trolley was replaced with a standard rubber tire bus system, which continues today and is operated by the New Orleans Regional Transit Authority (RTA). An additional intrastate and interstate transit system was part of Tulane Avenue until the late 1970's with both the



Begin Study

End Study



Greyhound and Continental Trailways terminals located on Tulane Avenue. The operation of both Greyhound and Trailways were consolidated into the New Orleans Union Passenger Terminal (NOUPT) by the late 1970's.

In 1957, the City of New Orleans decided to reengineer and widen Tulane Avenue to facilitate the rapidly expanding medical services center. These improvements were made because Tulane Avenue was the major medical center transportation corridor for the region with Charity Hospital, the Louisiana State University (LSU) Medical Center, and an expanding Tulane Medical Center all located on Tulane Avenue. Additionally, other medical facilities in the vicinity of Tulane Avenue included the Veteran's Affairs (VA) Medical Center, the Charity Hospital School of Nursing, and the former Hotel Dieu Hospital. The transition continues today as Tulane Avenue is an integral part of the Greater New Orleans Biomedical Economic Development District (GNOBEDD).

Prior to completion of the Interstate 10 (I-10) system in the 1970's, the US 61/Tulane Avenue corridor was the major transportation artery from New Orleans to the west, which included Jefferson Parish, the river parishes, Baton Rouge, and beyond. The businesses that developed on Tulane Avenue, especially between S. Galvez Street and S. Carrolton Avenue, included tourist related businesses: hotels/motels, restaurants, auto service centers, and other similar services for the motoring public. There were two notable exceptions to this: the New Orleans Criminal Justice Center and the former Dixie Brewery (**Photo 1-1**). The Dixie Brewery is scheduled to become part of the Veterans Affairs Medical Center expansion through modification of the existing structure.



Photo 1-1
Dixie Brewery

With the advent of I-10 bringing traffic more directly to the New Orleans central business district in the 1970's, the use of the US 61/Tulane Avenue corridor declined and what followed was a negative impact on businesses. Since Hurricane Katrina, the prospects for this area, and specifically Tulane Avenue, have been improving with the announcement of the new VA and LSU Medical Centers. New residential and commercial developments have opened on Tulane Avenue between S. Broad Street and S. Carrolton Avenue. This new business development was a direct result of various Federal, state, and local incentive programs since Hurricane Katrina which were designed to strengthen the local economy. There are now over 1,000 occupied housing units on Tulane Avenue, within the study limits, and small businesses have also opened to serve these new residents. An impediment to additional development on Tulane Avenue has been the general state of the nation's economy. As the national economy improves over the new few years and as the new Veteran's Affairs Medical Center (VAMC) and University Medical Center (UMC) complete construction, the impact is going to bring

Tulane Avenue and the entire US 61 corridor in Orleans Parish to a new era of prosperity as a vital part of the city and the region's economy. An additional concern related to the decline of Tulane Avenue may be attributed to the lack of left-turn availability. The lack of left-turns provided little access to commercial properties along the corridor.

In 2007, the New Orleans City Council requested that the US 61/Tulane Avenue corridor be evaluated in further detail by the RPC. With the City's request, the new and proposed developments in the corridor, and the changes in federal administration and policy regarding increasing support of livable communities, the time to improve the corridor is approaching.

The US 61/Tulane Avenue corridor is also located within the Greater New Orleans Biosciences Economic Development District (GNOBEDD). The GNOBEDD is a 2.4 square mile state-enabled economic development district created in 2005 by the State of Louisiana. The GNOBEDD district is generally bounded by Loyola Avenue, Iberville Street, Carrollton Avenue, and Earhart Boulevard. The goal of the GNOBEDD is to grow the programmatic and physical development components of the biosciences sector of the New Orleans economy, which is comprised of LSU and Tulane University Health Sciences Center, Xavier University and School of Pharmacy, and Delgado College.

Another designated district adjacent to the study corridor is the New Orleans Medical Historic District (NOMHD). The NOMHD is bounded by Tulane Avenue, S. Liberty Street, Gravier Street, LaSalle Street, Perdido Street, and S. Claiborne Avenue. Although not currently listed by the National Register of Historic Places (NRHP), the 2008 *Final Programmatic Environmental Assessment for Site Selection – Veterans Affairs Medical Center and Louisiana State University Academic Medical Center of Louisiana* identified this district as eligible for listing on the NRHP.

The neighborhoods and districts identified within and adjacent to the study corridor are presented on **Figure 1-2**.

1.3 Project Description

As part of the Louisiana Department of Transportation and Development's (LADOTD) Stage 0 comprehensive planning process, the *US 61/Tulane Avenue Corridor Improvements – Stage 0 Feasibility Study* includes the following analyses:

- Limited traffic study that examines traffic impact analyses conducted for the VA and University Medical Centers and includes an evaluation and simulation of traffic operations utilizing VISSIM software package;
- Limited evaluation of existing transit routes and stops and recommendations for new stops along the corridor that enhance the transit system; and

- Proposed improvements that support future traffic demand and adjacent land use while enhancing pedestrian and transit system operations. These improvements consider eliminating a travel lane in each direction and developing a 4-lane divided roadway with a median along Tulane Avenue.

The scope of services for the limited traffic study consists of identifying vehicular trips likely generated by new and proposed development along the corridor and incorporating results and recommendations from the *Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* and *Draft University Medical Center (UMC) Traffic Impact Analysis* conducted by Urban Systems, Inc.

Conceptual engineering designs have been developed for the corridor that include the recommended roadway typical section, access management, and intersection improvements. Preliminary construction cost estimates and a preliminary construction phasing plan are also included in this study. The proposed typical section and additional improvements were presented to, and refined through a collaborative effort with the Tulane Avenue Steering Committee stakeholders. The proposed roadway typical section consists of amenities associated with a complete streets project, including:

- Reduction from 6 to 4 travel lanes (wider travel lanes);
- Wider medians that are able to accommodate left-turn lanes at key intersections;
- Exclusive right-turn lanes at key intersections;
- Access management including median closures, driveway consolidation, and driveway elimination;
- Dedicated bike lanes;
- Retention of existing parking lane; and
- Overall improved streetscape and pedestrian and transit system operations utilizing bump-outs, pedestrian signals and crossings, and other amenities.

LADOTD uses two criteria for identifying candidate state route improvement projects in the Stage 0 process: (1) technical evaluation and (2) input from stakeholders. The technical evaluation criterion involves gathering and analyzing data pertaining to the physical condition, operational characteristics, congestion, and safety performance of a state route. The second method seeks input from stakeholders which includes the general public, state and local elected officials, and metropolitan planning organizations (MPO). Once the project reaches the Stage 0 process, the project's feasibility and future is determined from information gathered to create a baseline for decision making. After the completion of the Stage 0 Study, a decision regarding project advancement is made. If a project is deemed feasible, then it will proceed through the project delivery process to Stage 1, Planning and Environmental and ultimately Stage 5, Construction. Some projects may not advance through the project delivery process and may be retained for future consideration or dropped completely.

1.4 Project Objectives

Project objectives were developed with input from members of the Tulane Avenue Steering Committee which included: LADOTD, RPC, the Downtown Development District (DDD), RTA, GNOBEDD, LSU Health Sciences Center, the Veterans Affairs Medical Center (VAMC), as well as City, Parish, and State elected officials and various business owners and community groups.

The objectives associated with improvements to the corridor are:

- Reinvent Tulane Avenue
- Improve the neighborhood
- Provide quality of life enhancements and sustainability
- Promote urban living
- Promote pedestrian and bicycle activity
- Promote economic revitalization
- Enhance public transit service

The project objectives coincide with the Tulane Avenue vision, presented in **Figure 1-3** and **Figure 1-4**.

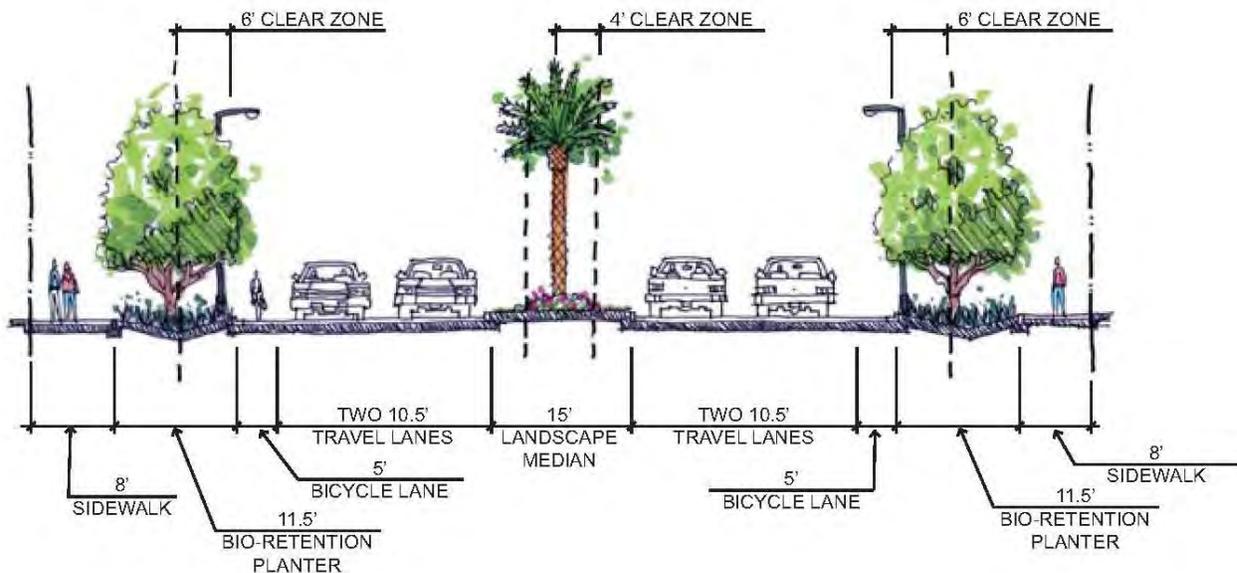
Figure 1-3
Tulane Avenue Vision



Perspective view of Tulane Avenue reconfigured as a four lane boulevard

Source: RPC, December 2008

**Figure 1-4
Tulane Avenue with Improvements and Streetscape**



Source: URS, 2010

1.5 Purpose and Need

A clear understanding of the purpose and need for a transportation infrastructure project is important in order to provide justification, and ultimately funding for the proposed action and to provide a basis for the development, evaluation and selection of feasible and reasonable alternatives. The goals and objectives for the project, as well as policies adopted as part of the regional transportation planning process provide the foundation for defining the purpose and need for the Tulane Avenue project as described below.

Legislation / Adopted Plans:

State – In July 2010, the LADOTD released its *Complete Streets* policy which encourages safe access for all uses including pedestrians, bicyclists, motorists and transit riders. Many of the project objectives listed within this prior report Section 1.4 would ensure a fully integrated transportation corridor in accordance with the intent of the *Complete Streets* policy.

Local / Regional Planning Commission - The *Transportation Improvement Program (TIP) for the New Orleans Urbanized Area, Fiscal Years 2011 - 2014* (RPC, June 2010) indicates that one of the goals of the RPC is to “foster livable communities through the integration of land use and transportation planning and decision-making”. Redevelopment of the Tulane Avenue corridor is one of the key projects contained within the TIP that would fulfill the goal of a livable community.

Local / City of New Orleans - The City of New Orleans Master Plan; entitled *Plan for the 21st Century: New Orleans 2030* includes a summary of recommended goals and strategies that are applicable to the Tulane Avenue corridor. These relevant goals and strategies are presented below:

- Encourage transportation choice to promote transportation efficiency, optimum use of existing roadway space, efficient mass transit, reduced capital investments and operating costs, reduced congestion and travel times and better air quality and public health.
- Adopt a complete streets policy that mandates consideration of pedestrians and bicycles in every road project to ensure continued attention to all travel modes.
- Advance projects that enhance connectivity, reduce barriers and improve attractiveness of neighborhoods, commercial sites and public spaces while addressing mobility

The proposed project would address each of these goals and strategies.

System Linkage and Mobility:

As shown in **Figure 1-1**, the Tulane Avenue corridor generally parallels Interstate 10 and provides secondary access between Jefferson Parish and Orleans Parish. Tulane Avenue is a vital link to existing and proposed major medical facilities and the central business district of New Orleans. Preservation of the corridor is a key component to enhancing mobility for all modes of transportation.

A dedicated bike lane is proposed within the City of New Orleans Master Plan (see **Figure 7-2**). The Tulane Avenue bike lane is part of a regional bike system linking other city-wide bikeways with the goal of encouraging bicycling as an alternative mode of transportation and to enhance quality of life.

Safety:

Vehicular Safety - The existing typical section of Tulane Avenue consists of a 6-lane divided roadway with a 4-foot raised median. Throughout the project limits, left turns are currently prohibited at several intersections due to inadequate space for a dedicated left turn lane. Although left turn movements are prohibited, motorists often do turn left. In these instances, a vehicle has to stop in the inside travel lane and wait for a gap in traffic approaching from the opposite direction prior to making a left turn. This situation has the tendency to increase rear-end type crashes. In addition, the lack of dedicated left-turn lanes restricts access to adjacent development and neighborhoods. The construction of exclusive left turn lanes at key intersections would improve safety and increase access to adjacent land use.

Pedestrian Safety - Pedestrian activity along Tulane Avenue is prominent due to existing development including major destinations such as the Orleans Parish Courthouse.

Significant populations of households in Orleans Parish do not own a car, commute to work by way of walking or use public transportation. These factors contribute to the need for well maintained, safe and accessible sidewalks to improve mobility. Sidewalks exist along the corridor but most are in need of repair and do not include pedestrian features such as handicap ramps, pedestrian crosswalks and pedestrian crossing signal at intersections. The existing narrow median provides limited refuge area for pedestrians crossing the roadway.

As new development takes, pedestrian activity is projected to increase. Pedestrian features such as wider medians for refuge areas, high-visibility crosswalks, wheelchair accessible ramps and pedestrian amenities would improve safety for pedestrians.

Bicycle Safety - Currently there are no dedicated bike lanes on Tulane Avenue. Bicyclists currently use the outside travel lane or parking lane (when there are no cars parked). Crashes involving bikes and motor vehicles have occurred along the corridor. Providing a dedicated bike lane with the appropriate pavement markings would improve safety for bicyclists.

Operational Deficiencies:

Exclusive left turn lanes and dedicated right turn lanes are limited at key intersections along the corridor. Reconfiguring intersection geometry to include exclusive turn lanes would improve traffic operating conditions at an intersection by separating turn movement traffic from through movement traffic. Coupled with traffic signal phasing and timing modifications vehicular delays during peak periods would be reduced.

Excessive driveways along the corridor and median openings create vehicle conflicts and contribute to operational deficiencies. Several existing driveways currently provide access to parcels of land that are either vacant or blighted. There are opportunities along the corridor to consolidate driveways that could be accomplished without impacting adjacent land use. Access management concepts would improve operating conditions.

Modal Interrelationship:

One of the primary objectives of both livable communities and complete streets projects is to enhance all relevant modes of transportation. The proposed project would fulfill these goals.

Transit - According to the Regional Transit Authority, Tulane Avenue is one of the top five bus ridership routes within the City of New Orleans. Opportunities to consolidate bus stops and provide far-side bus stops at signalized intersections along the corridor would improve transit operations.

Bicycle - As described above, the City of New Orleans and Regional Planning Commission, through each agency's various planning related activities have identified Tulane Avenue as critical component of the future bikeway plan for the region.

CHAPTER 2.0

2.0 DATA COLLECTION

2.1 Overview of Data Collection Effort

An extensive data collection effort was necessary to evaluate the existing traffic, geometric, and environmental conditions associated with the US 61/Tulane Avenue study corridor. This effort included several data collection methods, which are briefly described below.

Roadway Facility Inventory: A compilation of LADOTD data was used to inventory Tulane Avenue and key intersecting roadways in the study area. This data included roadway functional classifications and was supplemented with field investigations, which were conducted to verify travel lane, parking lane and sidewalk widths, as well as to determine lane geometry and lane assignments at intersections. Traffic control measures (signals, regulatory signs) at intersections were also inventoried, as well as existing driveways.

Review of Roadway As-Built Plans and Other Highway Data: Available roadway as-built plans were obtained to verify the apparent right-of-way (ROW) along Tulane Avenue. The City of New Orleans also provided information to confirm the apparent ROW width of 106 feet.

Traffic Data: Historical average daily traffic (ADT) was obtained from LADOTD. Existing and projected turning movement counts, along with the existing operational conditions were obtained from traffic impact studies conducted by the New Orleans Veteran's Affairs Medical Center (VAMC) and University Medical Center. These studies, *Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* (January, 2010) and *Draft University Medical Center (UMC) Traffic Impact Analysis* (March, 2010), were completed by Urban Systems, Inc.

Existing Conditions Review: Information was gathered from a variety of sources to develop an understanding of the physical, engineering, and environmental features along Tulane Avenue. A review of the following was conducted throughout the limits of the corridor:

- Existing and proposed land use
- Sidewalks
- Driveway locations
- Bus stop locations
- Environmental inventory
- Utilities
- Billboard inventory
- Parking availability
- City of New Orleans zoning regulations

2.2 Facilities Inventory

A facilities inventory was completed for the Tulane Avenue corridor using LADOTD data. The data compiled consisted of roadway functional classification, number of lanes, and segment length. The roadway inventory data is presented in **Table 2-1**. **Figure 2-1** presents the functional roadway classification for the study area roadway network.

Table 2-1
Tulane Avenue Roadway Inventory

| Facility | Control Section | Functional Classification | Location Description | Apparent ROW (feet) | No. of Lanes | Length (Miles) |
|---------------------|-----------------|---------------------------|---|---------------------|--------------|----------------|
| Tulane Avenue/US 61 | 007-01 | Principal Arterial | S. Carrollton Avenue to S. Broad Street | 106 | 6 | 1.10 |
| Tulane Avenue/US 90 | 006-03 | Principal Arterial | S. Broad Street to Claiborne Avenue | 106 | 6 | 0.83 |
| Total Length | | | | | | 1.93 |

Source: LADOTD Needs Summary

The apparent right-of-way is consistent at 106 feet throughout the study corridor. The posted speed limit on Tulane Avenue is 35 miles per hour (mph) throughout the study corridor.

Field reconnaissance was performed to generally confirm the data contained within the facility inventory and to confirm roadway geometry, lane configurations, ROW, and traffic control measures. Roadway and traffic control data was utilized to conduct the traffic operation simulation/VISSIM model. This evaluation is also summarized in **Chapter 5.0: Future Traffic Conditions**.

2.3 Existing Typical Section

As noted above, the apparent ROW throughout the corridor is 106 feet. Currently, the typical section for Tulane Avenue corridor includes:

- Six, 10-foot travel lanes
- 4-foot median
- 8-foot parking lanes
- 11 to 12-foot sidewalk, narrowing to 7 feet in some locations adjacent to existing businesses or residences

The existing typical section for Tulane Avenue is presented on **Figure 2-2** and **Figure 2-3**.

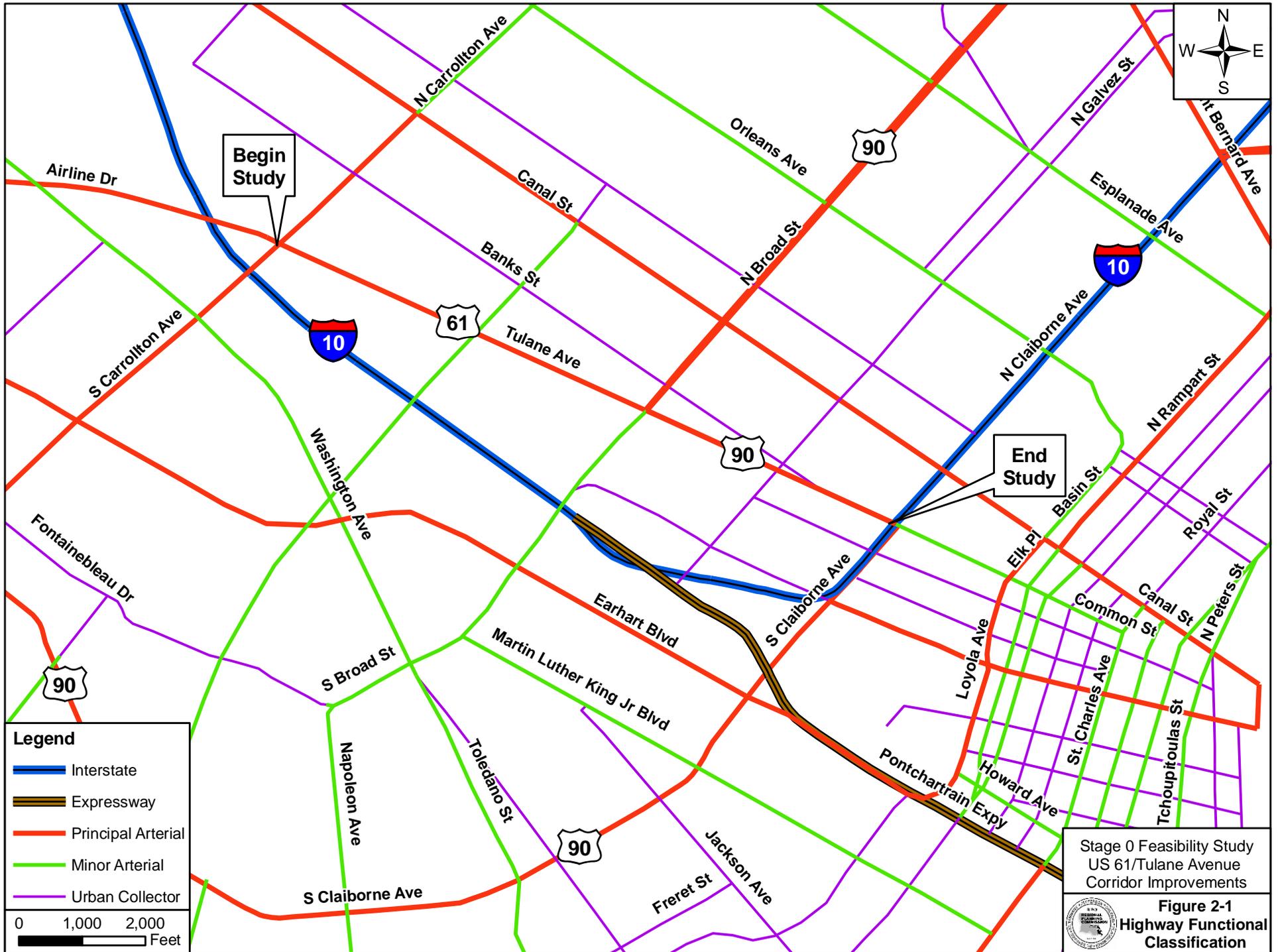


Figure 2-2
Existing Typical Section

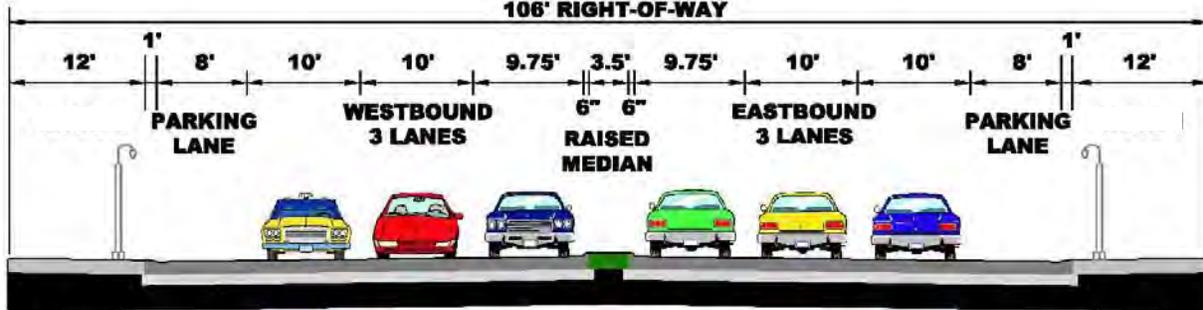
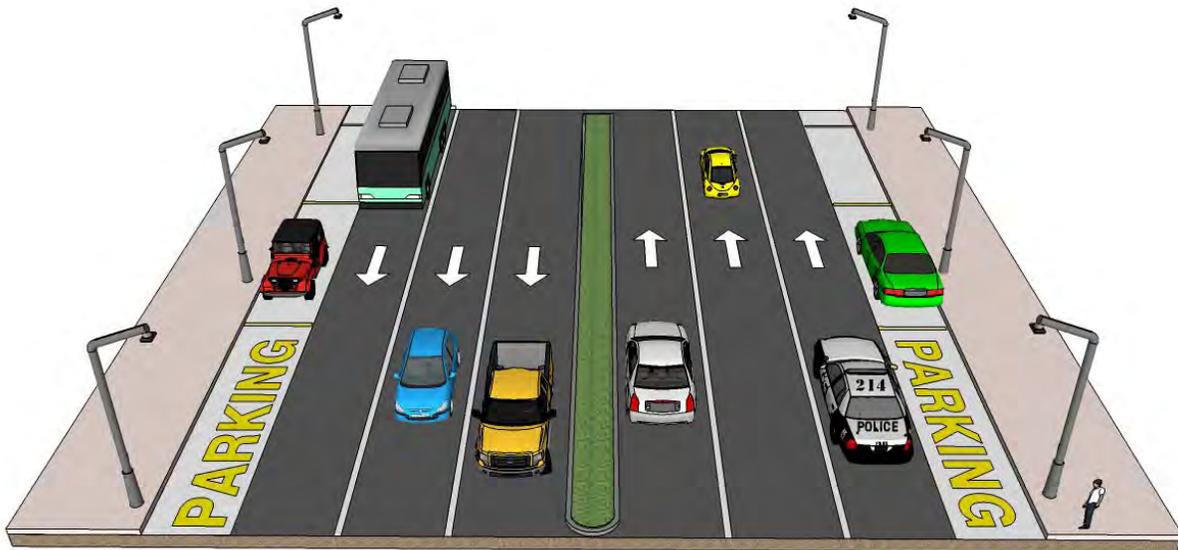


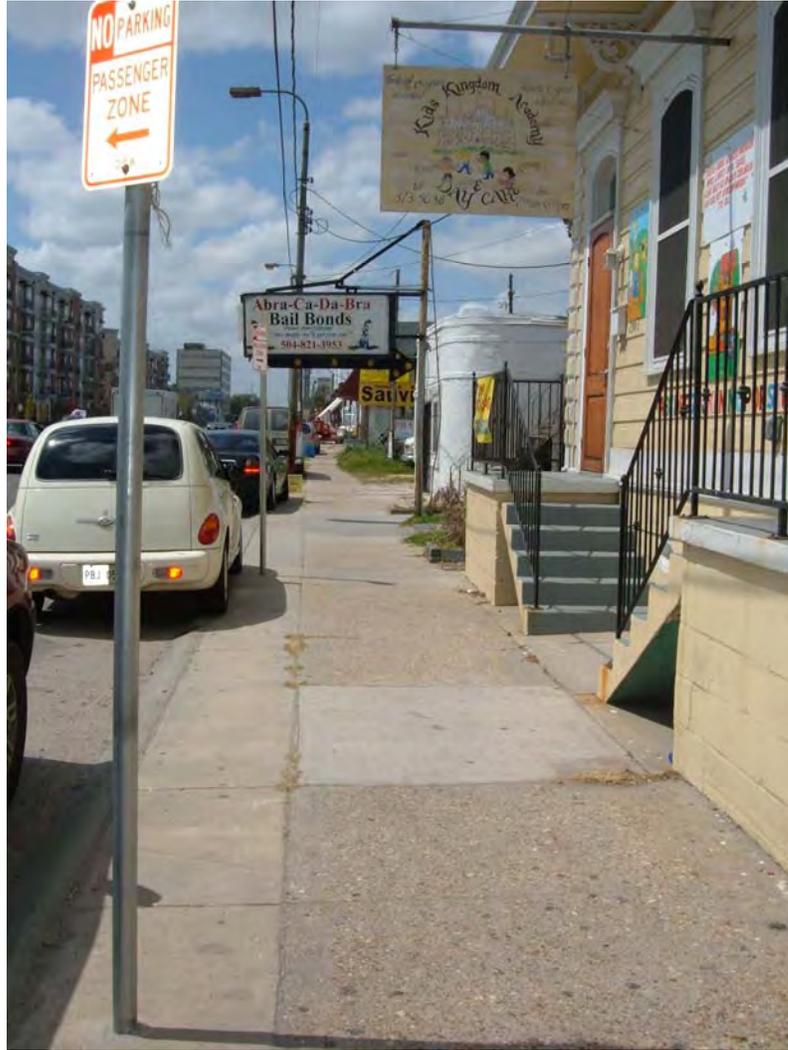
Figure 2-3
Existing Typical Section – 3D View



Note: Not to scale; for illustrative purposes only

During field reviews it was noted that at some locations throughout the corridor, the sidewalk widths were not 11 to 12 feet but were more restricted. Some residences and business along the corridor have a short set of stairs or a stoop to enter the building due to the 3 to 4-foot elevation differential between the building slab and sidewalk. In some instances, the stoop encroaches into the existing ROW therefore reducing the width of the sidewalk. An example of this encroachment is illustrated in **Photo 2-1**. **Photo 2-1** was taken on the north side of Tulane Avenue between S. Gayoso Street and S. White Street and illustrates an encroachment which results in a 7 to 8-foot sidewalk.

Photo 2-1
Sidewalk Encroachment



CHAPTER 3.0

3.0 EXISTING AND PROPOSED LAND USE

Over the past three years, development along Tulane Avenue has increased due to improved development incentives, commitment by the New Orleans Veteran's Affairs Medical Center and University Medical Center to construct their new facilities between Canal Street and Tulane Avenue, and the corridor's proximity to major transportation arteries such as Interstate 10, Claiborne Avenue, Broad Street, Jefferson Davis Parkway, and S. Carrollton Avenue.

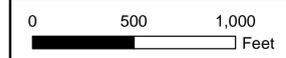
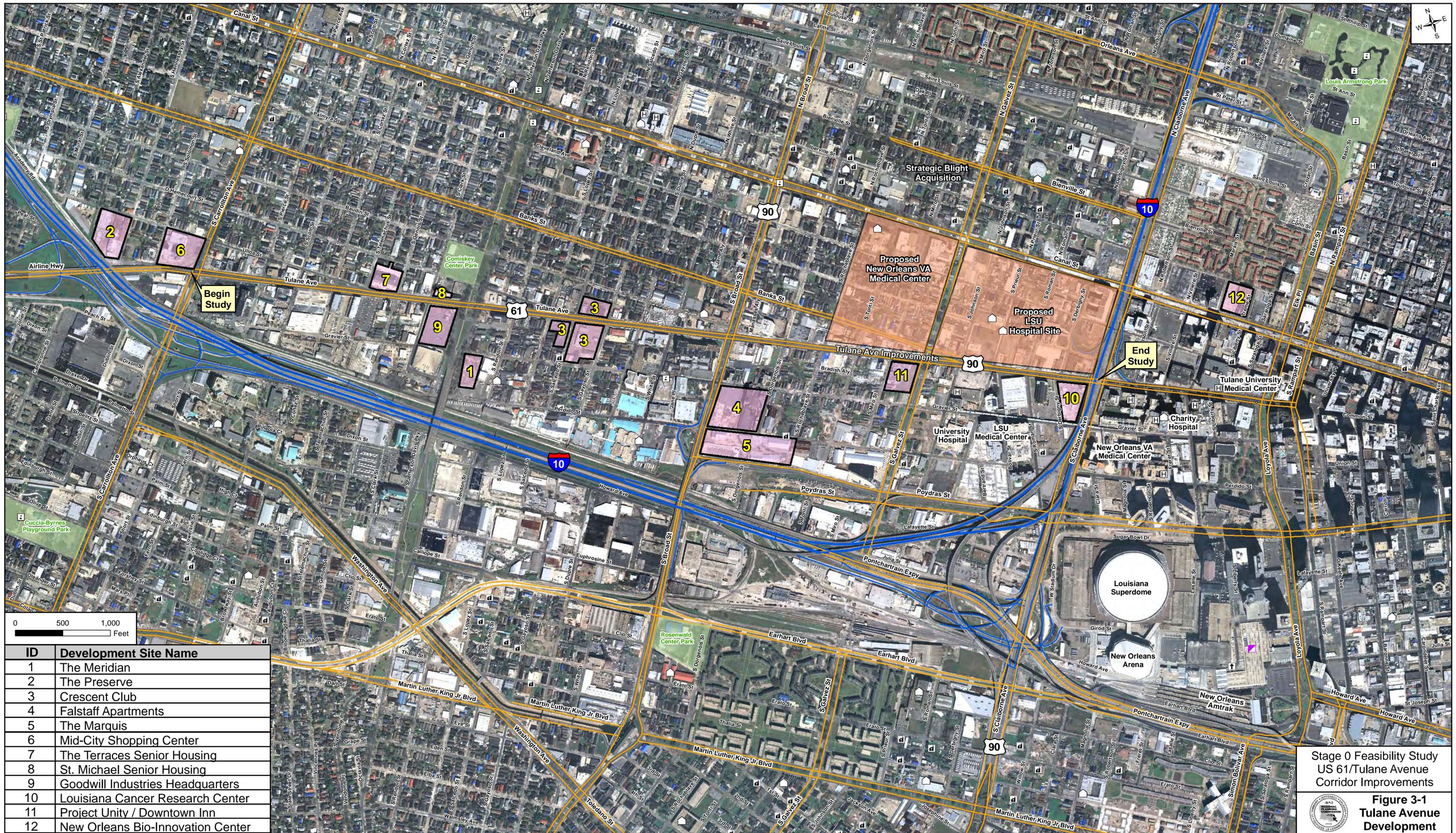
Figure 3-1 presents the new and proposed development along Tulane Avenue. These developments are further described below.

3.1 Existing Land Use

For planning purposes, the New Orleans City Planning Commission (NOCP) divided the City into 13 planning districts, which are further divided into 72 individual neighborhoods. Tulane Avenue, between S. Carrollton Avenue and S. Claiborne Avenue, is located in planning District 4. The corridor lies within the Mid-City and Tulane-Gravier neighborhoods (NOCP, 2006). As estimated from the 1999 NOCP New Orleans Land Use Plan, District 4 is divided as follows: 51 percent residential, 19 percent commercial, 12 percent industrial, and 10 percent institutional. As development of the medical institutions continues, the various portions of land use may change over time.

There are various structures that are iconic to the Tulane Avenue corridor that have been in use or have recently been converted to new uses. These iconic structures, existing land uses, and recently completed development are listed below and are pictured in **Photo 3-1** through **Photo 3-10**.

- St. Joseph's Catholic Church (**Photo 3-1**)
- Orleans Parish Courthouse (**Photo 3-2**)
- Dixie Brewery (to become part of the VAMC development; **Photo 3-3**)
- Hotels
- Commercial and retail establishments
- Single-family housing
- New Orleans Criminal Court
- Mid-City Shopping Center
- Southeast Louisiana Goodwill Industries Headquarters (**Photo 3-4**)



| ID | Development Site Name |
|----|-----------------------------------|
| 1 | The Meridian |
| 2 | The Preserve |
| 3 | Crescent Club |
| 4 | Falstaff Apartments |
| 5 | The Marquis |
| 6 | Mid-City Shopping Center |
| 7 | The Terraces Senior Housing |
| 8 | St. Michael Senior Housing |
| 9 | Goodwill Industries Headquarters |
| 10 | Louisiana Cancer Research Center |
| 11 | Project Unity / Downtown Inn |
| 12 | New Orleans Bio-Innovation Center |

Stage 0 Feasibility Study
 US 61/Tulane Avenue
 Corridor Improvements

Figure 3-1
Tulane Avenue
Development

- Residential Development (approximately 1,200 units)
 - St. Michael's Senior Housing (**Photo 3-5**)
 - The Terraces (**Photo 3-6**)
 - The Preserve (**Photo 3-7**)
 - The Crescent Club (**Photo 3-8**)
 - The Meridian
 - The Marquis
 - Falstaff Apartments
- Shops at Crescent Club (recently completed; **Photo 3-9**)

The Domain Companies have constructed three mixed-income rental housing developments within the study area, including the Preserve, the Crescent Club, and the Meridian. The Preserve features 183 market-rate and subsidized apartments which replaced the plant where Crystal Hot Sauce was previously bottled. The Crescent Club has two buildings located at 3000 and 3100 Tulane Avenue, between S. Lopez Street and S. Gayoso Street. The Crescent Club features 228 mixed-income rental apartments and a total of 15,000 square feet of retail space which, as of July 2010, is nearing completion. The Crescent Club apartments have private parking garages adjacent to the residential structure. The Shops at Crescent Club front the sidewalk and parking for patrons will be provided behind the structure. The Meridian is located at 750 S. Jefferson Davis Parkway, between I-10 and Tulane Avenue. The Meridian features 72 affordable apartments.

Additional new housing developments include the Falstaff apartments, located in the former Falstaff Brewery, and the Marquis development located on the corner of S. Broad Street and Poydras Street. The Falstaff apartments have 147 units and the Marquis development has 250 units.

There are two developments for senior citizens in the Tulane Avenue corridor between Jefferson Davis Parkway and S. Carrollton Avenue, the Terraces and St. Michael Senior Housing. The Terraces includes 200 units and was developed by Volunteers of America. The St. Michael Senior Housing development, located in the former Young Women's Christian Association (YWCA) apartment building, includes 60 units available to low income seniors.

The new Goodwill Industries' Headquarters is located at 3400 Tulane Avenue, which was the former Albertson's Supermarket site. The Goodwill Headquarters includes 30,000 square feet for the corporate offices as well as space for vocational job training and retail and warehouse space. Goodwill also intends to expand the existing structure by adding 30,000 square feet. The additional space will be used to coincide with the job training Goodwill provides.

Additional retail development includes the Mid-City Shopping Center located at the former Rock-N-Bowl Site on the corner of S. Carrollton Avenue and Tulane Avenue. The shopping center is currently anchored by a Nike Outlet Store and includes 72,000 square feet of total retail space.

Photo 3-1
St. Joseph's Catholic Church



Photo 3-2
Orleans Parish Courthouse



Photo 3-3
Dixie Brewery



Photo 3-4
Goodwill Store and Headquarters



**Photo 3-5
St. Michael Senior Housing**



**Photo 3-6
The Terraces**



**Photo 3-7
The Preserve**



**Photo 3-8
The Crescent Club**



**Photo 3-9
The Crescent Club Retail Center**



3.2 Proposed Land Use

Development that is proposed and under construction includes the following facilities:

- Louisiana Cancer Research Consortium
- New Orleans Bio-Innovation Center
- Downtown Inn
- University Medical Center (UMC)
- New Orleans Veterans Affairs Medical Center (VAMC)

The Louisiana Cancer Research Consortium, **Photo 3-10**, is currently under construction. The building is 10-stories and includes 175,000 square-foot laboratory with state-of-the-art cancer research equipment. It is estimated that the center will employ approximately 200 people. The center is scheduled to open in 2012.



Photo 3-10
Louisiana Cancer Research Center

The New Orleans Bio-Innovation Center is currently under construction and is located on Canal Street, east of N. Claiborne Avenue in the Central Business District. The center will be a four-story, 65,000 square foot facility which is scheduled to open in early 2011. The New Orleans Bio-Innovation Center is a business incubator that will foster entrepreneurship in the New Orleans bioscience community.

The Downtown Inn is a development through the partnership of Unity, Inc. and HRI Inc. The Inn will have 60 units total – with 30 units dedicated for workforce individuals and 30 units dedicated for homeless individuals. The Downtown Inn is anticipated to open in 2012 and will be located in a burned down hotel on the corner of Tulane Avenue and Galvez Street.

The combined VAMC/UMC site is an approximately 70 acre site bounded by Canal Street, Tulane Avenue, Claiborne Avenue, and S. Rocheblave Street. The VAMC and UMC sites are separated by Galvez Street, which will become the main thoroughfare between the two complexes. Both the VAMC and the UMC are designed to be set back from the streets to incorporate a perimeter of green space. Landscaping plans currently entail keeping some of the existing trees and enhancing the space by planting local plants such as cypress, magnolia, crepe myrtle, and azaleas.

The VAMC encompasses 30 acres and is bounded by S. Rocheblave Street, Canal Street, S. Galvez Street, and Tulane Avenue. This site includes 12 city blocks. The VAMC will utilize the existing Dixie Brewery through combined modification of the existing structure and new construction that will house a five-story research facility. The VAMC site includes approximately 2,000 parking spaces in two parking garages. The staff

parking garage will be accessed via S. Rocheblave Street near Tulane Avenue. The patient/visitor parking garage and the main entrance to the VAMC will be accessed via S. Galvez Street (U.S. Department of Homeland Security, 2010b). **Figure 3-2** presents a preliminary site plan for the VAMC and identifies the main entrance accessed via S. Galvez Street.

Figure 3-2
VAMC Preliminary Site Plan



Source: VA/UMC, 2009

The University Medical Center (UMC) will replace the existing Interim LSU Public Hospital. The UMC is proposed to have 424 beds and encompass approximately 1.6

million square feet. This site includes 15 city blocks. The hospital component of the UMC will have two major functions: (1) inpatient beds and (2) diagnostics and treatment. The UMC is bounded by Galvez Street, Canal Street, Claiborne Avenue, and Tulane Avenue. A five-floor parking garage is proposed with 1,400 parking spaces. An additional 1,400 parking spaces that would be provided in several surface lots throughout the campus are proposed. **Figure 3-3** presents the preliminary site plan for the UMC.

An architectural peer review was conducted by Goody Clancy, along with other City of New Orleans consultants, concluded that the preliminary UMC site plan has too big of a footprint for an urban area. The State claims that the surface parking lots would be used for future UMC expansion, while the City of New Orleans desires an additional parking garage be constructed as part of the initial development which would eliminate the majority of the surface parking lots. Conversations between the State and the City of New Orleans will continue until a solution is reached (Times-Picayune, 2010).

UMC has located the parking garage on Tulane Avenue between S. Johnson Street and S. Prieur Street. S. Johnson Street will provide access to the parking garage. As part of the parking garage design, retail space that fronts Tulane Avenue is proposed as part of the site plan. Preliminary estimates indicate that 25,000 to 30,000 square feet of specialty retail space could be accommodated on the ground level of the parking garage (U.S. Department of Homeland Security, 2010a).

Figure 3-3
UMC Preliminary Site Plan



Source: VA/UMC, 2009

CHAPTER 4.0

4.0 EXISTING CONDITIONS

4.1 Historic and Existing Average Daily Traffic

Six years of historic average daily traffic (ADT) counts were obtained from LADOTD for three segments of Tulane Avenue. **Table 4-1** presents the historic ADTs for the three segments of Tulane Avenue. There was a significant increase in daily traffic on Tulane Avenue in 2004 which can be attributed to roadway re-construction on the Pontchartrain Expressway/I-10. As indicated by the traffic counts, there was a steep decline in daily traffic volume between 2004 and 2008. This decline can be attributed to changes in population and travel patterns following Hurricane Katrina in August 2005. The segments of Tulane Avenue between the I-10 ramps and Carrollton Avenue and between S. Jefferson Davis Parkway and S. Broad Street decreased approximately 40 percent, while the segment of Tulane Avenue between S. Galvez Street and Claiborne Avenue decreased approximately 50 percent.

Table 4-1
Tulane Avenue Historic Average Daily Traffic Counts

| Begin Limit | End Limit | 1994 | 1997 | 1998 | 2001 | 2004 | 2008 |
|----------------------------|-------------------|--------|--------|--------|--------|--------|--------|
| I-10 Ramps | Carrollton Avenue | 24,172 | 29,068 | 24,790 | 27,310 | 38,394 | 23,470 |
| S. Jefferson Davis Parkway | S. Broad Street | 25,331 | 28,349 | 27,727 | 22,962 | 36,136 | 21,959 |
| S. Galvez Street | Claiborne Avenue | 24,169 | 22,265 | 25,049 | 19,562 | 36,261 | 17,467 |

Source: LADOTD

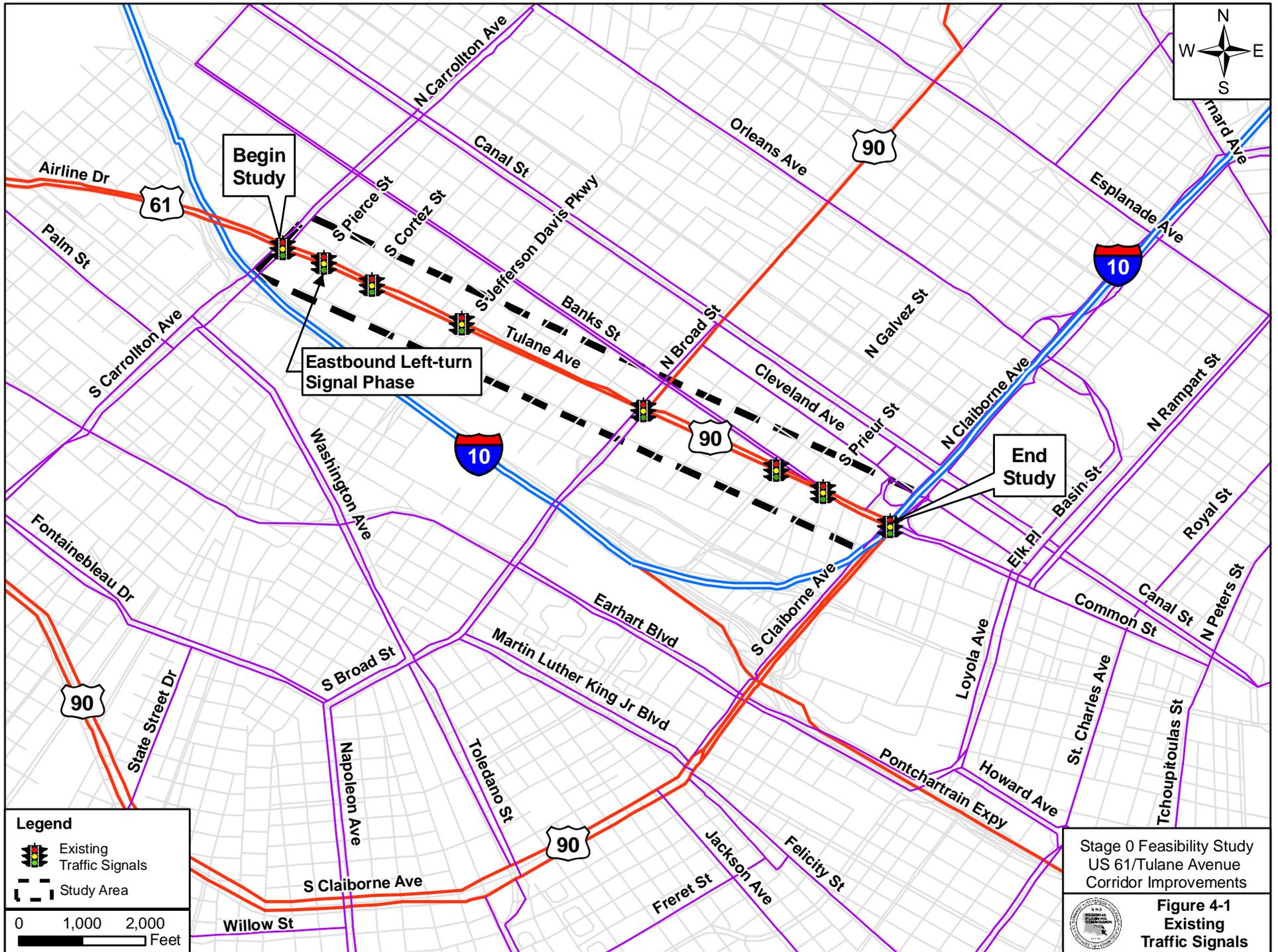
4.2 Roadway Network

Currently, Tulane Avenue is a six-lane divided facility that generally runs east/west. Additional east/west corridors in the vicinity of the US 61/Tulane Avenue corridor include Canal Street, Poydras Street, and I-10. Roadways that provide north/south access in the vicinity of the corridor include S. Carrollton Avenue, S. Jefferson Davis Parkway, S. Broad Street, S. Galvez Street, and S. Claiborne Avenue. All of the mentioned roadways are multi-lane divided facilities.

There is one signalized left-turn movement at the Tulane Avenue and S. Pierce Street intersection. This eastbound left-turn movement is used by drivers to access northbound S. Carrollton Avenue because left-turns are prohibited at the Tulane Avenue and S. Carrollton Avenue intersection. Generally, throughout the Tulane Avenue corridor, left-turns are prohibited creating little opportunity for the left-turn movement.

Existing traffic signals are presented on **Figure 4-1** and are located at the following intersections:

- Tulane Avenue at S. Carrollton Avenue;
- Tulane Avenue at S. Pierce Street;



- Tulane Avenue at S. Cortez Street;
- Tulane Avenue at S. Jefferson Davis Parkway;
- Tulane Avenue at S. Broad Street;
- Tulane Avenue at S. Galvez Street;
- Tulane Avenue at S. Prieur Street; and
- Tulane Avenue at S. Claiborne Avenue.

Because of the lack of left-turn accessibility, u-turns on major cross-streets are utilized throughout the corridor. Major cross-streets, including S. Jefferson Davis Parkway, S. Broad Street, and S. Galvez Street, have u-turn bays within the medians.

Truck movements, within the City of New Orleans, are restricted to official, designated “Heavy Truck Routes.” The designated truck routes are intended to limit the amount of truck traffic within residential neighborhoods and generally connect to major arterials, highways, and interstates. Official “Heavy Truck Routes” in the study area include Tulane Avenue, S. Carrollton Avenue, S. Jefferson Davis Parkway, S. Broad Street, and S. Claiborne Street (Goody Clancy, 2010).

4.3 Existing Peak Hour Traffic Volumes and Operations

The consultant, Urban Systems, Inc., was retained to conduct the traffic impact studies for both the VAMC and UMC. As part of these studies, traffic counts were conducted in September and October of 2009. Turning movement counts were conducted at intersections along Cleveland Street, Tulane Avenue and Canal Street and 24-hour counts were conducted on key minor streets located within proximity to each of the medical centers. The traffic counts obtained that are relative to this Tulane Avenue corridor study are presented in **Table 4-2**.

Table 4-2
2009 Key Traffic Counts

| Location | Type of Count |
|---|----------------------------------|
| Tulane Avenue at S. Broad Street | Peak Hour Turning Movement Count |
| Tulane Avenue at S. Galvez Street | Peak Hour Turning Movement Count |
| Tulane Avenue at S. Prieur Street | Peak Hour Turning Movement Count |
| Tulane Avenue at S. Roman Street | Peak Hour Turning Movement Count |
| Tulane Avenue at S. Derbigny Street | Peak Hour Turning Movement Count |
| Tulane Avenue at S. Claiborne Avenue | Peak Hour Turning Movement Count |
| S. Prieur Street between Tulane Avenue and Palmyra Street | 24-Hour, 2-way Count |
| S. Roman Street between Tulane Avenue and Palmyra Street | 24-Hour, 2-way Count |

Source: Urban Systems, Inc. 2010a and 2010b

The existing traffic counts are graphically presented in the two Urban Systems, Inc. reports: *Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* and the *Draft University Medical Center (UMC) Traffic Impact Analysis*.

The 2009 peak hour traffic operations were evaluated in the *Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* and the *Draft University Medical Center (UMC) Traffic Impact Analysis* using the Highway Capacity Software (HCS).

Level of service/capacity analyses were performed for each of the signalized intersections within the corridor limits. Level of service (LOS) represents a qualitative evaluation of the traffic operational characteristics of a given intersection using procedures developed by the Transportation Research Board and contained in the *Highway Capacity Manual (HCM), Special Report 209*. The *Highway Capacity Manual* procedures have been adapted to computer based analysis packages. Level of service results for the study area intersections are reported within the HCS traffic engineering software package.

Intersection levels of service range from LOS A, a condition of little or no delay to LOS F, a condition of capacity breakdown represented by heavy delay and congestion. LOS B is characterized as stable flow. LOS C is considered to have a stable traffic flow, but is becoming susceptible to congestion with general levels of comfort and convenience declining noticeably. LOS D approaches unstable flow as speed and freedom to maneuver are severely restricted and LOS E represents unstable flow at or near capacity levels with poor levels of comfort and convenience. **Table 4-3** presents the LOS criteria measured in delay per vehicle for signalized and stop-controlled intersections.

**Table 4-3
Level of Service Criteria for Intersections**

| LOS | Signalized Intersection Control Delay per Vehicle (sec/veh) | Unsignalized Intersection Control Delay per Vehicle (sec/veh) |
|-----|---|---|
| A | ≤ 10 | ≤ 10 |
| B | > 10 – 20 | > 10 – 15 |
| C | > 20 – 35 | > 15 – 25 |
| D | > 35 – 55 | > 25 – 35 |
| E | > 55 – 80 | > 35 – 50 |
| F | > 80 | > 50 |

Source: *Highway Capacity Manual*, Transportation Research Board (2000)

The 2009 traffic counts and existing intersection geometry were utilized to generate existing peak hour LOS and delay estimates for each of the key intersections on Tulane Avenue between S. Broad Street and S. Claiborne Avenue. The overall intersection level of service for the signalized intersections and the approach level of service for the unsignalized intersections are presented in **Table 4-4**.

**Table 4-4
Existing Condition Level of Service**

| Intersection/Approach | AM Peak | | PM Peak | |
|--|---------|-------------|---------|-------------|
| | LOS | Delay (sec) | LOS | Delay (sec) |
| Signalized Intersections | | | | |
| Tulane Avenue at S. Broad Street | B | 18.4 | B | 18.1 |
| Tulane Avenue at S. Galvez Street | B | 12.2 | B | 12.9 |
| Tulane Avenue at S. Prieur Street | A | 7.8 | A | 7.9 |
| Tulane Avenue EB at S. Claiborne Avenue ¹ | C | 23.5 | B | 18.8 |
| Tulane Avenue WB at S. Claiborne Avenue ¹ | B | 18.8 | B | 17.9 |
| Unsignalized Intersections | | | | |
| Tulane Avenue at S. Roman Street | | | | |
| Tulane Avenue eastbound approach | A | 8.4 | A | 9.7 |
| Tulane Avenue westbound approach | B | 11.8 | A | 8.8 |
| S. Roman Street northbound approach | E | 48.3 | E | 49.0 |
| S. Roman Street southbound approach | E | 47.8 | D | 28.6 |
| Tulane Avenue at S. Derbigny Street | | | | |
| Tulane Avenue eastbound approach | A | 8.9 | B | 10.3 |
| Tulane Avenue westbound approach | B | 10.3 | A | 9.5 |
| S. Derbigny Street northbound approach | C | 22.6 | E | 41.3 |
| S. Derbigny Street southbound approach | C | 15.5 | C | 22.6 |

Source: Urban Systems, Inc., 2010a and 2010b

Notes: (1) Tulane Avenue at S. Claiborne intersection operates as 2 individual signals

Intersections in urban areas are considered to operate at acceptable levels of service during peak periods at LOS E or better. The signalized intersections evaluated as part of the VA/UMC traffic studies currently operate at acceptable levels of service during the peak periods, LOS C or better.

At the Tulane Avenue at S. Roman Street, intersection the northbound approach currently operates at LOS E during the AM and PM peak hour. At the same intersection, the southbound approach currently operates at LOS E during the AM peak hour and LOS D during the PM peak hour.

At the Tulane Avenue at S. Derbigny Street intersection, the northbound approach currently operates at LOS E during the PM peak hour. The remaining approaches of this intersection currently operate at acceptable levels of service during the peak periods.

4.4 Environmental Inventory

Prior studies, field reconnaissance, and on-line data sets were reviewed to generate an environmental inventory using the geographic information system (GIS). Prior studies reviewed include the following:

- GNOBEDD - 2010 *Working Paper 3I*;
- Regional Planning Commission – 2008 *New Orleans Medical District Strategic Integration Plan – Final Report*;
- The U.S. Department of Homeland Security - 2008 *Programmatic Environmental Assessment– Site Selection VAMC and LSU AMC*;
- The U.S. Department of Homeland Security – 2010 *Draft Site-Specific EA for the University Medical Center*; and
- The U.S. Department of Homeland Security – 2010 *Final Site-Specific EA for the Veterans Affairs Medical Center*.

Data sets compiled into the GIS inventory included: community facilities; transportation network; waterways; parklands; floodplains; hazardous and toxic waste sites including underground storage tanks; archeological or historically significant sites/areas; and other environmental or physical data necessary for the evaluation of improvement alternatives.

Community Facilities

Community facilities in the study area were identified based on field investigations. Community facilities include schools, churches, cemeteries, parks, and other public facilities. Within the study area there is one church and the Orleans Parish Courthouse. The community facilities within the immediate vicinity of Tulane Avenue are identified below and are graphically presented on **Figure 4-2**.

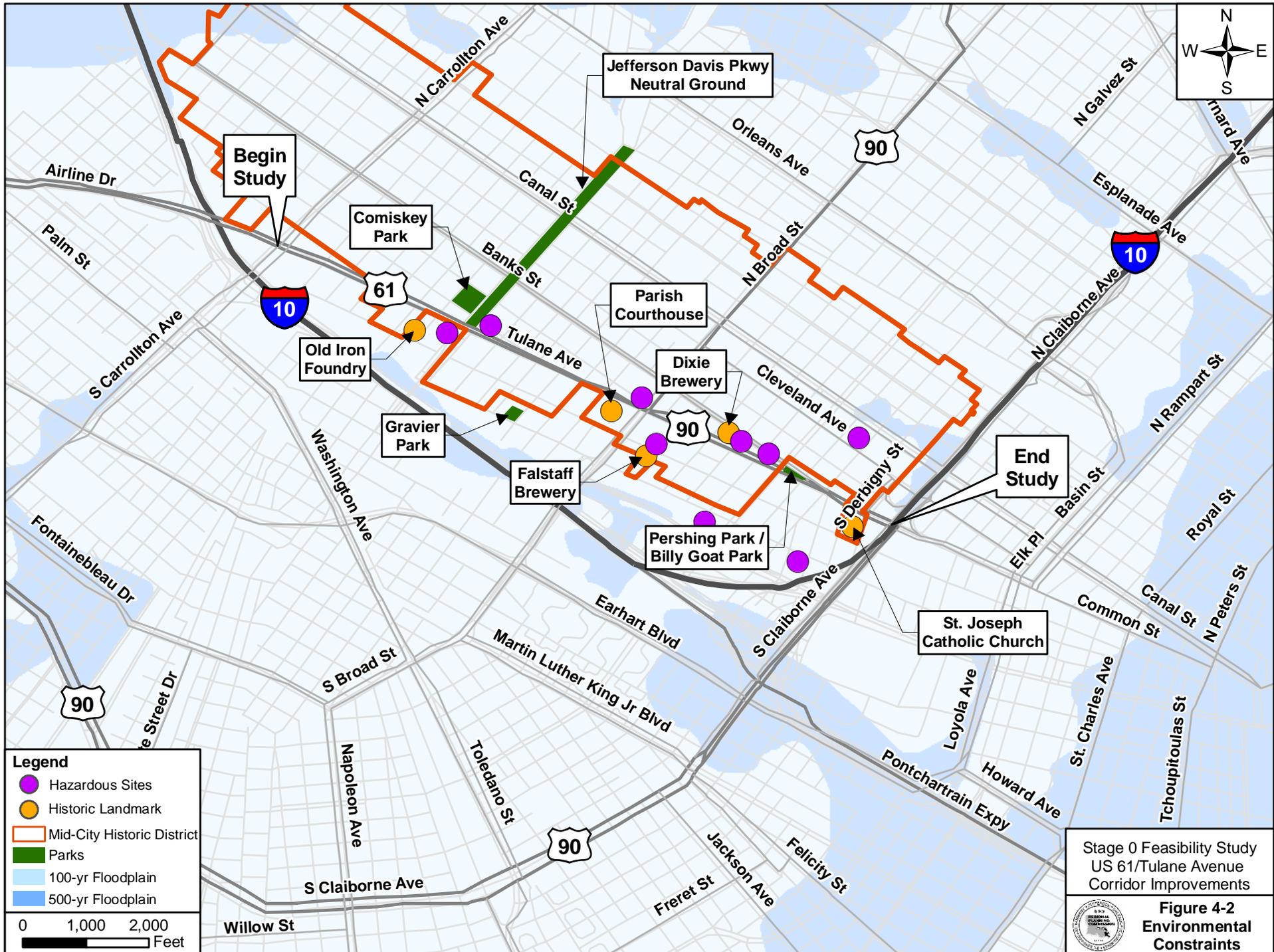
St. Joseph’s Catholic Church is located on the eastbound side of Tulane Avenue between S. Roman Street and S. Derbigny Street. St. Joseph’s Church opened for service in January 1893. Currently, the church holds mass twice on Sundays and once a day on weekdays.

The Orleans Parish Criminal District Court is located on the eastbound side of Tulane Avenue between S. White Street and S. Broad Street.

Pershing Park was originally developed in 1884 as Tulane Park. The park was renamed to honor General John J. “Black Jack” Pershing and includes a small World War I memorial. The park is now commonly known as Billy Goat Park (Preservation Resource Center, 2007). The statue (**Photo 4-1**) located at this park will be relocated to the VA property during construction, as noted in the May 6, 2010 Tulane Avenue Steering Committee meeting (**Appendix D**).



Photo 4-1
Pershing Park Statue



Comiskey Park is located on S. Jefferson Davis Parkway between D'Hemcourt Street and Baudin Street. Although not located directly on the Tulane Avenue corridor, the park is located behind the newly developed St. Michael's Senior Housing. The park was slated for redevelopment after Hurricane Katrina; however the park remains in disrepair.

Gravier Park is a 0.43 acre pocket park located on Perdido Street between S. Salcedo Street and S. Gayoso Street. The park is currently an open field.

The neutral ground of S. Jefferson Davis Parkway also provides greenspace within the study area, although not formally designated a park. The neutral ground has walking/bicycle paths and monuments and in some areas, playgrounds.

Utilities

Local utilities including cable, water, gas, drainage, and electric are located along both sides of Tulane Avenue. Cable, water, and gas are located under the existing sidewalks on both sides of Tulane Avenue. Power poles also line both sides of the corridor and provide electrical distribution service and roadway lighting.

Existing infrastructure, located within the VAMC site, identified in the *Final Site-Specific EA for the Veterans Affairs Medical Center* report are summarized below:

- Water – Existing water lines consist of two-, four-, and six-inch cast iron lines that run parallel and adjacent to streets.
- Sewer – The primary sewerage infrastructure within the site includes 8-inch pipes used for local purposes, although there is a 12-inch line that runs along Tulane Avenue for a short distance.
- Drainage – The majority of the VAMC site drains to a box culvert located in the median of S. Galvez Street. Streets that run parallel to Tulane Avenue have 10 to 24-inch subsurface drain lines and catch basins on both sides of the street.
- Electrical – There are two electrical systems, Entergy and feeder lines for the Sewerage and Water Board of New Orleans (S&WB), within the site area. The S&WB feeder lines are dedicated for the pumping station and run under Palmyra Street and a main feeder line runs under S. Galvez Street. The Entergy network is composed of mostly of overhead power lines, with a limited number of underground primary lines.
- Natural Gas – Existing natural gas service lines in the site consist of 4- to 16-inch utilization pressure pipes. There are three gas valves located on Tulane Avenue within the VAMC site area.
- Telecommunications – Three telecommunication networks are present in the site area, including 360 Networks, AT&T, and Cox Communications.

Through various planning efforts and evaluations, the utilities would be rerouted around the VAMC site within the existing public streets, minimizing the impact to the existing

live oak trees. The VA also agreed to design and implement on-site infrastructure system improvements that would tie into the public utilities along the perimeter of the site.

As part of the UMC construction, existing utilities located on the north side of Tulane Avenue will be upgraded to accommodate future capacity including drainage, water, and sewer.

Indications are that existing overhead transmission lines adjacent to the VA and the UMC will be relocated underground. Exact routing and time-line for this infrastructure improvement project is unknown at this time.

Hazardous Materials

In order to evaluate the likelihood of soil and/or groundwater contamination in the immediate vicinity of the proposed improvements; federal, state, and local regulatory agency websites were reviewed for known and potential hazardous materials sites. These websites include those listed on the Stage 0 Environmental Checklist (see **Appendix C**). Although the data available from regulatory agencies provides useful information regarding the potential for contamination within the study area, the website databases are sometimes incomplete and can contain inaccuracies. Therefore, windshield surveys were conducted to identify potential environmental hazards and verify the location of facilities identified in the website databases. Additionally, prior planning documentation was consulted to aid in locating hazardous sites.

Located along the study corridor is the Dixie Brewery which is identified on the Environmental Protection Agency (EPA) Toxic Release Inventory. Located near the study corridor are two brownfields: the David Drive Incinerator on La Salle Street between Perdido Street and Gravier Street and the Falstaff Brewery located on Gravier Street between S. Broad Street and S. Dorgenois Street. Additional Resource Conservation and Recovery ACT (RCRA) sites, underground storage tanks (UST), and leaking underground storage tanks are identified on **Figure 4-2**. Additionally, the sites are discussed in the Stage 0 Environmental Checklists located in **Appendix C**.

The VA is responsible for remediating any contamination associated with the Dixie Brewery. A memorandum of understanding was also signed that makes the City of New Orleans responsible for remediating any existing contamination on the site to levels appropriate for construction and operation of a medical facility (U.S. Department of Homeland Security, 2010b).

Wetlands

There are no wetlands in the study area, as indicated by the National Wetlands Inventory (USFWS, 2008).

Threatened and Endangered Species

There are no threatened and endangered species in the study area (USFWS, 2010).

Floodplains

Protection of floodplains and floodways is required by Executive Order 11988, Floodplain Management. These regulations were designed to minimize highway

encroachments within the 100-year floodplain and to avoid land use development inconsistent with floodplain values. During periods of high water, floodplains serve to moderate flood flow, provide water quality maintenance, and serve as temporary habitat for a number of plant and animal species.

The entire Tulane Avenue corridor lies in the 100-year floodplain based on Flood Insurance Rate Maps (FIRMs) from 2003.

Soils/Farmland

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas.

Tulane Avenue is underlain by Schriever clay soils which are listed as prime farmland by the Natural Resources Conversation Service (NRCS). Because these soils have been significantly altered by urban process and development to be urban land, these soils are not considered prime farmlands (U.S. Department of Homeland Security, 2008).

Scenic Streams

The Louisiana Legislature created the Louisiana Natural and Scenic Rivers System in 1970 to preserve and provide protection to certain free-flowing streams. Currently, there are over 3,000 miles of Louisiana designated Natural and Scenic Rivers.

There are no scenic streams in the study area.

Wildlife Resources

There are no wildlife management areas in the study area. The corridor is heavily urbanized and dominated by buildings, paved roadways and sidewalks, and parking lots. The existing 4-foot median is covered in grass and there is limited vegetation in the corridor.

Residential lawns and landscaped areas provided limited habitat for wildlife. Wildlife that may inhabit urban settings include: the raccoon (*Procyon lotor*), gray squirrel (*Sciurus carolinensis*), house mouse (*Mus musculus*), American robin (*Turdus migratorius*), common grackle (*Quiscalus quiscula*), house sparrow (*Passer domesticus*), rock pigeon (*Columbia livia*), green anole (*Anolis carolinensis*), and the Gulf Coast toad (*Bufo valliceps valliceps*) (U.S. Department of Homeland Security, 2008).

Cultural Resources

There is one structure, the Orleans Parish Criminal Courts Building (**Photo 4-2**), on Tulane Avenue that is listed on the National Register of Historic Places (NRHP). The Orleans Parish Criminal Courts Building, completed in 1929, is in the art deco style and is currently in its original use.

The Mid-City Historic District was also listed in the NRHP in 1993. As shown in **Figure 4-2**, the historic district is roughly bounded by Derbigny Street, City Park Avenue, Conti Street, and I-10/Claiborne Avenue and includes approximately 8,500 acres. The historic district includes 4,489 structures, that are mostly residential that represent building types and styles from 1860 to 1943. These styles include but are not limited to Eastlake, Greek Revival, Queen Anne revival, and bungalow/Craftsman. In 2008, the area was re-evaluated in consultation with the State Historic Preservation Office (SHPO) and it was determined that 13 blocks on the periphery of the Mid-City NRHP had experienced a loss of integrity so significant as to warrant their removal from the district. Some of these blocks recommended for removal are located in the VAMC and UMC sites (U.S. Department of Homeland Security, 2008).

Photo 4-2
Orleans Parish Criminal Courts Building



Several other buildings in the study corridor are designated or nominated as historic landmarks by the New Orleans Historic District Landmark Commission (HDLC). The two designated structures are St. Joseph's Catholic Church and Dixie Brewery. There are two structures nominated by the HDLC for historic landmark designation and that is the Falstaff Brewery on S. Dorgenois Street and an Old Iron Foundry on S. Clark Street.

CHAPTER 5.0

5.0 FUTURE TRAFFIC CONDITIONS

5.1 Future Roadway Network

The future roadway network includes a 4-lane Tulane Avenue with bike lanes, parking lanes, and exclusive left and right-turn lanes. Additional improvements to S. Broad Street are proposed and include a 4-lane roadway with bike lanes.

The proposed footprints of the VAMC and UMC sites include some street closures within the study area. Changes in traffic flow are anticipated as a result of the street closures in combination with the location of access points to proposed parking facilities. On February 23, 2010, the New Orleans City Planning Commission approved the VAMC proposed street closures. On April 22, 2010 the New Orleans City Council approved the street closures as Ordinance Calendar No. 27,938. The affected street closures include Cleveland Avenue, Palmyra Street, Banks Street, S. Miro Street, and S. Tonti Street that are located inside the perimeter formed by S. Rocheblave Street, Canal Street, S. Galvez Street, and Tulane Avenue.

Street closures for the UMC are expected in the future. The anticipated affected streets for the UMC site include S. Johnson Street, S. Prieur Street, S. Roman Street, Cleveland Avenue, Palmyra Street, and Banks Street. The changes in directional traffic flow are further discussed in **Section 6.3** and are presented in the **Conceptual Engineering and Environmental Map Atlas (Map Atlas)** included in **Appendix B**.

A recent report, *Restoring Claiborne Avenue – Alternatives for the Future of Claiborne Avenue*, commissioned for the Claiborne Corridor Improvement Coalition explored the options for improving the existing elevated I-10 Claiborne Expressway corridor between the I-10/Pontchartrain Expressway and Elysian Fields Avenue. Proposed improvements include the removal of the interstate and replacing it with a boulevard. Additional interstate improvements would be necessary to accommodate the changes in traffic flow and revised interstate access at the following locations:

- Flyover ramp at the I-10/I-610 junction
- Interchange at I-10 and S. Broad Street
- Interchange reconfiguration at I-10 and S. Claiborne Avenue

5.2 Future Average Daily Traffic

The future average daily traffic (ADT) on Tulane Avenue was calculated using trips generated from proposed development along the corridor. Development that was completed between 2008 (latest LADOTD traffic count recorded) and this study was also included in the trip generation to account for all possible sources of additional traffic.

The additional vehicular trips likely to be generated by development along the corridor were estimated using the 2003 Institute of Transportation Engineers *Trip Generation Manual*. The VAMC, UMC, Louisiana Cancer Research Consortium, Goodwill

Industries, and the various housing developments along the corridor were all considered as part of future daily traffic estimates. The assumption that 60 percent of the potential UMC traffic is already accounted for with the currently operating LSU facilities in the area was utilized within the VAMC traffic study. The additional new daily trips were calculated to total 31,440 vehicles per day. The daily trips were then distributed throughout the roadway network utilizing the travel patterns that were presented in the *Draft Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* (August, 2009).

Each of the traffic impact study evaluated the existing directional flow of traffic within their defined study area, the roadway network, and professional judgment to define travel patterns as well as ingress and egress movements. The identified major thoroughfares included: the interstate system, Carrollton Avenue, Broad Street, Claiborne Avenue, Galvez Street, and Poydras Street. The total traffic traversing Tulane Avenue was distributed using these travel patterns and was utilized in the operational analysis.

The distributions noted above were applied to the total trips generated equaling 31,440 vehicles per day. This evaluation determined that approximately 56 percent of those trips would likely utilize the Tulane Avenue corridor. The new trips anticipated to utilize Tulane Avenue were added to the existing 2008 ADT volumes previously presented in **Table 4-1**. It was determined that the total traffic volume on Tulane Avenue, under the full development condition, would be almost equivalent to the 2004 ADT. **Table 5-1** summarizes this data.

**Table 5-1
Daily Trip Generation Summary**

| Total Daily Trips Generated | Daily Trips Utilizing Tulane Avenue¹ | 2008 ADT on Tulane Avenue (between Galvez and Claiborne) | ADT with Additional Trips² |
|------------------------------------|--|---|--|
| 31,440 | 17,600 | 17,470 | 35,070 |

Notes: (1) Calculated using ingress and egress patterns presented in the *Draft Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* (August, 2009)
(2) 2004 ADT in this segment was 36,260.

5.3 Future Peak Hour Traffic Volumes

Future peak hour traffic volumes were calculated for key intersections near the VAMC and the UMC sites. Existing peak hour traffic volumes were combined with the distributed peak hour trips generated from the new and proposed developed in addition to the estimated traffic volumes associated with employee and staff shift changes for the VAMC and the UMC.

Peak periods for the VAMC are anticipated to be between 6:30 and 9:00 for the morning peak period and 3:30 and 5:30 for the afternoon peak period. The peak periods are

consistent with the peak periods on the adjacent street network. Staff ingress/egress estimates are high during the peak hours and calculations were based on 80 percent capacity during these hours. The patient/visitor parking garage was not evaluated during peak periods because patients and visitors are anticipated to enter and exit throughout the course of the day (U.S. Department of Homeland Security, 2010b).

The final peak hour volumes are graphically presented in the respective traffic impact studies, *Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* (January, 2010) and the *Draft University Medical Center (UMC) Traffic Impact Analysis* (March, 2010).

5.4 Future Peak Hour Traffic Operations

The traffic impact analyses conducted by the VAMC and UMC included an evaluation of future traffic operations at key intersections on Tulane Avenue between S. Broad Street and S. Claiborne Avenue. These evaluations included the roadway improvements presented in **Chapter 6: Proposed Corridor Improvements** specifically the conversion of Tulane Avenue from 6 to 4-lanes.

Future peak hour traffic was calculated using the existing peak hour traffic counts, the additional peak hour trip generation data, and site specific shift change data. These traffic volumes, proposed intersection geometry, and optimized traffic signal timings were utilized to generate the level of service (LOS) and delay estimates for each of the key intersections. Additional assumptions for the future traffic operations include the following:

- Implement two-way traffic flow on S. Rocheblave Street between Canal Street and Tulane Avenue to accommodate ingress and egress to the main employee parking garage entrance to the VAMC. Currently, this street operates as a one-way street northbound (See **Map Atlas, Plan Sheet 12**).
- Implement one-way, southbound traffic flow on S. Dorgenois Street between Canal Street and Tulane Avenue. Currently, this street operates as a two-way street (See **Map Atlas, Plan Sheet 11**).
- Implement two-way traffic flow on S. Derbigny Street between Canal Street and Gravier Street. Currently, this street operates as a one-way street northbound, south of Tulane Avenue. North of Tulane Avenue, S. Derbigny Street currently operates as a two-way street (See **Map Atlas, Plan Sheet 16**).

The peak hour overall intersection level of service for signalized intersections and the approach level of service for unsignalized intersections are presented in **Table 5-2**.

**Table 5-2
Future Condition Level of Service**

| Intersection/Approach | AM Peak | | PM Peak | |
|--|---------|-------------|---------|-------------|
| | LOS | Delay (sec) | LOS | Delay (sec) |
| Tulane Avenue at S. Broad Street | C | 25.9 | C | 28.4 |
| Tulane Avenue at S. Galvez Street ¹ | B | 18.2 | C | 20.0 |
| Tulane Avenue at S. Prieur Street | A | 9.7 | B | 12.4 |
| Tulane Avenue at S. Roman Street | A | 9.7 | B | 16.9 |
| Tulane Avenue at S. Derbigny Street ^{1,2} | | | | |
| Tulane Avenue eastbound approach | B | 10.8 | B | 12.4 |
| Tulane Avenue westbound approach | B | 10.4 | B | 10.3 |
| S. Derbigny Street northbound approach | E | 49.4 | E | 39.0 |
| S. Derbigny Street southbound approach | B | 14.0 | C | 17.2 |
| Tulane Avenue EB at S. Claiborne Avenue | C | 26.5 | C | 20.5 |
| Tulane Avenue WB at S. Claiborne Avenue | C | 26.4 | B | 19.1 |

Source: Urban Systems, Inc., 2010a and 2010b

Notes: (1) Recent discussions with LADOTD have led to the modification of the proposed intersection geometry that was evaluated in these two traffic studies. The modifications will improve the LOS at the S. Derbigny Street northbound approach.

(2) Unsignalized intersection

With the addition of the traffic from the new and proposed development and the slight decrease in roadway capacity from the reduction in number of travel lanes, the key intersections on Tulane Avenue between S. Broad Street and S. Claiborne Avenue are anticipated to operate at acceptable levels of service during peak periods. The northbound approach at the unsignalized intersection of Tulane Avenue at S. Derbigny is anticipated to operate at an unacceptable level of service during the AM and PM peak periods.

As noted in **Table 5-2**, modifications to the intersection geometry were incorporated after the completion of the two medical center traffic studies per discussions with the LADOTD and the RPC. The modifications include the removal of the eastbound left-turn lane on Tulane Avenue at S. Galvez Street and a right-turn only on the northbound approach of the Tulane Avenue at S. Derbigny intersection. These improvements are further described in **Chapter 6: Proposed Corridor Improvements**.

5.5 VISSIM Model

VISSIM is a microscopic multi-modal simulation program that enables a realistic replication of real-life driver behavior. VISSIM has the ability to model the traffic flows of cars, trucks, buses, heavy rail, trams, light rail, bicyclists and pedestrians as a complete transportation system rather than an assembly of separately-analyzed modes of travel. For the purposes of this study, VISSIM was utilized to provide qualitative insight and quantitative measures of effectiveness (MOEs) on the operations of the proposed

improvements to Tulane Avenue. VISSIM does this by modeling the roadway network, enabling engineers to see how each impacts the other.

For the purposes of this study, two models were developed to evaluate future traffic operations along Tulane Avenue. The models included the existing 6-lane scenario and the proposed 4-lane scenario with exclusive turn lanes and additional traffic signals. Each model also evaluated AM and PM peak hour traffic conditions.

VISSIM Model Input Parameters

Traffic Signals

Traffic signal timings at existing and proposed signals were obtained from the *Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* (January, 2010) and the *Draft University Medical Center (UMC) Traffic Impact Analysis* (March, 2010).

Traffic Volume Data

Peak hour traffic volumes for existing and proposed conditions were obtained from the *Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* (January, 2010) and the *Draft University Medical Center (UMC) Traffic Impact Analysis* (March, 2010). URS was not responsible for the development of the final Tulane Avenue/US 61 corridor traffic volumes; the traffic utilized in the VISSIM model was developed by a third party entity.

Vehicle Composition

The *Draft Site-Specific EA for the University Medical Center* (March, 2010) utilized a 4 percent truck factor to evaluate the anticipated traffic noise impacts (U.S. Department of Homeland Security, 2010a). This percent was utilized in the VISSIM models. It should be noted that the traffic impact studies conducted for the VAMC and UMC did not account for any truck traffic within the study area.

Roadway Geometry

Existing roadway geometry was obtained from aerial photographs combined with site visits of the study area. Site visits were conducted to verify lane assignments at intersections and traffic control measures at intersections (i.e. signals and regulatory signs).

Proposed roadway improvements within the direct study area were utilized to evaluate the 4-lane scenario. This evaluation also included proposed exclusive turn-lanes, proposed traffic signals, and future recommended bus stops locations (see **Chapter 7: Other Transportation Modes**). The proposed changes in traffic flow (two-way flow to one-way flow and vice-versa) were also included in the improved conditions models.

Vehicle Routing

Vehicle routes within the VISSIM models were determined by creating paths that originated at decision points and terminated at destination points. Each decision point had multiple destination points. When a vehicle crossed a decision point, it was then on a fixed path until it crossed its destination point. This method of vehicle routing creates a better flow of traffic through the network because vehicles can better position themselves within the traffic stream by knowing the ultimate path required for their intended destination, such as a real driver would. For example, if a road is congested, the vehicle can attempt to transition to a turning lane far upstream of the actual movement. Conversely, a vehicle can use an “inside” lane knowing it will not turn right at the next intersection.

Vehicle routing was used along Tulane Avenue to model the appropriate ratio of vehicles turning at each intersection. Vehicles were distributed throughout the network based on turning-movement ratios presented in the *Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* (January, 2010) and the *Draft University Medical Center (UMC) Traffic Impact Analysis* (March, 2010).

Simulation Parameters

The VISSIM analysis is intended to compare the operations of the existing condition (6-lane scenario) and the proposed improvements (4-lane scenario).

The AM and PM peak hour simulation models were run for a total of 4,500 seconds including 900 seconds of network seeding or loading time and 3,600 seconds for actual simulation. The models were run to provide screen shots of the operations of key intersections along the corridor.

VISSIM Model Output and Evaluation

VISSIM produces both statistical reports and graphical animation. VISSIM’s graphical animation allows the user to review operations by observing congestion levels and identifying critical movements throughout the network. The series of figures below, **Figures 5-1** through **5-4**, provide screen shots of the graphic animation of the peak hour operations of key intersections along the improved, 4-lane Tulane Avenue/US 61 corridor.

Figure 5-1
Tulane Avenue at S. Broad Street Intersection



Figure 5-2
Tulane Avenue at S. Rocheblave Street Intersection

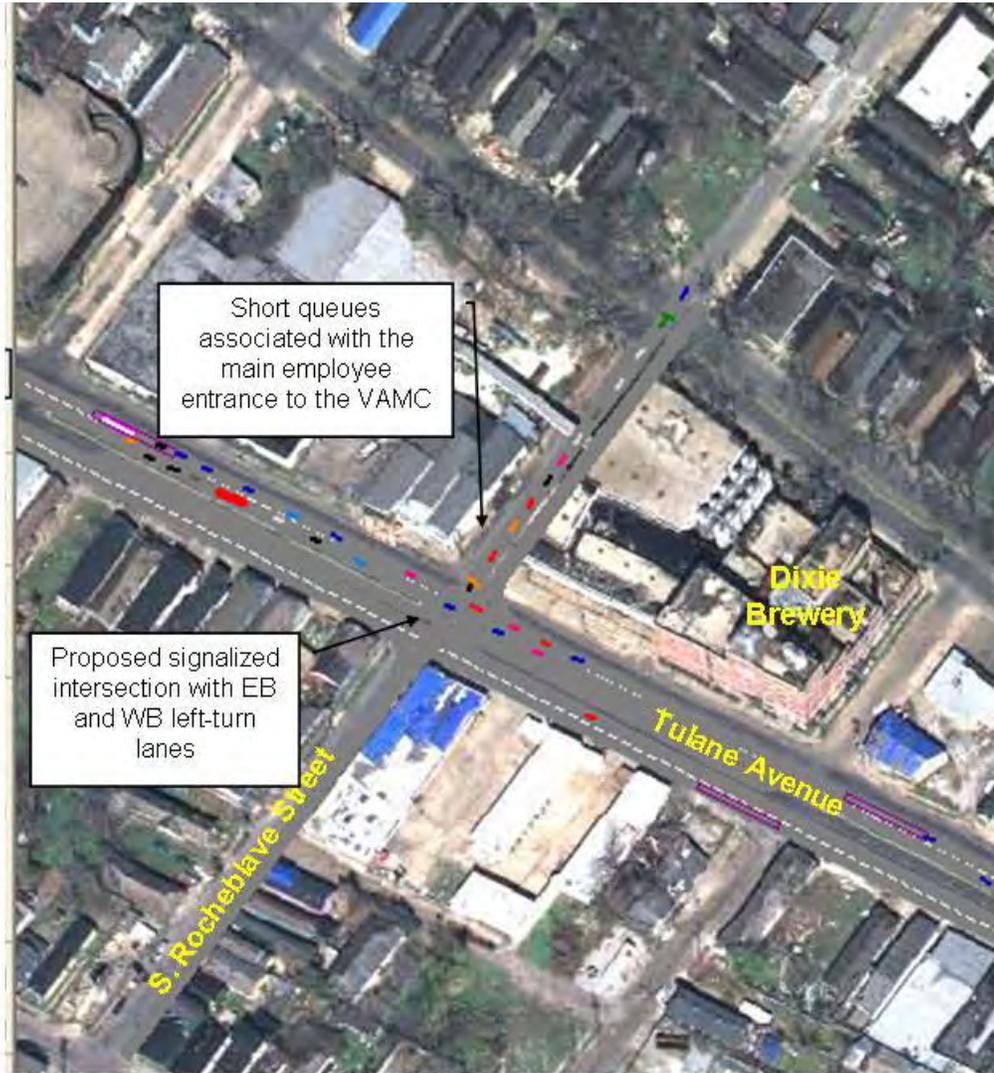


Figure 5-3
Tulane Avenue at S. Galvez Street Intersection



Figure 5-4
Tulane Avenue at S. Prieur Street Intersection



CHAPTER 6.0

6.0 PROPOSED CORRIDOR IMPROVEMENTS

6.1 Roadway Design Guidelines

The Louisiana Department of Transportation and Development's (LADOTD) current roadway design guidelines associated with the proposed improvements are presented in **Table 6-1**. Design guidelines are presented for an urban arterial (UA-2).

Table 6-1
Roadway Design Guidelines

| Item | Units | Urban Arterial UA-2 |
|--|-----------|------------------------|
| Design Speed | mph | 45 |
| Number of Travel Lanes | | 2 – 4 |
| Width of Travel Lane | ft | 11 – 12 |
| Width of Parking Lanes (Where Used) | ft | 10 – 12 |
| Width of Shoulders (Where Used) ¹ | | |
| Outside | ft | 8 |
| Inside on multilane facilities | ft | N/A |
| Type of shoulders | | Paved |
| Width of Median on Multilane Facility | ft | |
| (A) Depressed | | N/A |
| (B) Raised ² | | 6 – 30 |
| (C) Two Way Left Turn Lanes | | 11 – 14 |
| Width of Sidewalk ³ | ft | 4 |
| (a) Offset from Curb | | 6 |
| (b) Adjacent to Curb | | |
| Fore Slope-Ratio | | 1:3 – 1:4 |
| Back Slope-Ratio | | 1:3 |
| Pavement Cross Slops (%) ⁴ | | 2.5 |
| Stopping Sight Distance | ft | 360 |
| Maximum Superelevation | ft per ft | 4 |
| Minimum Radius ^{5,6} (With Full Superelevation) | ft | 700 |
| Max. Grade (%) | | 6 |
| Minimum Vertical Clearance ⁷ | ft | 16 |
| Minimum Horizontal Clearance | ft | |
| (a) From Edge of Travel Lane | | 25 ⁸ |
| (b) Outside (from back of curb) | | 6 – 15 |
| (c) Median (from back of curb) | | 4 – 15 |
| Bridge Design ⁹ | | AASHTO |

- Notes:
1. Curb may be used in place of shoulders on UA-1 and UA-2 facilities.
 2. The minimum median width may be reduced to 4 feet if curb offsets are not provided. On principal arterials, particularly at intersections, the upper limit should be considered.
 3. If shoulders are used, sidewalks should be separated from the shoulder.
 4. 2 percent acceptable for rehabilitation projects.
 5. It may be necessary to increase radius of the curve and/or increase the shoulder width (maximum of 12 feet) to provide adequate stopping sight distance on structure.
 6. Different radii apply at divisional islands.
 7. An additional 6 inches should be added for additional future surfacing.
 8. Applies to facilities with shoulders. Refer to Roadside Design Guild when 1:3 fore slopes are used.
 9. For LFD and ASD designs a HST-18 vehicle should be included as one of the live load vehicles.

6.2 Louisiana's Complete Streets Policy

Louisiana's Complete Streets Policy is intended to create a "comprehensive, integrated, connected transportation network for Louisiana that balances access, mobility, and safety needs of motorists, transit users, bicyclists, and pedestrians of all ages and abilities" (LADOTD, 2009).

Elements that may be included in complete street projects, but not limited to, are: sidewalks, bike lanes or wide paved shoulders, special bus lanes, comfortable and accessible transit stops, frequent and highly visible crossing opportunities, median islands (pedestrian refuges), accessible pedestrian signals, curb extensions, and Americans with Disabilities Act (ADA) compliance. Regardless of the elements utilized to develop a complete street, the design should be focused on enabling safe access for all users.

Policies, identified by the LADOTD, that have been incorporated into the Complete Streets Policy include: the *2009 Statewide Bicycle and Pedestrian Plan*, Context Sensitive Solution Policy, ADA transition project, and access management changes.

Key concepts and benefits identified with Complete Streets Policy include:

- Improving safety;
- Encouraging walking and bicycling for health;
- Addressing climate change and oil dependence; and
- Fostering strong livable communities.

There have been two recently completed projects in New Orleans that have utilized the Complete Streets Policy. These projects included the Oak Street reconstruction in the River Bend area and Magazine Street reconstruction between St. Joseph Street and Calliope Street in the Warehouse District.

The Oak Street reconstruction project cost approximately \$5.4 million and included sewage and drainage replacement, uncovering cobblestones hidden under asphalt, new pavement and sidewalks, bike racks, benches, trash receptacles, bump-outs, improved pedestrian crossings, and new landscaping. These improvements are pictured in **Photo 6-1** through **Photo 6-3**.

Photo 6-1
Oak Street Improvements



Photo 6-2
Oak Street Improvements



Photo 6-3
Oak Street Improvements



The Magazine Street improvements near the National World War II Museum cost approximately \$3.4 million and included reconstruction of travel lanes, on-street parking lanes and sidewalks; drainage and sewage improvements; utility relocations; and improved pedestrian amenities. These improvements are pictured in **Photo 6-4** through **Photo 6-6**.

Photo 6-4
Magazine Street Improvements



Photo 6-5
Magazine Street Improvements



Photo 6-6
Magazine Street Improvements



6.3 Alternative Development Process

At the initial Tulane Avenue Steering Committee meeting held on August 27, 2009 various stakeholders identified elements that should be incorporated into the proposed roadway typical sections that should be considered for the Tulane Avenue corridor. These elements included:

- 11-foot travel lanes
- Minimum 14-foot median
- 5-foot bike lanes
- 8-foot parking lane

It was also noted at this meeting to include an improved 6-lane typical section.

On October 1, 2009, a meeting with LADOTD District 02 was held. At this meeting URS presented three typical sections, based on the 106-foot apparent right-of-way (ROW). The City of New Orleans developed and presented three typical sections. The alternative designs presented at the meeting are briefly described below.

- The three alternatives developed by URS included:

- Alternative 1 is a 4-lane scenario, with a 14-foot median, 5-foot bike lanes and approximately 18-foot sidewalks
- Alternative 2 is a 4-lane scenario, with a 14-foot median, 5-foot bike lanes, 8-foot parking lanes and approximately 10-foot sidewalks
- Alternative 3 is a 6-lane scenario, with a 14-foot median, 5-foot bike lanes and approximately 7-foot sidewalk
- The three alternatives developed by the City of New Orleans included:
 - Option A is a 4-lane scenario with 11-foot travel lanes, a 14-foot median, a 2.5-foot bike lane buffer, a 5-foot bike lane, an 8-foot parking lane and a 7-foot sidewalk.
 - Option B is a 4-lane scenario with 10 and 11-foot travel lanes, a 14-foot median, a 2.5-foot bike lane buffer, a 5-foot bike lane, a 7.5-foot parking lane and a 10-foot sidewalk.
 - Option C is a 4-lane scenario with 10 and 11-foot travel lanes, a 14-foot median, a 3-foot bike lane buffer, a 5-foot bike lane, an 8-foot parking lane and a 9-foot sidewalk.

It was also noted at this meeting that LADOTD would have to approve a 10-foot travel lane based on appropriate justification.

The LADOTD District 02 and other key stakeholders reconvened on February 1, 2010 to further discuss the proposed typical sections for the reconstruction of Tulane Avenue. At the meeting URS presented a preferred typical section, noted above as Alternative 2. Further LADOTD standards were discussed, including the standard width of a left-turn lane within a median. The LADOTD median width standard is 16 feet which provides a 12-foot turn lane and a 4-foot pedestrian refuge. Additionally, it was noted that power lines are to be located 2 feet behind the curb.

Based on the LADOTD design standards and the need for a lower cost alternative, URS was asked to develop a typical section that would maintain the existing edge of curb. This alternative would significantly decrease the cost by merely reconstructing the median and providing an overlay of the existing roadway and improving drainage at only proposed bump-outs and other necessary locations. The two build alternatives carried forth in this study are detailed in **Section 6.4**.

6.4 Proposed Typical Sections

Two 4-lane alternatives for the upgrading of Tulane Avenue were presented at the first Tulane Avenue Stakeholder Committee meeting on April 8, 2010. The two alternatives that considered the existing 106-foot ROW, included:

- A Minimum Reconstruction Alternative that retains the existing curb and sidewalk but does not require the relocation of adjacent utilities (power poles, street lighting, and drainage structures); and

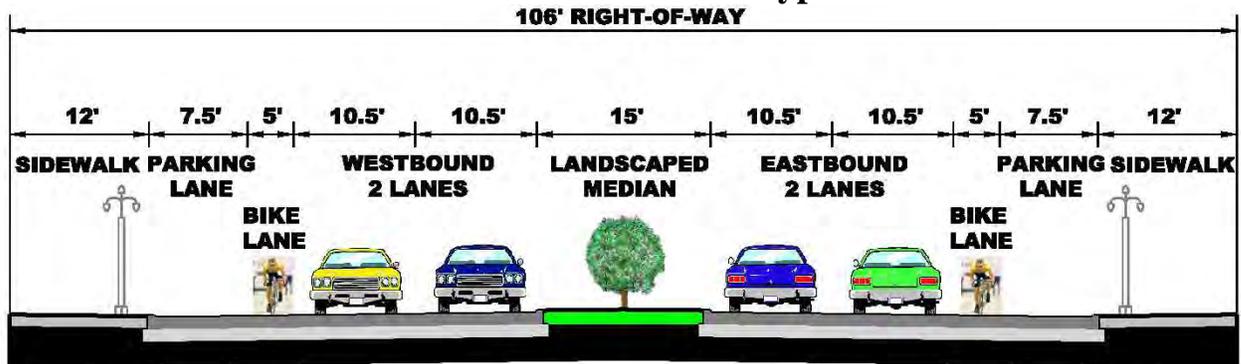
- A Total Reconstruction Alternative that would reconstruct the curb approximately 3-feet from its current location to provide wider lanes. This alternative would require the relocation of adjacent power poles, drainage structures and other utilities.

Minimum Reconstruction Alternative

As noted above, this alternative retains the existing curb and sidewalk which does not require the relocation of utilities; therefore maintaining a lower cost. This alternative typical section is presented in **Figure 6-1** and includes the following:

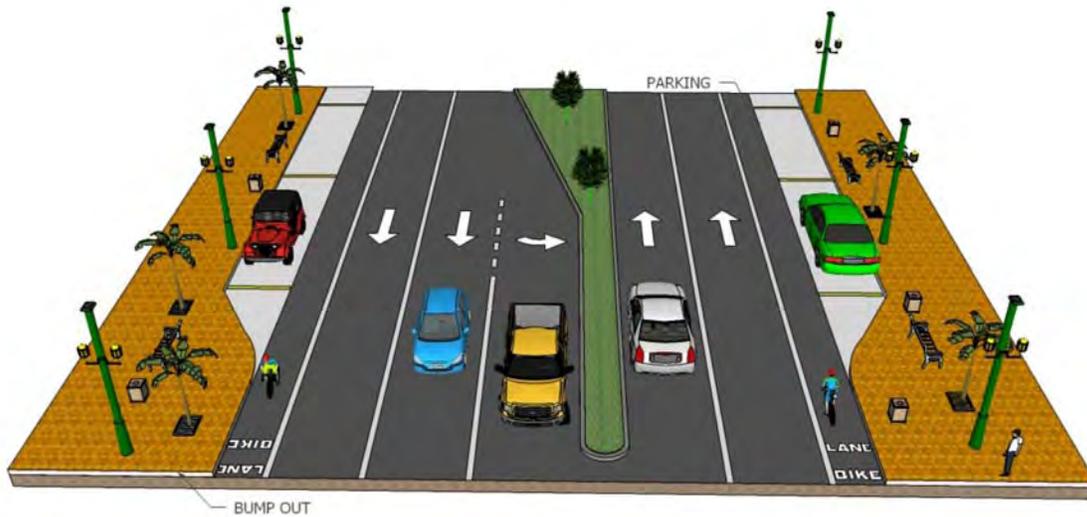
- Four, 10.5-foot travel lanes
- 15-foot median
- 5-foot bike lane
- 7.5-foot parking lane
- 12-foot sidewalk

Figure 6-1
Minimum Reconstruction Alternative Typical Section



A 3-dimensional (3-D) perspective of the Minimum Reconstruction Alternative is also presented in **Figure 6-2**.

Figure 6-2
Minimum Reconstruction Alternative Typical Section 3-D View



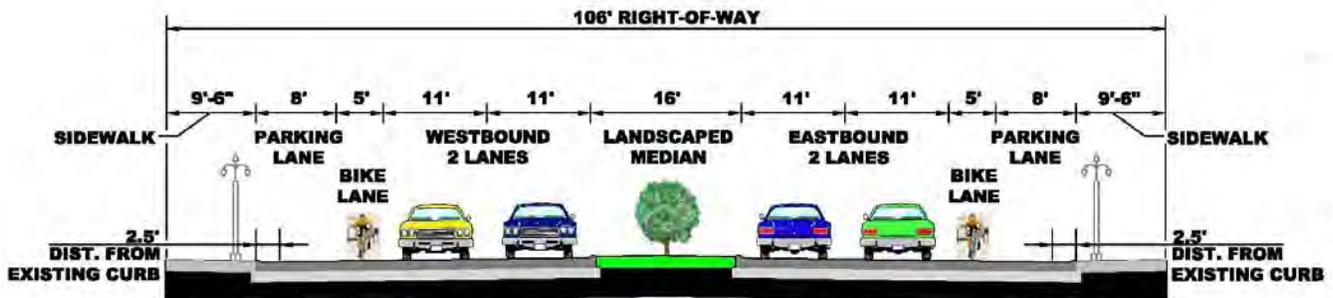
Note: Not to scale; for illustrative purposes only

Total Reconstruction Alternative

As noted above, this alternative would include reconstruction of the curb and sidewalk and would require the relocation of utilities; therefore maintaining a higher cost. This alternative typical section is presented in **Figure 6-3** and includes the following:

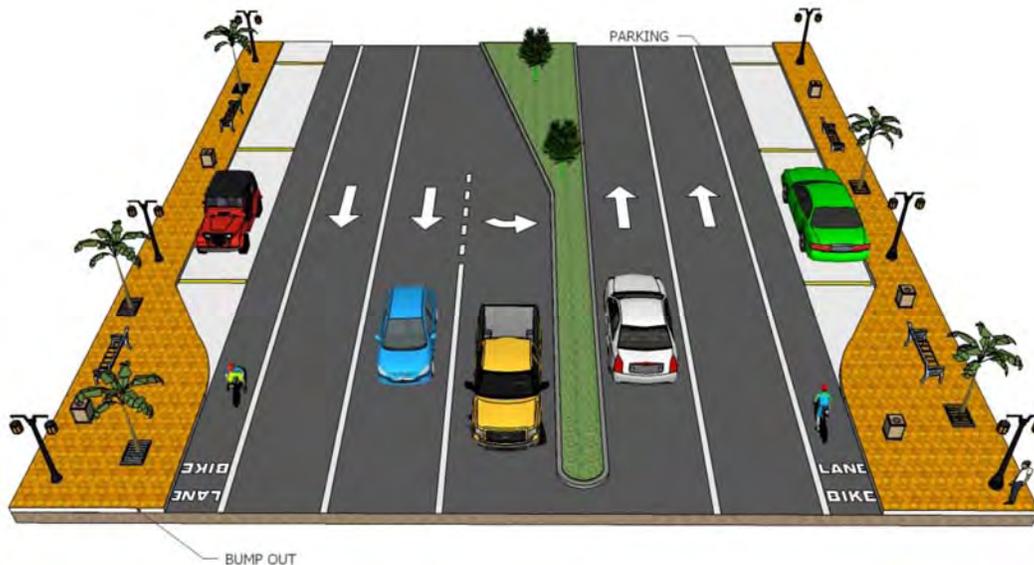
- Four, 11-foot travel lanes
- 16-foot median
- 5-foot bike lane
- 8-foot parking lane
- 9-foot sidewalk

Figure 6-3
Total Reconstruction Alternative Typical Section



A 3-dimensional (3-D) perspective of the Total Reconstruction Alternative is also presented in **Figure 6-4**.

Figure 6-4
Total Reconstruction Alternative Typical Section 3-D View



Note: Not to scale; for illustrative purposes only

The Minimum Reconstruction Alternative was carried forward for further detailed analysis.

6.5 Proposed Corridor Improvements

Additional corridor improvements were also evaluated and include exclusive left-turn lanes, exclusive right-turn lanes, access management concepts, and additional traffic signals at key intersections. The proposed improvements are identified below by intersection and by Plan Sheet and are also presented in the **Conceptual Engineering and Environmental Map Atlas (Map Atlas)** included in **Appendix B**.

Intersection Improvements

Tulane Avenue at S. Carrollton Avenue

This intersection is located in the busiest segment of Tulane Avenue. Currently, left-turns are not permitted on Tulane Avenue, however exclusive left-turn lanes are provided on both approaches of S. Carrollton Avenue. Proposed improvements include a bus only left-turn lane on the westbound approach of Tulane Avenue and an exclusive right-turn lane on the westbound approach of Tulane Avenue. The bus only left-turn lane is further described in **Chapter 7: Other Transportation Modes** because it is part of the proposed reconfigured bus route.

- Bus only left-turn lane on the westbound approach of Tulane Avenue,

- Exclusive right-turn lane on the westbound approach of Tulane Avenue .

These improvements are presented on **Plan Sheet 1** of the **Map Atlas**.

Tulane Avenue at S. Pierce Street

Currently, the traffic signal at this intersection provides protected left-turns for the eastbound innermost travel lane on Tulane Avenue (i.e. there is not a designated left-turn lane). This accommodates the vehicles on eastbound Tulane Avenue wanting to travel northbound on S. Carrollton Avenue. Proposed improvements maintain this movement and also include exclusive right-turn lanes on both approaches of Tulane Avenue. These improvements are presented on **Plan Sheet 2** of the **Map Atlas**.

- Exclusive left-turn on the eastbound approach of Tulane Avenue,
- Exclusive right-turn lanes on the eastbound and westbound approaches of Tulane Avenue

Tulane Avenue at S. Cortez

Currently there is a traffic signal at this intersection to provide protected movements for Entergy employees. Proposed improvements include maintaining the existing traffic signal and providing exclusive turn-lanes on Tulane Avenue. These improvements are presented on **Plan Sheet 3** of the **Map Atlas**.

- Exclusive left-turn lane on westbound Tulane Avenue,
- Exclusive right-turn lane on eastbound Tulane Avenue.

Tulane Avenue at S. Jefferson Davis Parkway

The Tulane Avenue at S. Jefferson Davis Parkway intersection is critical because it provides connectivity to various other arterials throughout the City including: Earhart Expressway, Claiborne Avenue, Canal Street, and eventually St. Charles Avenue. Improvements proposed at this intersection improve the connectivity and traffic flow through the addition of exclusive turn lanes. These improvements are presented on **Plan Sheet 5 and 6** of the **Map Atlas** and include:

- Exclusive right-turn lane on the eastbound approach of Tulane Avenue,
- Bike path relocation to align with proposed crosswalk.

Tulane Avenue at S. Gayoso Street

S. Gayoso Street borders the Crescent Club apartments and the Crescent Club retail area. Improvements are proposed here to improve the safety for Crescent Club residents and patrons. S. Gayoso Street provides access to the private residential parking garage and will provide access to the parking lot provided to the Crescent Club retail area patrons. The following recommendations were made to improve the operation and safety of the intersection:

- Proposed traffic signal,
- Exclusive left-turn lanes on the eastbound and westbound approaches of Tulane Avenue.

These improvements are presented on **Plan Sheet 8** of the **Map Atlas**.

Tulane Avenue at S. Rocheblave Street

S. Rocheblave Street is the western border for the VAMC site and this intersection provides access to the VAMC employee and staff parking garage. The garage will be located near the intersection of S. Rocheblave Street and Palmyra Street. The left-turn lanes and proposed traffic signal were evaluated and recommended in the *Draft Southeast Louisiana Veterans Medical Center Traffic Impact Analysis*. These improvements are presented on **Plan Sheet 12** of the **Map Atlas**.

- Proposed traffic signal,
- Exclusive left-turn lanes on the eastbound and westbound approaches of Tulane Avenue,
- Two-way traffic flow on S. Rocheblave north of Tulane Avenue,
- One-way southbound traffic flow on S. Rocheblave Street, south of Tulane Avenue.

Additionally, design criteria for the VA's research center which will be housed in the existing Dixie Brewery called for an 18-foot blast radius. The Brewery is located on the north side of Tulane Avenue between S. Rocheblave Street and S. Tonti Street. The blast radius was taken into consideration in the conceptual engineering design. No parking will be allowed in front of this building. An extended bump-out will create a no-parking zone that will be lined with bollards. A schematic of the area is presented in **Figure 6-5** and a typical section of this area is presented in **Figure 6-6**. Also see **Plan Sheet 12 and Plan Sheet 13** of the **Map Atlas**.

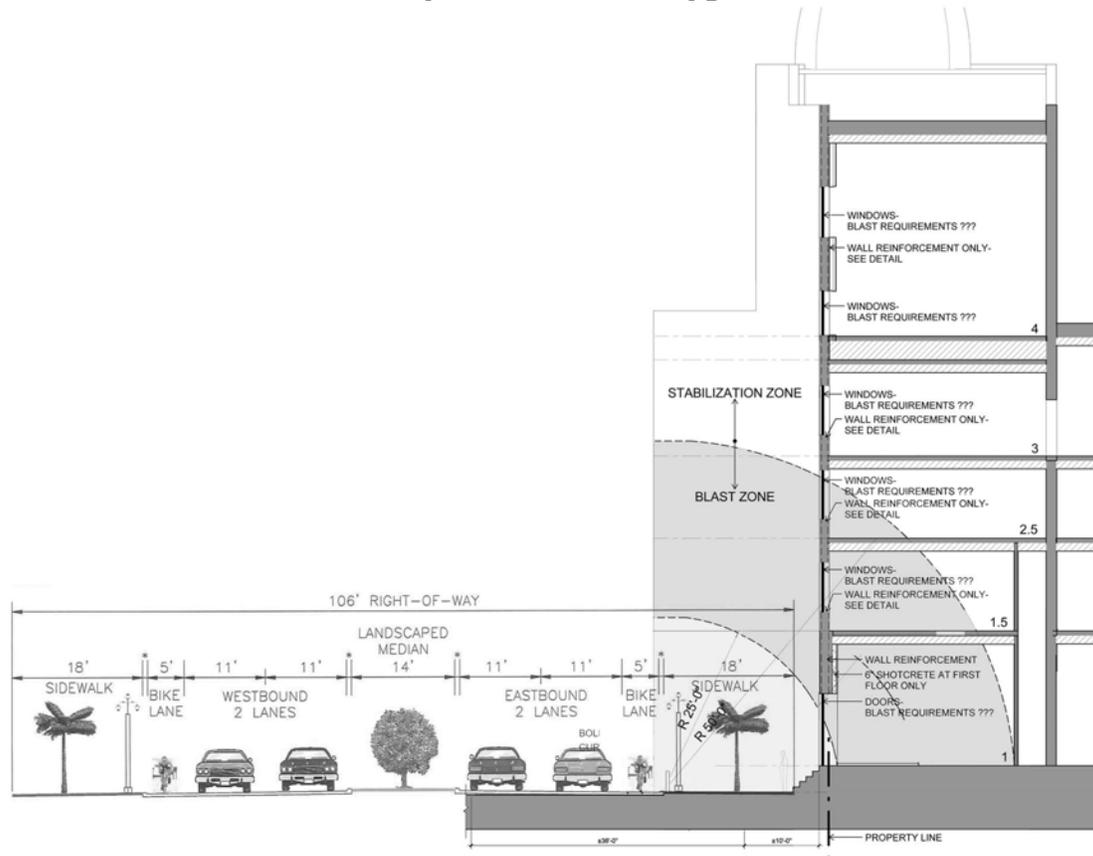
**Figure 6-5
Dixie Brewery Blast Radius Schematic**



| KEY | | | |
|-----|----------------------|--|-----------------------|
| | Security Wall | | Terraced Walls |
| | Bollards | | Courtyard Fence/ Wall |
| | Architectural Stones | | Service Entry Gate |
| | | | Entrance |

Source: VAMC, 2010

Figure 6-6
Dixie Brewery Blast Radius Typical Section



Source: VAMC, 2010

Tulane Avenue at S. Galvez Street

This intersection will become the main entrance to the new medical district because it borders both the VAMC and the UMC. The VAMC patient/visitor parking garage is located on S. Galvez Street near the intersection of Banks Street. The left-turn lanes were evaluated and recommended in the *Draft Southeast Louisiana Veterans Medical Center Traffic Impact Analysis*. The improvements noted in the VAMC traffic analysis were modified based on discussions with LADOTD and the RPC. These modified improvements, noted below, are presented on **Plan Sheet 14** of the **Map Atlas**.

- Exclusive left-turn lanes on the westbound approach of Tulane Avenue,
- Exclusive right-turn lanes on the eastbound and westbound approaches of Tulane Avenue.

Tulane Avenue at S. Roman Street

This intersection provides access to the surface parking lots for the UMC. The traffic impact analysis conducted for the UMC indicated that some of the intersection approaches operated at level of service F during the peak periods with the projected

traffic in conjunction with no intersection improvements. The following recommendations were made to improve the operation of the intersection:

- Proposed traffic signal,
- Exclusive left-turn lanes on the eastbound and westbound approaches of Tulane Avenue.

These improvements are presented on **Plan Sheet 15 and Plan Sheet 16** of the **Map Atlas**.

Tulane Avenue at S. Derbigny Street

This intersection also provides access to the surface parking lots for the UMC. The traffic impact analysis conducted for the UMC indicated that the northbound intersection approach operated at level of service E and F during the AM and PM peak periods, respectively with the projected traffic in conjunction with no intersection improvements. The following recommendations were made to improve the operation of the intersection:

- Exclusive left-turn lanes on the eastbound and westbound approaches of Tulane Avenue,
- Implement two-way traffic flow on S. Derbigny Street,
- Prohibit left-turns on the northbound approach of S. Derbigny Street – right-turns are only permitted.

These improvements are presented on **Plan Sheet 16** of the **Map Atlas**.

Additionally, pedestrian traffic signals with countdown timers and pedestrian push buttons will be installed at signalized intersections. The push button allows pedestrians to call up a walk signal for a specific direction. The timer displays the time remaining in the pedestrian phase and at the end of the clearance interval the timer displays a zero and the “don’t walk” indication. Not only do the countdown timers increase the feeling of safety, they are understood by all ages, reduce the number of pedestrians stranded in the crosswalk at the end of the interval, and are suited for areas with senior citizens and people with walking disabilities.

Access Management Improvements

There are several vacant parcels and buildings along the Tulane Avenue corridor. Modifications to these vacant properties will require a new/revised driveway access permit that would be issued by LADOTD.

According to Section 1519 of LADOTD’s draft driveway access policy, if a property is reconstructed, remodeled, or redeveloped, the owner shall submit a new application for an access connection permit. A re-evaluation of the access connection geometrics and location shall be performed if necessary.

There are several opportunities to modify, consolidate, and/or eliminate driveways along Tulane Avenue as part of access management solutions. These potential locations include:

- **Plan Sheet 2**, STA 5+00; Driveway closure recommended
- **Plan Sheet 2**, STA 6+60; Driveway closure recommended
- **Plan Sheet 2**, STA 7+80; Driveway closure recommended
- **Plan Sheet 10**, STA 55+20; Consolidate driveways
- **Plan Sheet 10**, STA 57+60; Close driveway

Additionally, median closures along Tulane Avenue have been recommended as part of access management solutions. These potential median closures include:

- **Plan Sheet 4**, STA 16+70
- **Plan Sheet 6**, STA 29+00
- **Plan Sheet 11**, STA 60+00
- **Plan Sheet 15**, STA 85+00

6.6 Conceptual Streetscape Design

As the planning progressed and the preferred typical section was selected, URS began developing conceptual landscape plans based on Louisiana and Florida design standards and input from a group of key stakeholders. Several of these landscape meetings were held during the later part of the planning process, during which the key stakeholders provided input utilized to further refine the design. The conceptual landscape plans are further described below.

The New Orleans City Planning Commission, New Orleans Department of Parks and Parkways, the RPC, LADOTD, the Downtown Development District (DDD), and GNOBEDD participated in the development of the conceptual landscape design for the Tulane Avenue corridor. Standards, policies, procedures, and prior experience from each of the stakeholders contributed to the development of the design.

Specific topics discussed at the various landscape coordination meetings included:

- Maintenance procedures, issues, and concerns.
- Preferred plantings based on input from LADOTD and Parks and Parkways.
- LADOTD sight distance standards.
- LADOTD billboard standards.
- Alternative planting materials, such as structural soils, bio-retention planters, and root barriers.

- Key design elements including: unique sidewalk treatments and crosswalk treatments.

The corridor was divided at Broad Street and two complementary designs were incorporated for each section. Claiborne Avenue to Broad Street includes the medical sciences district and the 2-block segment between Tonti Street and Bolivar Street. Broad Street to Carrollton Avenue includes smaller retail and service oriented business and residential development for the 2-block segment between Clark Street and Rendon Street. This section of the corridor is more dependent on on-street parking due to high turn-over of traffic. The conceptual landscape design is presented in the **Map Atlas**.

LADOTD sight distance standards were reviewed and were determined to be somewhat restrictive – a clear zone of 450 feet is required for a design speed of 45 mph. In lieu of using LADOTD standards, the Florida Department of Transportation (FDOT) design standards were utilized for the landscape concepts which include:

- 4 to 11-inch diameter trees in a median, spaced 40 feet apart (This concept was presented for Carrollton Avenue to S. Broad Street).
- 11 to 18-inch diameter trees in a median, spaced 150 feet a part (example presented for S. Broad Street to Claiborne Avenue was the Medjool Date Palms).

Additional features and elements incorporated in the landscape design include:

- Creating shade along the sidewalks by planting trees closer together.
- Planting larger canopy trees in bio-retention planters in areas with bump-outs. These areas may provide additional benefit at sidewalk cafés and other key locations to encourage pedestrian activity.
- Pedestrian refuges on medians.
- Scored concrete details or brick banding at certain locations, see **Photo 6-7**.

Photo 6-7
Example of Concrete with Brick Banding



CHAPTER 7.0

7.0 OTHER TRANSPORTATION MODES

7.1 Pedestrian

Along Tulane Avenue, the sidewalks are in fair condition and few areas are ADA accessible. Although the sidewalks are included in the state's ROW, the abutting property owner is responsible for maintenance. The City of New Orleans Department of Public Works has primary jurisdiction over the sidewalks, although Parks and Parkways monitor plantings and Safety and Permits monitors overhanging balconies and other intrusions into the sidewalk at grade or above (GNOBEDD, 2010).

In the neighboring medical district, pedestrian activity is high for those traveling between buildings and to/from parking facilities. It was noted in the 2008 *New Orleans Medical District Strategic Integration Plan – Final Report* that pedestrians avoid certain streets because of specific conditions that make the street unfriendly to pedestrians. These conditions include safety issues, lack of sidewalks, and sidewalks in poor condition.

As the development of Tulane Avenue continues to progress, the need for improved pedestrian amenities will increase. Improving the pedestrian experience is one of the key objectives for this project. Proposed improvements identified in this plan include:

- Improved sidewalks;
- Improved and highly visible crosswalks;
- ADA compliance;
- Pedestrian signal count-down timers at signalized intersections;
- Pedestrian refuges in medians;
- Enhanced landscaping;
- Improved signage; and
- Consistency of design.

Creating an atmosphere that encourages pedestrian activity will also encourage economic revitalization.

7.2 Bicycles

Planning for bicycles is another key objective for this project. One of the initial and main components of the proposed typical sections was to include a bike lane. Developing a network of dedicated bike lanes throughout the City of New Orleans was also a reoccurring theme identified by the public during public forums that were held as part of the New Orleans master planning process (Goody Clancy, 2010). A 5-foot bike lane was accommodated for in the proposed Minimum Reconstruction Alternative.

Planning for bicycles has also been identified in current planning documents for various institutions in New Orleans. The *2005 New Orleans Metropolitan Bicycle and Pedestrian Plan* reviewed existing conditions for bicyclists and pedestrian, examined safety and convenience of the existing network, identified deficiencies in the region, and provided framework for evaluating future polices.

According to the *Plan for the 21st Century, New Orleans 2030* (Master Plan), the RPC and the New Orleans Department of Public Works are both advocating more and improved bikeways. Although Tulane Avenue was not designated as an exclusive bicycle route in the Master Plan, it was designated as a potential multi-use path.

Figure 7-1 depicts existing and proposed bike routes.

7.3 Transit

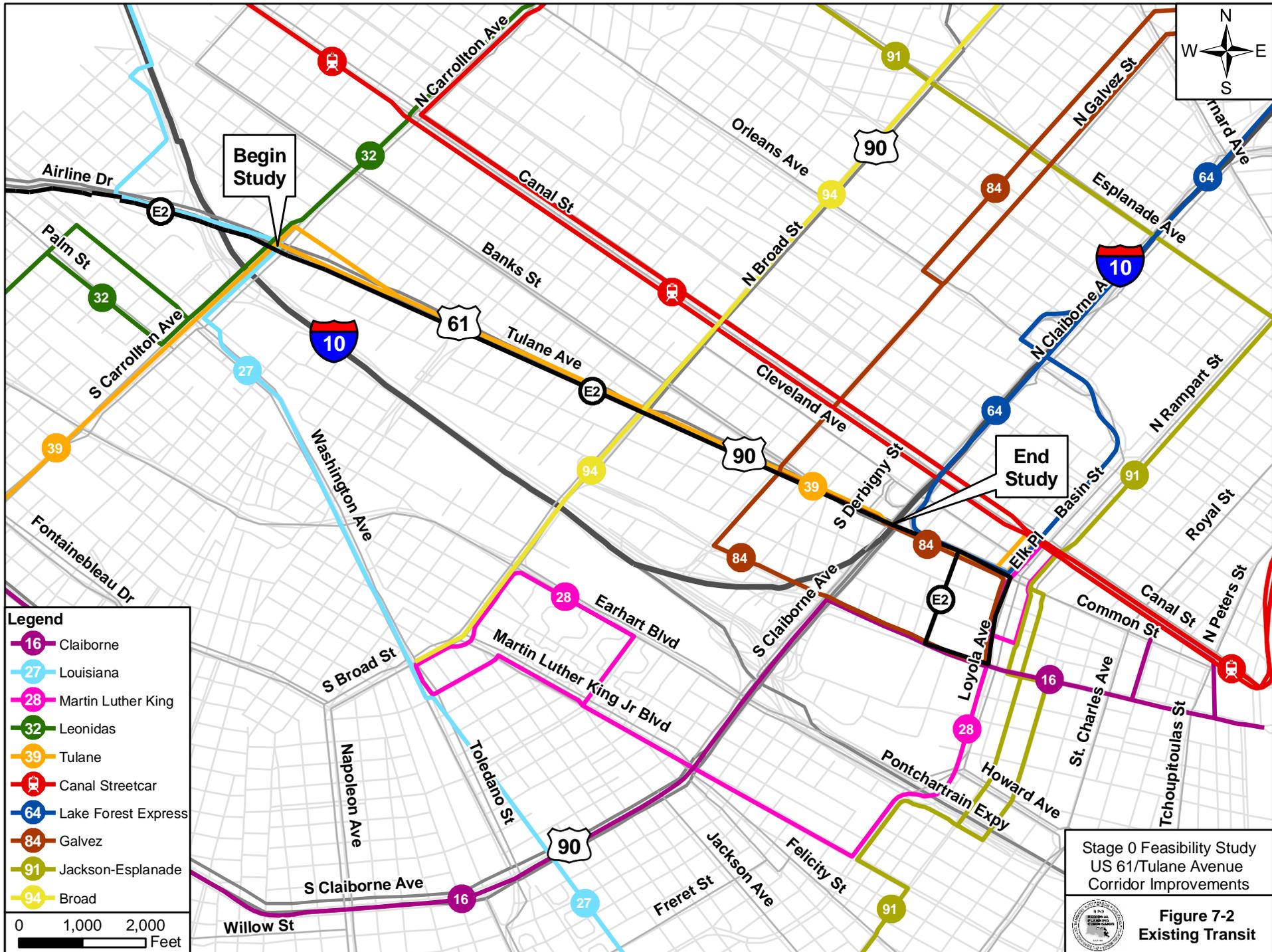
The New Orleans metropolitan area is served by two transit agencies. The New Orleans area is served by New Orleans Regional Transit Authority (RTA) within the New Orleans city limits and by the Jefferson Transit (JeT) within Jefferson Parish.

Bus Routes and Ridership

Tulane Avenue is part of the New Orleans Regional Transit Authority (RTA) Route 39, which has been identified as one of the top 5 ridership routes in New Orleans. The route begins on Claiborne Avenue, turns onto S. Carrollton Avenue, and then travels east onto Tulane Avenue and continues to Loyola Avenue. RTA's Route 39 connects to the JeT Route E2 at the Tulane Avenue and S. Carrollton Avenue intersection. JeT Route E2 provides service from the Louis Armstrong New Orleans International Airport to the New Orleans Union Passenger Terminal. These overall routes and additional connecting routes are graphically presented on **Figure 7-2**.

The westbound or out-bound course for RTA Route 39 on Tulane Avenue, turns down Ulloa Street at S. Cortez Street, so that a left-turn can be made onto S. Carrollton Avenue. Currently, left-turns are not allowed from Tulane Avenue at the S. Carrollton Avenue intersection.

In May 2010, the RTA completed a 12-hour count (6:00 AM to 6:00 PM) for the Tulane Avenue bus route (Route 39). Ridership has shown an increase from previous counts that have been conducted. It was estimated that the total on and offs for both the inbound and outbound routes totals 2,100 riders over a 12-hour period.



Existing Bus Stops

Existing bus stops on Tulane Avenue are typically two blocks apart and are all near-side stops. The existing stops are identified for the in-bound and out-bound routes between S. Carrollton Avenue and S. Claiborne Avenue in **Table 7-1** and graphically presented on **Figure 7-3** through **Figure 7-6**. On the figures, the existing stops are depicted as green dots. The 12-hour ridership counts for each stop, conducted in mid-2010, are also shown on the figures as “on”, “off”, and “total.”

**Table 7-1
Tulane Avenue Existing In-bound/Out-bound Stops**

| In-bound | | Out-bound | |
|-------------|----------------------------|----------------------|----------------------------|
| Tulane Ave. | S. Pierce | Tulane Ave. | S. Claiborne Avenue |
| Tulane Ave. | S. Cortez | Tulane Ave. | S. Roman |
| Tulane Ave. | S. Genois | Tulane Ave. | S. Prieur |
| Tulane Ave. | S. Clark | Tulane Ave. | S. Galvez |
| Tulane Ave. | S. Jefferson Davis Parkway | Tulane Ave. | S. Tonti |
| Tulane Ave. | S. Lopez | Tulane Ave. | S. Dorgenois |
| Tulane Ave. | S. Gayosa | Tulane Ave. | S. Broad Street |
| Tulane Ave. | S. White | Tulane Ave. | S. White |
| Tulane Ave. | S. Broad Street | Tulane Ave. | S. Gayoso |
| Tulane Ave. | S. Dorgenois | Tulane Ave. | S. Lopez (Far-side) |
| Tulane Ave. | S. Tonti | Tulane Ave. | S. Jefferson Davis Parkway |
| Tulane Ave. | S. Galvez | Tulane Ave. | S. Clark |
| Tulane Ave. | S. Prieur | Tulane Ave. | S. Genois |
| Tulane Ave. | S. Roman | Ulloa | Cortez |
| Tulane Ave. | S. Claiborne | Ulloa | S. Pierce |
| | | Ulloa | S. Carrollton Avenue |
| | | S. Carrollton Avenue | Carrollton near Tulane |

The weekday headway, defined as the time between vehicles, for Route 39 is 20 minutes.

Proposed Bus Stops

The RTA, RPC, and URS reviewed the 12-hour ridership counts (on, off and total) for both in-bound and out-bound directions along Tulane Avenue for Route 39. The purpose of this evaluation was to establish the location of future bus stops in connection with the proposed 4-lane improvements on Tulane Avenue. Preliminary recommendations were developed and approved by RTA staff. The approved bus stop locations are included in the conceptual layouts for the 4-lane improvements as shown in the **Map Atlas**. The recommendations included retaining existing stops, eliminating stops, and relocating stops. The methodology used in the analysis generally included the following:

- Bus stops would remain at their current location if the total ridership is greater than 10. Based on RTA recommendations, existing stops are proposed to be relocated to the far-side of the intersection at signalized locations.
- Bus stops were recommended for elimination if the total ridership (on and offs) was approximately equal to 10 riders.
- Stops were recommended for relocation and/or elimination if two stops are currently located a block apart or if a proposed stop is located within a block of an existing stop.

The in-bound and out-bound recommended stops between S. Carrollton Avenue and S. Claiborne Avenue are identified in **Table 7-2**. The proposed stops are also identified on **Figure 7-3** through **Figure 7-6** as orange dots. Most of the stops have been moved to the far-side, although some of the stops have been maintained at the near-side location.

**Table 7-2
Tulane Avenue Proposed In-bound/Out-bound Stops**

| In-bound | | Out-bound | |
|-------------|-------------------------|-------------|-------------------------|
| Tulane Ave. | S. Carrollton Avenue | Tulane Ave. | S. Claiborne Avenue |
| Tulane Ave. | Pierce Street | Tulane Ave. | Roman Street |
| Tulane Ave. | Cortez Street | Tulane Ave. | Galvez Street |
| Tulane Ave. | Genois Street | Tulane Ave. | Rocheblave |
| Tulane Ave. | Jefferson Davis Parkway | Tulane Ave. | Broad Street |
| Tulane Ave. | Gayoso Street | Tulane Ave. | Gayoso Street |
| Tulane Ave. | Broad Street | Tulane Ave. | Jefferson Davis Parkway |
| Tulane Ave. | Rocheblave | Tulane Ave. | Genois Street |
| Tulane Ave. | Galvez Street | Tulane Ave. | Cortez |
| Tulane Ave. | Roman Street | Tulane Ave. | Pierce Street |
| Tulane Ave. | S. Claiborne Avenue | Tulane Ave. | S. Carrollton Avenue |

The following existing bus stops have been proposed for elimination: in-bound and out-bound S. Clark Street, in-bound and out-bound S. Lopez Street, in-bound and out-bound S. White Street, in-bound and out-bound S. Tonti Street, and in-bound and out-bound S. Prier Street. The existing in-bound and out-bound stop at S. Dorgeonois Street is proposed to be relocated to S. Rocheblave Street. The proposed stop eliminations are identified on the series of figures as yellow circles and the proposed stop relocations are identified on the series of figures as pink circles.

Additional recommendations included maintaining the westbound, or out-bound, bus route on Tulane Avenue to S. Carrollton Avenue. Currently, the westbound or outbound Tulane Avenue bus continues on Ulloa Street at S. Cortez and then makes a left onto S. Carrollton Avenue at the signal. The revised Tulane Avenue route would keep the westbound bus on Tulane Avenue in conjunction with a recommended bus only left-turn

lane at S. Carrollton Avenue, as denoted on **Figure 7-3**. This signal modification is contingent on LADOTD District 02 approval.

New bus stops will be designed to accommodate a 60-foot articulated bus. Additionally, a bus priority/preemption system is a long-term goal that is going to be investigated by the RTA. A brief overview of the advantages of near-side and far-side bus stops is described below.

Near-side Versus Far-side Bus Stops

Far-side bus stops are stops that are located immediately after an intersection. There are some advantages to far-side stops; these include:

- Reduction in conflict with right-turning vehicles;
- The bus does not obscure sight distance for vehicles turning from side streets;
- The bus does not obscure traffic control devices or pedestrian movements; and
- When used in conjunction with a traffic signal, buses can more easily merge into traffic (*Bus Stop Design Guidelines*, October 2006).

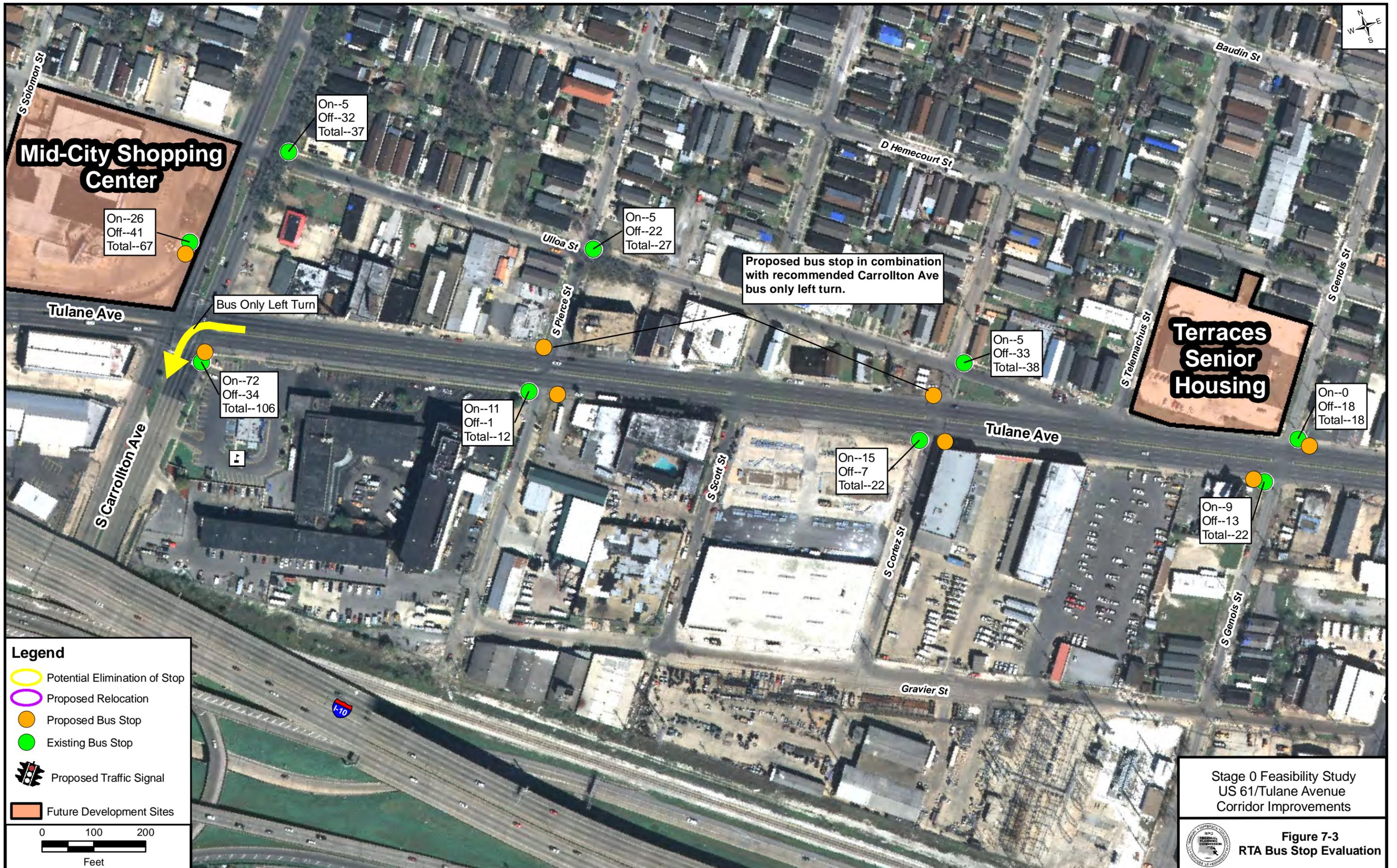
Near-side bus stops are located immediately before an intersection. In some instances, a near-side bus stop is preferred because of the following advantages:

- Less potential conflict with traffic turning onto the main street from a side street;
- The bus boarding door is located closer to the crosswalk;
- The bus has the length of the intersection to merge into traffic; and
- The bus driver can see oncoming buses with transfer passengers (*Bus Stop Design Guidelines*, October 2006).

Bus Rapid Transit (BRT)

The Tulane Avenue corridor was included in a previous environmental study concerning transit alternatives between downtown New Orleans and the Louis Armstrong New Orleans International Airport. Transit alternatives included a light rail transit minimal operating segment and several bus rapid transit (BRT) alternatives. The *Preliminary Draft Environmental Statement – East-West Corridor Transit Component* was completed in November 2007, but was placed on hold until the region's economic recovery becomes sustainable and updated analytical tools are in place for purposes of ridership forecasting and detailed cost analysis.

Interest with several key stakeholders has increased because current public transportation ridership on Tulane Avenue may support BRT. As noted above, the bus stops shown in the **Map Atlas** are generally 80-foot in length which would accommodate a 60-foot articulated bus.



Stage 0 Feasibility Study
US 61/Tulane Avenue
Corridor Improvements



Figure 7-3
RTA Bus Stop Evaluation



On--0
Off--18
Total--18

On--3
Off--5
Total--8

On--14
Off--27
Total--41

On--4
Off--19
Total--23

On--2
Off--17
Total--19

On--3
Off--7
Total--10

On--16
Off--25
Total--41

On--15
Off--1
Total--16

On--11
Off--2
Total--13

Proposed location to be determined

Goodwill Industries

Crescent Club Retail

Crescent Club Apts.

Tulane Ave

Banks St

S Genois St

S Jefferson Davis Pky

Baudin St

S Rendon St

D Hemecourt St

S Salcedo St

S Gayoso St

S Dupre St

St. Michael Senior Housing

S Jefferson Davis Pky

S Dupre St

Gravier St





Proposed New Orleans VA Medical Center



Legend

- Potential Elimination of Stop
- Proposed Relocation
- Proposed Bus Stop
- Existing Bus Stop
- Proposed Traffic Signal
- Future Development Sites

0 100 200
Feet

Stage 0 Feasibility Study
US 61/Tulane Avenue
Corridor Improvements

Figure 7-5
RTA Bus Stop Evaluation

4



d
s VA
nter

Downtown Inn

**Louisiana Cancer
Research Center**

Proposed LSU Hospital Site

On--12
Off--17
Total--29

On--31
Off--3
Total--34

On--15
Off--36
Total--51

On--16
Off--21
Total--37

On--9
Off--5
Total--14

On--2
Off--8
Total--10

On--2
Off--8
Total--10

On--7
Off--2
Total--9

Tulane Ave

Banks St

Tulane Ave

S Claiborne Ave

Cleveland Ave

S Miro St

S Galvez St

S Roman St

S Johnson St

S Prieur St

Bolivar St

S Derbigny St

Gravier St

Bertrand St

H

H



CHAPTER 8.0

8.0 OPINION OF PROBABLE COST & IMPLEMENTATION PHASING

8.1 Estimated Cost Methodology

Conceptual construction/implementation cost estimates were developed for each block of the Tulane Avenue corridor improvement limits. For construction costs, this task consisted of estimating quantities for standard roadway bid items and applying current unit prices for each of the bid items. Unit prices were derived from engineering judgment, past experience with similar type projects, and from the LADOTD bid item weighted unit process, 2nd quarter, 2010 unit prices. A 20 percent contingency was applied to the construction cost estimates to account for unknown conditions, and unknown utility relocations. An additional 10 percent contingency was applied to the construction cost estimates to account for any possible drainage infrastructure improvements associated with the roadway reconstruction or construction of bump-outs. The conceptual costs also include 10 percent for survey, design, and construction engineering and inspection (CE&I). Block-by-block cost estimates were then combined into potential construction phases based on estimated costs and the priority of the segment of Tulane Avenue.

8.2 Implementation Phasing/Estimated Cost of Phased Improvements

The block-by-block cost estimates were divided into three phases to create a feasible project implementation schedule that may be predicated upon available funding. Tulane Avenue was divided into the following three segments that define the three implementation phases:

- Phase 1: Claiborne Avenue to Broad Street
- Phase 2: Broad Street to Jefferson Davis Parkway
- Phase 3: Jefferson Davis Parkway to S. Carrollton Avenue

As shown, the segment of Tulane Avenue between S. Claiborne Avenue to S. Broad Street is the first recommended construction phase due to its proximity to both the VAMC and the UMC and the need to have this portion of the roadway completed prior to the opening of these medical centers.

The corridor segments were selected to be implemented with continuity. The implementation phases were further divided into two sub-phases including: Phase 1a – roadway reconstruction and Phase 1b – sidewalk reconstruction, lighting, and landscaping. Roadway reconstruction costs include median reconstruction, new asphalt pavement, bump-out construction, pavement markings, handicap ramps, and costs associated with traffic signal modifications or additions. Roadway reconstruction (Phase 1a) costs also include the addition of pedestrian signals, countdown timers, and pedestrian push-buttons. Additionally, some sidewalk reconstruction will have to be

completed as part of the roadway reconstruction, particularly where handicap ramps will be installed. Phase 1b would consist of sidewalk reconstruction (concrete with brick banding), lighting (refurbishing existing power poles and installing new street lights), and landscaping (landscaping plans to be developed as part of the project design stage).

The estimated costs by phase are presented in **Table 8-1**.

Table 8-1
Estimated Costs by Phase (2010 dollars)

| Cost Element | Phase 1 | Phase 2 | Phase 3 |
|--|-----------------------------------|---------------------------------------|---|
| | S. Claiborne Ave. to S. Broad St. | S. Broad St. to Jefferson Davis Pkwy. | Jefferson Davis Pkwy. to S. Carrollton Ave. |
| Sub-phase | Phase 1a | Phase 2a | Phase 3a |
| Roadway Reconstruction | \$2.5 Million | \$2.4 Million | \$2.4 Million |
| Sub-phase | Phase 1b | Phase 2b | Phase 3b |
| Sidewalk Reconstruction, Lighting, and Landscaping | \$2.1 Million | \$1.6 Million | \$1.8 Million |
| Total | \$4.6 Million | \$4.0 Million | \$4.2 Million |

The Preliminary Scope and Budget Worksheets and the Stage 0 Environmental Checklists for each of the phased projects are included in **Appendix C**.

CHAPTER 9.0

9.0 PUBLIC INVOLVEMENT

This study was carried out under the direction of various stakeholders associated with Tulane Avenue. The stakeholders represented various entities including: LADOTD, the Regional Planning Commission (RPC), the Downtown Development District (DDD), Regional Transit Authority (RTA), Greater New Orleans Bioscience Economic Development District, LSU Health Sciences Center, the Veterans Affairs Medical Center (VAMC), as well as City, Parish, and State elected officials and various business owners and community groups. Approximately 70 individuals served as stakeholders for this study.

Two stakeholder meetings were held in New Orleans and various small working group meetings were also conducted. A synopsis of the two stakeholder meetings follows:

- The initial meeting was held on April 8, 2010. The objective of the first meeting was to review information gathered from the data collection effort including: new and proposed developments; existing conditions along the corridor, including the existing typical section; present the LADOTD's Complete Streets Concept; present examples of Complete Streets in the New Orleans area; and present proposed typical sections. Input regarding the proposed typical sections and other improvements was requested from the meeting attendants.
- Concurrences were reached by the Tulane Avenue stakeholders to proceed with the Minimum Reconstruction Alternative for the corridor.
- The second meeting was held on May 6, 2010. This meeting was held to allow the architects and stakeholders of the new medical centers on Tulane Avenue to present their landscaping plans and other factors that may affect the reconstruction of Tulane Avenue. Presentations were made to the stakeholder group by the following: the VAMC, the Louisiana Cancer Research Consortium, UMC, and the New Orleans Medical Center.

Appendix D contains the presentation, meeting minutes, and sign-in sheets from the stakeholder meetings that were held throughout the project duration.

Additional working group meetings were held throughout the project duration to assist in the coordination of the stakeholders on specific topics. Meetings were held with LADOTD to discuss existing and future traffic conditions along with design criteria and design standards. Coordination with the RTA was also conducted to identify future bus stop locations based on current ridership counts. Additionally, a smaller stakeholder group convened to discuss possible landscaping, including hardscape alternatives, for the Tulane Avenue corridor. These smaller stakeholder meetings were utilized to refine the conceptual landscape design for the corridor. These meeting minutes and sign-in sheets are also included in **Appendix D**.

CHAPTER 10.0

10.0 CONCLUSION

10.1 Summary of Impacts

Environmental

Based on the data collected in the Stage 0 Environmental Checklists and information included in **Chapter 4: Existing Conditions**, minimal environmental impacts are anticipated with the reconstruction of Tulane Avenue. The 4-lane Minimum Reconstruction Alternative would be contained within the existing right-of-way as a measure to reduce impacts and minimize construction costs. The recommended alternative, the Minimum Reconstruction Alternative, retains the existing curb and sidewalk and does not require the relocation of adjacent utilities. The recommended alternative further reduces impacts by maintaining the existing curb.

Transportation

According to the traffic impact analyses completed by the VAMC and the UMC, along with the visual simulation of the corridor, the slight reduction in vehicular capacity does not have a negative impact on the daily traffic operations of Tulane Avenue. The total traffic volume projected for the full-build of the proposed development on and near Tulane Avenue is approximately equal to prior traffic volumes on Tulane Avenue in 2004 (2004 ADT).

The reduction in the number of travel lanes on Tulane Avenue from 6 to 4-lane provides the opportunity to enhance other modes of transportation and amenities. The recommended alternative includes bike lanes, improved transit stops, and the addition of exclusive left and right-turn lanes. New traffic signal locations are also proposed to aid in traffic flow associated with the VAMC and UMC facilities.

The recommended alternative also provides the opportunity to enhance the quality of the corridor through a wider median and sidewalk improvements that will enable a unified landscape concept. Specific design concepts were presented and discussed through a series of landscape coordination meetings with key stakeholders. This coordination effort aided in the development of a conceptual design that was feasible and practical based on the various standards, policies, and procedures.

10.2 Summary of Cost Estimates

The cost estimates were based on LADOTD bid item weighted unit process, 2nd quarter, 2010 unit prices. The corridor was divided into three segments and the cost estimates were used to develop costs for three implementation phases. Within each phase, costs were derived for two possible sub-phases of construction: Phase 1a - roadway reconstruction and Phase 1b - sidewalk reconstruction, lighting, and landscaping. The costs are presented in **Table 10-2**.

Table 10-1
Estimated Costs by Phase (2010 dollars)

| Cost Element | Phase 1 | Phase 2 | Phase 3 |
|---|--------------------------------------|--|--|
| | S. Claiborne Ave. to S. Broad St. | S. Broad St. to Jefferson Davis Pkwy. | Jefferson Davis Pkwy. to S. Carrollton Ave. |
| Sub-phase | Phase 1a | Phase 2a | Phase 3a |
| Roadway Reconstruction | \$2.5 Million | \$2.4 Million | \$2.4 Million |
| Sub-phase | Phase 1b | Phase 2b | Phase 3b |
| Sidewalk Reconstruction, Lighting, and Landscaping | \$2.1 Million | \$1.6 Million | \$1.8 Million |
| Total | \$4.6 Million | \$4.0 Million | \$4.2 Million |

10.3 Summary of Additional Planning Tasks

Four additional planning tasks have been identified that would enhance the conversion of Tulane Avenue from 6 to 4-lanes.

Access Management

Access management concepts should be incorporated into the design of the Tulane Avenue corridor. New construction and demolition provide additional opportunities to apply access management concepts such as: the elimination of driveways adjacent to vacant parcels of land and/or blighted property, the consolidation of driveways, and median closures on Tulane Avenue.

Parking Demand

Both proposed typical sections would reduce the amount of on-street parking available on Tulane Avenue due to longer bus stops, the addition of bump-outs and pedestrian crossings, proposed development, and access management.

A parking demand analysis would identify the existing demand and determine if the Minimum Reconstruction Alternative would provide adequate on-street parking opportunities. The analysis could be completed during various times of day on a block-by-block basis in locations where existing parking is permitted.

Billboard Evaluation

Landscape designs should be assessed to ensure compliance with LADOTD standards pertaining to interference with existing billboard visibility. This would be accomplished via a detailed billboard inventory produced through field evaluations.

Lighting

Further development of the conceptual streetscape design should include an evaluation of lighting along the Tulane Avenue corridor. The lighting analysis should further define the safety implications of existing conditions and the cost of any necessary improvements. As part of this analysis, the following questions could be answered:

- Is the existing lighting along the corridor sufficient?
- Should a lighting analysis for photometrics be conducted to determine if additional lighting is needed?
- What are the associated costs of lighting improvements?

10.4 Possible Funding Resources

Funding for this project may be available through various sources. The Obama administration announced \$75 million in grant money for projects designed to foster more livable, sustainable communities. The administration defines livable communities as “places where transportation, housing, and commercial development investments are coordinated to better serve the people living in those communities.” Funding for this program is available from two sources: \$35 million in Transportation Investment Generating Economic Recovery (TIGER) planning grants from the U.S. Department of Transportation and \$40 million in Sustainable Community Challenge Grants from the Department of Housing and Urban Development (HUD).

The TIGER planning grant may be used for planning, preparing, or designing surface transportation projects that can include highway, bridge, transit, railway, port, or bicycle/pedestrian facilities. Although the application period had already expired, similar additional funding may be available in the future.

Additional funding opportunities may include the Transportation Enhancement Program, which is federally funded and administered through the LADOTD. The program funds projects that work toward developing a balanced transportation system, including pedestrians, bicyclists, and the motoring public. Projects available for funding may include the following: safety and educational activities for pedestrians and bicyclists, landscaping and other scenic beautification, historic preservation, acquisition of scenic easements and scenic or historic sites, preservation of abandoned railway corridors, scenic or historic highway programs including the provision of tourist and welcome center facilities, archaeological planning and research, environmental mitigation, and establishment of transportation museums (<http://www.dotd.louisiana.gov/pressreleases/>).

APPENDIX A

APPENDIX A

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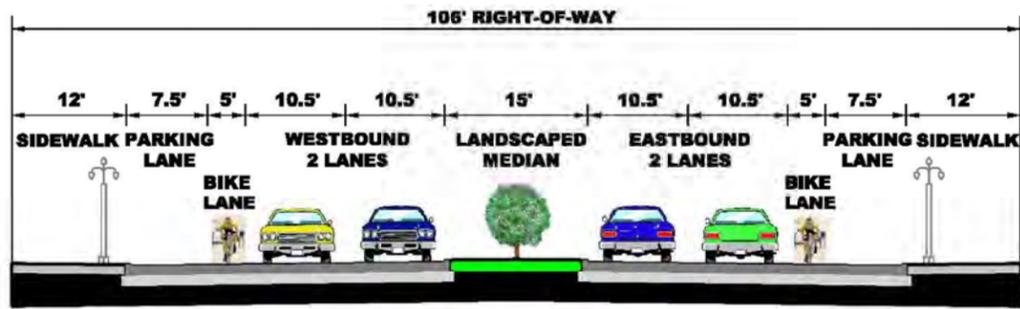
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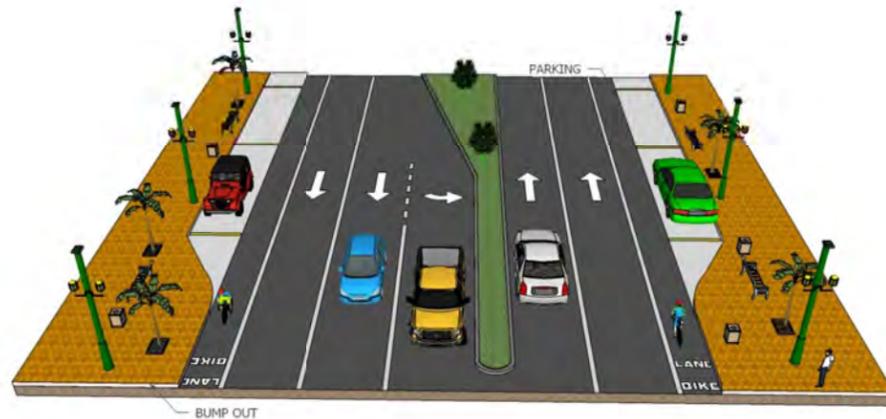
APPENDIX B

MINIMUM RECONSTRUCTION ALTERNATIVE TYPICAL SECTION



NOTE: NOT TO SCALE; FOR ILLUSTRATIVE PURPOSES ONLY.

MINIMUM RECONSTRUCTION ALTERNATIVE TYPICAL SECTION 3-D VIEW



NOTE: NOT TO SCALE; FOR ILLUSTRATIVE PURPOSES ONLY.

GENERAL NOTES

1. ROADWAY IMPROVEMENTS ARE CONCEPTUAL IN-NATURE; DETAILED DESIGN WILL BE COMPLETED AT A LATER STAGE IN PROJECT DEVELOPMENT.
2. INTERSECTION IMPROVEMENTS INCLUDING SIGNALIZATION AT TULANE AVENUE AND S. ROCHEBLAVE STREET WILL BE IMPLEMENTED DURING CONSTRUCTION OF THE VA MEDICAL CENTER.
3. POTENTIAL LOCATION OF DRIVEWAY CLOSURES AND/OR CONSOLIDATION OF DRIVEWAYS IS BASED ON CURRENT PARCEL/BUILDING VACANCY. FUTURE DEVELOPMENT OF VACANT SITES MAY REQUIRE A LADOTD DRIVEWAY PERMIT.

LEGEND

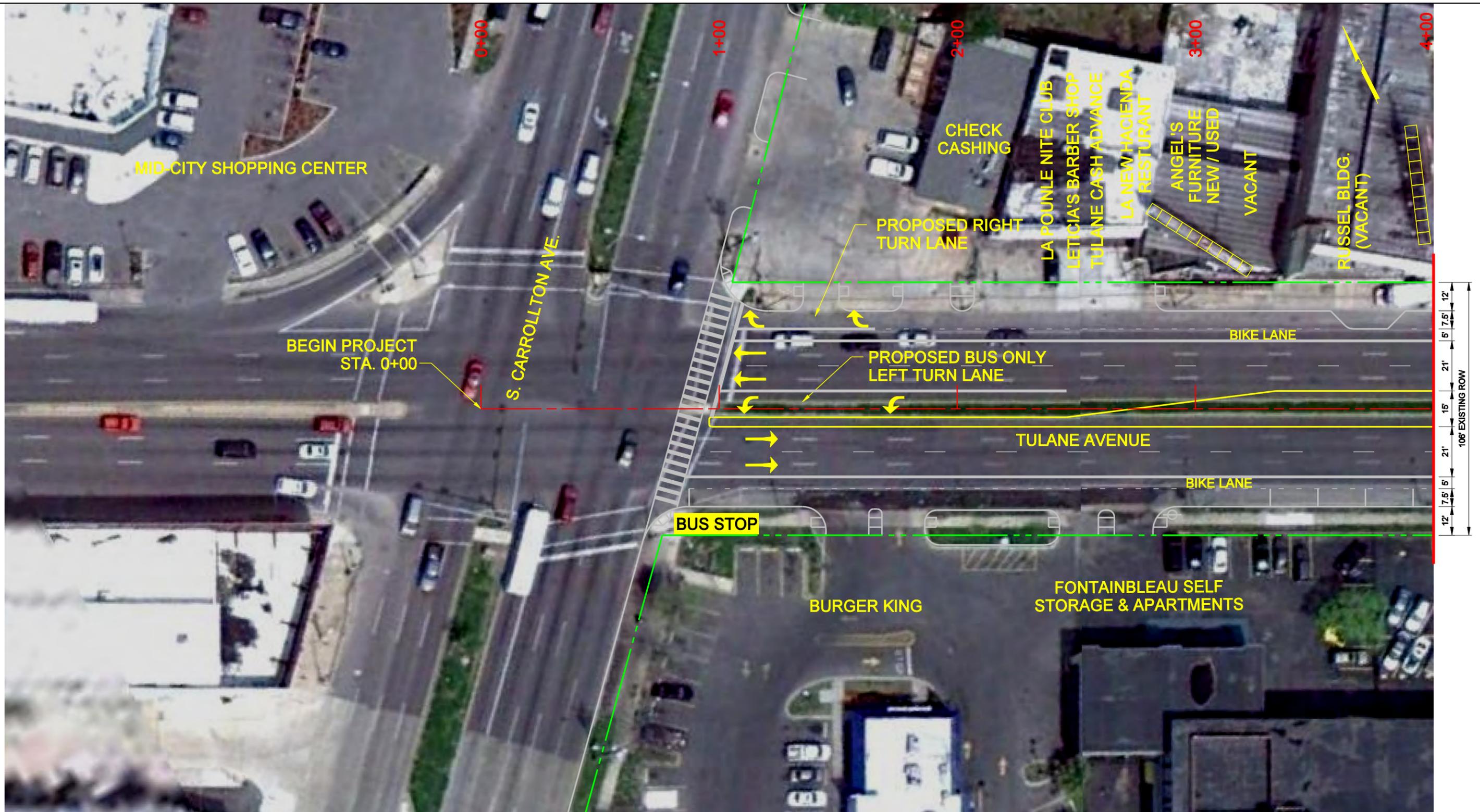
-  DIRECTION OF TRAFFIC
-  BUS STOP
-  EXISTING TRAFFIC SIGNAL
-  PROPOSED TRAFFIC SIGNAL
-  CROSS WALK WITH STOP BAR
-  BIKE LANE
-  EXISTING BILLBOARD
-  FIRE HYDRANT
-  STOP SIGN

CONCEPTUAL ENGINEERING AND ENVIRONMENTAL
MAP ATLAS



US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY

NOTES & LEGEND

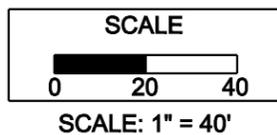


PLAN
STA. 0+00 TO STA. 4+00



**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

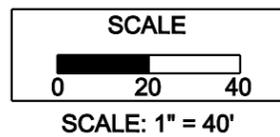
PLAN SHEET 1





PLAN

STA. 4+00 TO STA. 10+00



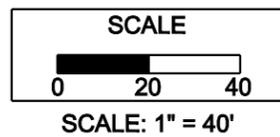
**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 2



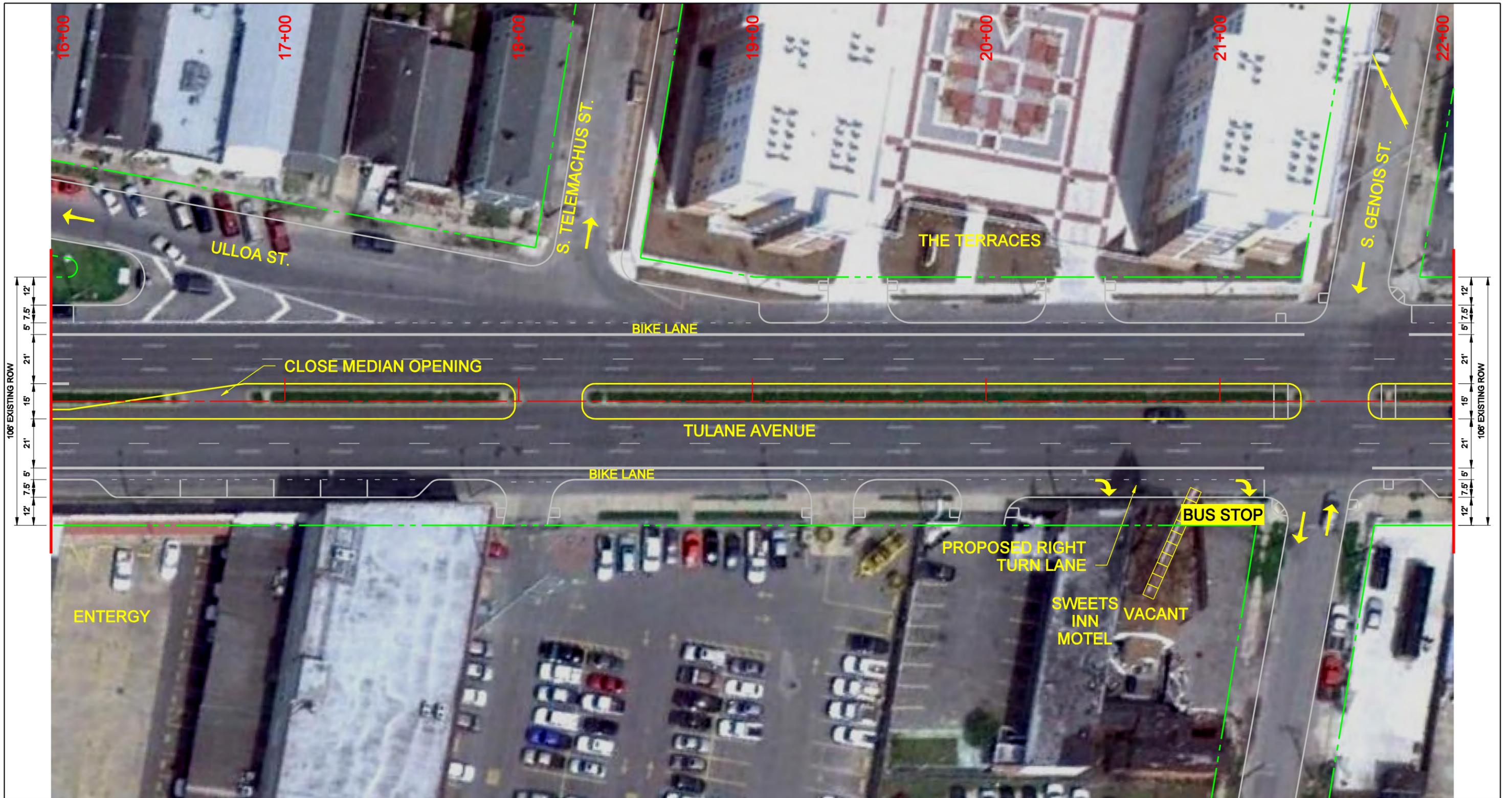
PLAN

STA. 10+00 TO STA. 16+00



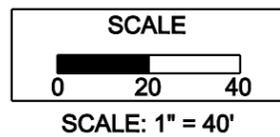
**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 3



PLAN

STA. 16+00 TO STA. 22+00



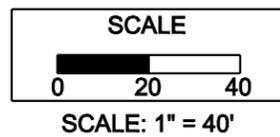
**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 4



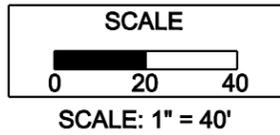
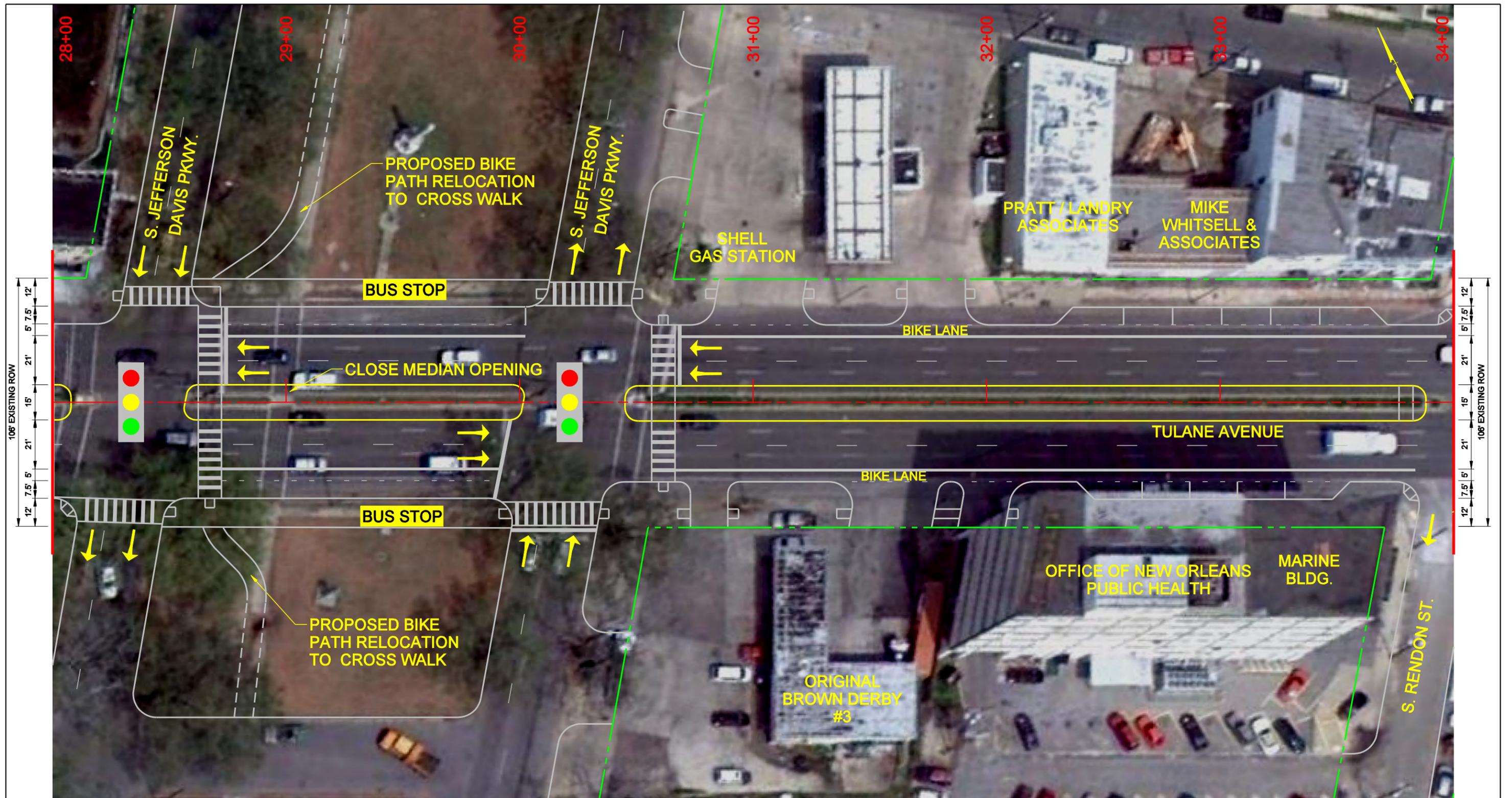
PLAN

STA. 22+00 TO STA. 28+00



**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 5



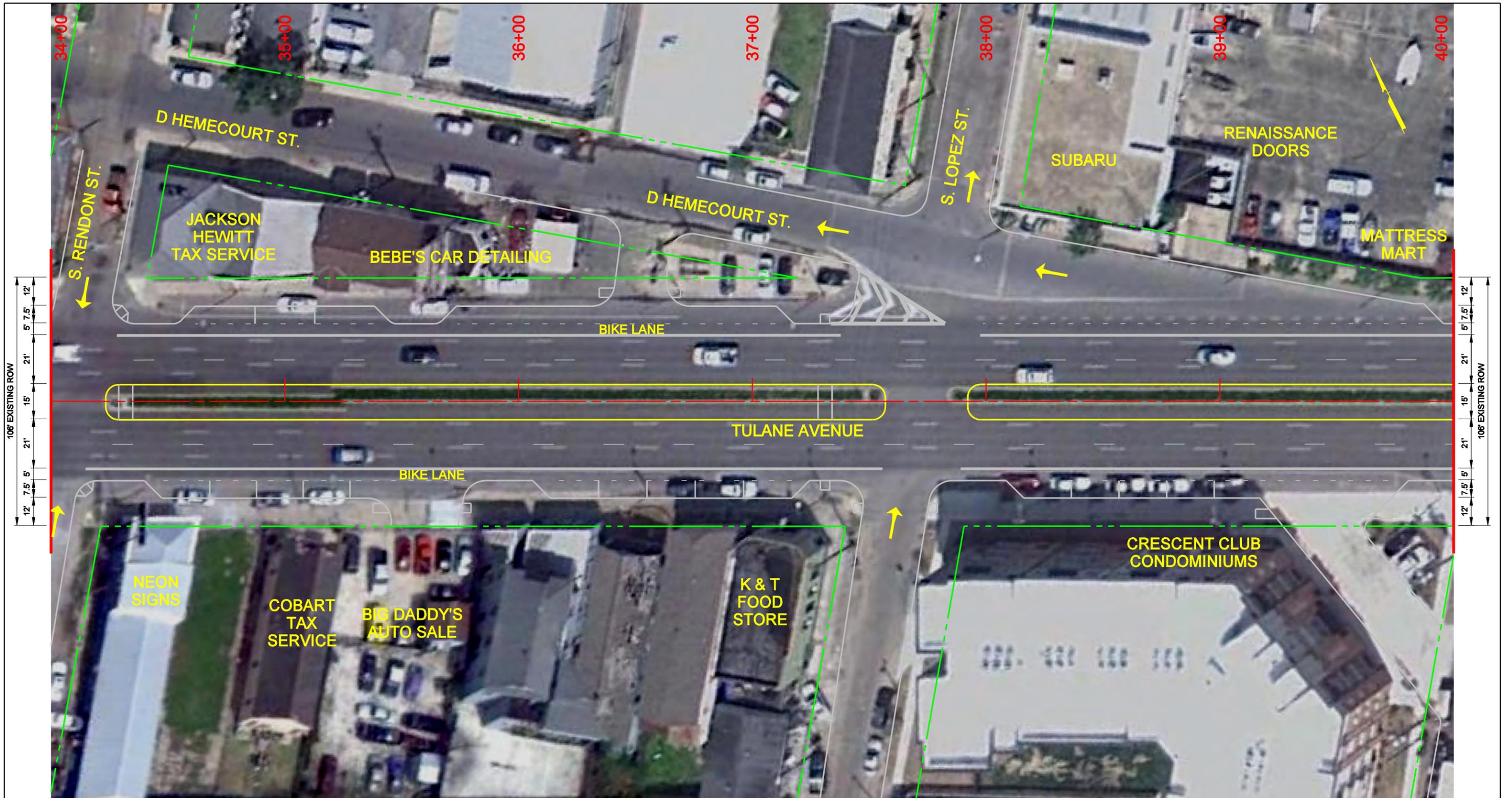
PLAN

STA. 28+00 TO STA. 34+00



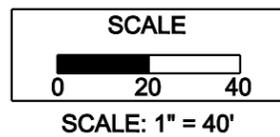
**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 6



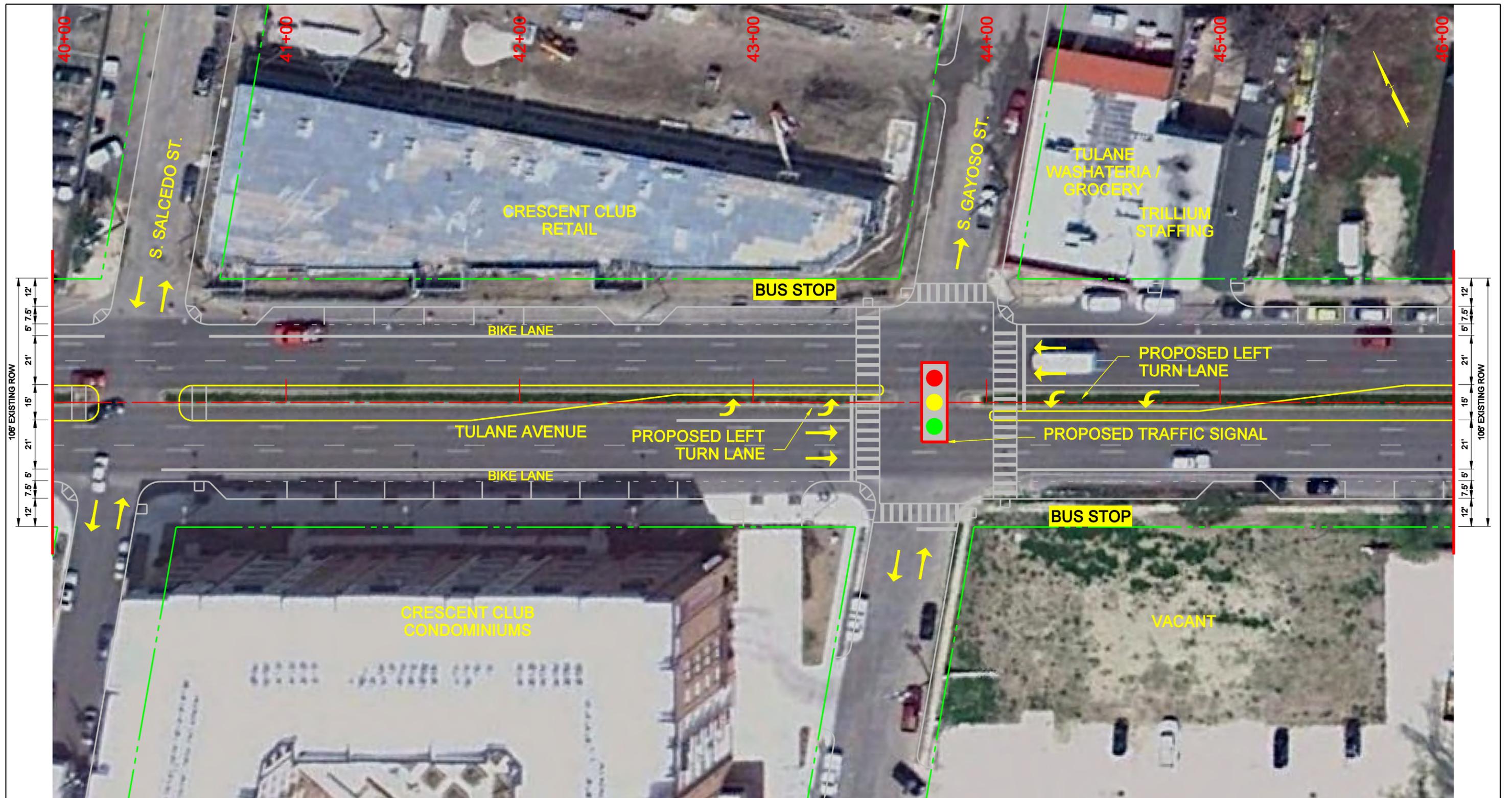
PLAN

STA. 34+00 TO STA. 40+00



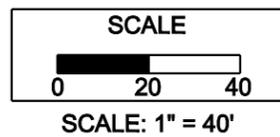
**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 7



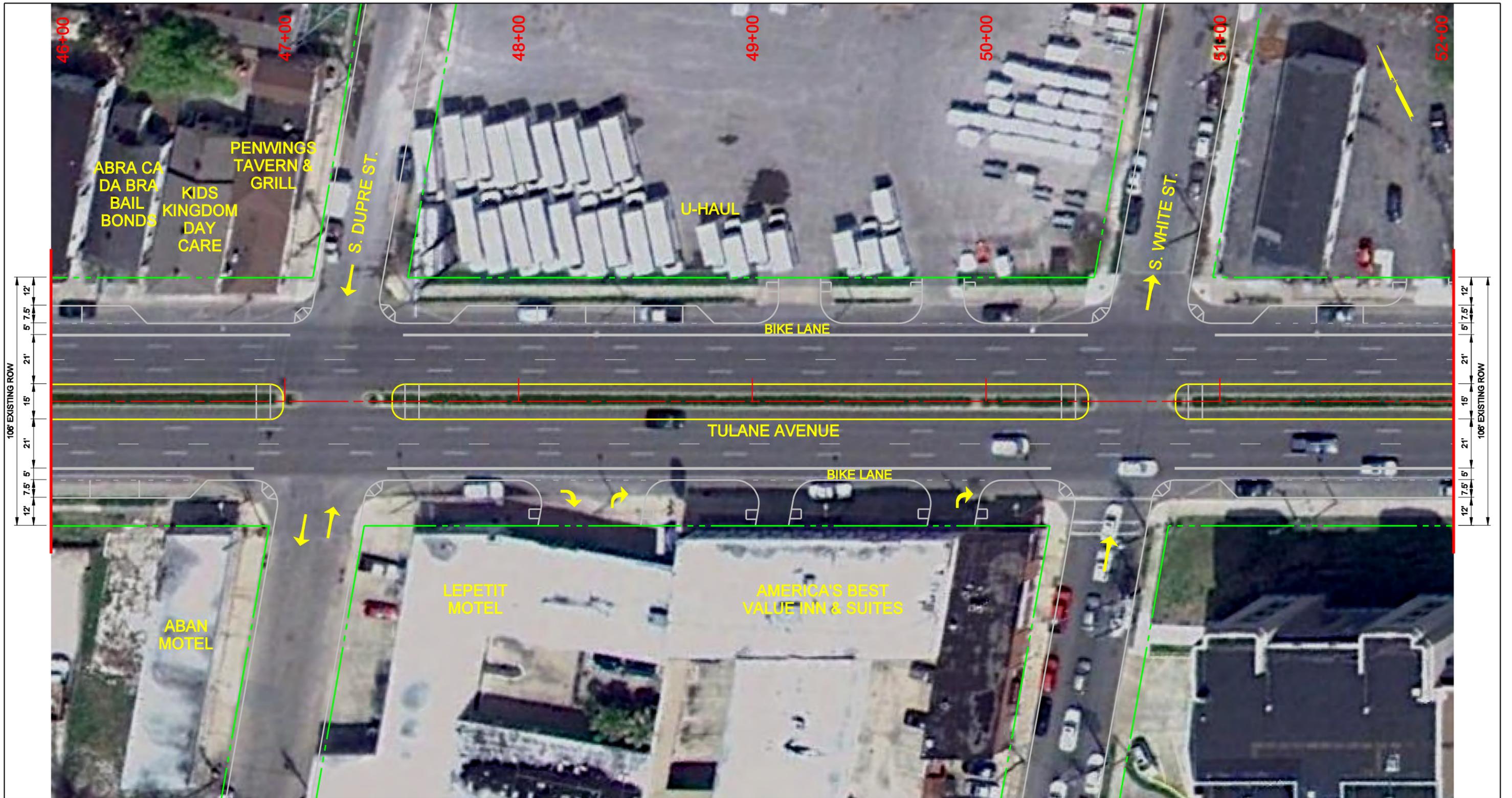
PLAN

STA. 40+00 TO STA. 46+00



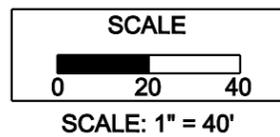
**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 8



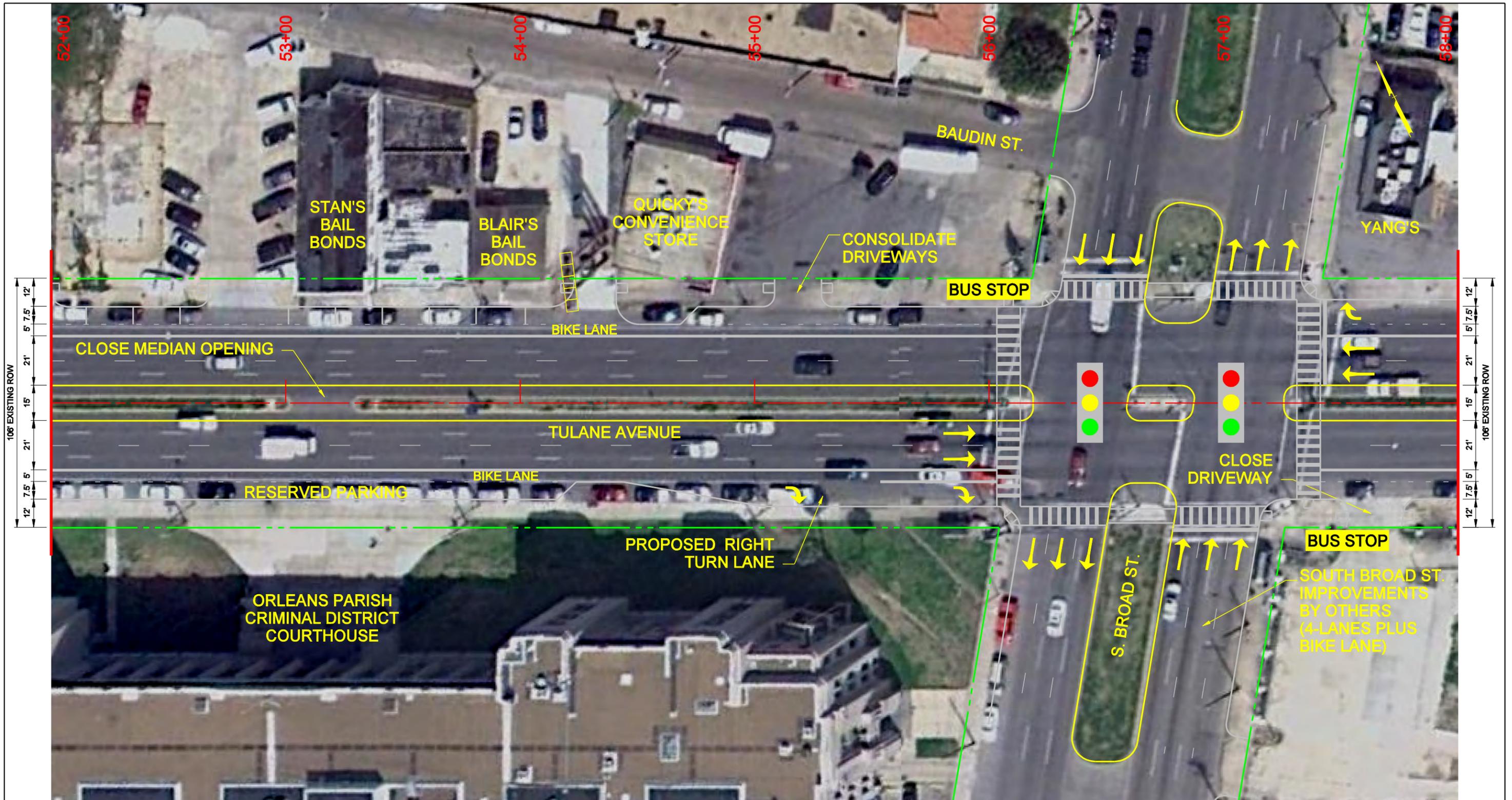
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STA. 46+00 TO STA. 52+00



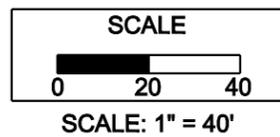
**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 9



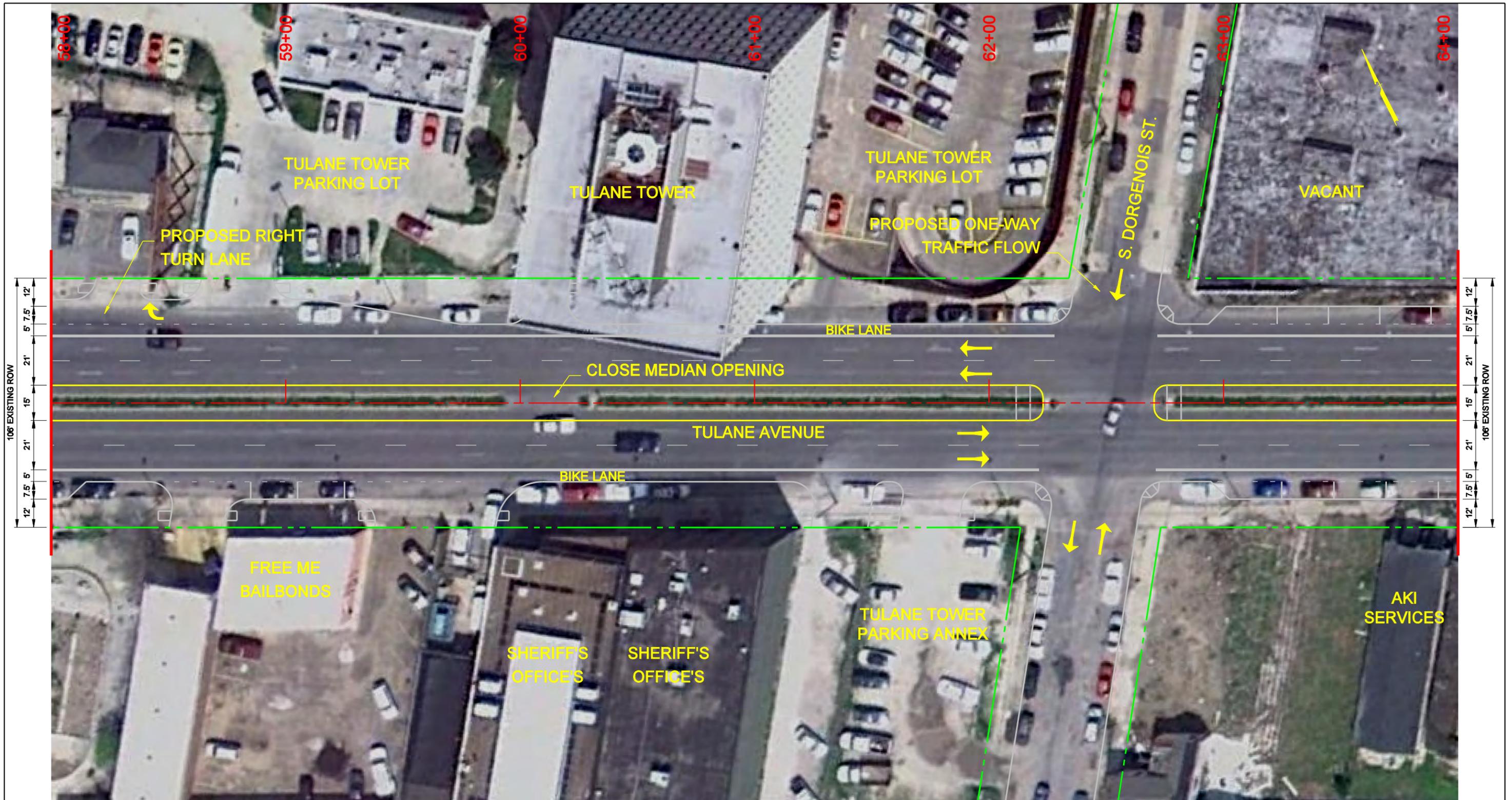
PLAN

STA. 52+00 TO STA. 58+00



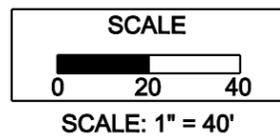
**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 10



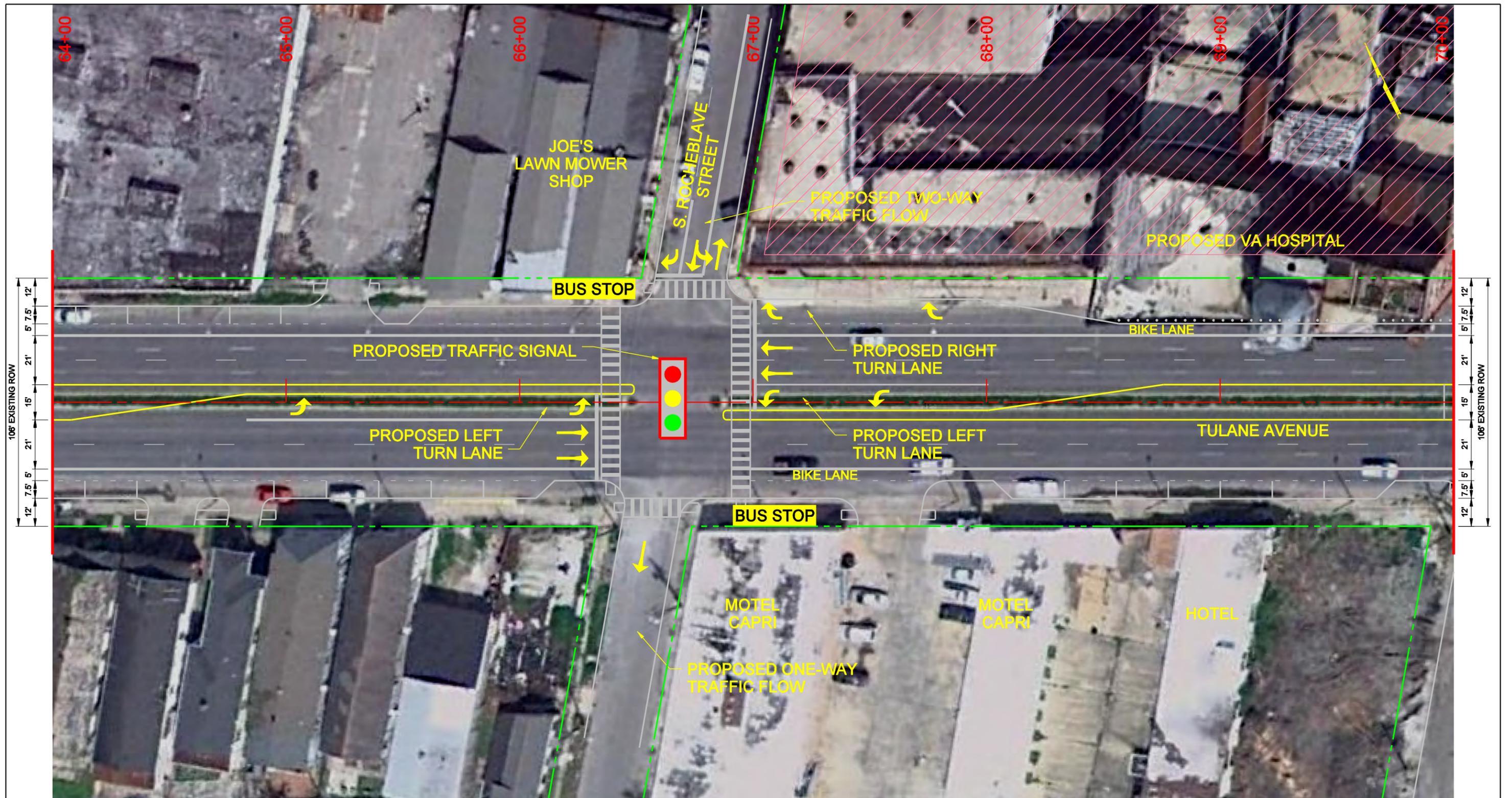
PLAN

STA. 58+00 TO STA. 64+00



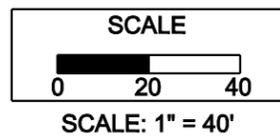
**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 11



PLAN

STA. 64+00 TO STA. 70+00



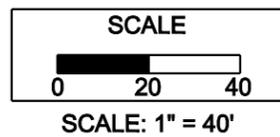
US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY

PLAN SHEET 12



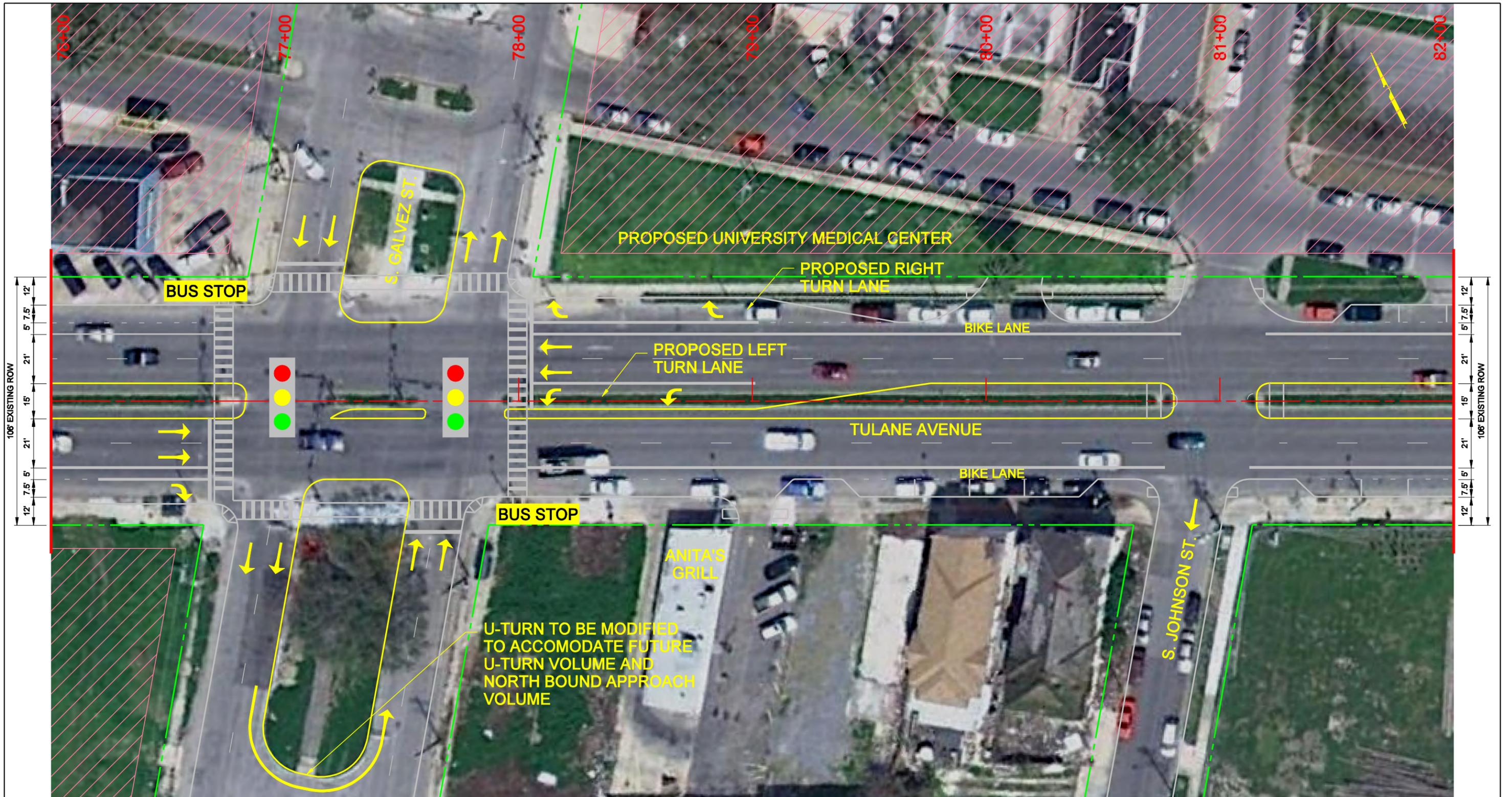
PLAN

STA. 70+00 TO STA. 76+00



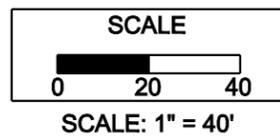
**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 13



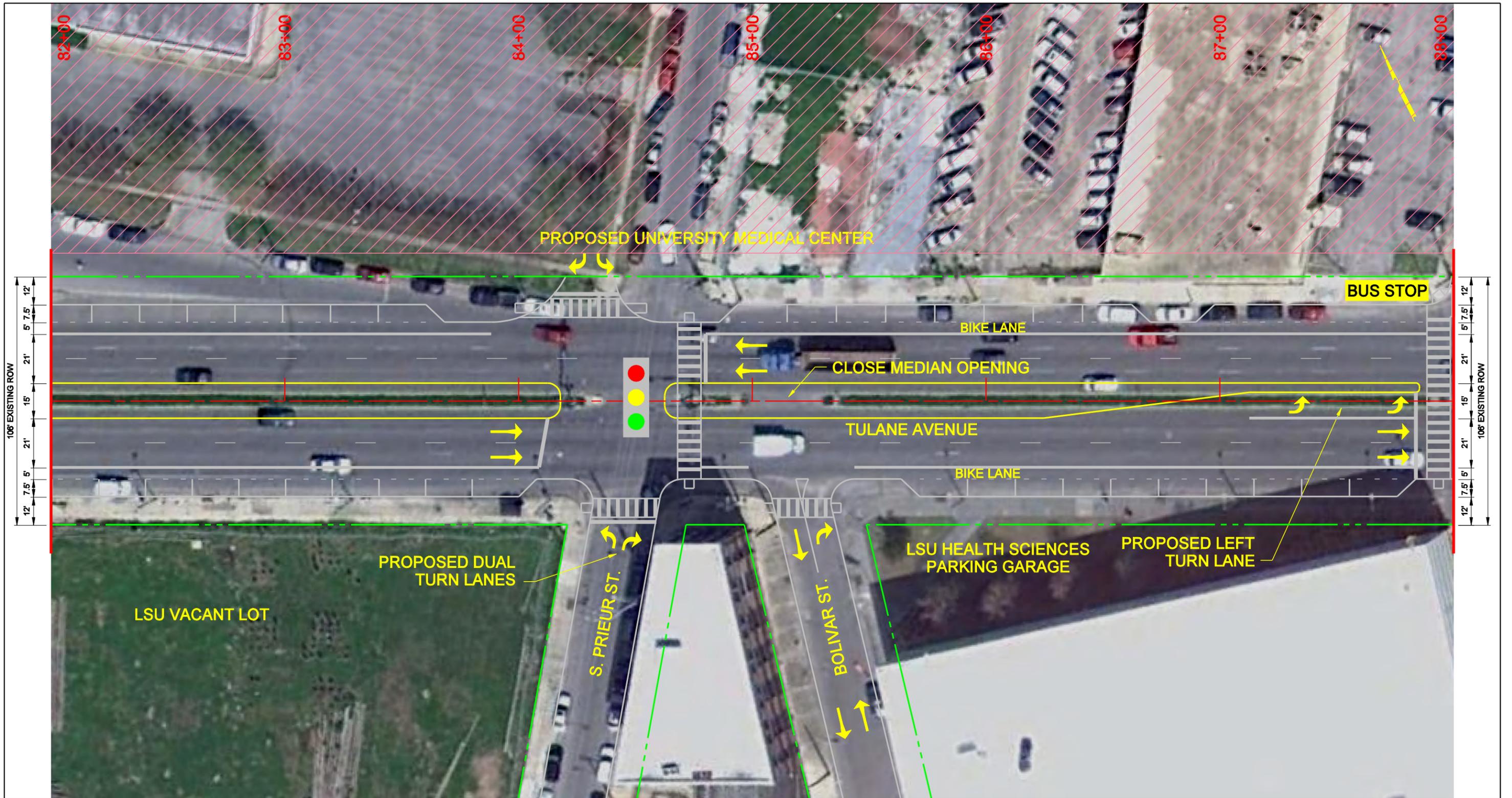
PLAN

STA. 76+00 TO STA. 82+00



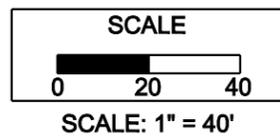
**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 14



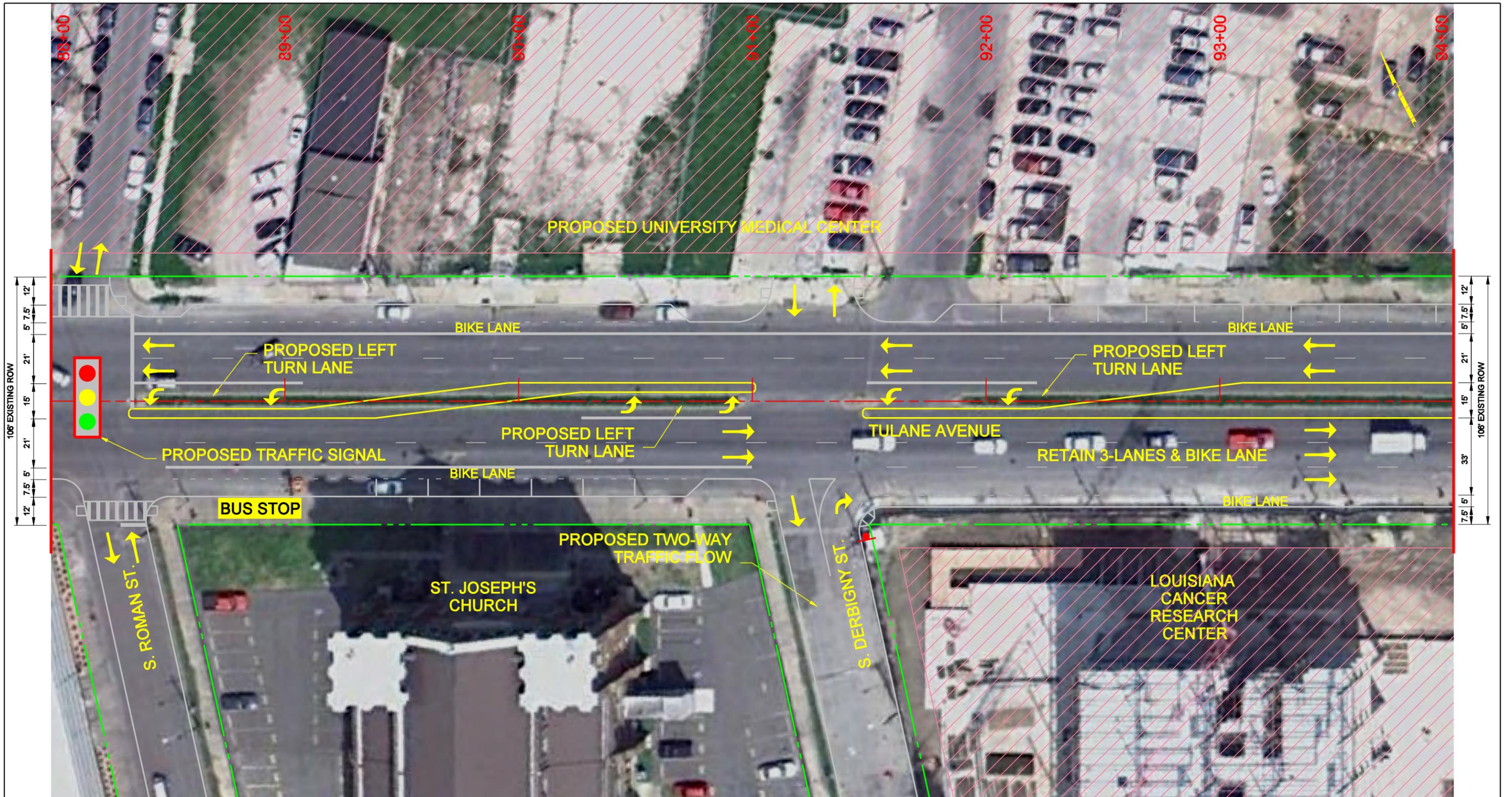
PLAN

STA. 82+00 TO STA. 88+00



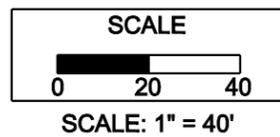
**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 15



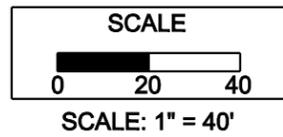
PLAN

STA. 88+00 TO STA. 94+00



US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY

PLAN SHEET 16



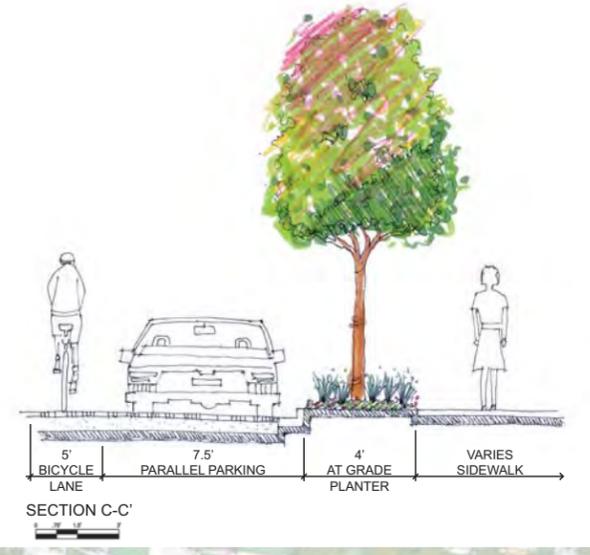
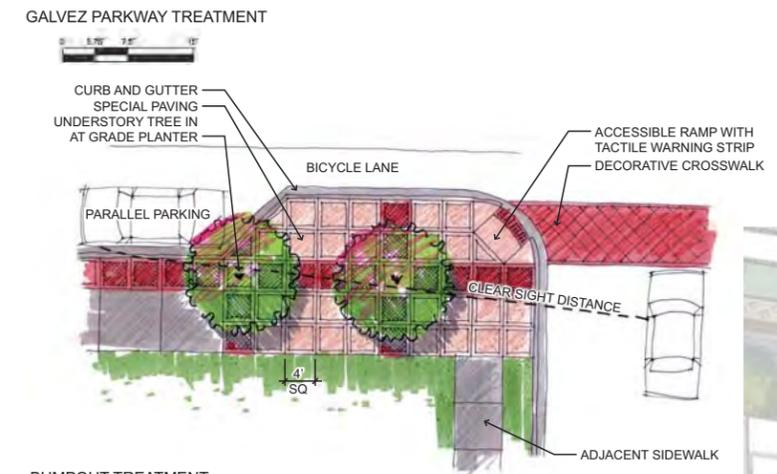
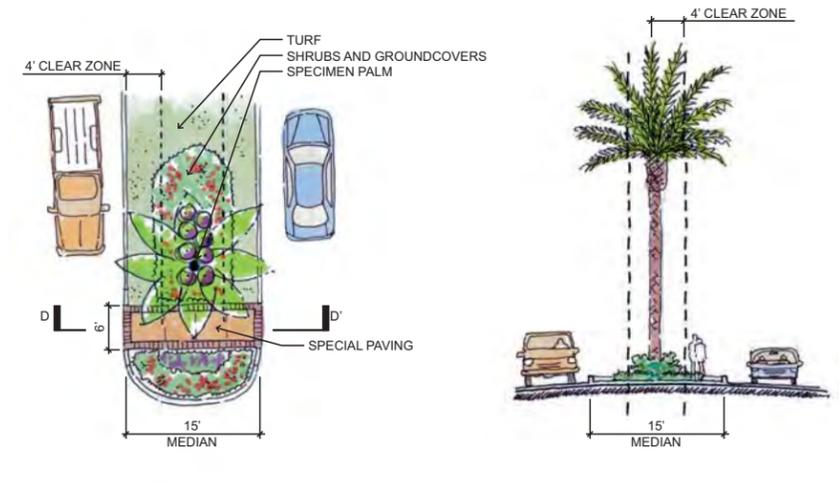
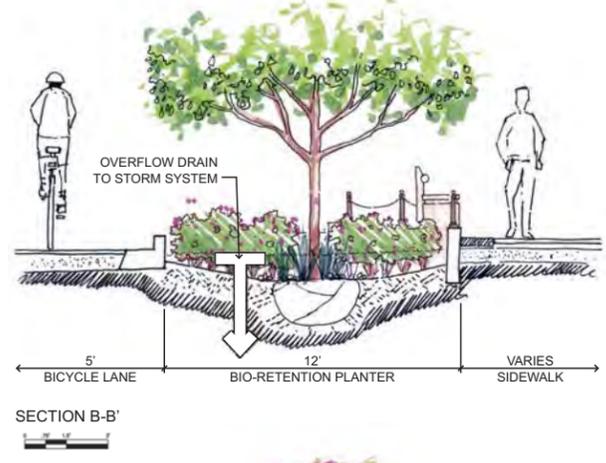
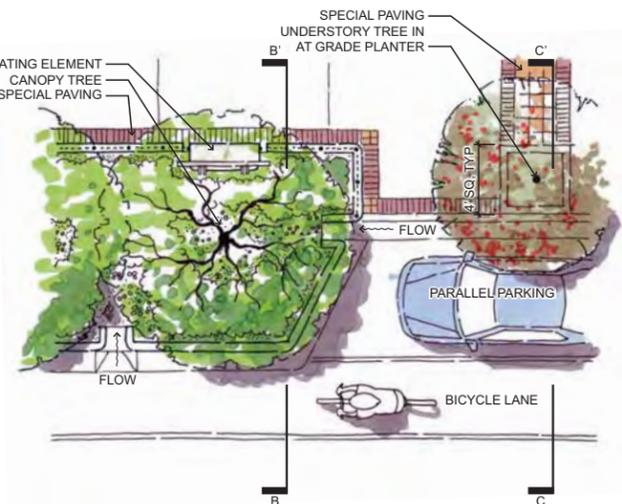
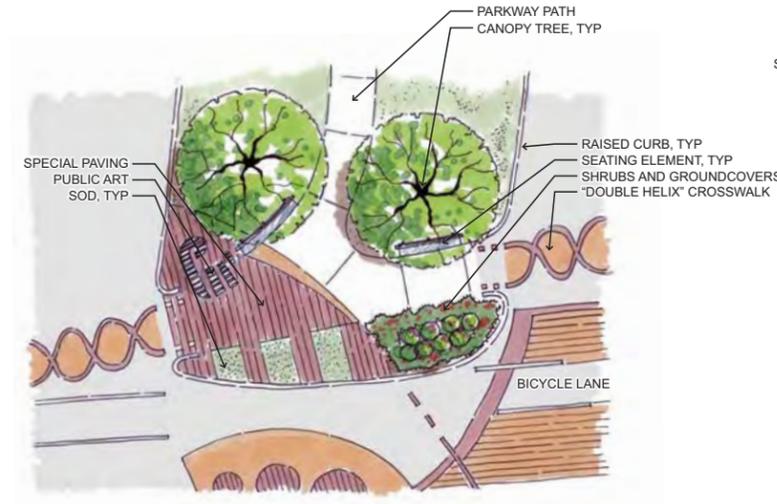
PLAN

STA. 94+00 TO STA. 95+00

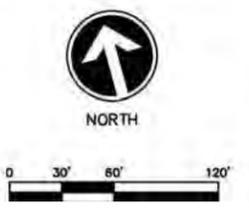


**US 61 - TULANE AVENUE CORRIDOR
STAGE 0 FEASIBILITY STUDY**

PLAN SHEET 17



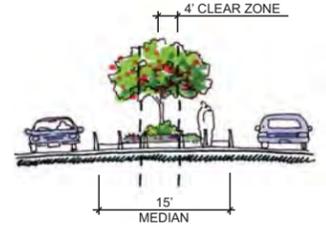
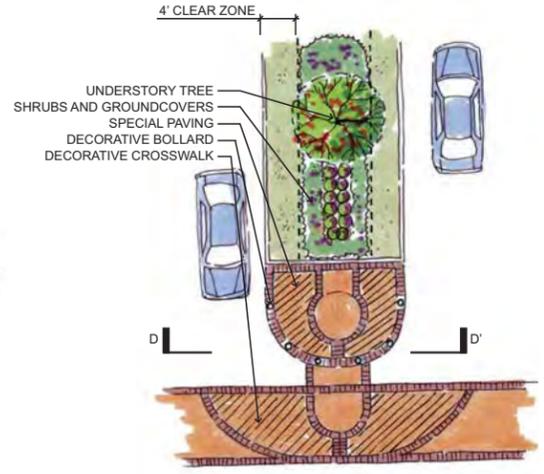
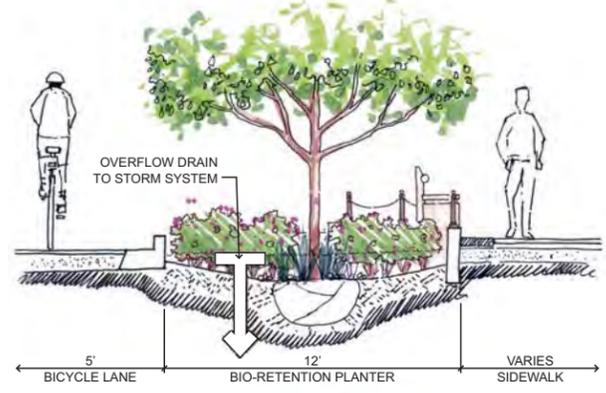
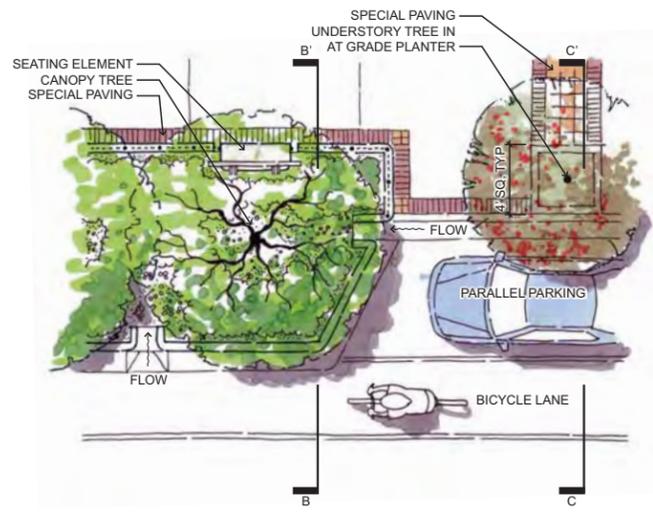
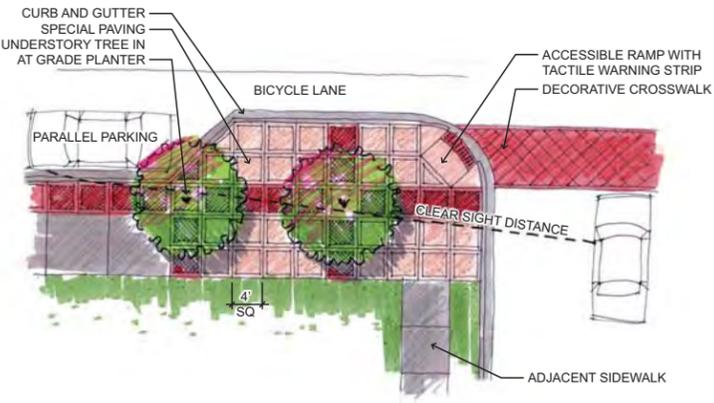
DRAFT



US 61/TULANE AVENUE - CONCEPTUAL PLAN (S TONTI ST TO BOLIVAR ST)

AUGUST 2010



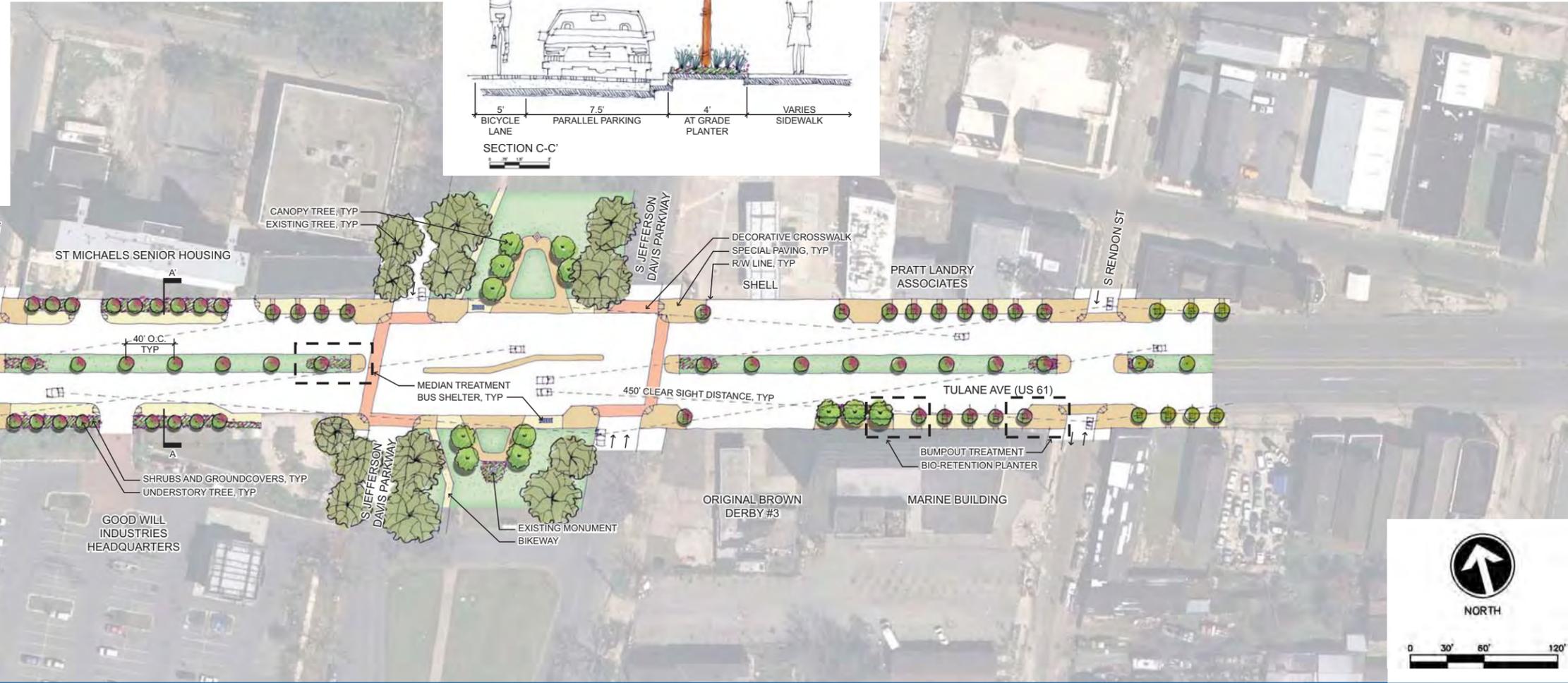
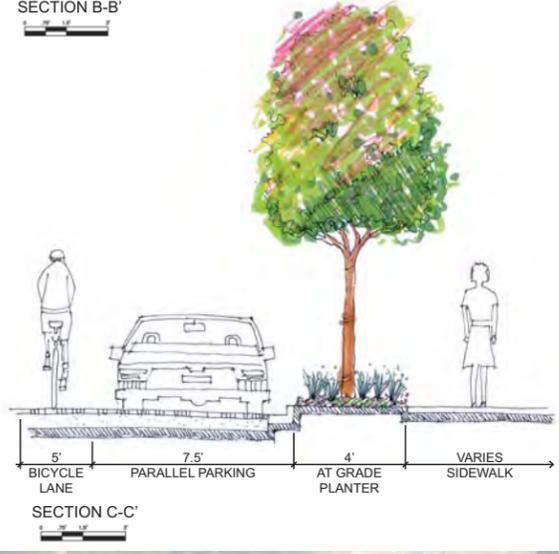


BUMPOUT TREATMENT

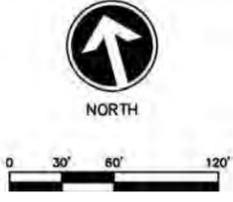
BIO-RETENTION PLANTER

MEDIAN TREATMENT

SECTION D-D'



DRAFT



US 61/TULANE AVENUE - CONCEPTUAL PLAN (S CLARK ST TO S RENDON ST)

AUGUST 2010



APPENDIX C

Stage 0 Environmental Checklist

C.S. 006-03 Parish Orleans
Route Tulane Avenue/US 90 between S. Broad Street and Claiborne Avenue
Begin Log mile 267.54 End Log mile 268.37

ADJACENT LAND USE: Urban

Any property owned by a Native American Tribe?
(Y or N or Unknown) If so, which Tribe? N

Any property enrolled into the Wetland Reserve Program?
(Y or N or Unknown) If so, give the location N

Community Elements: Is the project impacting or adjacent to any:
(Y or N) Cemeteries N
(Y or N) Churches Y – St. Joseph’s Catholic Church
(Y or N) Schools N
(Y or N) Public Facilities (i.e., fire station, library, etc.) N
(Y or N) Community water well/supply N

Section 4(f) issue: Is the project impacting or adjacent to any:
(Y or N) Public recreation areas N
(Y or N) Public parks N
(Y or N) Wildlife Refuges N
(Y or N) Historic Sites Y, Tulane Avenue also traverses through the Mid-City Historic District.

Is the project impacting, or adjacent to, a property listed on the National Register of Historic Places? N Is the project within a historic district or a national landmark district? Y
If the answer is yes to either question, list names and locations below:
Tulane Avenue, between S. Broad Street to Claiborne Avenue, is also located within the Mid-City Historic District.

Do you know of any threatened or endangered species in the area? N
If so, which species?

Does the project impact a stream protected by the Louisiana Scenic Rivers Act? N
If yes, name the stream.

Are there any Significant Trees as defined by EDSM I.1.1.21 within proposed ROW? N
If so, where?

What year was the existing bridge built? N/A

Are any waterways impacted by the project considered navigable? N
If unknown, state so, list the waterways: _____

Hazardous Material: Have you checked the following DEQ and EPA databases for potential problems?
Leaking Underground Storage Tanks Y, Dixie Brewing Company, 2401 Tulane Avenue
CERCLIS Y, nothing found
ERNS Y, nothing found
Enforcement and Compliance History _____
If found site, give the name and location: _____

Stage 0 Environmental Checklist

Underground Storage Tanks (UST): Are there any Gasoline Stations or other facilities that may have UST on or adjacent to the project? (Y or N) Y

If so, give the name and location:

Southwest Motor Exchange, 2301 Tulane Avenue

Any chemical plants, refineries or landfills adjacent to the project? N

Any large manufacturing facilities adjacent to the project? N

Dry Cleaners? (Y or N) If yes to any, give names and locations: N

Oil/Gas wells: Have you checked DNR database for registered oil and gas wells? (Y or N)

List the type and location of wells being impacted by the project. Y, Oil and gas wells are not being impacted by this project

Are there any possible residential or commercial relocations/displacements? (Y or N)

How many? N

Do you know of any sensitive community issues related to the project? (Y or N) N

If so, explain _____

Is the project area population minority or low income? (Y or N) Y

What type of detour/closures could be used on the job? None – construct under traffic

Did you notice anything of concern during your site/windshield survey of the area? If so, explain below. Project can be constructed within existing right-of-way and there are no issues of concern.

S. Guillot

Point of Contact

504-837-6326

Phone Number

July 2010

Date

Stage 0 Environmental Checklist

C.S. 007-01 Parish Orleans
 Route Tulane Avenue/US 61 between S. Carrollton Avenue and S. Broad Street
 Begin Log mile 0.01 End Log mile 1.18

ADJACENT LAND USE: Urban

Any property owned by a Native American Tribe?

(Y or N or Unknown) If so, which Tribe? N

Any property enrolled into the Wetland Reserve Program?

(Y or N or Unknown) If so, give the location N

Community Elements: Is the project impacting or adjacent to any:

(Y or N) Cemeteries N

(Y or N) Churches N

(Y or N) Schools N

(Y or N) Public Facilities (i.e., fire station, library, etc.) Y, Orleans Parish Criminal District Court

(Y or N) Community water well/supply N

Section 4(f) issue: Is the project impacting or adjacent to any:

(Y or N) Public recreation areas N

(Y or N) Public parks N

(Y or N) Wildlife Refuges N

(Y or N) Historic Sites Y, The project is adjacent to the Orleans Parish Criminal District Court which is listed on the National Register of Historic Places. Tulane Avenue also traverses through the Mid-City Historic District.

Is the project impacting, or adjacent to, a property listed on the National Register of Historic Places? Y Is the project within a historic district or a national landmark district?

Y If the answer is yes to either question, list names and locations below:

The project is adjacent to the Orleans Parish Criminal District Court which is located on the southwest corner of the Tulane Avenue at S. Broad Street intersection. Tulane Avenue, between S. Cortez Street and S. Broad Street, is also located within the Mid-City Historic District. The historic district is roughly bounded by Derbigny Street, City Park Avenue, Conti Street, and I-10/Claiborne Avenue. There are no anticipated impacts to these historic places.

Do you know of any threatened or endangered species in the area? (Y or N) N

If so, which species?

Does the project impact a stream protected by the Louisiana Scenic Rivers Act? (Y or N) N

If yes, name the stream.

Are there any Significant Trees as defined by EDSM I.1.1.21 within proposed ROW?(Y or N)

If so, where? N

What year was the existing bridge built? N/A

Are any waterways impacted by the project considered navigable? (Y or N) If unknown, state so, list the waterways: N

Hazardous Material: Have you checked the following DEQ and EPA databases for potential problems?

Stage 0 Environmental Checklist

Leaking Underground Storage Tanks Y; LUSTs located at (1) Shell Station, 3327 Tulane Avenue – northeast corner of Tulane Avenue at S. Jefferson Davis Parkway and (2) Quicky's, 2701 Tulane Avenue – northwest corner of Tulane Avenue at S. Broad Street
CERCLIS Y, nothing found
ERNS Y, nothing found
Enforcement and Compliance History _____
If found site, give the name and location: _____

Underground Storage Tanks (UST): Are there any Gasoline Stations or other facilities that may have UST on or adjacent to the project? (Y or N) Y

If so, give the name and location:

- (1) Shell Station, 3327 Tulane Avenue – northeast corner of Tulane Avenue at S. Jefferson Davis Parkway
- (2) Abandoned gas station at old Albertsons, currently Goodwill Headquarters, 3400 Tulane Avenue – southwest corner of Tulane Avenue at S. Jefferson Parkway

Any chemical plants, refineries or landfills adjacent to the project? (Y or N) N

Any large manufacturing facilities adjacent to the project? (Y or N) N

Dry Cleaners? (Y or N) If yes to any, give names and locations: Y, there is one dry cleaners currently in operation and one is proposed at the Shops at Crescent Club. Russell's Cleaning Services is located on the northwest corner of the Tulane Avenue at S. Jefferson Davis Parkway. A dry cleaners is proposed at the Shops at Crescent Club, although, as of July 2010, it is not currently in operation. There are various hotels located along the corridor that may provide dry cleaning services to their guests.

Oil/Gas wells: Have you checked DNR database for registered oil and gas wells? (Y or N)

List the type and location of wells being impacted by the project. Y, Oil and gas wells are not being impacted by this project

Are there any possible residential or commercial relocations/displacements? (Y or N)

How many? N

Do you know of any sensitive community issues related to the project? (Y or N) N

If so, explain _____

Is the project area population minority or low income? (Y or N) Y

What type of detour/closures could be used on the job? None – construct under traffic

Did you notice anything of concern during your site/windshield survey of the area? If so, explain below. Project can be constructed within existing right-of-way and there are no issues of concern.

S. Guillot
Point of Contact

504-837-6326
Phone Number

July 2010
Date

STAGE 0
Preliminary Scope and Budget Checklist

District 02 Parish Orleans Route Tulane Avenue/US 90

Control Section 006-03 between S. Claiborne Avenue and S. Broad Street

Total Project Length 0.83 miles

Begin Project (CS Log Mile) 267.54

End Project (CS Log Mile) 268.37

Project Category (Safety, Capacity, etc.) Capacity

Date Prepared: November 2010

A. Purpose and need for the project: The Stage 0 Feasibility Study addresses roadway preservation, traffic safety and operational issues, pedestrian safety, alternatives for enhanced transit service, roadway access management, and Transportation System Management (TSM) needs. A recommended roadway typical section and associated intersection improvements have been identified to support future traffic demand and adjacent land use while enhancing pedestrian and transit system operations. TSM considerations include geometric improvements, transit priority measures, and enhancements to the pedestrian and visual environment.

B. Project Concept

- **Description of existing facility (functional class, ADT, number of lanes, etc):** Tulane Avenue is classified as a six-lane urban principal arterial. The 2008 ADT counts show approximately 17,500 vehicles per day.
- **Major Design Features/Criteria of the proposed facility (attach aerial photo w/concept if applicable):** This project includes reducing the number of lanes from 6 to 4, adding a 15-foot median to allow turn lanes at key intersections, adding a bike-lane, maintaining a parking lane, and improving safety and pedestrian amenities along the corridor. Additional improvements include key intersection improvements, relocated and consolidated bus stops, and improvements to landscaping. The proposed improvements for the segment of Tulane Avenue between S. Claiborne Avenue and S. Broad Street are detailed in the **Conceptual Map Atlas on Plan Sheets 10 through 17.**
- **Design Exceptions:** For the **Minimum Reconstruction Alternative**, design exceptions include: 10.5-foot travel lanes, 15-foot median and turn-lanes, and 7.5-foot parking lane.
- **Technical Analyses (traffic analysis, safety analysis, etc):** The following traffic studies, the *Draft Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* and the *Draft University Medical Center (UMC) Traffic Impact Analysis*, were utilized to evaluate the proposed reduction in capacity along Tulane Avenue. These studies evaluated the 4-lane alternative, with the addition of traffic from proposed development, and results indicated that the there were no adverse effects on traffic operations from reducing the capacity. The information presented in the two traffic studies was also utilized to develop a VISSIM traffic

model. Again, the results of the model indicated that there were no adverse effects on traffic operations from reducing the capacity.

- **Alternatives to Project Concept:** Two build alternatives have been developed for this project: Minimum Reconstruction Alternative and the Total Reconstruction Alternative. The Minimum Reconstruction Alternative retains the existing curb and sidewalk, while improving the area between the curb. This alternative minimizes the impacts to existing utilities and therefore is the least costly alternative. The Total Reconstruction Alternative would reconstruct the curb approximately 3-feet from its current location to provide wider travel lanes and a wider median. This alternative would require the relocation of utilities including power poles and therefore is the more costly alternative.
- **Future ITS / Traffic Considerations:** None
- **Construction Traffic Management/Property Access Considerations:** None

C. Potential environmental impacts (Complete the Stage 0 Environmental Checklist on pages 4-10 to 4-13): Minimal impacts are anticipated with the Minimum Reconstruction Alternative because the construction limits are within the existing right-of-way. The environmental impacts are detailed in the Stage 0 checklists and **Chapter 4: Existing Conditions** of the Stage 0 Feasibility Study.

D. Cost Estimate

This segment of Tulane Avenue between S. Claiborne Avenue to S. Broad Street is the first recommended construction phase due to its proximity to both the VAMC and the UMC and the need to have this portion of the roadway completed prior to the opening of these medical centers.

The corridor segments were selected to be implemented with continuity. The implementation phases were further divided into two sub-phases including: Phase 1a – roadway reconstruction and Phase 1b – sidewalk reconstruction, lighting, and landscaping. Roadway reconstruction costs include median reconstruction, new asphalt pavement, bump-out construction, pavement markings, handicap ramps, and costs associated with traffic signal modifications or additions. Roadway reconstruction (Phase 1a) costs also include the addition of pedestrian signals, countdown timers, and pedestrian push-buttons. Additionally, some sidewalk reconstruction will have to be completed as part of the roadway reconstruction, particularly where handicap ramps will be installed. Phase 1b would consist of sidewalk reconstruction (concrete with brick banding), lighting (refurbishing existing power poles and installing new street lights), and landscaping (landscaping plans to be developed as part of the project design stage).

| Tulane Avenue Summary of Estimate Costs (Phase 1a) | |
|---|-----------------------|
| ITEM DISCRIPTION | COST |
| Roadway Reconstruction Subtotal | \$1,780,350.00 |
| Utility and Drainage Relocations -10% | \$178,040.00 |
| Contingency - 20% | \$356,070.00 |
| Construction, Engineering, and Inspection (CE&I)- 10% | \$178,040.00 |
| Phase 1a Total | \$2,492,490.00 |
| Tulane Avenue Summary of Estimate Costs (Phase 1b) | |
| ITEM DISCRIPTION | COST |
| Sidewalk Reconstruction, Lighting, and Landscaping Subtotal | \$1,648,480.00 |
| Contingency - 20% | \$329,700.00 |
| Construction, Engineering, and Inspection (CE&I)- 10% | \$164,850.00 |
| Phase 1b Total | \$2,143,030.00 |
| Phase 1a and Phase 1b – Total Project Cost | \$4,635,520.00 |

E. Expected Funding Source(s) (Highway Priority Program, CMAQ, Urban Systems, Fed/State earmarks, etc.) TIGER Planning Grants, Transportation Enhanced Program

Prepared By: S. Guillot

ATTACH ANY ADDITIONAL DOCUMENTATION

Disposition (circle one): (1) Advance to Stage 1 (2) Hold for Reconsideration (3) Shelve

STAGE 0
Preliminary Scope and Budget Checklist

District 02 Parish Orleans Route Tulane Avenue/US 61

Control Section 007-01 between S. Broad Street and Jefferson Davis Parkway
Total Project Length 0.51 miles

Begin Project (CS Log Mile) 0.52 End Project (CS Log Mile) 0.01

Project Category (Safety, Capacity, etc.) Capacity Date Prepared: November 2010

A. Purpose and need for the project: The Stage 0 Feasibility Study addresses roadway preservation, traffic safety and operational issues, pedestrian safety, alternatives for enhanced transit service, roadway access management, and Transportation System Management (TSM) needs. A recommended roadway typical section and associated intersection improvements have been identified to support future traffic demand and adjacent land use while enhancing pedestrian and transit system operations. TSM considerations include geometric improvements, transit priority measures, and enhancements to the pedestrian and visual environment.

B. Project Concept

- **Description of existing facility (functional class, ADT, number of lanes, etc):** Tulane Avenue is classified as a six-lane urban principal arterial. The 2008 ADT counts ranges between approximately 22,000 vehicles per day to 23,500 vehicles per day.
- **Major Design Features/Criteria of the proposed facility (attach aerial photo w/concept if applicable):** This project includes reducing the number of lanes from 6 to 4, adding a 15-foot median to allow turn lanes at key intersections, adding a bike-lane, maintaining a parking lane, and improving safety and pedestrian amenities along the corridor. Additional improvements include key intersection improvements, relocated and consolidated bus stops, and improvements to landscaping. The proposed improvements for the segment of Tulane Avenue between S. Broad Street and Jefferson Davis Parkway are detailed in the **Conceptual Map Atlas on Plan Sheets 6 through 10.**
- **Design Exceptions:** For the **Minimum Reconstruction Alternative**, design exceptions include: 10.5-foot travel lanes, 15-foot median and turn-lanes, and 7.5-foot parking lane.
- **Technical Analyses (traffic analysis, safety analysis, etc):** The following traffic studies, the *Draft Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* and the *Draft University Medical Center (UMC) Traffic Impact Analysis*, were utilized to evaluate the proposed reduction in capacity along Tulane Avenue. These studies evaluated the 4-lane alternative, with the addition of traffic from proposed development, and results indicated that the there were no adverse effects on traffic operations from reducing the capacity. The information presented in the two traffic studies was also utilized to develop a VISSIM traffic

model. Again, the results of the model indicated that there were no adverse effects on traffic operations from reducing the capacity.

- **Alternatives to Project Concept:** Two build alternatives have been developed for this project: Minimum Reconstruction Alternative and the Total Reconstruction Alternative. The Minimum Reconstruction Alternative retains the existing curb and sidewalk, while improving the area between the curb. This alternative minimizes the impacts to existing utilities and therefore is the least costly alternative. The Total Reconstruction Alternative would reconstruct the curb approximately 3-feet from its current location to provide wider travel lanes and a wider median. This alternative would require the relocation of utilities including power poles and therefore is the more costly alternative.
- **Future ITS / Traffic Considerations:** None
- **Construction Traffic Management/Property Access Considerations:** None

C. Potential environmental impacts (Complete the Stage 0 Environmental Checklist on pages 4-10 to 4-13): Minimal impacts are anticipated with the Minimum Reconstruction Alternative because the construction limits are within the existing right-of-way. The environmental impacts are detailed in the Stage 0 checklists and Chapter 4: Existing Conditions of the Stage 0 Feasibility Study.

D. Cost Estimate

This segment of Tulane Avenue between S. Broad Street and Jefferson Davis Parkway is the second recommended construction phase because it is the next consecutive segment after Phase 1.

The corridor segments were selected to be implemented with continuity. The implementation phases were further divided into two sub-phases including: Phase 2a – roadway reconstruction and Phase 2b – sidewalk reconstruction, lighting, and landscaping. Roadway reconstruction costs include median reconstruction, new asphalt pavement, bump-out construction, pavement markings, handicap ramps, and costs associated with traffic signal modifications or additions. Roadway reconstruction (Phase 2a) costs also include the addition of pedestrian signals, countdown timers, and pedestrian push-buttons. Additionally, some sidewalk reconstruction will have to be completed as part of the roadway reconstruction, particularly where handicap ramps will be installed. Phase 2b would consist of sidewalk reconstruction (concrete with brick banding), lighting (refurbishing existing power poles and installing new street lights), and landscaping (landscaping plans to be developed as part of the project design stage).

| Tulane Avenue Summary of Estimate Costs (Phase 2a) | |
|---|-----------------------|
| ITEM DISCRIPTION | COST |
| Roadway Reconstruction Subtotal | \$1,712,720.00 |
| Utility and Drainage Relocations -10% | \$171,270.00 |
| Contingency - 20% | \$342,540.00 |
| Construction, Engineering, and Inspection (CE&I)- 10% | \$171,270.00 |
| Phase 2a Total | \$2,397,810.00 |
| Tulane Avenue Summary of Estimate Costs (Phase 2b) | |
| ITEM DISCRIPTION | COST |
| Sidewalk Reconstruction, Lighting, and Landscaping Subtotal | \$1,256,460.00 |
| Contingency - 20% | \$251,290.00 |
| Construction, Engineering, and Inspection (CE&I)- 10% | \$125,650.00 |
| Phase 2b Total | \$1,633,390.00 |
| Phase 2a and Phase 2b – Total Project Cost | \$4,031,200.00 |

E. Expected Funding Source(s) (Highway Priority Program, CMAQ, Urban Systems, Fed/State earmarks, etc.) TIGER Planning Grants, Transportation Enhanced Program

ATTACH ANY ADDITIONAL DOCUMENTATION

Prepared By: S. Guillot

Disposition (circle one): (1) Advance to Stage 1 (2) Hold for Reconsideration (3) Shelve

STAGE 0
Preliminary Scope and Budget Checklist

District 02 Parish Orleans Route Tulane Avenue/US 61

Control Section 007-01 between Jefferson Davis Parkway and S. Carrollton Avenue
Total Project Length 0.59 miles

Begin Project (CS Log Mile) 1.11 End Project (CS Log Mile) 0.52

Project Category (Safety, Capacity, etc.) Capacity Date Prepared: November 2010

A. Purpose and need for the project: The Stage 0 Feasibility Study addresses roadway preservation, traffic safety and operational issues, pedestrian safety, alternatives for enhanced transit service, roadway access management, and Transportation System Management (TSM) needs. A recommended roadway typical section and associated intersection improvements have been identified to support future traffic demand and adjacent land use while enhancing pedestrian and transit system operations. TSM considerations include geometric improvements, transit priority measures, and enhancements to the pedestrian and visual environment.

B. Project Concept

- **Description of existing facility (functional class, ADT, number of lanes, etc):** Tulane Avenue is classified as a six-lane urban principal arterial. The 2008 ADT counts ranges between approximately 22,000 vehicles per day to 23,500 vehicles per day.
- **Major Design Features/Criteria of the proposed facility (attach aerial photo w/concept if applicable):** This project includes reducing the number of lanes from 6 to 4, adding a 15-foot median to allow turn lanes at key intersections, adding a bike-lane, maintaining a parking lane, and improving safety and pedestrian amenities along the corridor. Additional improvements include key intersection improvements, relocated and consolidated bus stops, and improvements to landscaping. The proposed improvements for the segment of Tulane Avenue between Jefferson Davis Parkway and S. Carrollton Avenue are detailed in the **Conceptual Map Atlas on Plan Sheets 1 through 6.**
- **Design Exceptions:** For the **Minimum Reconstruction Alternative**, design exceptions include: 10.5-foot travel lanes, 15-foot median and turn-lanes, and 7.5-foot parking lane.
- **Technical Analyses (traffic analysis, safety analysis, etc):** The following traffic studies, the *Draft Southeast Louisiana Veterans Medical Center Traffic Impact Analysis* and the *Draft University Medical Center (UMC) Traffic Impact Analysis*, were utilized to evaluate the proposed reduction in capacity along Tulane Avenue. These studies evaluated the 4-lane alternative, with the addition of traffic from proposed development, and results indicated that the there were no adverse effects on traffic operations from reducing the capacity. The information presented in the two traffic studies was also utilized to develop a VISSIM traffic

model. Again, the results of the model indicated that there were no adverse effects on traffic operations from reducing the capacity.

- **Alternatives to Project Concept:** Two build alternatives have been developed for this project: Minimum Reconstruction Alternative and the Total Reconstruction Alternative. The Minimum Reconstruction Alternative retains the existing curb and sidewalk, while improving the area between the curb. This alternative minimizes the impacts to existing utilities and therefore is the least costly alternative. The Total Reconstruction Alternative would reconstruct the curb approximately 3-feet from its current location to provide wider travel lanes and a wider median. This alternative would require the relocation of utilities including power poles and therefore is the more costly alternative.
- **Future ITS / Traffic Considerations:** None
- **Construction Traffic Management/Property Access Considerations:** None

C. Potential environmental impacts (Complete the Stage 0 Environmental Checklist on pages 4-10 to 4-13): Minimal impacts are anticipated with the Minimum Reconstruction Alternative because the construction limits are within the existing right-of-way. The environmental impacts are detailed in the Stage 0 checklists and **Chapter 4: Existing Conditions** of the Stage 0 Feasibility Study.

D. Cost Estimate

This segment of Tulane Avenue between Jefferson Davis Parkway and S. Carrollton Avenue is the third and final recommended construction phase because it is the next consecutive segment after Phase 2.

The corridor segments were selected to be implemented with continuity. The implementation phases were further divided into two sub-phases including: Phase 3a – roadway reconstruction and Phase 3b – sidewalk reconstruction, lighting, and landscaping. Roadway reconstruction costs include median reconstruction, new asphalt pavement, bump-out construction, pavement markings, handicap ramps, and costs associated with traffic signal modifications or additions. Roadway reconstruction (Phase 3a) costs also include the addition of pedestrian signals, countdown timers, and pedestrian push-buttons. Additionally, some sidewalk reconstruction will have to be completed as part of the roadway reconstruction, particularly where handicap ramps will be installed. Phase 3b would consist of sidewalk reconstruction (concrete with brick banding), lighting (refurbishing existing power poles and installing new street lights), and landscaping (landscaping plans to be developed as part of the project design stage).

| Tulane Avenue Summary of Estimate Costs (Phase 3a) | |
|---|-----------------------|
| ITEM DISCRPTION | COST |
| Roadway Reconstruction Subtotal | \$1,745,330.00 |
| Utility and Drainage Relocations -10% | \$174,530.00 |
| Contingency - 20% | \$349,070.00 |
| Construction, Engineering, and Inspection (CE&I)- 10% | \$174,530.00 |
| Phase 3a Total | \$2,443,460.00 |
| Tulane Avenue Summary of Estimate Costs (Phase 3b) | |
| ITEM DISCRPTION | COST |
| Sidewalk Reconstruction, Lighting, and Landscaping Subtotal | \$1,394,910.00 |
| Contingency - 20% | \$278,980.00 |
| Construction, Engineering, and Inspection (CE&I)- 10% | \$139,490.00 |
| Phase 3b Total | \$1,813,380.00 |
| Phase 3a and Phase 3b – Total Project Cost | \$4,256,840.00 |

E. Expected Funding Source(s) (Highway Priority Program, CMAQ, Urban Systems, Fed/State earmarks, etc.) TIGER Planning Grants, Transportation Enhanced Program

ATTACH ANY ADDITIONAL DOCUMENTATION

Prepared By: S. Guillot

Disposition (circle one): (1) Advance to Stage 1 (2) Hold for Reconsideration (3) Shelve

APPENDIX D



**US 61 / Tulane Avenue Corridor Improvements
Stage 0 Feasibility Study
State Project No. 700-36-0187
FAP No. DE-3606(502)
RPC Contract No. US61-0**

**Meeting Memorandum and Action Items
August 27, 2009**

1. URS to send project schedule to the RPC. The schedule reflects that the majority of tasks would be completed by the end of the year and that two public meetings were included in the project schedule.
2. City of New Orleans (DPW) to send right-of-way (ROW) data to URS.
3. Contact Tom Riche at LSU – Facilities and Planning for exact square footage of new LSU site.
4. URS presented the results of their trip generation and intersection capacity analyses for the Tulane Corridor. It was agreed that URS would meet with Denis Finigan (with Urban Systems) to confirm traffic trip generation, projected intersection capacity analyses and lane assignments. Urban Systems is preparing the traffic study for VA (draft study complete) and LSU (work pending).
5. Several typical sections were presented for discussion. URS to refine typical sections upon confirmation of ROW and from suggestions made by meeting attendees and then email to RPC and DPW for concurrence. Typical sections should include:
 - a. 11-foot travel lanes
 - b. Minimum 14-foot median
 - c. 5-foot bike lanes
 - d. 8-foot parking
 - e. Also include an improved 6-lane section
 - f. RPC to schedule meeting with LADOTD to discuss proposed typical sections.
6. Darrel Saizan to provide list of potential steering committee members. The RPC suggested to include Gina Goings (gegoings@bellsouth.net).



URS

Stage 0 Feasibility Study

Tulane Avenue Corridor

URS - RPC Meeting Agenda
August 27, 2009

| Name/Title | Representing/Address | Telephone Number/Email Address |
|-------------------|--|---|
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| Carlin Cain | RPC | Telephone: 504-568-6630 Fax: Email: CCain@NORPC.org |
| Robert Mendoza | DPW | Telephone: 504-658-8003 Fax: 504.658.8007 Email: RMENDOZA@CITYJAB.COM |
| Tom Hunter | URS URS | Telephone: 504-837-6326 Fax: Email: Tom.Hunter@URSCORP.COM |
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WALTER BROOKS

RPC

W BROOKS@NORPC.ORG



**US 61 / Tulane Avenue Corridor Improvements
Stage 0 Feasibility Study
State Project No. 700-36-0187
FAP No. DE-3606(502)
RPC Contract No. US61-0**

**Meeting Memorandum with LADOTD District 02, RPC, City of New Orleans and Urban Systems
October 1, 2009**

Walter Brooks provided an introduction, citing the origins of the study. The Regional Planning Commission (RPC) was asked by the New Orleans City Council to study the Tulane Avenue corridor for redevelopment and recovery, and consideration for the medical district. The City Council specifically asked the RPC to look at a 4-lane scenario along Tulane Avenue.

Caitlin Cain provided a status update for the two hospitals, stating that the hospitals are in final design mode. LSU and VA Hospitals will have two front doors, one fronting Canal Street and one fronting Tulane Avenue; therefore, enhancements along Tulane Avenue are critical to establish a neighborhood-like environment. The objectives associated with improvements to the corridor are:

- Improve the neighborhood
- Provide quality of life enhancements
- Promote urban living
- Promote pedestrian and bicycle activity
- Reinvent Tulane Avenue

Key points and action items identified in the meeting are listed below.

1. The RPC, City of New Orleans and the Downtown Development District (DDD) agreed that the priority of the typical sections should be, in the following order, 14-foot or larger medians to accommodate exclusive left-turn lanes, 4 travel lanes, parking and sidewalk. Parking should take priority over bike lanes. All improvements to the Tulane Avenue corridor are contingent on LADOTD approval.
2. Mr. Brooks spoke to the RTA and the improvements identified in the corridor study will not include exclusive bus lanes because they are not feasible at this time due to current low ridership.
3. Galvez Street is to remain open and serves as the main corridor between the two hospital complexes. Galvez Street provides important connectivity because it ties into Poydras Street and also links to Bienville Street.



4. There is additional roadway capacity in corridors parallel to Tulane Avenue, including Canal Street (6-lanes) and Poydras Street (4-lanes).
5. Tulane University should also be considered as part of the traffic associated with the hospitals – an estimated 270 students will be traversing the corridor to reach the hospitals.
6. Urban Systems has completed the traffic study for the VA Hospital which is under review by the client. Their traffic study included a re-calculation of traffic estimates based on parking garage capacity – generated trips were distributed based on the ingress and egress of the garages at 80% capacity during the 8:00 AM to 5:00 PM for shift employees and patients.
7. Urban Systems is also conducting the traffic study for the LSU Hospital.
 - a. New 24-hour traffic counts are going to be conducted by Urban Systems in the LSU site area. (Turning movement counts will unlikely be conducted at intersections where counts were already obtained in 2008, however they may be adjusted based on the 24-hour counts.)
 - b. The trips associated with the facility are being generated through various methods because the facility does not strictly operate as a traditional hospital. Also, Urban Systems is considering 60% of the trips generated by the new facility are already traversing the corridor because of the LSU facilities that are currently operating. The study is anticipated to be complete by November 1, 2009.
8. URS has taken a more conservative approach to the trip generation of the two hospitals by basing trips strictly on square footage. Preliminary comparisons indicated that the trips generated by URS were similar to the trips generated by Urban Systems. URS provided Steve Strength with a copy of the trip generation rates for all known development in the corridor.
9. Retail development is part of the LSU Hospital development plan. Preliminary estimates indicate 25,000 to 30,000 square feet of specialty retail may be constructed on the ground level of the parking garage that fronts Tulane Avenue.
10. The consideration of the New Orleans Centre redevelopment and the Benson Tower (formerly the Dominion Tower) as part of the traffic analysis was discussed. Key factors included:
 - a. The entertainment area would be typically utilized on the weekends and during special events.
 - b. Retail, open during regular hours, is not part of the redevelopment plan.
 - c. The state workers that will be relocated to the Benson Tower are currently working at 1010 Common.
11. Steve Strength stated that he attended a medical district meeting in January to discuss project status. Urban Systems was informed about the State Traffic Impact



- Standards, and Mr. Strength was under the impression that a separate meeting would be scheduled with Urban Systems and LADOTD to discuss the scope of the traffic studies being conducted along the Tulane Avenue corridor. Any development within a quarter mile of a state route, is required by law to adhere to the State Traffic Impact Standards. Adjacent corridors and area of impact need to be included in the traffic studies.
12. LADOTD would like to review the developments, in and around the corridor, that have been included in the traffic studies to date so that the studies provide a comprehensive review of potential traffic. LADOTD must approve the area of impact and the trips generated before trips are distributed throughout the roadway network / within the corridor and capacity analyses conducted. In summary, LADOTD indicated that it is too early to make a determination on lane requirements for Tulane Avenue.
 13. **Typical Sections** – it was determined through data from the City of New Orleans and As-Built Plans that the right-of-way for the entire Tulane Avenue corridor is 106 feet.
 - a. URS developed three typical sections, they are described below:
 - i. Alternative 1 is a 4-lane scenario, with a 14-foot median, 5-foot bike lanes and approximately 18-foot sidewalks
 - ii. Alternative 2 is a 4-lane scenario, with a 14-foot median, 5-foot bike lanes, 8-foot parking lanes and approximately 10-foot sidewalks
 - iii. Alternative 3 is a 6-lane scenario, with a 14-foot median, 5-foot bike lanes and approximately 7-foot sidewalk
 - b. The City of New Orleans developed three typical sections, they are described below:
 - i. Option A is a 4-lane scenario with 11-foot travel lanes, a 14-foot median, a 2.5-foot bike lane buffer, a 5-foot bike lane, an 8-foot parking lane and a 7-foot sidewalk.
 - ii. Option B is a 4-lane scenario with 10 and 11-foot travel lanes, a 14-foot median, a 2.5-foot bike lane buffer, a 5-foot bike lane, a 7.5-foot parking lane and a 10-foot sidewalk.
 - iii. Option C is a -lane scenario with 10 and 11-foot travel lanes, a 14-foot median, a 3-foot bike lane buffer, a 5-foot bike lane, an 8-foot parking lane and a 9-foot sidewalk.
 - c. Note: LADOTD would have to approve a 10-foot travel lane based on appropriate justification.
 14. Other bike lane considerations include:
 - a. The new state law requires a 3-foot lateral clearance to bicyclists. The new law states that the motor vehicle operator "shall leave a safe distance between



the motor vehicle and the bicycle of not less than three feet and shall maintain such clearance until safely past the overtaken bicycle."

- b. A shared bike and parking lane should be considered. Operationally the shared lane would be for bicyclists during peak periods and parking during off-peak periods. The City of New Orleans is to provide some examples of other cities where the shared lane is in use.
15. It was noted that the decline of Tulane Avenue may be attributed to the lack of left-turn availability. The lack of left-turns provided little access to commercial properties along the corridor. To create a new vision of Tulane Avenue, left-turn lanes should be evaluated. URS will evaluate the potential for exclusive left-turn lane locations along the entire corridor and coordinate those locations with LADOTD and City staff.
16. The same group is to reconvene in mid- to late November to discuss progress on the traffic studies being conducted by Urban Systems. Urban Systems needs to coordinate their work with LADOTD independently in order to advance the progress of the projects.



LADOTD District 02 Meeting Sign-In Sheet
October 1, 2009

| Name/Title | Representing/Address | Telephone Number/Email Address |
|------------------|-------------------------------|---|
| TOM HUNTER | URS Corp | Telephone: 504-837-6306 Fax: 2 Tom-Hunter@URSCORP.com Email: |
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| CHRIS AGHAYAN | RPC | Telephone: 504 568 3570 Fax: Email: CAGHAYAN@NORPC.ORG |
| Patrick Thompson | Downtown Development District | Telephone: 504 561-8927 Fax: 504 581-1675 Email: pthompson@neworleansdowntown.com |
| Karen Parsons | RPC | Telephone: 504-568-6620 Fax: 504-568-6643 Email: Kparsons@norpc.org |
| Steve Strength | DOTD - Traffic | Telephone: (504) 437-3105 Fax: (504) 437-3765 Email: steve.strength@la.gov |



Stage 0 Feasibility Study

Tulane Avenue Corridor

| Name/Title | Representing/Address | Telephone Number/Email Address |
|---------------------------------------|---|---|
| Michael Stack LA.DOTD DIST. ADMIN. | LA. DOTD. P.O. Box 9190 Bridget City, LA. | Telephone: 504-437-3101 Fax: 504-437-3260 Email: Michael.Stack@LA.Gov |
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**US 61 / Tulane Avenue Corridor Improvements
Stage 0 Feasibility Study
State Project No. 700-36-0187
FAP No. DE-3606(502)
RPC Contract No. US61-0**

**Meeting Memorandum with LADOTD District 02, RPC, City of New Orleans and Urban Systems
February 1, 2010**

Denis Finigan with Urban System provided an update of the traffic studies he is working toward completing. The key points from the update are identified below:

1. The limits of his studies are between S. Broad Street and Claiborne Avenue with the focus of the study between S. Rocheblave Street and Claiborne Avenue.
2. He has prepared HCS capacity analysis for two scenarios: (1) a 6-lane roadway configuration with left-turn lanes and (2) a 4-lane roadway configuration with left-turn lanes. The traffic that was used in the analysis was determined from existing traffic counts along with other developments including the LSU and VA Hospitals, Louisiana Cancer Research Center, the biomedical center and new housing along Tulane Avenue.
3. The HCS capacity analysis indicates that both scenarios operate effectively and similarly. In summary, delay increases under the 4-lane scenario and the addition of left-turn lanes decrease the through volume.
4. The City of New Orleans is currently reviewing the VA Hospital traffic study. Once comments have been addressed, the study will be sent to LADOTD for review and approval.
5. The LSU Hospital traffic study is under review by the client and will be submitted to LADOTD for review upon client approval.

Key points and action items identified in the meeting are listed below.

1. URS developed a conceptual schematic of the preferred typical section (Alternative 2) which is a 4-lane scenario, with a 14-foot median, 5-foot bike lanes, 8-foot parking lanes and approximately 10-foot sidewalks
2. The schematic included far-side bus stops at signalized intersections, demarcations for driveways, and bump-outs to designate on-street parking. The proposed improvements reduce parking significantly on both sides of Tulane Avenue.



3. Because of the reduction in parking, URS was asked to evaluate which businesses provide off-street parking for their patrons.
4. URS was asked to verify the existence of the freight-zone in front of both of the Crescent Club buildings.
5. Mr. Brooks spoke to the RTA and bus stops should remain at existing locations (no far-side stops) and should only be designed for a single 40-foot bus.
6. LADOTD commented that if there are left-turn lanes then they should be protected with a signal.
 - a. LADOTD also mentioned that the standard width for a left-turn lane in a median is 16-feet which provides a 12-foot turn lane and a 4-foot pedestrian refuge.
 - b. Power lines are also required to be 2-feet behind curb.
7. URS was asked to evaluate a lower-cost alternative that would maintain the existing edge of curb and create a 16-foot median. URS should determine the typical section for this alternative based on the space between the existing curb.
 - a. Instead of a total roadway reconstruction, the cost could significantly decrease if the roadway is just overlaid and drainage is only improved at the bump-outs and other necessary locations.
 - b. Under this alternative, the bike lane could be shared with right-turn lanes where applicable to reduce the right-of-way.
8. The New Orleans Sheriff is moving forward with plans to build a parking garage on the south side of Tulane Avenue between S. Dupre Street and S. White Street.
9. LADOTD also noted that the signal at Tulane Avenue and S. Cortez Street is only there because of requests from Entergy New Orleans. This signal may be able to be removed.
10. The RPC will consider the need to extend the VISSIM model west to Carrollton Avenue in order to evaluate the entire corridor. This extension will require additional traffic counts.



Stage 0 Feasibility Study

Tulane Avenue Corridor

LADOTD District 02 Meeting Sign-In Sheet
February 1, 2010

| Name/Title | Representing/Address | Telephone Number/Email Address |
|-------------------|----------------------|---|
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| JEFF ROESEL | RR | Telephone: 433-9528 Fax: Email: jroesel@norpc.org |
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| BAO LONG LE | LADOTD -02 | Telephone: 504-484-0208 Fax: Email: bao.le@la.gov |
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Stage 0 Feasibility Study

Tulane Avenue Corridor

| Name/Title | Representing/Address | Telephone Number/Email Address |
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| Karen Parsons | RPC | Telephone: 483-8511 Fax: Email: kparsons@norpc.org |
| Steven Streng TA | POTD - Traffic | Telephone: 484-0205 Fax: 484-0202 Email: Steve.streng@ca.gov |
| DARRYL SAIZAN | SAIZAN Assoc Inc | Telephone: 522-5224 Fax: Email: dsai201@ca.gov |
| | | Telephone: Fax: Email: |



**US 61 / Tulane Avenue Corridor Improvements
Stage 0 Feasibility Study
State Project No. 700-36-0187
FAP No. DE-3606(502)
RPC Contract No. US61-0**

**Stakeholder Meeting Memorandum
April 8, 2010**

Walter Brooks, Executive Director for the New Orleans Regional Planning Commission (RPC), opened the meeting with a brief history of the project indicating that 2 years ago the New Orleans City Council requested that the corridor be evaluated in further detail. Mr. Brooks thanked all stakeholders for attending the meeting and for sharing their thoughts on the future of the project. Changes in federal policies are now supportive of livable communities; which will aid in the securing of funding for redeveloping Tulane Avenue.

Tom Hunter, URS, presented the PowerPoint presentation (attached herein) that included the following key points:

- Outline objectives and purpose of the Tulane Avenue Corridor Improvements
- Objectives for improving Tulane Avenue
- Existing conditions
- Proposed typical sections
- Complete streets concept
- Obtain stakeholder input

Two 4-lane alternatives for the upgrading of Tulane Avenue were presented including:

- A Minimum Reconstruction Alternative that retains the existing curb and sidewalk but does not require the relocation of adjacent utilities; and
- A Total Reconstruction Alternative that would reconstruct the curb approximately 3-feet from its current location to provide wider lanes. This alternative would require the relocation of adjacent power poles, drainage structures and some utilities.

Key points of the stakeholder input are discussed below:

- Power poles along Tulane Avenue currently serve two purposes - street lights as well as secondary power service to customers. High costs would be associated with relocating the power poles and re-establishing service connections. The steel poles are original RTA type poles and are not available anymore.



- Total reconstruction of Tulane Avenue would probably not be justified with a benefit-cost analysis. Also, additional funds could be used for other projects or other corridor amenities.
- Providing parking lanes and bike lanes is a step in the right direction for the corridor. The project team should be commended for finalizing the typical section alternatives that will be evaluated as part of the study.
- 12-foot sidewalks should remain on Tulane Avenue because of accessibility and aesthetic reasons. New construction of structures / buildings along the corridor must be raised 3 to 4 feet above the base flood elevation. Building setbacks would have to be greater with narrower sidewalks in order to access buildings while complying with ADA standards.
- The funding for design of the Tulane Avenue improvements is available, however funding for construction has not been procured. HUD funds may be able to be used as the match.
- LDOTD has been extensively involved in the project and is supportive of the efforts to reduce the number of travel lanes and to enhance aesthetics and pedestrian and bike amenities. LDOTD has confidence in the traffic flow and improved safety of the four-lane alternative with the addition of left-turn lanes and other proposed intersection upgrades.
- Bus stop locations shown in the conceptual plans are consistent with current locations. Bus stop placement is still being considered – near-side versus far-side at signalized intersections. A bus priority / preemption system is a long-term goal that is going to be investigated.
- There was concern about how delivery vehicles would stop on Tulane Avenue with the 4-lane scenario and the addition of bump-outs because it could create congestion by reducing the number of available travel lanes. This problem is currently happening on Canal Street. Solutions may include side-street loading zones and establishing specific delivery times through-out the day.
- The state highway designation of Tulane Avenue ends at Claiborne Avenue, so the scope of this project ends at Claiborne Avenue. However, the “vision” should continue through the medical district to Loyola Avenue.
- Concern was raised about creating a unified “vision.” Signage, landscaping, and pedestrian amenities and other features should be consistent throughout the corridor. Key stakeholders need to discuss their individual plans to create one unified concept.
- Sustainable features should be included in the improvements, such as: solar lights and rainwater capture. LDOTD supports sustainable features, however solar lighting is currently not certified to withstand wind load thresholds.
- The construction phasing plan should consider improving the Carrollton Avenue end of Tulane Avenue. This is the portion of the corridor that will attract housing and retail development. The project team will be evaluating construction phasing upon development of conceptual cost estimates.
- S. Johnson Street is a main entrance into the UMC facility. Turning lanes need to be included at this intersection.



- Sidewalk material for the Tulane Corridor should consider initial installation cost and maintenance. Brick sidewalks look nice but a lower cost option should be considered.
- The Louisiana Cancer Research Center will be ready to landscape in 10 to 12 months and they would like to conform to a unified “vision.” The landscaping concept could include minimal plantings initially, with the addition of more landscaping as other development is completed.
- The left-turn lanes proposed at Salcedo Street should be moved to Gayoso Street. Also, on-street parking should be allowed in front of the Crescent Club Apartments (currently posted as a delivery zone) and associated retail across the street.
- It was noted that there is a high accident rate on Tulane Avenue and that current peak hour traffic operations are efficient.
- The VA Hospital cannot allow retail within their property, but the UMC is working to develop retail space in the first floor of the parking garages that front Tulane Avenue. Future plans include retail space from Galvez Street to Claiborne Avenue.
- An additional parking garage is being proposed for the UMC, but there is a \$13 to \$15 million gap in funding.

Key Action Items:

- Schedule a meeting with key stakeholders for the development of a unified landscape plan for the Tulane Avenue corridor.
- Schedule a meeting with RTA to identify / confirm bus stop locations along the corridor.



**Stage 0 Feasibility Study
US 61 / Tulane Avenue
Corridor Improvement Project**



Stakeholder Meeting
April 8, 2010

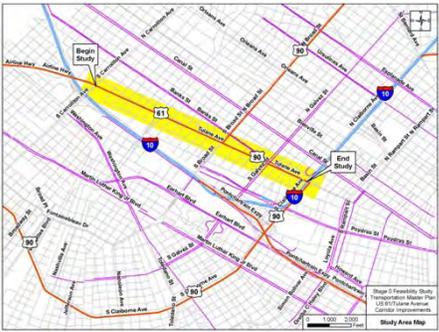




Purpose of the Meeting

- Outline Objectives and Purpose of the Tulane Avenue Corridor Improvements
 - Scope of Study
 - Traffic Study / Traffic Simulation
 - Existing and Proposed Land Use / Development
- Objectives for Improving Tulane Avenue
- Existing Conditions
- Proposed Typical Sections
- Complete Streets Concept
- Obtain Stakeholder Input

Study Area Map Tulane Avenue - Carrollton Avenue to Claiborne Avenue



Study Objectives Tulane Avenue - Carrollton Avenue to Claiborne Avenue

- Roadway Preservation and Visual Improvements
- Traffic Safety and Operational Conditions
 - Exclusive Left-turn Lanes at Key Intersections
 - Traffic Signalization
- Bike / Pedestrian Safety
 - Wider Medians
 - Pedestrian Crosswalks / Signals
 - Bike / Pedestrian Safety Improvements
 - Designated Bike Lanes
- Enhanced Transit Service (Long-term)
 - Bus Priority System Interconnected with Traffic Signal
 - Relocation of Bus Stops
- Economic Revitalization

Scope of Study Tulane Avenue - Carrollton Avenue to Claiborne Avenue

- Development of Conceptual Design Concepts
- Opinion of Probable Cost
- Development of Construction Phasing Plan
- Identify Environmental Issues

Traffic Study Tulane Avenue – Broad Street to Claiborne Avenue

- Existing traffic with the addition of new trips generated by:
 - VA Hospital
 - UMC Hospital
 - Proposed Development
- Evaluate intersection operational conditions:
 - Existing conditions (6-lanes)
 - Proposed improvements (4-lanes)
- Identify and evaluate the addition of exclusive left-turn lanes at key intersections throughout corridor (pending LDOTD approval):

| | |
|------------------------------|----------------------|
| - S. Cortez Street | - S. Galvez Street |
| - S. Jefferson Davis Parkway | - S. Prieur Street |
| - S. Salcedo Street | - S. Roman Street |
| - S. Rocheblave Street | - S. Derbigny Street |

Traffic Simulation

Tulane Avenue - Carrollton Avenue to Claiborne Avenue

- VISSIM Simulation provides a visual tool for illustrating traffic operating conditions
- Develop traffic simulation between Broad Street and Claiborne Avenue, which include:
 - Traffic from medical complex and proposed developments
 - Exclusive left-turn lanes
 - Changes in signal timings
- Evaluate traffic operations with 6-lanes versus 4-lanes
- Present traffic simulation upon selection of Preferred Alternative

Existing Land Use

- St. Joseph's Church
- Dixie Brewery
- LSU Foundation
- Hotels
- Commercial
- Single-family housing
- Orleans Parish Courthouse



St. Joseph's Church

Existing Land Use



Orleans Parish Courthouse



Dixie Brewery

Existing Land Use



Falstaff Apartments



LSU Foundation

Existing and Proposed Land Use

- Residential Development (~1,200 units)
 - The Preserve
 - The Crescent Club
 - The Meridian
 - The Terraces
 - The Marquis
 - Falstaff Apartments
 - St. Michael's Senior Housing
 - Downtown Inn



The Crescent Club

Existing and Proposed Land Use



St. Michael Senior Housing



The Terraces

Existing and Proposed Land Use



The Crescent Club

The Preserve



Existing and Proposed Land Use

- Southeast Louisiana Goodwill Industries Headquarters
- VA Hospital
- UMC Hospital
- Louisiana Cancer Research Center
- New Orleans Criminal Court
- Mid-City Shopping Center
- Crescent Club Retail Area



Goodwill Store and Headquarters

Proposed Land Use



VA Hospital and University Medical Center

Existing and Proposed Land Use



LA Cancer Research Center



The Crescent Club Retail Area

Objectives for Improving Tulane Avenue

- Improve the Neighborhood
- Provide Quality of Life Enhancements
- Promote Urban Living
- Promote Pedestrian and Bicycle Activity
- Improve Safety
- Reinvent Tulane Avenue



Tulane Avenue Vision



Panoramic view of Tulane Avenue reimagined as a four lane boulevard

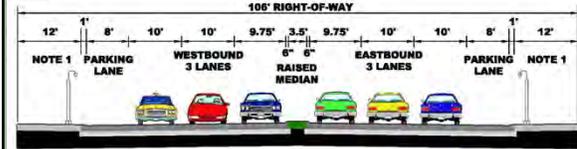
RPC, December 2008

Consistency with Local Plans and Actions

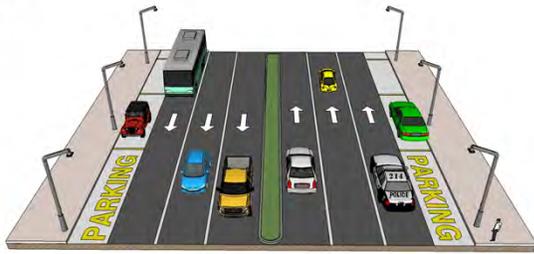
- LDOTD Complete Streets
- The Greater New Orleans Biosciences Economic Development District (GNOBEDD)
- Bike Plan
- City of New Orleans Master Plan
- Tulane Avenue - Top 5 RTA Bus Ridership Routes

Existing Conditions Typical Section

- 106-foot ROW
- 6, 10-foot travel lanes
- 4-foot median
- 8-foot parking lane
- 11 to 12-foot sidewalk



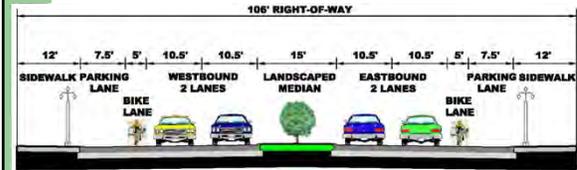
Existing Conditions 3D View



Note: Not to scale; for illustrative purposes only

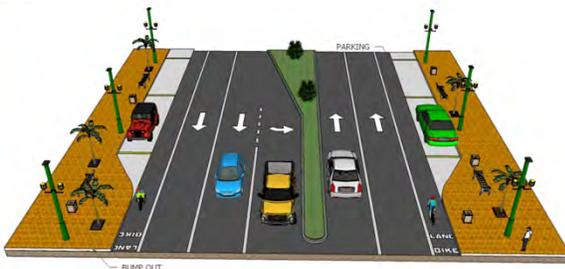
Proposed Tulane Avenue Improvements Minimum Reconstruction - Typical Section

- 106-foot ROW
- 4, 10.5-foot travel lanes
- 15-foot median
- 5-foot bike lane
- 7.5-foot parking lane
- 12-foot sidewalk



Hold Existing Curb

Proposed Tulane Avenue Improvements Minimum Reconstruction - 3D View



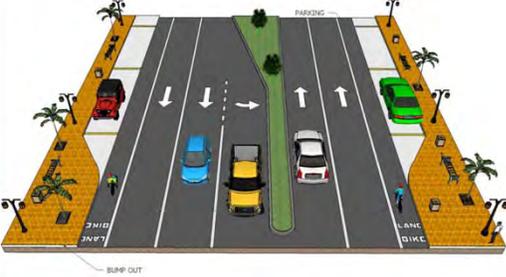
Note: Not to scale; for illustrative purposes only

Proposed Improvements Full Reconstruction - Typical Section

- 106-foot ROW
- 4, 11-foot travel lanes
- 16-foot median
- 5-foot bike lane
- 8-foot parking lane
- 9-foot sidewalk



Proposed Improvements Full Reconstruction - 3D View



Note: Not to scale; for illustrative purposes only

Complete Streets

- Benefits of Complete Streets
 - Improve Safety
 - Encourage Walking and Bicycling for Health
 - Address Climate Change and Oil Dependence
 - Foster Strong Livable Communities

Complete Streets

- Policies Incorporated into Complete Streets Design (LDOTD)
 - Statewide Bicycle and Pedestrian Plan
 - Context Sensitive Solution Policy
 - ADA Transition Project
 - Access Management Changes

Complete Streets

- What do Complete Streets look like?
 - Sidewalks / Sidewalks with Bump-outs
 - Bike Lanes
 - High-visibility Crosswalks
 - Pedestrian Signals
 - Medians that Provide Pedestrian Safety
 - Other Pedestrian Amenities / ADA Compliance
 - Special Bus Lanes / Improved Transit Features

Complete Streets Oak Street Improvements



Pedestrian Amenities

Highly Visible Crosswalk

Complete Streets Oak Street Improvements



Bump-out with Pedestrian Amenities

Complete Streets Oak Street Improvements



Complete Streets Magazine Street Improvements



Complete Streets Magazine Street Improvements



Complete Streets Magazine Street Improvements



Complete Streets Magazine Street Improvements



Complete Streets Magazine Street Improvements



Total Reconstruction vs. Minimum Reconstruction

- Higher Costs Associated with Total Reconstruction:
 - Relocation of Power Poles / Street Lights
 - Relocation of Drainage Structures
 - Sidewalk Reconstruction
 - Adjustment and Relocation of Other Utilities

Total Reconstruction vs. Minimum Reconstruction

- Relocation of Power Poles / Street Lights



Note: Not to scale; for illustrative purposes only

Total Reconstruction vs. Minimum Reconstruction

- Refurbish Existing Power Poles / Street Lights



Total Reconstruction vs. Minimum Reconstruction

- Relocation of Drainage Structures



Total Reconstruction vs. Minimum Reconstruction

- Sidewalk Reconstruction – Possible Phasing Opportunity



Total Reconstruction vs. Minimum Reconstruction

- Adjustment and Relocation of Other Utilities



Note: Not to scale; for illustrative purposes only

Next Steps to Implement Project

- Conceptual Cost Estimates
- Identify the Preferred Alternative
- NEPA Analysis
- Conceptual / Preliminary Engineering
 - Roadway and Traffic Engineering
 - Utilities Investigation
- Final Design (LDOTD)

Tulane Avenue Stakeholder Input

- Input regarding proposed developments
- Input regarding operational deficiencies
- Input regarding proposed typical sections and aesthetic improvements



Project Team

- Please send questions and comments to:

| | |
|--|--|
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|--|--|

Tulane Corridor Stakeholders List

| Name | Title | Representing | Street/PO Box | City | Stat | Zip Code | Phone | Email Address |
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| Steve Strength | | LADOTD | 10 Veterans Memorial Blvd. | New Orleans | LA | 70124 | | |
| Mike Aghayan | | LADOTD | PO Box 94245 | Baton Rouge | LA | 70804 | | |
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| Arnie Fielkow | Council member-at-large | City of New Orleans | 1300 Perdido St., Room 2W40 | New Orleans | LA | 70112 | | |
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| Lynn Dupont | | Regional Planning Commission | 10 Veterans Memorial Blvd. | New Orleans | LA | 70124 | | |
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**US 61 / Tulane Avenue Corridor Improvements
Stage 0 Feasibility Study
State Project No. 700-36-0187
FAP No. DE-3606(502)
RPC Contract No. US61-0**

**Stakeholder Meeting Memorandum
May 6, 2010**

Walter Brooks, Executive Director for the New Orleans Regional Planning Commission (RPC), opened the meeting with a brief summary of the project indicating that the RPC is supportive of livable and sustainable communities. Mr. Brooks believes that this project is representative of those ideals with 4 travel lanes, bike lanes, and exclusive turn lanes. Mr. Brooks said the RPC is committed to this project, although it may be phased due to funding constraints. The overall concept for Tulane Avenue needs to be unified. Mr. Brooks thanked all stakeholders for attending the meeting and for sharing their plans for future landscaping.

Key points of the stakeholder input are discussed below:

Veterans Affairs Medical Center (VAMC) – Presented by Kim Way and Mark Brideweser (See attached graphic #1 - Overall Tulane Ave. VA Streetscape Edge and graphic #2 – Security Wall and Bollard Detail)

- The VAMC is not responsible for landscaping in public right-of-way (ROW) including sidewalks; N-Y Associates and Mathes-Brierre Architects are working to develop landscaping plans from back of sidewalk.
- There will be a 3-foot tall concrete security wall on the ROW (face of wall will be on property line) with live oak trees planted 5 feet behind the wall in front of the research building and central energy plant. The design of the security wall is based on cost-effectiveness and is designed to provide a barrier to on-coming vehicles. Inexpensive design features such as wall stamps should be considered for aesthetics/beautification of the security wall.
- Concern was raised about homeless people sleeping on the wall; VA assured that that would not happen.
- In front of the Dixie Brewery building, there is an 18-foot designated blast radius. No parking is allowed in front of this building. An extended bump-out will create a no-parking zone that will be lined with bollards. Walter Brooks requested that the VAMC design team provide a detailed cross-section of this area to the LDOTD. A follow-up meeting LDOTD may be required once the design has been reviewed.
- Sidewalk bump-outs are also proposed at the Tulane Avenue and Galvez Street intersection which creates a narrower pedestrian crossing.



- Bus stop improvements will be not funded by the VAMC; although they support public transportation initiatives.
- There will be a designated queuing area/right-turn lane on westbound Tulane Avenue for delivery trucks to be inspected for security purposes. Concern was raised that the right turn lane accounts for truck traffic coming from Claiborne Avenue, but what about trucks coming from Carrollton; they would have to make a u-turn on Tulane Avenue to get in the security turn lane. Signage in this area should be consistent with a loading zone. LDOTD requested the procedures for the security inspection and operation of this queuing area. LDOTD also expressed concern on the impact on travel lanes and bike lanes.
- Walter Brooks requested that VA send detailed plans to Mike Stack and Steve Strength for their review.
- Bike paths will be provided on Galvez Street.
- The main vehicular drop-off is on Cleveland Street while the pedestrian entrance is on Canal Street.

Louisiana Cancer Research Consortium (LCRC) – Presented by Christy Sessions and Adrian Rodriguez (see attached graphic #3 - LCRC Preliminary Planting Plan)

- The LCRC is supportive of creating a unified image by using live oaks and palm trees within their property line.
- The entrance to the facility is on Tulane Avenue, with and ADA compliant ramp.
- The loading dock is accessed from Claiborne Avenue. Concern was raised over the operations of the loading dock and impacts to traffic operations on Claiborne Avenue especially if trucks have to back up into loading area.
- Current landscaping plans, within property lines, include:
 - Live oaks (6-inch caliber) along Tulane Avenue
 - Palm trees in problem areas
 - Brushed concrete sidewalks
 - Cypress trees along Claiborne Avenue
 - Magnolias and crepe myrtles along Gravier Street
- The New Orleans Department of Parks and Parkways raised concern about pruning trees with regard to overhead utilities.
- Concern was raised over the number of parking spaces provided and the lack of landscaping within the interior of the parking lot. Additional landscaping and use of alternative semi-permeable surfaces should be evaluated. It was indicated that a document from 2004 provided the waiver for the current design of the parking lot.
- Concern was raised over the amount of shade that would be provided to the sidewalk by the young live oak trees planted within the LCRC property. Also, live oaks, over time, cause sidewalks to buckle, which in turn creates problems for ADA compliance. Alternative trees should be considered for planting along sidewalks.
- Bio-root barriers are also available which can direct the growth of roots, minimizing sidewalk impacts and utility conflicts.



University Medical Center (UMC) – Presented by Christy Sessions (see attached graphic #4 - UMC Site Plan and graphic #5 - typical section)

- UMC wants to create a strong campus framework with the use of live oaks and cypress trees.
- Current landscaping plans include:
 - Live oaks (6-inch caliber) along Tulane Avenue – these plants will be partly in public ROW in 7 foot wide by 10 foot long planters
 - Cypress trees along Claiborne Avenue
 - Live oaks along Galvez Street.
- The plantings along the structures fronting Tulane Avenue will create a strong edge.
- There are 2,500 parking spaces provided at UMC. Employees park in surface lots and patients and visitors park in the parking garage.
- The RTA is concerned about traffic assumptions. The RTA requested a copy of the traffic study completed by UMC.
- Retail space is available on the first floor of the parking garage, fronting Tulane Avenue. Concern was raised if this small area of retail will survive.
- Bike racks (approximately 18) will be provided at the large circular drop off area.

New Orleans Medical Center Streetscape – Presented by Bruce Richards and Keith Scarmuzza (see attached graphic #6 and graphic #7 - New Orleans Medical District Streetscape plans)

- Focus on consistency of streetscape between UMC and VAMC.
- Focus of design was on Galvez Street because it serves as the gateway to the medical center from Tulane Avenue and Canal Street.
- The Pershing Park statue will be relocated to the VA property.
- New Orleans Department of Parks and Parkways will be responsible for maintenance on Galvez Street.
- Bus stops on Galvez Street should be considered.
- There will be no on-street parking on Galvez Street, as the demand is not needed from a residential perspective.

General Comments and Concerns

- New Orleans Department of Parks and Parkways would like to review all entities landscape plans which would include a site visit. Once reviewed, a good long term solution can be formulated.
- Is there an internal route between VAMC and UMC for bikes?
 - Do to security reason the VA does not provide for full connectivity.
 - The GNOBEDD raised a concern that there is no clear path or mode for trips between and among the two Medical Schools (LSU & Tulane) and the three



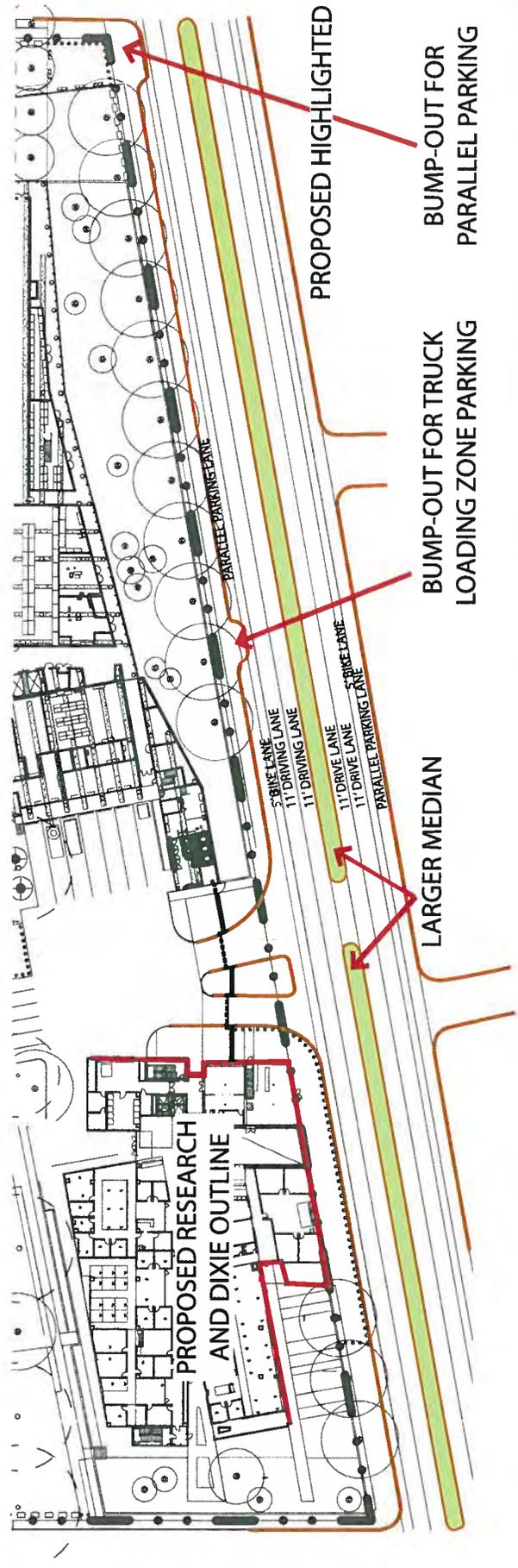
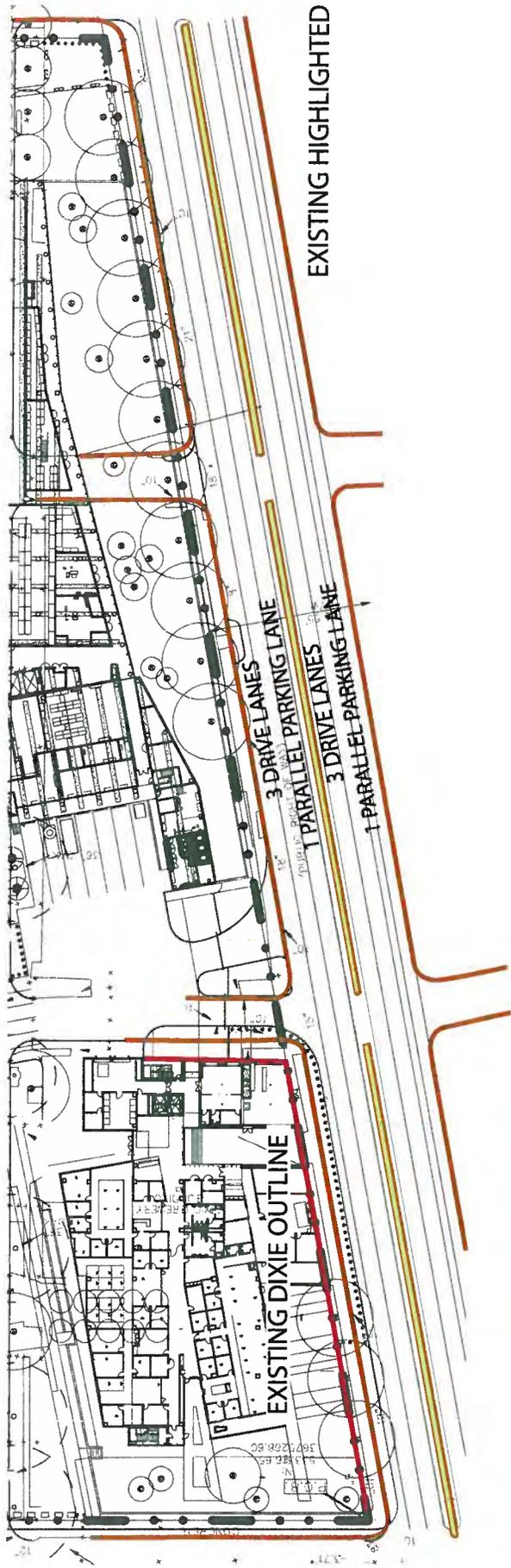
hospitals (the new University Medical Center, Tulane, & VA). This is a concern because no parking is provided for students or for the employees of other institutions and because the distance exceeds the usual walking distance of 1,500 feet. Formerly, the facilities were within walking distance.

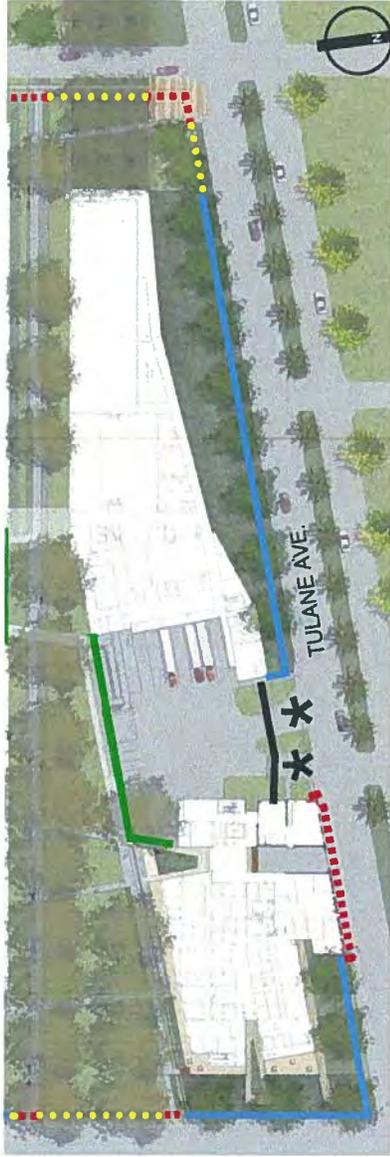
- Concerns were raised by LADOTD with all proposals with regard to traffic operations. Permits may be required for the different entities and unified design still needs to be defined.
- The VAMC will not pay for sidewalks; although the UMC will pay for sidewalks.
- Sustainability needs to be a higher priority – consider solar lighting.
- The proper name for this development is “Medical Center in Bioscience District”
- The unified corridor needs to extend past Claiborne Avenue to Loyola.
- Preferred alternatives should be available by July / August.

Action Items

- VA to provide LADOTD with a detailed cross-section in front of Dixie Brewery for their review and comment
- VA to provide LADOTD with the procedures for the security inspection and operation of the right turn queuing area.

OVERALL TULANE AVE.: VA STREETSCAPE EDGE

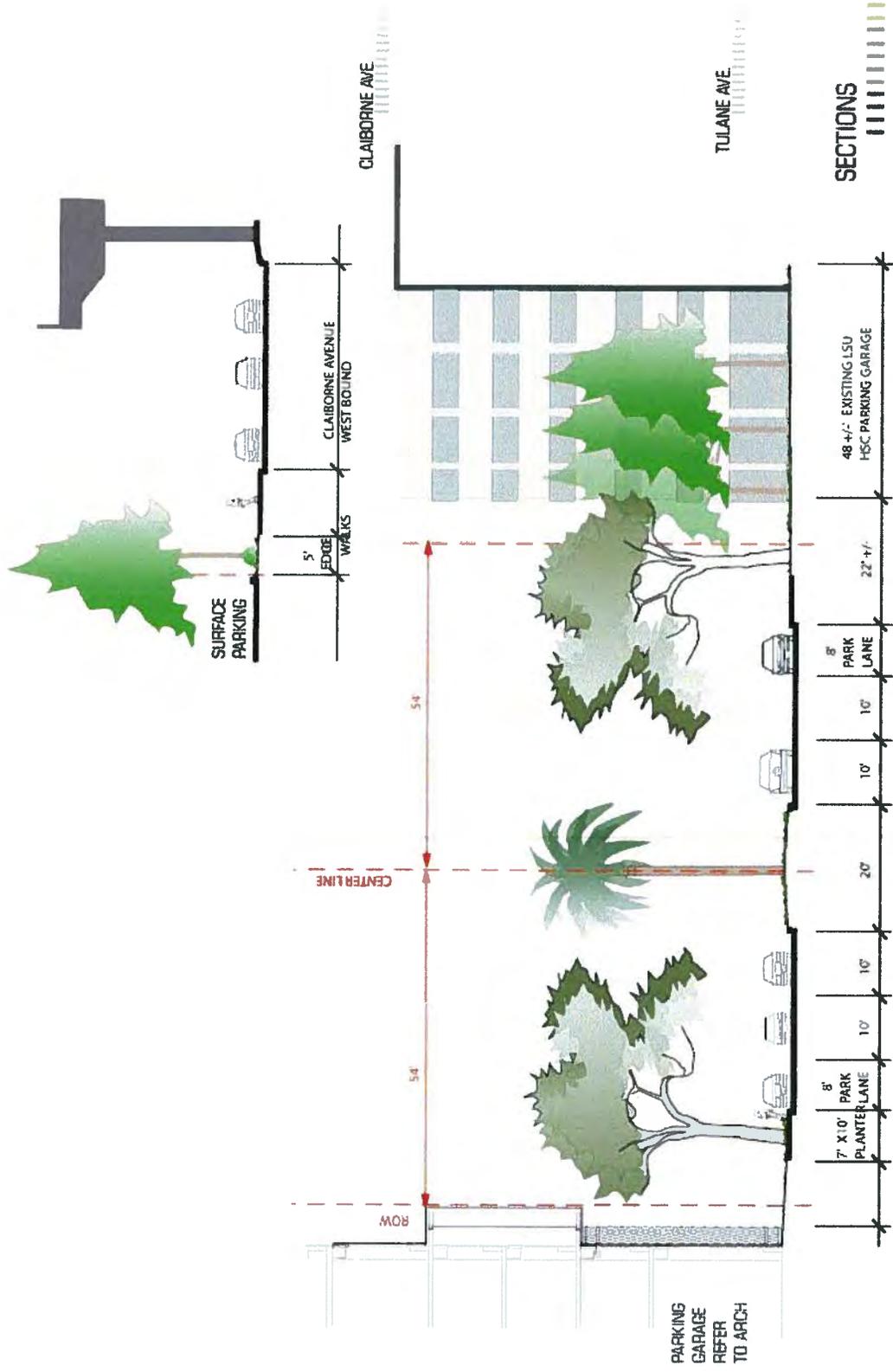




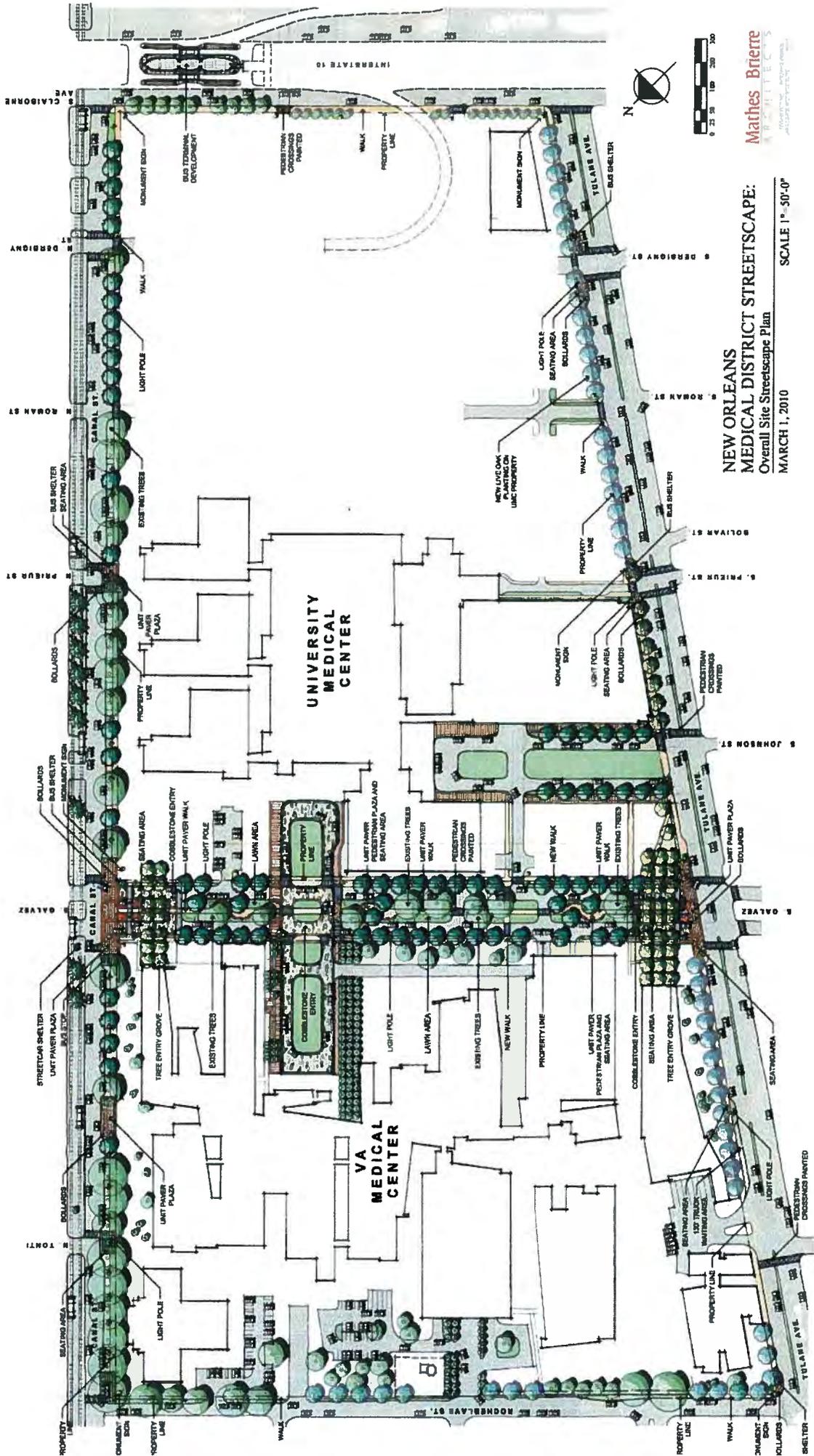
KEY

- Security Wall
- ⋯ Bollards
- ⋯ Architectural Stones
- Terraced Walls
- Courtyard Fence/ Wall
- Service Entry Gate
- ✱ Entrance





LSU Academic Medical Center



**NEW ORLEANS
 MEDICAL DISTRICT STREETScape:**
 Overall Site Streetscape Plan
 MARCH 1, 2010

Mathes Briere
 ARCHITECTS
 1100 PINE ST. SUITE 200
 NEW ORLEANS, LA 70112
 (504) 581-1100



Tulane Avenue Corridor Improvements Stakeholders List

| Name | Title | Representing | Street/PO Box | City | State | Zip Code | Phone Number | Email Address |
|--------------------|--|--|---------------------------------|-------------|-------|----------|--------------|--|
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| James McNamara | Chairman | New Orleans Bioscience Economic Development Dist. | 1527 Harmony Street | New Orleans | LA | 70115 | 504-593-6442 | jamesp@neworleansbio.org |
| William Detwiller | Veterans Liason Deputy Regional Manager | VA Medical Center | 321 Veterans Blvd., Suite 205 | Metairie | LA | 70005 | 504-834-1700 | PNCWMD@aol.com |
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| Arnie Flilkow | Councilmember-at-large | City of New Orleans | 1300 Perdido St., Room 2W40 | New Orleans | LA | 70112 | | |
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| Ann MacDonald | Director | Dept. of Parks and Parkways, City of New Orleans | 2829 Gentilly Blvd. | New Orleans | LA | 70122 | | |
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| Patrick Thompson | | Downtown Development District | 201 St. Charles Ave., Ste. 3912 | New Orleans | LA | 70170 | 504-561-8927 | pthompson@neworleansdowntown.com |
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| Stefan Marks, AICP | | Regional Transit Authority, Veolia Transportation Serv., Inc. | 2817 Canal Street | New Orleans | LA | 70119 | | Stefan.Marks@veolia.com |

Tulane Avenue Corridor Improvements Stakeholders List

| Name | Title | Representing | Street/PO Box | City | State | Zip Code | Phone Number | Email Address |
|--------------------|--------------------------|-----------------------------------|--------------------------------------|-------------|-------|----------|---------------|------------------------------------|
| Donald Ours, CM | Pastor | St. Joseph's Church | 1802 Tulane Avenue | New Orleans | LA | 70112 | | |
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| Adrian Rodriguez | Capitol Projects Manager | LA Cancer Research Consortium | 1615 Poydras St., Suite 1000 | New Orleans | LA | 70112 | 504-525-5744 | arodriguez@lctrc.org |
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| Chris Aghayan | | Regional Planning Commission | 10 Veterans Memorial Blvd. | New Orleans | LA | 70124 | | |
| Jeff Roessel | | Regional Planning Commission | 10 Veterans Memorial Blvd. | New Orleans | LA | 70124 | | |
| Lynn Dupont | | Regional Planning Commission | 10 Veterans Memorial Blvd. | New Orleans | LA | 70124 | | |
| Caitlin Cane | | Regional Planning Commission | 10 Veterans Memorial Blvd. | New Orleans | LA | 70124 | | |
| Dan Jattres | | Regional Planning Commission | 10 Veterans Memorial Blvd. | New Orleans | LA | 70124 | 504-483-8505 | djattres@norpc.org |
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| Kevin Vogeltanz | | | 3300 Tulane Ave. #359 | New Orleans | LA | 70119 | | vogeltanz@gmail.com |
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| Roscoe Rush | | | 731 S. Dupre St. | New Orleans | LA | 70119 | | |



Stakeholders Meeting

Tulane Avenue Corridor

**Stage 0 Feasibility Study Tulane Avenue Corridor
Stakeholder Meeting Sign-In Sheet
May 6, 2010, 10 AM**

| Name/Title | Representing/Address | Telephone Number/Email Address | Signature or Meeting Representative |
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| Bruce Richards | N-Y Associates Inc. 2750 Lakeville Rd. Metairie, LA 70001 | Telephone: (504) 885-0500 Email: brichards@n-y-associates.com | |
| Councilmember Kristin Coisleson Palmer | City Hall 2W70 | Telephone: 658-1030 Email: kcpalmer@cityofno.com | Trevor Theurissen |
| DRAYFUS GUIENT | CHESTER ENGINEERS/GNOBROAD 909 POYDRAS ST STE 2030 | Telephone: 504-584-5568 Email: dguient@chesterengineers.com | |
| ANN MACDONALD | PARKS & RECREATION 2829 GENTILLY BLVD. NOVA 70126 | Telephone: 658-3200 Email: aemacdonald@cityofno.com | |
| Hailey Bowen | " " " | Telephone: 658-3204 Email: hdbowen@cityofno.com | |
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| Fr. Don Ours, c.m. | St. Joseph Church | Telephone: 522-3186 ext. 142 Email: doours@depaul.edu | |
| Paul Ikeemire | PNOLA 2547 Madison St | Telephone: 504-717-3050 Email: pikemire@pnola.org | |



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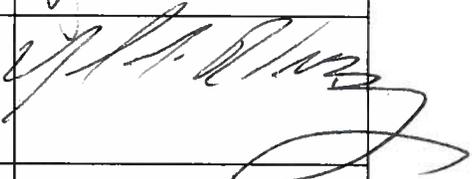
| Name/Title | Representing/Address | Telephone Number/Email Address | Signature or Meeting Representative |
|--|--|--|-------------------------------------|
| Mark Brideweser | VA Medical Center Project Legacy Office 1555 Poydras St., Ste. 1800 New Orleans, LA 70112 | Telephone: 504.558.1433 Email: mark.brideweser@va.gov | |
| Ken Knevel | Blitch Knevel Architects 757 St. Charles Ave. New Orleans, LA 70130 | Telephone: 504.524.4634 Email: ken_iberville@msn.com | |
| Renny Schoen, Division of Administration | Facility Planning and Control 1201 N. 3 rd St., Ste. 7-160 Baton Rouge, LA 70804 | Telephone: 225.485.3509 Email: renny.schoen@la.gov | |
| Michael Stack | LA Dept. of Transportation and Development PO Box 9180 Bridge City, LA 70096 | Telephone: 504.437.3101 Email: michael.stack@la.gov | |
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Stakeholders Meeting

Tulane Avenue Corridor

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| Ron Gardner, Vice Chancellor | LSU Health Sciences Center 433 Bolivar Street New Orleans, LA 70112 | Telephone: Email: rgardner@lsuhsc.edu | |
| James McNamara, Chairman | New Orleans Bioscience Economic Development Dist. 1527 Harmony Street New Orleans, LA 70115 | Telephone: 504.593.6442 Email: jamesp@neworleansbio.org |  |
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|-------------------|---|--|--|
| Dan Jatres | Regional Planning Commission 10 Veterans Memorial Blvd. New Orleans, LA 70124 | Telephone: 504.483.8505 Email: djatres@norpc.org | |
| Doree Magiera | URS Corporation 3500 N. Causeway Blvd. Suite 900 Metairie, LA 70002-3527 | Telephone: 504.837.6326 Email: Doree_Magiera@urscorp.com | |
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| Chris Aghayan | Regional Planning Commission 10 Veterans Memorial Blvd. New Orleans, LA 70124 | Telephone: 504.483.8501 Email: caghayan@norpc.org | |
| Jeff Roesel | Regional Planning Commission 10 Veterans Memorial Blvd. New Orleans, LA 70124 | Telephone: Email: jroesel@norpc.org | |
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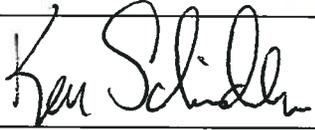
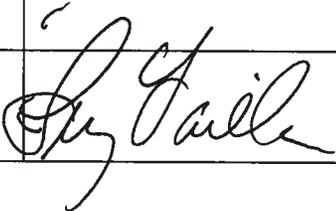


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| Name/Title | Representing/Address | Telephone Number/Email Address | Signature or Meeting Representative |
|---|---|--|---|
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Stakeholder Meeting Sign-In Sheet
May 6, 2010, 10 AM**

| Name/Title | Representing/Address | Telephone Number/Email Address | Signature or Meeting Representative |
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| Ann MacDonald, Director Dept. of Parks & Pkwys. | City of New Orleans 2829 Gentilly Blvd. New Orleans, LA 70122 | Telephone: Email: | |
| Chris Papamichael | Domain Companies 900 S. Peters St., Loft 1 New Orleans, LA 70130 | Telephone: 504.301.0014 Email: cpapamichael@domaincos.com | |
| Liz Failla c | VA Medical Center P.O. Box 61011 New Orleans, LA 70161 | Telephone: 504.558.1433 Email: Elizabeth.failla@va.gov |  |



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| Steven Moye, Director | Louisiana Cancer Research Center, Central Admin. Off. 1615 Poydras St., Suite 1000 New Orleans, LA 70112 | Telephone: Email: | |
| Adrian Rodriguez, Capitol Projects Manager | LA Cancer Research Center 1615 Poydras St., Ste. 1000 New Orleans, LA 70112 | Telephone: 504.525.5744 Email: arodriguez@lgtrc.org | |
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| Stacey Head, Councilmember, District B | City of New Orleans 1300 Perdido St., Room 2W10 New Orleans, LA 70112 | Telephone: Email: shead@cityofno.com | |
| Abby Johnson | Unity of Greater New Orleans 2475 Canal St., Ste. 300 New Orleans, LA 70119 | Telephone: Email: | |
| Marlin Gusman, Criminal Sheriff | Orleans Parish 2800 Gravier Street New Orleans, LA 70119 | Telephone: Email: | |



Stakeholders Meeting

Tulane Avenue Corridor

**Stage 0 Feasibility Study Tulane Avenue Corridor
Stakeholder Meeting Sign-In Sheet
May 6, 2010, 10 AM**

| Name/Title | Representing/Address | Telephone Number/Email Address | Signature or Meeting Representative |
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| Karen Parsons | RPC | Telephone: 483-8511 Email: kparsons@norpc.org | Karen Parsons |
| TK Tieu for Arnie Freilkan | City Hall | Telephone: 658-1060 Email: | |
| Stefan Marks Dir of Planning | RTA | Telephone: 504 606 6086 Email: stefan.marks@veolia-transportation.com | |
| Keith Scarmuzza | Mathes Brierre Arch. | Telephone: 586-9303 Email: kscarmuzza@mathesbriere.com | Keith Scarmuzza |
| Jennifer Farwell | Mid-City Neighborhood Org | Telephone: 504-371-5300 Email: president@mcno.org | Jennifer Farwell |
| | | Telephone: Email: | |
| | | Telephone: Email: | |



Meeting Memorandum

PROJECT: Stage 0 Feasibility Study
Tulane Avenue Corridor
RPC Contract No. US 61 - 0

SUBJECT: Coordination of Bus Stops with Proposed 4-Lane Improvements

DATE: May 26, 2010; 2:00 P.M.

PLACE: Regional Planning Commission

ATTENDEES: Jeff Roesel, RPC; Chris Aghayan;RPC,
Stefan Marks, RTA / Veolia Transportation
Doree Magiera, URS; Stephanie Guillot, URS

The following are the key points discussed where RTA presented recent ridership counts collected for Tulane Avenue Route 39. The purpose of the meeting was to review the ridership counts in conjunction with existing land use and proposed development along the corridor and develop preliminary recommendations for bus stop locations that will be integrated with the proposed 4-lane improvements along Tulane Avenue. A GIS map set, entitled RTA Bus Stop Evaluation, depicts the preliminary recommendations and accompanies this meeting record.

- The RTA recently completed a 12-hour count (6:00 AM to 6:00 PM) for the Tulane Avenue bus route. Ridership has shown an increase from previous counts that have been conducted. It was estimated that the total on and offs for both the inbound and outbound routes totals 2,100 riders.
- The RTA District Administrator is advocating far-side stops in conjunction with increased pedestrian crossing amenities.
- New bus stops will be designed to accommodate a 60-foot articulated bus. The RTA will provide recommended design standards, if available.
- The RTA, RPC, and URS reviewed the 12-hour ridership counts (on, off and total) for both in-bound and out-bound directions along Tulane Avenue. The purpose of this evaluation was to establish the location of bus stops in connection with the proposed 4-lane improvements on Tulane Avenue. Preliminary recommendations were developed however these recommendations will be reviewed and approved by RTA staff prior to URS completing the conceptual layouts for the 4-lane improvements. The recommendations included retaining existing stops, eliminating stops, and relocating stops. The methodology used in the analysis generally included the following:



- Bus stops will remain at their current location if the total ridership is greater than 10. Based on RTA recommendations, existing stops are proposed to be relocated to the far-side of the intersection.
- Bus stops were recommended for elimination if the total ridership (on and offs) was approximately equal to 10 riders.
- Stops were recommended for relocation and/or elimination if two stops are currently located a block apart or if a proposed stop is located within a block of an existing stop.
- Additional recommendations included keeping the westbound (WB) bus route on Tulane Avenue to Carrollton Avenue instead of turning onto Ulloa Street at S. Cortez Street. Currently, the Tulane Avenue bus continues on Ulloa Street at S. Cortez and then makes a left onto Carrollton Avenue at the signal. The revised Tulane Avenue route would keep the westbound bus on Tulane Avenue in conjunction with a recommended bus only left-turn lane at Carrollton Avenue. LADOTD would have to approve the signal modification at this location (See attached Sheet 1 of 4).
- From west to east, the recommended revisions to the Tulane Avenue bus stops at each intersection are as follows; the map set sheet number is provided for reference:
 - Carrollton Avenue - reconfigure as described above (See Sheet 1 of 4)
 - Pierce Street - add WB/outbound stop and make both stops far side (See Sheet 1 of 4)
 - Cortez Street - add WB/outbound stop and make both stops far side (See Sheet 1 of 4)
 - Genois Street - maintain near side stops (See Sheet 1 of 4)
 - Clark Street - this stop is a potential elimination (See Sheet 2 of 4)
 - Jefferson Davis Parkway - RTA to determine location of stops; need to consider proximity to St. Michael Senior Housing (See Sheet 2 of 4)
 - Lopez Street - this stop is a potential elimination (See Sheet 2 of 4)
 - Gayoso Street - make both stops far side; potential ped/traffic signal (See Sheet 2 of 4)
 - White Street - this stop is a potential elimination (See Sheet 3 of 4)
 - Broad Street - make both stops far side (See Sheet 3 of 4)
 - Dorgenois Street – the Dorgenois stops to be relocated to Rocheblave (See Sheet 3 of 4)
 - Tonti Street - this stop is a potential elimination (See Sheet 3 of 4)
 - Galvez Street - make both stops far side (See Sheet 4 of 4)
 - Prier Street - this stop is a potential elimination (See Sheet 4 of 4)
 - Roman Street - make both stops far side at entrance to LSU (See Sheet 4 of 4)
 - Claiborne Avenue - maintain near side stops (See Sheet 4 of 4)

Action Items:

1. URS will prepare GIS graphics depicting the recommendations for bus stops along Tulane Avenue – Item completed see attached pdf; Sheets 1 through 4.
2. Upon receipt of GIS graphics, Stefan Marks will distribute to RTA / Veolia staff for review and concurrence.
3. URS and RPC to discuss recommended pedestrian and traffic signal upgrades with LADOTD; a date for the meeting was not established.



**US 61 / Tulane Avenue Corridor Improvements
Stage 0 Feasibility Study
State Project No. 700-36-0187
FAP No. DE-3606(502)
RPC Contract No. US61-0**

**Landscaping Coordination Meeting Memorandum
July 16, 2010**

Walter Brooks, Executive Director for the New Orleans Regional Planning Commission (RPC), opened the meeting stating the intention of the meeting was to discuss the goals and constraints of landscaping Tulane Avenue. Challenges for landscaping include a potential maintenance program and coordination to create a signature, unified streetscape. Mr. Brooks stated that he would like to be able to present multiple landscaping concepts at the public meeting.

Key points of the stakeholder input are discussed below:

- The University Medical Center (UMC) has to relocate power lines on S. Prieur Street. The cost estimate from Entergy is \$15.5 million. It was noted that even if the lines were buried underground, there would still be structures above ground in the servitude. The servitude would have to be clear of landscaping. There is no utility servitude on Tulane Avenue.
- The possible bike lane on Galvez Street may be a potential location for underground power lines.
- It was noted there is a corridor dividing point on Tulane Avenue at Broad Street:
 - Claiborne Avenue to Broad Street – includes the medical sciences district.
 - Broad Street to Carrollton Avenue – includes smaller business and residences.
- Some of the businesses on Tulane Avenue have encroached into the right-of-way (ROW) by placing stairs or delivery ramps at building entrances where buildings are elevated. The sidewalks are approximately 7.5 feet at these locations.
- Parks and Parkways noted that shrubbery is not encouraged because of maintenance, although sustainable plant materials are encouraged. Trees, with an upright canopy and non-invasive roots, are preferred in a narrow median and require little maintenance. Trees that Parks and Parkways are currently using in medians include crepe myrtles and Dahoon holly. The proposed 15-foot median on Tulane Avenue provides opportunity for creating a unified corridor.
- Landscaping maintenance needs to be considered during planning. The City of New Orleans has the ability to enter into maintenance agreements between various entities and should also be considered. Currently, GNOBEDD is discussing a maintenance agreement with developers for an overlay district.



- It was noted that the VA will not provide maintenance of any landscaping that is located outside of federal land.
- The Downtown Development District (DDD) indicated that maintaining the existing landscaping in their district has been challenging.
- The possibility of phasing the landscaping by layers exists for the Tulane Avenue corridor. Additional plantings could be installed over time as maintenance issues are resolved. Initially, the focus would be on key intersections along the corridor.
- LADOTD noted that a barrier curb along the median is needed where landscaping is installed; although a roll-over curb is standard.
- The design standards for Tulane Avenue are provided in the UA2 category, urban arterial with a 45 mph design speed.
- A few of the LADOTD standards discussed at the meeting include:
 - Planting on sidewalk side: 6-foot offset from back of curb.
 - Planting on median: 4-foot offset from back of curb.
 - Small trees (include crepe myrtles) are those that are 4-inches in diameter at maturity.
 - The *Policy for Roadside Vegetation Management* and the English Design Standards provide standards utilized by LADOTD.
 - Restrictions exist for billboards, sight lines, and power lines. It was noted that advertisements are not permitted within City ROW or within bus shelters.
- Structural soils, developed by Cornell University, should be investigated as a potential planting material for the corridor. These soils help with water management.
- The City of New Orleans requires that the adjacent property owner maintain the sidewalk; although the more complicated the sidewalk treatment (brick, stone, etc.), the less likely the property owner will maintain. There is also an issue of enforcement by the Department of Public Works.
- Plain concrete can be stained or stamped with patterns. Although, it was noted by the DDD, that matching concrete stain color is difficult over time.
- Sidewalks, with a banding element, could be used at key intersections.
- It was noted that some stakeholders preferred to spend more on the vertical hardscape elements of the corridor.
- The Department of Public Works has an ADA transition plan.
- URS presented a concept that uses a new material that bonds to concrete known as the Paveway System. This may provide a cost effective and maintenance free alternative to pavers at crosswalks.

Key Action Items:

- GNOBEDD to provide URS with “miracle mile” slides.
- URS to review LADOTD landscaping standards.
- Parks and Parkways to provide plant material list and specifications on trees and greenspace to URS. *Action item complete.*



- URS to develop concepts and present to the same group of stakeholders the third week in August. The concepts will include a minimum design concept and an enhanced design concept.



Regional Planning Commission

Jefferson, Orleans, Plaquemines, St. Bernard & St. Tammany Parishes

US 61 / Tulane Avenue Stage 0 Landscape Concepts Meeting

July 16, 2010
9:00 am at RPC

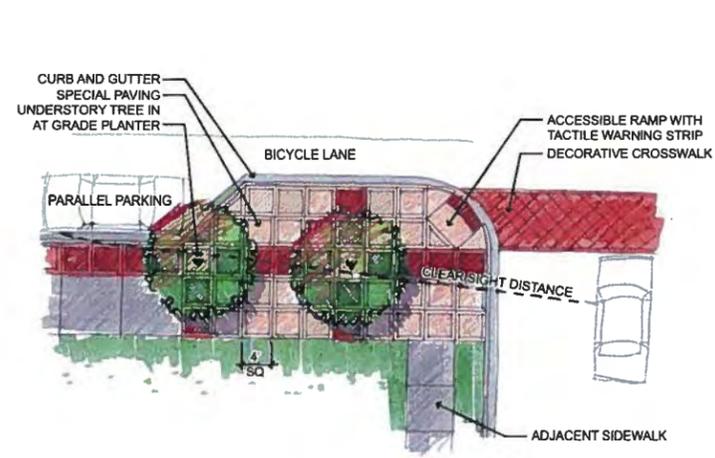
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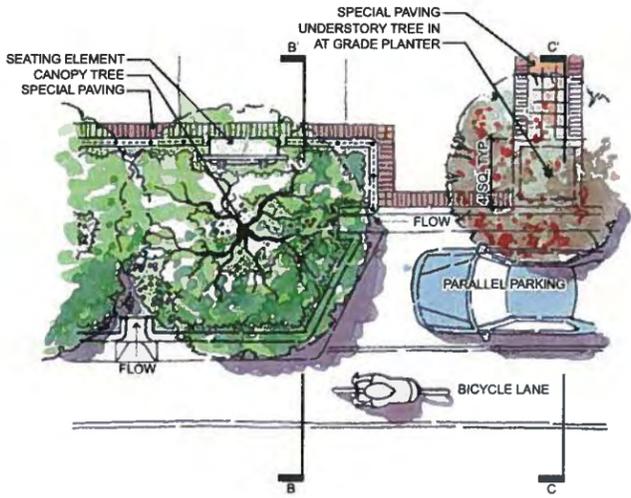
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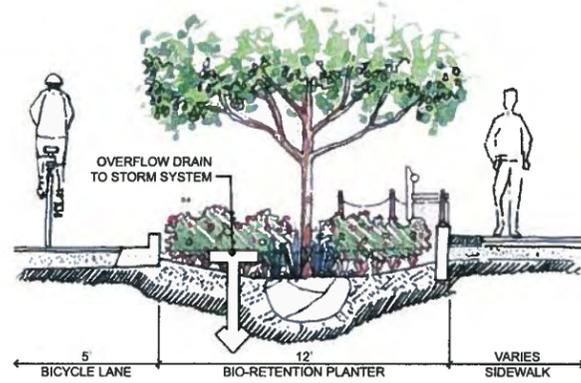
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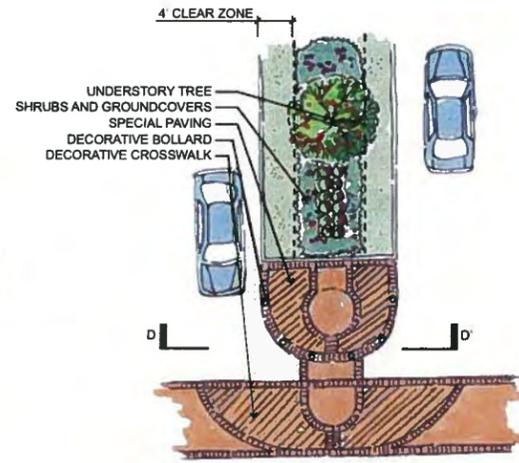
BUMPOUT TREATMENT



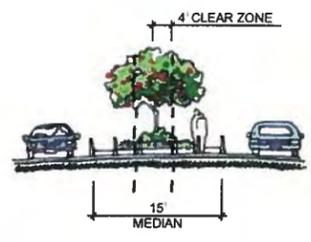
BIO-RETENTION PLANTER



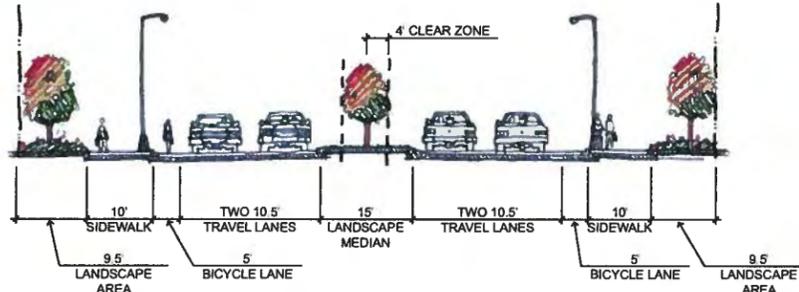
SECTION B-B'



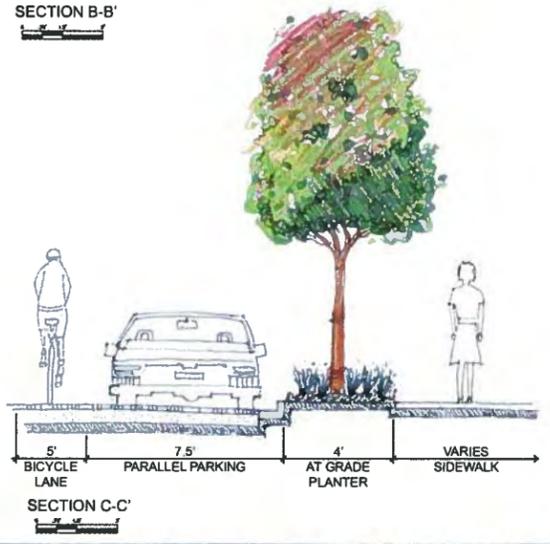
MEDIAN TREATMENT



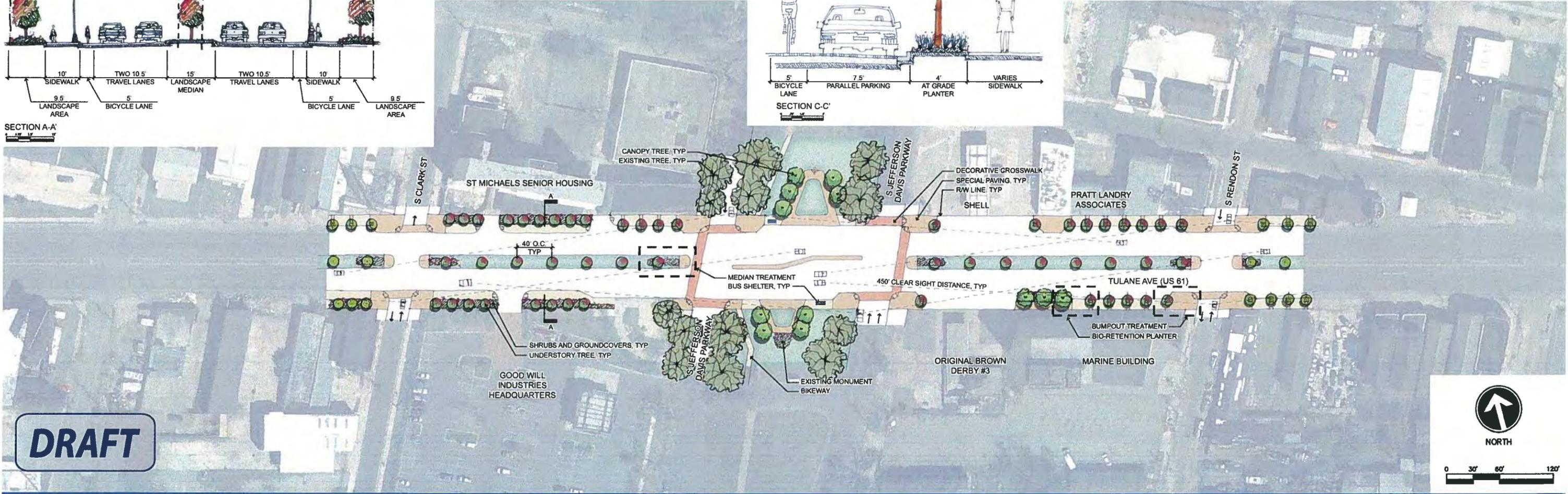
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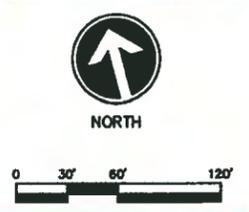
SECTION A-A'



SECTION C-C'



DRAFT





**US 61 / Tulane Avenue Corridor Improvements
Stage 0 Feasibility Study
State Project No. 700-36-0187
FAP No. DE-3606(502)
RPC Contract No. US61-0**

**Landscaping Coordination Meeting Memorandum
August 19, 2010**

Walter Brooks, Executive Director for the New Orleans Regional Planning Commission (RPC), opened the meeting stating the intention of the meeting was for URS to present their concept for landscaping Tulane Avenue. Mr. Brooks stated that he attended a New Orleans City Council Meeting and there is enthusiasm for the project with the new City administration.

Meeting attendees were provided with a packet that included: Louisiana DOTD intersection sight distance standards, two conceptual landscape plans that could be applied to different segments of the Tulane corridor, and Florida DOTD intersection sight distance standards. The Louisiana and Florida sight distance intersection standards are applicable to the installation of landscaping with regard to unrestricted sight lines/areas free of sight obstructions. Additional copies of the meeting handout are available upon request.

Key points of the meeting and stakeholder input are discussed below:

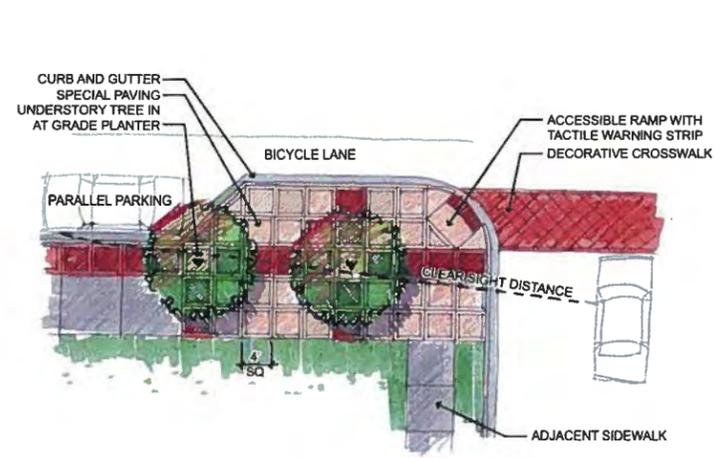
- David Crawley, URS, presented a draft version of the landscape concepts for Tulane Avenue noting that he approached the project with two complementary designs for the following two sections of the corridor:
 - Claiborne Avenue to Broad Street that includes the medical sciences district and the 2-block segment between Tonti Street and Bolivar Street.
 - Broad Street to Carrollton Avenue that includes smaller retail and service oriented business and residential development for the 2-block segment between Clark Street and Rendon Street. This section of the corridor is more dependent on on-street parking due to high turn-over of traffic.
- Because the Louisiana DOTD sight distance standards are somewhat restrictive (a clear zone of 450 feet is required for a design speed of 45 MPH), the Florida DOTD design standards were utilized for the landscape concepts which includes:
 - 4 to 11 inch diameter trees in a median, spaced 40 feet apart (This concept was presented for Carrollton Avenue to S. Broad Street).
 - 11 to 18 inch diameter trees in a median, spaced 150 feet apart (example presented for S. Broad Street to Claiborne Avenue was the Medjool Date Palms).



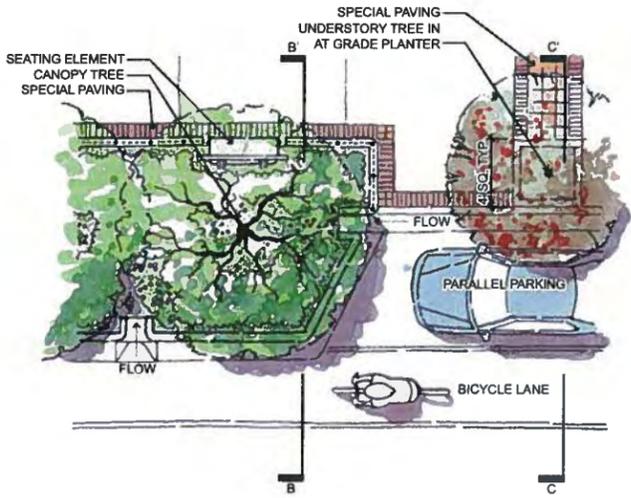
- Additional landscape features that were presented included:
 - Creating shade along the sidewalks by planting trees closer together.
 - Planting larger canopy trees in bio-retention planters in areas with bump-outs, which reduced available on-street parking. These areas may provide additional benefit at sidewalk cafés and other key locations to encourage pedestrian activity.
 - Pedestrian refuges on medians.
 - Scored concrete details at certain locations.
- The Galvez Street intersection was designed to portray innovation, research, medical practices. The pedestrian crosswalks and other features may differ from the rest of the corridor to create a unique “entrance.”
- Although there are land use differences in these two sections, they are still both in the GNOBEDD overlay district. Tulane Avenue is intended to be a unified, signature street for the GNOBEDD and consistency should be maintained with street signage, lighting, and landscaping. The GNOBEDD is investigating solar and LED lighting options for the district.
- The Department of Parks and Parkways does not oppose the use of live-oaks, but LDOTD may require the use of root barriers or other devices to minimize settlement and maintain the integrity of curbs and sidewalks.
- LDOTD recently completed a landscape project in Crowley that required design variances.
- Additional considerations should be given to City design standards because there is a possibility that Tulane Avenue could be turned over to the City, therefore state standards/guidelines would not necessarily apply. Also, there may be more flexibility in the Department of Public Works standards/guidelines.
- Sight distances for existing billboards in the corridor will need to be evaluated.
- It was agreed that an irrigation system is too costly and that the purchase of a water truck should be explored. Sustainable plantings should be considered.
- It was also agreed that at least 90% of the material used for the sidewalks should be concrete with a brick banding that is both durable and requires less maintenance.

Key Action Items:

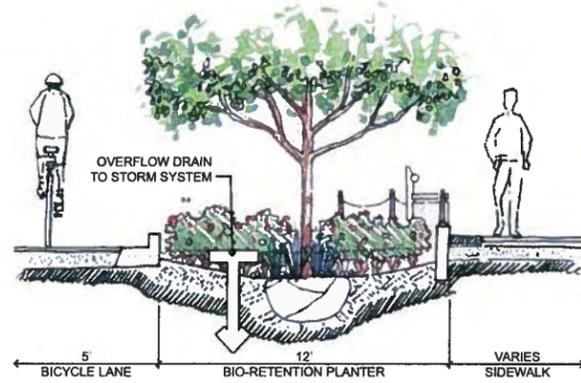
- LDOTD to send URS some of the design concepts from the Crowley project.
- City Planning to provide URS with the Franchise Agreement for Sidewalk Cafes for additional design guidelines.
- URS to host another small group meeting to further develop the landscaping plan for Tulane Avenue and make a final selection on landscape features/trees.



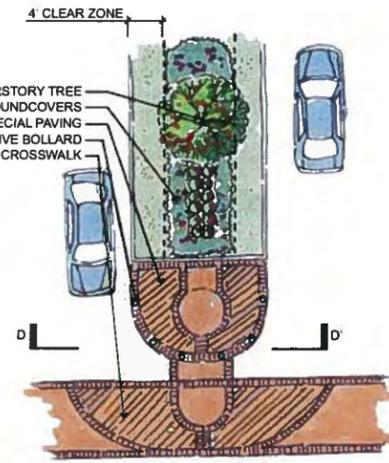
BUMPOUT TREATMENT



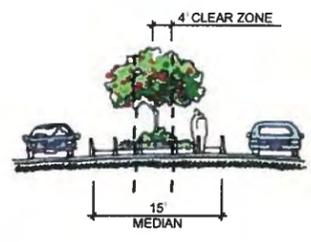
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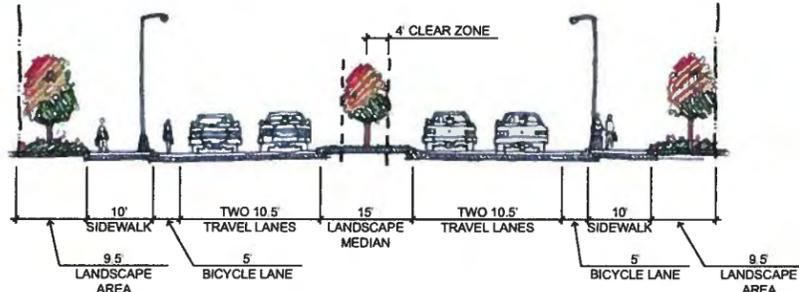
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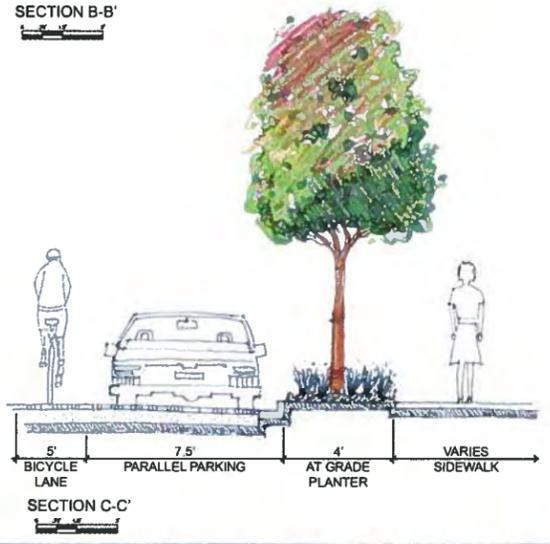
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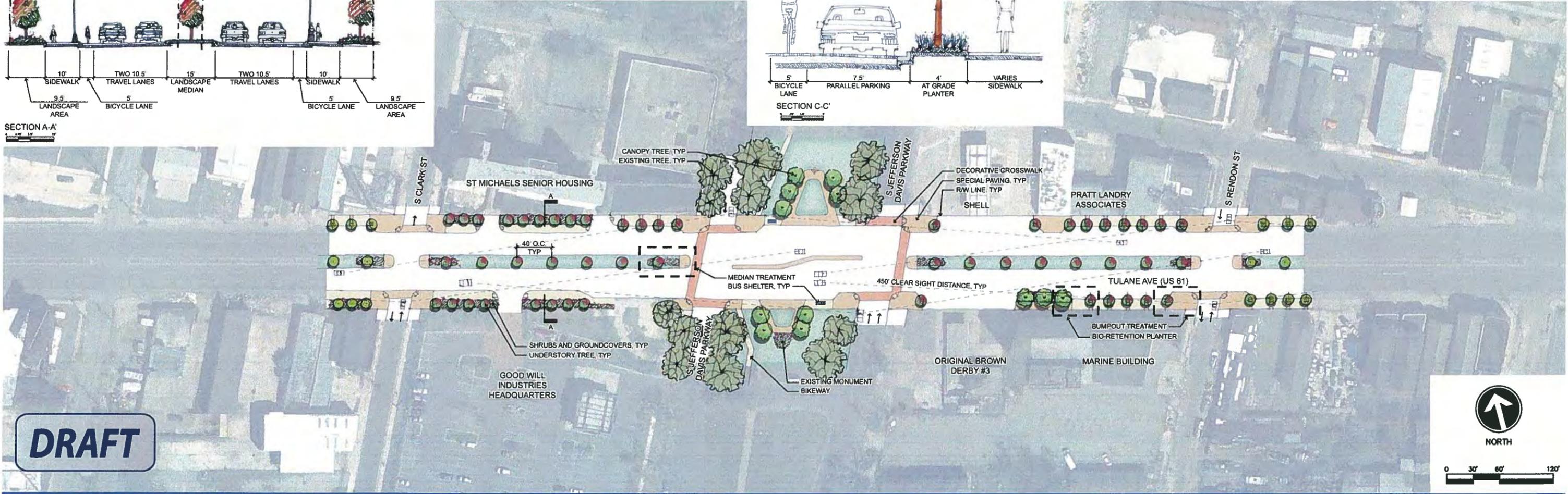
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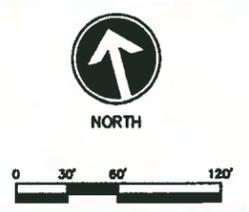
SECTION A-A'



SECTION C-C'



DRAFT





Regional Planning Commission

Jefferson, Orleans, Plaquemines, St. Bernard & St. Tammany Parishes

US 61/Tulane Corridor

August 19, 2010

10:00 am

at RPC

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Regional Planning Commission

Jefferson, Orleans, Plaquemines, St. Bernard & St. Tammany Parishes

US 61/Tulane Corridor

August 19, 2010

10:00 am

at RPC

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**US 61 / Tulane Avenue Corridor Improvements
Stage 0 Feasibility Study
State Project No. 700-36-0187
FAP No. DE-3606(502)
RPC Contract No. US61-0**

**Meeting Memorandum with LADOTD District 02, RPC, and
City of New Orleans
August 20, 2010**

URS requested this meeting with RPC and DOTD to initiate the review of the conceptual roadway layout that has been developed for Tulane Avenue. Key points and action items identified in the meeting are listed below.

1. Tom Hunter briefly reviewed the conceptual landscaping plans that were developed for Tulane Avenue as presented to key stakeholders the previous day. Mr. Hunter noted the restrictions associated with the landscaping plans when following LADOTD intersection sight distance criteria for a 45 mph design speed; a clear zone of 450 feet is required. This limits what can be planted within the Tulane Avenue median.
2. Steve Strength, LADOTD, expressed interest in evaluating the possibility of reducing the design speed to 35 mph to coincide with the posted speed limit; this would allow more flexibility in the landscaping design.
3. It was suggested to consider lengthening or closing the median at some cross street locations to limit access and reduce turning movement conflicts. Additionally, the development of access control guidelines and a parking plan should be considered.
4. The conceptual roadway layout includes areas for bump-outs, right-turn lanes, and bus stops that may reduce on-street parking. URS was asked to evaluate the current parking demand along Tulane Avenue as opposed to determining the number of existing parking spaces and identify proposed available spaces associated with the concept along the corridor. The parking demand evaluation may help to educate area residents, businesses and stakeholders that the new concept is feasible. Peak hour counts of cars parked along the corridor would need to be conducted to complete this analysis.
5. URS should include pedestrian push buttons and countdown signals at crosswalk locations as part of the intersection upgrade construction cost estimates that will be prepared as part of the study.
6. Sufficient opportunities for bike parking should be provided along the corridor. The City Planning Commission has a list of options that have been previously used.



7. URS needs to obtain more information on the Project Unity/Downtown Inn development located on the southwest corner of Tulane Avenue at Galvez Street. A proposed right-turn is currently shown in the conceptual plans and it would be beneficial to know if the right-turn can be incorporated in combination with a wider sidewalk. As part of redeveloping the site, current building setback requirements may allow this improvement.
8. The nose of medians at some intersection should be extended to provide safer refuge for pedestrians within median areas.
9. A preferred roadway typical section has been established for the project and is identified as the minimum build scenario which holds the existing curb line and all improvements would be constructed within those limits. The typical sections is a 4-lane scenario, with a 15-foot median, 5-foot bike lanes, 7.5-foot parking lanes and approximately 12-foot sidewalks, all within the existing 106-foot right-of-way. The conceptual schematic includes exclusive left and right-turn lanes, new bus stop locations (far side stops at signalized intersections), bump-outs to designate on-street parking, demarcations for driveways, and proposed signal locations. The proposed signal locations are based on changes in land use and/or proposed roadway improvements identified in the VA and UMC traffic studies.

The following key points were made during the intersection by intersection discussion of the conceptual schematic:

- a. URS is suggesting a bus-only left-turn lane at the Tulane Avenue/Carrollton Avenue intersection. This improvement was initially identified as part of a transit coordination meeting that included RPC, RTA and URS.
- b. LADOTD noted that the signal at Tulane Avenue and S. Cortez Street was originally installed at the request of Entergy New Orleans. This signal may not be warranted anymore and could potentially be removed. Additionally, the median opening near Entergy may be able to be closed.
- c. The conceptual layouts include exclusive left-turn lanes at the Tulane Avenue/Jefferson Davis Parkway intersection. It was noted that the storage for each turn-lane is limited and may not operate effectively. LADOTD suggested providing an exclusive left-turn lane for the dominate movement or maintain the existing condition by encouraging u-turns on Jefferson Davis Parkway. URS also noted that current turning movements at this location are not available. Additional counts may be conducted.
- d. The bus stops were relocated to the median at the Tulane Avenue/Jefferson Davis Parkway intersection.
- e. Additional comments at the Tulane Avenue/Jefferson Davis Parkway intersection include the heavily used bikeway that crosses the middle of the median. Tulane Avenue improvements should consider realigning the Jefferson Davis bikeway crossing to one of the designated pedestrian crossings.



- f. The proposed signal at the Tulane Avenue/Gayoso Street intersection is recommended to provide improved access the Crescent Club apartments and the Crescent Club retail area. LADOTD is not aware if the Dominion Group provided a traffic impact analysis or if the proposed traffic signal would be warranted. When the Crescent Club retail center opens, traffic counts should be taken at this location.
 - g. The conceptual layouts should consider closing the median at Miro Street. A traffic circulation study would be required in this area to ensure that adequate traffic flow can be achieved if the median was closed.
 - h. The conceptual schematic does include the security staging area for the VA hospital on westbound Tulane Avenue between Miro Street and Tonti Street. This will have to be signed as a “loading zone.”
 - i. The conceptual schematic includes access management concepts that would be accomplished by the elimination of driveways adjacent to vacant parcels of land and/or blighted property. The status of the parcels needs to be further evaluated through coordination with City Planning. Side street access also needs to be considered and further evaluated by URS if direct driveway access from Tulane Avenue is eliminated.
10. URS will refine the conceptual schematics by identifying access to the parking garages associated with the VA and the UMC. This will aid in finalizing the proposed signal locations in the section of Tulane Avenue between Galvez Street and Claiborne Avenue.
 11. URS provided Steve Strength with the conceptual roadway schematics for his review and comment. Mr. Strength indicated that he would conduct a field review and provide comments.

Tulane Ave Stage 0
Roadway Concept
8/20/10

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**US 61 / Tulane Avenue Corridor Improvements
Stage 0 Feasibility Study
State Project No. 700-36-0187
FAP No. DE-3606(502)
RPC Contract No. US61-0**

**Meeting Memorandum with LADOTD District 02 and RPC
September 28, 2010**

A meeting was held on August 20, 2010 to provide LADOTD with an overview of the conceptual roadway schematics for Tulane Avenue. During the August 20th meeting, key geometric and traffic issues were discussed. Steve Strength was provided with aerial drawings of the conceptual schematics for his review and comment. The purpose of today's meeting was to obtain LADOTD comment and approval in order to significantly advance the project. Key points and action items identified in the meeting are listed below.

1. LADOTD received a request from the University Medical Center (UMC) for a traffic signal at the Tulane Avenue/S. Roman Street intersection and right-turn lane stripping on the Tulane Avenue eastbound approach. This intersection would service the UMC surface parking lots. Steve Strength noted that he had not taken action on the request as it was contingent upon his review of the Tulane Avenue conceptual schematics and further clarification from Urban Systems on the proposed traffic flow and ingress/egress requirements for the UMC and VA facilities.
2. A brief phone call was made to Denis Finigan with Urban Systems to clarify proposed traffic flow conditions and proposed traffic infrastructure improvements associated with Tulane Avenue intersections that will serve UMC and VA traffic. Some questions brought up by RPC and LADOTD were addressed, however, further coordination with Denis Finigan is required.
3. The site layout and design for the UMC is under review by the City of New Orleans Administration and has yet to be finalized. UMC design changes were identified as part of the recommendations contained within the architectural peer review study prepared by Goody Clancy. As part of this study, the addition of a parking garage was recommended, in lieu of the current surface parking lots being proposed. If a new parking garage (estimated cost of \$33 million) is included for the UMC project, this may change the flow of traffic to and from the site depending on garage access locations. Walter Brooks and Doree Magiera agreed that if a new parking garage was implemented, its primary access should be from Canal Street.
4. URS needs to obtain more information on the Project Unity/Downtown Inn development located on the southwest corner of Tulane Avenue at Galvez Street. A proposed right-turn is currently shown in the conceptual plans and it would be beneficial to know if the right-turn can be incorporated in combination with a wider



sidewalk. As part of redeveloping the site, current building setback requirements may allow this improvement.

5. The following key points were made during the intersection by intersection discussion of the roadway conceptual schematics:
 - a. There is an existing traffic signal at the Tulane Avenue/S. Prieur intersection that would serve as a primary egress point for the UMC; opposing traffic flow direction exists on the south side of Tulane Avenue. The signal was modeled by Urban Systems as a two-phase signal, i.e., no split phasing on the side streets.
 - b. A new signal is proposed at the Tulane Avenue/S. Roman intersection to provide ingress to UMC surface lots, and includes the addition of exclusive left-turn lanes. Steve Strength noted the distance between signals of one-block between S. Prieur and S. Roman is very close and is generally not consistent with LADOTD signal spacing policy, however this proposal would be evaluated further pending additional review of ingress and egress needs and further review of the Urban Systems UMC traffic study. The URS conceptual schematics at this intersection do not reflect the proposed westbound right-turn lane as being requested by UMC (see Item 1 above), hence additional coordination with Urban Systems is necessary.
 - c. The conceptual schematic includes the security staging area for the VA hospital on westbound Tulane Avenue between Miro Street and Tonti Street. This will have to be signed as a “loading zone.” URS will modify the conceptual schematic to show the proposed bollards and the proper placement of the bike lane - that would be constructed between the bollards and the curb.
 - d. The length of the left-turn storage bay at the Tulane Avenue westbound approach at Galvez Street should be evaluated to ensure adequate storage for the anticipated number of vehicles turning per cycle. If adequate storage cannot be provided to accommodate the projected left turn volume (per the Urban Systems traffic study), then the proposed left-turn lane may have to be eliminated and the existing U-turn movement on Galvez Street would have to be used. If this is the case, the U-turn may need to be modified to shift back the U-turn to provide additional storage distance on the northbound approach of Galvez Street. URS will coordinate this effort with Urban Systems.
 - e. Between Tulane Avenue and Esplanade Avenue, Broad Street is proposed to be modified / narrowed down to provide 4 travel lanes with a bike lane. The RPC requested that this should be shown on the conceptual schematics. URS requested the conceptual drawings and additional data for this proposed project.
 - f. The conceptual layouts currently include exclusive left-turn lanes at the Tulane Avenue/Jefferson Davis Parkway intersection. It was noted that the storage distance for each turn-lane is limited and may not operate effectively. It was decided to remove the exclusive left-turn lanes and maintain the existing U-turn movement.



- g. Tulane Avenue improvements will realign the Jefferson Davis bikeway crossing to one of the designated pedestrian crossings.
- h. The proposed signal at the Tulane Avenue/Gayoso Street intersection is recommended to provide improved access the Crescent Club apartments and the Crescent Club retail area. This may also provide access the Sheriff's parking garage that currently being planned. Walter Brooks suggested that Sizeler Thompson Brown Architects should be consulted with regard to the proposed parking garage project to specifically discuss access.
- i. LADOTD noted that the signal at Tulane Avenue and S. Cortez Street was originally installed at the request of Entergy New Orleans. This signal may not be warranted anymore and could potentially be removed. Additionally, the median opening near Entergy may be able to be closed. It was decided to maintain the existing signal system until future conditions warrant modifications and to close the median opening.

Action Items

1. URS will schedule a meeting with Denis Finigan of Urban Systems to better understand the UMC and VA site specific traffic flow and geometric improvements.
2. The RPC will schedule a meeting with New Orleans City Planning Commission (Leslie Alley) and Department of Public Works (Allen Yrle) to discuss status of UMC design review, traffic impacts, future projects, and other items related to the corridor.
3. URS will contact Tommy Brown with Sizeler Thompson Brown Architects to obtain additional information for the Sheriff's parking garage.
4. Based on today's review, URS will modify the conceptual schematics to:
 - a. Identify bollards and bike lane placement in front of Dixie Brewery;
 - b. Realign bikeway at S. Jefferson Davis Parkway;
 - c. Remove left-turns at Tulane Avenue/S. Jefferson Davis Parkway intersection;
 - d. Upon receipt of conceptual schematics from either RPC or DOTD, URS will show the proposed Broad Street improvements with 4 travel lanes and a bike lane;
 - e. Include Gravier Street within the aerial photography coverage to better understand traffic flow on the south side of Tulane Avenue and show direction of travel.



Stage 0 Feasibility Study

Tulane Avenue Corridor

Stage 0 - US 61/Tulane Avenue Corridor Improvements
 LADOTD District 02 Meeting Sign-In Sheet
 September 28, 2010

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