

## I. Introduction

### **A. Purpose and Need**

The Circulation Plan and Major Thoroughfare Plan are undertaken in conjunction with the broader New Direction 2025 effort. Transportation is one of eight different elements being analyzed in the New Direction 2025 effort. The Action Plan of the New Direction 2025 Transportation Element calls for the following:

The transportation element shall be in both map and textual form. To the maximum extent possible, the transportation element shall integrate transportation modes in order to offer people choice in mobility. Therefore the Transportation element shall include several components, each of which shall enable the parish to consider the full range of issues posed by the construction, improvement, maintenance and operation of present and prospective transportation facilities and their relationship to each other. These components shall include: Parish-wide master road/ traffic circulation component; mass transit component, recreational, bicycle, rail-trail and pedestrian traffic component; port, aviation, and railway component; and regional transportation component linking St. Tammany Parish to neighboring cities, parishes, and states.

### **B. Other Thoroughfare and Transportation Studies**

This report builds upon work undertaken in previous efforts. In addition to the Action Plan mentioned earlier, other studies applicable to this endeavor are as follows:

1) New Direction 2025 Land Use Plan Element

The Land Use Plan element of the New Direction 2025 is envisioned to be a policy document that provides guidance and direction by the parish for residents, property owners and public agencies in the conservation or use of land. The policy document is being created by consensus of the St. Tammany Parish community, as determined by broad public participation.

2) Congestion Management Plan for St. Tammany Parish, Brown, Cunningham, & Gannuch, 1995

In 1995, the St. Tammany Parish initiated a Congestion Management System (CMS) Plan. The plan inventoried the existing conditions of key state and locally owned roadways in St. Tammany Parish and identified them as future congestion management routes for the parish.

3) Transportation Planning Handbook, Institute of Transportation Engineers (ITE), 1999

The Transportation Planning Handbook is a reference resource published by the Institute of Transportation Engineers (ITE). The planning handbook provides methodologies and guidelines for undertaking various types of transportation planning studies. It provides an in-depth overview of how local, state and federal transportation initiatives integrate with each other.

4) Highway Capacity Manual, Special Report 209, Transportation Research Board, National Research Council, 2000

The Highway Capacity Manual is a reference resource published by the Transportation Research Board (TRB). The Capacity Manual provides the standards and definitions for capacity, congestion, and delay for different modes of transportation. It provides methodologies for quantifying the amount and extent of congestion on various types of roadways and other transportation systems.

5) Trip Generation Manual, 5<sup>th</sup> Edition, Institute of Transportation Engineers (ITE), 1991

The Trip Generation Manual is a reference resource published by the Institute of Transportation Engineers (ITE). The Trip Generation manual provides quantitative estimates of trip generation for various land uses. Planners and engineers use the manual to undertake traffic impact analyses and corridor studies to determine the number of trips a single, or multiple use development may generate.

6) Impacts of Access Management Techniques, NCHRP Report 240, Transportation Research Board, National Research Council, National Academy Press, 1999

This report discusses methods for predicting and analyzing the safety and traffic effects of selected access management techniques (over 100). It classifies access management techniques, identifies the more significant techniques; and suggests safety, operations and economic impact measures. Further, the report attempts to quantify the effects and benefits of priority techniques and sets forth salient planning and policy implications.

7) Transportation Improvement Plan, Slidell/ East St. Tammany Urbanized Area, 2001-2003, Regional Planning Commission

The Regional Planning Commission is the Metropolitan Planning Organization (MPO) for the Slidell/ East St. Tammany urbanized area. The role and responsibilities of the MPO will be discussed at length later in the report. The Transportation Improvement Plan (TIP) is the fiscally constrained near term priority (between fiscal years 2001 to 2003) for federal aid highway and transit projects in the Slidell/ East St. Tammany area. Western St. Tammany is included in the planning area of the MPO, and projects therein are also included in the TIP.

8) Metropolitan Transportation Plan, Slidell/ East St. Tammany Urbanized Area, 2001-2020, Regional Planning Commission

The Regional Planning Commission is also responsible for producing the Metropolitan Transportation Plan (formerly the Long Range Plan) for the Slidell/ East St. Tammany urbanized area. The MTP is the fiscally constrained near and long term priority (between fiscal years for federal aid highway and transit projects in the Slidell/ East St. Tammany area. The MTP contains longer range projects and transportation priorities over a period of 20 years.

9) Major Thoroughfare Plan, Phase 1, St. Tammany Parish Louisiana, Parsons Brinckerhoff, 1986

The Phase 1 effort of the 1986 Major Thoroughfare Plan for St. Tammany Parish involved the identification of future growth corridors. Twenty-six roadway segments and ten intersections were analyzed as part of this effort. Recommendations included the adoption of the (then current) eight functional class system and corresponding minimum design standards.

10) Greater Slidell/ East St. Tammany Transit Mobility Plan, Frederic R. Harris Engineers, 1993

The Transit Mobility plan was undertaken in 1992 and established the parameters of transit demand in St. Tammany Parish. Key recommendations of the study were the establishment of a Transit Coordinator for the parish and implementation of a system of parish-owned park & ride facilities. Vanpool operators are encouraged to use the Park & Ride facilities as part of their operations.

11) Master Plan for the Year 2016, Phase II Alignment Study, Greater New Orleans Expressway Commission (GNOEC), GEC Engineers, 2000

The Phase II Alignment Study was a planning effort sponsored by the Greater New Orleans Expressway Commission (also known as the Causeway Commission) and funded through a grant from Federal Emergency Management Agency (FEMA). The purpose of the study was to develop a series of improvements that would maximize traffic flow in the event of weather related emergencies. A capacity increase for the existing bridge corridor was recommended as a long range project, after an earlier investigation reviewed alternative corridors in metropolitan New Orleans.

12) Hurricane Incident Transportation Planning: Infrastructure Improvements for Regional Evacuation, St. Tammany Parish, Parsons Brinckerhoff, 1996

This study was undertaken by RPC in 1996 to determine problem areas for hurricane evacuation in St. Tammany Parish. This effort was undertaken in conjunction with a similar study for hurricane evacuation of the southshore. Several flood prone areas along key evacuation routes were identified and recommendations were made on how to ameliorate them.

13) Gulf Coast Magnetic Levitation Deployment Program Environmental Assessment; Regional Planning Commission, Parsons Transportation Group, February 2000

As part of TEA-21 legislation, Congress authorized the Federal Railroad Administration (FRA) to undertake the implementation of magnetic levitation (Maglev) technology transportation in the United States. This demonstration project required that various metropolitan areas compete for deployment funding, estimated at \$950 million. The competition is based upon a broad set of criteria promulgated by Congress and the FRA. The area that best achieves these criteria as part of their project would be eligible for the deployment funds. In 1999, the New Orleans area was chosen as one of seven cities vying for implementation funding for Maglev. A coalition of local governmental entities formed to sponsor the project. They are the Regional Planning Commission (RPC), the New Orleans International Airport (NOIA), and the Greater New Orleans Expressway Commission (GNOEC), also known as the Causeway Commission.

Among the criteria set forth by the FRA was an environmental assessment for the proposed Maglev corridors. This was not a formal environmental assessment per the NEPA process, but a general study to reveal any “fatal flaws” with each corridor. For the New Orleans area, alternatives were reviewed that connected western St. Tammany Parish to NOIA, and thence to the New Orleans CBD. Two alternatives were developed that traversed the western St. Tammany from Lake Pontchartrain to a terminal location near the I-12/ LA 1085 overpass. Both alignments involved following a CLECO power line right of way to a vacant area that would serve as the terminal area.

14) Louisiana Statewide Bicycle and Pedestrian Master Plan, Louisiana Department of Transportation and Development, May 1998

The scope of the Statewide Bicycle Master Plan is comprehensive in nature and oriented toward policy. This effort was initiated to assess the adequacy of the current bicycle and pedestrian infrastructure in Louisiana and to develop a source document of best practices from which LaDOTD can formulate its policy on bicycle and pedestrian issues.

15) Statewide Intermodal Transportation Plan, Louisiana Department of Transportation and Development, May 1996

The Statewide Intermodal Transportation Plan is a multimodal initiative that provides the direction and for developing and preserving all modes of transportation in Louisiana, and for ensuring connectivity between modes. The plan was developed in response to the Intermodal Surface Transportation Efficiency Act (ISTEA) passed in 1991, which mandated that all states develop statewide intermodal plans. The State of Louisiana was selected, based on proposals requested by US DOT, as one of six states in the nation to develop a model Statewide Intermodal plan. The plan was principally concerned with interconnectivity issues as they pertained to the following: Intermodal, Aviation, Highway, Ports and Waterways, Freight Railroad, Surface-Passenger, and Trucking modes of transportation. LaDOTD worked in close cooperation with the Louisiana Department of Economic Development to promulgate policies that supported economic development decisions

16) Deep South High Speed Rail Corridor Feasibility Study, Morrison Knudsen Et Al, 1996

A study was prepared for the Southern Rapid Rail Transit Commission to define potential high speed rail corridors in Mississippi, and Alabama that could also provide a link with similar services in Texas and Florida. The study provided the necessary definition of the corridor to allow it to receive a designation from the Federal Railroad Administration as a high speed rail corridor under Section 1010 of ISTEA. The corridor within the states of Louisiana, Mississippi, and Alabama is 393 miles in length and with extension to Houston, Texas and Jacksonville, Florida covers 931 miles. The study concentrated on existing rail corridor and conventional HSR (High Speed Rail) technology. Several development scenarios were reviewed. Base scenarios included an 80 mph corridor over the three state area, wherein ridership was projected at 2.1 million at an estimated capital cost of \$538 million. The full project deployment from Houston to Jacksonville at 240 mph was estimated to cost \$ 7 Billion with annual ridership of 5.6 million per year.

17) Understanding Freight Issues and Intermodal Facilities in the New Orleans Urbanized Area, Regional Planning Commission, 1999

This report is a guide to understanding intermodal concepts in general, and their specific functions in the New Orleans area. The report concentrates primarily on freight movement, how it is categorized, and moved throughout the New Orleans. The report also reviews the role different modes (rail, motor carrier, container ship, etc) play in the transshipment process, and the specific facilities that handle the transshipment.

*Corridor Studies*

In addition to parishwide analyses, several corridor studies have been undertaken that have identified localized problems and offered recommendations to solve them. Many of the problems identified in corridor studies are recurrent elsewhere in the parish.

18) Causeway Corridor Study, 1999, URS-Greiner Engineers

The Causeway Corridor Study was undertaken in 1999, ostensibly as a means of alleviating congestion on the southshore. One significant recommendation of the study that has been effectively implemented was limiting toll collection to the northshore of Lake Pontchartrain. This has drastically reduced congestion on the southshore street network. Additionally, this study undertook a land use development analysis along the Causeway/ US 190 corridor in St. Tammany. Future traffic projections were developed and assigned to the existing roadway network to determine future deficiencies.

Additionally, corridor-level origin/ destination work was undertaken to determine how commuters were using the Causeway in their travel patterns. To summarize these findings, most commuters (approximately 65%) were traveling from a residence near the Causeway to a location in East Jefferson, either the Metairie CBD or Elmwood Business Park.

19) Northshore Boulevard Corridor Study, 1999, Urban Systems Engineers

Northshore Boulevard in Slidell was recognized as a high growth and congestion management corridor in eastern St. Tammany. A land use development analysis was undertaken along the corridor. Future traffic projections were developed and assigned to the existing roadway network to determine future deficiencies. Recommendations from the report included interconnecting the existing traffic signals along Northshore Boulevard to improve operational efficiency. Due to the high growth of retail land uses in the area, it was further determined that the I-12/ Northshore Boulevard interchange be reconstructed and widened to accommodate increases in retail and residential development, particularly north of the interstate.

20) LA 21 Corridor Study, 2000, Evans Graves Engineers

The LA 21 corridor between I-12 and US 190B was identified as a high-growth, congestion management corridor in western St. Tammany. The City of Covington had undertaken a comprehensive master plan, parts of which were integrated into this corridor study. Development scenarios were determined using the master plan, particularly as they pertained to development along the LA 21 corridor. Future traffic projections were developed and assigned to the existing roadway network to determine future deficiencies.

Additionally, a significant public participation component was undertaken wherein property owners and other significant stakeholders were asked for their input on project recommendations. The report included operational recommendations, such as the installation of a traffic signal at LA 1085 and LA 21, as well as the construction of a new boulevard roadway running parallel to and west of LA 21 to accommodate local trips generated by the advent of planned subdivisions and commercial developments in the area.

## II. Key Concepts of Thoroughfare Planning

### **A. Introduction**

The thoroughfare system is the most visible of the various circulatory systems of the parish. It brings people and goods into the community and provides the means by which these people and goods move about from part of an area into another. It is one of the major structural elements of the urban community and to a large extent determines the physical shape the parish will take.

The thoroughfare and street system of the parish generally represents its single largest investment. It is used by almost everyone on a daily basis. Today the street system is geared to the needs of the automobile. At the turn of the century, they were geared to the horse and buggy and the pedestrian. Changing conditions require adjustments and modifications. A good thoroughfare system serving the various land use patterns of the community is vital for the efficient movement of people and goods. While the transportation system must be balanced with the land use, it is the land use element of the comprehensive plan upon which all other elements, other than the vision element, must be based.

The purpose of this effort is to:

- 1) Establish a unified street and roadway network with proper alignment and sufficient right of way to provide for long term needs, especially in the developing and undeveloped sections of the parish, and
- 2) To coordinate the parish system with the surrounding regional highway/ freeway system.

### **B. Relationship Between Land Use and Transportation**

Key to understanding transportation system planning is to recognize its relationship to land use. Volumes of text have been written on the subject and the interrelationship between the two is complex. Land use is the direct reflection of human activity (economic, social, etc) that creates the desire to start a trip in one place (origin) and to end it in another (destination). It is also important to recognize that urban and regional form and settlement patterns are most fundamentally a function of the dominant transportation system in place during an area's prevailing and most rapid period of growth. There exists, therefore, a "chicken vs. egg" conundrum. The urban and suburban settlement pattern as it is known in St. Tammany Parish exists primarily to the current dependence on the automobile. However, specific land uses determine specific trip-making characteristics and access demands of a specific area. For the purposes of this effort, land use policy is assumed to be the precursor of transportation policy, not vice versa. Major thoroughfare planning efforts are consistent with the broader comprehensive planning efforts being undertaken by St. Tammany Parish and the New Direction 2025 process, particularly as they pertain to land use and land use policy. Planning of roadways and transportation systems without regard for land use decisions leads

to numerous inconsistencies and may be counterproductive to the goals of good transportation policy in the near and long term.

### **C. Mobility, Access, and Function<sup>1</sup>**

The basic concept underlying the relationship between land use and transportation is accessibility. With increased accessibility, movement becomes less costly in terms of money and/or time, and transportation costs decline. Urban form and spatial distribution of activities depend in large part on accessibility, and hence, on the available transportation options. Prior to the 19<sup>th</sup> century, people walked to activities. During the 19<sup>th</sup> and 20<sup>th</sup> Centuries, advances in transportation technologies increased travel speeds, which had a decentralizing affect on urban form. In St. Tammany, this has translated into lower density suburban development, following the dominant mode of transportation, which is the automobile.

Transportation facilities in states, planning regions, and individual communities are normally classified according to the basic functions that they perform. The classification of roads and streets requires determining the degree to which land access functions should be either, 1) emphasized at the cost of the efficiency of movement, or 2) discouraged to improve the movement function.

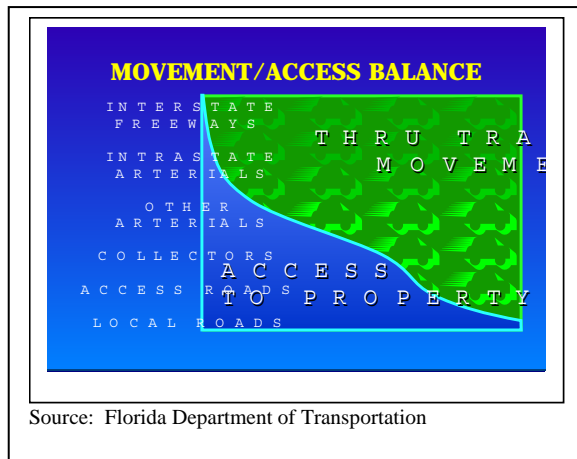
Functional design recognized that individual elements of the thoroughfare system do not serve travel independently. Rather, travel involves movement through a network of public and private roadways. Thus a functionally designed thoroughfare system provides a series of distinct stages that are involved in trip making. As illustrated in the adjacent figure, these are primary movement, collection/ distribution, access and termination. Each trip stage needs to be accommodated by an element that theoretically is designed specifically for it. Each element of a functional system serves as a collecting, distributing facility for the next higher element of the system.

A functional system of streets and highways must provide for a graduation of traffic flow from the movement (or mobility) function to the access function. The entire system can be schematically classified by relating the proportion of movement function to that of the access function. At one extreme is the freeway that does not carry local traffic. At the other extreme is the cul de sac, which carries only local traffic and is closed to through movements. The access function is characterized by the degree of use of the street for access purposes and the decreasing degree of access restriction exercised. Access control ranges from complete control in the case of the freeway to no control in the case of the cul de sac.

The figure below illustrates the relationship between access and movement. As indicated, three general classes of facilities (arterial, collector, and local) are recognized.

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<sup>1</sup> Transportation Planning Handbook, Institute of Transportation Engineers, 1999, p. 212



Each in turn is subdivided into various facility types and typical cross-sectional designs to meet the specific needs of a jurisdiction or development.

#### D. Functional Class

Before any existing or future deficiencies can be measured, a set of standards by which to evaluate existing and future transportation services must be developed. These standards will serve as a guide to develop the Thoroughfare Plan. Moreover, these

standards can also be helpful in the design, maintenance and operation of the various transportation facilities.

The principal factors to be considered in designing streets into appropriate systems are the travel desire of auto truck and transit users the access needs of adjacent land development; the network pattern of existing streets; and the existing and proposed land uses. But before this designation can be made a thorough understanding of the function of each street must be established. These briefly are the common characteristics and function of six (6) basic categories of streets: Freeway (Interstate), Expressways, Principal Arterial, Minor arterial, Collector streets and local streets. Each type of facility provides separate and distinct traffic service functions and is best suited.

Each type of facility provides separate and distinct traffic service functions and is best suited for accommodating particular demands. Their specific designs vary in accordance with the traffic characteristics and land uses adjacent to the facility.

**Freeway:** This definition includes an interstate. Generally, the term “freeway” means highly controlled access and grade separation at all interchanges. The controlled access character of the freeways results in high speeds and lane capacities. Freeways with 4 to six lanes generally have Average Daily Traffic (ADT) volumes of 68,000 to 102,000 vehicles per day. ROW varies from 94 to 300 feet.

**Expressway:** This type of facility provides for movement of large volumes of traffic at relatively high speed and is primarily intended to serve long trips. Expressways have some grade-separated intersections while the majority of the intersections are widely spaced and signalized. Expressway volumes are the same as Freeway volumes for 4-6 lane facilities - between 68,000 and 102,000 ADT.

Principal

**Arterial:** The main function of principal arterials is to move large volumes of vehicles from one part of the Parish to the other. Principal Arterials are typically divided facilities (undivided where right of way limitations exist) with relatively high volumes and traffic signals at major intersections. ADT of a PA ranges from 3,000 to 12,000 vehicles per day. The ROW may vary between 75 to 140 feet.

**Minor**

**Arterial:** As with all arterials, the main function of the roadway is to move higher volumes of traffic for longer trips. Generally, twenty four hour ADT's for minor arterials are 3000 or less per day. ROW ranges from 75 to 140 feet.

**Collector:** Collector streets primarily move traffic from local streets to arterials or major traffic generators such as shopping centers (land service). Major collectors have current average daily traffic volumes of 750 to 1,500 vehicles per day. Minor collectors main function is to move traffic from local roads to arterials. Current ADT are less than 750 per day. ROW varies from 60 to 128 feet.

**Local Street:** Any road or street that is not classified as an arterial or collector is considered a local road. The characteristic of a local road involves the provision of access to adjacent land and allows a travel way over a short distance. The ROW may vary from 18 to 54 feet.

*Balanced Street System:*

To have an efficient street system, the system should serve the land use plan forms and there must be proper balance between the various types of streets. Proper balance helps to preserve the amenities of different land uses, particularly in residential areas where the classification scheme reduces the amount of through traffic and thus preserves land values and provides greater safety to residents.

Best transportation practices strive to keep traffic flowing smoothly within communities, minimizing traveler delay and other adverse impacts of stop & go driving. Slow and steady is the goal, not fast since high speed traffic detracts from the sense of community. Another goal is to preserve options to the automobile for those who might want or need to exercise them. Diversity is valued here as in other best practices<sup>2</sup>. Thus, two practices are generically recommended:

- 1) Design the street network with multiple connections and relatively direct routes; and
- 2) Space through streets no more than a half-mile apart or the equivalent route density in a curvilinear network.

**E. Other Terms and Important Concepts**

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<sup>2</sup> Reid Ewing, Best Development Practices, Planners Press APA 1996, Pg. 54-61

### *Transportation System Elements*

Schematically, transportation systems are analyzed using the following definitions:

*Point:* a very short portion of a facility (e.g. an intersection, toll plaza, or bus stop that uses a different analysis procedure than the facility as a whole.

*Segment:* a linear, uniform portion of a facility (e.g. basic freeway segment, freeway weaving area freeway ramp, multilane highway, two lane highway or arterial

*Facility:* a modal element (e.g. roadway pathway or transit route) that has relatively similar operating characteristics (e.g. number of lanes, pathway, width, service frequency) over its length Demand volumes can vary over a facility. An example of a freeway facility is a group of freeway segments with different numbers of lanes and weaving areas.

*Corridor (or Subsystem):* two or more facilities that are generally parallel to each other belonging to one or more modes that are analyzed as a single unit.

*System:* all of the facilities of one or more modes within a specified area (e.g. a district city or metropolitan area) or of a specified functional type (e.g. freeway facilities, arterial facilities).

### *Trip Generation*

Trip Generation can be defined as the number of trips generated by each unit of land or type of activity that varies with social, economic, geographic and land use factors. These relationships are defined as trip generation analyses.

### *Access Management*

Access management is the careful control of the location, design, and operation of all driveways and public street connections to a roadway. The concept concentrates on restricting the number of direct accesses to major surface streets providing reasonable indirect access, effectively designing driveways, and enforcing safe and efficient spacing and location of driveways. Access Management strategies and policies are essentially land use policies that directly affect how access is provided to the transportation infrastructure.

### *Transportation System Management (TSM)*

Related to Access Management, Transportation System Management (TSM) improvements are relatively lower cost improvements (signalization, synchronization, turn-lanes and other geometric modifications) aimed at maximizing efficiency of the existing roadways. TSM measures generally do not involve access to a transportation facility, but more with how traffic flows on it.

### *Intelligent Transportation Systems (ITS)*

ITS utilizes state of the art technology to monitor traffic and share traffic data in real time information systems. ITS can collect and deliver traveler information electronically and help manage the transportation system at peak efficiency<sup>3</sup>.

### *Travel Demand Management (TDM)*

Travel demand management techniques are used to modify the demand for travel. Examples of TDM's include Congestion Pricing, vanpool/ rideshare, and work schedule modification. The goal of TDM is to change the demand for a certain travel behavior by making it more or less attractive to the targeted user.

### *Capacity*

Capacity of a facility is defined as the maximum hourly rate at which persons or vehicles can reasonably be expected to traverse a point or uniform section of a lane or roadway during a given time period under prevailing roadway, traffic, and control conditions<sup>4</sup>.

### *Level of Service (LOS)*<sup>5</sup>

The concept of LOS uses qualitative measures that characterize operational conditions within a traffic stream and the perception of these conditions by motorists and passengers. The description of LOS's characterize these conditions in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort and convenience. Six LOS's are defined for each type of facility for which analysis procedures are available. They are given letter designations, from A to F with LOS A representing very favorable operating conditions and LOS F representing very poor operating conditions. Each LOS represents a range of operating conditions. The volume of traffic that can be served under the stop and go conditions of LOS F is generally accepted as being lower than possible at LOS E.; consequently, service flow rate at LOS E is the value that corresponds to the maximum flow rate or capacity of the facility. For most design or planning purposes, however, service flow rates at LOS D or LOS E are usually desirable because they ensure a more acceptable quality of service to facility users. LOS s for uninterrupted and interrupted flow facilities vary widely in terms of both the users perception of service quality and the operational variables used to describe them.

For each type of facility, LOS's are defined on the basis of one or more operating parameters that best describe the operating quality of the facility type. Although the concept of LOS attempts to address a wide range of operating conditions, limitations on

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<sup>3</sup> "Smart Growth Tools for Transportation," Brian S. Bochner ITE Journal Article November 2000 p. 26

<sup>4</sup> Transportation Planning Handbook, ITE 1999, p. 208

<sup>5</sup> Ibid, p. 209

data collection and availability make it impractical to treat the full range of operational parameters for every facility type.

*Measures of Effectiveness*

The parameters selected to define levels of service for each facility type are called measures of effectiveness (or service measures). They are used to quantify the quality of operation on the subject facility type or segment. Typical measures of effectiveness include:

<b><u>Type of Facility</u></b>	<b><u>Measure of Effectiveness</u></b>
<i>Freeways:</i>	
Basic Freeway Segments	Density (pc/mi/ln)
Freeway Weave Segments	Density (pc/mi/ln)
Freeway Ramp Junction Segments	Density (pc/mi/ln)
Freeway Facilities	Average Travel Speed (mph)
<i>Multilane Highways</i>	Density (pc/mi/ln)
<i>Two Lane Highways</i>	Time Delay (percent)
<i>Signalized Intersections</i>	Control Delay (sec/veh)
<i>Unsignalized Intersections</i>	Control Delay (sec/veh)
<i>Urban Streets or Arterials</i>	Average Travel Speed
<i>Pedestrian Facilities</i>	Average Travel Speed (ft/sec) Space (squ ft/ person) Or Flow Rate (persons/minute/ft)
<i>Bicycle Facilities</i>	Frequency of Events (events/hr) Control Delay (sec/bicycle) or Average Travel Speed (mph)
<i>Transit Systems</i>	Average Travel Speed (mph) Availability of Service (headways) Quality of Service (express or local)

### III. Intergovernmental Roles

The issue of roadway construction and transportation infrastructure has much to do with intergovernmental roles and responsibilities. The following is a brief overview of the entities with oversight responsibilities for implementing transportation services in St. Tammany Parish.

#### **A. Parish/ Cities**

##### City-Owned Facilities:

City owned streets are generally local streets that provide access to neighborhoods and individual properties. Older, more established cities in the Parish, such as Slidell and Covington, have extensive self-maintained roadway networks that are physically arranged in the traditional grid system. Functionally, streets in these networks are hierarchal and carry significant volumes of traffic. Cities regulate the development of streets in a similar manner to the parish- through subdivision regulation and zoning ordinances.

##### Parish-Owned Facilities:

The Parish has the primary responsibility for the local roadway network in unincorporated areas. St. Tammany controls development of the roadway network by the following legal statutes:

##### *1) Subdivision Regulation*

##### Sec. 40-010.14 Major Street Plan

The comprehensive plan adopted by the Planning Commission after public hearing which is designed to guide the future development of St. Tammany Parish.

##### Sec. 40-030.01 General Provisions<sup>6</sup>

1) A subdivision or resubdivision of land must be compatible with the major street plan adopted by the Planning Commission. Necessary rights-of way for any proposed roads or streets shown on the major street plan or rights of way for any proposed roadway or streets shown on the major street plan or rights of way for construction and maintenance of necessary proposed or existing drainage channels, through the proposed subdivision, must be formally dedicated in perpetuity to the public through the St. Tammany Police Jury. No building of any sort may be erected upon rights of way so dedicated. (amended by Ord. No. 88-897, adopted 01/21/88).

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<sup>6</sup> Ord. No. 499, Subdivision Regulation Ordinance, May 1, 1970, by authority it LSA RS 33:101- 33:120.

Sec. 40-034.0 Lots

- 5) Definition of “road.” The term “road” as used in this section shall include street, highway, boulevard, and any other way, whether public or not (amended by Ord. No. 85-476, adopted 9/19/85).

Sec. 40-042.0 Traffic Impact Analysis

A Transportation Impact Analysis (TIA) study shall be required for all subdivisions or developments when the following project threshold levels are met or exceeded. In the event that alternative threshold levels are specified (i.e. units vs. square footage) the more restrictive shall prevail.

<u>Subdivision/ Development Type</u>	<u>Threshold</u>
Single Family Residential	50 units
Multi-Family Residential	5 acres or 50 units
Office	3 acres or 50,000 Square Feet
Commercial/ Institutional	2 acres or 75,000 Square Feet
Industrial	8 acres or 100,000 Square Feet

The regulation further prescribes the procedures for undertaking the TIA, what information the TIA will contain, and what actions can be taken based on the TIA report.

Funding:

Operations and maintenance of the local roadway system is funded out of the parish or the cities general fund for capital improvements. New roadways are generally acquired through donation by property developers. The Capital Improvement Budget/ Program for FY 2001 calls for \$10,000,000 to be spent on roadway projects throughout the 14 Districts in St. Tammany Parish<sup>7</sup>.

**B. State of Louisiana**

The State of Louisiana, by way of the Louisiana Department of Transportation, is responsible for the operation and maintenance of approximately 436 linear miles of roadway in St. Tammany, including Interstate highways, US highways, and state-owned arterials and collectors. The operation and maintenance responsibilities of the state system are under the auspices of LaDOTD District 062 in Hammond.

LaDOTD operates under numerous legislative parameters and internal policies. Among the more pertinent to this discussion include the following:

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<sup>7</sup> Ordinance Council Series No. 00-0215, adopted November 2, 2000

*Louisiana Legislative Act 334 (RS 48:228 – 48:233)*

Act 334 was passed by the state legislature in 1974. The purpose of the act was to identify and prioritize highway improvement projects through an annual survey and analysis of the state maintained highway system. Act 334 requires DOTD to develop the Highway Program based on a consideration of various factors including, but not limited to the alignment of existing roads, the width of rights of way, the cost of construction, the type and volume of traffic, the conditions of structure and drainage, accident rates, and the geographical distribution of the roadways to be constructed or reconstructed<sup>8</sup>.

*Revised Highway Prioritization Process, January 2000*

The Revised Highway Prioritization process was introduced in 2000 to improve upon the older Highway Program that was initiated via Act 334. The new prioritization process partitions projects in the annual construction budget into four different categories. They include 1) System Preservation, 2) Traffic Safety, 3) Additional Capacity/ New Infrastructure, and 4) Operations/ Motorist Assistance. The process gives an extremely detailed project selection methodology and criteria by which projects are chosen and prioritized.

*Louisiana Legislative Act 1028 (RS 48:191,192,224.1, 228, and 229)*

This statute establishes the functional class system for the State of Louisiana. The functional class system is essentially the same as the one described in preceding pages, with the exception of a dichotomy between rural and urban roadways. Therefore instead of six functional classes, there are twelve. They are as follows:

Urban Highways

- a) Urban Principal Arterial-interstate
- b) Urban Principal Arterial- other freeways and expressways
- c) Urban Principal Arterial- other
- d) Urban Minor Arterial
- e) Urban Collector
- f) Urban Local

Rural Highways

- a) Rural Principal Arterial-interstate
- b) Rural Principal Arterial- other
- c) Rural Minor Arterial
- d) Rural Major Collector
- e) Rural Minor Collector
- f) Rural Local

Perhaps more importantly, this statute provides:

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<sup>8</sup> Statewide Intermodal Transportation Plan, 1996, p. E-5.

“. . . that the total length of the twelve functional systems shall not exceed 16,675 miles, and provided further that the additional length herein is allowed solely for the purpose of adjustments that might become necessary from time to time within the sole discretion of the secretary, working in conjunction with the police juries or municipalities.”

Within this same statute (RS 48:224.1), the state legislature enabled LaDOTD to enact a policy concerning the Transfer and Exchange of Roads between the State and local governments. LaDOTD enacted said policy via the Engineering Directive and Standards Manual (EDSM), Volume I, Chapter 1, Section 1, Directive 19, dated November 15, 1995. Specifically, this directive established a uniform policy for the exchange and transfer of ownership of public roads between the State and local governments.

### *Access Permits*

The local LaDOTD District office issues Access Permits or Driveway Permits, that allows access to a state highway. The application lists the requirements for the permit, and design standards the applicant is expected to follow. The permit applicant must submit drawings of their proposed driveway configuration and an explanation of how it will function. The district traffic engineer reviews the application. If there is a problem with the proposal, the applicant may revise and resubmit. As of this writing, legislation is pending before the state legislature that would significantly revise the process of granting access to the state highway system, and allow for the implementation of access management policies. This is an important issue in St. Tammany and will be discussed at length later in this document.

### Implementation:

Projects that are undertaken in the state program are developed through the State Transportation Improvement Plan or STIP process. LaDOTD develops projects based upon needs determined by the local DOTD districts, the local parish governments, and if applicable, the Metropolitan Planning Organizations (see below). The STIP is reviewed and refined every two years. For the most part, projects in the STIP are constrained by the same parameters as projects in the TIP (the local Transportation Improvement Plan), which are enumerated below. In large urban areas (with populations of 200,000 or more), projects in the STIP and TIP by law must be identical. This is important because it mandates consensus between LaDOTD and the MPO's in large urban areas. This is not necessarily the case for smaller urban areas.

Infrastructure improvements to the highway system are paid from fuel taxes collected at the pump, and distributed via the Highway Trust Fund. Currently, the Highway Trust Fund collects \$0.16 per gallon of fuel purchased at the pump. These revenues are used to match federal highway dollars. Funds that are collected in excess of the amount needed to match the federal program are usually directed toward roadways that are not part of the states' federal aid network (mostly low-volume rural roads).

Additionally, the State of Louisiana collects \$0.04 per gallon for transportation infrastructure projects in the Transportation Infrastructure Model for Economic Development (TIMED) program. The TIMED program was originally passed by the Louisiana legislature in 1987 and reauthorized in 1998. The program was started as a means to fund key transportation infrastructure projects in Louisiana. Funding recipients included the Port of New Orleans, New Orleans International Airport, and several highway projects throughout the state. In St. Tammany, the TIMED program included the construction of LA 3241, envisioned as a four lane controlled access freeway that would connect LA 21 near Bush, Louisiana, directly to I-12. This project will be described in more detail later in this report.

### **C. Metropolitan Planning Organization (MPO)**

The Metropolitan Planning Organization is the entity responsible for the development of the federal aid program for transportation projects in the urbanized area of a region. In the case of St. Tammany Parish, the urbanized area is Slidell/ East St. Tammany. Roughly the southern and western half of the parish falls within the “20 year planning horizon” of the urbanized area, and is therefore included as well. The Regional Planning Commission is the Metropolitan Planning Organization for the Slidell/ East St. Tammany urbanized area, as well as the New Orleans urbanized area. It is important to understand that, technically, New Orleans and Slidell are two distinct urban areas. Slidell is (at this time) considered a “small urban area, “ with a population under 200,000. Metropolitan New Orleans is a “large urban area,” with a population over 200,000.

The MPO, with the concurrence of parish officials, LaDOTD, and after public hearings, produces the Transportation Improvement Plan (TIP). Federal requirements for the TIP are as follows (per 23 CFR Part 450.324<sup>9</sup>)

- Cover a minimum period of three years and be updated at least every two years
- Allow for reasonable opportunity for public comment on the proposed TIP
- Be financially constrained by year and include a financial plan. The state and transit operators must provide the MPO with estimates of available federal and state funds
- Include all federal aid projects inside the metropolitan area boundary funded under Title 23 (FHWA) and Title 49 (FTA)
- Projects must be consistent with the metropolitan transportation plan
- Include all projects of regional significance regardless of funding source where federal approvals are required and all other projects of regional significance for informational purposes
- Represent a priority listing of projects – at a minimum assigning priority in order of program year
- In air quality non-attainment areas, demonstrate conformity to the approved State Implementation Plan (SIP)
- Identify the criteria and projects for prioritizing implementation of transportation plan elements
- Provide detailed information on project description, phasing and funding

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<sup>9</sup> As paraphrased in the Transportation Planning Handbook, Institute of Transportation Engineers (ITE) 1999, p 422

The MPO is therefore the liaison between LaDOTD and individual parishes in urbanized areas. MPO's work with local governments in determining their federal-aid priorities, working in conjunction with neighboring parishes on projects that have regional impacts.

#### **D. Federal Government**

The federal government has a significant role in the implementation of transportation projects in Louisiana. The federal government funds (via TEA-21 legislation) highway and transit projects in the STIP and TIP. Day to day implementation of federally funded projects falls to LaDOTD. However, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) oversee compliance with federal policies, particularly as they pertain environmental regulations and clearances. A formal determination of environmental impacts is required of all federal-aid projects.

## IV. Regulatory Environment and Oversight

There are a number of environmental and regulatory controls that are pertinent to the discussion of planning major thoroughfares or any major transportation investment. Ignoring or violating these can hamstring implementation of transportation projects, particularly if federal funds are sought for their planning, design, engineering or construction. Federal agencies and departments have mandates to implement these controls and regulations as enacted by Congress. Agencies with oversight in construction activities in Louisiana typically include (but are not limited to) the following agencies.

### **A. Federal Agencies**

1. Federal Highway Administration  
(Highway Projects)
2. Federal Transit Administration  
(Transit Projects)
3. US Army Corps of Engineers  
(Wetlands Determination)
4. US Coast Guard  
(Crossing of Navigable Waterways)
5. Environmental Protection Agency  
(Hazardous Materials Sites)
6. US Fish & Wildlife Service  
(Threatened & Endangered Species)
7. US Department of Interior  
(Historic Preservation & Parkland sites)
8. Federal Aviation Administration  
(Construction in Airport Glide Paths)
9. US Soil Conservation Service (Department of Agriculture)  
(Farmland Protection)
10. Federal Emergency Management Agency (FEMA)  
(Hurricane Evacuation, Construction in Flood Zones)

### **B. State Agencies**

State agencies typically have a federal counterpart to administer federal programs at the state level. State agencies with significant oversight responsibilities include:

Louisiana Department of Transportation and Development (DOTD)  
Louisiana Department of Natural Resources (DNR)  
Louisiana Department of Environmental Quality (DEQ)  
State Historic Preservation Office (SHPO)

## C. Statutes

### *National Environmental Policy Act, 1969 (23 CFR)*

The National Environmental Policy Act established the environmental clearance process for all federal aid projects in the United States. NEPA requires the issuance of one of the following depending on the level of impact to the environment:

- 1) Environmental Impact Statement (EIS)
- 2) Environmental Assessment (EA)
- 3) Categorical Exclusion (CE)

If a project is believed to have significant impacts to the environment (both natural and man-made), NEPA requires a determination. For *Environmental Impact Statements*<sup>10</sup> (usually the most complex analysis), a Record of Decision (ROD) is determined. The ROD is essentially a legal document that explicitly states the anticipated impacts to the environment and spells out the responsible parties for mitigating the impacts. Local examples of EIS's include the Crescent City Connection Bridge, and the Reinstatement of the Canal Streetcar.

*Environmental Assessments (EA)*<sup>11</sup>, are undertaken if the impact of the action is unknown. If there is a determination that some impacts will occur but not deemed significant, a Finding of No Significant Impact (FONSI) is issued. The FONSI spells out what potential impacts are and how they can be mitigated. If project impacts that are deemed significant, a full-blown EIS may need to be undertaken, or (more likely) the project is scaled back so the specific impact is mitigated. Local examples of EA's include highway widening projects, such as US 190 between US 11 and LA 433 in Slidell, and US 190 widening Between LA 22 and Southeast Louisiana Hospital in Mandeville.

A *Categorical Exclusion*<sup>12</sup> is issued for actions that do not individually or cumulatively involve significant social, economic or environmental impacts. Projects that are usually small in scope and cost are granted categorical exclusions. Local examples of Categorical Exclusions are for Transportation Enhancements (Bike Paths, Landscaping, etc.). These projects are designed to enhance a transportation asset, and thus are generally not subject to close environmental scrutiny.

### *Clean Air Act Amendments, 1990 (40 CFR)*

The Clean Air Act Amendments of 1990 established the setting of National Ambient Air Quality Standards (NAAQS) for all areas of the United States (Part 81). Currently, all of St. Tammany Parish is considered in air quality attainment. Areas that cannot meet air quality standards face graduated sanctions up to and including the withholding of all federal funds designated for that area (Part 52).

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<sup>10</sup> 23 CFR 771.123:127

<sup>11</sup> 23 CFR 771.119

<sup>12</sup> 23 CFR 771.117

### *Transportation Equity Act for the Twenty First Century (TEA-21)*

TEA-21 is the legislation passed in 1997 that provides federal funding and for most transportation projects in the United States. TEA-21 provides the funding mechanism by which most planning activities at the regional level are undertaken. TEA-21 is the authorizing legislation for the disbursement of funds collected by the Highway Transportation Trust fund. Funding to states is distributed as a direct proportion of their input into the trust.

### *Wetlands and Section 404 Permitting*

Wetlands are an important issue in road building in south Louisiana. Wetlands are protected by federal legislation. The standard method by which projects are reviewed for impacts to wetlands is the Section 404 permitting process, overseen by the US Army Corps of Engineers. USACE has jurisdiction of all projects that affect wetlands, regardless of funding source.

### *Coastal Zone Management*

Much of St. Tammany falls within the Coastal Zone of the United States. Large scale development within the coastal zone requires a permit issued by the Department of Natural Resources (DNR). DNR will check each project against the Coastal Zone Management plan developed in conjunction with each parish in the coastal zone. Each parish has their own coastal zone management plan to guide development and protect coastal resources in each parish.

### *Title VI Civil Rights Act*

As it pertains to transportation, Title VI of the Civil Rights Act of 1964 mandates that transportation investments and services are distributed equitably, without regard to race sex, age or national origin. Additionally, Executive Order 10898 mandates that all federal departments weigh Environmental Justice issues to determine if low-income and minority communities are disproportionately adversely affected by a transportation investment or service.

### *Americans with Disabilities Act (ADA) 42 USC 12131*

The Americans with Disabilities Act of 1991 has had a profound influence on transportation facilities. ADA mandates that all public facilities be physically accessible by persons with disabilities, and has resulted in design improvements to facilities, such as wheel chair ramps on buildings and sidewalks, lifts on buses, etc.

## V. Inventory of Existing Roadway Network

St. Tammany Parish has three interstate highways and a number of US and State highways that traverse the parish and provide abundant vehicular access within the parish and to other areas in the region and the nation. They are as follows:

### **A. Interstate Highways**

- Interstate 10: This freeway is the major southern interstate of the Interstate Highway System, running from Los Angeles, California to Jacksonville, Florida. Locally, I-10 is the primary artery through the New Orleans metropolitan area, and connects New Orleans with Eastern St. Tammany. Average daily traffic on the freeway ranges from 47,000 at Lake Pontchartrain to over 63,000 near Gause Boulevard (US 190) in Slidell. I-10 runs approximately 13.5 miles through St. Tammany Parish.
- Interstate 12: This freeway is a major east-west interstate highway in the State of Louisiana. It begins at its intersection with I-10 in Slidell and proceeds west to its intersection with I-10 in Baton Rouge. I-12 is a bypass of I-10 traffic heading south of Baton Rouge towards New Orleans. Average daily traffic on the freeway ranges from 36,000 east of LA 59 in Mandeville to 53,000 near US 11 in Slidell.
- Interstate 59: This freeway is a major north-south interstate highway in eastern St. Tammany Parish. It begins at its intersection with I-10/ I-12 in Slidell and proceeds north to Pearl River, then on to Mississippi, Alabama and Tennessee. Average daily traffic on the freeway ranges from 21,000 near the Mississippi State Line to 29,000 at the I-10/ I-12 interchange.

### **B. US Highways**

- US 90: US 90 provides east-west mobility to the eastern half of St. Tammany, between New Orleans and Mississippi. US 90 traverses the southernmost portion of St. Tammany Parish, from the Rigolets Bridge to the Pearl River. Much the land adjacent to the highway is coastal marsh. Vehicular traffic on the highway averages approximately 3,000 vehicles per day at its highest volume location near the Rigolets Bridge.
- US 11: US 11 provides north-south mobility between eastern New Orleans (at its intersection with US 90 at Powers Junction) and Eastern St. Tammany. At Lake Pontchartrain, US 11 parallels the Norfolk-Southern Railroad Line, and continues through the communities of Northshore, Slidell, St. Joe and Pearl River, and into Mississippi as a merged route with I-59. In Slidell, US 11 is the primary arterial that provides north-south mobility through the city.

Average daily traffic volumes along the corridor range from 10,300 vehicles per day in Pearl River, to 22,500 per day near downtown Slidell.

US 190: US 190 is the primary arterial for east-west intraparish travel in St. Tammany. US 190 starts at its intersection with US 90 south and east of Slidell, continues through Slidell as Shortcut Highway and Fremaux (US 190B), and as Military Road/Gause Boulevard (US 190). US 190 proceeds west through Lacombe, Big Branch, and Mandeville. In Mandeville, US 190 merges with the Lake Pontchartrain Causeway and becomes a controlled access freeway with service roads to its intersection with I-12 south of Covington. In Covington US 190 diverges into a business route, running through downtown as Boston Street. The main highway proceeds north and is known as Collins Boulevard. The business route merges with the main line west of town, just east of the community of Goodbee. It proceeds west thence to Tangipahoa Parish. Average daily traffic along this corridor varies widely, from 3,200 vehicles near the Tangipahoa Parish line, to over 53,000 per day at its intersection with the Causeway in Mandeville.

### **C. Major State Highways**

LA 41: LA 41 provides north-south mobility between Pearl River and Bush, through the 5<sup>th</sup> and 6<sup>th</sup> Wards of St. Tammany Parish. ADT along the roadway ranges from 10,000 near Pearl River, to about 3,600 near Bush. LA 41 serves a number of forestry and quarry operations along the northeast portion of the parish.

LA 59: LA 59 provides north-south mobility between the high growth areas of Mandeville and Abita Springs. ADT along the roadway is consistently over 12,000 per day, from Mandeville to Abita Springs. LA 59 serves a number of disparate land uses, such as Fontainebleau Junior and Senior High Schools, The Parish government complex, and industrial areas, such as Prieto Industrial Park.

LA 21: LA 21 runs southwest to northeast in St. Tammany Parish, from LA 1077 near Madisonville, through Covington, north of Abita Springs, and onto Bush, Sun, and Bogalusa in Washington Parish. ADT along the roadway ranges from 24,000 in downtown Covington to 7,200 per day near Bush. LA 21 provides access to the land uses in downtown Covington, and is the primary access route to I-12 from Bogalusa.

LA 25: LA 25 is the primary arterial roadway that provides mobility between Covington to the south and Folsom to the northwest. North of Folsom, LA 25 provides mobility to Franklinton in Washington Parish and onto the Mississippi State Line. ADT along the roadway ranges from 12,000 near Covington to 6,800 at Washington Parish Line. LA 25 serves the industrial area north of Covington, and the agricultural uses south of Folsom.

- LA 36: LA 36 provides east-west access within the central part of St. Tammany Parish. Much of the land uses adjacent to the roadway are in timber management and associated uses. LA 36 provides mobility between the areas of Hickory, Abita Springs, and Covington. ADT along the roadway ranges from 10,000 between Abita Springs and Covington to under 2,000 per day near Hickory.
- LA 40: LA 40 provides east-west access within the northern part of St. Tammany Parish. Most of the adjacent land uses to the roadway include agricultural, timber management and industrial (extractive) uses. LA 40 provides mobility between the communities of Bush, Barkers Corner, Folsom, and onto Tangipahoa Parish. ADT along the roadway ranges from 3,400 per day west of Barker's Corner to 1,100 per day in Bush.
- LA 22: LA 22 provides east-west access within the southwestern part of St. Tammany Parish. Adjacent land uses range from highly developed suburban (near its eastern terminus with US 190), to undeveloped coastal marsh. LA 22 provides mobility between the communities of Mandeville, Madisonville, and onto Tangipahoa Parish. ADT along the roadway ranges from 21,000 near US 190 to 3,000 at the Tangipahoa Parish Line.

#### **D. Other State Highways**

Other state owned roadways that provide access functions between local streets and arterial roadways are as follows:

Table 1: Other State Roadways

Highway	Roadway Class	Community/ Area of Parish Served	Highest ADT
LA 16	Major Collector	Sun	1,700
LA 433	Minor Arterial	Slidell/ Southeast	11,700
LA 434	Minor Arterial	Lacombe/ Central	3,400
LA 435	Major Collector	Abita Springs	3,500
LA 437	Arterial/ Collector	Covington/ Blond	10,000
LA 450	Major Collector	Folsom/ Northwest	1,400
LA 1072	Minor Collector	Lacombe	3,400
LA 1077	Major Collector	Madisonville/ Goodbee	4,900
LA 1078	Minor Collector	Folsom	1,000
LA 1080	Minor Collector	Folsom	900
LA 1081	Minor Collector	Waldheim	1,700
LA 1082	Minor Collector	Waldheim	1,700
LA 1083	Minor Collector	Waldheim	1,300
LA 1084	Minor Collector	Waldheim	1,300
LA 1085	Major Collector	West of Covington	1,300
LA 1087	Minor Arterial	Mandeville	4,000
LA 1088	Major Collector	Mandeville	3,400
LA 1089	Minor Collector	Fountainbleu State Park	1,200
LA 1090	Minor Arterial	Slidell	10,000
LA 1091	Arterial/ Collector	Slidell	20,000
LA 1093	Minor Collector	Lacombe	3,300
LA 1129	Minor Collector	Blond	2,400
LA 3228	Minor Arterial	Mandeville	18,000

All together, the State of Louisiana maintains approximately 436 linear miles of roadway in St. Tammany Parish. This is quite high compared to other parishes in the region. In fact, St. Tammany has more miles of state-owned roadway than Orleans, Jefferson and St. Bernard Parishes combined.<sup>13</sup>

### E. Important Local Roads

A number of local roads serve as collector routes between local roads and the state highway network. These roadways are very important as they provide alternatives to the state highway system, and function as collector roadways between state owned arterial roadways.

<sup>13</sup> Orleans: 116 miles, Jefferson: 168 miles, St. Bernard: 56 miles, Total of three parishes: 340 miles: Source, LaDOTD Log Summary File

**Covington-Abita**

Harrison Street  
Lowe Davis Road  
Industrial Road  
River Road  
Three Rivers Road

**Slidell-Lacombe**

North Boulevard  
Bayou Paquet Road  
Transmitter Road  
Tranquility Road  
Northshore Blvd./ Airport Road  
Brownswitch Road  
Browns' Village Road  
West Hall Street  
Carroll Road  
Ben Thomas Road  
Allen Road  
Cross Gates Boulevard

**Mandeville**

Fairway Drive  
Sharp Road  
Lonesome Road

**Pearl River**

Chris Kennedy Road  
Race Horse Road

**Madisonville**

Brewster Road  
Perrilloux Road

**Barkers Corner**

Million Dollar Road

**F. Problem Areas**

As mentioned earlier, St. Tammany is the highest growth parish in the State of Louisiana. One of the problems inherent with rapid growth is the rise of vehicular miles traveled, or VMT in the parish. Quite simply, traffic has grown faster than the state or parish can expand existing infrastructure to keep pace. Measures of Effectiveness, (typically levels of service) along these roadways frequently indicate breakdown conditions in traffic flow. Areas of severe congestion and delay (Level of Service "F") are found throughout the parish. Some of the more egregious areas are as follows:

- 1) US 190 (Gause Boulevard), between US 11 and I-10, Slidell
- 2) US 190 between I-12 and Harrison Street, Covington
- 3) US 190 between LA 22 and East Causeway Approach, Mandeville
- 3) Northshore Boulevard at I-12 Interchange, Slidell
- 4) US 190/ I-10 Interchange, Slidell

Much of the problem with these areas has to do with access to roadways and interconnectivity (or lack of it) within the adjacent roadway network. Drivers have limited routes to gain access to a given destination, and frequently those routes have multiple driveways that inhibit the efficient movement of traffic.

## VI. Transit

### **A. Introduction**

The planning for transit services is generally more complicated than for highways or streets in that consideration must be given to multiple elements that heavily determine the success or failure of the service in a given area. These elements include:

- Route Alignments
- Stop Locations
- Stop Design
- Fare Levels
- Fare Payment Systems
- Service Levels (Headways)
- Vehicle Technology
- Vehicle Configuration
- Vehicle Capacity<sup>14</sup>

It is important to remember that transit is a service that in nearly every circumstance requires subsidization of some form. Operation of the service is usually an extensive undertaking, even for small transit systems.

Geographically, several types of transit routes can be identified:

1. Radial routes that normally radiate from the CBD. These are typically the backbones of a transit network and usually carry the largest number of passengers per unit length or route because of connection with the CBD. They may have one terminal in the CBD or they may serve two different radial connectors by running through the CBD. Rail transit routes are almost always radial.
2. Circumferential routes provide service between different outlying areas without requiring travel through the CBD. By intercepting radial routes, they also serve as feeder and distributors for the latter.
3. Crosstown routes are similar to circumferential routes except that they are usually short routes on fairly straight alignment, tangential to the CBD and perpendicular to radial routes. Increasingly common are suburban-to-suburban routes that connect major suburban communities and activity centers that characterize large metropolitan areas.
4. Feeder routes connect outlying areas to radial or crosstown routes where through-routing to the CBD is infeasible.
5. Shuttle routes provide service between two major generators, such as between the CBD and an outlying parking facility or railroad terminal.

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<sup>14</sup> Transportation Planning Handbook, 1999 p. 467

## **B. Existing Transit**

### *Local Service Provision:*

No fixed route transit services currently exist in St. Tammany Parish. School age children are picked up and taken to school by a bus system operated by the St. Tammany Parish School Board.

There is a demand response service provided by a non-profit organization that receives public monies as a subsidy to their operation. Established in 1974, the St. Tammany Council on Aging provides home pick up services for person 60 years and older. Services include regularly scheduled weekday trips to Slidell Senior Center, four other senior centers in the parish, and to entertainment and shopping facilities.

However, instead of direct service provision, St. Tammany has opted to develop Park & Ride sites as a first step in the development of public transit in the parish. A number of Park & Ride sites have been constructed with several more in project development<sup>15</sup>. The parish has opted to establish the park and ride sites and encourage private service providers (such as vanpools, etc.) to use the facilities.

### *State of Louisiana:*

LaDOTD administers some of the federal funding for local public transit systems, and provides non-federal funds for operations throughout the state. However, these funds are extremely limited, and most transit operations are still paid for by local subsidy and fare box receipts.

### *Federal:*

Federal Transit Administration allocates Section 5311 Nonurbanized Area Formula Grant monies to each state based upon the percentage of the population domiciled in rural areas. Federal funding is available for a maximum of 50% of net operating costs; the balance must be met by fares and other local matching funds. Each of Louisiana's recipient rural transit operators must reapply annually for funding. Operating assistance is based upon each providers ridership and transit mileage for the previous 12 months.

FTA allocates Section 5310 Elderly and Persons with Disabilities Program Grant funds to each state based upon the percentage of the population classified as elderly or disabled. Federal funding is available for 70% of capital costs for wheelchair-equipped vehicles; the balance must be met with local matching funds. Applications submitted to DOTD each year are processed through a review committee. The applications are reviewed and scored using a point system; those with the highest scores are funded<sup>16</sup>.

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<sup>15</sup> Slidell/ East St. Tammany Transportation Improvement Plan, 2001-2003, pages 12-14

<sup>16</sup> Statewide Intermodal Transportation Plan, 1996 P. E-6

### **C. Local Financing Mechanisms**

It is important to understand early on that the size and scope of a transit system is largely dependent on the local financial commitment to it. The following are examples of how local transit is funded elsewhere in Louisiana.

#### *Property Tax, or Ad Valorem Tax*

A tax rate in mills (one tenth of one cent) is determined. It is the rate charged to designated types of property owners on the assessed value of their property. For example if the tax rate were 2.43 mills and value of the non-exempt property was \$100,000; the amount collected by the parish would be \$243. Eligibility and millage rates vary as the law allows. This is particularly true of the homestead exemption, which allows owner occupants of a home to declare the first \$75,000 of the assessed value of their property to be exempt from property taxes.

Jefferson Parish subsidizes their transit operation via property taxes. In 2000, voters in that parish passed a 2.43 mill ad valorem tax that would slightly increase the amount of monies available to Jefferson Transit. That funding is used to subsidize the actual transit operation, and is also used as local match for federal funds in bus procurement and other equipment purchase activities.

#### *Sales Tax*

A sales tax is a percentage charge levied on the total amount of a purchase at the time of a sale. The State of Louisiana levies a 4% sales tax while each parish has a constitutional limit on how much to tax and for what purposes to utilize the revenues within this cap, although the limit can be exceeded by a vote of the legislature.

Usually revenues from this source are dedicated to various areas in parish government by percentage. For example ½% may be designated for education while ¼% may be designated for roadway maintenance. The Regional Transit Authority (RTA) receives 1% of the sales tax revenue from Orleans Parish to help subsidize the transit operation. Additionally, RTA receives 1% of revenues from the Hotel/ Motel Tax in affect in the New Orleans Area that are also used to pay for upkeep and maintenance on the Louisiana Superdome<sup>17</sup>.

#### *Special Authority*

It is fairly common for an entity performing transportation-related work or services to form a special authority. The Port of New Orleans is an example of a special authority charging fees for services rendered. The Regional Transit Authority is also a Special Authority that levees a sales tax (again, a 1% sales tax in Orleans Parish only).

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<sup>17</sup> Times Picayune Article, "Convention Center vs. Stadium," May 27, 2001, Page A-1 and A-10

## **D. Future Transit**

As St. Tammany continues to grow and the population ages and diversifies, transit will become an increasingly important component of overall mobility within the parish. Therefore, some of the goals of future transit service provision in St. Tammany are elaborated below.

1. Build upon existing private sector demand-response transportation services currently offered to elderly, handicapped, medically dependent, and economically disadvantaged residents.
2. Maintain, enhance, and expand private sector commuter ridesharing programs through public sector involvement in the areas of ridesharing promotion (e.g. vanpooling), marketing, and park & ride facility development
3. Plan for the eventual implementation of fixed route transit at the local and intraparish level. This entails provision of “transit-friendly” facilities such as stop-spacing criteria on thoroughfares for bus stops, transit improvement in subdivision regulations, designating specific transit corridors, and overlaying/ incorporating transit needs in roadway specifications.
4. Increase mobility opportunities for those residents and employees currently not being served by existing private sector transit services. These initiatives are inclusive of an urban area shuttle and demand response transportation service.
5. Facilitate alternative modes of travel such as pedestrian, bicycle and light rail.
6. Reduce congestion and delays on area-wide roadway corridors
7. Coordinate transit and transportation facilities planning issues of the urbanized area of New Orleans planning projects in order to achieve continuity, coordination, and concurrence around the metropolitan area.

### **Fixed Route Development**

Fixed route transit in St. Tammany will be based on 1) circulator routes within cities in St. Tammany, and 2) routes running between cities at regular intervals. Key to making this operational this is the continued development of park and ride facilities. It is anticipated that the park and ride facilities will provide access to persons desiring to travel beyond St. Tammany via vanpool service. The Park & Ride will also be the staging area for those persons desiring to travel within the parish. Thus the Park & Ride will be the hub of intraurban transit, and will be a feeder location for intraparish travel. Thus the Park & Rides

should have good accessibility by vehicular traffic, bicycle and pedestrian facilities, and even future metropolitan-area modes such as light rail or other technologies.

## VII. Rail Service

### **A. Active Rail Lines**

Currently, there are two Class I railroads that traverse St. Tammany Parish. The first is the Norfolk-Southern Railroad line that runs parallel to US 11 through the communities of Northshore, Slidell, St. Joe, Pearl River, and onto Mississippi and points east. There are fourteen grade crossings between rail and vehicular modes within the 19-mile length of track in St. Tammany. The Norfolk-Southern (NS) line currently handles three to ten freight trains per day at this location. One AMTRAK (passenger rail) line also traverses this area, which is *The Crescent*, running from New Orleans, Atlanta, Washington DC, and onto New York City three days a week.

The second is the CSX Railroad that traverses the coastal marsh in the far southeastern corner of St. Tammany, and onto Mississippi and the Gulf Coast. The CSX line runs through an unpopulated area with no grade crossings in the parish. The CSX line handles six freight trains per day on average, and an AMTRAK Passenger line, *The Sunset Limited*, connecting Los Angeles to Jacksonville Florida, via New Orleans. Both the Norfolk-Southern and the CSX lines are freight railroads that serve port activities in New Orleans.

### **B. Existing Rail Rights of Way**

In addition to the active rail lines, significant railroad rights of way exist that also traverse the parish. These include two former Illinois Central Rail spurs.

The first one runs east to west from Slidell, through Lacombe Mandeville, Abita Springs and Covington. The right of way has become a rail to trail bike path known as the Tammany Trace. The second runs north to south, veering off the mainline NS route north of Slidell and continuing toward the north, through the 5<sup>th</sup> and 6<sup>th</sup> Wards of St. Tammany and into the communities of Bush, Sun and onto Washington Parish. Both rights of way are approximately 100 feet wide for the majority of their distance.

### **C. Maglev Deployment Corridor**

In 1999, the Gulf Coast High Speed Ground Transportation Coalition, representing the Regional Planning Commission, New Orleans International Airport, and the Greater New Orleans Expressway Commission applied for and received preconstruction planning assistance from the Federal Railroad Administration to investigate magnetic levitation (Maglev) deployment in the New Orleans region. Alternatives were reviewed that connected western St. Tammany Parish to NOIA, and thence to the New Orleans CBD. Two alternatives were developed that traversed the western St. Tammany from Lake Pontchartrain to a terminal location near the I-12/ LA 1085 overpass. Both alignments involved following a CLECO power line right of way to a vacant area that would serve as the terminal area.

#### **D. Potential Rail Corridors**

Through the New Direction 2025 Process, a consensus of sorts was achieved to preserve corridors for future commuter rail transit that would be incorporated in regionwide transit planning discussions. These are as follows:

- East Corridor (Slidell to New Orleans) via the NS Railroad
- West Corridor (Madisonville to NOIA and onto New Orleans) per the MAGLEV initiative
- Intra-Parish Corridor, using the Tammany Trace, connecting Slidell to Lacombe, Mandeville, and Covington
- Causeway Corridor, Using a span and rights of way adjacent to the Existing Causeway Bridge

#### **E. Future High Speed Rail<sup>18</sup>:**

As mentioned earlier, a study was prepared for the Southern Rapid Rail Transit Commission to define potential high speed rail corridors in Mississippi, and Alabama that could also provide a link with similar services in Texas and Florida. The study provided the necessary definition of the corridor to allow it to receive a designation from the Federal Railroad Administration as a high speed rail corridor under Section 1010 of ISTEA. The selected corridor within the states of Louisiana, Mississippi, and Alabama is 393 miles in length. It runs from Atmore, Alabama to Lake Charles, Louisiana. The segment important in this discussion is from New Orleans to the east, where the CSX line was chosen as the preferred alignment. As described earlier, the CSX alignment through St. Tammany Parish is located in unpopulated coastal marsh. Linkage to future high speed rail in St. Tammany will require significant infrastructural investment to merely access the alignment by other transportation modes. Therefore, access to high speed rail service per the alignment determined by the Southern Rapid Rail Transit Commission is unlikely.

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<sup>18</sup> Deep South High Speed Rail Corridor Feasibility Study, Morrison Knudsen Et Al, 1996, p. II-1 – II-4

## VIII. Bicycle and Pedestrian Circulation

### **A. Existing Bicycle Facilities and Planning in St. Tammany**

St. Tammany currently enjoys the premier bicycling and pedestrian facility in Louisiana- the Tammany Trace. The Tammany trace is a 32-mile facility that traverses southern St. Tammany from Covington to Slidell.

The City of Mandeville is implementing a bicycle path master plan that has designated bicycle routes throughout the town. The Mandeville plan designates a bicycle network that functions as a distribution network for trips coming from and going to the Trace in Mandeville. The City of Covington has a bicycle and pedestrian component to their Comprehensive Plan undertaken in 1996, and the urbanized area of Slidell is undertaking a master plan as of this writing.

Additionally, a LaDOTD sponsored planning effort was undertaken in 1997 to tie St. Tammany Parish to other parishes that surround Lake Pontchartrain<sup>19</sup>. The “Pontchartrain Trace” project is an ambitious six-parish initiative that entails the designation of over 160 miles of existing bicycle facilities and routes, roadway shoulders, and proposed grade separated facilities, together to form the basis of a regionwide bicycle route.

### **B. Types of Bicycle Facilities<sup>20</sup>**

#### *Shared Lane*

On streets with traffic volumes of less than 3,000 vehicles per day, or average travel speeds of less than 30 mph, a standard 12-foot travel lane is sufficient to accommodate both motorists and cyclists. Unless the roadway is part of a designated bicycle route or is heavily used by cyclists, no special signage is required.

#### *Wide Curb Lane*

In urban areas, wide curb lanes are recommended for use on roadways with posted speeds limits of 30 mph or less and where Average Daily Traffic volumes are less than 10,000. Wide curb lanes can also be used in rural areas; however, under high volume or high-speed conditions a paved shoulder is preferred. No special signage is required.

#### *Paved Shoulders*

The use of paved shoulders to accommodate bicycle traffic has the widest application in rural areas. In fact, most rural bicycle traffic, which is typically low volume, can be adequately served through the provision of 4 to 6 foot wide paved shoulders. Paved

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<sup>19</sup> St. Tammany, Orleans, Jefferson, St. Charles, St. John the Baptist, and Tangipahoa Parishes

<sup>20</sup> Louisiana Statewide Bicycle and Pedestrian Master Plan, Louisianan Department of Transportation and Development, 1999. p.V

shoulders are also appropriate for use on high-speed major arterials in urban areas where use by experienced cyclists is expected. No special signage is required.

### *Bicycle Lanes*

Bicycle lanes are best suited for use in urban areas on arterial roadways with traffic volumes greater than 10,000 vehicles per day and average travel speeds of over 30 miles per hour. In rural areas, designated bike lanes may be preferred over an undesignated paved shoulder where heavy bicycle traffic is expected, for example near a bicycle trip generator such as a park or school or on a designated bicycle route. Pavement markings and signage are used to designate the lane for bicycle use.

### *Bicycle Paths*

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

### *Bicycle Routes*

Bike routes are not a specific facility but a system of signage designated to direct cyclists along the most scenic, most direct, or preferred route between two points. All routes should have a specific purpose whether purely recreational or destination oriented. Any type of bicycle facility, including shared lanes, may be incorporated into a bike route.

As traffic speeds and volumes increase, it is generally desirable to provide a more well defined bicycle facility. The exception to this guideline is that at the highest speeds and traffic volumes, when bicycle traffic is better accommodated with a paved shoulder that is not specifically designated for bicycle travel. In this manner, bicycle travel by experienced cyclists is facilitated without encouraging or recommending use by Group B or C riders. The following table provides a starting point for consideration of the appropriate type of facility. Each location must be evaluated as to the site-specific traffic characteristics and expected ridership before deciding which type of facility to provide.

<b>Table 2: Bicycle Facility General Selection Criteria</b>		
Functional Class	Rural	Urban
Major Arterial- High Speed/ High Volume	Paved Shoulder	Paved Shoulder
Minor Arterial- Collector	Paved Shoulder/ Bike Lane	Bike Lane/ Wide Curb Lane
Collectors- Minor Streets	Paved Shoulder/ Wide Curb Lane	Wide Curb Lane/ Shared Lane
Minor Streets- Residential	Shared Lane	Shared Lane

Where designated, bicycle facilities such as bike lanes and bike routes are provided, the issue of continuity and the establishment of a network of facilities must be considered. Facilities that do not terminate at specific destinations such as a university or playground should connect to other bicycle friendly roadways. It is not necessary to for all roadways to have bike lanes, but it is important for the end points of bike lanes to be selected to allow riders to transition to roads with wide curb lanes, paved shoulders, or low volume traffic which makes shared lanes feasible.

Generally, there are three types of bicycle paths. These are the stand-alone paths such as The Tammany Trace. The second is a bicycle lane, which uses an existing portion of a roadway such as a shoulder or dedicated lane; and the last is a bicycle route, which shares use with an existing roadway and is designated primarily by signage.

The stand-alone path is a grade-separated facility that is a minimum of 14 feet wide excluding drainage or other right-of-way considerations. The center 10 feet is riding surface with two-foot shoulders or recovery areas on each side. These dimensions tend to increase with the population density and projected use through which the path is expected to pass. For example, it is recommended that bike paths in urban areas should be 12 feet with two-foot shoulders, and multiuse paths that allow rollerbladers should be fifteen feet in width. These are the standards that should be applied to the Tammany Trace from its current termination point to the Norfolk-Southern Railroad intersection in Slidell.

Obviously, this facility is the most expensive to install. It requires right-of-way acquisition, construction of roadbed and surface as well as signage. It is the most expensive to maintain. On the other hand, it is the safest for users of any age or experience level to use.

The bicycle lane utilizes a portion of an existing roadway. The most common is the use of the shoulder of a roadway. Design would require a five-foot bicycle lane on each side of the roadway with some physical space between the lane and motor vehicular traffic. When the bicycle lane is used in urban streets, the lane would take the curbside lane, and would share

the curbside lane with parking where parking is permitted. Generally, these lanes are striped and signed and should be used going the same direction as traffic.

Construction costs are moderate. The major construction item would be improvements to the shoulders of the roadway where shoulders are being used. If there were no or little shoulder to the proposed roadway, then the costs would resemble the costs for a bike path. In urban areas, the major cost would be improving and striping the lane that would be used for the bicycle lane. This may be as little as filling potholes and striping. It could be as significant as laying asphalt to improve the riding surface.

The bicycle route is a bicycle path that uses and shares the existing roadway. In general, bicycle routes are designated by signage. These routes tend to be used in low traffic areas such as neighborhood streets or rural roads. Construction costs are minimal. Signage will be required as will investigation of the roadway for any potential problems with the roadway prior to designating a street or road a bike route.

### **C. The A, B, C's of Bike Path Ratings<sup>21</sup>:**

In 1996, the State of Louisiana commissioned a study of bicycle and pedestrian facilities that established processes and criteria by which to develop bicycle and pedestrian facilities both statewide and locally. Part of the criteria was categorization of facilities by level of difficulty for the user. These categories were **A** for experienced users, **B** for adults and teens with moderate level of experience, and **C** for children.

Skilled and experienced riders are capable of riding on roadways with moderate to high traffic volumes and speeds. Thus they are able to negotiate traveling on such streets as Pontchartrain Drive, Highway 190, and Robert Boulevard. These are the level A riders. They require less accommodation on the roadway by vehicles, less signage, and will maintain speed and direction similar to vehicles.

Adults with less experience and teens will be uncomfortable with high traffic volumes and greater speeds. These are the level **B** riders. Thus, they require more information to the vehicle driver, either less traffic volume and speed on their routes or more room to maneuver on higher volume roads. They require signage, and in some cases, designated lanes in which to travel. These riders would be more comfortable using streets parallel to major roadways such as Florida Avenue, or wide shoulders on roadways such as Highway 190 west of Highway 11. Crossing major highways should be at controlled intersections where the cyclist can cross with protection from on-coming traffic.

Level **C** riders are all others; those who are inexperienced riders, children, and those who do not wish to deal with vehicles any more than they need to. These riders will use neighborhood streets to travel, will likely stay in their neighborhoods, and will likely have short trips. Or these riders require grade-separated facilities such as the Trace.

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<sup>21</sup> Slidell Bicycle Master Plan: DRAFT, Oiler Group, Pages 5 and 6

This rating system will be implemented as guide to bicyclists and will be posted in signage along designated bike paths, routes and lanes.

#### **D. LaDOTD Design Policy**

*EDSM Volume II, Chapter 2, Section 1, Directive 14: Bicycle and Pedestrian Facilities*

This directive sets forth LaDOTD policy concerning bicycle and pedestrian facilities on state rights of way. The policy states that LaDOTD will attain the goal of a bicycle and pedestrian facility network that will be met primarily by constructing the proper facilities at the time new highways are built, or existing highways are being reconstructed or overlaid if sufficient right of way is available.

Further, the directive calls for LADOTD to develop a “Bicycle Route Goals Map,” that will serve as a guide to the development of a comprehensive, bicycle friendly, statewide highway network. Bicycle Master Plan routes developed by urbanized areas are to be adopted as part of the map. LaDOTD defines a bicycle friendly route as one “with either paved shoulders, bike lanes, or a separated path(s)”. When a reconstruction project is scheduled for a route on the map, it will be the policy of LaDOTD to incorporate bicycle facilities *if cost effective* [**emphasis added**]. The department will accomplish this via the use of paved shoulders. At the regional level, the bicycle routes chosen must traverse areas of significant historical and/or scenic interest, or connect population centers that are expected to generate significant bicycle trips. At the city and town level, the routes should connect bicycle trip generators, such as schools, recreation areas, shopping centers, etc. The directive also prescribes vehicular traffic volumes that warrant installation of grade separation of bicyclists with motor vehicles.

#### **E. Future Bicycle Route Designation**

Many of the preferred corridors for vehicular travel are also the preferred corridors for bicycle mobility. Many of the routes are already in use by bicyclists. However, the “backbone” of the bicycling network in St. Tammany should continue to be the Tammany Trace. Currently, the defacto policy of most localities is to use the Trace as the primary biking facility in their area, and use local bike facilities as feeder routes to and from it. This policy should continue and perhaps be more formalized.

In addition, roadways that are used for intraparish mobility for automobiles are also important to bicyclists. Many of these routes would be designated for “A” level riders. It should be the intent of the parish to make the bicycle routes as accessible to B and C level riders as possible,

Large-scale commercial and residential developments should, at a minimum, reserve right of way for bicycle and pedestrian access.

## IX. Aviation

### **A. Existing Conditions<sup>22</sup>**

The primary aviation service available to most St. Tammany residents is the New Orleans International Airport in Kenner. Most commercial flights in the New Orleans and Gulf-South region occur at NOIA. However, St. Tammany is served by three existing airport facilities that are described below:

#### ***1. Slidell Airport***

Slidell Airport is a public use airport owned by the City of Slidell. It is located on a 340-acre site on the western end of Slidell, north of I-12 at Airport Road and immediately adjacent to Camp Villere, Louisiana National Guard Base. It has a single north-south asphalt runway that is 4,058 feet in length and 100 feet wide.

The Slidell Airport has no control tower, and is open between the hours of 7AM and 7PM, seven days a week, 365 days a year (although the airport is unattended on Christmas and New Years Days). The airport is home to 85 single engine aircraft, 10 multi-engine, 1 jet, and 4 ultra-lights. Slidell Airport handles approximately 80,000 operations per year, 68% of which is general aviation traffic. Aircraft services provided at Slidell Airport include fueling, and major repairs for airframe and power plant work, and instrument rentals are available.

#### ***2. Greater St. Tammany Airport***

The Greater St. Tammany Airport is located on a 42-acre site off of LA 36 east of Abita Springs. It is a public use airport owned by St. Tammany Parish. It has a single north-south asphalt runway that is 3,000 feet in length and 75 feet wide.

The Greater St. Tammany Airport has no control tower and is open from dawn to dusk, but is unattended by any staff. It provides no fueling or other repair services. It is home to 13 single engine and 1 ultra-light aircraft. Approximately 11,500 operations occur there every year, of which approximately 57% are local general aviation traffic.

#### ***3. Covington-Vincent Airport***

The Covington-Vincent Airport is a twenty-five acre private airport located off of Penn Mill Road northwest of Covington. The Airport is owned by the Cov-Vin Pilots Association, and has a single north-south dirt runway that is 3,400 feet in length and 200 feet wide. It has no control tower, and no repair or fueling services are provided. The airport is home to eleven single engine and three ultra-light aircraft. No data on airport operations are available.

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<sup>22</sup> Data for each facility obtained from Airport Master Record, FAA Form 5010, updated 10/ 1999

## **B. Statewide Aviation Program Needs and Project Priority Process**

This process was developed by the DOTD Aviation section in 1987 to provide direction for the allocation of limited state funds for airport improvements. The process was updated in 1989 to meet the requirements of the Transportation Trust Fund. The primary objective of this priority system is to prioritize facility improvement type projects.

The Louisiana Airport System Plan, published in 1992, outlines a 20 year program for the state's airport system. It identifies needed improvements at each of the state's commercial and general aviation airports. The short-range element of the Louisiana Airport System Plan is the five-year Capital Improvement Plan (CIP). The five year CIP for airports is updated annually and presented to the legislature along with the list of airport development projects prioritized for that particular fiscal year.

## **C. Future Aviation**

Local aviation facilities in St. Tammany Parish are not expected to grow significantly over the next decade.

### **Slidell Airport:**

Slidell Airport has significant acreage that may be used to expand capacity at the airport. Further, Slidell Airport offers services to pilots and aircraft owners that make the facility an attractive alternative to other airports in the region. Therefore, it is believed that Slidell Airport will grow as a general aviation airport as the population of St. Tammany increases and becomes more affluent.

However, residential development is expanding adjacent to the airport, particularly to the south. It is expected that large increases in airport operations, or changes in the types of operations (from general aviation to commercial, for instance) may cause significant outcry among area residents. This has been a problem over the years in neighborhoods adjacent to New Orleans International Airport. It is therefore recommended that a buffer zone be enacted to curtail future residential development adjacent to the airport, and promote land uses more congruent with aviation.

### **Covington-Vincent Airport:**

The Covington-Vincent Airport is a private airport that is expected to remain a private airport into the foreseeable future. While some expansion of aircraft operations are expected as the parish population increases, it is believed that

### **Greater St. Tammany Airport:**

The Greater St. Tammany Airport located east of Abita Springs is located in a largely vacant area of the parish. While the current facility is only 42 acres, the potential to expand the airport onto vacant land is significant. Moreover, It could be good location for an airfreight

operation to service developing industries in the Parish. It is centrally located. Since the parish owns it, the airport has a broader financial base by which to make infrastructural investments.

#### **D. New Regional Airport**

Over the course of several decades, St. Tammany has been mentioned as a future site for a new regional airport that would replace the land-locked New Orleans International Airport in Kenner. While this option remains viable in the eyes of some in the broader community, it is generally considered an obsolete idea in St. Tammany. This is due primarily to the high rate of population growth in the parish that would be detrimentally affected by the advent of a new regional airport.

An FAA Class I or II airport, comparable to an airport like Dallas-Fort Worth or Denver International (envisioned to replace NOIA, a Class III airport), would entail a host of impacts that would take years of planning and environmental analyses to document and clear. That process could literally take decades even if a broad consensus existed on the proposed site. Since there has been no significant movement in that regard, it is assumed that such a facility would be operational beyond the time span of the New Direction 2025 process.

Appropriate land use changes would have to be enacted near the airport. Infrastructural investments such as land side access to the facility, Interstate Access, the restriction of residential and other sensitive receptors near the airport, wetlands mitigation, would all have to occur. Additionally, significant buffer zones would necessarily be required to limit residential development adjacent to the facility.

## X. Intermodal

### **A. Introduction**

Intermodal facilities are those that facilitate the change of modes of transportation. The concept applies to the movement of goods and people. The goal of intermodal is to provide seamless integration of transportation choices to the riding and freight hauling public. Intermodalism implies modal choices and preferences to consumers of transportation services.

Intermodal services are used when the economies of scale for changing transportation modes outweighs the expense of doing so<sup>23</sup>. The reduced cost and time savings of transferring from one mode to another must be higher than using the single mode. Generally, freight transfers between modes represents up to 25% of the total transportation cost paid for by the shipper<sup>24</sup>.

At this time, Intermodal facilities are a small but increasingly important component of the overall transportation infrastructure of St. Tammany Parish, particularly as it pertains to the movement of people.. It is anticipated that as the parish continues to grow, the necessity for intermodal facilities will become a higher priority. Intermodal facilities apply primarily to existing park and ride transit facilities, and minor port activities along Lake Pontchartrain and tributaries thereto.

Of importance to St. Tammany is the interconnectivity of travel modes and choices within the parish. Key to this policy is the continued implementation of Park & Ride facilities, and making those facilities accessible to other transportation modes, such as bicycle and pedestrian modes, or even light rail transit.

### **B. Master Transportation Corridors**

The following corridors are to be designated as master transportation corridors. They are essentially multimodal corridors for the effective movement of people by way of future rail transit, bicycle, and vehicular traffic. These corridors will be upgraded to handle evacuation and emergency transportation movements within the parish.

Candidate corridors include:

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<sup>23</sup> US Freight, Economy in Motion 1998, US department of Transportation, Federal Highway Administration, 1998.

<sup>24</sup> Understanding Freight Issues and Intermodal Facilities in the New Orleans Urbanized Area, Regional Planning Commission, 1999, page 7.

East – West:

LA 22  
LA 36  
US 190  
Tammany Trace

North-South:

LA 59  
US 11  
LA 36  
LA 1077  
LA 41  
LA 25

## XI. Integrated Transportation Plan

### **A. Introduction**

As mentioned earlier in this text, land use is the primary determinant of transportation facilities. The Circulation Plan for the New Direction 2025 process states:

#### SECTION 11 Circulation Element of the Comprehensive Plan

The Circulation Element consists of a classification of roadways that addresses the functional capacity based upon usage. This classification delineates all active roadways into subgroups, which have standards for capacity, rights of way, design widths, and numbers of lanes. These subgroups are expressways, principal arterial, minor arterial, major collector, minor collector, and local roads. The interrelationship of each sub group constitutes a system for the movement of vehicles. Accordingly, associated alterations to the system alignment and capacity shall be considered in the review of the Zoning Commission for proposed land use district changes.

### **B. Land Use Scenarios**

The largest single determinant of the demand for roadways is the land use scenario. A two-phase land use development scenario is envisioned that encompasses a present day to 7 year (2001- 2008, Phase I) near term horizon wherein land use policies that are promulgated by the New Direction 2025 process are beginning to take shape, but still account for current land use development patterns and practices that are “still in the pipeline.” In Phase II of this scenario (2009 to 2025), land use policies are securely institutionalized, and planned development is proceeding in accordance to the plan.

Economic Development and Industrial growth areas have been identified as likely to occur within the next seven years by different New Direction 2025 subgroups. These areas include:

I-12 at LA 1077

LA 59 north of I-12

US 11 near Pearl River

Along Proposed LA 3241 between LA 1088 and LA 36

As such, special accommodations for these land uses need to be taken into consideration when planning for improvements in the area.

### **C. Projects Currently in Planning and Design**

Several transportation projects are in the works at this time. As mentioned earlier, the MPO representing the St. Tammany area assembles two important planning documents on behalf of the parish, the Transportation Improvement Plan (TIP) and the Metropolitan Transportation Plan (MTP). Both documents were developed by consensus with officials representing St. Tammany Parish, the Regional Planning Commission, and LaDOTD, and

were based on land use and development scenarios prior to enactment of the New Direction 2025 process.

*The Transportation Improvement Plan (TIP):*

This is the primary spending plan for federal funding expected to flow to the region from all sources for transportation projects of all types. The RPC prepares the TIP every two years with the assistance of LaDOTD, local governments and transit operators. It covers at least a three-year period. Roadway capacity projects in the Transportation Improvement Plan for 2001 – 2003 are as follows

**Table 3: Capacity Projects in the Transportation Improvement Plan**

Description	Improvement	Area of Parish	Estimated Cost
US 190B (Fremaux)	Widen to 5 Lanes	Slidell	\$ 3,300,000
I-10/ US 190B	New Interchange	Slidell	\$ 8,000,000
US 190 (LA 22 to SELA Hosp.)	Widen to 4 lanes	Mandeville	\$ 35,000,000

Operational, TSM and Access Management type improvements in the Transportation Improvement Plan for 2001 – 2003 are as follows:

**Table 4: Operatioanl Improvements in the Transportation Improvement Plan**

Description	Improvement	Area of Parish	Estimated Cost
Northshore Blvd.	Signal Interconnect	Slidell	\$ 300,000
Brownswitch Road	Olay & 3 Lane	Slidell	\$ 1,000,000
US 190 (I-10 to US 90)	Olay & 3 Lane	Slidell	\$ 1,800,000
LA 59 (US 190 to Koop Drive)	Olay & 3 Lane	Mandeville	\$ 1,500,000

Transit Projects in the TIP are as follows:

**Table 5: Transit Projects in Transportation Improvement Plan**

Description	Improvement	Area of Parish	Estimated Cost
Gerard Street	Park & Ride	Mandeville	\$ 350,000
Military Road	Park & Ride	Slidell	\$ 312,000
Lacombe	Park & Ride	Lacombe	\$ 500,000
Robert Road	Park & Ride	Slidell	\$ 650,000
Operating	Operating Assistance	Parishwide	\$ 252,000

*Metropolitan Transportation Plan*<sup>25</sup>

The Metropolitan Transportation Plan is prepared every five years for the Slidell/ East St. Tammany urbanized area by the Regional Planning Commission, Louisiana Department of Transportation and Development, and affected transit operators. The MTP can be revised

<sup>25</sup> Metropolitan Transportation Plan for Slidell/ East St. Tammany Urbanized Area

within the five-year time frame, but cannot extend beyond it. The version currently in effect was adopted on October 17, 2000.

The Metropolitan Transportation Plan consists of a priority list of projects and project segments that are being advanced toward implementation over the next twenty years. The Highway and Transit elements of the MTP are divided into three tiers that correspond to expected implementation dates. Tier I of the MTP is also the Transportation Improvement Program for the East St. Tammany/ Slidell urbanized area; a three year, fiscally constrained implementation program for fiscal years 2001-2003. Tier II projects are those longer range improvements that are in the planning and development stage between the fiscal years 2004 through 2008, that are expected to advance towards implementation base on funding availability. Tier III projects are longer range projects, typically complex to implement (fiscally and environmentally, etc) and illustrative projects that are projects deemed necessary but are as yet without an identified funding source. Tier III projects also include estimated annual expenditure for certain recurrent budgetary line items, such as overlays, enhancements, etc. Tier III, and to a lesser extent Tier II projects are most susceptible to change as a result of the New Direction 2025 process. Recommendations from this initiative will be recommended for inclusion in a revised Metropolitan Transportation Plan for the Slidell/ East St. Tammany Urbanized Area. Tier II Capacity Projects are as follows:

**Table 6: Tier II Capacity Projects in the Metropolitan Transportation Plan**

<b>Description</b>	<b>Improvement</b>	<b>Area of Parish</b>	<b>Estimated Cost</b>
I-12/ LA 1088	New Interchange	Mandeville	\$ 11,000,000
I-12/ Northshore Boulevard	Widened Interchange	Slidell	\$ 11,000,000
I-10 S.W. Frontage Road	New Service Road	Slidell	\$ 3,700,000
US 190 (LA 433 to US 11)	Widen to 4 Lanes	Slidell	\$ 21,000,000
LA 22 Tchef. River to Causeway	Widen to 4 Lanes	Mandeville	\$ 11,000,000
US 190 (LA 25 to US 190B)	Widen to 4 Lanes	Covington	\$ 10,300,000
US 190B (I-10 Military Road)	Widen to 4 Lanes	Slidell	\$ 5,500,000
US 190 (Covington to I-12)	Widen to 6 Lanes	Covington	\$ 8,000,000
LA 437 (US 190 to LA 40)	Widen to 3 Lanes	Covington	\$ 9,900,000
LA 59 (I-12 to LA 36)	Widen to 4 Lanes	Abita Springs	\$ 12,000,000
US 11 (US 190 to I-12)	Widen to 4 Lanes	Slidell	\$ 18,000,000
LA 21 (I-12 to US 190B)	Widen to 5 Lanes	Covington	\$ 12,000,000
Airport Road	Widen to 4 Lanes	Slidell	\$ 2,500,000
LA 59 (I-12 to US 190)	Widen to 4 Lanes	Mandeville	\$ 8,000,000

**Table 7: Tier III Capacity Projects in the Metropolitan Transportation Plan**

<b>Description</b>	<b>Improvement</b>	<b>Area of Parish</b>	<b>Estimated Cost</b>
LA 3241 (Talisheek - Bush)	New 4 Lane	Bush	\$ 11,000,000
LA 3241 (I-12 to LA 36)	New 4 Lane	Abita Springs	\$ 10,000,000
LA 3241 (LA 36 to LA 435)	New 4 Lane	Abita Springs	\$ 12,000,000
US 11 (Slidell C/L to Lake)	Widen to 4 Lanes	Slidell	\$ 9,600,000
US 11 Bridge Widening	Widen to 4 Lanes	Slidell	Undefined

Projects that have been identified in the TIP and MTP predate land use scenarios promulgated by the New Direction 2025 process. They are, however, applicable to the Phase I land use scenario as described above, and should be continued as projects important to the overall transportation plan.

Major Interparish Connectors:

There are three proposed expressway projects that will have significant impacts to transportation in St. Tammany. They are:

- Widening of the I-10 Twin Span Bridge over Lake Pontchartrain (from four to six lanes)
- LA 3241, a TIMED project alluded to above and earlier in this document
- Widening US 11 from two to four lanes

The New Direction 2025 Transportation Committee recommends the I-10 and US 11 widening projects for implementation. These projects are improvements within an existing transportation corridor. The I-10 project is, in reality, a bottleneck alleviation project, as the roadways on either end of the bridge are currently six lanes.

The LA 3241 was originally proposed in the mid 1980's. The original project called for a controlled access freeway. The proposed alignment bisected the parish, running from I-12 north to LA 21 near Bush. However, due to funding shortfalls and environmental controversy concerning the alignment, the project has not moved forward in any meaningful way for several years until recently. As of this writing, LaDOTD is revisiting the line and grade and starting the environmental process for the entire project. The New Direction 2025 Transportation Committee generally supports the LA 3241 concept. However, the Transportation Committee recommends closely monitoring the environmental process

#### **D. Improvements to Strategic Local Roads**

A series of recommendations are made to improve local roadways to enhance circulation and access within the communities they serve. These projects, like those in the TIP and the MTP, are envisioned to alleviate existing deficiencies and Phase I land use scenarios. They include:

- Upgrade and extend Brewster Road in the Madisonville Area to 3 lanes

- Upgrade Sharpe Road to 3 lanes
- Harrison Road Upgrade to 3 lanes
- Complete Fairway Drive to LA 59
- Upgrade and widen Airport Road
- Upgrade and Improve Helenbirg Road to 3 lanes
- Upgrade Lonesome Road to 4 Lanes
- Tie in of Grantham College Road to Browns Village Road north of I-12 in western Slidell
- Completion of 5th Street from US 190 to LA 59
- Continuation of Berry Todd Road to Dixie Ranch Road
- Re-opening of Dixie Ranch Road over I-12 and eventual tie into LA 434 north of Lacombe

### **E. New Roadway Projects**

Several projects that will enhance mobility by logically completing the existing roadway networks are recommended. They are as follows:

- Parallel Roadway to LA 21 from I-12 to US 190B and onto US 190 in Covington
- New north-south roadway between Harrison Street and Helenbirg Road, at this time the idea is to extend 5<sup>th</sup> Street to LA 59.
- New East West Roadway north of Covington between LA 25, LA 437 and LA 1081, tying into LA 36 and proceeding south to Harrison Street.
- New residential and commercial developments of the following size or greater should be required to provide access to two or more collector roadways

<u>Subdivision/Development Type</u>	<u>Threshold</u>
Single Family Residential	150 Units
Multifamily Residential	15 acres or 150 units
Office	10 acres or 150,000 Square Feet
Commercial	6 Acres or 300,000 Square Feet

### **F. Mobility Corridors**

A policy should be developed wherein mobility corridors are identified and preserved through implementation of access management techniques. The following roadways are to be preserved under such a program.

*State Owned Corridors to be Preserved*

- LA 21 between LA 1077 and I-12
- LA 21 between LA 36 and LA 41
- LA 41 between LA 36 and LA 21
- LA 36 between LA 41 and LA 59
- LA 1090 between Brownsitch Road and I-59
- US 11 between I-12 and Pearl River
- LA 1077 between US 190 and LA 21
- LA 22 between Dutch Road and Parish Line
- LA 25 between US 190 and LA 40

## **G. Capacity Projects**

Despite efforts to discourage widening, several corridors have no choice but to add capacity. These are as follows.

### *State Owned Corridors to be Widened*

- LA 59 Widened to Four lanes (with median) US 190 to Abita Springs (In the Current MTP)
- LA 36 Widened to Four lanes (with median) Between LA 21 and LA 59
- US 190 I-12 to US 190B in Covington, widened to 6 lanes (In the Current MTP)
- Widen US 190 between Southeast Louisiana Hospital in Mandeville to Thompson Road (LA 433) in Slidell.

## **H. Service Roads**

It is further recommended that service roads be constructed parallel to I-12 on the north and south sides of the interstate. Crossovers between the two roadways should be constructed where grade separations of the interstate permit, and should tie into existing and proposed interchanges.

- Completion of Service Roads east and west sides of I-10 between Fremaux and LA 433
- Service Roads north and south of I-12 between US 190 and LA 59
- Service Roads north and south of I-12 between LA 59 and LA 1088 Interchanges
- Service Roads north side of I-12 between Airport Road and US 11

## **I. Access Management and Control**

### *1. Design Issues*

A variety of techniques are available for achieving access control. They include geometric design considerations, such as medians and channelized islands that prohibit certain turning movements; consolidation actions, such as joint use of driveways and

service roads, and others, such as removal and relocation of existing access and the introduction of auxiliary lanes for left and right turns. Other techniques include:

- Extended corner clearances
- Two-way Left Turn Lanes (TWLTL's) or three-lane projects
- U-Turns in lieu of Left Turns
- Frontage Roads
- "Backage" Roads
- Consolidated driveway access
- Access separation at interchanges

Access Management has a number of advantages over conventional roadway projects, some of which include:

- Increased safety by limiting and separating the number of conflict points
- Increased roadway capacity and efficiency by removing turning volumes and queues from through movements
- Minimal right of way acquisition, saving project costs
- Minimal environmental issues

## 2. *Policy Issues*<sup>26</sup>:

Access management requires both retrofit and policy actions. Advance purchase of right of way or access rights is desirable, if not always attainable. Access separation distances should be established as part of statewide access management programs, corridor retrofit plans and community zoning ordinances. At this writing, legislation is pending before the Louisiana legislature that authorizes LaDOTD to undertake Access Management policies<sup>27</sup>.

Comprehensive access management codes should indicate where access is allowed or denied for various classes of roads, specify allowable spacing for signalized and unsignalized connections (driveways), and set forth permit procedures and driveway design requirements. Codes may define or limit the application of specific techniques and establish procedures for and administering agency to use in removing access. Other policy issues include:

- A network of supporting local and collector streets that should provide sufficient direct access to adjacent developments. These secondary streets should connect to arterial streets at appropriate and well-spaced locations. Such streets make it possible to minimize direct property access on major arterials.

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<sup>26</sup> NCHRP Report 420, Impacts of Access Management Techniques, Transportation Research Board p.11

<sup>27</sup> House Bill 1698, Regular Session 2001, Sponsor: Representative Diez

- Access should be provided from strategic and primary arterials only when reasonable access cannot be provided from other roadways. In such cases, access should be limited to right turns wherever possible.
- Left turn and cross egress should be well separated and placed at locations that fit into overall signal coordination patterns with high efficiency.

Access Management techniques have been implemented in Florida for a number of years prior to the codification of the initiative in 1998<sup>28</sup>. The techniques have proven successful in increasing operational efficiency of their roadway network. Given the general geographic similarities between Florida and Louisiana, the Florida experience may be of benefit to Louisiana, and particular to St. Tammany parish in the implementation of access management policies and techniques.

#### **J. Transportation System Management (TSM) Measures:**

As mentioned earlier, TSM improvements include geometric, minor widening and signal interconnect type projects that maximize operational efficiency of a roadway. TSM improvements recommended herein include the following policies:

##### Intersections:

Improvements to intersections should be “performance-based,” using Levels of Service as the Measure of Effectiveness. Design of intersection improvements should be undertaken to accommodate a roadway Level of Service of “D” in urban centers, and LOS “C” in areas of lower density development, for a 10 year design horizon.

##### Corridors:

To the extent possible, traffic signals should be avoided in order to expedite through traffic movement. Where this is unsafe, traffic signals should be interconnected and computerized to be able to quickly (“on the fly”) adapt to variations in traffic flow over a given corridor. Prioritization will be given to access management corridors mentioned herein.

#### **K. Design Standards for Widened Parish Roads: See Appendix B**

The standards herein for St. Tammany Parish roads are based upon recommendations by the American Association of State Highway and Transportation Officials (AASHTO). AASHTO specifications are utilized by the Louisiana Department of Transportation and Development (LaDOTD).

Sketches contained herein show sections of rural arterial and collector roads with modified sections to show changes in urban areas requiring parking and/or sidewalks, curb and gutter, and a closed storm sewer system.

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<sup>28</sup> Florida Statute 335.18, Access Management Act, 1996

It should be understood that the standards shown herein are the ideal sections, which should be used whenever rights of way and funds allow. It is understood that the parish may not be able, in all cases, to conform to these standards and specifications. However, every effort should be made to follow the standards as closely as possible, especially in the acquisition or rights of way where available, so as to eliminate the possibility of having to buy real estate at a higher value at a later date when expansion of the roadway is needed.

New Roadways should be designed to accommodate the land uses they serve. This is especially true for areas designated as commercial and industrial. Provision of wide turning lanes and radii, increased pavement thickness, and installation of rollover curbs are examples of design elements that need to be incorporated into roadways that serve industrial and commercial uses.

### **L. Corridor Studies**

Several corridors are recommended for further evaluation and study. These include the following:

LA 3241 line & grade and environmental review

LA 25 corridor study

LA 1077 (Direct link to LA 40 west of Folsom)

Widening US 11 across Lake Pontchartrain

Widening I-10 across Lake Pontchartrain

Major Investment Study of the Lake Pontchartrain Causeway and construction of shoulders for safety

### **M. Transit**

Recommendations for transit include the following steps in implementing service:

- Identify a potential service provider
- Identify a funding source to subsidize transit operations beyond farebox recovery
- Identify transit ridership markets (existing and future) and likely destinations for the ridership base identified
- Establish rudimentary routes that service transit trip origins and destinations
- Establish service provision requirements (headways for transit trips)
- Identify capital requirements
- Seek funding
- Incorporate transit stop design criteria along transportation corridors and subdivisions.

### **N. Aviation**

Because the Slidell Airport is the largest and busiest in St. Tammany, efforts to upgrade that facility should concentrate on its status as general aviation airport. The Slidell Airport is one of several that follow the I-12/ I-10 corridor from Baton Rouge, to Hammond, to Slidell, to

Stennis, and Gulfport in Mississippi. Land use policy around the Slidell Airport should discourage residential development near the airport, and encourage other land uses, primarily industrial.

Development of the St. Tammany Airport should compliment development of the land uses adjacent to it.

## **O. Intermodal**

### *General*

Provide design criteria for other modes of transportation to accommodate the seamless integration of modal transfer.

### *Master Transportation Corridor*

Master transportation corridors are multimodal corridors for the effective movement of people by way of future rail transit, bicycle, and vehicular traffic. These corridors will be upgraded to handle evacuation and emergency transportation movements within the parish.

## **P. Bicycle and Pedestrian**

Design profiles for future parish roadway sections are to include space for bicycle facilities. The Parish and the MPO are urged to include, at a minimum, paved shoulders when developing cost estimates for overlay projects on the state-owned system. New real estate developments should include bicycle and pedestrian facilities in their design, or should include rights of way for the future establishment of said facilities. All bicycle facilities should be designated as such by the Parish. The bicycle facility should be signed, and given a designation of A through C ( A being for experts, C being for novices and children) for the level of expertise required of the rider for that particular facility. It should be the intent of the parish to ultimately create a grid system of bicycle facilities throughout the parish for Level C riders. Bicycle and pedestrian facilities should be buffered from vehicular traffic when the two facilities share the same right of way.

## **Q. Regional Initiatives**

Nearly all of the recommendations mentioned herein implicitly involve coordination with broader regional efforts. St. Tammany Parish, by virtue of its significant population growth and unique circumstances, is a key player in many regional transportation issues. Citizen involvement and participation in regional initiatives should be encouraged. One venue for this is the Metropolitan Planning Organization for St. Tammany- the Regional Planning Commission.

## XII. Funding/ Implementation

### **A. Federal Funding**

As with any project, the problem with this plan is that it ultimately revolves around the ability to pay for it. Transportation is funded through a variety of sources. These include the federal program called TEA-21. This program supports the federal highway and interstate system, connectors to the federal system, transit funding, transportation enhancement programs, congestion and air quality management funds, and other related programs including intelligent transportation systems (ITS) safety programs and access management improvements.

With the enactment of TEA-21, the federal government changed its emphasis from system expansion to system preservation. This means that federal dollars will go more to keep the highway system that we have than with increasing it. This emphasis will have a negative effect on St. Tammany Parish's roadway system since just about every roadway improvement we need is for added capacity. However, the Regional Planning Commission has recognized the parish's needs, and has included most of the projects we will need over the next 20 years in its' long range plan.

Funding for transit is also under TEA-21. The parish currently receives about \$400,000 per year from this program. Currently the park and ride system is being built using the se funds. In the future, the parish can use these funds to operate transit in the parish. In addition, St. Tammany will be eligible for additional funds from this program within the next few years. This program also funds rail projects.

Funding for bicycle paths and pedestrian ways can be funded through the transportation enhancement program also established within the TEA-21 framework. However, up until the present, these have been competitive grants through LaDOTD. This is the program through which the parish purchased the Tammany Trace.

### **B. State Funding**

The state has three transportation programs. The first is the state program that matches the federal funds from TEA-21. This is the major program for state roadway construction and maintenance as alluded to earlier in this report. It is funded through the Transportation Trust Fund that was established through a constitutional amendment and voted upon by the general population of the state. It is funded by a special gasoline/ fuel tax.

The total funding for this program is around \$500 million, of which \$70 million is for capacity projects statewide. As a comparison, the US Highway 190 project in Mandeville is now estimated between \$35 and \$50 million. Given this level of funding for capacity projects, St. Tammany could use the total funds allocated to capacity for the next five years just on projects it needs.

The Trust Fund also funds a local roads and mass transit account that is appropriated each year by the legislature through the appropriation process. St. Tammany will receive about \$75,000 in transit funds and around \$1 million in local road funds for the next year. The Legislature will also add state general funds to the roads portion of this program. The funding comes through the Parish Transportation Fund, Parts A and B.

The TIMED fund is a constitutionally mandated fund that is limited to specific project that were listed in the original legislation. At this point, there are more projects than there is funding. This project will provide the funding for LA 3241. The Secretary of DOTD has proposed to the legislature to bond the funds in order to complete the projects over the next 10 years. Otherwise, these projects would take over 30 years to complete.

### **C. Local Funding**

Currently, funding for parish road improvements and maintenance is financed through a two-cent sales tax. Much of this funding is for road maintenance. The remainder is for specific road improvement projects. Thus, the scope of the tax is very constrained to specific uses. Only \$3 million per year is available for capacity improvements.

Impact fees and other project related fees have been used to make improvements to specific sites resulting from the impact of a given development on the immediate roadway its patrons would be using.

### **D. Funding Alternatives**

At the federal level, there must be a concerted effort to address the needs of high growth communities and their needs. This includes streamlining the project process to reduce the amount of time that it takes to complete a project. Second, the emphasis is on maintaining the existing system. However, this drastically reduces the amount of funding available for high-growth area that need funding for upgrading and expanding both state and federal highways within their jurisdictions. This policy will ultimately transportation issues in the future that will cost more than addressing them as the arise in these areas. Thus there should be funding for capacity projects in high growth areas.

At the state level, the above issue should be addressed as well. However, the state has attempted in the recent past to initiate opportunities to increase the amount of funding for state and local roads. The most recent has been the proposal to bond out of the TIMED funding stream to speed up the construction of these projects. It is likely that this proposal will be before the Louisiana legislature within the next year. The second initiative is a state infrastructure bank that would essentially use state and federal funds to loan to localities for construction of local transportation projects.

At the local level, historically, the sales tax has been the source of transportation funding. It is likely to remain so since many of the sources of potential revenue are reserved by the state, for the state. However, other options include tax increment financing, special tax districts,

and user fees have all been recommended, as has the proposal to give localities additional revenue sources for infrastructural purposes.

All of these have their specific drawbacks. But given the need in St. Tammany Parish for revenue for transportation projects, it is likely that some, if not all of these options will be considered.

### XIII. Next Steps

This is a preliminary plan. It is a proposed conceptual plan that will be modified as New Directions 2025 continues through its planning process. Thus, there are no final recommendations. However, the recommendations presented in this report will be presented to the Planning and Zoning Commission for its input and to the Council for its consideration and recommendations for future changes. This Phase I plan will also be sent to the Regional Planning Commission for its use in future transportation planning efforts.

The second phase of the transportation planning process will be to work closely with the *Land Use* and the *Critical and Sensitive Area* elements of the New Direction 2025 process to further refine the plan as it relates to their recommendations. Specifically, the transportation element will model each of the land use sub-areas for capacity issues related to existing infrastructure and then make recommendations to the current plan to rectify any deficiencies or recommendations that may result from changing land use requirements. The Phase I transportation plan will then be updated to include the Phase II findings.

## XIV. Conclusions:

The conclusion of this effort will concentrate on policy goals that should be enacted as a result of this portion of the New Direction 2025 Plan:

### **A. General Transportation Policy**

- 1) Provide as many transportation options and choices as are feasible.
- 2) Work in coordination with other governmental entities in order to expedite project implementation
- 3) Transportation Initiatives should be sensitive to and coordinated with all other key elements of New Directions 2025
- 4) Enhance Public Participation and the timely distribution of information
- 5) Maintain interest and participation in regional transportation initiatives

### **B. Policies on Roadways**

- 6) St. Tammany Parish will work to enhance the interconnectivity of the existing roadway network. St. Tammany will plan for the establishment of a roadway system that allows multiple routes to reach a given destination.
- 7) St. Tammany will work to maximize the safety and efficiency of roadways. This will include the accommodation of pedestrian and bicycle access adjacent to the roadways. Efficiency measures include implementation of access management techniques and transportation systems management measures.
- 8) St. Tammany will widen roadways as a “last resort,” when operational improvements can no longer be maximized. Widened roadways shall adhere, to the extent possible, the guidelines developed in **Appendix B** to this report.
- 9) As a policy, St. Tammany will work to acquire right of way along transportation corridors for the express purpose of providing space for other modes, particularly transit, bicycle, and pedestrian access, and in conjunction with roadway widenings as mentioned in Item 3 above.
- 10) St. Tammany will prioritize the development of roadways that serve as intermodal connections to other modes of transportation, such as Park & Ride Facilities.
- 11) Implementing these policies will entail close coordination with LaDOTD at the District level. The New Direction 2025 Transportation committee recommends establishing regularly scheduled meetings between LaDOTD District 062 personnel, St. Tammany Parish officials, the Regional Planning Commission, the Greater New Orleans

Expressway Commission, and other governmental entities as the need arises to coordinate project scheduling, implementation and problem areas that may arise periodically.

### **C. Policies on Transit**

12) St. Tammany will develop a plan and investigate funding sources for the eventual implementation of an integrated mass transit system, under the scenario described in the preceding text.

13) St. Tammany will continue its current policy of developing park and ride facilities for use by private sector transportation providers

14) St. Tammany will continue its policy of funding and improving Park & Ride Development

### **D. Policies on Rail Transit**

15) Rail transit in St. Tammany will be linked to regionwide initiatives. Corridors identified include:

- An eastern corridor serving the Slidell/ East St. Tammany Area to areas of Eastern New Orleans and on to the CBD
- A western corridor serving the Covington/Mandeville/ Madisonville areas of Western St. Tammany and onto the Metairie CBD, Elmwood, and New Orleans CBD.
- A central corridor serving intraparish needs via the use of the Tammany Trace right of way

16) Rail Facilities will tie into local roadway networks and will make provision for bicycle and pedestrian access, and will also take advantage of existing and Proposed Park & Ride Facilities.

### **E. Policies on Bicycle and Pedestrian**

17) St. Tammany will require construction of grade separated sidewalks on at least one side of the street in all new subdivision of two or more housing units per acre and encourages such sidewalks in all subdivisions to encourage pedestrian activity.

18) The Tammany Trace will continue to be the premier grade separated bicycle path in the State of Louisiana, with the continued support of parish and municipal resources. The Tammany Trace will also be the backbone around which other bicycle and pedestrian routes, paths and facilities are planned and implemented.

19) Recognizing that different bicyclists have different skills, bicycle facilities will be identified by the rating system as described in the preceding pages.

20) Bicycle and pedestrian facilities will be identified and extended to roadways, municipalities, and community centers throughout the parish to the extent possible for safety and practicality. This policy is concurrent with LaDOTD policy EDSM Volume II, Section 1, Directive 14 on Bicycle and Pedestrian Facilities, and is congruent with LaDOTD Statewide Bicycle and Pedestrian Mater Plan.

21) St. Tammany will support neighborhood and community efforts to install sidewalks to areas not currently connected with sidewalks.

#### **F. Policies on Aviation**

22) St. Tammany parish recognizes the importance of aviation as an economic development catalyst and as a transportation necessity.

23) St. Tammany wishes to develop infrastructure appropriate for the eventual expansion of the two publicly owned airports in St. Tammany- the Slidell Airport and the Greater St. Tammany Airport. Land use controls should be enacted that prohibit uses and activities incongruent with airport activities.

#### **G. Policies on Intermodal**

24) St. Tammany strongly encourages intermodal connections among all modes of transportation in order to provide alternative transportation choices within the parish and connecting to regional transportation systems.

## **APPENDIX A**

Metropolitan Planning Factors: Transportation Equity Act for the 21<sup>st</sup> Century or TEA-21<sup>29</sup>

- A) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency.
- B) Increase the safety and security of the transportation system for motorized and non-motorized users.
- C) Increase the accessibility and mobility options available to people and for freight.
- D) Protect and enhance the environment, promote energy conservation, and improve quality of life.
- E) Enhance the integration and connectivity of the transportation system across and between modes for people and freight.
- F) Promote efficient system management and operation.
- G) Emphasize the preservation of the existing transportation system.

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<sup>29</sup> Transportation Equity Act for the 21<sup>st</sup> Century, PL 105-178, Section 1203(f)

## **APPENDIX B**

### **Roadway Design Standards for St. Tammany Parish Roads**

The standards herein for St. Tammany Parish roads are modifications of recommendations by the American Association of State Highway and Transportation Officials (AASHTO). These specifications are those that are utilized by the Louisiana Department of Transportation and Development (LaDOTD).

The suggested modifications do not generally decrease the reliability or safety of the roads as recommended by AASHTO. Some of these modifications are necessitated by the fact that arterials and collectors within St. Tammany Parish, which are parish roads, usually carry lesser amounts of traffic than do the State Roads for which AASTO designed the specifications and standards.

Sketches contained herein show sections of rural arterial and collector roads with modified sections to show changes in urban areas requiring parking and/or sidewalks, curb and gutter, and a closed storm sewer system.

It should be understood that the standards shown herein are the ideal sections, which should be used whenever rights of way and funds allow. It is understood that the parish may not be able, in all cases, to conform to these standards and specifications. However, every effort should be made to follow the standards as closely as possible, especially in the acquisition or rights of way where available, so as to eliminate the possibility of having to buy real estate at a higher value at a later date when expansion of the roadway is needed.